VILNIUS UNIVERSITY
BUSINESS SCHOOL

INTERNATIONAL PROJECT MANAGEMENT PROGRAMME

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MASTER'S THESIS

PROJEKTŲ KOMANDOS KŪRYBINĖS VEIKLOS KOMANDINIAI IR LYDERYSTĖS VEIKSNIAI: PROJEKTŲ VADOVŲ PERSPEKTYVA	*TEAM AND LEADERSHIP FACTORS OF PROJECT TEAM CREATIVE PERFORMANCE: THE PROJECT MANAGERS' PERSPECTIVE*

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SUMMARY

VILNIUS UNIVERSITY BUSINESS SCHOOL

INTERNATIONAL PROJECT MANAGEMENT PROGRAMME

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Project team creative performance is the never-ending topic that is relevant to every organization which seeks to sustain the competitive advantage in any market. The tech organizations where the creative inputs and outputs are the daily part of their job, are very aware of its importance to achieve the strategic goals of the company. As the creativity is not possessed by the individual but rather by the entire team, it becomes imperative for the project managers to understand what project team factors influence their creative performance and what kind of leadership methods the project managers need to apply to facilitate the team creativity. This understanding gains a significant importance in the times of the Covid-19 pandemic with its unique set of problems in which the teams work for a prolonged and uninterrupted period remotely where the standard practices and techniques to encourage creativity that work at face-to-face environment might not work in a remote work anymore.

Aim and Objectives: The goal of this research paper is to explore team and leadership factors of project team creative performance looking at it through the project managers' perspective. In terms of the research objectives, the paper seeks to analyze theoretical approaches of the team creative performance and the creative leadership by determining team creative performance and its role and benefits for the whole project. Later it seeks to analyze team factors that are important for the team creative performance, followed by the analysis of the leadership methods and competencies that influence the team creative performance. The research paper also seeks to determine the remote work factors that influence the team creative performance.

Research Methodology: The qualitative research took place to accomplish the aforementioned study aim and objectives and was done with the help of the empirical study to understand the project managers' perspective how the team creative performance and creative leadership is facilitated in the company to encourage and sustain the team creativity. The research took place in the tech organization which specializes in the creation of sports betting products and services, and due to the pandemic has been remotely working for over than 18 months. The semi-structured interviews were conducted with 8 projects managers across the various departments who have been working in this organization during the Covid-19 period.

Results and Conclusions:

This research confirms that three out of four team creative performance factors (Rodríguez-Sánchez, Devloo, et al., 2017; Chae, 2016) are present in this tech organization and the combined two creative leadership models (Rickards & Moguer, 2000; Epitopaki, Mainemelis, & Kark, 2015) are almost fully present in this organization, expect several creative leadership factors. The research confirms how the project managers should pay attention to three out of four team creative performance factors that were analyzed in this paper and follow the creative leadership behaviors and competency perspectives if they need to encourage the team creativity. The remote work during the pandemic, unfortunately, did not increase the team creativity as some theories suggest.

Based on the empirical research, the paper offers the conclusions and practical recommendations how the team creative performance and creative leadership could be improved in the tech organization in which the research took place and points out possible ways how this research could enfold in the future.

SANTRAUKA

VILNIAUS UNIVERSITETO VERSLO MOKYKLA

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Projekto komandos kūrybinis darbas yra nesibaigianti tema, aktuali kiekvienai organizacijai, siekiančiai išlaikyti konkurencinį pranašumą bet kurioje rinkoje. Technologijų organizacijos, kuriose kūrybiniai procesai ir jų rezultatai yra kasdienė jų darbo dalis, puikiai supranta jos svarbą siekiant strateginių įmonės tikslų. Kadangi kūrybiškumą valdo ne vienas individas, o visa komanda, projektų vadovams tampa būtina suvokti, kokie projekto komandos veiksniai turi įtakos jų kūrybiniams rezultatams ir kokius vadovavimo metodus jie turi taikyti, kad palengvintų komandos kūrybiškumą. Šis supratimas įgyja didelę svarbą Covid-19 pandemijos laikais dėl savo unikalių problemų, kai komandos ilgą laiką ir nenutrūkstamai dirba nuotoliniu būdu, ypač kai naudojamos standartinės praktikos ir metodai, skatinantys kūrybiškumą, standartinėje ofiso aplinkoje kuri vyravo prieš pandemiją dabar jau gali nebeveikti nuotoliniu būdu.

Tikslas ir uždaviniai: Šio tiriamojo darbo tikslas – ištirti projekto komandos kūrybinio veikimo komandos ir lyderystės veiksnius, žvelgiant į tai projektų vadovų požiūriu. Kalbant apie tyrimo tikslus, darbe siekiama išanalizuoti teorinius komandos kūrybinės veiklos ir kūrybinės

lyderystės požiūrius, nustatant komandos kūrybinę veiklą ir jos vaidmenį bei naudą visam projektui. Vėliau siekiama išanalizuoti komandos veiksnius, kurie yra svarbūs komandos kūrybinei veiklai, o po to sekant analizę, kuri siekia ištirti lyderystės metodų ir kompetencijų, turinčių įtakos komandos kūrybinei veiklai. Paskutinis, bet ne mažiau svarbus tikslas – nustatyti nuotolinio darbo veiksnius, turinčius įtakos komandos kūrybinei veiklai.

Tyrimo metodika: Magistro darbe buvo atliktas kokybinis tyrimas siekiant įgyvendinti aukščiau paminėto tyrimo tikslus ir uždavinius. Tai buvo atlikta empirinio tyrimo pagalba siekiant suprasti projektų vadovų požiūrį, kaip įmonėje skatinama komandos kūrybinė veikla ir kūrybinis vadovavimas skatinant ir palaikant komandos kūrybiškumą. Tyrimas buvo atliktas technologijų organizacijoje, kuri specializuojasi sporto lažybų produktų ir paslaugų kūrime, o dėl pandemijos nuotoliniu būdu dirba daugiau nei 18 mėnesių. Pusiau struktūruoti interviu buvo atlikti su 8 projektų vadovais iš įvairių padalinių, kurie šioje organizacijoje dirbo ir vis dar dirba Covid-19 laikotarpiu.

Rezultatai ir išvados: Šis tyrimas patvirtina, kad šioje technologijų organizacijoje dominuoja trys iš keturių komandos kūrybinės veiklos veiksnių, kurios buvo tirtos remiantis kūrybinės veiklos teorijomis (Rodríguez-Sánchez, Devloo, et al., 2017; Chae, 2016), o kombinuotas kūrybinės lyderystės modelis (Rickards & Moguer, 2000; Epitopaki, Mainemelis, & Kark, 2015) gali būti pilnai pritaikytas šioje organizacijoje, neskaitant kelių kūrybinių lyderystės veiksnių, kurie taip ir nepasirodė tyrimo eigoje. Tyrimas patvirtina, kaip projektų vadovai turėtų atkreipti dėmesį į tris iš keturių šiame darbe analizuojamų komandos kūrybinės veiklos veiksnių ir lyderystės elgesiu bei kompetencijos perspektyvomis, siekiant skatinti komandos kūrybiškumą. Deja, nuotolinis darbas pandemijos metu nepadidino komandos kūrybiškumo, kaip teigia kai kurios teorijos.

Remiantis empiriniu tyrimu, magistro darbe yra pateikiamos išvados ir praktinės rekomendacijos, kaip būtų galima tobulinti komandos kūrybinę veiklą ir kūrybinį vadovavimą technologijų organizacijoje, kurioje buvo atliktas tyrimas. Magistro drabe taip pat yra nurodomos rekomendacijos tolimesniems tyrimams.

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INTRODUCTION:

The scope of creativity for many is a hardly defined concept. No one would deny its absolute necessity to drive an organization forward, nevertheless, the definition of creativity becomes even less clear when it gets combined with the concept of team creative performance and creative leadership. Although, team performance and leadership fields are one of the most extensively and widely covered theories in project management, the team creative performance combined with the creative leadership in the remote work environment does not have any substantial research basis that covers all three subjects, especially with the research focus on the tech organizations.

The absolute necessity of creativity can be proved with several examples. Many well-known and dominant technology companies of this day incorporate creativity as one of their core values of the business that come up with under such names as "*Think Outside the Box*". And this is done not without the reason. As the CioDive publication has reported that "*companies that are creative leaders grow 2.6 times faster than their peers, according to a Forrester survey of 530 technology executives.*" (Torres, 2021). One of the prime instances would be *Squarspace*, the website design and hosting service company, has named one of their core values *"Protect Creativity*" and states that "*ideas are fragile and require space to develop and grow. We believe creativity is critical to our success, and we seek to protect it as we develop new directions for our product.*" (Squarespace, 2021)

As the IT technology sectors such as software services and the production of tech hardware provide a constantly growing stream of innovative and creative products, this just shows how creativity, and the tech field are closely related and stimulate each other. As the tech companies are establishing creativity as part of their culture, the tech companies are also forming hiring strategies to attract the new hires who demonstrate the out of the box thinking skills. However, in many cases, the emphasis is still placed on the environment that stimulates the creativity rather than the team factors and leadership perspectives practiced by the project managers.

As it is evident, every project manager understands that to ensure the project success project managers need to sustain creative productivity in the team. To help them out, the Project

Management Institute has created an extensive guidebook how to foster creative team thinking and ensure competitiveness of organizations (PMI, 2007). PMI highlights that the creative mindset thrives in the environments that stimulate creativity which leads to innovation (Oxley, PMI, 2007). According to PMI, the project manager who wants to encourage creativity must provide the team with the environment that offers challenging work, freedom to choose how the tasks will be done and completed, debate issues and create the environment that brings positive experiences and does not provoke open conflict. (Oxley, PMI, 2007)

However, in the light of the pandemic, it is important to ask what kind of new challenges Covid-19 has brought to the teams and their team creative performance who were forced to retrieve to a full and complete remote environment. Evidently, the remote work as a phenomenon has existed for more than twenty years, and PMI emphasizes that for creativity to thrive, it needs challenging environment, but the guidebook does not consider the limits of these challenges, and to which extent they can build up. And a myriad of problems is caused by this pandemic which the companies have never faced before. The looming threat of new lockdowns has forced many organizations to operate fully remotely, as the tech company which will be analyzed in this research paper. By fully operating remotely for 18 months, the company has shown that they stand strong in these turbulent times, but no one would argue that the organization has faced a lot of challenges while operating fully remotely, especially while seeking to sustain creativity and ensure the competitive advantage. This is the reason why it is so important to reconsider how the team achieves creative outcomes in these turbulent times.

Therefore, in the light of the aforementioned arguments, this research opens up a research gap to bring all three research areas of team creative performance, the creative leadership and the remote work consequences of the Covid-19 pandemic for the team creative performance. Before adapting to the new ways of working, a new company's policy that will be tested the next year, the project managers need to ensure that the team creative performance is not hindered and come up with new ways how to lead the team towards the achievement of a creative outcome in the times of remote work during the pandemic. The theoretical foundation on which this research model is built is accompanied by the theoretical works of Rickards and Moger, (2000) who were one of the first to provide a creative leadership behavioral practices. Their creative leadership practices are

extended by the Mainemelis, Kark and Epitropaki, (2015) behavioral and competency perspectives which emerge in the companies that have facilitative contexts. The team creative performance factors will be investigated through the most dominant team creative performance theories (Rodríguez-Sánchez, Devloo, et al., 2017) accompanied by several unique insights on the team creative performance that could be relevant to the remote work in the pandemic (Chae, 2016).

Study Aim: The aim of this paper is to explore team and leadership factors of project team creative performance looking at it through the project managers' perspective.

The study objectives are:

1) To analyze theoretical approaches of the team creative performance and the creative leadership and to prepare a research model for this research.
2) To determine team creative performance and its role and benefits for the whole project.
3) To analyze team factors that are important for the team creative performance.
4) To analyze the leadership methods and competencies that influence the team creative performance.
5) To determine the remote work factors that influence the team creative performance.
6) Based on the empirical research, provide the conclusions and practical recommendations how the team creative performance could be improved in the tech organization in which the research took place.

1.THEORETHICAL BACKGROUND

1.1 Project Management and Creativity

Definitions:

The Project Manager: "The person assigned by the performing organization to lead the project team that is responsible for achieving the project objectives. Project managers perform a variety of functions, such as facilitating the project team work to achieve the outcomes and managing the processes to deliver intended outcomes." (PMBOK Guide, 2021)

Creativity: "The ability to combine known elements into a (new) useful whole. The whole should be recognized as 'making sense' or as 'being useful' to be accepted as a creation. Therefore, creativity itself consists of three elements: knowledge, the ability to combine and the ability to recognize the combination as either useful or no" (Blankevoort, 1983)

There is hardly any company across the globe that would deny the significance of the creativity and creative performance. The Harvard Business review states that the most important asset each company has is the "*creative capital: the arsenal of creative thinkers whose ideas turn into valuable products and services*" (Florida & Goodnight, 2005, 125 p.). In particular, the tech organizations due to their rapid growth are very well aware that the management of creative inputs is critical to sustain a competitive advantage. Therefore, the need to sustain the team creative efforts has been an incredibly relevant topic for several decades. As the need for the management theories on creativity was discovered, SAS Institute, the developer of analytics software, published the set of principles on how the companies need to spark the creativity. The SAS institute established a framework to do that follows this motto "*value the work over the tools, reward excellence with challenges, and minimize hassles*" (Florida & Goodnight, 2005, 2 p.). In other words, the organization needs to make all managers understand that it's their responsibility to spark creativity, ensure that unnecessary distractions are eliminated so that employees could perform their best, and following the Berkley's research of that decades, involve the customers to provide feedback to make them a part of the creative process and the product. There is no surprise that this set of

principles came from a technology company, as this sector is well known for its rapid growth and innovation, which constantly demands change. The framework, provided by this company, promotes a collective mindset that could be treated as one of the companies' values, by stating that "*SAS nurtures such relationships among developers, salespeople, and customers, it is investing in its future creative capital*" or the so called "corporate ecosystem" as they describe, in which creativity will be facilitated, maintained and profitable. (Florida & Goodnight, 2005, 3 p.). The Bentley university also supports the idea that the creativity of the organization is the key competitive advantage among other companies. (Aylesworth, 2021). It cannot be forgotten that creativity solutions are born and executed withing the teams from various departments and being supported by the top and senior levels of management.

When looking at the theories that explore the creativity in projects and project teams, there is a variety of ways how this subject can be approached. For example, there is a study published in which researches analyzed the factors that influence the work environment and how it directly affects creativity in the project team (Rosello & Tran, 2011). To them, the tool of measurement to assesses the creativity environment and is based on the KEYS framework. The framework introduces the measuring parameters that are "*(1) the encouragement of the organization, (2) the encouragement of the hierarchy, (3) the support of the group, (4) sufficient resources, (5) the challenge, (6) autonomy with work, (7) pressure, (8) organizational obstacles*". (Rosello & Tran, 2011, 628 p.). This assessment can be both applicable to technology and non-technology organizations. However, this framework and research does not consider the competencies the project manager needs to possess to facilitate the creativity and the team creative performance. In the times of rapid organizational changes combined with the current reality of the Covid-19 pandemic, the environmental organizational factors that facilitate the creativity are not enough. In another research, another group of researchers actively promote the concept of organizational creativity. For them, the organizational creativity stands for "*a system of knowledge, process, skills needed to make the process work, tools and appreciation of process style differences*" (Basadur, Basadur & Licina, 2011, 302 p*.).* It is closely related to the change the creativity evokes by bringing and executing the novel ideas to the tangible products, or services. In other words, the organizational creativity is a continuous process that has a goal to explore both the new ongoing issues and the opportunities that open up for the business by understanding "*the interconnectedness of decisions within the*

organization" (Basadur, Basadur and Licina, 2011, 308 p.). The group of scholars highlight how organizational creativity needs to involve *"the employees at all levels, highly skilled in constantly executing a process of finding relevant internal and external problems, strategic and tactical, solving them, and implementing the solutions"* (Basadur, Basadur and Licina, 2011, 307 p.). This understanding of creativity signals again the importance of management methods and managerial competencies need to be addressed as well.

And speaking about the technology organizations and the management practices found in them to promote the creativity among the tech people, several issues need to be addressed. Ronald Kay (2012) in his study on the creative management practices used in the engineering and IT sector, indicates a rather complex issue the management in the technology organizations sometimes come across while working with the people that possess the tech skills. Due to the rapid growth of the technology, for many tech organizations there has been a strong need to have the person with a strong understanding of the technology in the management positions. And because of that, some organizations have the tendency to appoint the tech specialists as the tech project managers without them developing the right set of the management skills as they begin to manage the tech team. The lack of managerial skills is closely connected to another common issue in the tech teams. Kay defines it as "*the negative attitude toward the very concept of management*" or "*aversion to management responsibility*" found among the engineers, developers or any other tech specialists (Kay, 2012, 1 p.). This strong aversion to management among the tech professionals happens if they ended up working with the project manager from the tech field who did not possess the right set of skills at the start of their management career. There is no doubt that if inexperienced tech managers do not possess at least the standard levels of management skills and will not have the basic understanding of the project management, they will struggle with the team creative performance as well. In this all hurdle, it is evident how the project managers are essential players who facilitate creativity in the teams.

1.2 Project life cycle and creativity

Definition:

The Project Life Cycle: A series of phases which are undertaken to deliver a required project outcome. (Westland, 2006)

For the projects to be successful, the project managers are responsible for a successful project life cycle. Before we start looking for the answers how creativity finds its ways into that, one must remember the structure of the project life cycle and how each phase evolves in the project. When speaking about the project management, the project life cycle unfolds in these stages: project initiation, project planning, project execution, project closure (Westland, 2006). To begin with, the project initiation phases represent the business problem or opportunity. In this phase the business case will be created that offers several solutions how the problem or the solution needs to be approached. After the consensus is reached which solution is the best, the project is formed, and the project manager is chosen to overlook it, and recruit the team that will deliver this solution. Once this is done, the next project life cycle stage called "Project Planning" begins where the project activities, tasks, dependencies, resources, financial plans, quality control measures etc. are identified. Once the detailed plan is prepared, the project enters the project execution phase. In this project life cycle stage, the project implementation begins. In the execution phase, the monitoring and controlling phase start as the project manager needs to undertake monitoring and controlling measures to ensure that deliverables are being executed by the quality standards (Westland, 2006). Also, issues and risks are being identified and monitored to produce the best results. Although monitoring and controlling phase is listed as a separate stage, they usually continue throughout the entire project life cycle. Finally, after the deliverables are completed, the project enters the project closure stage. This is the final stage of the project life cycle where final deliverables and documentation are presented to the client, the criteria and quality of the deliverables are being checked, the project team and the resources are released, and the completion of the project is announced to all stakeholders (Westland, 2006).

With regards to the existent research to creativity and the project life cycle there were several studies done to analyze the relationship between the two. There has been a study done on the project life cycle stages in terms of team conflicts and creativity in the technology-driven projects

(Chen & Chang, 2005). On one hand, the findings showed how the task related team conflicts throughout the project life cycle increase the team creativity. On the other hand, the personal conflicts among the team members only hurt creativity. Interestingly, the study concludes how the task conflict by increasing creativity also brings "*stability over the project's life cycle*" (Chen & Chang, 2005, 145 p.) However, the aforementioned study is quantitative and does not provide any qualitative insights at which stage the team creative performance is the most dominant throughout the project life cycle.

The project managers, as Blankevoort (1983) introduced, are the ones who need to manage the link between creativity in project management and the project life cycle. In his research article, the author proposed that "*in the early phases, a lot of known elements must be projected as a whole in a 'far away future', into a rather unknown environment.*" (Blankevoort, 1983, 34 p.). Gradually with the idea getting more clarity, it enters the execution phase, where the environment and the understanding of the idea might potentially change. Here the project managers and the team make the decisions how the idea will be executed. These decisions create the constrains, and gradually the number of changes decrease once the idea becomes an actual deliverable. The planning phase is the project life cycle stage that provides the most freedom for creativity, and the project manager has a responsibility to give freedom to his or her team's "*divergent behavior*" (Blankevoort, 1983, 34 p.). In the planning stage, the creative ideas are shaped and formed easily. However, for the team, the difficulties arise from the need to explain their ideas to each other, and the project managers need to provide the tools to support the planning stage. In this way, the tools and systems allow the entire team to work on a project, rather than to leave the planning to one individual who does the analytical work. Although these principles have been published four decades ago, they are still relevant to this day. This research emphases that the project managers *"should be trained in more holistic and creative thinking"* (Blankevoort, 1983, 35 p.). This shows, that before the team starts engaging in the creative work, the project managers are the initial facilitators of creativity and the project environment in which the creativity will be sparked. Once their job is done, the creative solutions come down to the team creative performance.

Additionally, another quantitative study was conducted to investigate the temporal patterns of creativity in the project life cycle (Rosing, Kathrin, et al. 2018). The study results came from

the 228 engineering students. The findings showcase that the teams sustain the creativity throughout the entire project life cycle, and achieve innovation, but only if they have the most freedom to be creative at the start of the project life cycle stages such as the project initiation, project planning and "*refrained from an early focus on implementation*". (Rosing, Kathrin, et al. 2018, 15 p.). To this day, there are no qualitative research done on this subject matter in the actual tech organizations, and previously introduced study only took into the consideration the answers that came from the engineering students who were just soon to be engineering graduates about to enter the tech business market. In a nutshell, there is hardly any published research which answers the question in which stage the team creative performance is the most important, especially in the tech organization.

1.3 Team creative performance

1.3.1 Background and factors of team creative performance

Definition: *"Team creative performance refers to the extent to which a team as a whole finds and implements better or unique solutions to a problem"* (Shin, Kim, and Lee, 2017).

Generally, for the technology company to gain a competitive advantage, and look for alternative and creative solutions to its problems, the project managers need to support the creativity endeavors of the team. For instance, it is emphasized how the manager's skill to facilitate creativity "*is a critical aspect of effective management*" (Lapierre & Giroux, 2003, 11 p.). But first and foremost, the project managers, who manage the creative process of idea generation and execution, need to understand how the creativity can be facilitated in the project teams.

It has to be noted once again, that the creativity in tech organizations has a tendency to be based on the lateral collaboration (Lapierre and Giroux, 2003). Since this research seeks to understand what enhances the team creative performance across the entire tech organization, regardless in which departments the teams are working, the theoretical foundation that would be applicable to every team needs to be established. Hence, the subsequent theories presented below, seek to establish the understanding and a general overview which team creativity factors affect the team

creative performance. For this research, the two most common team creative performance such as team cohesion, and collective task engagement (Rodríguez-Sánchez, Devloo, et al., 2017) were chosen to understand how their importance appears in this company. Also, such factors us perceived proximity and cognition-based trust (Chae, 2016) will be analyzed due to their uniqueness and the fact that there is hardly any qualitative study done to investigate if these two factors are present in the technology company that is under the investigation in this paper.

1.3.2 Team Cohesion

Definition:

Team Cohesion: "*team cohesion refers to the extent to which team members are committed to their team, and how well the team is integrated as it pursues its goals*" (Rodríguez-Sánchez, Alma M., et al., 2017)

To facilitate creativity in the project teams, it is not enough to relay on the skills of each individual team member. Following this idea, in one published research it was decided to compare the studies about the individual creativity and collective creativity. As the evidence from the previous studies suggested, when team processes such as "*internal communication, team cohesion and vision*" were strengthened, the creative teams outperformed the individual creativity. (Rodríguez-Sánchez, Devloo, et al., 2017, 2 p.). The group of the research decided overview the team factors that affect the team creative performance once again to bring more depth insights to the existent research field (Rodríguez-Sánchez, Devloo, et al., 2017). One of these factors is *team cohesion*. Following its definition given above, this research highlights how team with strong levels of cohesion tend to perform better as a team and demonstrate the increased levels *"the production of creative output as a group"* (Rodríguez-Sánchez, Devloo, et al., 2017, 4 p.). The scholars indicate that team cohesion brings several positive benefits to the team creative performance. These benefits show up as higher sense of coherence, more productive problem discussion and conflict resolutions, which *"promote effective group processes, decision making, and performance over time".* (Rodríguez-Sánchez, Alma M., et al., 2017, 4 p.) Nevertheless, high levels of team cohesion can bring negative effects to the project team as well. The negative effects start when a project team relays too much on group thinking and the sense of conformity, where the team

members seek to match their behaviors with the dominant behaviors in the group (Rodríguez-Sánchez, Alma M., et al., 2017, 5 p.). These negative effects can hinder and even be detrimental to team creative performance. However, these findings were only discovered in the quantitative research. Since there is not enough qualitative research that shows how the project managers understand team cohesion and its effect on the team creative performance from their personal perspective, hence, this factor will be included in the research model.

1.3.3 Collective Task Engagement

Definition:

Collective task engagement *: Collective task engagement is defined as a positive, fulfilling, work related shared motivational state that is characterized by team vigor, team dedication, and team absorption, which emerges from the interaction and shared experiences of members of a work group*" (Costa, Passos, and Bakker, 2014; Salanova, Llorens, Cifre, Martinez, & Schaufeli, 2003).

Once again, according to the previously introduced research, the collective task engagement must be considered and evaluated when speaking about the team creative performance too. For the same researchers, the collective tasks engagement works as an umbrella term that describes a positive emotional state that once achieved by the team, becomes a motivational mechanism for the team to perform better, and thus, increasing the team creative performance (Rodríguez-Sánchez, Devloo, et al., 2017). This argument has its roots in the intrinsic motivation theory, meaning the team members, who poses the internal drivers to perform better, will offer more creative solutions to the problems they are facing. The characteristics of collective task engagement can be broken down into more details. The first characteristic, team vigor "*refers to the energetic component of task engagement that implies strong levels of energy and mental resilience while working, putting a great deal of effort into a team task and persisting, even when difficulties might occur.*" (Rodríguez-Sánchez, Devloo, et al., 2017, p. 5). Another characteristic of collective task engagement which is the team dedication describes "*the involvement in a team task by experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge.*" (Rodríguez-Sánchez, Devloo,

et al., 2017, p. 5). The last characteristic is team absorption, and it stands for "*full immersion in the team's work*" (Rodríguez-Sánchez, Devloo, et al., 2017, p. 5). In other words, team absorption represents how much the project team member get invested into their work and how easily they detach themselves from their tasks. Generally, the collective task engagement should the evoke the feeling of curiosity and resilience to look for alternative solutions and create the freedom to experiment (Rodríguez-Sánchez, Devloo, et al., 2017, p. 5). All this evidence strongly suggests that the collective task engagement will positively affect the team creative performance, making this team factor worth to be investigated in this qualitative research.

1.3.4 Perceived Proximity

Definition:

Perceived Proximity: *Perceived proximity refers to "a dyadic and asymmetric construct which reflects one person's perception of how close or how far another person is" or "a cognitive and affective sense of relational closeness"* (Wilson, O'Leary M, Metiu , and Jett, 2008)

Psychological factors are as well at play when speaking about the team creative performance in the virtual environment. According to Chae, (2016), the common consensus of the proximity among the previous researches, mostly revolves around the spatial, or in more simple terms, physical proximity. Nonetheless, this article casts a new light on the debate which proximity, physical or psychological has more significance in terms of increasing the creative performance of the team. The collected evidence shows that perceived proximity comes first and has more significance to increase the level of team creativity. In other words, the team members who feel close to each other psychologically are not so hardly affected "*by the negative aspects of the physical distance*" (Chae, 2016, 808 p.). The author of this article points out that perceived proximity, discussed in the context of the virtual environment during the remote work, can actually increase the teamwork and relationship quality. Lastly, it can become as a strong mediator between the project team and its creative performance. Therefore, this team factor must be investigated in this research as well.

1.3.5 Trust in Colleagues' Competencies

Definition:

Trust: "*The extent to which a person is confident in, and willing to act on the basis of, the words, actions, and decisions of another*". (Sarker, Ahuja, & Kirkeby, 2011). "*Cognition-based trust refers to trust from the head and reflects perceived competence of others, while affect-based trust refers to trust from the heart and depends on emotional bonds*" (McAllister, 1995).

One can agree that trust is essential in forming the strong bonds in the teams. Previous findings suggest that trust plays even more important role in a remote team that operates virtually when it comes down to creativity (Chae, 2016) However, after a thorough analysis of previous works, the same article differentiates the importance between the cognition and affect-based trust. The scholar comes to the conclusion that although the affect-based trust positively affects collaboration, the cognition based is the one that positively affects the team creative performance. From examining these findings, it must be mentioned that there is hardly any qualitative study that investigates this team creative performance factor as well. Hence, this forms another strong argument to include cognition-based trust to the research model that will be later presented in this study.

As it is evident from aforementioned theories, the team creative performance is highly dependent on the team dynamics, rather than an individual trait, and collective creativity prevails compared to individual creativity, hence, it holds validity to this research. However, by looking into team cohesion, collective task engagement, perceived proximity, and colleagues' trust in each other competencies, there is strong need to explore how the project managers who work in the tech organization, especially in the times of the pandemic, understand the importance of these team factors and if they have a similar effect on the team creative performance in the technology company. Eventually, this could establish a better understanding how creativity could be facilitated in the project teams that operate remotely if even longer time periods due potential future Covid-19 lockdowns would take place.

1.4. Creative leadership

1.4.1 Background and definitions of creative leadership

Definition: *"The twofold definition meaning that at the global level, creative leadership refers to leading others toward the attainment of creative outcome. Under the conceptual umbrella of this global definition, creative leadership entails three alternative manifestations: facilitating employee creativity; directing the materialization of a leader's creative vision; and integrating heterogeneous creative contributions"* (Mainemelis, Kark &Epitropaki, 2015)

For many leaders and project managers the concept of creative leadership would be regarded as a phrase found only in creative and art industries in which creativity is the source to produce artistic product. However, it goes without saying that without creativity the organization would fail to move forward and create something innovative and novel. Paradoxically, one would rarely think that creative leadership could find its place in many organizations, including the tech organization, and could be exercised just as any other leadership style.

Conversely, the idea of creative leadership is nothing new and as a phrase has been around since 1970s. Mainemelis, Kark and Epitropaki, remind about the origins of this term in their work. One of the first articles, *Creative leadership: Human vs. metal brains,* (1963), published by Stanley Stark has debated a popular opinion of human mind being solely mechanic. Stanley was trying to solve the ongoing debate which one, the mechanical or human mind, is more creative that emerged due to the fear that the machine thinking, and artificial intelligence will replace the human minds. Stark stated that *"until the latter group is persuaded, we cannot conclude that the metal brain possesses less capacity for creative leadership than the human brain—and it is at least conceivable that the latter group may never be persuaded."* (Stark, 1963, 168 p.) This quote marks the emergence of the creative leadership, and proves that creativity is still very much controlled by the human brain to this day.

Nevertheless, in the research field, throughout the years the concept has remained fragmented with no unified theory. This comes from the fact that the definition of creative leadership

due to the nature what it represents is understood subjectively. For instance, Alma Harris in her publication titled "*Creative Leadership, Developing Future Leaders*" highlights that creativity heavily depends on the context and it is judged by a unique perspective of the world (Harris, 2009). Following West-Burnham's definition, the article highlights that creativity consist of originality, imagination and of potential to make a difference. Even more, the article debates that there are many unnamed instances when creative leadership is perceived skeptically, and this leadership style is passively stipulated in organizations because creativity might be understood as "*a distraction, an irritation, a detour from a well thought-out and carefully conceived plan*" (Harris, 2009, 10 p.). In the light of this argument, another group of scholars has conducted an empirical study on a perception of creative leadership that supports this skepticism. (Mueller, Goncalo & Kamdar, 2011). The study involved 346 participants who were asked to perform creative problem-solving tasks. Basing their research on a prototype that represent '*preexisting knowledge*" about the ideas, it is suggested that the leaders who proposed creative ideas to solve problems were perceived as having lower leadership potential. From the examining the findings, the authors of this research have concluded that an additional charismatic leadership style in needed to create a positive perception of creative leadership. It is important to mention that these researchers failed to provide an extended definition of creative leadership, limiting it to "*creative idea expression*" (Mueller, Goncalo & Kamdar, 2011). Taking all of this into consideration, the lack of accuracy how creative leadership is defined created limitations that as a consequence resulted in a negative perception of this style. The lack of behavioral perspectives and competencies presented in those researches also amplifies the problem of its understanding and complexity.

Drawing on these observations, one can argue how this has resulted in "*lack of definitional clarity*" which made this leadership style obscure. (Mainemelis, Kark & Epitropaki, 2015, 394 p.). This group of scholars critique previous researches for promoting a "*one size fits all*" idea, calling it "*inadequate, probably because the phenomenon itself is sensitive to contextual variability.*" (Mainemelis, Kark & Epitropaki, 2015, 396 p.). This means that not only creative industries are exercising this leadership and, in some cases, might not even be using this model. In their extensive article about conceptualization of creative leadership the authors of the research showcase that creative leadership, actually, has three different subtypes that highly depend on the context. The first subtype is related to "*the leader's role in fostering the creativity of others in the organizational*

context." (Mainemelis, Kark & Epitropaki, 2015, 396 p.). The authors label this creative leadership subtype as *Facilitating*. The second subtype showcases the leader as '*the primary source of creative thinking and behavior*" naming this leadership style as *Directing* (Mainemelis, Kark & Epitropaki, 2015, 397 p.). The last subtype is called *Integrating,* and it highlights the leader's ability to integrate his or her own creative ideas '*with the diverse creative ideas of other professionals in the work context*" (Mainemelis, Kark &Epitropaki, 2015, 398 p.). The authors highlight that certain entrepreneurship fields attract a certain subtype of creative leadership, and this happens not without the reason. The context can determine which subtype of creative leadership will be a dominant one.

Taking all things into consideration, this part of a research paper actively signals that creative leadership needs to be reexamined again. The main reason behind this is that team creative performance is closely tied up with facilitation of team creativity, once the factors of the team creative performance are determined. The capacity to fully comprehend how these creative leadership methods and competencies influence team creative performance could propel organizations to new heights of innovation and critical creative thinking, create a positive perception of this style and eventually improve not only teams creative performance, but also bring the abundance of benefits to the projects and the organization. More interestingly, one could argue that the creative leadership competencies and methods have been used in the tech companies, without any acknowledging that the creative leadership style is being used here. Therefore, the understanding how it facilitates the creativity and enhances the team creative performance, especially during the remote work in the context of the Covid-19 pandemic is very much needed.

1.4.2 Models of creative leadership

To understand its importance and validity of creative leadership, a few further models will be analyzed. The purpose of this analysis is to construct the research model that would successfully help to analyze tech project managers' perception about competencies and skills needed to facilitate creativity which would translate to strengthened team creative performance.   The goal of this research is to analyze if and how the team creative performance is facilitated in the tech

organization and if the creative leadership has any significance in its facilitation. A brief review will show which of the aforementioned models is the most suitable to this research. Although it was already mentioned that this style has been a heavy subject to the lack of definitional clarity, there are still several models and theoretical frameworks that showcase the ways how the team leaders facilitate creativity .

1.4.3 Rickards and Moger's creative leadership processes model

To illustrate, Rickards and Moger (2000) proposed a clearly defined model of creative leadership that once applied by a project manager should lead the team towards the outstanding performance while working towards the attainment of creative outcome.

Using this model as their foundation for the theory, the researchers decided empirically investigate the project teams arguing that the *"project teams have become a popular organizational form under circumstances that require coordinated actions directed towards a non-routine goal."* (Rickards & Moger, 2000, 273 p.). Although this research article partly focuses on the project team development, and thus, is written as critique to the Tuckman's team development model which is based on the idea that the team goes through the specific stages before it either achieves outstanding or poor performance. By introducing the barriers to Tuckman's team development model, the authors argue that the project team that is developing and goes through the development stages experience some obstacles, or *"impediments to creative productivity"* that affect if the project teams end up creating outstanding or poor creative outputs. (Rickards & Moger, 2000, 276 p.). This research does not provide the scale or the definitions of the strong and poor performance, as they are dependent on the organization itself. Although the research provides interesting findings on relationship between the team development and creativity and was initially designed to be used by measuring the team development factors, this paper due to its scope limits, will only include Rickards and Moger's creative leadership theory (2000) presented in this article.

Speaking about creativity and leadership, the scholars of this research continue to build their argument on the previous creativity and leadership theories proposed by Gordon (1961), that

"the creative problem-solving literature suggests that the creative performance of teams is enhanced by leadership interventions" (Rickards & Moger, 2000, 273 p.). The creative leader who seeks to facilitate the team creative outcome must assert the leadership behaviors that are structured and follow specific principles, or in simpler terms create habits that promote creativity. In this model, these habits are called "*benign structures*", and are defined as the "*structures that enhance individual or team activities. Specifically, in creative problem solving teams the techniques have procedures based on principles for facilitating individual and team creativity.*" (Rickards & Moger, 2000, 276 p.) In general, in the creative teams who work with the creative problem solving, the leadership techniques have to be based on principles that would improve the individual and team creativity. And as the standard practice, the facilitative project manager is the first responsible person in the team to create these rules. This particular creative leadership framework is built on seven behavioral perspectives or the so-called critical factors which will be presented in a minute. These leadership factors work as a set of principles to encourage creative performance. Thus, one can draw an assumption that the team creative performance, which was introduced in a previous theoretical background chapter, will be affected just the same. Seven behaviors that need to be practiced by a facilitative project manager to improve and sustain the team creativity are presented below.

Table 1. *Seven Behavioral Perspectives proposed by Rickards and Moger (2000)*

Factor 1: Platform of Understanding (POU).	*"The creative leader explains that at the start of any creative effort, a team benefits from exploring shared knowledge, beliefs and assumptions. These elements comprise a 'platform of understanding' from which new ideas develop."(280 p.)*
Factor 2: Shared Vision (SV).	*"At the POU-stage, the platform of understanding is examined by the team to suggest perspectives. The dominant perspective amounts to a shared view. The standard view is one mostly constrained by habit and assumptions"* (280 p.)
Factor 3: Climate (CLI).	*"The team leader emphasizes the importance of a positive climate"* (280 p.)

Factor 4: Resilience (RES).	*"The team leader emphazises the principle of seeking alternative perspectives when dealing with dashed expectations." (280 p.)*
Factor 5: Idea Owners (IO).	*"Efforts are made to build commitment to ideas. The team leader encourages deliberations designed to align the ideas within regions over which team members have know-how and control." (280 p.)*
Factor 6: Network Activators (NA).	*"This factor was derived after we had interviewed a sample of participants who were successful executives out side the creative problem-solving exercises. The term was suggested by an interviewee, capturing the skills he felt important in his role of capturing and importing knowledge through external net working" (280 p.)*
Factor 7: Learning From Experience (LFE).	*The creative leadership interventions have been explained as a means of achieving experiential learning. (280 p.)*

Source: Adapted from Rickards and Moger (2000)

This theory was developed with the intention to create more sophisticated and advanced trainings for the project managers and the teams in terms of the creative problem-solving skills. In a nutshell, its primary focus in their research was given to understand the creative process that take place in the team problem solving area. Nevertheless, the authors highlight how more extensive studies are needed as they did not focus on any specific cases to test the creative leadership framework and "*emerging framework lacks the richness of multi-level models*". (Rickards & Moger, 2000, 281 p.) Therefore, this framework should be treated as one of the original creative leadership theory frameworks. It needs to be mentioned how understanding the origins where the creative leadership came from, is important as the following sub-chapter will introduce a more extended and sophisticated theory of creative leadership, and later these two theories will be combined into one to create a complex creative leadership model that will be applied to explore team and

leadership factors of project team creative performance looking at it through the project managers' perspective in the tech company where the research took place.

1.4.4 Mainemelis, Kark and Epitropaki's conceptualization of creative leadership

As stated at the beginning of this chapter, Mainemelis, Kark and Epitropaki (2015) were the first ones who provided a systematic and multi-layered approach to the concept of creative leadership. These scholars have developed the framework and a tool for the creative leadership that emerges depending on the context which could be facilitating, directing, or integrating. As the researchers say, "*the differences among the three conceptualizations are not mere artifacts of diverse methodological choices, but rather, they reflect actual differences in the enactment of creative leadership across work contexts*." (Mainemelis, Kark & Epitropaki, 2015, 399 p.). The context becomes extremely important in creative leadership field or as the authors state: "*last but not least, in the extant creativity literature there is substantial agreement that creative processes, creative interactions, and creative outcomes should be investigated in close association with the characteristics of the contexts in which they are embedded*" (Mainemelis, Kark & Epitropaki, 2015, 402 p.). This conceptualization indicates how in facilitative context, the dominant tendency is that the team members are regarded as creative contributors, while the project manager is seen as someone who is responsible for supporting contributions. He or she emotionally supports the team and provides guidance when the team is struggling with the creative performance. The facilitative context is followed by the mindset that encourages the team members to be the generators of creative ideas. The argument is based on the idea that the team will not feel the sense of contribution if they are only requested and allowed to implement the creative ideas initiated by the project manager (Basadur, M., Basadur, T., & Licina, 2011). The teams need to experience the sense of ownership for people to start fully contributing creatively. This strongly correlates with the previously introduced creative leadership framework, as the ownership is one of the factors that influences the creative problem-solving skills. Also, it could be argued how these competency and behavioral perspectives are not creative themselves, but they play a critical part in facilitating the team creativity (Mainemelis, Kark & Epitropaki, 2015).

In the terms of facilitative concept, the same group of scholars suggest that creativity as the concept has nothing to do with the creativity of the singular body, supporting the idea of collective creativity and the creativity emerges from the team creative performance. Neither the leader, the team nor the organization exercise creativity individually or solely possess and control creative process as one entity. Creative leadership, as creativity itself, emerges in the moments of interactions and dynamic collaboration among these entities (Mainemelis, Kark & Epitropaki, 2015). In the facilitative context, creativity is simultaneously viewed both as a collective process and a product.

Conversely, it needs to be explained why directing and initiating contexts were not included to this research. The directing context is based the project leader's or manager's realization of his or her own creative ideas where he or she is the one "*who both creates and manages his or her creative enterprise*" (Mainemelis, Kark & Epitropaki, 2015, 397 p.). Therefore, this particular context does not support the aim of this research and would provide the opposite results. The integrating context is related to the filming, music production settings in which the project leaders' prime goal is *"to merge the creative leaders' work with the works of other professionals"* (Mainemelis, Kark & Epitropaki, 2015, 397 p.). Therefore, there is no need to consider this creative leadership subtype as it is not related to the industry in which this tech company is operating.

Based on the aforementioned descriptions of creative leadership, when narrowing down the scope of this research, only the facilitative context will only be analyzed to provide the depth the research. The insights gained from the framework of the creative leadership conceptualization also indicate the benefits the facilitative context brings to the team itself. The facilitative context means that once the project managers can facilitate creativity in his or her team, when the right creative leadership factors are applied, the creative contributions of the team only will grow with time. The facilitative context also brings its specific and unique themes and characteristic that dominate and define creative leadership in this context. The most relevant and popular competencies in this context were chosen for the evaluation. The table below represents them:

Table 2. *Mainemelis, Kark and Epitropaki's extended creative leadership model in a facilitative context (2015)*

Competency Perspectives	The ways in which these competencies facilitate creativity in the teams
Creative Thinking Skills	*"Help leaders to evaluate, filter and sponsor new ideas"(409 p.)* *"Trigger additional levels of idea generation" (409 p.)* *positively affects idea-implementation behaviours" (409 p.)*
Creative Process Management Skills	*"motivate problem-solving skills" (410 p.)* *"stimulate creative thinking" (410 p.)* *"align the creative process with organizational objectives" (410 p.)* *" promote healthy degrees of cognitive conflict" (410 p.)* *"structure and enhance the information search process" (410 p.)* *"balance freedom and frugality, and articulate appropriate evaluation criteria" (410 p.)* *"strategic planning skills" (410 p.)* *"help to recognize other team members preferred problem solving skills." (410 p.)*
Behavioral Perspectives	
Leader support	*"facilitates employee creativity by fostering intrinsic motivation, psychological safety, or/and positive moods" (410 p.)* *"positive and non-controlling monitoring increases creativity" (410 p.)*
Assigned goals	*"allows leaders to influence employees' motivation, effort, and attention in the creative process without harming their intrinsic motivation and sense of autonomy" (412 p.)*
Monitoring	*"Close monitoring viewed as a an expression of carrying and attention" (413 p.)*
Feedback	*"strengthens employees' intrinsic motivation" (414 p.)* *"provides the employees with standards for evaluating their own work; and by facilitates the acquisition of creative skills and*

	strategies" (414 p.)
Play	*"facilitates employ creativity by fostering a playful culture" (414 p.)*
	"promotes radical creativity" (414 p.)
	"prevents from a burnout" (414 p.)
	"signals psychological safety" (414 p.)
Empowerment	*"enhances psychological empowerment" (415 p.)*
	"increases intrinsic motivation and creative process engagement" (415 p.)
	"actively encourages creative engagement by articulating the need for creative job outcomes" (415 p.)
	"spelling out what the organization values, and calling attention to the effectiveness of engaging in processes likely to lead to creative out-comes" (415 p.)

Source: Adapted from Mainemelis, Kark and Epitropaki's (2015)

1.4.5 Why Mainemelis, Kark and Epitropaki's and Rickards and Moger's models need to be combined together?

The similarity between these two theories is that both groups of authors highlight that the context in which these models happen is *facilitative.* While the Rickard and Moger's framework (2000) focuses solely on behavioral perspectives, Mainemelis, Kark and Epitropaki's (2015) multi-layered model covers competency perspectives and behavioral perspectives. Nevertheless, both theoretical frameworks share the same foundation. The Rickard and Moger's theory needs to be regarded as the origins from which the behavioral perspectives of creative leadership have emerged. Hence, since the Rickards and Moger's framework was limited with behavioral factors, the new framework needs to include competency and additional behavioral perspectives by Mainemelis, Kark and Epitropaki's which emerged after almost two decades (2015).

The combination of two frameworks can provide novel investigations and capture new dynamics of creative leadership among the project managers and the team members. This comes

as important aspect in analyzing the understanding how the team and the manager work together towards the attainment of the creative outcome and how this affects the team creative performance. Most importantly, although it is possible to measure the creative outcomes that are generated by the team or the project manager, this paper, first and foremost, seeks to create a foundation on how the project managers that work in a tech company perceive creative leadership and its relation to the team creative performance. Additionally, the combination of two frameworks provides the complexity of the creative leadership theory, as the concept of creative leadership is multifaceted, and obviously will uniquely unfold as a facilitative context in the tech organization.

Even more, this paper emphasizes that the remote work is strongly embedded in the context of a pandemic, and brings its own unique problems, especially when the remote teams still need to maintain their creative performance. If the research model will hold validity and the theories will be confined, in the moments of uncertainty when the team creative performance becomes hindered these set of factors could become the mindset that needs to be applied and shared throughout the entire tech organization in order to spark the team creativity to keep the tech company operating remotely.

1.5 Remote work and its impact on team creativity

Ever since Covid-19 has emerged, the normal work life has changed abruptly. The governments and health care systems are battling the pandemic crisis with the help of vaccines, lock down and safety measures. Following the insight reports published by McKinsey & Company, it has been predicted that "*by 2025, COVID-19 will have cost the world between $16 trillion and $35 trillion.*" (2021). At this moment, many organizations are facing the biggest challenge to come up with the right set of priorities that would allow the business to move forward in the midst of the unknown. As the remote work is still dominating, the companies will soon start failing to sustain their level of performance, if that haven not happened yet.

When speaking about the creativity performance, the academic research about the consequences of the pandemic caused for it is only emerging gradually. And the current situation does not seem to be positive in some ways. As Forbes reports, after a numerous lockdown since the start of the pandemic, currently "*creative ideation is taking a hit in many organizations, with nearly 22%*

of remote workers saying working from home has hurt their creativity and 26% of managers agreeing." (Jenkins, 2021). Although the numbers do not seem high, it does not mean that the problem of hindered creativity is not relevant. The article suggests to maintain team creativity by hosting hackathons across the entire organization, switch the employees among different teams and departments, and "*actively encourage employees to try new things*" (Jenkins, 2021).

With regards to the transition to the remote work, it must not to be forgotten how many companies did not have any suitable procedures in place to make the transition from the face-to face environment to the remote work at the beginning of the pandemic. This put a strain on the employees' wellbeing, productivity, and obviously creativity (2021). There was a study done on the employees' perception how they view their work from home conditions. The respondents were asked how the remote work during the pandemic has affected the quality of their work and personal lives (George, Atwater, Maneethai & Madera, 2021)

The study has measured the remote work factors such as the increased level of responsibility, the increased number of work hours, accountability to others, and the demands on others. At least half of the respondents indicated that the aforementioned remote factors did not change at all. Surprisingly, this study concludes *"that employees perceive WFH as having a strong and positive impact on their productivity and creativity in work*" providing the results both about productivity and creativity. (George, Atwater, Maneethai & Madera, 2021, 2 p.). However, there is a specific factor that need to be in place in order for the employees to feel productive and creative. This group of scholars expresses how "*productivity and creativity are enhanced when individuals identify their work and their organizations with deeper meaning in their lives, and yet when they are still able to maintain boundaries between work and the non-work aspects of their lives*" (George, Atwater, Maneethai & Madera, 2021, 7 p.). Even more, the study also indicates that the remote workers need to maintain the contact with the coworkers from whom they get emotional support to sustain productivity and creativity. Overall, this research states how "*over 70% of respondents say their new work environment has given them more freedom or creativity in how they do their job*" (George, Atwater, Maneethai & Madera, 2021, 2 p.) The findings sound incredibly encouraging, however the study which collected the responses from 278 workers neither indicates from which business sectors the respondents came from, nor their hierarchical role in the company and how many respondents were the project managers, if there were any at all. Therefore, this could

not be applicable to the company that is under the investigation in this paper and the sector, nor match with the projects managers' opinions who work in this organization.

And as many have experienced this themselves, the pandemic has heightened the levels of stress to a new dimension. The study was carried out on the relationship between work uncertainty and creativity in the context of the Covid-19 pandemic (Tang, Ma, Naumann & Xing, 2020). Conversely, compared with the previously introduced research, the findings of this research on the interconnection between creativity and work uncertainty suggest that the employees "*tend to assign a greater priority to tasks that are certain and controllable, rather than creative*" (Tang, Ma, Naumann & Xing, 2020). This shows the contradictory findings with regards to creativity, possibly because the research samples are different from one another.

Nonetheless, further research reports outline that the isolation experienced during Covid-19 had a slightly positive influence on them and stimulated creativity. There was qualitative research conducted with the senior managers who worked in manufacturing and technology business sectors. The findings from this research highlight that "creative *steps were either taken towards nurturing oneself for career growth or towards solving long-pending organizational issues*" and that "the creativity was self-initiated" (Jaiswal & Arun, 2020, p. 2). Even more, another study suggests that engaging in creative acts provides some sense of control for the team members (Kapoor & Kaufman, 2020). This illustrates how working towards the achievement of the creative outcome can make the team and the project manager struggle, but simultaneously bring the sense of empowerment and control in the times of the unknown.

Keeping this all-in mind, the above reviewed reports about the remote work in the times of the pandemic and the creativity strongly indicate that the consensus about the remote work impact on creativity is still not established. There were also no studies done how this unprecedented pandemic has affected the creativity which is the most important company's asset in the tech companies. Therefore, this research seeks to understand if the the project managers working in this organization regard the remote work consequences as the positive or the negative ones with regards to the team creative performance.

2. Research Methodology

2.1 Qualitative research characteristics

As Creswell highlights "*qualitative research is typically accepted and well-known in the social sciences*" and is widely used and legitimate research model (Creswell, J. & Creswell, J. 2017, 257 p.). According to them, the reason why qualitative research is needed is because *"in the entire qualitative research process, the researchers keep a focus on learning the meaning that the participants hold about the problem or issue, not the meaning that the researchers bring to the research or that writers express in the literature*" (Creswell, J. & Creswell, J., 2017, 258 p.).

In brief, qualitative research has several defining characteristics that distinguishes it from quantitative research. The first characteristic is that researchers, who work in a qualitative research field, care about the natural setting of their subject that is studied. The researchers seek to collect data in the natural environment because this helps them to investigate and describe the issue that the participants experience in their surroundings. The second characteristic of qualitative research is that the researcher herself becomes the instrument to collect information from her interviewees and "*interpret their narratives and experiences since one of the researcher's goal is to organize the findings into thematic codes*" (Creswell, J. & Creswell, J. 2017, 257 p.). Here another characteristic of qualitative research, proposed by these authors, needs to be introduced: inductive and deductive data analysis. Inductive analysis stands for data collection from the bottom up when the "*most specific patterns and themes are identified moving towards more generic patterns*" (Creswell, J. & Creswell, J, 2017, 258 p.). Once this is done, the deductive analysis can be carried out to collect additional data if there are any gaps or themes that require more thorough investigation. With regards to this, it is important to mention that qualitative research is based on emergent design. The emergent design indicates that, once the process of data collection begins, the researcher cannot rely on the initial plan of data collection she has prepared due to the fact that natural environment and the participants' experiences "*can drastically change the research focus where questions or even the participants will have to be replaced*" (Creswell, J. & Creswell, J, 2017, 257 p.). After that, reflexivity takes place "*in qualitative research, inquirers reflect about how their role in the study and their personal background, culture, and experiences hold potential for shaping their interpretations, such as the themes they advance and the meaning they ascribe to the data. This aspect of the methods is more than merely advancing biases and values in the study, but how the*

background of the researchers actually may shape the direction of the study (Creswell, J. & Creswell, J, 2017, 257 p.). The final characteristic of this research method is the holistic approach of the research issue that aims to represent a complex and intricate picture of the research phenomena. Evidently, these characteristics help us to grasp the understanding of the qualitative research importance.
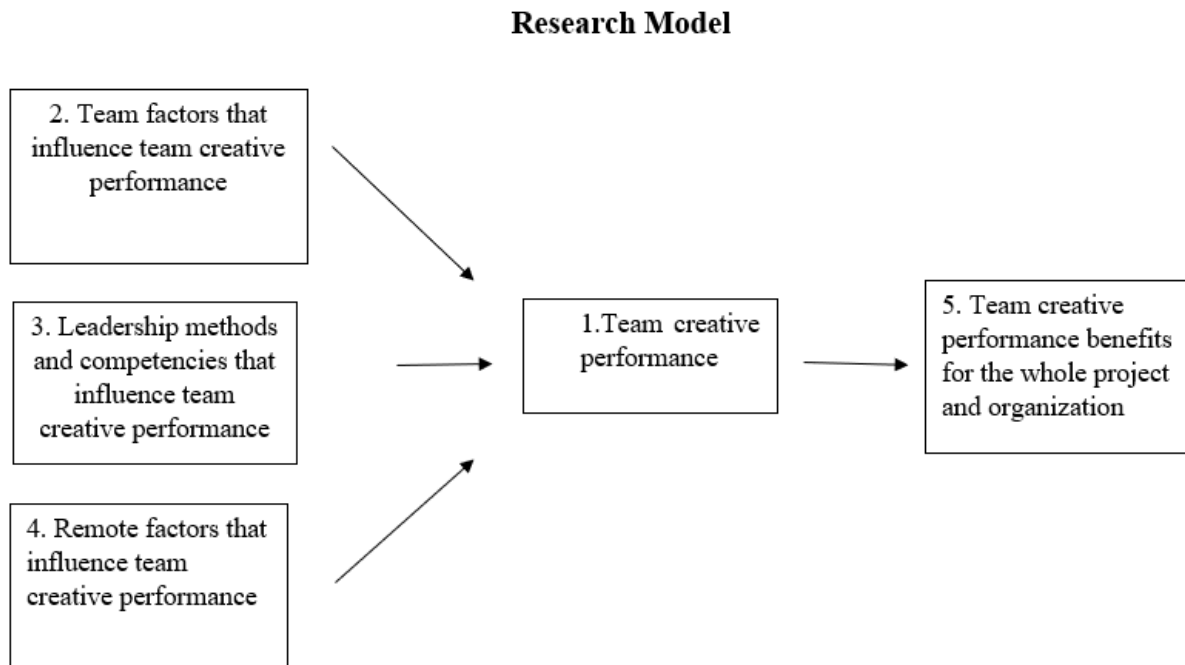
2.2 Research Model

Following the characteristics provided above, the qualitative research method has been chosen for this paper. The rationale behind will be presented. More generally, as the team creative performance topic belongs to social sciences sphere, the topic of this paper already indicates that the qualitative research method can be applied to this paper. The choice was also based on the analysis of previously published articles on the team creative performance and the creative leadership as these two theories never emerged together and were never together applied to understand the manager's perspective on the enhancement of creativity in the technology organization. Even more, none of the recently published articles, use these theories in the context of Covid-19 pandemic remote work. Also, from examining the previous research findings, the team creative performance mostly has been investigated in terms of quantitative research as the chapter on the theoretical background has shown that already.

Even more, there is also insufficient amount of research done and lack of academic resources about how the technology sector has handled the team creative performance and how it was affected by the remote work in the pandemic. Therefore, all project managers, who were interviewed about the team creative performance and creative leadership, were working in the same technology organization. Additionally, they have been working there as project managers before and during the pandemic, so they had a firsthand experience with the issue of transitioning their teams to the remote work environment in the moment of this pandemic. The qualitative research was also chosen to find out the project managers strengths and weaknesses in terms of management practices to provide the guidebook what competencies and team factors should be strengthen if the company enters the phase in which the team creative performance gets stuck in

the rut. Keeping this in mind, the below presented research model was created following the objectives of this research paper:

The objectives:

1. To determine team creative performance and its role and benefits for the whole project.
2. To analyze team factors that are important for the team creative performance.
3. To analyze the leadership methods and competencies that influence the team creative performance.
4. To determine the remote work factors that influence the team creative performance.

Research Model

Figure 1. Research model composed by the author

2.3 The tech company under the investigation

The company, founded in the U.K. in 1988, in which this research took place specializes in the global sports betting market. The company creates the top-notch tech sports betting products and provides sports betting services almost to 14 million customers. The organization owns at least nine high profile sports betting brands, including a high number of smaller sports betting products. The company is led by the vision to bring the sports betting in the most sustainable and safest way, without losing its entertainment.

The company as many other businesses, was severely hit by the Covid-19 pandemic as their products are used during the sports events. As the sports championships, tournaments were canceled the company had to diversify their product and turn to gaming business, to make up for the losses the pandemic has brought to the business. This diversification allowed the company to reach the most profitable year throughout the business in 2021, after the sports events and betting recovered, but the company is still operating with many uncertainties what the future and the on-going will bring. The safety of the employees still comes first, so the company is still fully operating remotely. Before the end of summer, the company has established a new guidebook called "the Ways of Working" in which they explain how the business will continue to operate fully remotely in the upcoming 12 months, with the opportunities to accesses the office depending on *"the Moments That Matter"* policy. The organization has introduced the key rule called "*The Moments That Matter*" which defines the moments when the teams will come together to connect and to collaborate whether it's for the important planning sessions, on-boarding process of the new hires to the organization, the celebration of the successful project deliveries and many more. Over the upcoming months the company will test this new remote work model to improve and iterate the working patterns that are emerging. This testing should provide the insights how the new hybrid work environment should be established and function in the future. The choice which types of work, whether its face to face or the remote team will dominate in the future, will depend on the role requirements, personal preferences and the team or business needs. The key idea is for the project teams to figure out the most suitable working plan with their project manager, emphasizing that the safety of employees is the most important.

However, the new remote work model does not provide any defined guidelines on the specific management practices, including how the creativity should be facilitated in the teams under the new working circumstances. Therefore, the project managers could be still struggling with coming up with the new ways to solve the issues related to the facilitation of creativity in the teams. These struggles being faced by the project managers evoked the need to investigate the assumptions the project managers hold about the team creative performs in general and how they see the remote work and creativity being affected by the Covid-19 pandemic. As the regulations are constantly changing, this research gains incredible significance in understanding how the company facilitates creativity across its project teams and what tendencies are dominant in this organization.

2.4. Research sample

Thus, to fulfill this study aim and objectives, 8 project managers who have experienced the shift from the office to the remote work during this pandemic and will be following the new companies' guidelines, were invited to participate in this research to share their opinions.

This research has used purposive, or sometimes refereed a judgmental, sampling, which is a non-probability sampling method. This method takes place when "*elements selected for the sample are chosen by the judgment of the researcher. Researchers often believe that they can obtain a representative sample by using a sound judgment, which will result in saving time and money*" (Creswell, J. & Creswell, J, 2017, 257 p.) The preselected sampling criteria was also used to select the interview participants. Each project manager was selected by following these criteria: they were managing a team that consists at least of three team members and in some ways were working with a tech product, either working with them on the technical side such as coding, SEO, product optimization or working on a non-technical side of the product that involved the promotion and management of the tech products and its services. Following this, in order to understand the mindset that dominated among the senior level managers, at least one third of the participants had to work in the top management position, such as head of the department, product or be a senior manager, and the rest of the participants could work as a middle or lower-level managers.

Another criterion the participants had to match was the time period of their employment in this company. Each manager had to work at least for one year as a project manager in this tech organization to understand the mindset the company has towards the effective management

practices, and at least have several projects delivered to understand how the creative ideas and their execution go through the project life cycle. The time period how long they have worked was also taken into the consideration because the projects managers had to experience the effects of the Covid-19 pandemic by working in the remote environment. Several managers also had a minimal experience switching between a remote and face to face environment as the return to the office several times a week for the teams is allowed if they require that option and follow all safety measures.

It is important to mention, that the team members perspective how they evaluate the team creative performance was not taken into the consideration in this study, simply for the limitations of this paper. However, the project managers' perspectives how their teams understand the phenomena under study, will emerge in several interviews. Also, the rationale behind this sample, was to ensure the validity of the answers while qualitative research is being conducted and to make sure that the pattern that emerges from this research has interdependencies.

With regards to the anonymity of the respondents, the identification numbers such as PM 1, PM 2, PM 3, etc. were created. This was done to ensure the confidentiality of their answers and the confidentiality of the teams they were referring to while answering the research questions. Also, the participants were asked to indicate in what type of departments and business areas they have worked in. It needs to be mentioned that only the following criteria were used to identify the interviewees: their background information to indicate their work field, the country in which they were working, the time period to show how long they been working as a project manager, and if they managed their teams in the pandemic remotely or not.

Table 3. The Identification of Project Managers

Project Manager	Location	Experience
PM 1	London, the UK	He is a Commercial Operations Manager and is responsible for the delivery of the commercial contracts once the services or product features are sold. For 11 years was working as a business consultant, has been doing elements of project management for at least 15 years.

PM 2	London, the UK	The Head of Gaming product. Has been with the company for almost ten years and has experience in managing various departments.
PM 3	London, the UK	He is a Head of Product and is responsible for the management of several sports products the company has. Has being working in this position for 5 years, and has 17 years' experience of project management.
PM 4	London, the UK	She has been the Head of Planning for about four years now and overlooks the gaming department. She is responsible for internal system migration, customer transferring from one platform to another, new brand proposition and app launches.
PM 5	Vilnius, Lithuania	She has been a Product Owner in this company for several years. She is responsible for a sports betting website and its web development management, following the Agile methodology. Has been working with the web projects for 15 years.
PM 6	Vilnius, Lithuania	She has been working as a Product Owner for 2,5 years in this company. At first was responsible for the team who maintains the data flows, and as the lead of product. Now she has started to lead another product team in the U.S. that is responsible for the entire U.S. website. In the past she has worked with the cyber security algorithms that recognize suspicious behavior when people are trading money in the market. Follows the Agile methodology.
PM 7	Vilnius, Lithuania	He is the Head of Engineering. Has a 7-year experience as a project manager in the IT field, following the Agile methodology.
PM 8	Vilnius, Lithuania	She is a SEO Content Manager and has 3 years of project management experience. Is responsible for optimizing the websites and increasing the rankings of several company's websites on search engines.

Source: Composed by the author

It also needs to be mentioned how the sample size formed the variables that without any doubt could have affected the results significantly. The first variable is the experience all participants had in the project management. As the respondent's identification table has shown, the majority of interviewed project managers have been working as project managers for at least 15 years

and more throughout their careers. At least four of them are working as the heads of brand departments in this organization. The time period and the experience brought even more validity to this research, and is incredibly beneficial, compared to other answers with other less experienced project managers, as the high level of the expertise that came from the senior management could be compared to the lower organizational level management.

The renaming four project managers occupy the roles in which they are responsible for the actual delivery of the services or the products. Although two participants had only several years of the experience, this should not drastically affect the answers as they have plenty of time to immerse into the company's cultural and definitely had to work on the projects where creative outputs had to be produced. Looking at all of this, this variable should be seen as a positive aspect of this research as it allows to shape and grasp the understanding of team creative performance that escalates from the top to down management levels as the chain of command goes from the top to bottom. In addition, this variable allowed to grasp the multidimensional understanding of team creative performance that exists in this tech organization.

Another variable that needs to be mentioned is the business area in which the project managers were specializing and working at this moment. Although all of them were working in a global tech organization, 3 participants were directly working with the tech projects in which they were responsible for the programming code release into the production. One respondent occupies the head of engineering position which places him between the top and senior level managers. The reaming 3 of them were working as the head of product, and the two reaming respondents were working on the operational and SEO side of the products. Although these positions are not representing the hard technical skills as coding, they are just as much related to the technical product delivery, therefore, they could be considered as the soft set of technical skills.   Thus, this research could be viewed as a minimized version of the organizational hierarchy present in the company. Also, the respondents, based on the gender demographics, were chosen equally not to create a dominating gender variable. This means that interviews were conducted with four male respondents and hour female respondents. Speaking about the geographical aspect, four project managers came from the UK, while the other four were located in Lithuania. This variable shows how the business departments are located, the top-level managers are located in the UK, while the managers

who are related to the tech product are located in Lithuania. This geographic division represents the fact that all project managers have an experience with working to each other remotely, nevertheless, in the past, there was a standard practice for the heads of the department who are located in the UK to come and visit the office in Lithuania at least every two months before the important projects had to be launched or be present in the important ideation sessions.

All participants who participated, worked in the face-to-face environment before the pandemic hit, and after the lock downs were announced had to transition to the virtual environment in this organization in which the remote work policy was officially introduced in March 2020 and will continue at least for another 12 months until September, 2022. This means that almost all respondents have a strong understanding of their face-to-face environment that dominated before the lockdown, and a practical experience of the remote work that happened in the pandemic.

2.5 Research Instrument

It is important to mention that the research instrument is defined as *"a tool used to obtain, measure, and analyze data from subjects around the research topic"* (Davis, 2021). In summary, this instrument is created by choosing the desired research topic and formulating the research statement, later choosing the type of analysis for the research which is followed by the existing literature review from which the research question and objectives arise. Once the topic and the research model are developed, the instrument can be constructed.

As it is evident from the qualitative research theory, "*the researcher is the primary instrument in data collection rather than some inanimate mechanism*" (Eisner, 1991; Fraenkel & Wallen, 1990; Lincoln & Guba, 1985; Merriam, 1988, 261 p.). For this paper, a research instrument was developed to explore the project manager's understanding of the team creative performance and creative leadership. The instrument is based on an interview guide that includes open ended questions and is semi-structured. The purpose of the interview guide is to allow the project managers openly share their understanding about a topic and also follow the respondent's answers with additional questions with the intention to prob the answers where needed and to be fully engaged to the knowledge they are sharing (Creswell, J. & Creswell, J, 2017).

Considering the nature of qualitative research, in order to develop a complex picture of the phenomena and to achieve the research aim and objectives, invitations to participate in this research were sent out to schedule in-depth interviews. In-depth interviews were chosen because they provide "*open-ended questions that elicit depth of information from relatively small number of respondents*" (Guion, Diehl, & McDonald, 2011, 1 p.). As it was already mentioned, the interview guide was created as a semi-structured interview. Compared to unstructured and structured interviews, the semi-structured interviewed was chosen the most suitable type of interview (Guion, Diehl & McDonald, 2013). The reason behind was the need to have preplanned questions during the interview, but at the same time provide the participants with freedom to elaborate on their answers, if they felt the need to share their insights. Once the research instrument was ready, the email that summarizes the research was sent out to selected respondents, containing information:

Hi,

Thank you for agreeing to participate in my research to have the interview call. The topic we will be discussing is related to the team creative performance and creative leadership. Your identity will be kept anonymous. Only the role and your work experience will be indicated and with your permission, our call will be recorded for data collection purposes.

I am grateful for this opportunity to get your understanding about the topic I am investigating for my final MA thesis project. Your insights will tremendously contribute to my research.

Please let me know when we can arrange the call in the upcoming weeks and if you have any further questions.

Considering the demographics of this research, the half of the interviews were done in English because half of the participants came from the UK, while the other half was done in Lithuanian, hence, meaning that the Lithuanian interviews had to be translated to English. All interviews were asked to think about a specific project while answering the questions. In some cases, the several projects were indicated if the managers could share more examples.

The interview guide presented below consist of five parts. The first part introduces general questions that work as ice breakers aiming to discover the project manager's environment, role, the length of their project management experience and the type of project in which they work to get them ready for more in-depth questions.

The first group of questions asks the project managers to define their understanding what the team creative performance means in their work environment. Once the definition is established, the following questions seek to understand the factors that positively and negatively influence the team creative performance according to them. Eventually, the project managers are asked to provide their opinions what the team creative performance brings to the entire project and the organization itself. The second group of questions seeks to understand how the project managers understand the factors that affect the team creative performance and what kind of role they play when facilitating the creativity in the team. The third group of questions seek to understand the leadership methods and competencies that affect the team creative performance and how the managers themselves encourage team members' cohesion, team task engagement, etc., what in their opinion motivates the team, and what leadership methods they would like to improve so that they could maximize the team creative performance. Finally, the last group of questions seeks to understand what kind of struggles the project managers faced during the pandemic while the project teams are operating remotely, how they dealt with them, and how the team creative performance was affected by these struggles.

Introduction: Demographic Questions
Please describe your role and the projects in which you've been working?
How long have you been working as a project manager?
1st Group of Questions. What is Team Creative Performance
1.Could you explain how do you describe/understand team creative performance?
2.Please identify the role of team creative performance in every stage of project life cycle: Initiating, Planning, Executing, Monitoring & Control, and Closing? In which stages the project team creative performance is the most important?

3. *Please indicate the factors that improve team creative performance.*
4. *According to your experience which factors might negatively influence team creative performance?*
5.*Could you describe what kind of benefits team creative performance brings to an overall project?*
2nd Group of Questions: Team Factors that influence Team Creative Performance
Team cohesion 6. *Did team cohesion affect team creative performance? What kind of effect it had on a team creative performance?*
Team members' Task Engagement 7. *Did team members' engagement in project affect team creative performance? What kind of effect it had on a team creative performance?*
Remote work 8. *Did remote work affect team creative performance? What kind of effect it had on a team creative performance?*
Team members' trust in colleagues' competencies 9. *Did team members' trust in their colleagues' (each others) competencies affect team creative performance. What kind of effect it had on a team creative performance?*
3rd Group of Questions. Leadership methods and Competencies that Influence Team Creative Performance
10. *In general, what project leader's competencies and skills are important to improve team creative performance?*
11. *How did you encourage team members' cohesion during project implementation? What concrete methods did you use?*
12. *How did you encourage team members' team members' task engagement during project*

implementation? What concrete methods did you use?
13. *How did you strengthen the relationships between physically dispersed team members? What concrete methods did you use?*
14. *According to your opinion, did team members have enough competencies and skills to perform their work creatively? What concrete competencies and skills are especially important for team creative performance?*
15 .*According to your experience, what factors motivate team creative performance?*
16. *In general, what concrete leadership methods/techniques did you use to improve your team's creative performance?*
4th Group of Questions. Remote work factors that Influence Team Creative Performance
17. *During the pandemic, while you were working as a project manager, have you and your team experienced work uncertainty, loss of resources, burnouts or other consequences of remote work?*
18. *What kind of effect it had on a team creative performance and project implementation?*
19. *How did you deal with that? Please explain that.*
Closing questions:
20. *In your opinion, as a project manager what kind of areas of team performance would you strengthen to maximize the team creative performance?*

2.6 Data Gathering Process

All interviews with project managers were recorded on the Zoom platform. All respondents were interviewed personally after she received the permission to record the information the calls were scheduled at the convenient time for the participants. During the interviews the probing questions and follow up questions were asked when the participants' answers clearly indicated that the subject matter they were describing could be investigated further or if the real-life examples could be provided to illustrate the experience. Following the qualitative research requirements and suggestions (Creswell, J. & Creswell, J, 2017), after each interview, the transcription process and hand-coding took place. Data organization was started immediately and was done between the interviews in order to categorize emerging and dominating themes and to look for interconnections. It must be mentioned that due to time and resource constrains, the data

gathering process was finished after eight interviews were conducted, thus, the data gathering process was finished once the required number of the participants was reached rather than the saturation point was achieved, as it is preferable during the data gathering process in the qualitative research.

2.7. Data analysis methods

During this research, 8 projects managers were interviewed who explained how they understand creative teamwork and what leadership techniques we use to facilitate creativity in a virtual team in the times of the pandemic. Speaking about the data analysis gathered from the respondents, it was done by using content analysis method. This method is applied to analyze text data in order to capture the meaning of the phenomena that is investigated and "s*ystemically code and identify themes*" (Hsieh & Shannon, 2005, p. 1278). The researcher needs to determine the type of content analysis he or she will be using. For this research, direct content analysis which revolves around "*existing theory or prior research exists about a phenomenon that is incomplete or would benefit from further description*" was chosen because creative team performance already has an extensive research foundation and needs further extension how the phenomena of the team and leadership factors of project team creative performance is understood looking at it through the project managers' perspective that work with their project teams in the remote pandemic environment in the technology organization. (Hsieh & Shannon, 2005, 1278 p.). This content analysis method is helpful because it allows to formulate the research question by using previously published academic literature on the subject and indicate the research gap. The process has much more structure and follows these stages. Firstly, (1) the researcher identifies the research question from the previous academic literature. Secondly, (2) key concepts that are coding categories are identified and defined. Thirdly, the open-ended questions are formulated to capture the experience of the participants. (Hsieh & Shannon, 2005). Furthermore, following Creswell J. and Creswell J. qualitative research theory (2017), it should not be forgotten how the qualitative analysis stages unfold after the interview protocol is established.

- *"Data Collection*
- *Data Recording Procedures*
- *Data Analysis Procedures*
- *Interpreting gathered data*
- *Ensure validity and reliability of findings*
- *Writing the qualitative report"* (2017, 12 p.).

After data gathering was completed, the analysis and interpretation were done to summarize the findings and to compare them to the theoretical model and literature used in this paper. Also, in this stage, each interview and the questions categories were compared to one another with the goal to focus in on most detailed answers and disregarding certain parts of it if the saturation point was reached. The interpretation that will be presented in the upcoming part of the research, aim to present the most accurate content analysis to ensure the validity of the responses, not forgetting to highlight the limitations of this research.

3. Research Results

With regards to the result results analysis and presentation, the following chapter will follow the content analysis method described in the previous chapter. The research results obtained from the project managers will be grouped by following the research model objectives:

- To determine team creative performance and its role and benefits for the whole project.
- To analyze team factors that are important for the team creative performance.
- To analyze the leadership methods and competencies that influence the team creative performance.
- To determine the remote work factors that influence the team creative performance.

Having all this in mind, this empirical research and the structure how the upcoming chapter will unfold is presented below. The question will be presented and the answers from various respondents will be included. It needs to be mentioned that the more answers are presented, the more divergent views on that specific topic the project managers hold. If the views are similar and the pattern among the answers, the most detailed answer will be provided with a mention that project managers share the same view on this subject.

3.1 Team creative performance and its role for the whole project

Q1. Could you explain how do you describe/understand team creative performance?

The question how do you understand the team creative performed was asked to set out what believes the project managers who work in this organization hold about this phenomena, and what it means in their team context. The plethora of answers given above paints a wide picture how the team creative performance is understood.

PM 1 provided an eloquent answer that encapsulated the meaning of team creative

performance: *"For me the team creative performance comes down whether it's an individual or a group really kind of comes down to lateral thinking so moving away from the norm that they've been doing and looking at from a lateral perspective what things you can do, which is the premises of project management".* This answer matches the answer provided by

PM 4 identified it as a framework that facilitates creativity and team creative performance, *'So for me, what I understand by this question is, you know, it's a framework for getting creative work done as a team, you know, the steps that you use in order to think creatively and the process that you don't know about. That's my understanding of it".*

PM 8 describes it in this way: *Team's capacity to solve problems using alternative means or coming up with new solutions. I think teams' creative performance is directly tied to growth mentality - constantly asking what can be done better or how to approach tasks that they have never encountered before".*

PM 3: says *"I think there are probably and a few elements to it but I think ultimately it is having a team or empowering a team and individuals within that team to be self-sufficient. Also it's about critical thinking, creating new ideas and being innovative, but there's also dominantly about problem solving as well all the blockers how do we get around them. I'm here to help and to support, right, but I shouldn't be here to give everybody all the answers. and I really try not to do that if someone comes to me with a problem."*

PM 5 said this: *Well, in my own opinion, team creative performance for me is when me as a project manager and my team has a need to discover or create an innovative product, but I don't think it is limited only to that as it also requires innovative ways of thinking how the product and its following features will be created and implemented. One of my favorite examples, happened about 5 years ago. At that time, we tried to implement the agile methodology, and create a new product that required a flow chart how the technical infrastructure of the product should work. We tried in several ways, even tried to paint. Eventually, during the brainstorming process, me and the tech lead decided to make the process more playful and visual. I've brought my children's stack of legos from home, we color sorted the pieces of lego. Each color represented a specific work flow and infrastructure phase or piece. We started building charts that end up looking like trains, but it helped us to visualize the process and the technical structure of the product we were aiming to create. In our head we had a vision, but it was so hard to comprehend all of it since we couldn't predict and understand the user stories. Especially for me, this helped me to understand how to*

prioritize each feature."

Another PM 6 said: *"In my opinion, the team creative performance is directly related to the freedom your organization or the employee gives to look for creative solutions. In this company, we have a freedom to brainstorm at the level in which the developers can decide which technology to use and to try it out, and that creative performance comes out of freedom you're given. If you're working in the business sphere and field which is heavily regulated, you can have specific work-flows in place, from which we couldn't deviate, so there is no space for creativity.*

The second freedom comes from the prioritization of the workload which gives freedom for the team creative performance. Recently, I had the situation in my team when I had only two de-velopers left in my team. The senior and the junior developer. And both of them were carrying a workload that needed to be done by four people. And for me, it was incredibly important just to find time for them in the calendar to simply schedule a brainstorm session. Because you're going to drawn and drawn in work, the only thing that exists is prioritization. You need to step back and understand how important that is on the organizational level. If you have a specific time scheduled to brainstorm, we just sit down and think of the potential issue we have that needs to be solved. And every time, that hour will be used productively for discussions, and that's were team creative performance emerges.

PM 2 says*: But this needs to be supported by the company, because the project manager can't have them if the company doesn't have creativity as a value. And this is directly related to the team creative performance. You can't ask the person to be creative, if you don't have the space for creativity to flourish."*

In summary, by trying to articulate their understanding about the team creative perfor-mance, the project managers described it as the framework based on the lateral thinking which indicates how the company's problems should be approached in an unusual and creative way as a team. The team creative performance is the mindset - the project team which seeks to enhance the team creative performance should be looking for alternative solutions if the processes and de-liverables do not progress in the project or the problems are encountered during the way. The team creative performance was also defined as empowerment for self-sufficiency, critical think-ing skills.

The project managers who are working in the tech projects, also tapped to the technical and engineering aspect of creativity. The visualization of creative process and the technical infrastructure was strongly dominant answer. This is no surprise as the product owners and the head of engineering are responsible for the product visualization and creation in the organization as they create and monitor the product roadmap. This shows, how the team creative performance is directly related to the work processes as one product owner wanted the barnstorming and visualization of that product session to be playful and innovative as well. Even more, the team creative performance is closely related to the freedom the organization gives for the tech team to decide their own technological approach and technical framework how the work will be carried out. and they should not be constrained by any frames that limit their creativity. This shows how the team creative performance could be defined as the authority to decide the creative solution. Also, the team creative performance once again emerges in the brainstorming session, but they need to be prioritized so that the tech teams would not be distracted by the ad hoc and maintenance issues. Once again, the company needs to understand that creativity and the team creative performance should be treated as one of the company's values and support the tech teams if they are struggling with improving and sustaining creative performance. Th team creative performance was once again, also linked to the mindset how to solve the issues creatively, but in the tech team the definition was linked with the deeper understanding of the core issue, or the highest-level issue that disrupts the product implementation and its delivery that cause smaller issues. All, answers indicate how individual's definitions shares the same understanding domain, but at the same time will be very context dependent. Most importantly, the answers already showcase the creative leadership competencies that will be discussed later.

Q2. Please identify the role of team creative performance in every stage of project life cycle: Initiating, Planning, Executing, Monitoring & Control, and Closing? In which stages the project team creative performance is the most important?

PM 6 provides her opinion which formed a dominant pattern in the tech managers' understanding and was mentioned several times: *"The most important part is Initiating were you're collecting the requirements, and this comes down to my initial idea to simply finding time to be creative. If no one is going to identify that we need that creativity, we will be stuck in a rut. That*

initiation has a push which signals, look, there is a problem, and here I think it's incredibly important to have the mindset that recognizes let's say, repetitiveness in the things that are being done, and my creativity gets activated to solve this mundane work tasks, where the team starts thinking how they could improve their situation, and start doing things differently. And, also another part such as execution, is also relatively important too. And this is directly related to your experience and the development of skills. The more life cycles you generate or go through in the Executing phase, the more experience you get to code the new features creatively.".

PM 5 also expressed the same view: *Personally, I think the biggest impact the team creative performance has in the initial stages of the project. So the most resources should be allocated to the Initiating and Planning project life cycle phases. For us the idea needs to turn into a visual body of a product or a feature. In later stages, creativity can decrease, and I can give a good reason why. In the execution stage, let's say we need to create a new feature, robot, or something else, we write down the requirements to create it. For me, the development stage in the tech environment, is the same as the execution phase in any of the projects. In the execution/development stage there can be a high level of creativity. Although coding/writing code is very structured and there are certain rules, as I've learned from many years in the teach field, there is a saying that says: "there is a beauty in code", and it shows you two options how you can go. You can develop a feature in a very straightforward way, and you can think something beyond this.*

PM 7 once again highlights the dominance of the team creative performance in the execution phase: *"Speaking about the execution, and we know from the backlog that there is a so-called x feature we need to implement, and here you end up having the team creative performance. For example, the company tells you to create the user logins, but you tell them to do those logins with social media platform logins because everyone is using them, that's how you end up with coming up with creative solutions."*

PM 8 provides her own perspective: *"in Executing team creative performance plays a very big role. This is where most of team's creative performance shines through as they look for ways to deliver higher results and work more efficiently. My project is of very large scale. For instance, it involves calculating internal link text ratio for 20 URLs and adjusting current internal linking strategy to get our internal link text ratio as close to competitive average as possible to improve search engine rankings). If done inefficiently, it can be very time consuming. My SOPs and templates, however, were based on a single silo that I myself did, so that creative challenge for my*

team was to establish processes and creative approaches to the task that would improve efficiency for big volumes of data they were working with. Also, creative performance is very important in the closing stage, but mostly it falls on manager's part. It's important to approach this stage creatively so that the team sees the situation not really as an end but rather as a new beginning and an opportunity to seek for more challenges."

PM 2 said provides the answer that the team creative performance should be understood as an integral part of each project life cycle stage: *"I mean creative performance means if the people that operate under the premises of the status quo, go through the life cycle motions, and never really kind of identifying what can be improved, why it can be improved, or what could be more creative. And that is creative thinking in that sense."* They follow the mindset if something is *working why should it be improved. The problem is that that if you're delivering to a manager, or you're delivering to a client, or you're delivering to a business, for an affiliate, if you're not doing new things to keep their business energized, you allow it to remain in the status quo. And to avoid that, it must be equally distributed in each stage. I've seen a lot of times, where teams that come together, kind of go wrong when they emphasize too much in one section, and don't give equal standing to every single method. So my answer to that, and I stick by this, is that if you don't allow that critical thinking, that creative performance in every stage including closing, especially when closing a project if the managers and the team just allow their work to speak for themselves, it might not get the message across exactly so every single stage must have equal standing to that kind of creative performance."*.

PM 3 described the view dominant among three non-technical project managers: *"It's absolutely evident in all stages. Initiating I think is an obvious one. There's the identification of what the problem is or what it is you're trying to solve or what you're trying to achieve before you even think about how you're going to do it. you go through the process with initiation of the problem, research of other ways that other businesses have done things, I think you go through the process of brainstorming your own ideas and sharing them and getting the feedback because that's obviously it like it should be a collaborative process right there's no point of having these ideas not showing them nothing. During the one to one with the senior management or brainstorming sessions, I do try to make to create the environment in which they can share their ideas. Also, you can still have some degree of flexibility in how you plan the delivery and how much team creative performance can be allowed here, but typically in our work environment, this is usually governed*

by some sort of methodology, so obviously we have an agile process, but I think you could still kind of have some flexibility. And when it comes to the execution, I think the greater performance element comes in there when you think about feedback loop. Even if you take the example where you release code, we still need to tell the other teams besides the development team, that the code is being released that new feature exists, right? Because then you want the other teams to go and look at it on the website, or whatever the case may be and say, OK there's a bug or actually we've released that, if we did X, Y or Z that would actually make it even better. That to me that's where the feedback loop from others is essential to facilitate creative team understanding. And then thinking about the other ones I had monitoring and controlling where less team creative performance is used, but I think you still can apply it/ I think you still can't get it because when you're monitoring controlling you think typically of what is it that we are measuring to control. And then you can question, you can be creative and use your critical thinking to ask if we are measuring the right thing or is there a better measure how we control this by constantly looking at the data. And the closing stage I think it's just an extension of all the other phases of the project. That's your chance for reflection where you will go back through all those stages to check if we did it well is there something we could have improved is there something we can do better based on what we what we've done already.

Generally, all project managers undoubtedly agreed that the planning and initiating phases, are the project life cycle phases in which the team creative performance is necessary and emerges the most. Nevertheless, the divergent view appeared between the tech project managers and the non tech project managers. The tech managers answers empathizes that the team creative performance is not only related not to the idea generation, but the need to create a feature that is multi-faceted, and bug free. In the tech team, the project life cycles are also strongly linked with the improvement of the team creative performance. The tech teams who generate the identical project life cycle managed to recognize the repetitive workflows, will start looking for the solutions how to improve these processes. Therefore, in the execution phase their team creative performance will emerge mostly. This obviously comes from their experience. Although the tech team needs to be aware of the feature requirements, if the tech team is willing to think how the entire product can be improved, the team creative performance will be very dominant in the execution phase. The answers are directly affected by the Agile methodologies and the structure how the tasks are

structured and released into the production, which is not surprising.

On the other hand, the project managers who were not directly working with the tech products, shared a more holistic and broad view how team creative performance needs to unfold in the project life cycle stages. Therefore, for the non-tech project managers, each project life cycle stage had the same importance as it was necessary to ensure that the team is not staying in the status quo and continuously seeking to improve both the work processes and their deliverables. It was also mentioned several times that the closing stage tends to be overlooked as in this stage the new possibilities are evaluated and are presented and the team have the time to reflect on their creative processes' implementation. The feedback loop gains a lot of significance in the closing stage as other departments and teams are invited to evaluate the impact a new delivery it has to their projects and the entire product.

Q3. Please indicate the factors that improve team creative performance.

PM 2 gives a brief answer: *"That's all part of trust in my opinion, and collaborative problem-solving and probably the ability to make a decision."*

PM 3 responded: *"I think the safe environment we already mentioned but I think that is really important I know like in the past when we have done things you have to read the room right and you can see some people have an idea but they're almost two too scared to do it. If you want people to be creative you kind of need to be creative about how you want them to be creative, if that makes sense. In the past, when I was in the office Monday to Friday 9 to 5, if we tried to run a brainstorming or ideation session in a meeting room in that office, I would get a very different outcome, if I took 20 people to a completely different location we do some sort of team building beforehand and then we have a an ideation session then I think you get a very different a very different outcome so just thinking about how you get people to be creative. And to thank people for their contributions and that's really important that I think actually executing on some of those ideas is the best feedback. If the team thinks that my idea was good enough to actually make happen right."*

The PM 1 continues on the same topic: *"The things that I found in the past in terms of creative performance, it's creating balance. For a team to work together and for everybody to give*

their very best everybody must be equally rewarded. For example, we are creating a new contract dashboard to set up a new workflow. Everybody contributing to the dashboard right now will mean that they will feel accomplished in 2022, when they see the difference between how they used to work and how they will work last. In most cases in the company structures people don't make change, unless it's for the better and that directly affects team creativity in my view.

PM 4 expressed the view which was dominant among the managers: *"The positive factor for me is freedom to come up with your own ideas and freedom to look for solutions. And I think the manager is responsible for facilitating the person's creative critical thinking. And it doesn't have to be the project manager himself, it could be a senior team member, but having a person with a strong skill set tremendously improves creativity in the team."*

PM 8 express it by saying: *"I think the desire to participate in creative result generation depends, in overall, on the team and it depends on his or her personal view, commitment to produce a creative outcome"*

PM 5 highlights that: *"the manager needs to enable team members by encouraging them to offer more and better solutions than she could come up with and admitting that she needs input and fostering a positive environment."*

Almost all project managers listen open communication, trust, and feedback very the key factors that improved the team creative performance. Providing the safe environment to share the creative ideas was also mentioned and recognizing the moments when the team members want to share something was also essential in order to improve the team creativity. Taking the project team out to offsite and scheduling the team building activities prior to the brainstorming sessions was also listed as a positive factor that would positively affect the creative outcomes of the team, but this was obviously only possible before the pandemic. The project managers' gratefulness and appreciation for the teams' expression of the creative ideas, was also listed as a positive factor that would improve the team creative performance. The recognition of everyone's contribution also encourages the team creative performance, but the team also need to understand what kind of impact their generate ideas had on the project. Another positive factor that came up, was freedom to make the choices how the problems will be approached. Also, the support by the team members with a stronger skill, whether it is project manager or the senior team member, set when the creative ideas need to be executed was listed as a positive factor. Commitment to the creative ides should

was also positively linked to the team creative performance. Also, the answers highlight that the team creative performance needs to be encouraged by the manager, but also by the team itself. The facilitation of creative outcomes is a reciprocal and a collaborative process.

Q4. According to your experience which factors might negatively influence team creative performance?

PM 8 said: *"So I have an example where I noticed that initially, when I first became a manager of that team, I made myself available as the source of information for any question and it fostered an environment where my team was not motivated to take ownership and come up with their own procedures. I adjusted that by putting emphasis on the fact that as mid-senior specialists, they should already know more than me in certain fields and that I trust their expertise and judgments to make the right calls or design their own goals. From that, quite a few diverse ideas were born, and things have improved significantly.*

PM 5 says: *"If you come as a team member, and you have some creative ideas, and you're being told by the team lead, thanks for your opinion, but it's not relevant, obviously not in a direct way, this is just bad and it will hurt all creative ideas"*

PM 6 also expands on negative environment which was dominant answer and says: *"I think the lack of tolerance for ideas really hurts the team creative performance. Sarcasm, inability to accept someone else's opinion, mockery at creative ideas, all of that negatively impacts the team creative performance. If you're constantly in the environment in which there are people who constantly push back your creative ideas. We have a real-life example to illustrate this. Currently, we're working with another team, who are very careful about changing the processes. They follow the mindset "until it's working, don't touch it". And it tragically hinders our creativity. We end up proposing things, even have concrete plans how to execute this, and then you get the question "but why do you need that if it's working".*

PM 4 provides the similar situation:" *I think that unfortunately when you have one person that is not engaging , that is not communicating, you know, and you're working together towards improving a product and you have four people in the room who are highly engaged and you have one person is not engaged and I've seen this in my career plenty of time. Unfortunately, that tends*

to bring down the entire team and you know, it's all about the vibe that you're creating within that room. If you have one person, that's not engaging and that's not communicating. It's really setting the tone for the whole entire project, and, it's a tough one to overcome.

Another PM 1 states*: "Asking somebody or tasking some somebody without giving them any support or asking somebody to do something that doesn't apply to their skills that would most definitely create negativity. Typically influence the team creative performance. You don't go to a veterinarian say can you take my tonsils. You got the right person to give you the best results. and There's nothing wrong with allowing somebody to perform tasks that don't apply to their skills set. But you must support them, by helping them achieve a better understanding of a topic. Being a project manager is as much about nurturing the people that are doing the jobs as much as the project that you're working on."*

PM 2 believes: |*If you give expectations without explanations, you will not get any creativity from people. I have seen this in many organizations in the past, and thankfully not in this one. They would go in and I would deal with the owners who would say but they're (the team) just not giving me what I want. I would always ask; well why would they give you. It's your business. If you're not there to guide them and nurture them and given feedback they're never going to have the same vested interest unless you really invest into them. You must invest into them to get the best out of them. And that is where all starting point is, because you want to get to point B and you don't know where point A is, how can you get to point B. It's like walking aimlessly in the desert so yeah and it's about getting your team to think that way. So, I need to get to B and everybody needs to get to B at the same time, it's not so good if you have four people in the team and only one of them makes it to the destination. It's bad if four people are just aimlessly walking around in the desert because you haven't given them a definition of what they need to achieve because by the time everybody gets to the point B, one person gets to B, while the two other people have died because of dehydration because they haven't drunk anything "*

PM 3 provides the summary of all negative factors mentioned above*: I think so they are almost the inverse of the positives really. They are overbearing voices in the room so stifling people and not allowing them to get their voice heard leaders taking over. Also, if you never leave the same 4 walls and you are asking people to do things in exactly the same way it can't create an*

environment of creativity. For me, the role of the leader is to set the background and the set of the rules or the parameters of how the creative session should work to prevent all the negatives"

PM 7 provides a descriptive answer of the negative factors: *"If you want to have a dysfunctional and closed team, all you need to do, is to create a blame culture in which people would be afraid to express their ideas and would be blamed for their mistakes and failures."*

With regards to negative factors that disrupt the team creative performance, seeing it from the teams' view, after one of respondents made herself available to any inquiries, the team assumed that the project manager wanted to take over and regulate and monitor every process. Thus, the lack of ownership and the monitoring hindered the team's pro activity and creative performance. The lack of tolerance and support for the creative ideas, and the push-back experienced by other project teams also could negatively affect the team creative performance. Disrespect to voice creative and out of the box ideas as well as a pushback to innovative ways of system improvements of working caused by other project teams were also noted as a negative factor that demotivates the team members to engage to the creative idea generation. However, the pushback can also take place inside the team, expect the creative performance becomes hindered not due to the manager's fault but due to the lack of motivation and commitment and the team engagement by the team members. The project managers inability to provide the support, if the task is given to the less experienced team members can have a strong negative effect on the team creative performance. The managers tend to make the mistake by supporting the individual creative and talents, and not focusing on the team creative performance all together. This highlights how important is for the project managers to promote the organization vision and be a supporting leader who seeks that everyone would be involved in the execution of the creative idea outcome. Additionally, the lack of feedback once the creative ideas are implemented can hurt the team creativity. The dysfunctional behavior by the manager   can also strongly contribute and negatively affect the team creative performance. If the managers don't eliminate the blame and criticism in the team for their failures during the creative process implementation, this will significantly hurt the team creativity. In summary, the lack of support, inability to create a vision for the team hinders all of team creative performance.

Q5. Could you describe what kind of benefits team creative performance brings to an overall project?

PM 6 said: "*I have several successful examples to share. Our team of developers sat down and came up how to redo one feature where they used a different programming code and access to the technical thing, and we saved so many organization's resources, which obviously means money. So in my opinion, the team creative performance for the organization brings profit. I think, directly or indirectly creativity is always profitable. The direct benefit is that the team minimizes the need for resources, increased the profit, but at the same time, there is an emotional benefit, especially when you're creative and creatively redone one of your internal processes, let's say you have improved the framework, the team becomes more motivated. They feel have that their work has brought the benefit and the feel that reward that their creativity was recognized and accepted. After that I saw how they were eager to do something similar, which in my opinion, was incredible.*"

Another PM 8 elaborates on the team its by saying: *"Team creative performance in the end will increase the efficiency of teams, and that will bring better results, new processes that can be applied in other projects or scaled to other teams. I see that this creativity, eventually can evolve into the entire company being the leader of their industry that everyone follows instead of one that looks up to their competition."*

PM 3 expands the list of psychological benefits, the team creative performance provided for the team's wellbeing. These answers were found in several interviews*: "I use all these words interchangeably, but they are engagement, ownership, pride empowerment and all of these things I think are a collective way of describing the benefits when people feel good because eventually, it's encouraging the teams to think about things creatively. When the team can see the impact that they've had on the business which also just makes it feel really good right. The other benefit is how we could improve teamwork itself. And from a business perspective there is a very clear benefits, potentially, from both the revenue and process efficiency point of view. You could come up with an idea that could be a multimillion dollar idea. Or you could come up with an idea that saves hours, days or even months in the terms of resources. Then extending that out, there are the benefits for the end user. If we are creative in our approach and creative in how we look at projects, and what products we want to build, then I'll see it just leads to a much greater and much improved user experience which will increase the user base."*

PM 1 approaches the benefits from another angle, saying this. Several managers also expressed the same belief: "*Everybody feels contributed and a team works together to get to a destination, then they are excelling, they are strengthening their own skills because they are collaboratively working their learning and being exposed to other skills and then externally what the ultimate aim is that when you get to be the person that's happy will be happy with what you presented to them. Everybody has work together and they have strengthened their own skill where it almost becomes about breaking a fear barrier when the team especially has been working with something brand new. They will of gain strength by working collaboratively and learn more. And that means that you should get a higher result with next ask or a project.* "

All in all, all project managers highlighted that the team creative performance brings the abundance of the benefits. The answers that demonstrate both tangible and psychological benefits for the team. The tangible benefits range from the saved resources, time, better work processes, money or even the acquirement of leadership in the market in which the company operates. The revue and process efficiency were dominating throughout the answers.

The psychological benefits include the improved team motivation, recognition for their team creative inputs, team efficiency, team engagement, ownership, empowerment. One of the answers illustrates that by looking creative solutions to do your work and successfully implementing them, can scale to other teams. This can work as a good example that inspires other teams to follow in the creative team's footsteps. The collaborative working that is part of the team creative performance also helps to improve the personal skills of each individual team members. One important benefit emerged out of the responses. Regardless, if the team creative performance was successful of not, the benefits are still evident because the team get rids of the fear to fail, which is an unavoidable part of the team creative performance and they come stronger and more ready for the new challenge as they are more experienced.

Interestingly, the team creative performance could bring the benefits outside the company as well. The thought and creative effort put into the product is felt by the product users. The desire to improve their experience is the mindset each company seeks to encourage in the organization's team. This also shows how the everyone who is involved in the product life cycle is benefiting from the team creative performance.

3.2 Team factors that are important for the team creative performance

Q6. Did team cohesion affect team creative performance? What kind of effect it had on a team creative performance?

PM 5 said: *"It would be ideal that everyone would contribute equally and would be aligned to work to reach the key creative objective. The goal comes most likely from the team leader, and the dominating members of the team. The ones that are not dominating won't be putting sticks into your wheels, but they won't have the desire to initiate anything."*

PM 4 expressed this commentary: "*for me, team, cohesion, or lack of it strongly affects teams ability to be creative. And I've seen it before, it's really affected the ability for us to set a clear objective to make decisions, effectively. And also, to be able to communicate open and effectively, just thinking back on some of the projects. I've experienced positive team cohesion, which ends up having a really positive effect on the overall, just in terms of delivery. And probably a lack of team cohesion would stall the project or make it laps. Or it'll make it go on for longer than it needs to. So, you know, cohesion is super important for the overall project."*

Conversely, PM 3 brought out the benefits the team reaps if they are working cohesively, this pattern was emerged in several answers. "*If you look at it from an internal perspective to start with, everybody will have achieved the shared goal because you have got to your destination. Every time a team works together to get to a destination they are excelling. They are strengthening their own skills because they are collaboratively working, they are learning and being exposed to other skills. And then externally what the ultimate aim is the person that's waiting for you at the end of result will be happy with what you presented to them. Now that could be a client, it could be a manager, it could be a board of committee. . However, there are times when you haven't achieved what was expected, but because everybody's working together and they have strengthened their own skills, especially if it's something brand new they will of gain strength by working collaboratively and learn more. This is a natural part of every creative process. So, this means that for the next task, more people can input which means that you should get a higher result.*

PM 6 describes how the team cohesion builds trust among the team members: "*I think team cohesion plays a massive part. If you had a disjointed team, a team that doesn't trust each other and you aren't gonna achieve anything. And the fact that we all are largely unable to meet very*

often in a real life setting because of the current situation which I think has been problematic in various respects. When I think about how we have worked together with the senior management team in the recent year, we have formed a shared belief in one another, we work well together, we trust each other. I think that allows us not only to pat each other on the back, but also, we are not afraid to disagree. For me, that's an important element of team cohesion, and it's hugely important in being able to both draw the ideas out and then execute on them."

PM 7 elaborates on another benefit which was not mentioned: "*We have plenty of deliverables and features that need to be done, and because my team has bonded so well, the team is cohesive, and they are keen to help for each other. The team creative performance comes once the team hears your problems and they think about them, you can get creative solutions out them when they try to help for each other. The sense of loneliness disappears because the whole team is thinking about your issue collectively."*

Every project manager who participated in these interviews confirmed that team cohesion plays a positive role in facilitating the team creative performance by ensuring that the projects are delivered successfully, followed by the feeling of accomplishment and the exposure to different set of skills each team member has, which eventually allows for the team to grow and provide the better creative inputs in the future projects. The team cohesion also brings the sense of trust. One of the interesting factors team cohesions brings to the team creative performance, is the lack of fear among the team members to have a healthy disagreement over the issues they are solving. This factor was really dominant in several answers. The project managers agreed that the project teams displayed more dedication and were motivated in terms of the team creative performance if the team cohesion was present. The team cohesion also encourages the team members to help each other if they are struggling with individual tasks, and the unindividual team members do not feel left out.

Nevertheless, the project managers experienced the challenges when the team cohesion was disturbed by the team members who weren't proactive and passively engaged into the tasks. If the teams had passive team members, the project manager and the rest of the team started failing to make effective decisions and follow the objectives. The commentaries highlighted the dangers lack of team cohesion brings to the organization. The obvious consequence was the project delays, followed by the increased lack of trust in the members who are not participating, and the general feeling of lack of trust later in the entire team.

Q7. Did team members' engagement in project affect team creative performance? What kind of effect it had on a team creative performance?

PM 4 shared the negative experience about the individuals who do not want to engage in the tasks. *"But, like, if anytime you have somebody that is not collaborating, it drags down the entire team. Unfortunately, the negative just becomes very contagious within the group. And I think once that happens is really hard to stop it happening. And I think sometimes you need to take a pause and regroup and you know, first of all address that. But yes, it can be it can be really challenging to eliminate."*

PM 6 gives her example: *"I think here is important to mention, that although the work is creative, there has to be a system. And by saying the system, I mean that brainstorming sessions need to be identified, you need a person who is simply working as an administrator who records everything, but the frames and structure need to be there. For example, if there is only chaos in these brainstorming sessions, people lose the sense of engagement. They start asking if we are going to do anything, or we just wrote down the ideas on the white board. If you want your team to be engaged, you need to show them that you're actually planning to do one of the solutions and we will implement this for sure. If you allow them to be creative, but there won't be any result, we started, and didn't finish that implementation of the creative idea, they sort of lose the trust in the project manager and the company."*

PM 1 who shared one of his recent struggles*:* *"I have a prime example for that, recently we have started to create a new management system, and one of our managers is fantastic at this where she shares her knowledge on using kind of applications that are available to you as a software. And I thought I had great knowledge, but it just doesn't touch on some of the stuff that she's done, but she's really specialized in this. And when I requested to create a new management system for the deliveries, I know she's kind of following everything that I am explaining, and I think she is following me, but I'm just not sure still, so I'm second guessing, so I just send my other team members to explain everything to her once again, because I didn't want it to come from me, and they identified the issue I couldn't solve. So for me, this is a prime example of collaborative working.*

PM 2 introduces the real example: "*The sports players pages is a good example, and I think when we think about how engaged we areas as within, the senior management team we have a*

different spectrum of knowledge of that particular sport branch, and of what a potential user of those pages would want to see. And although our experiences are very different, all of us are equally as engaged at engaged with that project and trying to make the page is as good as they can be for our end user right. In our company we have the value called "passion for players". So having the team engaged in this strategy and in the values, allows us to bring different things to the table and therefore ultimately end up with a with a better product."

PM 5 provides a very interesting point about collective task engagement: *The more the team members are engaged, the better the performance. But I have my opinion about the task engagement. I had the top manager in one of the training sessions with my team when this top manager just wanted to shadow me in one of the brainstorming sessions, and evaluate my performance, while he was pretending that he was there for other reasons. He was monitoring me, I started making mistakes, had doubts how to approach the task with the team, and I felt, like I was at the exam, but I didn't have to learn anything. I can't comment on my team how they felt, but I think it was the same. I would have felt more relaxed if there was no evaluation if that feedback wasn't provided in terms how bad or well, I have performed. Or if the team lead, participates I would love to if he withholds any judgment about my performance during the creative input implementation. That's why I think creativity starts to flourish when you remove the monitoring.*

PM 7 described how the task engagement is enhanced in the tech team*: "If you want to increase the team members' engagement, you need to encourage the ownership of their work they are doing. This means that you allow them to spend time with task, explore it, because they need to understand it and it's the only way for them to become owners. Another part of the team task engagement is directly related to the Agile and the ceremonies we have there. For example, we have a demo session during which you represent the feature, you give the person who was implementing and executing that feature to represent it. That's how he or she becomes the owner of the entire feature creation life cycle. And yes, he got the task from some top manager, but he lived with it, thought how to solve it and discussed that with his team in which the team creative performance, and at the end he or the part of the team, which was working with it, represent that feature. And the more time you spend with that task, the more comfortable you end up feeling talking about it and the more creative you get. This is the biggest engagement you could ever create, and you need to do it with every team member."*

Once again, the project managers mentioned how they struggled with the team creative performance if the collective task engagement was not present. The project managers experienced the positive effects of the members' collective task engagement, but it had to be done under several circumstances.

The collective task engagement needs to be structured to get the best results out of the team. This means that the project manager is responsible to ensure that the system is in place to track down the creative ideas and inputs otherwise the team will lose the sense of the engagement and trust. Also, the project managers need to do their part, and ensure that the creative inputs get the green light from the senior managers that they can be completed and see the daylight. Additionally, the project managers must not leave all the idea generation among the managers, as the teams input makes the idea implementation more effective. The collective task engagement allows to avoid the miscommunication and prevents the team of making individual mistakes. The diverse opinions that emerge during the collective task engagement allow to create a better product. Especially, if the collective task engagement is done following the company's values, it provides an extra push to come up with even more creative ideas how to improve the product. Even more, the monitoring should be taken out of the collective task engagement equation for the team to feel comfortable to engage in the tasks and perform to their fullest capacity, and the ownership needs to be increased if the team creative performance needs to be improved.

Q8. Did remote work affect team creative performance? What kind of effect it had on a team creative performance?

PM 6 listed the advantages and disadvantages the remote environment brought for the creative performance: *"I think there are both pros and cons to the remote work and team creative performance. If you are far away from each other, there is more time to think about and prepare, so you come to the meeting prepared, knowing that the time is limited, you will need to coordinate. From one point of view, people got more creative, because they were isolated, they didn't have what to do, and could generate ideas in their head, but at the same time if you're having a bad day while working remotely, didn't communicate with other team members because you had a lot of work, you end up being unmotivated, you don't engage anymore, especially when remote meetings take place, especially where you end up with a lot of people, and start thinking, why I'm even talking. Remote work is not bad or good, it's just different."*

PM 8 mentions how she tried to handle the remote work issues in her project: *"For me, it's incredibly important to see the person and it's incredibly hard to work remotely. The cameras help, overcommunication also helps if the person communicates a lot, and we even talked with the team, it's better to overcommunicate by using all channels, and we somehow establish this virtual proximity, but still, our team is going to the office as much as possible and that really affects the team positively."*

PM 1 answer provides a dominating mindset among all project managers: *"Platform such as slack, messaging, emails is all great and you will get where you need to. but it will never be as happy and as good everybody shooting around and mapping out during a face-to-face meeting and creating amount so in the first part of team creative performance where you really must plan so we deal with the limitations of using technology. In remote working you often will miss a smile or a genuine feeling especially from a team leader or a project manager"*

PM 4 shares an opinion: *"Not being able to directly approach your manager or other team members, time difference, the fact that for instance my team has a few members that never personally met one another presents challenges, and creative output can be one of them. It's really hard to generate creative performance if there are no live brainstorming sessions."*

PM 5 says: *"When you think about creative performance, I think this is one of the biggest areas where it does happen in impact when you're trying to specially to create the creative environment. It's harder to take cues from when to talk, or avoid talking over one another, it's also harder to read the room. I know for my own first experience when I did when I do a town hall and you're just speaking into a camera and you know there are 30 people on the other end, right but you could probably only see but in fact I can see the faces. But bring it back to so the team creative performance, we've proven over the last 18 months right that the whole business can work with people working remotely and we are delivering as a business but when you step back and look at it there are definite things that you're missing out. As by not being in an office as you know, you don't get those corridor or coffee conversations right that you are absolutely right you know an idea sparks."*

PM 7 says: *"Generally, the remote work brings you the benefits are that a lot of information ends up being presented in a written form as we communicate in the emails, slack etc, and you have the history of conversation where you can always look at and think about it. The disadvantages the remote brings are inability to feel the psychological state of your team. And the team*

leads need to prepare for that more and it's harder for them. And coming back to the team creative performance, certain Agile ceremonies are more productive in the office. All sessions that require the brainstorming, which you can call the team creative performance sessions are more productive. And this happens because the engagement in real environment is much higher, there are no distractions in that meeting room"

When the project managers were asked how remote work affected team creative performance, the intention of this question was to investigate if the perceived proximity played any part in improving the team creative performance in the remote setting. However, the answers listed below didn't indicate that the project managers were aware about this factor. The project managers described the advantages and disadvantages the remote work brought to the team creative performance.

Surprisingly, the considerable advantage the remote work brought in this pandemic, was extra time to develop creative ideas while the team members were left in isolation, and the better documentation process as all creative ideas would get recorded in the written form during the meetings. However, the team creativity could be easily brought down by the remote issues such as lack of communication and inability to see each other live in the meetings.

The common thread between all comments received from the project managers is how the limitations of the technology hurt the team creativity especially when it comes down to the creative team output generation and brainstorming, as the team members used to be more proactive in the office environment.

The desire to get back to the office to establish a physical proximity was very strong among each project manager, as the remote work also partly eliminated the nonverbal communication which cannot be replaced with any emails and messages and it helps to build the trust among the team members, that is needed to enhance the team creative performance. The remote work also removed the project managers' ability to feel the team dynamics and the emotional state which demands the project managers to be better prepared to handle the disagreements and the negative moods in the remote setting. Additionally, the creativity, indeed can spark spontaneously, and the loss of micro interactions in the physical space, was one of the greatest loss the remote work could bring to the team creative performance.

Q9. Did team members' trust in their colleagues' (each other's) competencies affect team creative performance. What kind of effect it had on a team creative performance?

PM 6 says: *"if in the team there is a person who is very experienced technically and has high competencies, and the rest are not, and they are not interested, you end up in a situation where the competent person won't want to express his creative ideas because he won't believe in the realization of that idea itself because others are not competent enough. And on the other hand, the team member with a small number of the skill set won't approach the person who has a bigger skill set and is arrogant, won't suggest anything out of the box, because he knows that there is no point to initiate anything."*

PM 5 shares her opinion: *"It's natural that everyone in the team has their own specific roles. Not everyone can and needs to know everything. As a project manager, I can't understand the backend, and the front-end mechanism, or have the design skills. This means that as a Product Owner, I need to trust in their competencies so that we could achieve the best result. I believe my team members also trust in each other competencies. If they haven't experienced any issues in the past, in which someone purposefully didn't do his job, let's say they were releasing a new code carelessly, and others had to solve all the bugs that there found in their colleagues code release for 5 days, and later that developer came and said a wrote a new piece of code, and want to push it into a production, I don't think that other team members will be so enthusiastic. Trust is based on the past experience."*

PM 8 says: "*I do believe that if each team member is comfortable and ready to listen to others, creative performance input can come and be adapted from any skill level*."

PM 4 expands on this by saying: *"Trust in the colleagues' competencies has a very huge impact on the team creative performance. If the team members feel the sense of lack of trust, they get shy to express their ideas, especially if that idea is out of the box. And for me creativity is to offer unheard thing, but again there is a thin line between the idea being accepted as a wow or just funny. And there is one thing that I have learned recently, that in our company we have colleagues who have a high emotional intelligence, and when you feel that you can trust that person, you can ask stupid questions, and suggest stupid ideas, you have the space to open up*

The answer by PM 2 emphasizes: "*You need to trust the colleagues' competencies and give the space to fail. For example, if I see its' quicker to do it myself, but how is that person ever going*

to learn if you just taken over and done. That's why you need that coach perspective. You might be able to do in half an hour yourself know taking four hours to teach somebody. And the positive thing you don't focus that energy just thinking how things could go you know wrong you think about you know good outcome."

PM 7 highlights his view*: "For me the more accurate term would be the understanding of your colleagues' competencies is more important. For example, with time you learn about each colleagues the level of quality they can produce at the first attempt. And as the team lead you know which team member will require more time to review the feature they have created, and which ones will require less time to do a code review. This just means that one of your developers thinks about all possible cases while executing the feature and there is another one that needs more guidance and support, and you will have to dedicate more time for them. And as a project manager I trust my both team members' competencies equally."*

When the managers were asked about the team members' trust in their colleagues'. They expressed that having a highly experienced team member might increase the sense of fear among less experienced team members to share their creative ideas. This shows, how the different level of skills in the team might hinder the team creative performance. The trust in colleagues' competencies comes throughout the experience in observing how the previous outcomes were handled and delivered by the team members. It is worth to mention that the team creative performance in terms of the trust in colleagues' competencies is rather affected by openness and respect to creative ideas, than the specific skill set. The trust is also not limited to the technical competencies, but also the psychological competencies as high emotional intelligence is at play, whether they are the project managers, or the team members make others feel at ease to express the team creative ideas. The trust in the colleagues' competencies needs to have a psychological dimension. For the team to perform creatively, the project manager needs to put the emphasizes that it's okay to make the mistakes in the process and fail. In some of the cases, the project managers of the tech products need to feel who will need more guidance when they are producing a creative outcome and will need more support. Interestingly, this just proved how the competencies especially among the senior managers are related to high emotional intellect competencies.

3.3 Creative leadership methods and competencies that influence the team creative performance

Q. 10. In general, what project leader's competencies and skills are important to improve team creative performance?

PM 4 answer perfectly encapsulates this view dominant among a lot of managers: *"Active listening is the most important skill, but also it needs to be accompanied by the sensing of the team dynamics. You have to look for the cues how the person reacts in his environment, you have to see how he is struggling with something, and while you see that you need to see and initiate the right questions. First you listen, the observe, and then you ask the key question so that his creativity would get facilitated. I loved having 1-2-1 with one of my previous managers, and he told me that as I am the person right now, who leads 1-2-1, where you feel that it's fun that this person is talking to you, but you don't feel what that person is doing, so he gave me the tip to listen to people and ask questions regardless if you know the answers to these questions, you have to make the other person think that that person would understand how to answer that and would find that answer yourself."*

PM 5 mentions exactly the same,: *"As a project manager, I would like to have more psychological knowledge to feel the team dynamics. For me, it's like the heartbeat of the team and I would like to know where to press the button to make things work. I wish I knew how to bring people together to have a common view of the picture. One the tech perspective, I can't learn all technological knowledge, as a Product Owner I can only challenge them by using psychological methods. I wish to know what bait I should throw so that my team members would become proactive."*

PM 1 makes exactly the same point: "*Project leaders they must be skilled at communicating what they need to be able to effectively express a vision because you can't like we said already can't get to point B without deciding where the point A. And it's your responsibility to create that map for the journey your team will be undertaking. Once we have it in our hands, we can start thinking about the creative ways we will use, to get from one point to another.*"

PM 3 shares his view: *"you need to be able to set the right framework and structure for*

the teams to be creative and to inspire. Because if you just say, okay, I want you to go off on think about x, w, z, but you don't properly deliver the tools in order for them to be able to succeed in that then you're limiting them and you're not helping them to be able to deliver.".

PM 8 thinks: *"For me the ownership is the highlight of every team performance, whether its creative or just daily. Even more, helping the team understand that if something goes wrong, you will explain everything and will stand behind them, is really important. They start feeling safe when they're failing, and you need to allow that because that's how they are going to innovate."*

PM 7 provides his understanding: *"Honesty is very important. Honesty works both ways. If you're not honest with your team, the team won't be honest with you. I also think that you should be an expert in your area, so that means if you're going to lead the tech team, you need to understand the tech field and have a background as well, so you wouldn't end up being the people manager. The ability to solve conflicts is also important. If the project managers are saying that they don't hear any conflicts in the team, this simply means that you didn't hear about them. Trust in the team members is also necessary. You give them the ownership, even sometimes when you know that they don't have enough competencies. As the team lead you have to see each team members' competencies' matrix, you need to see that person's development path, what is his next step to his career evolution, and that's how you can maximize and help them develop their strengths"*

PM 2 expresses: *"being able not only to make the team members being inquisitive, but the leader also being inquisitive is needed. So, if someone gives an opinion or gives an idea, be prepared to ask them questions to get even more information out of them. Being creative yourself as the leader is an important skill too."*

Generally, with regards to the creative team performance, the project managers expressed the preference for the psychological competencies and skills. Honesty, active listening was one of the main skills. Another combination of skills was sensing the team dynamic and understanding when to ask the right questions to facilitate the creative thinking process. The project managers need to know how to include the company's vision to their management practises. The dominant mindset among the managers was the desire to be a supportive leader choosing the right framework to enhance the team creativity is also the skill in itself. Providing the tools was also mandatory part to make a team creative performance successful. The encouragement of ownership is regarded as a skill as well. The ability to create a positive and safe climate tends to foster the

team creativity and could be viewed as a skill too. The conflict management needs to be practiced as well. Interestingly, the project managers need to foster a creative mindset themselves as leader if they expect their team members to do the same. This indicated how the creative thinking is just important among the managers as among the team members. It needs to be mentioned that the expertise in the tech field was also indicated as skill, as for the tech project managers it helps to determine their future career paths of their team.

Q11. How did you encourage team members' cohesion during project implementation? What concrete methods did you use?

PM 6 mentions that recognition really motivates the team: "*When I work with technical people, but I don't think that it's applicable only to them, it could be used in any team, if people really care, it really resonates with people when you show them the goal their end result will bring to the company and what kind of input it will get when you implement that idea. So, encouragement to get recognition especially in the top senior management calls, your name is mentioned. For instance, one of our junior dev completed one of our Christmas goals, and I've just wrote his name in the general Slack channel which is read by everyone. He was so happy during the 1-on-1. And it's important not to take the things other and you do for granted, because it brings that sense of recognition, and you get motivated even more. And another thing when you work with tech people, they really need a scale of measurement. That's why it's important to have KPIs from the start how you will measure your creative idea implementation and if the creativity worked. Otherwise, if the feature is realized, and there is no measurement, they will end up waiting how it worked out.*"

Another PM 8 mentions this: "*you can't forget the perks such as ordering pizzas while having a brainstorming session, that are the basic things, but nonetheless important*"

PM 7 says: "*Social team buildings are very important as it can allow you to feel the team's dynamic. The team needs to understand each other as a person, it becomes easier to communicate for them at work. For example, if we have a new joiner, and if he will occupy the more important role in the team, let's say it's s Product Owner, and he or she needs to communicate with the team which has bonded, and if he or she starts working remotely, it's very hard for her to feel the bond and close to the team. And another thing, is that encourage team members' cohesion by communicating that everything what is happening in the business are the results of our work. It's not the*

individual who is doing that. So if you have a sprint board, and one team member marks his task as complete, you don't run and take another task that is free, you need to go and check if the other colleagues have the tickets in QA, or you see the colleagues' ticket in progress, ,you go and ask if you can help them, so that all of us could complete the sprint faster."

PM 2 mentions: *"I was trying to encourage that through our company's values because the values are shared. So, you can bring it back and theoretically the ideas and the conversations that you will be having will be towards this common goal."*

Another PM 3 mentioned: *"We need to value different opinions because we have experts in various subject matters. None of us can know all the answers so when we go into these brainstorming sessions, we set up the agenda what we want to achieve, and then we open the floor and go almost upside down with the table and give everyone a chance to talk."*

After determining that team cohesion is significant for the team creative performance in this tech company, another following question asked the project managers, who work in this organization was about the methods which they used to facilitate the team members' cohesion. The question was needed to determine the competencies and methods needed for that. The project managers who wanted to improve the team cohesion had to make sure that the team received the recognition for the creative contributions, which increases their motivation. The tech managers should also create the measurable assignments if they seek to improve the team members' cohesion during project implementation, as the tech teams really must see how their progress is being measured to understand where they are headed with their creative ideas. The extra incentives provided to the teams such as team building activities, perks, should not be forgotten as well. This gains an incredible significance as the new team members join the team that operates remotely. The team cohesion could be facilitated by constantly reminding about the company's values that the teams are encouraged to follow. Different opinions about the creative ideas with healthy disagreements also need to be celebrated and encouraged. Most importantly, something that emerged in the tech teams, but could be applicable to every team is the team's willingness to help the struggling members to complete the individual tasks once they are down with their own to achieve the collective goal. This is an excellent practice to facilitate the team cohesion, and as the result the team creative performance.

Q.12 How did you encourage team members' task engagement during project implementation? What concrete methods did you use?

The PM 6 emphasized this: *"One of the factors that encourage team members' task engagement is the schedule and the deadlines. And again, there is a thin line where, on one hand, you can understand the deadlines as the restrictions and limitations that hurt creativity if the deadlines are very tight"*

Another PM 1 applied one of the methods she read about in the book on how the human brain understand the reward system*: "I was just recently reading a book about neuro-science and learning and development, where they explain that our brain is craving rewards. I've made a social experiment, our senior developer is implementing one solution right now, and I had a sudden thought that he could release a mini version of the product into the production before the end of the year, and he agreed immediately, and he got really creative about it. And he accepted that so enthusiastically because I told him that we could mention this in our yearly reviews and accomplishments. And I see it as a reward."*

PM 3 puts it: *"When you think about ideation session or something along those lines, the work doesn't finish when that hour finishes. After that we have an opportunity so make sure we circulate documents, we circulate notes so that people get that chance to digest what was discussed. They also encourage the conversation further and encourage them to keep getting feedback because it doesn't just start and end within that session"*

PM 4 says: *"I try to encourage engagement by making my team explain the benefits we are having for this project. Whether it is a revenue benefit, might it be a resource benefit or a team building benefit. Just trying to make sure that people are aware of why we're spending that time doing what we're doing"*

PM 1 believes: *"it's the ownership. As the project manager you tell the team that it's not the assignment that was given to them, but it's the task they create for themselves. You need to understand the context, what is the value and what value it will bring, and who are the users of that value"*

The project managers received the same question about the methods they used to improve the team collective task engagement. The project managers mention how it was important once

again for everyone to speak, also receive feedback, the sense of ownership etc. Yet, several unique methods were mentioned that should be discussed briefly here. Having reasonable deadlines for creative work encourages the team creative performance and facilitates creativity in the team. Especially, if that deadline is reasonable, easily measurable and works as a schedule. It is also necessary that the teams need to understand what kind of benefits everyone is getting, when the project managers facilitate and encourage team members' task engagement during project implementation. The project managers ability to facilitate the teams' mindset to think about the tangible benefits their engagement should encourage the collective team members' task engagement. Another point that was made included the circulation of notes with a considerable time to think about the ideas proposed in the meetings as the teams have time to spend with the ideas.

Q13. How did you strengthen the relationships between physically dispersed team members? What concrete methods did you use?

PM 6 reminiscence on how she thanked her team for a successful creative solution implementation: *"I remember once the pandemic hit, and we deliver one very successful project, and I didn't even had a chance to see some of my team members in person, I bought each of them a box of sushi and delivered them in person. And each box had a note on which I wrote what kind of contribution that person had starting with words "thank you for" and then listed the bullet points what each person has done personally so that project would get launched. So, I think that personalized gratitude and thankfulness was so appreciated. And I think because they were reading those handwritten notes and remembered each specific thing for which they were appreciated. Also, the company has their own social virtual events that helped a lot*

Another PM 5 mentions the daily team stand-ups: *"And also, we end up developing a habit and a tradition during a daily stand up which should take at least up to 15 minutes, we have a team meeting first and during those first 20 minutes we end up talking about life. What we've done yesterday, the movies we watched etc. and it brought us together a lot and it's really hard to be creative if you don't have that feeling of bonding together which leads to trust"*

PM 7 spoke about the ceremonies in Agile: *"we have all the ceremonies in Agile. You adjust these ceremonies often. We used to have calls without the cameras really often, and we decided that we need cameras actually. And you start seeing not the 2D picture, but how actually the person*

looks like, and most importantly how he looks today. The Agile ceremonies are the key ones that encourage communication. So they are the daily standups, planning sessions, retro, refinement, and many more. Also, our team has done one thing and is important, so that the team would feel close, in the retrospective session we have this ceremony of thankfulness in which every team member needs to thank one of his teammates who helped him out in the two weeks sprint. It seems as if it's a small thing, but it really has an impact on the team. It gives recognition, and also the person who helped them, feels appreciated.

PM 3 extends on that: *"And when you think about one of the impacts of COVID around mental health but just seeing people and hearing other people is important. I have been trying to set up a social committee where we encourage your own team buildings, as for example one of our teams had a buildings team where they celebrated the team members' birthdays. I think those sorts of social interactions are important because you see how people tick and how they think outside of their work setting. Parts of our organization have done this sense, they did a national recipe and a cooking contest, and I thought that was brilliant as people all come together to bond."*

PM 2 expresses: *"I think it is important to, even when you have so many work calls, you make time to have small talk, just chat and ask people about their family, about the day, how the weekend was. It really helps for bonding as people not just colleagues and coworkers"*

PM 5 says: *"I was very initiative, invited everyone to meet every Wednesday so that I could share the news and what was going on in the top management with my team members. I wanted to have a local town hall. When I was suggesting to get back to the office, and I've promised pizzas, regular 1-2-1 one ones, and really wanted to see everyone face to face so that I would know how everyone is feeling and if they need me in any way."*

In order to improve the relationships between the team members, more than a half respondents mentioned how they sought to show their gratefulness to their team members and also to recreate the face-to-face experience in the remote environment. This was achieved once the team agreed to turn on the cameras in the meetings. One of the highlights from all answers was a situation in which the project manager personally came to visit her team members with the food delivery and the list of thigs each team member must do to make the project successful. The personal acknowledgment and gratitude for each specific contribution provided by the project manager had a very positive impact building the relationship. The daily stand up included life related topics to

bring the sense of normalcy, which allowed others to bond with each other. This shows how the project manager sought to improve the mental wellbeing of their teams. Besides the altered daily stand ups, the Agile methodology also provides a right set of ceremonies that allow to strengthen the relationships. This becomes the most prominent during the retrospective sessions, where the team members can express the gratitude to each other. This shows how the project manager sought to improve the mental wellbeing of their teams. The team building activities were mentioned frequently, and how strongly they have allowed people to bond, and reduced the stress and improved the morale throughout the pandemic. The project managers willingness to lend a listening ear and having a small chat about the person emotional state also helped to strengthen the ties among the project managers and the team members. Once the lock down restrictions were lifted and the teams were voluntarily allowed to briefly return to the offices, several project managers expressed how they wanted to physically and emotional present for the team to support them was important.

Q14. According to your opinion, did team members have enough competencies and skills to perform their work creatively? What concrete competencies and skills are especially important for team creative performance?

. PM 8 explains how she overcome her issues of lack of skills among the team members: "*I work with SEO, which is a very volatile and abstract industry, there are a lot of "correct" ways of doing something. Where you work with shifting standards and best practices, it becomes hard to evaluate the level of junior/mid specialists and especially to direct them to reliable learning sources. So no, I don't always think my team members had enough competencies to perform creatively, it requires a lot of experience. However, I encouraged them to do advanced research (read case studies, compare tools, think critically and creatively, and the results came out good.*"

PM 5 expressed this: "*I would like that my team would continue to learn and would be interested in the top trends in the tech market, and they wouldn't be afraid to leave their comfort zone and get out of the box. I have a junior developer in my team, and I allowed him to dedicate one hour per day to the Udemy coding courses. After I've told him that, he told me that he should take the course after his work hours because that's his fault that he doesn't have these skills. He started asking me why is he allowed to take these courses during work? So I sat down with him, and told "If you take these courses each day, for 1 hours for 3 months, you will get more theoretical*

knowledge, and the assignments which take you to complete two days now, will be completed in a day. This is your development"

PM 7 shares this same sentiment*: "I think loving your work creates this openness to new experiences which ultimately leads to the team creative performance. This about the profession that you love, and you naturally get interested into the newest trends, read the material etc. But also, you gain experience through daily tasks that you're doing, and that's how creative performances and ideas happen. You start seeing patterns."*

The example by PM 2 below illustrates another point: *"I think that besides good organization skills, communication skills, problem solving, the negotiation skills are necessary here. Because, you know, you have to be able to showcase the stakeholders and the project manager the change that you want to make and that have to see the benefits of that. So there needs to be a certain amount of buy-in that you get from them and we need to be able to sell it and negotiate it, and of course, we are not doing the sales job, obviously, but there definitely needs to be some sort of negotiation, and it's especially important for making sure that you were heard."*

PM 3 says: "*I'm literally thinking about research and competitiveness this right you need to be able to go and look at other ways of doing things to stimulate your own way of thinking about things. I think the most important one is the critical thinking. You don't just accept what somebody says it. Think if there is a better way of doing it, are we always solving the problem in the right way, are we measuring what we're doing the right way. So I think understanding of data is a key skill as well not just data but the measurements now. I think the last one is the empathy for the user. Once again, you need to ask the question so what is it, you are actually trying to achieve is in line with what the user wants*."

In the second half of the interview the project managers were asked to provide their opinion if their team members had enough competencies to perform their tasks, and how did that as the result affected the team creative performance. For example, the fact that the team that does not possess necessary skills should not be regarded as a negative aspect that hinders the team creative performance. Thus, the project managers' leadership methods become important here as they directly help to overcome the roadblocks in the creative process or are needed to develop the higher level of skills when dealing with team members competencies to perform their assignments creativity. One of the most important things when dealing with the lack of skills was being supporting

as a project manager, and to give the team confidence not to give up because they have not achieved a high level of expertise in their respective work field, in order for the team to be more creative, they need to be curious about new things and to be open to new experiences. The project managers also need to elicit and sustain the love for the work the team members have, as this is the best incentive to improve the creative importance and maintain the motivation. For the openness for the experience to thrive in the project teams, the project manager needs to communicate the message that learning about new things at work is completely normal part of a daily job so that team members wouldn't feel guilty of doing the self-development activities at work. And while self-development is crucial to generate creative output, the team also members need to learn how to negotiate and argue to support their creative ideas whether they are proposing that to the project managers, the team members, or other stakeholders. Other managers also emphasized the importance of having a critical mindset as a team that helps to filter and evaluate creative ideas, as well as established ways of working. Almost every project manager tried to make this point - the critical thinking skills are even more important than any technical skills, as the individuals who question the status quo simply tend to push the projects to the more creative outcomes.

Q15. According to your experience, what factors motivate team creative performance?

PM 4 noted this: *"So I think obviously the end goal of the delivery is in itself. The process in order to get there is also should be highly motivating."*

PM 7 thinks*: "Since, I've become the lead of other team leads, I know that they come to me and they know that I am an enabler, and I have the power to enable certain things in the company. They bring the ideas, and I am that manager that can help them to build the strategy how to execute them, we take an actual action item, and we move forward with that. So, the team creative performance in my team comes when other team leads bring the problem or the idea to me, and we speak what are the possible realizations to make this idea work. So, I think again, loving your job motivates the team creative performance and the wish that your teams would succeed, because if you want the team to succeed, you're looking for all possible solutions that could do that. You don't focus on one option but evaluate all alternative routes until you find the best ones. Another motivating factor is the wish that the organization would succeed. Also, they experience the self-realization that would really motivates the team creative performance."*

PM 1 says that active listening is needed too: *"Everybody having equal standing and engaging in a healthy level of competition. Also feeling that they are being heard is crucial. It might not necessarily mean that they are right but being heard and validated and then receiving feedback helps the team not get discouraged if something goes not according to the plan, or in the way they have imagined."*

PM 2 expresses his view*: "Some things I try to encourage within my team to have a team member of the month, somebody who really delivered above expectations within a project. I give them the employee of the month title; you simply praise them and recognize them. And they become really competitive with each other, but it's healthy competition and it helps to get the tasks done. You need to celebrate their success and you need to do that for motivation otherwise it's just going to be that they are working, working, working, and nothing else."*

PM 3 expresses: *"I think that comes down to individuals because we all have different motivations. Money is more important to some people than others are feeling the need of being recognized and get a great job recognition. I think it does come down to individuals and a lot of it ties into a fact that, you as a project manager need to understand the people you work with. Because if we know then we should give them a 50-pound gift card, or if you are one of those people that needs a pat on the back to say well done. You kind of must again read the room and understand what motivates the people you work with it's important to find the balance between these two you know external and internal factors. And if you find that, I think you should be good like your team will perform much better creatively, because they will find something suitable for them each."*

Without any doubt, the motivation is one of the most major drivers to execute the creative ideas and turn them to real products or services within the tech organization. When being asked about the motivational drivers behind the team creative performance that makes the team outperform, the project managers collectively agreed that pushing them above their comfort level was very important. It was also mentioned that the end of the project should be motivating the team, accompanied by the healthy levels of competition and the equal contribution to the creative idea delivery. The project managers also should practice active listening and for their teams to create the sense of the being heard. The support once again is also important and emerges here what the project leaders can do especially in order to keep their team motivated, as this once again creates a psychological safety. One of the motivating factors, which was mentioned two times as well was

the employee of the month, so we can see how the recognition is tightly related to motivation once again. The project managers must be aware how to strike the balance between the external and internal factors that motivate the teams' creativity inputs. This shows that the managers cannot ignore the individual motivational needs if they want to make the most out of them and sustain creative efficiency in the teams. Also, the senior project managers who are managing the other team leads, know that getting the approval to fulfil their teams' visions and allocating the resources is the biggest motivational factor that directly affects the team creative performance. Last but not least, the managers themselves are obviously mostly motivated by the need for their teams to succeed so they will look for all alternative solutions to help them, and this is again closely tight to the team creative performance.

Q 16. In general, what concrete/specific leadership methods/techniques did you use to improve your team's creative performance?

PM 4 describes the challenges she faced. This view was very dominant as the company has the mandatory self-development plans the managers need to create with their team members: *"I probably should get better with goal setting processes. I think that, you know, we, we have a habit of setting goals once a year or once a quarter and I don't think there's enough tracking thing done on my end on that and that's really important because that obviously improves team creative performance on an individual basis. And I think that's probably something I've not done exceptionally well, because it's so easy for it to get and, you know, pushed to the side, given everything that we are trying to achieve. But definitely having a good tracking system in place for performance, having constant chats about one's performance and how it can be improved, shadowing, coaching all of that is super important, and I try to do that as much as I can. "*

The PM 3 identifies the methods he has used: *"Over the last few years I have done various management and the leadership courses. And I know, for example I came back as a pacesetter, and I'll be honest that didn't really surprise me. I want to achieve, and I want to achieve quickly, but that's where you have to consciously think about. How you encourage the team to come to you for me is more about how I adapt my leadership style based on the situation and on the team that you have. In a lot of scenarios, I kind of have to take a step back and understand that other people have a different view. and a lot of the time I have to flip to the methods, where I'm not giving all the answers, even though sometimes I know exactly what we need to do, how we need to solve the*

problem. But just saying that isn't going to help that person to do it. So thinking about it in that sense and how do I get that answer out of that person rather than me giving them the answer, is the best practice one could use not only for a creative ideas, but any project tasks."

PM 7 believes: "*I think of myself as a servant leader, and obviously because I work with Agile it's all about the servant leadership. The servant leader is listening actively a lot. If you're looking from the behavioral perspective, sometimes where are people who come to me and they already know the answers, and all you need to do is to listen to them, ask the right questions, and they will tell you the answers. Others need confirmation or guidance. So, the key leadership elements for me also regarding the team creative performance are active listening, and if your team member chooses is the correct one, and it suits all organizational values, the team values, the vision, you just tell them go for it. When I ask the question myself, what I as a manager can do to make that team member to achieve his or her goal faster. For example, it could require me to connect those managers with certain people, or more meetings are needed among several managers to grasp the idea that is proposed, or it could be tools such as a specific software they need to achieve their goal. And my most important thing I live by, is that I need to teach my team mates to look for the answers themselves. I had a recent example with one of my team members, where we are discussing issues, and I told him that his goal is not to understand where to change the line in the programming code, but why does he need to change that programming code line.*"

When asked about the specific leadership methods they used, the project managers started highlighting their leadership styles. The project managers, who work in the tech projects said that they are following the servant and agile leadership methodologies.

The reaming ones, without identifying their leadership style mentioned how necessary it was for them, to allow the team members to speak first, share ownership, maintain a personable approach. It is important to add, that this tech company is largely engaged in the development of their employees. Therefore, several project managers also highlighted that the personalized development plans for each team member is a crucial aspect that would highly benefit from the improved team creative performance, and the project managers have the responsibility to support and nurture the team members. Nevertheless, it can become quite neglected on the manager's part during work. What emerged out of the answers for these questions, was the fact that although the project managers knew the answer, they actively tried to encourage and tried to teach their team members to

look for the answers themselves, rather than relay on the project manager's guidance. This was the most preferred leadership method. Also, the project managers didn't forget about reminding of the company's vision and creating a vision.

3.4 The remote work factors that influence the team creative performance

The questions will be analyzed together as the answers were incredibly intertwined, and the last two questions were serving as probing questions.

Q17. During the pandemic while you were working as a project manager, have you and your team experienced work uncertainty, loss of resources, burnouts, or other consequences of remote work?
Q 18. What kind of effect it had on a team creative performance and project implementation?
Q19: How did you deal with that? Please explain that.

PM 1 shares his experience: "*Burnout was one of them, we always suffered from that, and I think whilst the pandemic was probably quite for some people and it's show that areas where jobs will be chopped off and project work weren't continuing, for us is actually ends up being a super, super busy time. And it was so busy to a point where we were under the resource to cope with all of that business. And, you know, we just didn't have the resources to pick up all of the work.*"

The PM 4 perfectly described the atmosphere in which the teams found themselves stuck: "*The staff was frequently ill. They weren't working and uncertainty of certain events happening. We were responsible for planning the Cheltenham and other sports events, and we didn't know whether that was going to take place. So we were doing all of this work and you know, effectively planning and building projects and then the event will get canceled at the last minute. So for us to have to plan a contingency was so difficult and I think it's cause specific strain on, not only the project of but people's well-being and people's morale and people's motivation for their safety. It became very challenging; I think especially in the first few months.*"

PM 5 describes the sense of panic their team was experiencing due to uncertainty for the future and their jobs: "*At first, all of us were in panic. We were incredibly scared because all sports events got canceled. And for us it meant, that if there is no sport, there is no betting. And although we were feeling the sense of uncertainty, we had a very clear vision that the U.S, market expansion will be big and because of that we understood that we should be safe. So I can't complain.*"

PM 6 describes the situation in which he felt unable to control the team dynamics: *"In the IT field and in our production session, we have such a thing called post mortem which means that there is an issue taking place in the production, after it gets solved, you scheduled a meeting session with all teams that are related to this production, and you try to come up with the ways to ensure future prevention if the similar issue takes place and create a map for it. And my team members were there with me, and while we were discussing everything with another team, and in their (team's) tone I've heard one emotion, while my one of my team member heard that we were attacked and it's our fault that the issue happened. And in that moment, I've felt that this happened because he was experiencing burnout. I couldn't see him on camera, we weren't in the same room, of course. Because he understood that as an attack, he immediately started messaging me, and said if they are going to complain about one more thing, he will quit. And in that moment, it felt, that neither I was close to that person, neither him was close to me. The lack of physical proximity brought out negative emotions. He was seeing everything through the fog in his eyes."*

PM 2 said: *"I can remember at the beginning of the pandemic encouraging people to have a zoom day, so this is where technology actually help during a pandemic when people were locked down was encouraging because we would get online together and being in a virtual room and collectively talking and talking through ideas etc. but eventually we had to end it as people started becoming exhausted from spending so many hours on the calls."*

PM 8 says: *"During that period, a lot of my team members were either not working enough or they were working too much. And and like I saw this very, very frequently where somebody would you know, it will be 6 p.m. and it would be 8 pm and I would go and ask why are you still working and , it would come back in the answer "I have nothing else to do"*

PM 3 says: *"I saw it with the annual leave as well. No one was taking annual leave, during those moments of the pandemic because they can't go anywhere and they can't do anything. So everyone was just working."*

PM 5 said: *"For me remote work actually manifested in the feeling that I can never finish my work. And I even felt it through stages, first it made me even happy, because there was nothing else to do, and with time you become like your own prisoner, where in certain moments and through the tears, I felt that I just couldn't finish work. I would turn off my laptop after 5, and would start reading the messages on Slack, and I would understand that I am sitting in the exactly same room, with turned off laptop but it felt as if I was going insane. And we're still working much longer than*

needed, especially, while working with the U.S. market, my workday ends up feeling as if I'm working 24/7."

PM 4 brings forth her experience as a mom: *The pandemic was incredibly hard for everyone who was locked down, especially with children. And when we needed to cook for children, put my little ones for a nap, and also attend a meeting, and your child just starts shouting in a middle of your virtual meeting, eventually everyone understood that everyone is sitting in the same boat. I also think that the pandemic diminished the boundary between work and home responsibilities. Because if you came to work, you stay there and only think about the work responsibilities, you leave other thoughts isolated. But while I was at home, I would work, and I would stay at home, and you feel it's five, but you make a decision to stay a bit longer because "I need to". This made me so exhausted."*

One of the PM 2 highlighted how important was to lead by the example: *"Sometimes you need to be the leader and you need to lead by example and you need to take days off when you don't want to take them and but yes, I definitely agree it. Work life balance has been extremely thrown off."*

.PM 8 answer provides the summary of all answers about this subject matter: "*Every single lunch break, I make sure that my team have a meeting in their diary where they are not working. So they are encouraged to go out for a walk. Take a breather. If you're looking at your laptop for nine or ten hours a day, you're going to get headaches, that pressure doesn't do your mental state any good. And I also think encouraging people to do other things besides work is really important."*

PM 7 said: *"It felt like a summer at the beginning of the pandemic. And my team even started performing better than they were working in the office. But with time, you start feeling the team members feeling burnout. And the burnout comes from the fact that the device is always so close to you, that you have it even in your kitchen while eating. First it was euphoric, later it felt like the burnout, but I don't feel yet that the team creative performance suffered yet as the team is still committing to what they are doing, and I know that we will return to a status que soon."*

The PM 3 precisely captures the mindset that the project managers need to apply in these situations: *"For team creative performance, or any performance", for the managers of teams, it comes back to balance and micro adjustments. And the project manager or a team leader is not doing their job if they not constantly trading balance within teams." The lockdowns in the UK are likely to happen again, and I think there will be a regular communication with employees about*

*their mental health, is all about communication and you know collaborative working once people are in lockdown and regularly being online with each othe*r.

PM 1 respondent to the remote question and how he dealt with it by saying: *"I saw that with some members on my team and you really get to realize what people's weaknesses all when you're not with them all the time, you know, when you leave somebody to their own devices, you see what their weaknesses are."*

One PM 3 describes the actions she took to achieve that: *"There were times where motivation was that's an all-time low and I think finding ways in which you can utilize our skills, creatively in other areas is just as important. There were certain times where I gave my team job switches. And so, if for example a project wasn't going to be delivered and I saw that they were not focused on any specific. I just put them to another department where they have interest in and they can learn something in another area. And I think, I think it's called job switch. It was so, beneficial for my team, and they came back with so much more skills than they had before, and it's kept their motivation as well as work was done. If you can't change the physical environment, you can change the work environment*

PM 1 expressed exactly the same mindset: *"The micro adjustments and frequent communication allowed me to see where the team members were struggling, and I had to look at moving from one division to another cause maybe this isn't the right division maybe that's the another division in which they will find themselves."*

From examining the interview responses, although fully equipped to function remotely fully and easily, the managers in this tech company experienced the negative consequences of the pandemic. Each project manager experienced that their teams and themselves experienced the burnouts and started working prolonged work hours that there directly affected by the heavy workload. As the company wasn't on-boarding new hires during the first lock-down it experienced staff shortages as people were ill or unable to continue.

The project manager describes what kind of uncertainty the sports market in which this company operates brought for its teams. Although the gaming products skyrocketed during the pandemic, the uncertainty about the future in this tech company came from the fact that the organization wanted to be ready when and if the restrictions for sports events such as horse racing, football, and any team sports will get lifted. This sense of uncertainty forced the teams to work to

the maximum capacity, which was detrimental for the teams' wellbeing. The prolonged work hours, heavy workloads, the lack of physical proximity, and no cameras put a heavy strain on the team dynamics and especially their project managers. The consequence of remote work combined with burnout, and heavy work hours posed significant challenge to handle strong negative emotions experienced in the team. On one hand, all project managers highlighted how important communication was in the pandemic to keep the wellbeing and maintain the positive relationships in the team. Only one tech team managed to overdeliver at the start of the pandemic, and their team creative performance did not suffer as they were enjoying the lack of monitoring because the project manager was not physically present, but eventually even them started feeling the consequences of the burnout.

When asked how they deal with that all managers indicated that they tried to communicate with the project managers, but on the other hand, the communication itself became a double-edge sword. The more teams spent time on cameras and calls, the more they became exhausted, where the phenomena of Zoom fatigue set in the teams. To deal with the overwhelming number of calls, the company has launched a weekly reminder for employees across every division, to have "a Zoom Free Afternoon" at least once a week, which several managers mentioned as well.

Many project managers shared the exact same sentiment that the work hours became much longer than expected. Because of that, the life-work balance became hindered and blurred the lines between the responsibilities at home and work. Staying at home with children also took the tool on the wellbeing whether it was the team members or the project managers themselves. All these experiences signal how the team creative performance suffered throughout the pandemic, as people failed to cope with daily tasks. As people had to deal with these obstacles, coming up with new ideas became the burden rather something exciting. Nevertheless, one of the tech teams was resilient enough and managed to over deliver. Only a few managers had a specific practice how they dealt with the remote work consequences. These practices were to lead by the example and do the things you have requested your team members as a project yourself as for example, taking the annual leave yourself. The project managers also highlighted how important is to simply reach out and send a notification to take a break to clear the head out and have a hobby after work was important.

Most importantly, two project managers who were working as the head of departments,

find another way to prevent the team members for feeling a burnout or improving their mental health. At least two of have done the job switching and send the team members to other departments to get new skills during the more peaceful periods in the projects.

Q.20 In your opinion, as a project manager what kind of areas of team performance would you strengthen to maximize team creative performance?

PM 8 shares her response by saying*: "I would individual skill level. I'm working very hard on compiling resource libraries and empowering mid-level specialists move up to senior level by acquiring more competencies."*

PM 6 expressed: *"Speaking about myself, through the experience I would like to feel the balance how much freedom and how much structure I should give for my team, in terms of creativity. There is a very thin line between appearing as if I'm dictating what needs to be done, and when you aren't controlling anything. For the team, I think it's necessary to constantly encourage them to be creative. For example, you can't expect to come up with a creative solution in the middle of the year. You have to constantly engage in the ways you look for creative solutions. I think to facilitate creativity and a creative performance is a skill, even a habit to think creatively."*

Another PM 5 says: *"Where applicable I want to encourage people to get back to office working and having the environment where they can share their creative ideas, especially to get away from the remote setting as much as possible, where now you're literally in the same room. Of course, we want to continue to promote a safe environment that we talked about. Also, we need to provide a constructive criticism so taking the negativity out from the arguments."*

Another PM 2 shares that: *"Looking at recognition is this one of the key ones for me. It's been difficult because we had so much going on in the last nine months, and I probably haven't focused enough on this because as new team were formed in our product, we didn't have people in place, we didn't have our process in place too and that obviously had an impact on certain management practices. We probably are fairly good at recognition in the sense because I do congratulate people and always try to say thank you, say well done those things, but I think there probably are things we need to roll out from a tangible point of view as well in terms of like employee of the month things and many more, just make them aware how much they are appreciated for their successful creative contributions."*

PM 3 shares: *"It's communication and acknowledgment because acknowledgment covers all of the other things. I think of the two most important things to get the job done and then to keep the team motivated to do the next task."*.

The PM 4 adds several points: *"I live by 4 big steps. The first one is alignment in terms of the goals, and the second one that I mentioned previously, about making sure that we're celebrating success. Really, really important for overall motivation. And third one is probably to be able to tackle poor performance had. I'm very direct person, if something isn't working for me, I'll say it. They're always ways of saying it within each individual. I don't think you can let this vest since poor performance is one thing that you need to address it straight away. Otherwise, it will keep on getting worse and it will keep on affect the other people within the team. And my fourth is having frequent check-ins and constantly evaluate the performance. Whether it's a project you're working on, whether it's getting something. Like, you know, making sure you to keep people to update you on that progress and they really feel like they are owning that area. When they get the ability to showcase what they're working on we need to understand where we can support them in that space"*.

PM 7 wished: *"I would do a team building activities, and they would need to be organized by the third party, that would encourage people to step out of their comfort zone. I had one example with my team as we've done , that in the past we had these trainings, and we had a task to carry a green chicken egg so that it wouldn't break. Later we talked about it with the team about it. That egg was very fragile, everyone was really scared to break it, and I know how everyone is I'm going to throw it, what if he or she won't catch. And what happens during these assignments, and why they are done with a reason is that, you start thinking that maybe that egg is not so fragile, and what would actually happen if she or he caught that egg rather than missing it. And that our preconditions might be wrong, and after the task they might change completely. And the people who are silent in the office, my turn into a leader in these tasks, and he can lead the team, and later you receive. They strengthen the relationship in the team, and every team building allows you to communicate, get to know each other. And that brings trust"*

At the end of the interview, the respondents were asked to once again think which areas of team performance they would strengthen to maximize team creative performance. The question was aimed to probe the project managers to think about the problem areas and challenges they face

when they think about the team creative performance in their teams and business areas. The question also invites them to point out the factors that would benefit the team creative performance.

The answers work as a summary of the answers we have seen already. It is evident that the project managers identified their own problems areas in their own management practices. According to the project managers that work in this tech organization, the personal development, recognition and acknowledgment for the contributions, the ability to provide a safe physical environment in the office, the alignment of goals, poor performance recognition at the early stages, frequent performance evaluations, the ability to find the balance between the freedom the team is given and the structure that needs to be created for them to implement those creative solutions, and obviously the professional team building activities that bring out divergent thinking and bring together the team members outside the workspace, were listed as the desired team performance areas that would as well improve the team creative performance.

3.5 Alignment of research results with the literature analysis

As the content analysis shows, the understanding about the team creative performance and the creative leadership is incredibly rich. A variety of different answers shows the richness and complexity of this study, and how the team creative performance and creative leadership are heavily dependent on the context in which the project managers work in this organization. But now we need to understand if the research model holds validity in this paper.

Firstly, the research model sough to determine team creative performance and its role and benefits for the whole project. The analysis shows how the project managers' individual answers differentiate from one another what team creative performance, but looking at the definitions we can see how they share the same foundation and form a full and complex understanding of team creative performance:

- The lateral thinking
- Alternative solutions/ ways of working
- Creative work done as the team
- Growth mentality – what can you do better
- Critical Thinking

- Visualization
- Understanding of the root cause
- Freedom to choose the process methods

In general, the answers from the non-technical project managers represent the lateral perspective how things could be done differently and improve the current processes. For the tech project managers and their teams, the team creative performance also had an additional meaning. For them, the additional characteristics of this definition are freedom to choose the ways to execute and implement the solution, create the physical visualization of the potential product, and grasp the understanding of the root cause of the problems they are dealing with. The variety of definitions demonstrates how hard it is fit creativity into a frame too. Yet, the definitions still confirm that the context of creative team performance in this organization was facilitating, which involves specific steps or principles that can spark the creativity, and thus, evoke the team creative performance.

As the project life cycle are closely related with the successful project completion and obviously the team creative performance, it needs to be mentioned how the project managers in this company confirmed that creativity and the team creative performance need to be facilitated in the project initiation and planning stages, but after that the views differentiated. The findings suggest that two different understandings exist among the tech and non tech project managers. The tech managers expressed that the execution stage in the project life cycle also provided the plenty of scape for creativity to flourish, but that was related to the technical skills the tech teams possess, and their experience level to write the code differently. The non tech project managers expressed that each project life cycle stage caries the same weight in terms of the creative team performance. This view, as it is evident from the existing definition of team creative performance in this organization, is based on the idea of the lateral thinking, where the team evaluates in each life cycle stage what could be improved and how these projects will be integrated with other projects after receiving the feedback from the different department teams. Being consciousness of team creative performance, also allows to avoid the status quo mindset and to iterate, rather than allowing the project delivery to unfold naturally, and the teams do not think any improvements that could safe their time or the resources. Thus, the classical Blankevoort (1983) theory is confirmed, but it is hard to confirm if the tech teams sustain the creativity throughout the entire project life cycle, (Rosing, Kathrin, et al. 2018) as the project managers emphasized that the execution stage provides

the most freedom to be creative and is mostly desired in this life cycle stage.

In order to determine the benefits, the team creative performance brings to the entire project and the whole organization, the project managers had to think about the specific projects they delivered successfully. This question was not based on any creative performance theories as there were no qualitative and quantitative studies done on the tech organization who operates in the sports betting market. Thus, it sought to represent the unique benefits the company reaps if this phenomenon is present. Two types of benefits emerged which we can understand the tangible and psychological benefits.

Tangible Benefits

- Saved resources and time
- Better and improved work processes
- Increased revenue
- The inspiration for other departments to follow
- Improvement of personal skills
- Improved product and the end user experience

Psychological benefits

- Improved team motivation
- Improved creative inputs and outputs
- Team recognition
- Team efficiency
- Team engagement
- Lack of fear to fail

It could be argued that the project teams mostly benefit from the psychological benefits, while the organization itself from the tangible ones, but at the end of the day both project teams and the organization gain the abundance of benefits from both types, as these things tend to increase the morale which as the result, happy employees will commit more to creative ideas, witch will improves the organization's competitive advantage.

As the literature reviews and the team creative performance with the creative leadership

models get compared with the data gathered from the respondents, it becomes evident that the team creative factors such as team cohesion and collective task engagement (Rodríguez-Sánchez, Alma M., et al., 2017) are needed to increase the team creative performance, even if the project managers, who work in this tech organization, not always know the effective ways how to handle the team members who cause the lack of team cohesion and collective task engagement. In terms of perceived proximity (Chae, 2016), the series of answers did not support the theory that team members psychological proximity is more important than the physical proximity. With regards to the cognition-based trust, the interviews indicated that the trust in the colleagues' competencies (Chae, 2016) was essential, but that trust was not limited solely to the technical skills. Many project managers expressed that the team needs to trust in the project manager's emotional intelligence competencies, so the affect-based trust is very much present, and trust needs to be combined by these two dimensions. This suggest that the cognition-based trust is not enough to improve the team creative performance, at least in this company, hence, although the cognition-based trust as a factor is present, the theory that it is a sole factor that improves the team creative performance is denied.

One thing needs to be mentioned about the content analysis and its alignment with the theoretical background of this research. Although the team creative performance factors and leadership behavioral and competency perspectives are evidently present, their definitions provided by the project managers in this company are unique and do not precisely follow the definitions provided in the theoretical background chapter. We will further explore them once we are done with the alignment of the analysis and the theoretical background.

Looking at the argument above, the creative leadership theory is tricky to evaluate if we speak about the project managers competencies and skills. In a nutshell, a careful analysis shows that the behavioral perspectives of creative leadership were dominating, compared to the competency ones. Although the project managers directly did not indicate the leadership competencies themselves when they were asked the question: *what project leader's competencies and skills are important to improve team creative performance?* they emerged throughout other questions and answers. Therefore, the behavioral factors present in the Rickards and Moger's (2000) creative leadership model such as platform of *Understanding (POU), Shared Vision (SV), Climate (CLI), Idea Owners (IO), Learning from Experience (LFE)* (Rickards and Moger, 2000) were effectively

applied and used by the project managers in this company. The behavioral perspectives (Maine-melis, Kark and Epitropaki, 2015) from the creative leadership model such as *the Leader Support, Assigned goals, Feedback,* and *Empowerment* were also strongly dominant in the answers (Maine-melis, Kark and Epitropaki, 2015). Additionally, if we turn to the competency perspectives, Crea-tive *Thinking Skills*, and *Creative Process Management Skills,* (Mainemelis, Kark and Epitropaki, 2015) are used just as much in this company, but they were not listed directly. Hence, the need to combine these to different creative leadership models for this research was indeed necessary and was confirmed by the data.

Table 4. *The team creative performance and creative leaderships factors present in the tech com-pany that was investigated*

Team Creative Performance	Creative Leadership (Rickards and Moger, 2000)	Creative Leadership (Mainemelis, Kark and Epitropaki, 2015)
Team cohesion	Factor 1: Platform of Under-standing (POU).	**Competency Perspectives**
Team members' task engage-ment	Factor 2: Shared Vision (SV).	Creative Thinking Skills
Team members' trust in col-leagues' competencies	Factor 3: Climate (CLI).	Creative Process Management Skills
	Factor 4: Resilience (RES).	**Behavioral Perspectives**
	Factor 5: Idea Owners (IO).	Leader support
	Factor 7: Learning From Ex-perience (LFE).	Assigned goals
		Empowerment
		Feedback

Source: Compiled by the author

Speaking about the research model, the paper also sought to determine the remote work factors that influence the team creative performance. The content analysis has shown that the re-mote work during the pandemic was perceived as having both advantages and disadvantages. The positive such as extra time to develop creative ideas, better documentation process of brainstorm-ing sessions, moderate and healthy levels of communication, lack of monitoring were listed. On

the other hand, the remote work has caused far more negatives for the project managers and their teams who work in this company. Inefficient brainstorming sessions, lack of nonverbal communication, inability to handle the teams' negative emotions, burnouts, prolonged work hours, the sense of uncertainty how the company would operate at the beginning of the pandemic, followed by the Zoom Fatigue and the lack of life and work balance has been the daily reality in this organization for at least 18 months and counting. Although certain management procedures such as "Zoom Free Afternoons", leading by example, reminders to take breaks, and job switching if possible are already in place to deal with the remote work consequences, they have been used to restore the teams' mental wellbeing rather than improve the team creative performance. Therefore, the answers rather follow the reports published by Forbes (2021) than any emerging studies about the remote work productive and heightened levels of creativity which are not applicable to this tech company and can be rejected for now, as only one team in this company managed to overdeliver for a certain period, but also experienced the burnout later.

To summarize, this research model holds validity as it confirms that three out of four team creative performance factors (Rodríguez-Sánchez, Devloo, et al., 2017; Chae, 2016) are present in this tech organization and the combined two creative leadership models (Rickards & Moguer, 2000; Epitopaki, Mainemelis, & Kark, 2015) are almost fully present in this organization, expect several creative leadership factors. The remote factors that influence the team creative performance as well as benefits were identified. The understanding what team creative performance means to each project manager was also established and analyzed.

In summary, the alignment of the theoretical background and the content analysis was confirmed, and the research model was valid. It needs to be mentioned that the research instrument contained additional questions to grasp the complexity of the team creative performance and leadership that exist in this company that were not backed up by any theoretical research.

The positive and negative factors that affect the team creative performance were addressed. The findings are presented in the table below:

Table 5: *The positive and negative factors that affect the team creative performance*

Positive factors that improve team creative performance	Negative factors that improve team creative performance
Open communication	Project managers monitoring
Establish trust and provide feedback	Lack of ownership promotion
Create safe environment to share the creative ideas	Intolerance for the creative ideas
The team building activities prior to the brain-storming sessions	The push-back by other teams and the team members for creative solutions and creative ways of working
Project managers' appreciation for creative idea expression	Focusing on individual talents rather when the team creative performance
Freedom to make the choices how the problems will be approached	Manager's lack of support, inability to create vision, criticism for creative failures
The support for the less experienced team members by the team members with a stronger skill set	
The creativity facilitation by the team itself	

Source: Compiled by the author

The findings show from which factors the project managers should avoid. We can see that both positive and negative factors are related to project manager's leadership practices. These findings could be supported by the (Mainemelis, Kark & Epitropaki, 2015) argument, that although the leaderships methods are not creative themselves, they help to facilitate the creativity in the project teams. Most importantly, the list above represents the unique and concrete creative leadership practices that should be followed and avoided in this organization.

The content analysis also discloses additional leadership practices the project leaders tried to use or wish to use more themselves based on their unique experience when they had to facilitate the team creative performance. All of them expressed the preference for the psychological competencies and skills, such as the ability to control the team dynamics, include the company's vision to their creative management practises, the team conflict management, active listening, raising the right questions and teaching the team to look for the answers and the creative solutions themselves. This suggest how the standard management practices could be equally applicable and used to

encourage the team creative performance. The managers' ability to foster a creative mindset themselves as leader and creative critical thinking signal again that they are falling under the Creative Thinking Skills, and Creative Process Management Skills factors and creative leadership practices. (Mainemelis, Kark & Epitropaki, 2015). It is important to add that the answers also suggest that the team creative performance and encouragement of creativity for the project managers is based on the intuition and the years of the experience rather than some specific creative practices that they learned during the coaching sessions or creative trainings as not a single respondents mentioned that they received any trainings of this subject matter. This signals that the theories about creativity facilitation in the projects were and are still actively ignored by many companies, and further research in different companies is necessary to establish a better understanding of this phenomena.

Right now, we need to turn to the unique definitions and several team creative performance factors listed by the project managers to understand how the content analysis deviates from the theoretical background and why the definitions do not neatly follow the theory. As the theory presented by (Rodríguez-Sánchez, Devloo, et al., 2017) the team cohesion and collective task engagement work as an umbrella term that consist of specific subfactors. As creativity and creative practices are context dependent, the team creative performance factors are also incredibly unique in this organization. As the conceptualization of creative leadership theory (Mainemelis, Kark & Epitropaki, 2015) shows the project manager is the first initiator and controller of the facilitation of the creativity in the team, we need to be mindful that the project managers' leadership practices could potential be more dominant and rather form and impose team creative performance factors than recognize them. However, the fact that all participants had years of experience in management suggest how the respondents had enough skills to recognize the team creative factors first rather than impose them. Therefore, as the project managers' intuitive understanding is formed about these factors, appropriate leadership practices need to match them as the managers respond appropriately to the challenges they are facing. That's how the interconnectedness among the factors and leadership practices appears. The table bellow represents all possible factors and the numbers next the subfactors ones that were dominating among the answers:

Table 5. *The full list of the team creative performance and creative leaderships factors present in the tech company that was investigated*

Team cohesion factors	**Leadership practices for team cohesion**
The sense of accomplishment (3) The exposure to different skills (3) Healthy disagreements (3) Trust	Recognition for the creative contributions (3) Encourage Healthy Disagreements (3) Willingness to help other team members (2) Measurable Goals Team buildings and extra incentives Reminders about the company's values

Collective task engagement factor	**Leadership practices for team members' task engagement**
Creative idea approval by the senior managers (3) Respect to different creative ideas (3) Structure Process/ the system to track the creative idea implementation Collective creative idea generation	Encourage ownership (3) Provide feedback (4) Facilitate the teams' understanding of their creative impact (3) Create reasonable deadlines that is measurable and works as schedule Circulation of notes after the brainstorming sessions
Trust in team members' competencies factor	**Leadership practices for trust in team members' competencies**
Trust in colleagues' competencies is more affected by openness and respect to creative ideas, than the specific skill set (3) Chance to fail and make mistakes (3) The project managers support in working with less experienced specialists (4) Different levels of team members skills might hinder the creative performance	Supportive leader (4) Critical creative mindset as the team (2) Allow them to question the status quo (3) Promote self-development activities at work (2) Encourage openness to new experiences Sustain love for their work to maintain the motivation Coach them on the creative idea negotiation and argumentation
Remote work effects factor	**Leadership practice for remote work effects**

Advantages:	
Extra time to develop ideas	Expressions of gratefulness (5)
Better creative idea documentation processes	Team building activities (4)
Disadvantages:	Acknowledgment for each specific contribution (4)
Limitations of the technology hurt the brainstorming sessions (3)	Bonding conversations
Inability to feel the team dynamics (5)	Retro sessions in agile – thankfulness for contributions
Lack of nonverbal communication	Wish to have physical proximity
Lack real face-to-face contact	

Source: Compiled by the author

Therefore, the following research model that due to its scope had to be included in the appendices represents the most dominating team creative performance factors and creative leadership practices (See *Figure 2*. Research Model After the Analysis, in APPENDICES).

In a nutshell, this research confirms that the creative culture could be built around the factors that were investigated. And this should be placed not only on the project manager's and the teams' shoulder but should be established with the support of the tech organization. The company has plenty resources to test and iterate the creative management practices, so the conducted research could facilitate discussions among the top levels of the management, stakeholders and even the board of committee withing the organization, and could even be considered a part of the further company's strategy for the upcoming five years, knowing that the company is following the four pillar strategy, which consists of the desire to maximize profitable growth in our core markets, grow the business in the rest of the world markets, increase their position in the U.S to become the leaders in the market, and "attain the podium positions" in the markets they operate. The sports betting services and the products could be brought to even higher entertainment standards, in the midst of the uncertainty of the pandemic and this new world we live in.

RECOMMENDATIONS:

As the understanding on the team creative performance will be heavily based on the project type and the department in which the team operates, this research is still holds a huge importance for the company. The insights can provide the common set of principles that could be used across the divisions and brands, to strengthen the team creative performance in the remote work model, which the company will be testing until September 2022 before they will settle to the hybrid work environment. With the Covid-19 pandemic, the remote work model most likely will remain permanent depending on the pandemic situation. The top tips for the creative management practices for the project managers and applicable to various departments are presented below:

- The tolerance and respect for creative ideas needs to be practiced, no matter how strange and usual they might sound.
- Show the thankfulness and gratitude highlighting everyone's contribution to a successful implementation of the project.
- Mix the team members with more experienced skill sets to improve their performance.
- Provide a clear vision and encourage ownership where the team needs to be headed while they look for the alternatives and the creative solutions.
- The project managers should continue to apply the leadership methods in which they encourage the team members to look for the answers themselves even when they know the answers to the questions, nevertheless, the project managers still need to offer guidance and support through the process of the creative idea generation, execution, and implementation, especially for the team members who are less experienced.
- The feedback loop from the different departments once the creative solution is implemented, should be encouraged, as different departments could provide the valuable insights about the impact these creative have and what could be improved.
- The courses and trainings on the emotional intelligence need to be provided to the project managers to develop the skills to understand the team dynamics in the remote environment.
- If possible, the company should provide the freedom for the teams to choose their own approach how the problems will be solved, and provide the tool
- The personalized development plans need to be monitored more closely to improve the

employee skills in order to maximize the team creative performance.

- The project managers need to lead by an example in the difficult moments throughout the pandemic.

- Constant communication with the team members, regular and common breaks are a must when the team switches to the remote setting environment for long periods of time.

- Recognition is important, but the project managers should aim to strike the balance between internal and external factors to keep the teams motivated and sustain the team creative performance

- Don't forget to circulate the notes to give the team members plenty of time to think about them individually so the brainstorming sessions would turn more active.

Most importantly, as this study was conducted in the tech company specializing in the sports betting, that does not mean that the results could not be applicable to other types of organizations. The creativity, or the creative teams, is one of the most valuable assets, any company can possess, and when the companies are struggling to facilitate it, they can turn to the creative leadership practices, and consider the team creative performance factors explored in this paper. The creative thinking comes from the collective effort, and not from the talented individuals who work in the isolation.

Limitations Of the Study

The limitation of this research comes down to the sample size used for this paper. Due to the scope of this paper, the research was not able to interview the team members to get their opinion on the team creative performance. Also, the initial sample size has included a pool of the respondents that came from various departments. Unfortunately, because not all of them respondent to the email which invited them to participate, or could not find time for the interviews due to the busy schedules, the research has lost the project manager's perspectives that work in other departments such as marketing, sales, analytics, etc. The limitations also come from the constantly changing pandemic, as new research with regards to the consequences of the remote work, and employees' wellbeing and safety are being published.

Implication for future studies

It is clear that much additional work could be required before a complete understanding will be established how the phenomena of the team creative performance before the company even starts to settle into the hybrid work model in the upcoming year. This means that the further study should be conducted after a year, once the project managers and teams gain more experience from a newly established hybrid work model. Therefore, a next suggestion to deepen this study would be to explore the understanding how each different department withing the technology organization understands what means to be creative in their work environment and how they facilitate the creativity, including both the project managers and the team perspectives. As this research due to the time limitations could not conduct a quantitative study, further quantitative research could initiate to check which factors are dominating in the specific department to extend the understanding. This suggests how the answers could change drastically and could be evaluated in the new light, if the company decided to initiate the trainings and coaching sessions where they introduce the theoretical framework used in this research with explanation of each factor and the benefits it brings and allowed the managers to test it out in their teams. Although the factors such as positive and safe environments, communication, trust etc. are incredibly important for the teams to effectively function, the lack of training courses on creative leadership in the company suggest that the senior management levels of organization could be putting too much weight and pressure on the project managers and teams' shoulders to be the only ones that creative input. The company could be also relaying too much on the human resource departments, thinking that the right selection of candidates in the hiring processes has the biggest impact on the creative outcomes of the team. Although it is undeniable that people who are hired with the right set of skills will maximize the team creative performance and will have a higher level of intrinsic motivation to perform their job well and go beyond, including the mission and vision statement are not enough to achieve that. The creativity will die out soon, if the environment and the actions by the managers don't encourage it.

Another direction to which this research could head, revolves around the hope that this study will stimulate further investigations in the creative leadership field, which stills seems to be a rather ignored framework when speaking about the facilitation of creativity. Many tech and non

tech organizations such as banking, hospitality, retail etc. that strive to innovate their process and provide the top-notch services or products could rely on the creative leadership and creative performance, if they are struggling with the creative efficiency because of the pandemic.

Finally, another research could be conducted in this organization once again. The current research in terms of the creative leadership was revolving only around the facilitative context, ignoring the it would be also interesting to understand how the project manager understand the *Directing context, which stands for "materialization of a leader's creative vision"* (Mainemelis, Kark & Epitropaki, 2015, 394 p), and integrating heterogeneous creative contributions, which *"refers to a leader who synthesizes his or her own creative work with the heterogeneous creative contributions of other professionals" "materialization of a leader's creative vision"* (Mainemelis, Kark & Epitropaki, 2015, 394 p.) Although these creative leadership styles are not associated with these organizations and are more prominent in the fill-making, music productions and other creative industries settings, there is an opportunity to check if they hold any meaning and are applicable in the organization creative departments that directly deal with television and video filming making, or explore the companies creative division as the company owns one of the UK sports TV channels in which they promote their services and products.

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APPENDICES

Figure 2. Research Model After the Analysis**.**

Research Model representing dominating team creative performance factors and creative leadership methods in the company under the investigation:

2.Team Factors that influence the team creative performance	3. Leadership methods and competencies that influence the team creative performance	4.Remote work factors that influence the team creative performance
Team Cohesion Factors The sense of accomplishment The exposure to different skills Healthy disagreements	**Leadership practices for Team Cohesion** Recognition for the creative contributions Encourage healthy disagreements Willingness to help other team members Team buildings and extra incentives	**The negatives:** Inefficient brainstorming sessions Lack of nonverbal communication Inability to handle the teams' negative emotions Burnouts Prolonged work hours The lack of life and work balance **The Positives:** Leading by example Reminders to take breaks Job switching
Collective Task Engagement Factor Creative idea approval by the senior managers (3) Respect to different creative ideas (3)	**Team Members' Task Engagement Leadership practices** Encourage ownership (3) Provide feedback (4) Facilitate the teams'	

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Structure Process/ the system to track the creative idea implementation Collective creative idea generation	understanding of their creative impact (3) Create reasonable deadlines that is measurable and works as schedule Circulation of notes after the brainstorming sessions
Trust in Team Members' Competencies factor Trust in colleagues' competencies is more affected by openness and respect to creative ideas, than the specific skill set (3) Chance to fail and make mistakes (3) The project managers support in working with less experienced specialists (4) Different levels of team members skills might hinder the creative performance	**Trust in Team Members' Competencies Leadership practices** Supportive leader (4) Critical creative mindset as the team (2) Allow them to question the status quo (3) Promote self-development activities at work (2) Encourage openness to new experiences Sustain love for their work to maintain the motivation Coach them on the creative idea negotiation and argumentation
Remote Work Effects Factor **Advantages:** Extra time to develop ideas Better creative idea documentation processes **Disadvantages:**	**Remote Work Effects Leadership Practice** Expressions of gratefulness (5) Team building activities (4) Acknowledgment for each

Limitations of the technology hurt the brainstorming sessions (3) Inability to feel the team dynamics (5) Lack of nonverbal communication Lack real face-to-face contact	specific contribution (4) Bonding conversations Retro sessions in agile – thankfulness for contributions Wish to have physical proximity
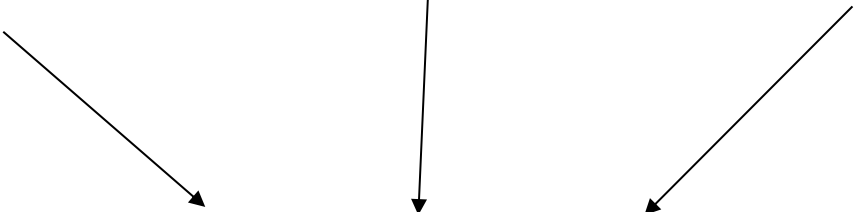
1.Team Creative Performance

The lateral thinking

Alternative solutions/ ways of working

Creative work done as the team

Growth mentality – what can you do better

Critical Thinking

Visualization

Understanding of the root cause

Freedom to choose the process methods

1. Team creative performance benefits for the project and organization

Tangible Benefits

- Saved resources and time

- Better and improved work processes

- Increased revenue

- The inspiration for other departments to follow

- Improvement of personal skills

- Improved product and the end user experience

Psychological benefits

- Improved team motivation

- Improved creative inputs and outputs

- Team recognition

- Team efficiency

- Team engagement

- Lack of fear to fail

Table 7. *Example of Interview Transcription*

Demographic Questions:
Please describe your role and the projects in which you've been working?
For at least 7 years I have been working as a developer for the several websites here in Lithuania. When I joined this company I worked as the Team Lead for the development team, and a year ago I was promoted to the Head of Engineering position, so my all background about the management comes from the IT field.
How long have you been working as a project manager?
I've had my own startup company for 3 years, after which I quit, and came to work as the tech team lead and have been with the company for 4 years. So I have 7 years of project manager experience, combined with my previous 9 years' experience of coding.
1st group of questions
1.   Could you explain how do you describe/understand team creative performance?
From the technical perspective and looking from the technical teams, in my subjective opinion we all know what kind of problem we are solving and the realization of the problem, how are you going to solve it, in other words, creativity comes from here. It's when you have a technical algorithm and then you start looking at it out of the box, and you look at the issue from a different angle, and sometimes it helps not only to come up with the solution for a specific problem, but also to identify the root cause. By that I mean, we start to think why we are even solving this issue at all.
2.   Please identify the role of team creative performance in every stage of project life cycle: Initiating, Planning, Executing, Monitoring & Control, and Closing? In which stages the project team creative performance is the most important?
All products or projects start from the idea and the vision, and the you need the features, but I don't think the team creative performance is very present here, later, you can think about the abstract features how the business should make money, and later you end up with the backlog, and speaking about the execution, and we know from the backlog that there is a so called x feature we need to implement, and here you end up having the team creative performance. For example, the company tells you to create the user logins, but you tell them to do those logins with social media platform logins because everyone is using them, that's how you end up with coming up with creative solutions.
3.   Please indicate the factors that improve team creative performance.
There is a book called the five dysfunctions of the team, if you don't have this negative pattern in your team creates the space in which the team are capable of being creative. It's important that the team wouldn't be afraid to have healthy conflicts, where you end up forming your common truths and meanings. They are transparency, another trust, then commitment, accountability. All of them are needed to have a functional and open team that engages in creative tasks. For me, the creativity comes when you're not afraid to say what you think, and that things could be different.

4. *According to your experience which factors might negatively influence team creative performance?*
If you want to have a dysfunctional and closed team, all you need to do, is to create a blame culture in which people would be afraid to express their ideas and would be blamed for their mistakes and failures. You should create an unhealthy conflict environment, where conflicts end up with drama and firing the employees, silent treatments. No creativity won't emerge in this environment.
5. *Could you describe what kind of benefits team creative performance brings to an overall project?*
The team creative performance brings the benefits that from the business perspective, you start to encourage the team to think, where you tell them only about the vision. A good example would be, telling the team and the business needs the new user login feature, and you know that the team not only to execute, but also to create, and they will always come back with better solutions than some senior teams could have ever imagined. And if you look from another perspective, if you have the problem and you request your team to fix the bug, but they come back to you and tell you that they found the root cause of the issue and suggest how to completely redo the process, At least the technical creativity comes from that.
2ⁿᵈ group of questions
Team factors that affect Team Creative Performance
Please think about a specific project/task and answer these questions:
Team cohesion
6. *Did team cohesion affect team creative performance? What kind of effect it had on a team creative performance?*
I can give a prime example right now. We have plenty of deliverables and features that need to be done, and because my team has bonded so well, the team is cohesive, and they are keen to help for each other. This means that if someone is struggling, and the rest of the teams are smoking cigarettes outside because they are done with their tasks, that's just wrong. Firstly, this is just a healthy environment, in which they need to thrive. The team creative performance comes once the team hears your problems and they think about them, you can get creative solutions out them when they try to help for each other. The sense of loneliness disappears because the whole team is thinking about your issue collectively.
Team members' Task Engagement
7. *Did team members' engagement in project affect team creative performance? What kind of effect it had on a team creative performance?*
If you want to increase the team members' engagement, you need to encourage the ownership of their work they are doing. This means that you allow them to spend time with task, explore it, because they need to understand it and it's the only way for them to become owners. Another part of the team task engagement is directly related to the Agile and the ceremonies we have there. For example, we have a demo session during which you represent the feature, you give the person who was implementing and executing that feature to represent it. That's how he or she becomes the owner of the entire feature creation life cycle. And yes, he got the task from some top manager, but he lived with it, thought how to solve it and discussed that with his team in which the team creative performance, and at the end he or the part of the team

which was working with it, represent that feature. And the more time you spend with that task, the more comfortable you end up feeling talking about it. This is the biggest engagement you could ever create.

Remote work

8.   Did remote work affect team creative performance? What kind of effect it had on a team creative performance? (Think about psychological safety and psychological proximity)
There are of course, advantages and disadvantages. Generally, the remote work brings you the benefits are that a lot of information ends up being presented in a written form as we communicate in the emails, slack, and you have the history of conversation where you can always look at and think about it. Even the phase of documentation becomes more initiated and active, and you reach the level in which each meeting has its own memo, it gives the ability to smoothly track that has been and think will be done in the future. And that didn't work much when you were in face-to-face teams. The disadvantages the remote brings are inability to feel the psychological state of your team. You see him only one or two times a day, and you don't know how he or she wills, while once you are in the office you can sense his mood swings and his emotional state. And if you have the entire team in the office, you can sense the team's mood. If you see that people are not looking at each other's eyes, don't talk to each others, and you need to know this. So remote has removed the ability to feel the emotions. And the team leads need to prepare for that more and it's harder for them. And coming back to the team creative performance, certain Agile ceremonies are more productive in the office. All sessions that require the brainstorming, which you can call the team creative performance sessions are more productive. And this happens because the engagement in real environment is much higher, there are no distractions in that meeting room.

Team members' trust in colleagues' competencies

9.   Did team members' trust in their colleagues' (each other's) competencies affect team creative performance. What kind of effect it had on a team creative performance?
For me the more accurate term would be the understanding of your colleagues' competencies is more important. For example, with time you learn about each colleagues the level of quality they can produce at the first attempt. And as the team lead you know which team member will require more time to review the feature they have created, and which ones will require less time to do a code review. This just means that one of your developers thinks about all possible cases while executing the feature and there is another one that needs more guidance and support and you will have to dedicate more time for them, as they might be experiencing the code issues and the code quality. And as a project manager I trust my both team members' competencies equally. And the sports example works here very well. When you have the football team as a coach, and Messi is playing in your team, one day you won't just go to Messi, who is a forward and tell him that he will be playing as a goal keeper from now on. Because you know his strongest and weakest sides, and you choose the best position in which he would perform. It's the same with a project team, I know where they would open up the best.

3rd group of questions

10.   In general, what project leader's competencies and skills are important to improve team creative performance?

For me sometimes it feels as if I am guided by the gut feeling more and it ends up working. Obviously, there are patterns and sometimes I don't know where it came from, maybe I've read it somewhere, I don't even know. Honesty is very important. Honesty works both ways. If you're not honest with your team, the team won't be honest with you. I also think that you should be an expert in your area, so that means if you're going to lead the tech team, you need to understand the tech field and have a background as well, so you wouldn't end up being the people manager. The ability to solve conflicts is also important. If the project managers are saying that they don't hear any conflicts in the team, this simply means that you didn't hear about them. Trust in the team members is also necessary. You give them the ownership, even sometimes when you know that they don't have enough competencies. As the team lead you have to see each team members' competencies' matrix, you need to see that person's development path, what is his next step to his career evolution, and that's how you can maximize and help them develop their strengths. If he is a good architect, you turn him into a good engineer, and you encourage him to solve this type of tasks. And of course, you give him a professional literature. So yes, you're a people manager because he is doing all that I've mentioned above.

11. How did you encourage team members' cohesion during project implementation? What concrete methods did you use?

Social team buildings are very important as it can allow you to feel the teams dynamic. The team needs to understand each other as a person, it becomes easier to communicate for them at work. For example, if we have a new joiner, and if he will occupy the more important role in the team, let's say it's s Product Owner, and he or she needs to communicate with the team which has bonded, and if he or she starts working remotely, it's very hard for her to feel the bond and close to the team. And another thing, is that encourage team members' cohesion by communicating that everything what is happening in the business are the results of our work. It's not the individual who is doing that. So if you have a sprint board, and one team member marks his task as complete, you don't run and take another task that is free, you need to go and check if the other colleagues have the tickets in QA, or you see the colleagues' ticket in progress, ,you go and ask if you can help them, so that all of us could complete the sprint faster.

12. How did you encourage team members' task engagement during project implementation? What concrete methods did you use?

Again, like I said, it's the ownership. As the project manager you tell the team that it's not the assignment that was given to them, but it's the task they create for themselves. You need to understand the context, what is the value and what value it will bring, and who are the users of that value.

13. How did you strengthen the relationships between physically dispersed team members? What concrete methods did you use?

For that, we have all the ceremonies in Agile. You adjust these ceremonies often. We used to have calls without the cameras really often, and we decided that we need cameras actually. And you start seeing not the 2D picture, but how actually the person looks like, and most importantly how he looks today. The Agile ceremonies are the key ones that encourage communication. So they are the daily standups, planning sessions, retro, refinement, and many more. Also, our team has done one thing and is important, so that the team would feel close, in the retrospective session we have this ceremony of thankfulness in which every team

member needs to thank one of his teammates who helped him out in the two weeks sprint. It seems as if it's a small thing, but it really has an impact on the team. It gives recognition, and also the person who helped them, feels appreciated.

14.   According to your opinion, did team members have enough competencies and skills to perform their work creatively? What concrete/specific competencies and skills are especially important for team creative performance?

I think loving your work creates this openness to new experiences which ultimately leads to the team creative performance. This about the profession that you actually love and you naturally get interested into the newest trends, read the material etc. But also you gain experience through daily tasks that you're doing, and that's how creative performances and ideas happen. You start seeing patterns. And when you think, the problems are not the rocket science, many of them have been solved somewhere else. I also used allusions and reference the patterns that come from various disciplines or subjects. It could be a sports team, it could the example of swimming, nature where you see these patterns. If the team manages to associate their tasks with these patterns, you end up knowing what to do, only you just need to understand how to represent that pattern in technical terms.

15.   According to your experience, what factors motivate team creative performance?

Since, I've become the lead of other team leads, I know that they come to me and they know that I am an enabler, and I have the power to enable certain things in the company. They bring the ideas, and I am that manager that can help them to build the strategy how to execute them, we take an actual action items and we move forward with that. So, the team creative performance in my team comes when other team leads bring the problem or the idea to me, and we speak what are the possible realizations to make this idea work. So, I think again, loving your job motivates the team creative performance and the wish that your teams would succeed, because if you want the team to succeed, you're looking for all possible solutions that could do that. You don't focus on one option, but evaluate all alternative routes until you find the best ones. Another motivating factor is the wish that the organization would succeed. Also, you experience the self-realization that would really motivates the team creative performance. And I think the employees who look for self-realization, they should look for products in which they feel the most whether that is sports, finances or something else.

16. In general, what concrete/specific leadership methods/techniques did you use to improve your team's creative performance?

I think of myself as a servant leader, and obviously because I work with Agile it's all about the servant leadership. The servant leader is listening actively a lot. If you're looking from the behavioral perspective, sometimes where are people who come to me and they already know the answers, and all you need to do is to listen to them, ask the right questions, and they will tell you the answers. Others need confirmation or guidance. So, the key leadership elements for me also regarding the team creative performance are active listening, and if your team member chooses is the correct one, and it suits all organizational values, the team values, the vision, you just tell them go for it. When I ask the question myself, what I as a manager can do to make that team member to achieve his or her goal faster. For example, it could require me to connect those managers with certain people, or more meetings are needed among several managers to grasp the idea that is proposed, or it could be tools such as a specific software they need to achieve their goal. And my most important thing I live by, is

that I need to teach my team mates to look for the answers themselves. I had a recent example with one of my team members, where we are discussing issues, and I told him that his goal is not to understand where to change the line in the programming code, but why does he need to change that programming code line.

4 group of questions

Remote work (external) factors that influence Team Creative Performance

17. During the pandemic while you were working as a project manager, have you and your team experienced work uncertainty, loss of resources, burnouts, or other consequences of remote work?

I think the entire pandemic could be put into the cycles. When it started, my team was almost felling euphoric, it seemed as if follows the cycle of someone who is using drugs. The team felt high because they didn't need to commit, they could stay at home, you can go outside and breathe fresh air, no one felt monitored that someone was looking through his shoulders, you get the psychological control of time.

18. What kind of effect it had on a team creative performance and project implementation?

It feels like summer. And actually, my team even started performing better than they were working in the office. But with time, you start feeling the team members feeling burnout. And the burnout comes from the fact that the device is always so close to you, that you have it even in your kitchen while eating. Then you decide to run an errand and go to the city if you see a free time slot between your meetings, you come back later home, and actually you see that job still needs to get done and it's already 11:00 pm, and you work so much longer than usual. Life and work became a constant stream where you don't understand what is what. This is why there are so many recommendations for freelancers to have separate work spaces at home, one in which you work and the other in which you relax. First it was euphoric, later it felt like the burnout but I don't feel yet that the team creative performance suffered yet as the team is still committing to what they are doing, and I know that we will return to a status quo soon.

19. How did you deal with that? Please explain that.

We communicated a lot what they needed. Also, during our 1 to I calls, I would simply ask about their wellbeing and if they don't want to take a break from work and just take a several days off. Or even a week. I kept reminding that they should take them, just to rest. I think the team continued without a break and any holidays for a year. After that, I don't it was possible to some of us to have any creative input to the issues we were solving.

Closing question:

20. In your opinion, as a project manager what kind of areas of team performance would you strengthen to maximize team creative performance?

Openness I would think. I would also say that don't be afraid to get into the healthy conflicts, as the conflicts improve the processes and force to make the adjustments and they directly improve the team creative performance. And of course, you keep encouraging the team

member's collective task engagement. The more engaged the team is, the more they start thinking differently the problems. You understand the business domain better, and if your product specializes let's say in football, you familiarize with it, and the more you learn, better features you can create for the product that represents the football. And all of this followed by the collaboration, as we saw with the sprint board example, where the team members are encouraged to collaborate as much as possible.