ICADE, Universidad Pontificia Comillas

An analysis of the impact of ‘Distributed Leadership’ on employee satisfaction in a remote work setting in the IT- and Business Consultancy sector, Final degree project

Franziska Schuster
Student ID: 202219398

MADRID | March 2024

Abstract

The literature analysis reveals that many studies have been conducted on how ‘Distributed Leadership’ affects the efficiency of schools and companies, as well as employee satisfaction. However, most academic texts or books on this topic date a few years back. Especially over the past five years, a lot has changed, and many people work differently than they used to. In recent years remote work has become more popular due to the Corona pandemic. This also requires leadership styles to adapt and change. The objective of this work is to analyze how ‘Distributed Leadership’ influences the job motivation of team members in digital teams in the IT- and Business Consultancy sector, which ultimately can lead to enhanced employee satisfaction. To find answers there has been sent a questionnaire to two companies, specifically to their teams that work almost completely remotely. The first company Metafinanz Informationssysteme GmbH implemented ‘Distributed Leadership’ in 2017. The second company, Cosileon Business Consultancy GmbH follows the more “traditional”, hierarchical leadership approach and serves as a reference group. In total, 54 employees have answered the questionnaire. The employees were classified into two groups, as they represented a digital team with ‘Distributed Leadership’ and a digital team without ‘Distributed Leadership’. The findings indicate that employees in digital teams with ‘Distributed Leadership’ exhibit higher levels of all six indicators that lead to intrinsic motivation and employee satisfaction compared to those without such a leadership style. Notably, all of them showed statistical significance and the findings were further supported by the answers given to the open questions. Given these insights, we recommend that companies with ‘Distributed Leadership’ styles consider regular team coaching, assisting in tough decisions and regular meetings on-site or teambuilding activities to foster the interconnectedness of the teams. This contributes to enhancing employee satisfaction and facilitates a smoother integration of ‘Distributed Leadership’ in a remote work setting.

Keywords

Digital Team

Remote Work

‘Distributed Leadership’ = DL

Employee satisfaction

Self-Determination Theory = SDT

Table of contents

List of Figures

1. Introduction: ‘Distributed Leadership’ in remote work and employee satisfaction

1.1 Problem definition

Organizations and their way of working are a constant process and change. This is mainly due to external influences since organizations are forced to adapt to their environment. A fairly new type of leadership is the so-called ‘Distributed Leadership’, in which power, and influence are distributed among multiple individuals rather than concentrating it in the hands of a single dominant superior (Pearce et al., 2009, p. 234). Through the various leadership influences by different leaders in the group, Pearce and Conger understand a collaborative and evolving process where individuals interactively influence each other to achieve collective goals. (Pearce et al., 2009, p. 234). However, in a work environment where team members work exclusively or primarily from home, there can be challenges to the "dynamic, interactive influence process" that Pearce and Conger refer to. This may even be somewhat contradictory.

‘Distributed Leadership’ practices seek to promote organizational interconnectedness in order to facilitate higher levels of communication, collaboration, and knowledge sharing (Hulpia and Devos, 2009; Fu et al., 2018). So, while ‘Distributed Leadership’ stands for cooperation, collaboration, and leadership team spirit, the recent coronavirus pandemic in particular has driven people home from the shared offices, which can make communication, collaboration, and knowledge sharing more difficult and shows the relevance of investigating this topic. Many people are now working on their own, with as little to no face-to-face contact as possible. Since the coronavirus restrictions were lifted, many have returned to the offices, but the flexibility that the home office option brings is something many people still don't want to miss. According to research, many organizations do not plan on returning to the “pre-pandemic workplace” but invest in developing organization forms where hybrid forms will be the new standard (Aksoy et al., 2022, Alipour et al., 2021). The question is, how does ‘Distributed Leadership’ work in such an environment?

In this context, it is interesting to understand, if and how ‘Distributed Leadership’ works in such a new situation, how it has changed in terms of employee satisfaction, and find out what companies have implemented or want to implement ‘Distributed Leadership’ can learn from this change.

1.2 Research objectives

The purpose of this study is to examine whether ‘Distributed Leadership’ can improve remote working for businesses in the IT and Business consultancy sector and their employees in ways that enhance employee’s intrinsic motivation and therefore, employee satisfaction.

More specifically, this work aims to find solutions to remote work problems or obstacles through the lens of ‘Distributed Leadership’ practices, which seek to increase employee satisfaction. This is done by examining the current literature surrounding ‘Distributed Leadership’ and remote work and collecting data on organizations ‘Distributed Leadership’ practices in a remote work setting in the IT- and Business Consultancy sector.

1.3 State of the art

In organizational research, job satisfaction is one of the most studied variables (Rainey, 2009, p. 298). The characteristics of ‘Distributed Leadership’ combined with the consequences of teams working completely remotely can be somewhat counterintuitive: Comparing the definitions of ‘Distributed Leadership’ with the results of already existing investigations about the consequences of remote work, there are certain contradictions noticeable: While remote work brings employees a better work-life balance through greater flexibility (Ferreira et al., 2021, p. 9), and its benefits can lead to higher job satisfaction (Wheatley, 2012, p. 227), the level of collaboration, communication and knowledge sharing decreases when teams work mainly from home, due to the changed work structures (Gajendran & Harrison, 2007, p.1525). It is interesting to note that these characteristics are exactly what ‘Distributed Leadership’ stands for. Now the question arises, whether ‘Distributed Leadership’ can still improve employee satisfaction in a remote work setting, even if these contradictions hold true.

The practices of ‘Distributed Leadership’, aim to enhance organizational interconnectedness, fostering increased communication, collaboration, and knowledge sharing across company functions (Fu et al., 2018, p. 399). This, in turn, may have a significant effect on employee satisfaction.

When taking a look at remote work, however, several studies that have investigated the connection between remote work and job satisfaction have come to different conclusions. On the one hand, increased flexibility can lead to greater satisfaction, but on the other hand, the feeling of isolation can have the exact opposite effect (Kelliher & Anderson, 2009, p. 84).

Deci and Ryan identified three fundamental psychological needs, that serve as “the basis for self-motivation, personality integration, as well as for the conditions that foster those positive processes” (Deci and Ryan, 2000, p. 68): competence, relatedness, and autonomy. Given the positive correlation between employee motivation and employee satisfaction (Ayub and Rafif, 2011, p. 332), it is crucial to understand where intrinsic motivation stems from. According to the Cognitive Evaluation Theory (CET), social-contextual factors like feedback, communication, and rewards that enhance feelings of competence can elevate intrinsic motivation (Deci and Ryan, 2000, p. 70). Research suggests that a combination of optimal challenges, feedback reinforcing performance, and absence of demeaning evaluations can effectively promote intrinsic motivation (Deci and Ryan, 2000, p. 70).

In the following chapters, the influence of ‘Distributed Leadership’ on employee motivation in digital teams is being researched, to understand, if ‘Distributed Leadership’ can help to increase intrinsic motivation in a remote environment in the IT- and Business Consultancy sector.

1.4 Methodology

This bachelor thesis uses a quantitative and qualitative research approach combined with a systematic literature review to ensure the relevance and timeliness of the study. The survey was conducted in the form of an online questionnaire aimed at employees of Metafinanz and Consileon who work in digital teams with different leadership styles. The employees in Group 1 (Consileon) follow a hierarchical leadership approach, while the employees in Group 2 (Metafinanz) follow a ‘Distributed Leadership’ approach.

The main objective of this survey is to investigate the impact of ‘Distributed Leadership’ on employee satisfaction in digital teams in the IT- and Business Consultancy industry. The study aims to shed light on the role of autonomy, competence, relatedness, and the feedback culture in the intrinsic motivation of employees and ultimately their job satisfaction.

The variables surveyed relate to autonomy, competence, relationship, feedback quality, and overall satisfaction. The results are analyzed using a combination of descriptives, Cronbach's α-test, and a multivariate analysis of variance (MANOVA).

However, the study has some limitations, including the disparity in sample sizes between groups and the limited representativeness of the sample. It should be noted that the results are not generalizable to the entire population and the study could be influenced by personal perceptions of the respondents. The limited participation of Group 1 could be due to company size and culture.

1.5 Structure

This thesis will be divided into five chapters, namely: (1) introduction, (2) theoretical framework, (3) objectives, (4) methodology, (5) results and (6) discussion/conclusion.

The first chapter ("Introduction") presents the research question and a justification for the choice of the topic. The objectives of the study and the methodology used are also presented here. At the end of the chapter, the structure of the study is shown.

The second chapter ("Theoretical framework") will review the literature on ‘Distributed Leadership’, its relevance in remote workplaces, and its impact on employee satisfaction with the help of the theory of self-determination, the two components of the question that inspired this research.

The third chapter ("Objectives") then explains in more detail the exact objectives of this work.

The fourth chapter ("Methodology") discusses the comprehensive methodological approach used in this study, highlighting the quantitative empirical procedure using a standardized questionnaire. In this context, sampling, data collection, evaluation methods, and method critique are thoroughly discussed. The limitations of the analysis are also presented here.

The fifth chapter ("Results") studies the impact of ‘Distributed Leadership’ in a remote work setting on employee satisfaction through research, quantitively and qualitatively analysing where differences can be found comparing employee satisfaction in digital teams with and without ‘Distributed Leadership’. To further assess employee satisfaction, the findings of the Self-Determination Theory will be used.

The sixth chapter ("Discussion/Conclusions") will assess the extent to which the research objectives have been met, as well as the usefulness of the findings. Future lines of research closely related to the topic addressed are also proposed.

The work ends by showing the bibliographical sources used for the realization of the project, in alphabetical order.

2. Theoretical framework

2.1 ‘Distributed Leadership’

The concept of ‘Distributed Leadership’ is essentially based on the work of Pearce and Sims (2000, 2002) and Pearce and Conger (2003). Among other things, they discuss the consequences of ‘Distributed Leadership’ in organizations and expect some positive effects at the team level. These include effectiveness, group behavior, (performance) potential, satisfaction, connectedness, and Group cohesion (Pearce and Sims, 2000, p. 126).

'Distributed Leadership' shares conceptual connections with organizational phenomena such as power dynamics, influence, coordination, collective decision-making, and delegated authority. A key question, however, is what added value this idea offers. On the one hand, ‘Distributed Leadership’ has helped to highlight the limits of individually understood leadership. Moreover, also thanks to ‘Distributed Leadership’, a variety of new analyses have been allowed in the field of leadership, positioned somewhere on a continuum between concentrated and ‘Distributed Leadership’ (Gronn, 2008, p. 142).

In the 1980s and 1990s, there was a convergence of the field around a focus on individual approaches or perspectives, leaving little room for diversity or alternative viewpoints, which eventually began to erode. It does not now seem reasonable to simply replace it with another dominant mode of influence. Instead, a distributed hegemony is proposed, meaning that influence is spread across different actors rather than being exercised by a single dominant force (Gronn, 2008, p. 143). As opposed to traditional, hierarchical leadership, “‘Distributed Leadership’ is first and foremost about leadership practice rather than leaders or their roles, functions, routines, and structures” (Spillane, 2006, p. 144). The distributed perspective sees leadership practice emerging from the dynamic interactions among leaders, followers, and their context, rather than attributing it solely to a leader's individual knowledge and skill (Spillane, 2006, p. 144). What essentially differs this way of thinking from prior work, is that it highlights leadership practice as a consequence of interactions between leaders and followers (Spillane, 2006, p. 145). This form of leadership is not imposed on followers but arises from collaborative engagement. From a distributed viewpoint, followers are recognized as integral components of leadership practice (Spillane, 2006, p. 145).

Moreover, leadership practice manifests through the interactions between individuals, rather than being solely a result of the actions of one or more leaders. Individuals engage in a mutual give-and-take, establishing a reciprocal interdependence between their actions. The study on ‘Distributed Leadership’ highlights interdependency as the central characteristic in the interactions among leaders (Spillane, 2006, p. 146).

When it comes to leadership, we can see a shift in focus, “from the individual to the collective dynamic (e.g., to combinations of interacting relations and contexts)” (Uhl-Bien, 2006, p. 662). Spillane (2006) argues that it is crucial to understand that from a distributed perspective, leadership is the product of those interactions among leaders, followers and situations, instead of fixed roles or structures (Spillane, 2006, pp. 144-145)

In the review of literature, Bennet et al. say that ‘Distributed Leadership’ can be seen as the product of all the knowledge and expertise people bring together. As individuals interact and contribute to the group, leadership is created, which is different from traditional hierarchical leadership, in which only one individual leads the group (Bennett et al., 2003, p. 7).

According to Harris, the concept of ‘Distributed Leadership’ is based on “actively brokering, facilitating, and supporting the leadership of others” (Harris, 2013). It does not imply that everyone leads or is a leader, but instead, it is to go back to the idea that leadership is about role and responsibility, where leadership is somehow shared and distributed (Harris, 2013, pp. 546 - 547).

A search of google.co.de on 4th January 2024 returned 603,000,000 hits for the phrase ‘Distributed Leadership’. A variety of terms have been interchangeably used to refer to leadership, “including shared leadership (Heck & Hallinger, 2009), democratic leadership (Bennett, Wise, Woods, & Harvey, 2003), co-performance leadership (Spillane, 2006), participative leadership and decision-making (Copland, 2003), dispersed leadership (Benett et al., 2003), teacher leadership (Firestone & Martinez, 2007), accountable leadership (Elmore, 2005), and collaborative leadership (Bolden et al., 2009)” (Shin and Joo, 2016, p. 2). ‘Distributed Leadership’s versatility and potential are evident from its variety of conceptual properties (Shin and Joo, 2016, p. 2).

While ‘Distributed Leadership’ has only recently gained widespread acceptance and interest, its origins go back quite a bit further than the turn of the millennium. There are records of ‘Distributed Leadership’ dating back to 1250 BC, which makes it “one of the most ancient leadership concepts recommended for accomplishing organization goals through people”, according to Oduro (Oduro, 2004, p. 5).

Gronn argues that the idea of ‘Distributed Leadership’ remained largely dormant until its revival by Brown and Hosking in 1986. References to it were found in a few articles in the 1980s and 1990s (Gronn, 2000, p. 324). This new resurgence of interest was probably due to the emergence of "transformational" and / or "charismatic" leadership models during this period (Bolden, 2011, p. 3).

According to Pearce and Conger (2003, p. 13) it was not until the mid-1990s that due to the rise in cross-functional teams, the speed of delivery, the availability of information and greater job complexiy, the acceptance of a shift from the traditional view of leadership grew (Bolden, 2011, p. 4).

O’Toole et al. say: “Shared leadership for most people is simply counterintuitive: leadership is obviously and manifestly an individual trait and activity” (O’Toole et al., 2003, p. 66). That means that in an organizational context, there remains a tendency to excessively credit individual leaders for performance outcomes while overlooking other significant factors (Bolden, 2011, p 6).

Interestingly, a study of primary literature by Dr. Richard Bolder in 2011 discovered that 68% of articles discussing 'Distributed Leadership' were featured in education or educational management journals. Among these, 26% of the articles were specifically found in School Management and Leadership publications, while the rest were distributed across various other sources. Surprisingly, only 19% of 'Distributed Leadership' articles were published in general business, management, and leadership journals (Bolden, 2011, p. 6).

In fact, the focus of research on the topic of 'Distributed Leadership' is in the area of school leadership, analyzing the link between ‘Distributed Leadership’ and school improvement and leadership development (Bolden, 2011, p.11). Despite most existing frameworks being derived from school research, they are applicable in other settings as well.

The concepts of Gronn (2002) and Spillane (2006), for example, focus on the interpersonal dynamics of DL and how people can work together to achieve joint objectives (Bolden, 2011, p. 9). According to Spillane (2006), an important aspect of 'Distributed Leadership' theory is to comprehend not simply whether leadership is distributed, but how it is distributed and how leaders, followers, and situations interact (Shin and Joo, 2016, p. 3):

Figure 1: Spillane's (2006) Distributed Leadership Framework (Spillane, 2006).

Together these findings indicate that although 'Distributed Leadership' has gained popularity in recent years, its application, both geographically and industrially, remains limited (Bolden, 2011, p. 8). Many existing frameworks assume that 'Distributed Leadership' is integrated into work practices to varying degrees and may become part of the overall culture of the organization. This type of integration can be initiated in a deliberate and coordinated way (Bolden, 2011, p. 9).

Harris reviewed a number of studies that demonstrated a positive relationship between 'Distributed Leadership' and organizational change (Iandoli and Zollo, 2008) and professional learning communities (Stoll and Louis, 2007) (Bolden, 2011, p. 10). What is surprising is that there was equally evidence that suggested that 'Distributed Leadership' can also have negative implications regarding team performance, a dispersion of responsibility (Heinicke and Bales, 1953), a reduced sense of stability and security according to Melnick, 1982 and even boundary management issues (Timperley, 2005) (Bolden, 2011, p. 10).

2.2 Remote Work and 'Distributed Leadership'

According to Gronn, 'Distributed Leadership' needs a change of direction (Gronn, 2008, p. 142), especially when teams are working almost completely remotely.

To understand the impact of DL on organizations and more specifically on employee satisfaction, it is important to take into consideration its context. The impact of the Covid-19 crisis on the labor market has been historic (Gallacher and Hossain, 2020, p. 50). A study by Gallacher and Hossain in 2020 looked at how many and what kind of jobs can be carried out from home in Canada. The result was that around 41% of all jobs in Canada can be performed while working remotely, especially higher-income jobs (Gallacher and Hossain, 2020, p. 50). The sector to be examined in this thesis (IT and Business Consultancy) is also one of the sectors whose employees can work well from home. One example is Metafinanz, a business and IT consultancy that implemented 'Distributed Leadership' well before the Corona crisis and whose teams often work almost 100% remotely.

There is a lot of literature on the topic of remote work, and opinions vary widely. While some researchers argue that remote work brings employees a better work-life balance through greater flexibility (Ferreira et al., 2021, p. 9), and its benefits lead to higher job satisfaction (Wheatley, 2012, p. 224), others argue quite the opposite. According to Gajendran and Harrison, the level of collaboration, communication, and knowledge sharing decreases due to the changed work structures when employees work from home (Gajendran & Harrison, 2007, p. 1525). There are fewer opportunities for quick exchanges (Bjursell et al., 2021), and physical distance affects how often and how much communication takes place (Contreras et al., 2020; Ferreira et al., 2021). This, in turn, can lead to less connectedness changing the way co-workers view their work. Less face-to-face interactions combined with less communication also weakens the interpersonal bonds that employees have with their coworkers or supervisors (Gajendran & Harrison, 2007, p.1525, Sardeshmukh et al., 2012, p. 198).

Looking at the impact of fully remote collaboration on organizational performance, employee involvement, and organizational innovation power during the COVID-19 pandemic, some interesting insights appear (Bergum et al., 2023, p. 43).

According to Oude Hengel et al. (2021), within service-oriented sectors, particularly in financial services and information and communication technology, the lockdown's effect on productivity was either minimal or resulted in increased productivity. Additionally, Tompson (2021) found that in contexts such as software development teams, distributed agile teams demonstrated improved performance when working remotely compared to when physically co-located (Bergum et al., 2023, p. 43). Simultaneously, according to Yang et al. (2022), numerous organizations are noting a constraint on their innovation capacity due to a decrease in spontaneous interactions within the company, coupled with a reduction in the maintenance or expansion of informal networks (Bergum et al., 2023, p. 43).

A survey conducted in 2014 by RW3 CultureWizard, a premier global business consultancy providing targeted training in professional skills for corporate employees, with more than 3000 managers from over 100 countries, indicated that 40% of their employees report working on virtual teams at least 50% of the time, and 77% of these teams are multi-cultural (Hoch and Dulebohn, 2017, p. 678).

Although virtual teams offer organizations a number of benefits, they also present various challenges. RW3's 2014 survey found that the absence of co-located interaction between virtual teams adversely affected trust (64% of respondents), decision-making (55%), conflict resolution (54%), and expressing opinions (53%) (Hoch and Duhlebohn, 2017, p. 678).

With all these possible consequences of remote work, there is a certain paradox with the principles of ‘Distributed Leadership’. This contradiction is one of the motivations for investigating this topic.

Contradictions:

How compatible are the requirements for ‘Distributed Leadership’ and the consequences of working in a remote environment? In order to understand this paradox, it is important to look at both topics separately. On the one side, we have practices of ‘Distributed Leadership’, which aim to enhance organizational interconnectedness, fostering increased communication, collaboration, and knowledge sharing across company functions (Fu et al., 2018, p. 399).

On the other side, in a remote work setting, the physical separation that takes place when teams work remotely makes communication and knowledge sharing more difficult (Bjursell et al., 2021, p. 5).

Now we can bring these two concepts together: Taking a look at some definitions of ‘Distributed Leadership’ by various researchers, some core characteristics of ‘Distributed Leadership’ according to Pearce and Conger are "dynamic, interactive influence process between individuals in a group" (Rybnikova and Lang, 2014, p. 160), a "de-individualized process within a group or organization" according to Shondrick et al. (Rybnikova and Lang, 2014, p. 160). And even when looking at precursor concepts of ‘Distributed Leadership’, Wunderer and Grunwald (1980) define characteristics of cooperative leadership as "multilateral information and communication relationships within the group" and "constant needs-oriented personal and organizational development" (Rybnikova and Lang, 2014, p. 158). However, if the team members are now working from home, communication is no longer as direct as when they are gathered together in the same office, and it is more difficult to establish a connection within the group.

The question arises as to whether the positive effects of ‘Distributed Leadership’, such as satisfaction, solidarity, and cohesion, which Pearce and Sims expect, can still be achieved.

Even though these contradictions now seem to be very obvious, there are also some characteristics of ‘Distributed Leadership’ and working in a remote work setting, that make these two concepts quite compatible.

Compatibility:

Hoch and Dulebohn investigated in a large-scale meta-study in 2017, the influence of shared leadership (a term they interchangeably used with ‘Distributed Leadership’) on the performance of virtual teams. Among other things, they found that shared leadership influences the relationships between conscientiousness, emotional stability, and openness so that they are stronger in teams with higher virtuality than in teams with lower virtuality and bring commitment, trust, and cohesion among team members (Hoch and Duhnebohn, 2017, p. 682).

Hoch and Duhlebohn write in their study: “Shared leadership is advocated as beneficial for virtual teams because it is linked with collaborative decision-making (Pearce & Conger, 2003), collaborative behavior that increases trust and knowledge sharing among team members (Hill, 2005), and positive team and organizational outcomes including higher team performance (Hoch & Dulebohn, 2013)” (Hoch and Duhnebohn, 2017, p. 682).

In a study, Hoegl and Muethel looked at 96 globally distributed virtual software teams and found that many team leaders underestimated the ability of teams to lead themselves. The result showed that team leaders may tend to monopolize decision-making powers and not give team members enough autonomy. A similar sample then showed that ‘Distributed Leadership’ behavior enhanced team performance (Hoch and Duhlebohn, 2017, p. 682).

This also shows that autonomy is an important factor. ‘Distributed Leadership’ increases satisfaction in virtual teams through greater trust and autonomy (Rybnikova and Lang, 2021, p. 409). The distribution of autonomy is a key component of ‘Distributed Leadership’, as distributing autonomy is one of the ways leadership is distributed.

As a result, individuals and organizations will benefit from improved job quality, greater efficiency, increased innovation, and a more cohesive work environment (Reisinger & Fetterer, 2021). According to Hughes et al., increasing employee’s autonomy can increase their confidence and stimulate their creative and innovative performance. Intrinsic motivation is also a key driver of workplace creativity and innovation (Hughes et al., 2018, p. 554). As Amabile (1969) points out, creativity and innovation go beyond normal work tasks, requiring employees to challenge traditional norms and practices. To engage in and persist with the task, employees need to be intrinsically motivated, in addition to possessing the necessary skills and knowledge (Hughes et al., 2018, p. 556).

That way, individuals can feel more organizational commitment, as creativity and innovation can lead to positive organizational benefits (Hughes et al., 2018, p. 551).

When teams work from home, they automatically have more autonomy as they can no longer be constantly monitored by their supervisor or manager (Ferreira et al., 2021, p. 9).

Thus, remote work fosters ‘Distributed Leadership’ by enabling increased autonomy as employees engage in more individualized tasks. This holds true for decision-making and leadership within a remote work environment as well, as teams working from home facilitate the dissemination of decision-making powers through increased autonomy (Bergum et al., 2023, p. 42).

In examining the impact of ‘Distributed Leadership’ on employee satisfaction in a remote working environment in the IT and Business Consulting sector, the link between ‘Distributed Leadership’ in digital teams and employee satisfaction becomes evident.

The ‘Distributed Leadership’ approach, characterized by greater autonomy in decision-making and task completion for remote teams, serves as one of the central factors. As teams often operate with greater autonomy in a remote working environment, this can also have an impact on employee satisfaction (Braun et al., 2013, p. 271).

The autonomy enabled by ‘Distributed Leadership’ is in line with the principles of the Self-Determination Theory, according to which employee satisfaction is influenced by factors such as autonomy, competence, and relatedness (Deci and Ryan, 2000, p. 68). Examining the relationship between ‘Distributed Leadership’ and remote working therefore lays the foundation for understanding how this leadership approach contributes to the broader spectrum of employee satisfaction in the sector, as the following pages will explain in more detail.

2.3 Employee Satisfaction and the Self-Determination Theory (SDT)

The satisfaction of the employees is an important factor in creating confidence, and loyalty, and ultimately improving the quality of their output (Tietjen and Myers, 1998, p. 226). Research on employee motivation and satisfaction, engagement with work, organizational identity, commitment, leadership behavior and effectiveness, managerial practices and more, has been extensively explored in articles and books (Rainey, 2009, p. 49).

It is a well-known fact that good relationships with management are one of the two most important factors in determining job satisfaction - a good job being the second (Sousa-Poza and Sousa-Poza, 2020, p. 517).

Numerous investigations revealed that individual perceptions of transformational leadership were positively related to job satisfaction (Judge & Piccolo, 2004; Podsakoff et al., 1990, 1996) (Braun et al., 2013, p. 271).

Flexible working has been linked to a variety of outcomes for employees in a number of studies. An increase in job satisfaction has been shown to occur where employees have choices over their work schedules (Hill et al., 1998; Hyman and Summers, 2004; Igbaria and Guimaraes, 1999) (Kelliher and Anderson, 2010, p. 84). In contrast, remote working presents a more varied picture. Job satisfaction (Baruch, 2000) and autonomy (Kelliher and Anderson, 2008) have been reported to be higher in some studies, while feelings of isolation can negatively impact job satisfaction according to other studies (Cooper and Kurland, 2002) (Kelliher and Anderson, 2010, p. 84).

Several studies have examined the relationship between teachers' involvement in decision-making processes in schools and principals' job satisfaction. Some research findings, such as those of Bacharach and Mitchell (1983), suggest a positive correlation. Knoop (1995) concludes that shared decision making with staff brings positive job outcomes for principals, such as increased organizational commitment. Devos et al. (2007), on the other hand, found no significant link between participative decision-making and the satisfaction of principals (Hulpia and Devos, 2009, p. 156).

A study by Kelliher and Anderson revealed that their survey data is consistent with various studies and shows that flexible workers have higher levels of general job satisfaction (Hill et al., 1998; Hyman and Summers, 2004; Igbaria and Guimaraes, 1999) and organizational commitment (Grover and Crooker, 1995; Roehling et al., 2001) compared to their non-flexible counterparts (Kelliher and Anderson, 2010, p. 97). In addition, their findings indicate that employees "voluntarily exercised additional effort" (Kelliher and Anderson, 2010, p. 96). Flexible workers were willing to exert additional effort in exchange for a degree of flexibility or control (Kelliher and Anderson, 2010, p. 96).

A number of theories emphasize that satisfaction is most likely to be caused by the work itself (Tietjen and Myers, 1998, p.231). Fulfilling the basic duties defined in the job specification, together with intrinsic factors that promote a positive attitude to work, is the key factor that contributes to improved and sustained job performance.

While personal and non-work factors may influence behavior and satisfaction, the work itself is what makes people fulfilled (Tietjen and Myers, 1998, p. 231).

An intrinsic motivation is a feeling of motivation to accomplish a task just because it's enjoyable or interesting to us. Extrinsic motivation refers to what motivates us when we earn external rewards for completing a task (Falk, 2023). Our highest levels of performance are enabled by intrinsic motivation (Falk, 2023). Intrinsic motivation for this work is therefore essential.

In order to measure the influence of 'Distributed Leadership' in digital teams on employee satisfaction, it is important to use a model that explains the concept of employee satisfaction with the help of intrinsic motivation. This paper focuses on three psychological needs drawn from Self-Determination Theory, which are explained in more detail using the Cognitive Evaluation Theory (CET).

The average person spends around a third of their life at work (Head for work, 2019). As a result, employee satisfaction and its lack are common topics of conversation (Gettysburg College, 2023)**.** Deci and Ryan, who developed the SDT, identified three basic psychological needs, that are "the basis for self-motivation, personality integration, as well as for the conditions that foster those positive processes" (Deci and Ryan, 2000, p. 68): competence, relatedness, and autonomy – "that appear to be essential for facilitating optimal functioning of the natural propensities for growth and integration, as well as for constructive social development and personal well-being" (Deci and Ryan, 2000, p. 68). When these needs are met, it leads to improved self-motivation and mental health. However, when these needs are unmet, motivation and mental health are diminished (Deci and Ryan, 2000, p. 68). Kelliher and Anderson (2008) came to similar conclusions, as their study participants expressed greater satisfaction with increased autonomy and planning flexibility (Kelliher and Anderson, 2008, p. 425).

SDT-led research has also examined how the environment impacts self-motivation, social functioning, and personal well-being. Consequently, SDT pays attention not only to the specific nature of positive developmental tendencies, but also to the social environment that can counteract these tendencies (Deci and Ryan, 2000, p. 69).

The Cognitive Evaluation Theory (CET), which was introduced by Deci and Ryan in 1985, is presented as a sub-theory within the Self Determination Theory (SDT) with the aim of identifying factors responsible for differences in intrinsic motivation (Deci and Ryan, 2000, p. 70). CET is formulated in terms of social and environmental factors that either promote or undermine intrinsic motivation (Deci and Ryan, 2000, p. 70).

Consequently, intrinsic motivation is possible if the circumstances allow it. According to Leithwood et al. (2009), under the right conditions, organized or purposeful leadership distribution can have a positive impact on school performance (Harris, 2013, p. 549). It appears that conditions are therefore an important factor, not only in achieving employee satisfaction but also in ensuring that ‘Distributed Leadership’ has positive effects. The question arises as to which criteria are required to create suitable conditions.

CET focuses on the fundamental needs of competence and autonomy (Deci and Ryan, 2000, p. 70). It was developed to integrate results from early laboratory experiments on rewards, feedback, and other external events that affect intrinsic motivation. Social-contextual events such as feedback, communication or rewards that lead to a feeling of competence have shown positive effects on intrinsic motivation. 'Optimal challenges', constructive feedback and the omission of pejorative judgements have thus been shown to facilitate intrinsic motivation for a task. Early studies found that positive performance feedback increased intrinsic motivation, but negative performance feedback lowered it (Deci, 1975). According to research by Vallerand and Reid (1984), these effects are mediated by perceived competence (Deci and Ryan, 2000, p. 70).

However, according to CET, feelings of competence will only increase intrinsic motivation if they are accompanied by a sense of autonomy. To make intrinsic motivation truly evident, CET states that people must not only experience competence or effectiveness, but also feel that their behavior is self-determined (Deci and Ryan, 2000, p. 70).

Relatedness also plays an important role in influencing intrinsic motivation, despite autonomy and competence support being prominent factors.

Studies have shown that students of teachers who support their autonomy show higher levels of intrinsic autonomy, interest and even desire for challenge (e.g. Deci, Nezlek, & Sheinman, 1981). Controlling methods lead to students losing initiative and learning less effectively (Amabile, 1996; Grolnick & Ryan, 1987; Utman, 1997). According to Grolnick, Deci, & Ryan, 1997, a similar effect was found in children whose parents encouraged their autonomy rather than being controlling (Deci and Ryan, 2000, p. 71).

There is no evidence that intrinsic motivation requires immediate relational support since many intrinsically motivated behaviors can be carried out independently. However, a secure relational foundation does appear to be crucial for the manifestation of intrinsic motivation (Deci and Ryan, 2000, p.71).

As an example, fostering a sense of belonging within one's team can become a challenge when team members engage in remote work for part of their working hours. This difficulty is mainly due to different opinions and perceptions on the use of technology as well as different communication styles. Some employees would like to have more face-to-face meetings, while others feel that this is not necessary. When employees work remotely, strengthening the team's sense of belonging therefore becomes more intricate. Research has shown that Generation Z, ("digital natives" born between 1995 and 2012), find it easier to consume information more quickly compared to previous generations (Deas, 2021). However, according to the study, Generation Z has a less pronounced ability to think critically and communicate in real life (face-to-face and not digitally) (Deas, 2021). These differences between generations can pose a challenge, to strengthen the sense of belonging between employees of different generations and promote collective decision-making (Bergum et al., 2023, p. 132). ‘Distributed Leadership’ comes with a certain autonomy and can lead to improvements in job satisfaction. Research by Hulpia and Devos (2009) found that employees' job satisfaction increased when they engaged in shared decision-making or a “shared focus and vision among the team members” (Hulpia and Devos, 2009, p. 155). This is because they experienced less stress by distributing leadership functions and less social isolation (Hulpia and Devos, 2009, p. 156).

At the same time, empowering employees, particularly over their work and how it is performed, can also contribute to increased job satisfaction.

‘Distributed Leadership’ practices also seek to promote the interconnectedness of the organization to facilitate higher levels of communication, collaboration, and knowledge-sharing throughout all functions of the business (Hulpia & Devos, 2009; Niwamoto, 2018; Fu et al., 2018)

2.4 Gaps in existing research

Discussions about ‘Distributed Leadership’ have mainly reflected the day-to-day realities of schools. Halverson (2003) suggests that research on ‘Distributed Leadership’ primarily emphasizes enhancing school management, fostering teachers' professional development, and improving teaching practices. (Shin and Joo, 2016, p. 2). There have been relatively few studies examining the effect of ‘Distributed Leadership’ on organizations.

Another noteworthy aspect concerns the methods used in current research on ‘Distributed Leadership’. The majority of the current research has been qualitative (e.g., Hulpia, Devos, & Rosseel, 2009), with a few exceptions (e.g., Camburn et al., 2003; Heck & Hallinger, 2009; Spillane et al., 2009a).Validity and generalizability are relevant methodological issues in ‘Distributed Leadership’ research (Avolio, Sosik, Jung, & Berson, 2003; Johnson & Onwuegbuzie, 2004; Spillane et al., 2009b) (Shin and Joo, 2016, p. 6).

However, taking into consideration Klenke's (2008) argument, Wright (2008) contends that 'Distributed Leadership' researchers should use qualitative research (Wright, 2008) because it focuses on how leaders work within the social and cultural environment of schools. It also looks at how people interact and how leadership is practiced, considering the idea that leadership is shaped by social influences (Shin and Joo, 2016, p. 7).

Therefore, it is more effective to use a qualitative method, in order to get better or more meaningful insights (Shin and Joo, 2016, p. 6). This is the reason why part of the methodology of this research will also be qualitative.

Aside from that, while the impact of remote work on employee satisfaction has been extensively studied, there is comparatively less research on this subject within the framework of 'Distributed Leadership.'

3. Objectives

The general objective of this research work, defined in the first section, is specified in the following specific objectives:

- Examine the fundamentals of ‘Distributed Leadership’ in remote work settings in the IT and Business Consultancy sector.
- Analyze the mechanisms of ‘Distributed Leadership’ in virtual teams in the IT and Business Consultancy sector.
    - Identification and explanation of the mechanisms and processes involved in ‘Distributed Leadership’ in virtual teams that impact employee- motivation and satisfaction.
- Assess the influences of ‘Distributed Leadership’ on employee- motivation and satisfaction.
- Identify challenges and opportunities for implementing ‘Distributed Leadership’ in remote work settings in a way that enhances employee-motivation and satisfaction.
- Find recommendations for optimizing ‘Distributed Leadership’ in remote work settings in the IT and Business Consultancy sector to enhance employee-motivation and satisfaction.
- Provide a contribution to the literature by integrating and synthesizing existing research on ‘Distributed Leadership’ in remote work settings.

4. Methodology

4.1 Approach

This bachelor thesis employs a quantitative and qualitative research design, integrating a systematic literature analysis to ensure the relevance and up-to-datedness of the study. Subsequently, a quantitative and qualitative survey in the form of an online questionnaire is conducted, targeting employees working in digital teams in the IT- and Business Consultancy sector. Employees in Group 1 follow a hierarchical leadership approach, while employees in Group 2 follow a 'Distributed Leadership' approach. The same questionnaire was sent to both groups. The primary goal of this survey is to examine the impact of 'Distributed Leadership' on employee satisfaction in digital teams. Through this comprehensive approach, the thesis aims to illuminate the role of autonomy, competence, and relatedness in employee intrinsic motivation, and ultimately, their job satisfaction.

4.2 Methodology: Empirical investigation

Döring and Bortz mention in their book about investigation methods, that the objective of empirical data collection is to describe or represent sections of reality that are of interest in a study as accurately as possible (Döring and Bortz, 2006, p. 138). In empirical studies, it is common to use different types of data collection. The question of the best type of data collection cannot be answered universally but must be asked in each case depending on the study. The choice typically involves evaluating qualitative and quantitative data collection methods, each of which has distinct characteristics and approaches (Döring and Bortz, 2006, p. 138). Both research approaches offer different advantages when evaluating the results. The primary aim of quantitative research approaches is to make social phenomena measurable and to evaluate them statistically, as well as to test hypotheses and theories. In qualitative research approaches, on the other hand, the primary goal is to reconstruct social phenomena and to generate hypotheses and theories (Universität Leipzig, 2014).

One fundamental aspect of quantitative research lies in the absence of the participant's voice, a contrast to qualitative inquiries. Quantitative studies excel in amassing vast datasets concerning the prevalence of specific attitudes towards various issues.

Conversely, qualitative research delves into the underlying reasons shaping individuals' sentiments and perspectives, thus enriching our understanding of their reactions. Consequently, qualitative, and quantitative data often complement each other harmoniously. In qualitative research, it's important to understand that the results can't just be applied to a larger group of people. Instead, researchers focus on finding specific examples of behavior, clarifying participants' thoughts and feelings, and interpreting their experiences with interesting phenomena. This helps them to better explain human behavior (Austin and Sutton, 2014, p. 436).

In this thesis, a questionnaire is used as a data collection method, which is evaluated both quantitatively as well as qualitatively.

Taking into account the previous considerations and an analysis of the existing literature, the following hypotheses can be formulated:

H0 = There is no difference between groups of the categorical independent variable (leadership type) on the continuous variables (autonomy, competence, relatedness, feedback quality, overall satisfaction)

H1 = There is a significant difference between Groups of the categorical independent variable (leadership type) on the continuous variables (autonomy, competence, relatedness, feedback quality, overall satisfaction)

4.3 Variables used and mixed methodologies

The purpose of this research is to gather reliable information through empirical social research. This study investigates the relationship between a leadership method ('Distributed Leadership' or hierarchical leadership) and the improvement of autonomy, competence, relationality, feedback quality, and overall satisfaction to evaluate the impact of the leadership method on employee satisfaction. In order to achieve this, a scientific investigation will be conducted to assess these variables among employees in digital teams. The fixed variable is the leadership method, resulting in two groups.

The dependent variables autonomy, competence, relationality, feedback quality, and overall satisfaction are examined in conjunction with Deci & Ryan’s Self-Determination Theory explained above.

Within the framework of Cognitive Evaluation Theory, the questionnaire also addresses the variables of performance-promising feedback and general employee satisfaction.

A survey was chosen as the method for collecting data. Considering the geographic separation of the respondents and the need to obtain as many representative results as possible in a short amount of time, an online survey containing both closed and open questions was conducted. A key advantage of this approach over personal interviews, phone calls, or written surveys is that it saves time and is less costly for both the evaluator and the respondents. It also eliminates any potentially disruptive and distorting influence of the interviewer. In addition, online surveys offer greater anonymity (Hug, 2014, p. 157). Since the survey is aimed at employees of two companies who are evaluating the management structure and their satisfaction within their team or organization, an anonymous survey allows participants to answer as honestly and impartially as possible, resulting in more meaningful and valuable insights. Due to the automatability and thus partially higher objectivity, there are also fewer sources of error due to manual data entry, experimenter effects, and group effects (Thielsch and Weltzin, 2009, p. 70). The collected data is then examined, consolidated, and presented as part of the study.

However, the survey included open questions as well, which can be evaluated qualitatively in conjunction with the quantitative approach. A combination of these can also be extremely fruitful for a research project. As a result, in-depth knowledge is gained that cannot be achieved through a single method alone (Hug, 2014, p. 111). The combination of qualitative and quantitative research methods within the framework of a research design or research project is called mixed methodologies. The methods are used in parallel or successively and the results are related to each other. The results of the method types can then validate each other or complement each other (Hug, 2014, p. 112). All questions are asked in German, as the questionnaire was sent to employees of German companies and the answering of the questions should be made as convenient as possible for the employees. A translation will be provided.

In the realm of autonomy, the questions delve into participants' feelings of to what extent they feel like they can act autonomously to complete their tasks.

When it comes to competence, the questionnaire addresses to what extent they feel that their competencies are recognized, used, and enhanced, and whether their opinions and/or suggestions for improvement are taken seriously in the team so that they feel empowered in their competencies.

For relatedness, the questions probe into participants' perception of to what extent they feel connected to the team and the organization as a whole and whether they are included in decision-making processes to create a sense of connection as well as whether their opinions are adequately considered in digital communication tools (such as Teams).

As for feedback quality, the survey assesses how well the current feedback culture in their team matches their vision of a workplace environment that fosters autonomy, competence, and connection and to what extent they feel empowered to give constructive feedback.

Lastly, the overall satisfaction questions focus on participants' overall perception of the current leadership culture in their team and how satisfied they are with it.

The researcher deliberately chose 5-point Likert-scale questions for assessing the level of autonomy, competence, relatedness, feedback quality, and overall satisfaction. These questions were designed to comprehensively assess participants' perceptions in these key areas and provide a nuanced understanding of their interests and potential areas for improvement.

By using these questions based on the Likert scale, the researcher attempts to gain insights into participant satisfaction and to uncover and understand both the commendable aspects of 'Distributed Leadership' and points for improvement. The comprehensive design of the questionnaire enables the researcher to draw meaningful and evidence-based conclusions that are not only statistically verifiable but also qualitatively supported by the answers to the open questions. In this way, specific employee wishes and suggestions for improvement can be recorded, and the influence of 'Distributed Leadership' on intrinsic motivation and thus employee satisfaction can be analyzed. Group 1, i.e., the employees in digital teams with hierarchical leadership, serves as a comparison group. Both groups were given the same questionnaire.

This allows the differences in the influence of the management method on employee satisfaction to be identified in a very tangible manner.

4.4 Data collection, universe, and sample

The survey instrument was developed and administered online. The population was staff members of Metafinanz and Consileon. A link to the questionnaire was sent to the designated contact persons at Metafinanz and Consileon. Consileon has digital teams with hierarchical leadership styles, whereas Metafinanz has 'Distributed Leadership' teams. Subsequently, the contact persons distributed the link to the pertinent teams and employees. Responses were compiled during the timeframe spanning from January 2, 2024, to January 31, 2024.

In this study, data was collected using a random sample approach via an online survey. The respondents were passively selected in order to achieve diversity and a wide range of responses. As the researcher forwarded the link to the online survey only to the respective contact person in the two companies, there was no influence on the number of participants. Through the snowball technique, survey participants were encouraged to share the survey link with colleagues they thought might be interested (Thielsch and Weltzin, 2009, p. 74).

A total of 54 employees from the two companies completed the questionnaire. 14 of the 54 belong to Group 1 (digital teams with traditional, hierarchical leadership) and 40 to Group 2 (digital teams with 'Distributed Leadership'). Both companies are from the IT and Business Consulting sector. Both groups received the same questionnaire in order to ensure comparability of the results. However, one of the first questions was to determine which group they belonged to in order to be able to differentiate the results.

4.5 Data analysis: Quality criteria for empirical research

The statistical data analysis was conducted using Jamovi version 2.3.28. The collected data is analyzed using descriptive statistics, and a one-way MANOVA (multivariate analysis of variance) test is performed to test the hypothesis. MANOVA is applicable in situations with either one independent/predictor variable or multiple ones.

It allows us to examine interactions among outcome variables and perform contrasts to identify group differences.

In cases with only a single outcome variable, the model is termed univariate, indicating a focus on a singular variable. On the other hand, when incorporating multiple outcome variables simultaneously, the model is referred to as multivariate, emphasizing the consideration of numerous variables (Field, 2013, p. 1073).

An examination and cleaning of the entire dataset is necessary before data analysis can begin. Validity, reliability, and normal distribution were examined to ensure the validity of the study.

The first step of the analysis involved cleaning incomplete and invalid data sets. Data cleansing was followed by a descriptive analysis to provide an overview of the key information and a clear presentation.

Another prerequisite for a successful evaluation of the results is adherence to the "universally valid" quality criteria. These include objectivity, transparency, reliability, indication/adequacy, validity, reflexivity, triangulation, and discussion of limitations (Hug, 2014, p. 115).

This study was carried out with the highest level of execution and evaluation objectivity as possible, as well as with reflection of one's own objectivity so that the results are as little biased by the researcher as possible. The reliability and validity of the data are demonstrated later on using statistical tests. Limitations of the study are also discussed in the next chapter. Since the entire process of the study was accurately documented and all results were traceable and comprehensible, transparency was ensured. The adequacy was ensured by the choice of research design and methods to answer the research question. Lastly, the combination of data from different sources and the combination of different evaluation methods also ensures triangulation.

The first step of the descriptive analysis was to clean incomplete and invalid data sets. After cleansing the data, a descriptive analysis was performed to present the key information clearly and provide an overview. Demographic representation was primarily based on frequency tables. In the descriptive analysis, the focus was primarily on the mean, standard deviation, and minimum and maximum values of the variables. The standard deviation provides information on how closely the mean reflects the data within the sample (Field, 2013, p. 126).

A substantial standard error (relative to the sample mean) might suggest that the sample mean does not accurately reflect the population mean due to a large variation among different sample means. A low standard error suggests a greater probability that our sample means accurately represent the population mean, implying that the majority of sample means resemble the population mean (Field, 2013, p. 126).

One way to minimize measurement error and a crucial condition is reliability (Field, 2013, p. 57). Reliability analysis assesses the consistency of a measure. Cronbach's α acts as a measure of the questionnaire's overall reliability, with values around 0.8 generally viewed as favorable (Field, 2013, p. 1200).

The descriptive analysis follows the one-way MANOVA, to test the validity of the hypothesis.

There are a few assumptions that need to be checked before performing a MANOVA:

- Independence:
    - The residuals must exhibit statistical independence.
    - We test this by examining the residual plots for patterns and trends.
- Random Sampling:
    - It is important to sample randomly from the population of interest and to make interval measurements.
    - Since the data collection method was random sampling, this requirement is met.
- Multivariate Normality:
    - While univariate models assume a normal distribution of residuals, in MANOVA, we extend this assumption to multivariate normality for residuals.
    - A QQ plot is used here. The points should be as close as possible to the 45-degree diagonal. This indicates that the distribution of the residuals is comparable to the normal distribution. The points in the QQ plot should be approximately on the line y = x. A deviation from straightness could indicate a deviation from normality (Korkmaz et al., 2021).

- Homogeneity of Covariance Matrices:
    - Univariate models assume roughly equal variances within each Group (homogeneity of variance). In MANOVA, this assumption applies to each outcome variable, and additionally, it asserts that all groups show consistent correlation between outcome variables (Field, 2013, p. 1109).
    - The Box's test assesses whether covariance matrices are equal. When sample sizes are equal, this test can be disregarded since certain MANOVA test statistics are robust even if this assumption is violated. However, when Group sizes differ, it is crucial to examine this test. If the significance value is less than 0.001, the results of the analysis should be treated with caution and may not be reliable (Field, 2013, p. 1109).

Four test statistics are provided in the Multivariate Tests table (Pillai's trace, Wilks' lambda, Hotelling's trace, and Roy's biggest root). In this study, Wilks's lambda is being utilized. A significance value of less than 0.05 indicates significant differences between groups regarding a linear combination of outcomes (Field, 2013, p. 1109).

4.6 Limitations of the study

The purpose of this section is to present critical observations regarding the application of the research methodology, primarily highlighting the drawbacks and potential sources of error.

The most significant concern with the chosen method is the inadequate representativeness of the sample size, which can influence the reliability of the results. A total of 40 answers came from employees of Group 2, but only 14 came from employees of Group 1. This difference in the Group sizes can influence the significance of the statistical results. Due to the limited time available, no further results could be obtained from Group 1. Nevertheless, it should be noted that Consileon, whose employees belong to Group 1 (digital teams with hierarchical leadership), has significantly fewer employees than Metfinanz (Group 2, digital teams with 'Distributed Leadership').

Consileon had 383 employees in 2019 (Consileon, 2023) while Metafinanz has 800 employees (Metafinanz, 2023).

With 14 responses from 383 employees (approx. 4%) and 40 responses from 800 employees (approx. 5%), the differences in sample size may well be due to differences in company size, as larger companies may have more resources to participate in surveys such as these.

The percentage share is thus quite comparable. In addition, in personal conversations with the contact person at Metafinanz, it was also said that Metafinanz in general attaches great importance to employee satisfaction and that surveys of this kind have been carried out more frequently. This may be an additional factor contributing to the fact that participation at Metafinanz was much higher, as employees are already used to this type of survey and have also completed them internally in the past.

Further, the following limitations were presented in this study:

1. The respondents participating in this sample may not be representative of all individuals working in this specific setting and may have introduced a bias into their responses that is unknown to the researcher. Therefore, the results cannot be generalized to the entire population that met the criteria for participation in this study.
2. This study was based on a single objective to investigate the impact of 'Distributed Leadership' in digital teams in the IT and Business Consultancy sector, and the results may not accurately reflect the current situation in all companies from this sector.
3. The results are limited to the personal perceptions of the respondents.

5. Results

An analysis of empirical data is presented and analyzed in the following sections. Upon reviewing the demographic information, a normal distribution test is performed, and a reliability and validity test is conducted to determine the quality of the data collected. Having verified the quality of the data, a correlation analysis is performed first to determine which factors have a relationship among them.

In the calculation of some of the five dependent variables, multiple questions were included. There was one question for autonomy, two questions for competence, three questions for relatedness, two questions for feedback quality and one question for general satisfaction. An average of the respective answers was calculated for a variable containing several questions.

5.1 Sample and demographic data

The survey data was collected between the 2nd of January 2024 and the 31st of January 2024. The questionnaire was sent to a specific contact person at each company, who forwarded the link to the survey to their colleagues. A total of 54 employees filled in the questionnaire. Data sets that were incorrect or incomplete were excluded from the evaluation. As the questions in the questionnaire were asked in German, an English translation is provided for specific questions.

Question 1: Which age group do you belong to?

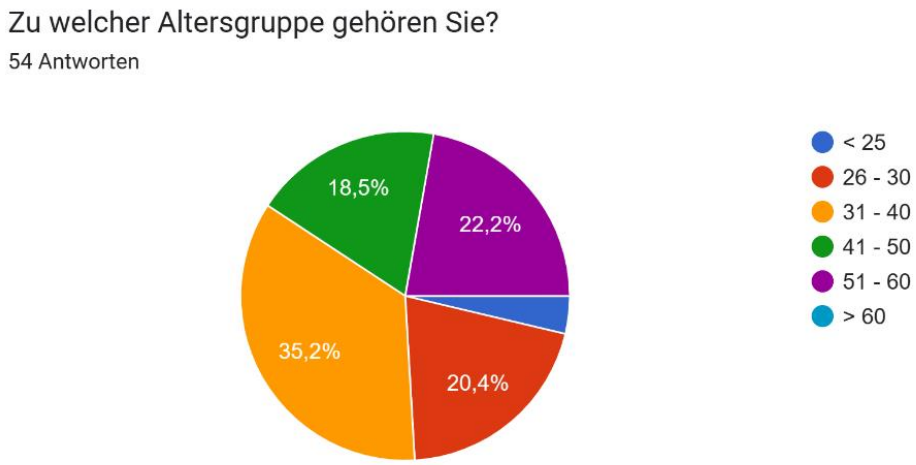

Figure 2: Age distribution (own representation)

The age of the participants is very evenly distributed. 19 of the 54 participants are between the ages of 31 and 40 (35.2%) and make up the largest proportion.

A total of 13 participants are under 30, and 22 participants are over 40, which shows a very good age distribution, with nearly all age groups represented. This extensive participation from a wide array of age groups imbues the survey with a comprehensive and diverse viewpoint, making it a valuable resource for understanding participants' opinions and perspectives in the subject area under examination.

Question 2: Which gender do you identify with? (Options: male (blue), female (red), diverse (orange), Prefer not to say (green))

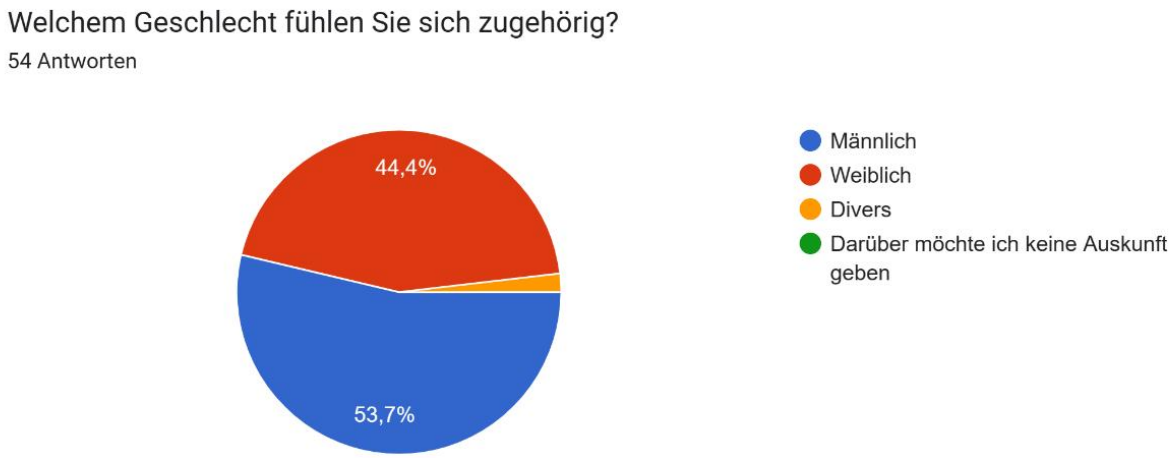

Figure 3: Gender distribution (own representation)

Figure 3 shows that there is also a nearly equal distribution of men and women. In total, 29 participants are male, 24 participants are female, and one participant represents a diverse group.

Question 3: Which team do you belong to? (Digital team with 'Distributed Leadership' (management responsibility distributed to the entire team) (blue), Digital team with hierarchical leadership ("traditional" leadership model, team leader and team members) (red))

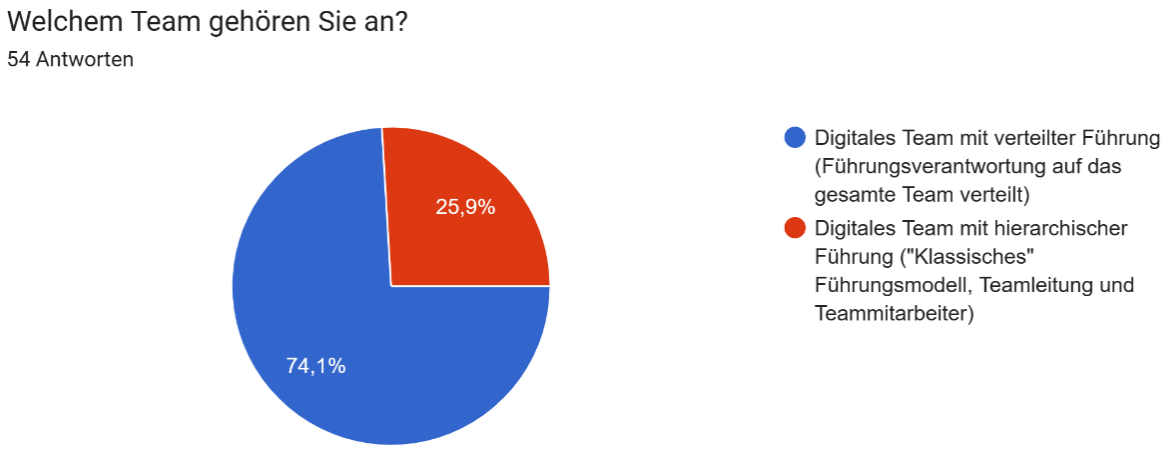

Figure 4: Team distribution (own representation)

While the teams with 'Distributed Leadership' demonstrated a high level of participation, the employees of the digital teams with the hierarchical leadership model were a little more reserved. With 40 participants with 'Distributed Leadership', they, therefore, form a large majority. A total of 14 employees reported coming from teams with hierarchical leadership structures. Various reasons may account for the high level of participation in 'Distributed Leadership' teams. In the first instance, it is noteworthy that Metafinanz, the entity housing teams operating under a 'Distributed Leadership' model, surpasses Consileon significantly in size. Additionally, it is pertinent to highlight that Metafinanz routinely conducts employee satisfaction surveys, indicating a pre-existing familiarity among its workforce with surveys of this nature. Furthermore, a qualitative analysis of the open-ended questions in these surveys can also provide further insights.

5.2 Descriptive Analysis

In the following subchapter, a descriptive analysis of the dependent variables autonomy, competence, relatedness, feedback quality, and overall satisfaction is presented. For all variables, the minimum, maximum, mean, and standard deviation have been determined.

Descriptives

Descriptives

	Leadership Method	Autonomy	Competence	Relatedness	Feedback-Quality	General satisfaction
N	1	14	14	14	14	14
	2	40	40	40	40	40
Mean	1	4.00	3.29	3.50	3.43	3.36
	2	4.70	4.16	4.34	4.21	4.47
Standard deviation	1	0.00	0.777	0.624	0.584	1.01
	2	0.516	0.624	0.437	0.629	0.554
Minimum	1	4	2.00	2.66	2.50	1
	2	3	2.00	3.33	2.50	3
Maximum	1	4	4.50	4.66	4.50	5
	2	5	5.00	5.00	5.00	5

Figure 5: Descriptive statistic (own representation)

By looking at Figure 5 some can delve into a comprehensive evaluation of the dependent variables within a group setting, shedding light on attributes such as autonomy, competence, relatedness, feedback quality, and general satisfaction. Across the board, Group 2 ('Distributed Leadership') showcases a commendable display of autonomy (mean = 4.7) and general satisfaction (mean = 4.47). These attributes not only show high average values but also relatively low standard deviations, which indicates a consistent and uniform experience of the participants. The average values for Group 1 (hierarchical leadership) are significantly lower, with m = 4.0 for autonomy and m = 3.36 for general satisfaction. While the standard deviation for autonomy in Group 1 is 0, indicating very uniform perceptions among employees, it is very high for general satisfaction at 1.01. This indicates very heterogeneous opinions among employees in Group 1 with regard to their general satisfaction.

In Group 2, the values of the standard deviation for all 5 variables are approximately between 0.5 and 0.6 and are significantly lower than in Group 1, especially for general satisfaction, which means that the employees' impressions are much more similar.

In the category of competence, the average value of 4.16 for Group 2 indicates an equally good result, while Group 1, with an average value of 3.29, has rather lower values. The relatedness and feedback quality follow a similar trend. Both average values are significantly higher for Group 2 than for Group 1. The results for Group 2 in particular are relatively consistent, which is reflected in the low standard deviation.

In summary, the provided descriptive statistics illuminate Group 2's strengths in all of the analyzed variables but especially in autonomy and overall satisfaction, when compared to Group 1, followed by relatedness and feedback quality. Competence emerges as an area of high potential, though with some diversity in its manifestation.

These results not only depict Group 2's existing personal perceptions regarding the discussed attributes but also establish a foundation for additional investigation. A more thorough examination, complemented by qualitative insights, has the potential to uncover the factors influencing these opinions. Furthermore, the standard deviations offer insight into the degree of variability, indicating potential paths for focused improvement or development. This, in turn, can lead to more definitive statements about the impact of leadership styles within the studied groups, potentially fostering a more cohesive and positive development across all attributes.

5.3 Reliability Analysis

Ideally, a reliable measure (or in this case, a questionnaire) should reflect the construct it is measuring consistently (Field, 2013, p. 1189). The reliability of a questionnaire is typically assessed by assuming the individual items (or sets) should produce similar results to the entire questionnaire (Field, 2013, p. 1189). To gauge the reliability of the measurement instruments employed in this study, Cronbach's Alpha test was executed, the most commonly used measure of scale reliability. A value of 1 is the maximum that can be assigned to Cronbach's alpha. At 0.6, the reliability is acceptable (Walther, YouTube, 2020). A Cronbach's α ranging from 0.7 to 0.8 signifies strong reliability, whereas notably lower values suggest an unreliable scale (Field, 2013, p. 1191).

Values above 0.9 are not desirable, as this might indicate that they are redundant items, as they correlate perfectly with each other (Walther, YouTube, 2020).

Reliability Analysis

Scale Reliability Statistics

	Cronbach's α
scale	0.882

Figure 6: Test for Cronbach's Alpha (own representation)

Figure 6 illustrates how Cronbach's Alpha is used to assess the reliability of the mean for the five dependent variables. With a calculated Cronbach's Alpha of 0.882, this value demonstrates the robustness of the measurement and highlights the data's high degree of consistency and reliability. The outcome reinforces the credibility and dependability of the study by demonstrating a high degree of internal consistency among the variables.

Item Reliability Statistics

	If item dropped
	Cronbach's α
Competence	0.846
Relatedness	0.846
Feedback-Quality	0.856
Autonomy	0.874
General satisfaction	0.859

Figure 7: Cronbach's Alpha if the item is deleted (own representation)

An examination of Cronbach's Alpha values under the scenario of deleting individual items is presented in Figure 7. This examination aims to shed light on the possible consequences of excluding certain variables, such as competence or relatedness, on the overall consistency of measurements. Interestingly, even if we were to remove either competence or relatedness, the resulting Cronbach's Alpha would still be remarkably strong at 0.846.

This observation emphasizes the durability and trustworthiness of the measurement framework, making it unnecessary to eliminate any individual variable. Thus, it strengthens the notion that every item on the scale contributes significantly to the overall coherence and reliability of the results, enhancing the validity and robustness of the study's conclusions.

5.4 Hypothesis Verification

In order to accurately test the validity of our hypotheses, a careful analysis was performed using a MANOVA, one of the frequently used multivariate statistical methods in social science literature (Warne, 2014, p.1). Some researchers may wonder if the additional complexity of MANOVA is worth it, given its more complicated nature. For each dependent variable, an ANOVA can be performed as an alternative to utilizing MANOVA. However, behavioral scientists who study correlated dependent variables often find it more useful to know whether independent variables are related to combinations of dependent variables, which is why this approach is not advantageous. Moreover, conducting multiple ANOVAs increases the risk of making a Type 1 error (Warne, 2014, p. 2).

This investigation's main objective is to test and, preferably, reject the null hypothesis (H0: no change → no effect), which claims that there is neither a change nor an impact. The goal of the research is to obtain a significant understanding of any potential causal linkages between the variables under examination through this statistical analysis. As any divergence from equality may result in incorrect and mistaken conclusions, guaranteeing the equality of variances is an essential first step in statistical analysis.

What a MANOVA does, is it constructs a linear composite of the outcome variable, which means, that the groups differ on that linear composite. This is important to consider when interpreting the results, because if the results are significant, it does not mean, that the groups necessarily differ on competence or relatedness, it means, they differ on a composite of all of the tested independent variables (Field, YouTube, 2013). This is why in this study, a MANOVA is utilized to find out if there are significant differences between the groups and will then be followed by a qualitative analysis of the open questions of the questionnaire, to find out more about differences in specific variables.

5.5 Preliminary Analysis and Assumption Testing

Assumption Checks

Box's Homogeneity of Covariance Matrices Test

χ^2	df	p
Inf	15	< .001

Shapiro-Wilk Multivariate Normality Test

W	p
0.888	< .001

Figure 8: Assumption tests (own representation)

Figure 8 displays Box's test examining the assumption of covariance matrix equality. This statistic is expected to be non-significant. However, with a p-value of less than 0.01 (smaller than the typical threshold of 0.05), it becomes evident that the covariance matrices do not align closely with the assumed equality (Field, 2013, p. 1103).

We also get the Multivariate Normality Test, the Shapiro-Wilk Test. The assumption here is, that the sample has been generated from a normal distribution (Malato, 2023). Data that is normally distributed has a large p-value, whereas data that is not normally distributed has a low p-value (Malato, 2023). As the p-value is below 0,001 we need to reject the null hypothesis.

The violation of these assumptions is due to the relatively small sample size and the inequality of the group sizes. Nevertheless, we can use the MANOVA to get an idea about the differences between those two groups and continue with a qualitative analysis to get further information.

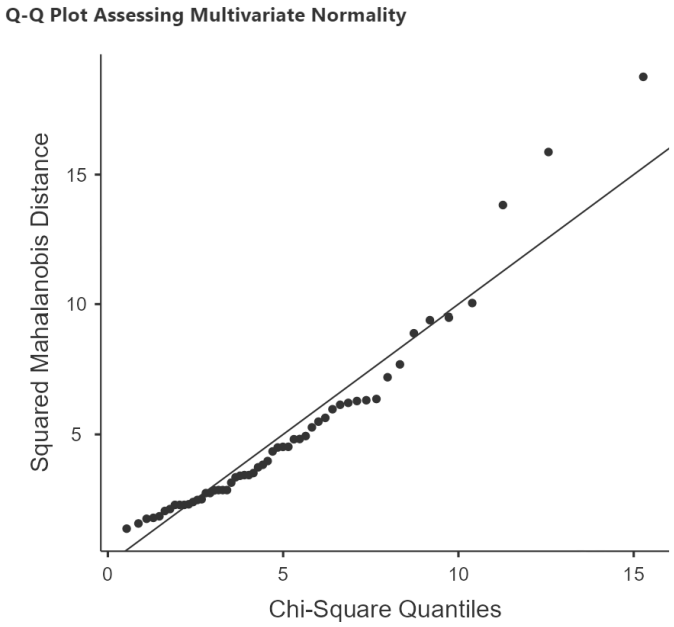

Figure 9: Q-Q Plot (own representation)

The Q-Q Plot in Figure 9 shows that there are some deviations among the chi-square quantiles, the higher part of the chi-square contact quantiles. Because of this slight deviation, the p-value of the Shapiro-Wilk Test is also lower.

Even though we have to reject the null hypothesis of the Shapiro-Wilk Test, the one-factorial MANOVA is considered to be relatively robust to violations of the normal distribution (Finch, 2005). Therefore, we can continue with the analysis without performing countermeasures (Statistik Guru, 2024).

5.6 MANOVA

Multivariate Tests

		value	F	df1	df2	p
Leadership Method	Pillai's Trace	0.492	9.31	5	48	< .001
	Wilks' Lambda	0.508	9.31	5	48	< .001
	Hotelling's Trace	0.970	9.31	5	48	< .001
	Roy's Largest Root	0.970	9.31	5	48	< .001

Univariate Tests

	Dependent Variable	Sum of Squares	df	Mean Square	F	p
Leadership Method	Autonomy	5.08	1	5.081	25.4	< .001
	Competence	7.97	1	7.972	18.0	< .001
	Relatedness	7.37	1	7.375	30.7	< .001
	Feedback-Quality	6.37	1	6.373	16.7	< .001
	General satisfaction	12.96	1	12.959	26.8	< .001
Residuals	Autonomy	10.40	52	0.200		
	Competence	23.05	52	0.443		
	Relatedness	12.51	52	0.241		
	Feedback-Quality	19.87	52	0.382		
	General satisfaction	25.19	52	0.484		

Figure 10: MANOVA (own representation)

Figure 10 displays the test statistics concerning the model intercept and the group variable (Field, 2013, p. 1104). The group effect indicates whether the leadership method had varying impacts on the perception of the various dependent variables among the employees (Field, 2013, p. 1104).

MANOVA uses multivariate tests to examine the relationship between variables. By default, Jamovi gives us all the common multivariate statistics (Pillai´s Trace, Wilks`s lambda, Hotelling´s Trace, and Roy´s largest Root). While their formulas differ, all four are test statistics for the same null hypothesis (Warne, 2014, p. 5). The data is converted into an F-statistic, with differing degrees of freedom for each test statistic, and the corresponding p-value for that F is indicated in the Sig column (LaerdStatistics, 2024).

One-way repeated measures MANOVA is statistically significant if p is less than 0.05. A one-way repeated measures MANOVA is not statistically significant if p is greater than 0.05 (LaerdStatistics, 2024).

Each of these data sets meets the significance criterion and is below 0.05. It is worth noting the significance of this scenario, as the test statistic chosen determines the rejection of the null hypothesis that there are no differences between the groups (Field, 2013, p. 1104). In this study we will use Wilks´s lambda. Wilks's lambda is derived from the unexplained variance across individual variates. It serves as a measure indicating the ratio of error variance to total variance for each variate (Field, 2013, p. 1094). Higher eigenvalues, signifying substantial experimental effects, result in smaller values of Wilks's lambda. Consequently, statistical significance is established when Wilks's lambda assumes smaller values (Field, 2013, p. 1094). The value represents the estimate of the linear combination of the dependent variables (Swan, 2021, YouTube). In our case, the value is below 0,05. What is important to note is that if the Sig. value is below than 0.05, it indicates significant discrimination among the groups by the variate (Field, 2013, p. 1119.) This is due to the fact that Group 1 is much smaller than Group 2.

Nevertheless, this indicates that the null hypothesis is rejected, and leadership style has a statistically significant relationship with the combined dependent variables of autonomy, competence, relatedness, feedback quality and overall satisfaction. There will always be the same results from each test when only two groups make up the independent variable, as is the case in this study (Warne, 2014, p. 6).

Post hoc procedures are often necessary after the null hypothesis is rejected in a MANOVA, because the null hypothesis often does not provide researchers with all the information that they desire (Warne, 2014, p.4). In this study, the goal is not only to understand if there is a statistically significant difference between the group with 'Distributed Leadership' and with hierarchical leadership, but we also want to know, why the null hypothesis was rejected. For that it is possible to conduct an ANOVA for each dependent variable (see Figure 10, Univariate tests). However, using ANOVA as a post hoc procedure is not necessarily the best option, because ANOVA and MANOVA were developed to answer completely different empirical questions (Warne, 2014, p. 5).

To ensure comprehensiveness, a post hoc one-way analysis of variance (ANOVA) was conducted for each dependent variable. A statistically significant difference was observed among the leadership methods for all dependent variables, with $p < 0.001$.

5.7 Qualitative Analysis

Following the MANOVA analysis, it is crucial to pinpoint variations in the individual variables to precisely determine where the significant difference lies between the two groups. It is noteworthy that the statistical analysis did not encompass the open-ended questions from the questionnaire, which are a valuable resource for uncovering distinct differences in the individual variables. The questionnaire featured two open-ended questions, and two additional questions provided a platform for participants to elaborate on their responses in the "Other" option. In the subsequent analysis, each question is analyzed individually, and the contrasts in the responses between the two groups are taken into account.

The first question we are going to look at is: “How is feedback on decisions collected in your team?” There were five possible answers to this question. What is striking about the answers is that although several answer options could be selected, all participants from Group 1 (hierarchical leadership) only selected "one-to-one meetings". In contrast, the most common answer for Group 2 ('Distributed Leadership') was "regular team meetings". In addition, participants in Group 2 usually selected several answer options, and "anonymous surveys" was also frequently mentioned. This is an interesting piece of information that allows conclusions to be drawn about the number of participants. It can be seen that participants in Group 2 seem to take part in anonymous surveys frequently and that this is even part of their everyday life when decisions are made in the team or opinions are collected. In Group 1, this response option was never selected. As the participants are presumably less accustomed to this type of survey, the number of participants in Group 1 may also have been lower. Some employees in Group 2 also provided further insights in the "Other" response option. As one participant wrote, for example: "Anyone can say freely if someone objects to a decision." Another participant wrote: "We discuss everything openly and transparently." Or: "Safe space in the team to speak openly without taking critical points personally".

Research from McKinsey shows that psychological safety is largely driven by a positive team climate, where team members value one another's contributions and care about each other's well-being (De Smet et al., 2021).

This is important, as psychological safety fosters engagement and motivation by empowering team members to contribute freely without fear. It enhances decision-making by encouraging diverse perspectives and open dialogue. Additionally, it cultivates a culture of continuous learning and improvement by allowing for the sharing and learning from mistakes (Gallo, 2023). This is exactly what team members of the 'Distributed Leadership' team express in the questionnaire.

When thinking back to The Cognitive Evaluation Theory (CET), which is a sub-theory within the Self Determination Theory (SDT), certain parallels can be recognized here which relate to intrinsic motivation.

CET is formulated in terms of social and environmental factors that either promote or undermine intrinsic motivation (Deci and Ryan, 2000, p. 70). Individuals' intrinsic motivation is catalyzed when they are in conditions that facilitate its expression (Deci and Ryan, 2000, p. 70). Consequently, intrinsic motivation is possible if the circumstances allow it (Harris, 2013, p. 549). How does this affect the results of this question? Employees in Group 2 ('Distributed Leadership') seem to be able to provide feedback more frequently. Additionally, in contrast to Group 1, feedback is obtained more frequently during team meetings, where team members are given a "safe space" to express themselves freely. Hence, the environment is created to promote intrinsic motivation.

As previously noted, events within the social context (such as feedback, communication, and rewards) can enhance feelings of competence during activities, thus promoting intrinsic motivation. A blend of suitable challenges, supportive feedback on performance, and being free from negative or belittling assessments, can effectively nurture intrinsic motivation (Deci and Ryan, 2000, p.70). Looking at the answers to the questions already included in the quantitative analysis (“To what extent do you feel empowered to give constructive feedback?”), it is striking that 4 out of 14 people from Group 1 stated "Neutral" and 8 "Empowered".

Only two people feel "Very authorized" to give constructive feedback.

Compared to Group 2, the situation is quite different. 27 people, i.e. almost 68%, feel "Very authorized" to give constructive feedback. Furthermore, only one person from Group 2 stated "Neutral", the rest felt at least "Authorized".

Another question on the topic of feedback was: “How well does the current feedback culture in your team correspond to your idea of a workplace environment that promotes autonomy, competence and connection?” Again, there is a clear difference between the two groups. In Group 1, 8 out of 14 people named "Neutral", 2 said "Poor", and one even said, "Very poor". In Group 2, 10 people stated "Very good" and a large majority "Good". "Poor" was stated by only two people out of 40.

According to the survey results, 'Distributed Leadership' does indeed appear to have an impact on the feedback culture in the digital teams surveyed.

The next question is: “What challenges do you see with regard to the leadership structure in your team?”

Again, there were several possible answers to this question and the opportunity to provide further insights under "Other".

10 of the 14 participants from Group 1 indicated "Communication problems" and "Decision-making processes" as a challenge.

In Group 2, "Decision-making processes" emerged as the most frequently cited response, with "Conflicts" being mentioned just as frequently. The question, "To what extent do you feel involved in decision-making processes within your team?" can offer additional insights in this context. Notably, within Group 1, 8 out of 14 individuals express a feeling of only "Moderate" involvement in decision-making processes, with 3 indicating a "Poor" sense of involvement.

Conversely, in Group 2, nearly 50% conveyed that they felt "Very strongly" involved in decision-making processes, a trend possibly attributed to the 'Distributed Leadership' style. The remaining 50% predominantly indicated a sense of "Strong" involvement. When aligning these findings with our criteria for intrinsic motivation and employee satisfaction, they contribute to fostering a sense of competence and connectedness. Employees who feel actively engaged in decision-making processes tend to provide highly positive responses regarding autonomy, competence, and relatedness (i.e., a strong sense of competence and a strong connection to the company/team). This sentiment is also evident in the overall satisfaction with the leadership style within both groups.

Group 1 averages a satisfaction score of 2.86, whereas Group 2 scores notably higher at 4.47 (on a scale ranging from 1 for "Not at all satisfied" to 5 for "Very satisfied"). These results confirm the statements from the literature analysis. As Hulpia and Devos (2009) write, some studies have found a positive correlation between employee participation and satisfaction and can even lead to greater organizational commitment (Hulpia and Devos, 2009, p. 156).

To conduct a more comprehensive analysis, the following question was posed: "What are the reasons behind your satisfaction or dissatisfaction with the existing leadership structure within your team?" Notably, Group 1 predominantly articulated reasons for dissatisfaction. One participant expressed discontent due to "limited opportunities to influence decisions". Another participant cited dissatisfaction arising from inadequate communication with managers. A third participant from Group 1 attributed her dissatisfaction to a "generation clash", emphasizing that "management lacks familiarity with digital communication media, which could be highly beneficial and efficient."

In contrast, Group 2, characterized by a 'Distributed Leadership' approach, predominantly provided feedback related to their satisfaction. The only exception was one individual expressing a desire for more "on-site" interactions.

While only 36% of respondents in Group 1 addressed the question, focusing primarily on dissatisfaction, a notable 75% of Group 2 provided insights into the reasons behind their satisfaction. Key factors contributing to satisfaction in Group 2 include a high level of personal responsibility, mutual respect within the team, equality, communication at a peer level, strong motivation, and flexibility.

One participant from Group 2 emphasized, "We take responsibility for our own actions, and there is no exploitation of the system. Everyone actively engages and supports one another. Additionally, we have internally assigned roles, allowing each member to contribute based on their individual talents."

Another participant highlighted the absence of hierarchy, the prevalence of democratic principles, and the effective utilization of diverse skills without centralized control. They expressed: "I am not subjected to control, and there is no fear of judgment from individuals based on hierarchical positions."

The responses to this question direct the attention back to the criteria of autonomy, competence, and relatedness as per the Self-Determination Theory. Notably, the employees in Group 2 explicitly cite these criteria as the factors contributing to their elevated satisfaction levels, even without being explicitly prompted. They convey a stronger sense of integration within their teams compared to participants in Group 1, and they perceive a higher degree of autonomy (mean value Group 1: 4, mean value Group 2: 4.7).

To delve deeper into the dimension of competence, an additional question was posed: "To what extent do you feel that your skills and abilities are promoted and utilized in your current position?" Clear disparities between the two groups emerge in response to this question as well. In Group 1, 4 out of 14 individuals indicated "Weak", while 5 others chose "Neutral". The remaining 5 respondents expressed "Strong". In contrast, Group 2 exhibited a notable trend, with 12 participants selecting "Very strong", and nearly 50% opting for "Strong". Notably, while only 36% of Group 1 respondents endorsed "Strong" without indicating "Very strong", the corresponding figure for Group 2 was 76%.

This result also reflects the statements of the CET. According to CET, feelings of competence will only increase intrinsic motivation if they are accompanied by a sense of autonomy. To make intrinsic motivation truly evident, CET states that people must not only experience competence or effectiveness, but also feel that their behavior is self-determined. To achieve this, either immediate contextual support or enduring internal resources are required (Reeve, 1996), typically stemming from prior developmental support for perceived competence and autonomy (Deci and Ryan, 2000, p. 70). Employees in Group 2 state that, firstly, their competences are recognized and appropriately supported. This feeling of competence is underlined by a high degree of autonomy according to the questionnaire, while employees in Group 2 feel significantly less supported in their competences and also achieve a significantly lower average score on the question of autonomy.

5.8 Summary of Hypothesis Testing

As we piece together these findings, a clear picture emerges: the null hypothesis of no change between the groups can successfully be rejected. Both the statistical and the qualitative analysis revealed noteworthy differences between the group led by hierarchical leadership and the one led by 'Distributed Leadership'.

Examining the mean values presented in Figure 5 within the descriptive statistics section, the most substantial difference is evident in the variable of competence, closely trailed by relatedness and feedback quality. These observations were validated by the qualitative analysis, where certain employees specifically addressed these aspects in response to open-ended questions. Beyond the overall higher average values for all five variables in Group 2, it is noteworthy that, notably, Group 2 outperforms in the general satisfaction with the leadership structure, further affirming the robustness of the hypothesis test results.

This comprehensive analysis not only provides valuable insights into the impact of 'Distributed Leadership' on employee satisfaction in digital teams but also underscores the nuanced nature of the implications it has on the perception of autonomy, relatedness, competence, feedback culture and overall satisfaction of employees.

6. Discussion/Conclusion

6.1 Practical Implications

The findings of this study may offer valuable insights for practice in organizations that have implemented or want to implement the distribution of leadership: Among the open questions in the questionnaire was: "How could we improve leadership structure in our team? What would make you happier in your job?" and a large number of respondents answered. "More managerial involvement" and "Routine knowledge transfer in a very complex environment" were mentioned as suggestions for improvement. It is interesting to note that these criticisms already point in the direction of 'Distributed Leadership'. The hierarchical team members would like their interests and concerns to be given more consideration, decision-making processes to be more flexible, and knowledge to be shared more efficiently. Characteristics that make up 'Distributed Leadership'.

In contrast, Group 2 provided valuable suggestions for improving ‘Distributed Leadership’ in their digital teams. It is noticeable that some employees would like to meet more often in person to strengthen trust and ensure more "team spirit". For example, one employee writes: "Cross-team collaboration should be encouraged more". Of course, this also relates to ‘Distributed Leadership’, as cohesion and trust are particularly important when not just one person is in charge. In addition, as already mentioned in the literature analysis, physical distance creates certain difficulties in terms of communication and the transfer of knowledge (Gajendran & Harrison, 2007, p.1525). This also confirms the results of the literature research, that working remotely can lead to less connectedness. Less face-to-face interactions combined with less communication weakens the interpersonal bonds that employees have with their coworkers or supervisors (Gajendran & Harrison, 2007, p.1525, Sardeshmukh et al., 2012, p. 198).

In this case, it might be a good idea to organize regular meetings in an office where everyone can see each other in person, or to organize team-building activities to foster team cohesion when everyone works remotely.

A total of 6 out of 40 participants from Group 2 responded to this question with reference to the limits of "freedom", i.e. distributed decision-making power.

One employee writes: "Despite our own responsibility, I would like us to have the option of escalation within the company. So, if the team can't make any progress on its own, then it should be possible to ask an authority from the management team to make a binding and mandatory decision". Another employee wishes: "Clear framework conditions. Every free space needs clear boundaries". Or "Clear rules or, if these are not in place, open and direct communication is needed. We're already doing well, but there's still room for improvement". These insights are very valuable, not only for Metafinanz, but for all companies that come into contact with 'Distributed Leadership'. In general, employees seem to be very satisfied with the structure of ‘Distributed Leadership’, as the statistical analysis has also shown. The increased autonomy, flexibility and freedom to make decisions is highly valued by employees.

For the further development of this leadership structure, some of them express a desire for clearer guidelines, or "rules of the game" as they themselves describe it. While the current distribution of decision-making authority is generally highly appreciated by the employees as the statistical analysis has shown, there's a consensus that it reaches its limit under certain circumstances. Particularly when teams encounter a stalemate or significant divergence of opinions, there's a need for predefined protocols.

Respondents to the questionnaire suggest that in such scenarios, a designated individual should assume the responsibility of making a decision, allowing the team to move forward with clarity. Alternatively, it's proposed that company management should step in to facilitate resolution. During a personal discussion with a representative from Metafinanz ahead of this study, it was mentioned that the company has dedicated "coaches" available to assist teams in navigating such challenges.

This supportive guidance, whether provided through team coaching or assistance with tough decisions, should be expanded to help teams resolve impasses more quickly. Strengthening these support mechanisms will enable teams to overcome disagreements more efficiently and progress towards their objectives.

Among the 40 participants in Group 2, five expressed a desire for their team members to display greater proactivity. One employee noted, "Not all team members actively engage; some tasks linger with former managers".

It's important to acknowledge that some employees at Metafinanz were part of the organization before the shift from hierarchical to ‘Distributed Leadership’. Consequently, they may find themselves working in teams where their former superiors are now equals. Adjusting to this new dynamic understandably requires time.

However, regular training sessions on ‘Distributed Leadership’ and reinforcing team members' awareness of their responsibilities could certainly aid in this transition. In ‘Distributed Leadership’ setups, it's crucial for everyone to understand and fulfill their roles effectively. While Metafinanz already incorporates such training, enhancing its frequency or integrating it more prominently into team coaching sessions could be beneficial.

6.2 Conclusion

Despite the fact that researchers found that teachers' reported job satisfaction did not increase with shared decision-making as well as other collaborative and cooperative practices (Hulpia and Devos, 2009, p. 163), this is exactly what employees in the analyzed teams highlight as a positive point, enhancing their satisfaction at work. For this reason, it is very important to analyze ‘Distributed Leadership’ differently across sectors. While much has been written about ‘Distributed Leadership’ in schools, this thesis sheds light on companies like Metafinanz, an IT and business consulting company, where employees might value different things than teachers do.

Through empirical investigation into the impact of ‘Distributed Leadership’ on employee satisfaction within digital teams in the IT and Business Consultancy sector, this research responds to a gap in existing literature regarding the connection between ‘Distributed Leadership’ and job satisfaction in digital team settings.

The primary aim of this work was to delineate the study variables and assess their impact on employee job satisfaction. The descriptive statistics showed a significant difference between the two groups and proved that ‘Distributed Leadership’ has a positive impact on autonomy, competence, connectedness, feedback and overall satisfaction. This finding was confirmed by the qualitative analysis.

The main value of this study lies in its exploration of the significant and nuanced relationship between ‘Distributed Leadership’ and employee satisfaction in digital teams in the IT and Business Consultancy sector.

While the study provides new insights into the variables mentioned, there are a number of recommendations for future research in this area to deepen understanding in this area. The sample size of this study was relatively small, which may increase the likelihood of second-order sampling error. A larger sample size would be recommended if this study were to be repeated. In addition, the limitations of the research instrument itself should be taken into account. As the results are based on self-reporting by employees, the results may be overestimated. Finally, it should also be mentioned that in this study, employee satisfaction was limited to the formal findings of self-determination theory and its effects on intrinsic motivation. However, the subject area is much more complex, and many other variables may have an influence that could expand the present study.

However, understanding how ‘Distributed Leadership’ influences the job satisfaction of employees in digital teams within the IT and Business Consultancy sector holds practical value, since the consequences of ‘Distributed Leadership’ in organizations are expected to have some positive effects at the team level. These include effectiveness, group behavior, (performance) potential, satisfaction, connectedness, and group cohesion (Pearce and Sims, 2000, p. 126).

7. Declaración de Uso de Herramientas de Inteligencia Artificial Generativa en Trabajos Fin de Grado

ADVERTENCIA: Desde la Universidad consideramos que ChatGPT u otras herramientas similares son herramientas muy útiles en la vida académica, aunque su uso queda siempre bajo la responsabilidad del alumno, puesto que las respuestas que proporciona pueden no ser veraces. En este sentido, NO está permitido su uso en la elaboración del Trabajo fin de Grado para generar código porque estas herramientas no son fiables en esa tarea. Aunque el código funcione, no hay garantías de que metodológicamente sea correcto, y es altamente probable que no lo sea.

Por la presente, yo, Franziska Schuster, estudiante de ADE con mención internacional, de la Universidad Pontificia Comillas al presentar mi Trabajo Fin de Grado titulado "An analysis of the impact of “Distributed Leadership” on employee satisfaction in a remote work setting in the IT- and Business Consultancy sector", declaro que he utilizado la herramienta de Inteligencia Artificial Generativa ChatGPT u otras similares de IAG de código sólo en el contexto de las actividades descritas a continuación:

1. **Brainstorming de ideas de investigación:** Utilizado para idear y esbozar posibles áreas de investigación.
2. **Metodólogo:** Para descubrir métodos aplicables a problemas específicos de investigación.
3. **Corrector de estilo literario y de lenguaje:** Para mejorar la calidad lingüística y estilística del texto.
4. **Revisor:** Para recibir sugerencias sobre cómo mejorar y perfeccionar el trabajo con diferentes niveles de exigencia.
5. **Generador de encuestas:** Para diseñar cuestionarios preliminares.
6. **Traductor:** Para traducir textos de un lenguaje a otro.

Afirmo que toda la información y contenido presentados en este trabajo son producto de mi investigación y esfuerzo individual, excepto donde se ha indicado lo contrario y se han dado los créditos correspondientes (he incluido las referencias adecuadas en el TFG y he explicitado para que se ha usado ChatGPT u otras herramientas similares). Soy consciente de las implicaciones académicas y éticas de presentar un trabajo no original y acepto las consecuencias de cualquier violación a esta declaración.

Fecha: 10.03.2024

Firma: 

8. References

Abbasnasab Sardareh, S., Brown, G. T. L., & Denny, P. (2021). Comparing four contemporary statistical software tools for introductory data science and statistics in the social sciences. *Teaching Statistics*, *43*(S1), S157–S172. https://doi.org/10.1111/test.12274

Aksoy, C. G., Barrero, J. M., Bloom, N., Davis, S. J., Dolls, M., & Zarate, P. (2022). *Working from Home Around the World* (Working Paper 30446). National Bureau of Economic Research. https://doi.org/10.3386/w30446

Alipour, J.-V., Langer, C., & O'Kane, L. (2014). *Is Working from Home Here to Stay? A Look at 35 Million Job Ads*.

Austin, Z., & Sutton, J. (2014). Qualitative Research: Getting Started. *The Canadian Journal of Hospital Pharmacy*, *67*(6), 436–440.

Ayub, N., Ghauri, S., & Ayub, D. (2020). *The Relationship between Work Motivation and Job Satisfaction.*

Bennett, N., Wise, C., Woods, P., & Harvey, J. (2003). *Distributed Leadership: A review of Literature*. 58.

Bergum, S. (2014). *Management of teleworkers: Managerial communication at a distance*. https://www.utupub.fi/handle/10024/98537

Bergum, S., Peters, P., & Vold, T. (2023). *Virtual Management and the New Normal: New Perspectives on HRM and Leadership since the COVID-19 Pandemic*. Springer International Publishing.

Bjursell, C., Bergmo-Prvulovic, I., & Hedegaard, J. (2021). Telework and Lifelong Learning. *Frontiers in Sociology*, *6*. https://www.frontiersin.org/articles/10.3389/fsoc.2021.642277

Bolden, R. (2011). Distributed Leadership in Organizations: A Review of Theory and Research. *International Journal of Management Reviews*, *13*(3), 251–269. https://doi.org/10.1111/j.1468-2370.2011.00306.x

Bortz, J., & Döring, N. (2007). *Forschungsmethoden und Evaluation für Human- und Sozialwissenschaftler: Limitierte Sonderausgabe*. Springer-Verlag.

Brandenburg, T., & Thielsch, M. T. (Eds.). (2009). *Praxis der Wirtschaftspsyhologie: Themen und Fallbeispiele für Studium und Anwendung. 1*. Verl.-Haus Monsenstein und Vannerdat.

Braun, S., Peus, C., Weisweiler, S., & Frey, D. (2013). Transformational leadership, job satisfaction, and team performance: A multilevel mediation model of trust. *The Leadership Quarterly*, *24*(1), 270–283. https://doi.org/10.1016/j.leaqua.2012.11.006

Contreras, F., Baykal, E., & Abid, G. (2020). E-Leadership and Teleworking in Times of COVID-19 and Beyond: What We Know and Where Do We Go. *Frontiers in Psychology*, *11*, 590271. https://doi.org/10.3389/fpsyg.2020.590271

De Smet, A., Rubenstein, K., Schrah, G., & Edmondson, A. (2021, February 11). *Psychological safety and leadership development | McKinsey*. https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/psychological-safety-and-the-critical-role-of-leadership-development#/

Ferreira, R., Pereira, R., Bianchi, I. S., & Da Silva, M. M. (2021a). Decision Factors for Remote Work Adoption: Advantages, Disadvantages, Driving Forces and Challenges. *Journal of Open Innovation: Technology, Market, and Complexity*, *7*(1), 70. https://doi.org/10.3390/joitmc7010070

Ferreira, R., Pereira, R., Bianchi, I. S., & Da Silva, M. M. (2021b). Decision Factors for Remote Work Adoption: Advantages, Disadvantages, Driving Forces and Challenges. *Journal of Open Innovation: Technology, Market, and Complexity*, *7*(1), 70. https://doi.org/10.3390/joitmc7010070

Field (Director). (2013a, March 4). *MANOVA (Multivariate Analysis of Variance)*. https://www.youtube.com/watch?v=m0zV_wFGA1I

Field, A. (2013b). *Discovering Statistics Using IBM SPSS Statistics* (5th ed.). SAGE Publications Ltd.

Fu, L., Liu, Z., & Liao, S. (2018). Is distributed leadership a driving factor of innovation ambidexterity? An empirical study with mediating and moderating effects. *Leadership & Organization Development Journal, 39(3),* 388–405.

Gajendran, R. S., & Harrison, D. A. (2007). The good, the bad, and the unknown about telecommuting: Meta-analysis of psychological mediators and individual consequences. *Journal of Applied Psychology*, *92*(6), 1524–1541. https://doi.org/10.1037/0021-9010.92.6.1524

Gallacher, G., & Hossain, I. (2020). Remote Work and Employment Dynamics under COVID-19: Evidence from Canada. *Canadian Public Policy*, *46*(S1), S44–S54. https://doi.org/10.3138/cpp.2020-026

Gallo, A. (2023, February 15). What Is Psychological Safety? *Harvard Business Review*. https://hbr.org/2023/02/what-is-psychological-safety

Gettysburg College. (2023). *One third of your life is spent at work*. Gettysburg College. https://www.gettysburg.edu/news/stories?id=79db7b34-630c-4f49-ad32-4ab9ea48e72b

Gronn, P. (2000). *Distributed Properties—A New Architecture for Leadership*. 317–338. https://doi.org/10.1177/0263211X000283006

Gronn, P. (2008). The future of distributed leadership. *Journal of Educational Administration*, *46*(2), 141–158. https://doi.org/10.1108/09578230810863235

Harris, A. (2013). *Distributed Leadership*. https://doi.org/10.1177/1741143213497635

Head for work, S. (2019, August 28). *Arbeitszeit ist Lebenszeit*. head for work. https://headforwork.de/news/arbeitszeit-ist-lebenszeit/

Heinicke, C., & Bales, R. F. (1953). Developmental Trends in the Structure of Small Groups. *Sociometry*, *16*(1), 7–38. https://doi.org/10.2307/2785953

Hoch, J., & Dulebohn, J. (2017). Team personality composition, emergent leadership and shared leadership in virtual teams: A theoretical framework. *Human Resource Management Review*, *27*, 678–693.

Hug, T. (2014). *Empirisch forschen* (3rd ed.). https://www.utb.de/doi/epdf/10.36198/9783838553030

Hughes, D. J., Lee, A., Tian, A. W., Newman, A., & Legood, A. (2018). Leadership, creativity, and innovation: A critical review and practical recommendations. *The Leadership Quarterly*, *29*(5), 549–569. https://doi.org/10.1016/j.leaqua.2018.03.001

Hughes, Lee, & Tian. (n.d.). *Leadership, creativity, and innovation: A critical review and practical recommendations—ScienceDirect*. Retrieved January 9, 2024, from https://www.sciencedirect.com/science/article/pii/S1048984316302582?via%3Dihub

Hulpia, H., & Devos, G. (2009). *Exploring the link between distributed leadership and job satisfaction of school leaders*. *2*, 153–171. https://doi.org/10.1080/03055690802648739

Iandoli, L., & Zollo, G. (2008). *Organizational Cognition and Learning: Building Systems for the Learning Organization*. Information Science Pub.

Jacobsen, C. B., Hansen, A.-K. L., & Pedersen, L. D. (2023). Not too narrow, not too broad: Linking span of control, leadership behavior, and employee job satisfaction in public organizations. *Public Administration Review*, *83*(4), 775–792. https://doi.org/10.1111/puar.13566

Jawad Hashim, M., Alsuwaidi, A. R., & Khan, G. (2020). Population Risk Factors for COVID-19 Mortality in 93 Countries. *Journal of Epidemiology and Global Health*, *10*(3), 204–208. https://doi.org/10.2991/jegh.k.200721.001

Kelliher, & Anderson. (n.d.). *For better or for worse? An analysis of how flexible working practices influence employees' perceptions of job quality*. https://doi.org/10.1080/09585190801895502

Kelliher, C., & Anderson, D. (2010). *Doing more with less? Flexible working practices and the intensification of work*. 83–106. https://doi.org/10.1177/0018726709349199

Korkmaz, Göksülük, & Zararsız. (n.d.). *1.1 The mvn function* [Computer software]. Retrieved January 23, 2024, from https://cran.r-project.org/web/packages/MVN/vignettes/MVN.html#17_Chi-square_Q-Q_plot

Laerd Statistics. (n.d.). *One-way repeated measures MANOVA in SPSS Statistics—Step-by-step procedure with screenshots | Laerd Statistics*. Retrieved January 31, 2024, from https://statistics.laerd.com/spss-tutorials/one-way-repeated-measures-manova-using-spss-statistics.php

Leithwood, K., Day, C., Sammons, P., Harris, A., & Hopkins, D. (2006). *Successful School Leadership*. 132.

Lipman-Blumen, J. (1996). *The connective edge: Leading in an interdependent world*. San Francisco : Jossey-Bass Publishers. http://archive.org/details/connectiveedgele00lipm

Louise, S., & Karen, S. L. (2007). *Professional Learning Communities: Divergence, Depth And Dilemmas: Divergence, Depth and Dilemmas*. McGraw-Hill Education (UK).

Malato. (2023). *An Introduction to the Shapiro-Wilk Test for Normality | Built In*. https://builtin.com/data-science/shapiro-wilk-test

Mann, S., Varey, R., & Button, W. (2000). An exploration of the emotional impact oftele-working via computer-mediated communication. *Journal of Managerial Psychology*, *15*(7), 668–690. https://doi.org/10.1108/02683940010378054

Niwamoto, Y. (2018). THE INTERFACE BETWEEN ORGANIZATIONAL CAPABILITIES AND LEADERSHIP: HOW LEADERSHIP RELATES TO THE PROCESS OF RESPONDING TO A CHANGING ENVIRONMENT THROUGH DYNAMIC CAPABILITIES. *Eurasian Journal of Business and Management*, *6*(3), 10–22. https://doi.org/10.15604/ejbm.2018.06.03.002

O´´Toole, J., Galbraith, J., & Lawler, E. (2002). *When Two (or More) Heads are Better Than One: The Promise and Pitfalls of Shared Leadership*. 65–83. https://doi.org/10.2307/41166143

Oduro, G. K. T. (2004). *'DISTRIBUTED LEADERSHIP' IN SCHOOLS: WHAT ENGLISH HEADTEACHERS SAY ABOUT THE 'PULL' AND 'PUSH' FACTORS*. 20.

Pearce, C., & Conger, J. (2003). *Shared Leadership: Reframing the Hows and Whs of Leadership*. SAGE Publications, Inc. https://doi.org/10.4135/9781452229539

Pearce, C. L., & Sims, H. P. (2000). Shared leadership: Toward a multi-level theory of leadership. In *Advances in Interdisciplinary Studies of Work Teams* (Vol. 7, pp. 115–139). Emerald Group Publishing Limited. https://doi.org/10.1016/S1572-0977(00)07008-4

Pearce, C., Manz, C., & Sims, H. (2009). Is Shared Leadership the Keyto Team Success? *Organizational Dynamics*, *3*, 234–238.

Przyborski, A., & Wohlrab-Sahr, M. (2014a). *Qualitative Sozialforschung: Ein Arbeitsbuch* (4., erweiterte Auflage). Oldenbourg Verlag.

Przyborski, A., & Wohlrab-Sahr, M. (2014b). *Qualitative Sozialforschung: Ein Arbeitsbuch* (4., erweiterte Auflage). Oldenbourg Verlag.

Rainey, H. G. (2009). *Understanding and managing public organizations* (4th ed.). Jossey-Bass.

Reisinger, H., & Fetterer, D. (2021, October 29). Forget Flexibility. Your Employees Want Autonomy. *Harvard Business Review*. https://hbr.org/2021/10/forget-flexibility-your-employees-want-autonomy

Ryan, R. M., & Deci, E. L. (2000). Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *American Psychologist*.

Rybnikova, I., & Lang, R. (2021). *Aktuelle Führungstheorien und- konzepte* (2. Auflage). SpringerGabler.

Sardeshmukh, S. R., Sharma, D., & Golden, T. D. (2012). Impact of telework on exhaustion and job engagement: A job demands and job resources model. *New Technology, Work and Employment*, *27*(3), 193–207. https://doi.org/10.1111/j.1468-005X.2012.00284.x

Shin, 저자, & Joo, Y. (2016). *Issues and Challenges of Distributed Leadership Research*. *1*, 1–11. https://doi.org/10.22553/keas/2016.1.1.1

Sousa-Poza, A., & Sousa-Poza, A. (2000). Well-being at work: A cross-national analysis of the levels and determinants of job satisfaction. *Journal of Socio-Economics*, 517–538.

Spillane, J. (2005). Distributed Leadership. *The Educational Forum*, *69*, 143–150. https://doi.org/10.1080/00131720508984678

Swan (Director). (2021, March 26). *Jamovi 1.2/1.6 Tutorial: MANOVA/MANCOVA (Episode 20)*. https://www.youtube.com/watch?v=OpFGQEX68zI

Tian, M., Risku, M., & Collin, K. (2016). *A meta-analysis of distributed leadership from 2002 to 2013*. https://doi.org/10.1177/1741143214558576

Tietjen, M. A., & Myers, R. M. (1998). Motivation and job satisfaction. *Management Decision*, *36*(4), 226–231. https://doi.org/10.1108/00251749810211027

Timperley, H. (2005). *Distributed leadership: Developing theory from practice*. https://doi.org/10.1080/00220270500038545

Uhl-Bien, M. (2006). Relational Leadership Theory: Exploring the social processes of leadership and organizing. *The Leadership Quarterly*, *17*(6), 654–676. https://doi.org/10.1016/j.leaqua.2006.10.007

Uni Leipzig. (2014). *Qualitativ vs. Quantitativ | Methodenportal der Uni Leipzig*. https://home.uni-leipzig.de/methodenportal/qualivsquanti/

Walther (Director). (2020). *(161) Cronbachs Alpha in SPSS berechnen—Reliabilität von Skalen bestimmen—Daten analysieren SPSS (91)—YouTube*. https://www.youtube.com/

Warne, R. (2014). A Primer on Multivariate Analysis of Variance (MANOVA) for Behavioral Scientists. *Practical Assessment, Research, and Evaluation 19(1).*

Wheatley, D. (2012). Good to be home? Time-use and satisfaction levels among home-based teleworkers. *New Technology, Work and Employment*, *27*(3), 224–241. https://doi.org/10.1111/j.1468-005X.2012.00289.x

Wright, P., & Kehoe, R. (2008). Human resource practices and organizational commitment: A deeper examination. *Asia Pacific Journal of Human Resources*, *46*, 4–127. https://doi.org/10.1177/1038411107086540

9. Appendix

Questionaire – English version

Which age group do you belong to?

< 25

26 - 30

31 - 40

41 - 50

51 - 60

> 60

Which gender do you identify with?

Masculine

Feminine

Diverse

I prefer not to say

Which team do you belong to?

Digital team with distributed leadership (leadership responsibility distributed across the entire team)

Digital team with hierarchical leadership ("traditional" leadership model, team leader and team members)

Which digital tools do you use for communication? (You can also select several options)

E-mail

Chat (e.g. Microsoft Teams)

Videoconferencing

Project management tools

Other tools: _____

How would you rate the effectiveness of the digital communication tools you use in your team? (e.g. chat, video conferencing, etc.)

Not effective at all

Not very effective

Neutral

Effective

Very effective

How often do you feel that your opinions and ideas are adequately considered in digital communication tools?

Very rarely

Rarely

Occasionally

Frequently

Very often/always

How well is it ensured that all relevant information is shared within the team?

Very deficient

Deficient

Neutral

Good

Very Good

How involved do you feel in decision-making processes within your team?

Very little

A little

Moderately

Involved

Very Involved

Are there mechanisms in place to encourage employee participation in your team? (You can also select multiple options)

Regular team meetings

Employee evaluations/individual evaluations

Feedback sessions

Surveys

Other: _____

How frequently are digital platforms used for discussions and decision-making?

Very rarely

Rarely

Neutral

Frequently

Very Often

How do you feel about being able to express your opinion freely during discussions in your team that take place on digital platforms?

Very limited

Restricted

Neutral

Free

Very free

To what extent do you feel that you can act autonomously to complete your tasks?

No autonomy

Little autonomy

Neutral

Some autonomy

A lot of autonomy

To what extent do you feel that your skills and abilities are promoted and utilized in your current position?

Not at all

Weakly

Neutral

Strong

Very strong

To what extent do you feel connected to the team and/or the organization as a whole?

Not connected at all

Poorly connected

Neutral

Connected

Very connected

How satisfied are you overall with the current management structure of your team?

Very dissatisfied

Dissatisfied

Neutral

Satisfied

Very satisfied

Why are you satisfied/dissatisfied with the current leadership structure of your team?

Answer: _____

In your opinion, what influence does the leadership structure in your team have on the working atmosphere?

Negative

Neutral

Positives

What challenges do you see in relation to the leadership structure in your team? (You can also select several options)

Communication problems

Decision-making processes

Conflicts

Other: _____

Do you have any suggestions for improving the leadership structure in your team? What would make you more satisfied as an employee?

Answer: _____

How is feedback on decisions collected in your team? (You can also select more than one option)

Periodic feedback sessions

Anonymous surveys

Individual discussions

Others: _____

To what extent do you feel empowered to give constructive feedback?

Not authorized at all

Barely authorized

Neutral

Authorized

Highly authorized

How well does the current feedback culture in your team match your vision of a workplace environment that fosters autonomy, competence, and connection?

Very deficient

Deficient

Neutral

Good

Very Good

To what extent do you believe that your opinions and suggestions for improvement are taken seriously by your team or management and that you are supported in your competence?

Not at all

Weakly

Neutral

Strongly

Very Strongly