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The impact of communication satisfaction in the motivation and job satisfaction of employees, in the remote or hybrid work context

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October, 2023

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Department of Human Resources and Organizational
Behavior

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Acknowledgements

The elaboration of this dissertation was no easy task, as it took me longer than supposed to finish it. Due to that, I would like to thank some people that were crucial to keep motivating me and that did not give up on me when it felt like giving up was an option.

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"Alone we can do so little; together we can do so much." – Helen Keller

Resumo

O ano de 2020 ficou marcado pelo início da maior crise de saúde dos últimos tempos – a pandemia da Covid-19. Devido a esta crise, as organizações tiveram de adaptar os seus métodos de trabalho, visto que foram obrigados a começar a trabalhar remotamente e os líderes e colaboradores tiveram de se adaptar a esta nova realidade. Este estudo pretende analisar quais foram as mudanças que aconteceram durante este tempo, no que toca a variáveis como a motivação do colaborador, satisfação no trabalho, compromisso e performance.

O objetivo deste estudo passa por preencher a falha que existe na literatura, principalmente em estudos que abordem as relações entre a liderança adaptativa, a motivação, a satisfação, o compromisso e a satisfação com a comunicação, bem como perceber o papel mediador da satisfação com a comunicação nessas mesmas relações. Este estudo será relevante para perceber qual é o impacto de uma comunicação efetiva entre líderes e colaboradores, assim como ajudará as organizações a perceber até que ponto é vantajoso continuarem a implementar o trabalho remoto ou híbrido, numa perspetiva da motivação dos seus colaboradores, da sua satisfação no trabalho e o seu compromisso, tendo por base uma liderança adaptativa. Para isto, foi elaborado um questionário *online* que foi enviado para diferentes colaboradores que tiveram de começar a trabalhar remotamente depois do início da pandemia, onde usamos alguns questionários e escalas cientificamente validadas, alcançando uma amostra final de 122 participantes.

Os resultados obtidos sugerem que existiram efetivamente mudanças significativas em variáveis como satisfação com a comunicação, a performance adaptativa e o compromisso, comparando valores antes e depois da pandemia. Os resultados sugerem também que um líder com características adaptativas influencia positivamente a motivação de um colaborador, o seu compromisso e a sua satisfação com a comunicação, bem como sugerem que a satisfação com a comunicação percecionada pelo colaborador influencia positivamente a sua motivação e satisfação no trabalho. Por outro lado, os resultados obtidos mostram que um líder adaptativo não influencia a satisfação que o colaborador sente relativamente ao seu trabalho, nem a satisfação com a comunicação percecionada pelo colaborador influencia o seu compromisso. Também constatamos que a satisfação com a comunicação pode ter um papel mediador nas relações entre a liderança adaptativa e a motivação e a satisfação com o trabalho, mas não na relação entre a liderança adaptativa e o compromisso.

Palavras-chave: satisfação com a comunicação; liderança adaptativa; motivação do colaborador, satisfação com o trabalho; compromisso; performance; pandemia

Abstract

The year 2020 was marked by the beginning of the greatest crisis of the last times – the Covid-19 pandemic. Because of this crisis, organizations have had to adapt their working methods, as they were forced to start working remotely, and leaders and employees have had to adapt to this new reality. This research intends to analyze what were the changes that happened during these times, regarding variables such as employee motivation, job satisfaction, commitment, and performance.

The goal of this research is to fill in the gap in the literature, mainly in studies that approach the relationships between adaptive leadership, motivation, satisfaction, commitment, and communication satisfaction, as well as understand the mediating role of communication satisfaction in those relationships. This research will be relevant to understand the impact of an effective communication between leaders and employees, as well as it will help organizations to understand whether it is advantageous to keep implementing remote or hybrid work, from a perspective of their employees' motivation, job satisfaction, and commitment, according to an adaptive leadership style. For this, an online survey was elaborated and sent to different employees who had to start working remotely after the beginning of the pandemic, where we used several scientifically validated questionnaires and scales, attaining a final sample of 122 participants.

The results achieved suggest that there were indeed significant changes in variables like communication satisfaction, adaptive performance, and commitment, from before to after the pandemic. The results also suggest that a leader with adaptive characteristics positively influences the motivation of an employee, their commitment, and their communication satisfaction, as well as it suggests that the perceived communication satisfaction positively influences the employees' motivation and job satisfaction. On the other hand, the obtained results show that an adaptive leader does not influence the satisfaction that an employee feels towards their job, nor the perceived communication satisfaction influences their commitment. It was also found that communication satisfaction can have a mediating role on the relationships between adaptive leadership and motivation and satisfaction, but not on the relationship between adaptive leadership and commitment.

Keywords: communication satisfaction; adaptive leadership; employee motivation; job satisfaction; commitment; performance; pandemic

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Introduction

With the start of the Covid-19 pandemic, organizations had to adapt their working methods, as they were forced to start operating remotely. Amid this crisis, leaders were challenged with how to motivate their employees, as well as how to guide them in the right direction to solve the obstacles that were emerging – these are adaptive leaders (Northouse, 2016 and Heifetz et al., 2009). Effective communication is a great asset that can help adaptive leaders to achieve that motivation and guidance that's needed to succeed (Barrett, 2006), which in turn will better the perceived communication satisfaction felt by the employees towards their leaders.

The present research proposes that variables like communication satisfaction, employee motivation, job satisfaction, commitment, and performance suffered some changes after the pandemic, when compared to the period before, as well as it proposes that the perceived communication satisfaction mediates the relationship between adaptive leaders and the variables motivation, satisfaction, and commitment. To better understand this mediating relationship, it'll be important to first understand the relationships between the variables. Hence, this research starts with the individual analysis of the relationships between adaptive leadership and motivation, adaptive leadership and job attitudes, adaptive leadership and communication satisfaction, communication satisfaction and motivation, and communication satisfaction and job attitudes. These relationships will thus structure our investigation model.

The research present in the literature about such relationships is still not much complete, especially regarding the relationships between adaptive leadership and job attitudes, adaptive leadership and communication satisfaction, and communication satisfaction and motivation. Concerning the latter, the literature that exists about that relationship mentions that effective communication impacts positively the motivation of employees (Orpen, 1997) and later, Chitrao (2014) found that communication is critical when it comes to motivating employees. However, the term communication satisfaction is not mentioned in those conclusions, meaning that it is still poorly studied in the literature and needs further investigation.

About the relationship between adaptive leadership and motivation, Yukl and Mahsud (2010) mention some methods that adaptive leaders can motivate their employees, including understanding their values, offering assistance, delegating, and including them in the decision-making processes. But will these methods have a positive impact on the motivation of the employee? That is what the first hypothesis is about. Concerning the relationship between communication satisfaction and job attitudes, various authors have proved the existence of this relationship, as is the case of Pettit et al., (1997), who found that there is a high positive correlation between communication satisfaction and job satisfaction; as well as Ng et al. (2006) and Varona (1996) who concluded that there is a positive

relationship between communication satisfaction and commitment. Hargie et al. (2002) even added that low communication satisfaction leads to low employee commitment. Thus, this study hypothesizes about the impact that these variables have on one another, according to the investigating model that'll be presented, as well as the mediating role of communication satisfaction on the relationships between them.

This thesis complies with the following structure: we start with the literature review, where we present literature about the variables, as well as the relationships between them, and the hypothesis that we will be analyzing. Then, we present the method used in the research, where we explain how the data collection was organized and which scientifically validated questionnaires were used, together with the description of the sample. After that, we present the results we obtained and the respective discussion, as well as the conclusions and limitations and future research.

Chapter I – Literature Review

A lot of researchers have been defining leadership throughout the years and what they all have in common is the word influence. One example that stood out the most is the definition by Isaac and Hendry (2003), where they define leadership as "the person's ability to control or influence others or different societies toward a particular achievement" (as cited in Elqadri, 2015, p. 185). Thus, leadership style can be described as the way this influence on others happens (Wati, 2010). The type of leadership strongly influences the motivation and performance of employees (Elqadri, 2015). In research made by Izzah et al. (2020), they proved that "motivation and leadership style are two factors that have an important role to improve employee work performance" (p. 320). The question is: how does it influence and what is that role?

Each type of leadership has its own characteristics. For instance, charismatic leadership is characterized by the ability to create a vision, high expectations, excitement and to show confidence to the employee (Antonakis et al., 2016; Nadler & Tushman, 1990) and has been shown that it has a positive impact on employees' autonomy, competence, and relatedness, which improves employee engagement (Men et al., 2021). Charismatic leadership has been connected with leadership behavior as it instigates employee trust, openness to change and higher levels of employee confidence in the company (Bommer et al., 2005; Herscovitch & Meyer, 2002; Men, Yue & Liu, 2020).

Another example is transformational leadership, which is characterized by the use of motivational communication, emotional support and by encouraging employees. It increases employee job satisfaction, performance, loyalty, and commitment towards the organization (Yue et al., 2019). This type of leadership has special effects during atypical circumstances (Paware & Eastman, 1997), like the Covid-19 pandemic. In the research made by Sellnow-Richmond et al. (2021) they found that transformational leadership was very present in leaders during the beginning of the pandemic as it was very important for employees to feel the safety and support. however, the research also shows that the support started to fade as the pandemic progressed, where leaders would start to show less care for their employees and were more results driven. In his book, Northouse (2016) states that charismatic leadership "is often described in ways that make it similar to, if not synonymous with, transformational leadership" (Northouse, 2016, p. 164).

One last example is adaptive leadership, which is defined by Heifetz et al. (2009) as "the practice of mobilizing people to tackle tough challenges and thrive" (p. 14). What this definition means is that this type of leader does not feel like they are the only person with authority, but instead, they distribute the leadership role to other people in charge and give them the authority to make any decisions necessary, which will allow organizations to more quickly and effectively manage crisis situations (Hayashi & Soo, 2012). Heifetz et al. (2009) also added that adaptive leadership's focus is on

the4ndersior of the leader, rather than what characteristics they present. Before this notion, Heifetz (1994) had already mentioned that adaptive leaders are able to distance themselves from the activity and get perspective of the whole picture. By doing this, adaptive leaders can more easily have a hold of what is happening, which enables them to motivate and situate their subordinates to solve the problems (Heifetz et al., 2009). Later, Northouse (2016) defined adaptive leadership as the type of leadership in which leaders are able to incentivize their subordinates to adapt when confronted with "changing environments" (p. 257) and the challenges that come with them.

It is with these definitions and concepts that we understand the importance of adaptive leadership through the pandemic and the changes that came with it. Adaptive leaders may have been crucial during those initial months of Covid-19 as they were able to adapt more easily to the situation and guide their teams in the best way possible. Nevertheless, it will also be interesting to understand how these adaptive leaders shifted after the initial impact, in the following months of 2020.

1.1 The relationship between adaptive leadership and motivation

Motivation can be defined as "the process that account for and individual intensity, direction, and persistence of effort toward attaining a goal" (Kirchler and Rodler, 2002, p. 6) and it is classified into two different categories: intrinsic and extrinsic motivation. Extrinsic motivation is the motivation that comes from external factors, such as bonuses, incentives and promotions given, as a result of accomplishing the company's goals, while intrinsic motivation is the motivation that one finds within themselves, for having done the job well (Jalagat, 2016).

But are money-related factors the only extrinsic motivators? Jalagat (2016) mentions that pay, nowadays, is not the only motivator for employees' motivation and high-level performance, but rather the policies and supervision given by their superiors also account for it. In addition, Yukl and Mahsud (2010) suggest that understanding employees' values, recognizing if they need assistance, delegating responsibilities and including them in the decision-making processes, are some ways that adaptive leaders can motivate their employees. But is that motivation a positive one for the motivation of the employee? In order to find out, here's de first hypothesis:

H$_1$: Adaptive leadership has a significant impact on employee motivation.

1.2 The relationship between adaptive leadership and job attitudes

Judge and Kammeyer-Mueller (2012) define job attitudes as "evaluations of one's job that express one's feelings toward, beliefs about, and attachment to one's job" (p. 343) and they can differ in their target – attitude towards employees' pay or supervision –, their specificity – attitude towards pay raise or the job itself – and their nature – attitude towards evaluative assessments or behavioral

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predisposition. There are different job attitudes that one can have, such as job satisfaction and organizational commitment. Saari and Judge (2004), for the purpose of their study, have specified job satisfaction as the main employee attitude, and it can be defined as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences" (Locke, 1976, p. 1300). It is understandable that this connection was made, since the satisfaction one's feeling in one's job can have direct effects on one's attitudes – can they be positive or negative – and that satisfaction can come from the type of leadership they are under.

On the other hand, organizational commitment, as defined by Judge and Kammeyer-Mueller (2012), based on Solinger et al. (2008)'s definition, is "an individual's psychological bond with the organization, as represented by an affective attachment to the organization, internalization of its values and goals, and a behavioral desire to put forth effort to support it" (p. 349). There are three types of commitment: affective, normative and continuance; but it is the affective commitment that most validates the prediction of job attitudes (Dunham et al., 1994), thus, the focus for this research will be on affective commitment.

In a study by Harter et al., (2002), it showed that job attitudes will impact productivity, profit and turnover. In addition, Schneider et al., (2003) suggested that organizational performance is also impacted by job attitudes. Therefore, it is known that job attitudes will have an impact on organizational outcomes, but does leadership impact these job attitudes? Judge and Kammeyer-Mueller (2012) proposed that leadership styles and behaviors will have a strong impact on job attitudes, for instance, Bono et al., (2007) more specifically suggested that transformational leadership is connected to job satisfaction. What lacks to be 5nderstoodd is the relationship between adaptive leadership and job attitudes, and how this type of leadership can impact said job attitudes.

Thus, the second hypothesis of this study is the following:

H_2: Adaptive leadership has a significant impact on job attitudes.

$H_{2a)}$: Adaptive leadership has a significant impact on satisfaction.

$H_{2b)}$: Adaptive leadership has a significant impact on commitment.

1.3 Communication satisfaction

Nowadays, being able to communicate effectively is a skill much needed in order to succeed, not only as a team member, but also as a leader. Barrett (2006) suggests that when leaders communicate more effectively, there are more chances that things will get done and they will get through to people. By communicating correctly, leaders will be able to "overcome interferences and to create and deliver messages that guide, direct, motivate, or inspire others to action" (Barrett, 2006, p. 386), thus when communication is well done, employees might have a higher sense of communication satisfaction towards their leader. Rubin (1993) found that when employees are satisfied with their leaders'

communication skills, they tend to create more effective work relations. Additionally, Anderson and Martin (1995) observed that employees will feel more included and pleased with their coworkers and leaders when in the presence of positive communication interactions. Furthermore, Horwitz et al. (2006) and Kowalski and Swanson (2005) found that effective communication is a crucial part of successful remote work arrangements since there is a high degree of "spatial differentiation".

Hence, positive interactions and communication practices that lead to communication satisfaction towards superiors, are not only essential during normal times, but especially in times of crisis, as was when the pandemic of Covid-19 hit, and organizations were forced to start working remotely and having to adopt different communication methods and habits.

1.4 The relationship between adaptive leadership and communication satisfaction

Unfortunately, there is not much literature about the relationship between adaptive leadership and communication satisfaction.

Heifetz et al. (2009) and Northouse (2016) suggested, among other skills, that listening, and communication were important competencies that an adaptive leader develops. Doyle (2017) added that the capability to communicate is essential for adaptive leaders. As previously mentioned, it is in times of crisis that an adaptive leader comes forward, having to continuously understand the change and explain that change to the employees (Northouse, 2016). Doing so requires that the leader has good communication skills in order to transmit the message clearly and effectively, which, as a result, might lead to a sense of communication satisfaction from the employees towards their leader.

In order to verify this relationship, we constructed the following hypothesis:

H_3: Adaptive leadership has a significant impact on communication satisfaction.

1.5 The relationship between communication satisfaction and motivation

In moments of change – as was when organizations started adopting remote work during the pandemic – communication is crucial for keeping employees motivated and involved in that change (Luecke, 2003). In order to do so, leaders must provide their employees with a motivating environment, where communicating effectively, addressing their questions, generating creative ideas, prioritizing ideas, directing personnel activities, planning, and committing to action and providing follow-up to overcome motivational problems are key for that to happen (Carlisle and Murphy, 1996). Chitrao (2014) found in her research that communication is critical when it comes to motivating employees. Additionally, Orpen (1997) suggested that effective communication within organizations impacted positively the motivation of employees.

Although the results in the cases mentioned above, this relationship is yet not well studied in the literature. Regardless, we composed the following hypothesis:

H4: Communication satisfaction has a significant impact on employees' motivation.

1.6 The relationship between communication satisfaction and job attitudes

Various studies have associated communication satisfaction with job satisfaction (Pettit et al., 1997 and Pincus, 1986) and with commitment (Putti et al., 1990 and Varona, 1996). Pettit et al. (1997) even added their findings that there is a high positive correlation between communication satisfaction and job satisfaction. Additionally, Ng et al. (2006) and Varona (1996) all concluded that there is a positive relationship between communication satisfaction and commitment. Moreover, Hargie et al. (2002) stated that low communication satisfaction leads to low employee commitment, higher absenteeism, higher employee turnover and even low productivity. Furthermore, effective leader communication, by using practices such as listening/feedback, coaching and information-sharing influences certain job attitudes, namely, job satisfaction, commitment, burnout, and retention (Goleman, 1998; Goleman, 2000; Goman, 1991; Graen & Uhl-Bien, 1995; Robbins, 2001; Pincus, 1986; Postmes, Tanis and de Wit, 2001; Ray and Miller, 1994).

Thus, having in mind the literature above, we composed the following hypothesis:

H5: Communication satisfaction has a significant impact on job attitudes.

H5a): Communication satisfaction has a significant impact on satisfaction.

H5b): Communication satisfaction has a significant impact on commitment.

To conclude, and based on what was previously said, we now hypothesize the following:

H6: Communication satisfaction will work as a mediator in the relationship between adaptive leadership and motivation.

H7: Communication satisfaction will work as a mediator in the relationship between adaptive leadership and job attitudes.

H7a): Communication satisfaction will work as a mediator in the relationship between adaptive leadership and satisfaction.

H7b): Communication satisfaction will work as a mediator in the relationship between adaptive leadership and commitment.

According to the hypothesis presented above, we will be testing the following model, as presented in Figure 1.1.
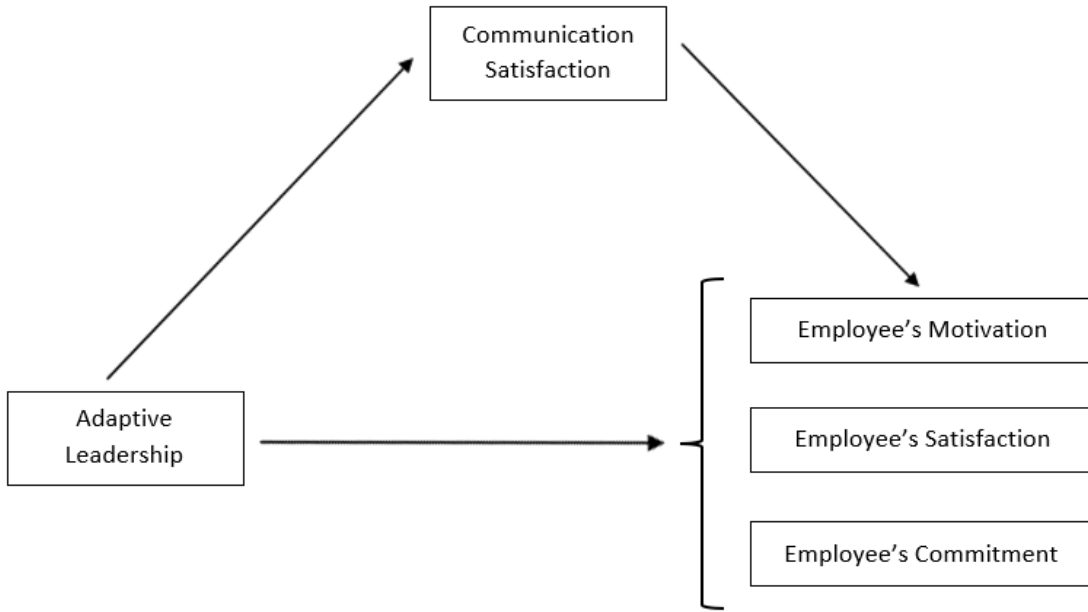
Figure 1.1 – Investigation model: mediating communication satisfaction

Chapter II – Method

For the elaboration of this study, a survey was made in order to better understand the dynamics between leaders and their subordinates regarding communication, how those affected some variables and how they changed with the pandemic.

Even though the survey was more focused on understanding subordinates' perspective – in a quantitative approach –, a qualitative approach was also taken, to evaluate leaders' perspective on the subject.

By having a qualitative approach, it's possible to better "understand the local, sociocultural and institutional context" (Khandker et al., 2009, p. 18) as it "refers to research about person's lives, lived experiences, behaviors, emotions and feelings as well as about organizational functioning, social movements, cultural phenomena and interactions between nations" (Strauss and Corbin, 1998, p. 11). This kind of approach offers some advantages which are applicable to our study, like the better interpretation of the subordinates' results, through the detailed description of leaders' thoughts, opinions and experiences about the topic being studied (Denzin, 1989). According to Hollstein (2011), some of the benefits for the use of the qualitative approach in research are the possibility of exploring and developing new concepts, the possibility for analyzing linkages between the parties involved and the possibility of questioning the dynamics and results obtained in the quantitative approach. However, taking the qualitative approach alone is not enough to truly understand said dynamics and results, thus, complementing it with a quantitative approach is a good solution – mixed-methods approach (Khandker et al., 2009).

The quantitative approach focuses more on measuring and investigating the "how many, how much, to what extent" of the subject studied (Rasinger, 2013), providing an explicit answer by exploring a "cause-and-effect relationship" (Mujis, 2013). This explicit answer will help understand the behavior of the sample (Cohen et al., 2013) which should be characterized with a high number in order for the research to be valid (Yilmaz, 2013). Although the validity of the quantitative approach research, it cannot explain in totally the reasons for certain things to happen (Karolina et al., 2021), thus "producing superficial findings" (Mujis, 2013). This leads us to what has been said before, which was that both approaches should be taken into consideration in order to get the best results (Bagdonienė and Zemblytė, 2005) and to better understand and solve the problem (Karolina et al., 2021).

The survey, made in the online platform Qualtrics, was sent to various people through LinkedIn or other social media platforms. Before it was sent to the public, the survey was tested by a family member, with the purpose of validating its organization.

At the beginning of said survey, the goal of the study was explained, some basic rules, as well as clarifying that participation is voluntary, and the answers are confidential and anonymous.

After the introductory part of the survey, we needed to understand the context of the participants, in order to identify whether they were a good fit to the needs of the study. If the requirements were met, the participants would be directed to the main set of questions related to their experience as subordinates of a team or work group. This set of questions, which belongs to the quantitative part of the survey, includes different questionnaires from different authors which were created to understand different variables that are important for our study and should be answered regarding two timelines: nowadays and before the pandemic. These different questionnaires will be explained later in the methodology. After finishing this main part of the survey, the participants are directed to answer some questions regarding whether they are leaders themselves, which, in case the answers are positive, will lead to some qualitative questions in order to better understand their opinions and views. Before the end of the survey, we asked a set of sociodemographic questions related to gender, age, literary abilities, seniority in the company, activity sector and country of origin of the company.

As previously mentioned, the survey put together for this research contains questionnaires from different authors, which study different variables:

2.1 Adaptive Leadership Questionnaire

The Adaptive Leadership Questionnaire focuses more on this specific type of leadership and is measured by answering to 30 items that assess 6 different components of the process: Get on the Balcony, Identify the Adaptive Challenge, Regulate Distress, Maintain Disciplined Attention, Give the Work Back to People and Protect Leadership Voices from Below. The answers range from 1 to 5 (1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly agree).

We couldn't find a translation for this questionnaire, so the Portuguese translation for this questionnaire was made by me with the backtranslation being done by a reviser.

For the purposes of this study, we will mention this variable as Adaptive Leadership or "AL".

2.2 Multidimensional Work Motivation Scale

Based on some previous scales, Gagné et al. (2014) developed and validated the Multidimensional Work Motivation Scale which measures motivation at work in a 19-item questionnaire. The scale responds to the stem "Why do you or would you put efforts into your current job?" which focuses more on people's efforts and motives to be doing their job and it goes from 1 to 7, where 1 = "not at all", 2 = "very little", 3 = "a little", 4 = "moderately", 5 = "strongly", 6 = "very strongly" and 7 = "completely".

The Portuguese translation of this questionnaire was made by Dos Santos et al. (2022) and followed a thorough process of translations and backtranslations between the researchers.

For the purposes of this study, we will mention this variable as Motivation.

2.3 Scale for Adaptive Performance

Pulakos et al. (2000) proposed a scale to measure adaptive performance which is divided into 8 different dimensions: Handling Emergencies and Crisis, Managing Work Stress, Solving Problems Creatively, Dealing with Uncertain and Unpredictable Work Situations, Training and Learning Effort, Interpersonal Adaptability, Cultural Adaptability and Physical Adaptability. Between all these dimensions, there are 36 items, ranging from 1 (strongly disagree) to 7 (strongly agree).

It was not possible to find the full Portuguese translation for the original scale by Pulakos et al. (2000), however, a translation made by Bazzo (2019), of the version of Charbonnier-Voin and Roussel (2012) was used for the items that it assesses. For the other items that are not included in their version, the translation was realized by me, with the use of backtranslation in order to guarantee its validity.

For the purposes of this study, we will mention this variable as Adaptive Performance or "AP".

2.4 Factual Autonomy Scale

The Factual Autonomy Scale, developed by Spector and Fox (2003) was created to measure the level of autonomy given by leaders to their subordinates and had as a basis a previous version developed by Spector (1987). The previous version was more focused on evaluating the broader control of the leader, instead of the autonomy itself, therefore, the Factual Autonomy Scale was thought exactly to tackle the latter.

This scale is composed of 10 items divided into 2 sections, where the first 7 answer the stem "In your present job, how often do you have to ask permission..." and the last 3 answer "How often do the following events occur in your present job?". The scale ranges from 1 to 5, where 1 is "Never" and 5 is "Extremely Often or Always" or "Everyday".

We couldn't find a translation for this questionnaire, so the Portuguese translation for this questionnaire was made by me with the backtranslation being done by a reviser.

For the purposes of this study, we will mention this variable as Autonomy.

2.5 Communicator Competence Questionnaire

The Communicator Competence Questionnaire was developed by Monge et al. (1982) and it measures the perceived competency of leader communication by employees. It is measured in a 12-item survey

on a 5-point Likert-type scale, where 1 = Strongly Agree, 2 = Agree, 3 = Neutral, 4 = Disagree and 5 = Strongly Disagree.

Once more, we couldn't find a translation for this questionnaire, so the Portuguese translation for this questionnaire was made by me with the backtranslation being done by a reviser.

For the purposes of this study, we will mention this variable as Communicator Competence or "CC".

2.6 Communication Satisfaction Scale

The Communication Satisfaction Scale present in the research was based in the 19-item Interpersonal Communication Satisfaction Inventory (ICSI) developed by Hecht in 1978, with the difference that it was added a sentence prior to each statement which was "When communicating with my supervisor, I feel...". The 19 items are measured in a 7-point Likert-type scale where 1 = strongly disagree and 7 = strongly agree.

We couldn't find a translation for this scale, so the Portuguese translation for it was made by me with the backtranslation being done by a reviser.

For the purposes of this study, we will mention this variable as Communication Satisfaction or "CS".

2.7 Affective Commitment Scale

The Affective Commitment Scale is inserted in the Organizational Commitment Questionnaire (OCQ) developed by Allen and Meyer (1990) which studies three different approaches to commitment: affective, continuance and normative. Originally, the OCQ was composed of 24 items, being later revised by Meyer et al. (1993) and shortened for 18 items in total. For the present study, only the affective commitment approach was considered as it assesses the degree to which an employee is "emotional attached to, identifies with, and is involved with, in the organization" (Allen and Meyer, 1990). The ACS is composed of 8 items measured in a 7-point Likert-type scale where 1 = strongly disagree and 7 = strongly agree.

For the translation of this scale, we used the version of Bruno (2007). For the purpose of his study, Bruno didn't translate all the items, so the items "I enjoy discussing my organization with people outside it." and "I think that I could easily become as attached to another organization as I am to this one." were translated to Portuguese by me with the backtranslation being done by a reviser.

For the purposes of this study, we will mention this variable as Commitment.

2.8 Job Satisfaction Index

The Job Satisfaction Index was developed in 1951 by Brayfield and Rothe with the purpose of defining and studying job satisfaction and work attitudes among employees. This Index is composed of nineteen items measured in a 5-point Likert-type scale where 1 = strongly disagree and 5 = strongly agree.

Part of the Portuguese translation of this scale was made by Sinval and Marôco (2020), however, not all the items were translated in their study. Thus, for the following items: "There are some conditions concerning my job that could be improved.", "My job is like a hobby to me.", "My job is usually interesting enough to keep me from getting bored.", "It seems that my friends are more interested in their jobs.", "I enjoy my work more than my leisure time.", "I am often bored with my job.", "Most of the time I have to force myself to go to work.", "I am satisfied with my job for the time being.", "I feel that my job is no more interesting than others I could get.", "I definitely dislike my work.", "I feel that I am happier in my work than most other people.", "I like my job better than the average worker does.", "My job is pretty uninteresting." and "I am disappointed that I ever took this job." the translation was made by me, with the back translation being done by a reviser.

For the purposes of this study, we will mention this variable as Satisfaction.

2.9 Sample

The sample for this study is composed of 122 different people from various organizations (there was a total of 1460 answers to the survey, from which we excluded 598 for not being totally completed and from those, only 122 people fit into the target). Most of the respondents (52,46%) are of ages between 30 to 49 years old, while 33,61% are aged between 18 and 29 years old and 13,93% between 50 and 69 years old. From those who fit into the target, 60,66% identify as male while 37,70% identify as female. There was still 1,64% of the respondents who preferred not to say the gender. As for literary abilities, most of the respondents (51,64%) have a master's degree, 39,34% a bachelor's degree, 6,56% only completed studies up until high school, 0,82% have got a doctorate degree and 1,64% have completed other types of education. Of the total 122 respondents, 69,67% (n = 85) live in the same district where they work and for the remaining 30,33% (n = 37) the same doesn't apply. Regarding the seniority in the company, 34,43% stayed in the same company for less than 3 years, 23,77% between 3 and 5 years, 15,57% between 5 to 10 years, 10,66% between 10 to 15 years and lastly, 15,57% of the respondents have been in the same company for more than 15 years. The activity sector among our respondents is a little bit broad, where 18,85% work in the consulting area, 13,93% in human resources, 9,84% in business management, 6,56% in health and well-being, 4,10% in education, 4,10% in communication, 1,64% in sports and the remaining 40,98% work in other areas like engineering, IT, accounting, etc. Out of the 122 respondents, 41 (33,61%) also took on roles of leadership before of the

pandemic, and 35 (28,69%) still keep that role during these days. Also, 56,56% of the sample in study work in Portuguese based companies.

Chapter III – Results

3.1 Correlation Analysis

For the analysis of the relationship between the different variables, we resorted to the Correlations Table (table 3.1). By observing this table, we can easily identify various variables that have significant correlations with one another.

We analyzed those significant correlations accordingly with the strength of the correlation – weak ($r < 0,3$), moderate (r between $0,3 – 0,7$) and strong (r between $0,7 – 1$) - and with its nature – if it's positive or negative.

Adaptive Leadership showed a strong and positive correlation – significant at the 0,01 level – with Communication Competence (before $p = 0,75$ and after $p = 0,74$). Also significant at the 0,01 level, Adaptive Leadership showed a moderate and positive correlation with Motivation after the crisis ($p = 0,36$) and a weak and positive correlation before the crisis ($p = 0,27$). Adaptive Leadership kept showing moderate and positive correlations with other variables, such as, Communication Satisfaction (before $p = 0,42$ and after $p = 0,43$) and Commitment (before $p = 0,41$ and after $p = 0,55$). Finally, Adaptive Leadership showed a weak and positive correlation – significant at the 0,01 level – with Adaptive Performance before the pandemic ($p = 0,24$) and – significant at the 0,05 level – with the same variable after the beginning of the pandemic ($p = 0,20$).

The Motivation variable showed moderate and positive correlations – significant at the 0,01 level – with the following variables: Communication Competence (before $p = 0,31$ and after $p = 0,42$), Communication Satisfaction (before $p = 0,44$ and after $p = 0,53$), Satisfaction (before $p = 0,52$ and after $p = 0,62$) and Autonomy (before $p = 0,31$ and after $p = 0,39$).

Communicator Competence showed a moderate and positive correlation – significant at the 0,01 level – with Communication Satisfaction (before $p = 0,51$ and after $p = 0,53$) and with Commitment (before $p = 0,36$ and after $p = 0,47$). Communication Competence and Adaptive Performance had a weak and positive correlation, only before the pandemic, significant at the 0,05 level and $p = 0,19$.

Communication Satisfaction had a moderate and positive correlation – significant at the 0,01 level – with Satisfaction (before $p = 0,38$ and after $p = 0,51$). This variable also showed a weak and positive correlation – significant at the 0,05 level – with Commitment (after $p = 0,19$) and with Autonomy (after $p = 0,22$). None of these last two variables showed significance before the pandemic.

Commitment showed a moderate and positive correlation – significant at the 0,01 level – with Adaptive Performance (before $p = 0,46$ and after $p = 0,38$) and a weak and negative correlation – significant at the 0,05 level – with Autonomy (before $p = -0,23$ and after $p = -0,20$).

Satisfaction had a weak to moderate and negative correlation – significant at the 0,01 level – with Adaptive Performance before the pandemic ($p = -0,30$) and a weak and negative correlation after

the pandemic (p = -0,27). Satisfaction also had a moderate and positive correlation – significant at the 0,01 level – with Autonomy (before p = 0,43 and after p = 0,48).

Lastly, Adaptive Performance had a moderate and negative correlation – significant at the 0,01 level – with Autonomy before the pandemic (p = -0,39) and a weak and negative correlation – also significant at the 0,01 level – after the pandemic (p = -0,29).

There isn't an analysis of the correlations of before and after the pandemic for the same variable – since the level of each variable in the past would be highly correlated with the same variable in the actual moment –, neither of different variables in different temporal moments.

Table 3.1

Correlations Table

	Adaptive Leadership (Present)	Adaptive Leadership (Before)	Motivation (Present)	Motivation (Before)	Communicator Competence (Present)	Communicator Competence (Before)	Communication Satisfaction (Present)	Communication Satisfaction (Before)	Commitment (Present)	Commitment (Before)	Satisfaction (Present)	Satisfaction (Before)	Adaptive Performance (Present)	Adaptive Performance (Before)	Autonomy (Present)	Autonomy (Before)
Adaptive Leadership (Present)																
Adaptive Leadership (Before)	,886**															
Motivation (Present)	,362**	,286**														
Motivation (Before)	,353**	,266**	,940**													
Communicator Competence (Present)	,740**	,661**	,415**	,405**												
Communicator Competence (Before)	,691**	,747**	,332**	,307**	,915**											
Communication Satisfaction (Present)	,427**	,369**	,530**	,469**	,525**	,453**										
Communication Satisfaction (Before)	,398**	,423**	,506**	,443**	,497**	,511**	,918**									
Commitment (Present)	,551**	,497**	0,18	0,17	,472**	,437**	,189*	,184*								
Commitment (Before)	,373**	,405**	0,10	0,07	,344**	,355**	0,09	0,11	,850**							
Satisfaction (Present)	0,13	0,13	,624**	,514**	0,15	0,13	,508**	,494**	-0,07	-0,06						
Satisfaction (Before)	0,13	0,10	,531**	,524**	0,15	0,06	,420**	,381**	-0,07	-0,07	,879**					
Adaptive Performance (Present)	,196*	0,18	-0,04	0,01	0,16	0,14	-0,05	-0,05	,382**	,385**	-,270**	-,277**				
Adaptive Performance (Before)	,196*	,240**	-0,06	0,00	0,13	,192*	-0,09	-0,06	,444**	,457**	-,280**	-,295**	,896**			
Autonomy (Present)	0,01	0,00	,388**	,356**	0,02	-0,03	,221*	,179*	-,200*	-,212*	,482**	,521**	-,290**	-,390**		
Autonomy (Before)	0,05	0,00	,325**	,310**	0,05	-0,05	,232*	0,16	-,203*	-,228*	,366**	,433**	-,253**	-,388**	,925**	

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

3.2 Analysis before and after the pandemic

For the analysis of the differences within the same variable, before the Covid-19 pandemic and the present day, we used Descriptive Statistics and Paired Samples Test (table 3.2).

From this table, we are able to analyze the means before and after the beginning of the pandemic and check if there is a significant increase or decrease in them, as well as the paired differences. According to this analysis, we can observe that the increase in the variables Communication Satisfaction (t = 2,45; p = 0,02) and Adaptive Performance (t = 4,58; p = 0,00) is significant, meaning that the sample population observed an improvement of these variables after the beginning of the pandemic. Additionally, we are also able to observe that Commitment had a significant decrease (t = -2,77; p = 0,01), meaning that, after the pandemic, the sample population felt less committed to the organization. There weren't further significant differences in the reality before and after the beginning of the pandemic.

Table 3.2

Descriptive Statistics and Paired Samples Test

	Descriptive Statistics				Paired Samples Test			
	Present		Before		(Present - Before)			
					Paired Differences			
	Mean	Std. Deviation	Mean	Std. Deviation	95% Confidence Interval of the Difference		t	Significance
					Lower	Upper		Two-Sided p
Adaptive Leadership	3,24	0,46	3,21	0,47	-0,01	0,07	1,42	0,16
Motivation	4,15	0,92	4,10	0,86	-0,01	0,10	1,53	0,13
Communicator Competence	3,61	0,63	3,59	0,64	-0,02	0,07	1,12	0,27
Communication Satisfaction	4,21	0,81	4,13	0,80	0,01	0,13	2,45	0,02
Commitment	4,63	1,19	4,79	1,08	-0,27	-0,04	-2,77	0,01
Satisfaction	2,82	0,52	2,80	0,44	-0,02	0,07	0,91	0,36
Adaptive Performance	5,12	0,59	5,00	0,66	0,07	0,18	4,58	0,00
Autonomy	2,59	1,16	2,62	1,17	-0,12	0,04	-0,95	0,35

3.3 Hypothesis Testing – Regression Analysis

H1: Adaptive leadership has a significant impact on employee motivation.

By conducting a regression analysis, it is possible to observe that the model in table 3.3 is significant (F = 18,154, p < 0,001). The model explains that 13,10% of variation in motivation (dependent variable) can be accounted by the independent variable adaptive leadership. Thus, the first hypothesis is verified, meaning that a leader with adaptive characteristics will influence positively the motivation of the employee. This significance was only verified after the beginning of the pandemic, before, there was no significance attached to this relationship (annex A).

Table 3.3

Regression analysis for hypothesis 1

Model Summary					
Model	*R*	*R* Square	Mean Square	*F*	*p*
1	0,362	0,131	13,57	18,15	<0,001

Dependent Variable: Motivation - Present
Predictors: (Constant), Adaptive Leadership - Present

H$_2$: Adaptive leadership has a significant impact on job attitudes.

In order to analyze the impact of the independent variable adaptive leadership on job attitudes, we first need to analyze, separately, the impact on the dependent variables, satisfaction, and commitment.

As far as the impact of adaptive leadership on satisfaction, the model didn't show a significance for the present days ($F = 2,226$, $p = 0,138$), as shown in table 3.4. Hence, the hypothesis "H$_{2a)}$: Adaptive leadership has a significant impact on satisfaction." is not verified, meaning that a leader with adaptive characteristics will not influence the satisfaction an employee feels towards their job. This significant impact was only verified before the pandemic (annex B).

Table 3.4

Regression analysis for hypothesis 2a)

Model Summary					
Model	*R*	*R* Square	Mean Square	*F*	*p*
1	0,135	0,018	0,60	2,23	0,138

Dependent Variable: Satisfaction - Present
Predictors: (Constant), Adaptive Leadership - Present

Regarding the impact of adaptive leadership on commitment, in table 3.5, it is possible to observe that the model is significant ($F = 52,285$, $p < 0,001$). The model explains that 30,30% of variation in commitment (dependent variable) can be accounted by the independent variable adaptive leadership. Hence, the hypothesis "H$_{2b)}$: Adaptive leadership has a significant impact on commitment." is verified, meaning that a leader with adaptive characteristics will influence positively the job attitudes an employee has, especially, their commitment. This significance was only verified after the beginning of the pandemic. Before, there was no significance attached to this relationship (annex C).

Table 3.5

Regression analysis for hypothesis 2b)

Model Summary					
Model	*R*	*R* Square	Mean Square	*F*	*p*
1	0,551	0,303	51,68	52,29	<0,001

Dependent Variable: Commitment - Present
Predictors: (Constant), Adaptive Leadership - Present

It is, thus, possible to conclude that, the hypothesis "H_2: Adaptive leadership has a significant impact on job attitudes." is only true when that job attitude is commitment and not satisfaction.

H_3: Adaptive leadership has a significant impact on communication satisfaction.
It is also possible to observe that the model in table 3.6 is significant ($F = 26,787$, $p < 0,001$). The model explains that 18,20% of variation in communication satisfaction (mediating variable) can be accounted by the independent variable adaptive leadership. Accordingly, the hypothesis is verified, meaning that a leader with adaptive characteristics will influence positively the communication satisfaction perceived by the employee. This significance was only verified after the beginning of the pandemic. Before, there was no significance attached to this relationship (annex D).

Table 3.6

Regression analysis for hypothesis 3

Model Summary					
Model	*R*	*R* Square	Mean Square	*F*	*p*
1	0,427	0,182	14,42	26,79	<0,001

Dependent Variable: Communication satisfaction - Present
Predictors: (Constant), Adaptive Leadership - Present

H_4: Communication satisfaction has a significant impact on employee's motivation.
Concerning the model in table 3.7, it is possible to observe that it is significant ($F = 46,809$, $p < 0,001$). The model explains that 28,10% of variation in motivation (dependent variable) can be accounted by the mediating variable communication satisfaction. Therefore, the hypothesis is verified, meaning that the perceived communication satisfaction that an employee has of their leader will influence positively their motivation. This significance was only verified after the beginning of the pandemic, before, there was no significance attached to this relationship (annex E).

Table 3.7

Regression analysis for hypothesis 4

Model Summary					
Model	*R*	*R* Square	Mean Square	*F*	*p*
1	0,53	0,281	28,98	46,81	<0,001

Dependent Variable: Motivation - Present
Predictors: (Constant), Communication satisfaction - Present

H5: Communication satisfaction has a significant impact on job attitudes.

In order to analyze the impact of the mediating variable communication satisfaction on job attitudes, we first need to analyze, separately, the impact on the dependent variables, satisfaction, and commitment.

As far as the impact of communication satisfaction on satisfaction, it is possible to observe that, the model in table 3.8 is significant ($F = 41,796$, $p < 0,001$). The model explains that 25,80% of variation in satisfaction (dependent variable) can be accounted by the mediating variable communication satisfaction. Thus, the hypothesis "H5a): Communication satisfaction has a significant impact on satisfaction." is verified, meaning that the perceived communication satisfaction that an employee has of their leader will influence positively their satisfaction. This significance was only verified after the beginning of the pandemic. Additionally, this significance was also verified before the pandemic (annex F).

Table 3.8

Regression analysis for hypothesis 5a)

Model Summary					
Model	*R*	*R* Square	Mean Square	*F*	*p*
1	0,508	0,258	8,56	41,80	<0,001

Dependent Variable: Satisfaction - Present
Predictors: (Constant), Communication satisfaction - Present

Before concluding anything, we need to check the significance of the model in table 3.9, where it analyzes the impact of communication satisfaction on commitment and it is possible to observe that it did not show a significance ($F = 4,422$, $p = 0,038$). Hence, the hypothesis "H5b): Communication satisfaction has a significant impact on commitment." is not verified, meaning that the perceived communication satisfaction that an employee has of their leader will not influence their commitment. Before the pandemic, there was, also, no significance attached to this relationship (annex G).

Table 3.9

Regression analysis for hypothesis 5b)

Model Summary					
Model	*R*	*R* Square	Mean Square	*F*	*p*
1	0,189	0,036	6,05	4,42	0,04

Dependent Variable: Commitment - Present
Predictors: (Constant), Communication satisfaction - Present

Confirmed and not confirmed hypotheses

As a conclusion of the regression analysis, the confirmed hypotheses are "H_1: Adaptive leadership has a significant impact on employee motivation", "H_{2b}: Adaptive leadership has a significant impact on commitment.", "H_3: Adaptive leadership has a significant impact on communication satisfaction.", "H_4: Communication satisfaction has a significant impact on employee's motivation." and "H_{5a}: Communication satisfaction has a significant impact on satisfaction.". The hypotheses that were not confirmed were "H_{2a}: Adaptive leadership has a significant impact on satisfaction." and "H_{5b}: Communication satisfaction has a significant impact on commitment."

3.4 Hypothesis Testing – Mediation Analysis

The analysis of the hypothesis through the mediation model (Hayes, 2022) - PROCESS, model 4 – was made in order to better understand if the impact of our independent variable (communication satisfaction – X) on the dependent variables (motivation – Y_1, satisfaction – Y_2 and commitment – Y_3) is still significant even when a third variable – the mediator (communication satisfaction – M) - mediates this relationship. The analysis for the following hypotheses can all be observed in table 3.10.

H_6: Communication satisfaction will work as a mediator in the relationship between adaptive leadership and motivation.

Considering the mediation variable communication satisfaction on the relationship between the independent variable adaptive leadership and the dependent variable motivation, it is possible to observe that there is a perfect mediation, since the indirect effect of adaptive leadership on motivation is significant (effect size = 0,39, 95% confidence interval [0,16; 0,63]), and the direct effect is not significant (p = 0,05, effect size = 0,33, 95% confidence interval [-0,00; 0,67]). The total effect found is 0,72 with a 95% confidence interval [0,39; 1,06] and $p < 0,05$. Thus, the hypothesis "H_6: Communication satisfaction will work as a mediator in the relationship between adaptive leadership and motivation" is verified.

H7: Communication satisfaction will work as a mediator in the relationship between adaptive leadership and job attitudes.

In order to analyze the mediating variable communication satisfaction on the relationship between the independent variable adaptive leadership and job attitudes, we first need to analyze, separately, the relationship with the dependent variables, satisfaction, and commitment.

When considering the mediation variable communication satisfaction on the relationship between the independent variable adaptive leadership and the dependent variable satisfaction, it is possible to observe that there is a perfect mediation, since the indirect effect of adaptive leadership on satisfaction is significant (effect size = 0,27, 95% confidence interval [0,09; 0,45]), and the direct effect is not significant (p = 0,25, effect size = -0,11, 95% confidence interval [-0,31; 0,08]). The total effect found is 0,15 with a 95% confidence interval [-0,05; 0,36] and p = 0,14. Thus, the hypothesis "$H_{7a)}$: Communication satisfaction will work as a mediator in the relationship between adaptive leadership and satisfaction." is verified.

Lastly, regarding the mediation variable communication satisfaction on the relationship between the independent variable adaptive leadership and the dependent variable commitment, it is possible to observe that there is no mediation, since the indirect effect of adaptive leadership on commitment is not significant (effect size = -0,06, 95% confidence interval [-0,21; 0,09]), and the direct effect is significant (p < 0,05, effect size = 1,48, 95% confidence interval [1,05; 1,91]). The total effect found is 1,41 with a 95% confidence interval [1,03; 1,80] and p < 0,05. Thus, the hypothesis "$H_{7b)}$: Communication satisfaction will work as a mediator in the relationship between adaptive leadership and commitment." is not verified.

Hence, it is possible to conclude that the hypothesis "H_7: Communication satisfaction will work as a mediator in the relationship between adaptive leadership and job attitudes" is only true when that job attitude is satisfaction and not commitment.

Table 3.10

Mediation analysis

Mediation	Coeff	SE	t	p	LLCI	ULCI
Adaptive Leadership → Communication Satisfaction (a)	0,75	0,14	5,18	0,00	0,46	1,03
Communication Satisfaction → Motivation (b_1)	0,52	0,10	5,42	0,00	0,33	0,72
Communication Satisfaction → Satisfaction (b_2)	0,36	0,06	6,35	0,00	0,25	0,47
Communication Satisfaction → Commitment (b_3)	-0,08	0,12	-0,68	0,50	-0,33	0,16
Adaptive Leadership → Motivation (c_1)	0,72	0,17	4,26	0,00	0,39	1,06
Adaptive Leadership → Satisfaction (c_2)	0,15	0,10	1,49	0,14	-0,05	0,36
Adaptive Leadership → Commitment (c_3)	1,41	0,20	7,23	0,00	1,03	1,80
Mediator					**95% bootstrap confidence interval**	
Communication Satisfaction (Motivation)					0,16 to 0,63	
Communication Satisfaction (Satisfaction)					0,09 to 0,45	
Communication Satisfaction (Commitment)					-0,21 to 0,09	

(a) - path a in the mediating model; (b_1) - path b_1 in the mediating model; (b_2) - path b_2 in the mediating model; (b_3) - path b_3 in the mediating model; (c_1) - path c_1 in the mediating model; (c_2) - path c_2 in the mediating model; (c_3) - path c_3 in the mediating model

Chapter IV – Discussion

This research aimed to understand the relationships between the variables adaptive leadership, communication satisfaction and employees' motivation, satisfaction, and commitment to the job, through a mediating model where communication satisfaction is the mediating variable and adaptive leadership is the independent variable. Specifically, besides trying to understand the relationships between the different variables, we tried to understand the impact that adaptive leadership has on employee motivation, job satisfaction, commitment, and communication satisfaction, as well as the impact that communication satisfaction has on employee motivation, job satisfaction and commitment. Additionally, we focused on understanding the mediating role of the perceived communication satisfaction from employees towards their leader on the relationships between the independent variable and the dependent variables. Moreover, we aimed to understand if there were significant changes within the variables, before and after the beginning of the pandemic.

In the present research, we confirmed that a leader with adaptive characteristics positively influences an employee's motivation and, even though it also influences their commitment, the same is not true for job satisfaction. According to the literature, most of these findings have not been researched yet, as is the case of the relationships between adaptive leadership and satisfaction and adaptive leadership and commitment. On the other hand, the finding about the relationship between adaptive leadership and motivation matches what Yukl and Mahsud (2010) had already suggested, which was that an adaptive leader, through their characteristics of understanding employees' values, recognizing if they need assistance, delegating responsibilities and including them in the decision-making processes, will in fact motivate their employees, thus showing the relationship between these variables.

With regards to the impact of the variable adaptive leadership on communication satisfaction, the present research found that a leader with adaptive characteristics positively influences an employe's perceived communication satisfaction, even though there is not enough literature that sustains this finding. Lastly, regarding the impacts of the variable communication satisfaction on motivation, satisfaction, and commitment, we were able to find that the perceived communication satisfaction positively influences motivation, as well as job satisfaction, but not commitment. Pettit et al. (1997) had previously positively associated communication satisfaction with job satisfaction, which corresponds with our findings. On the other hand, there is still very poor evidence, in the literature, of the relationship between communication satisfaction and motivation and needs more research. As far as the relationship between communication satisfaction and commitment, our findings are not in accordance with what we found in the literature, which stated that there was a positive relationship between those variables (Ng et al., 2006 and Varona, 1996) and that low communication satisfaction

leads to low employee commitment (Hargie et al., 2002). The results found in the literature were results that we thought we were going to get as well. Due to this, we will have to understand why this relationship wasn't confirmed in our research. Various reasons and variables might play a role in understanding the cause of this outcome. Maybe there is some moderating variable that might change the relationship between communication satisfaction and commitment that wasn't put into the equation in our research, for example the working conditions the organization offers, work-family conflict and the socio-demographic characteristics of the employees (Benligiray & Sönmez, 2011; Meyer et al., 1993); or maybe an employee's commitment does not depend solely on being satisfied with their leader's communication. Anyhow, this relationship might need a little bit of research on it to be fully understood.

With respect to our concluding hypotheses, which assume that communication satisfaction has a mediating role on the relationships between adaptive leadership and motivation, satisfaction, and commitment, we found that communication satisfaction has indeed a significant mediating impact on the relationships between adaptive leadership and motivation, as well as on adaptive leadership and satisfaction, but not on the relationship between adaptive leadership and commitment. This latter result might have the same reasons as the ones mentioned above, such as a possible variable that might affect commitment and was not studied in this research (i.e., working conditions, work-family conflict, and socio-demographic characteristics).

Concerning the possible significant changes, when comparing times before and after the pandemic, in the same variable, we were able to observe that only the variables communication satisfaction, adaptive performance and commitment supported that idea. On the one hand, communication satisfaction and adaptive performance experienced a significant increase, meaning that the sample population observed an improvement of the perceived communication satisfaction towards their leader and a better performance after the beginning of the pandemic. On the other hand, commitment experienced a significant decrease, meaning that, after the pandemic, the sample population felt less committed to the organization, compared to how they felt before the pandemic.

Overall, this research led to an understanding of the importance of communicating effectively in an adaptive kind of leadership to be able to have employees who are motivated and satisfied in their job, especially with the beginning of the pandemic, where people were sent home to work. Regarding the commitment felt by the employees, even though it decreased as they were sent home, communicating effectively did not help as much as we thought it would for them to feel more committed to the organization while working from home.

Chapter V – Conclusion

In conclusion, we were able to understand how the perceived communication satisfaction felt by employees towards their adaptive leader impacted their motivation, satisfaction, and commitment to the job, after the beginning of the pandemic, when they were sent home to work. The findings in this research show significant changes in communication satisfaction, adaptive performance, and commitment, when comparing employees' reality before and after the pandemic, where communication satisfaction and adaptive performance showed a significant increase and commitment showed a significant decrease. Besides that, this research also led us to understand that the perceived communication satisfaction indeed mediates the relationship between adaptive leadership and employees' motivation and satisfaction, but not commitment.

There is not much literature about the relationships between adaptive leadership and satisfaction, commitment, and communication satisfaction, as well as between communication satisfaction and motivation. On the other hand, the relationships between adaptive leadership and motivation; and communication satisfaction and job satisfaction are well researched in the literature and are in accordance with our findings. There was only one finding that was not in accordance with the literature, which was the relationship between communication satisfaction and commitment.

These findings have important implications for understanding the impact of communicating effectively, not only in times of crisis, as well as the following times, as people may be working from home and might feel the need of a good communication between their leader and themselves. Additionally, these findings might help organizations understand whether it is advantageous for them to implement remote working, from the perspective of their employees' motivation, satisfaction, and commitment, according to the leadership style of their own leaders.

In sum, the findings in this research contribute to enrich the literature, with evidence regarding the relationships between adaptive leadership and job attitudes (satisfaction and commitment), adaptive leadership and communication satisfaction, as well as communication satisfaction and motivation, besides adding to the existing evidence in the relationship between adaptive leadership and motivation and communication satisfaction and job attitudes (satisfaction and commitment). It also provides evidence about the mediating role of communication satisfaction on the relationships between adaptive leadership and employees' motivation, satisfaction, and commitment.

Chapter VI – Practical Implications

The findings in this research might be beneficial for organizations to better understand how to deal with the changes that can occur in more unstable times, as was when de Covid-19 pandemic hit. As mentioned before, unstable times (or times of crisis) will have a changing impact on how things operate around an organization, and it is important that they are prepared to face the new adversities. This research led us to believe that, in fact, an effective communication will bring positive consequences that can minimize that changing impact.

The first step to acknowledge that change is occurring in an organization is implementing measures that will help both employees and leaders face those changes. For that, and according to the present research, organizations must consider some ideas for the application of said measures. First, organizations can start by making an evaluation of the leadership style their leaders present, as well as the type of communication they use. With this information, organizations can prepare and give trainings to the leaders that did not meet the adequate style of leadership – adaptive leadership – and type of communication needed, so that they are better prepared to deal with the changes, as well as with the needs of the employees. Another application of this research is the evaluation of the differences felt by both employees and leaders from presential to remote work. By understanding what they felt, organizations can more effectively prepare trainings about the context of remote and its differences from presential working, with the advantage of mitigating negative consequences.

All these practical implications will only work if, afterwords, there is a measurement and diagnosis of the impact of these trainings, in order to understand how they are being implemented and if there is a need to an adjustment.

Chapter VII – Limitations and Future Research

Lastly, it is important that we discuss the limitations that this research presents. First, is the size of the sample, which initially was set to be, at least, *n* = 200, however, due a series of criteria that were asked at the beginning of the survey, which included that the participants kept working in the same organization since before the pandemic, and that the organization adopted remote of hybrid work and still keeps that policy nowadays, it was not possible to reach the original goal. The second and last limitation was the possibility of bias, as this research depended on self-evaluations, as well as leader-evaluations.

For future research, we would suggest that authors use larger sample sizes, and broad their criteria, as well as have evaluations of the behaviors made by their pears or leaders, in order to not have bias in the responses. Additionally, it would be interesting to study in more depth the reason why the variable communication satisfaction did not show a significant impact on commitment. As previously mentioned, some reasons behind this result might be that commitment does not depend uniquely on an employee being satisfied with their leader's communication, but it also depends on other factors. Some variables that could be interesting to study to better understand this relationship could be the possibility of training and development within the organization, employee empowerment and motivation and the relationship between the employee and their leader.

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Annexes

Regression analysis "adaptive leadership x motivation" before the pandemic

Model Summary					
Model	*R*	*R* Square	Mean Square	*F*	*p*
1	0,266	0,071	6,35	9,10	0,003

Dependent Variable: Motivation - Before

Predictors: (Constant), Adaptive Leadership - Before

Annex B

Regression analysis "adaptive leadership x satisfaction" before the pandemic

Model Summary					
Model	*R*	*R* Square	Mean Square	*F*	*p*
1	0,095	0,009	0,21	1,10	0,296

Dependent Variable: Satisfaction - Before

Predictors: (Constant), Adaptive Leadership - Before

Annex C

Regression analysis "adaptive leadership x commitment" before the pandemic

Model Summary					
Model	*R*	*R* Square	Mean Square	*F*	*p*
1	0,405	0,164	23,19	23,48	<0,001

Dependent Variable: Commitment - Before

Predictors: (Constant), Adaptive Leadership - Before

Annex D

Regression analysis "adaptive leadership x communication satisfaction" before the pandemic

Model Summary					
Model	*R*	*R* Square	Mean Square	*F*	*p*
1	0,423	0,179	14,00	26,20	<0,001

Dependent Variable: Communication satisfaction - Before

Predictors: (Constant), Adaptive Leadership - Before

Annex E

Regression analysis "communication satisfaction x motivation" before the pandemic

Model Summary					
Model	*R*	*R* Square	Mean Square	*F*	*p*
1	0,443	0,196	17,68	29,32	<0,001

Dependent Variable: Motivation - Before

Predictors: (Constant), Communication satisfaction - Before

Annex F

Regression analysis "communication satisfaction x satisfaction" before the pandemic

Model Summary					
Model	*R*	*R* Square	Mean Square	*F*	*p*
1	0,381	0,145	3,41	20,32	<0,001

Dependent Variable: Satisfaction - Before

Predictors: (Constant), Communication satisfaction - Before

Annex G

Regression analysis "communication satisfaction x commitment" before the pandemic

Model Summary					
Model	*R*	*R* Square	Mean Square	*F*	*p*
1	0,106	0,011	1,60	1,37	0,243

Dependent Variable: Commitment - Before

Predictors: (Constant), Communication satisfaction - Before