

Perceived leadership effectiveness and turnover intention in remote work: the mediating role of communication

Eficácia da liderança percebida e intenção de rotatividade no trabalho remoto: o papel mediador da comunicação

Eficacia percibida del liderazgo e intención de rotación en el trabajo remoto: el papel mediador de la comunicación

DOI: 10.54033/cadpedv21n3-093

Originals received: 02/19/2024 Acceptance for publication: 03/08/2024

Fernando Antonio Pacheco Silva

Master in Human Resource Development Policies Institution: Universidade de Lisboa, Instituto de Ciências Sociais e Políticas Address: Rua Almerindo Lessa, 1300-663, Lisboa, Portugal E-mail: fernando.pacheco.silva@ulb.be

Maria João Perdigão Velez

Doctor in Management Institution: Business Research Unit (BRU ISCTE-IUL) Address: Avenida das Forças Armadas, 1649-026 Lisboa E-mail: maria.joao.velez@iscte-iul.pt

Pedro José Vieira Borga Martins Borrego

Doctor of Pharmacy, Specialty in Microbiology Institution: Universidade de Lisboa, Instituto de Ciências Sociais e Políticas, Centro de Administração e Políticas Públicas Address: Rua Almerindo Lessa, 1300-663, Lisboa, Portugal E-mail: pborrego@iscsp.ulisboa.pt

ABSTRACT

In the evolving landscape of remote work, the intersection of leadership communication and employee turnover intention has become a major point of interest for organizational studies. This paper presents a quantitative investigation into how leadership communication is perceived by subordinates in terms of their leaders' effectiveness, and how these perceptions statistically relate to the subordinates' intentions to leave the organization. Judy and d'Amico (1997) predicted that remote work would become a reality in the following decades, with more qualified jobs demanding brains over muscles and physical presence in a specific location becoming irrelevant. Neufeld et al. (2010) explored the impact of leadership perception, also associated with perceived effectiveness, on the



communication between managers and subordinates in the remote work environment. The objective of this study was to understand how leadership communication is perceived by employees in terms of direct leaders' effectiveness and how these two factors are statistically related to turnover intention. Turnover intention refers to the individual and voluntary decision to leave an organization (Anwar, 2016). Adopting a quantitative methodology, the study sought to contribute to both the scholarly discourse and practical understanding of remote work practices. In Aprial 2022, a diverse sample of 203 valid respondents was surveyed, inclusive of subordinates across 14 countries and leaders hailing from 30 nationalities. Results revealed a very strong positive correlation (Spearman's rho = 0.812) between leadership communication and its effectiveness. suggesting that subordinates who perceived regard communication highly also perceive higher leadership effectiveness. However, there's a significant yet weak negative correlation between leadership communication and turnover intentions (Spearman's rho = -0.343), and similarly, between perceived leadership effectiveness and turnover intentions (Spearman's rho = -0.299). The study did not find significant evidence of perceived leadership effectiveness mediating the relationship between communication and turnover intentions in remote settings, with a minor indirect effect (Spearman's rho = -0.0271; p-value = 0.64), comprising about 14% of the total communicative effect on turnover intention. These findings contribute to the literature on remote work dynamics, stressing the importance of effective leadership communication for employee retention. Despite certain study limitations, like sample size and context specificity, the insights provided are valuable for organizational leadership and academia, underscoring communication's vital role in remote workforce management.

Keywords: Perception Of Leadership Effectiveness. Leadership Communication. Turnover Intention. Remote Work. Virtual Teams.

RESUMO

No cenário evolutivo do trabalho remoto, a interseção da comunicação de liderança e da intenção de rotatividade de funcionários tornou-se um importante ponto de interesse para estudos organizacionais. Este artigo apresenta uma investigação quantitativa sobre como a comunicação de liderança é percebida pelos subordinados em termos da eficácia de seus líderes, e como essas percepções estatisticamente se relacionam com as intenções dos subordinados de deixar a organização. Judy e d'Amico (1997) previram que o trabalho remoto se tornaria uma realidade nas décadas seguintes, com trabalhos mais qualificados exigindo cérebros sobre músculos e presença física em um local específico tornando-se irrelevante. Neufeld et al. (2010) explorou o impacto da percepção da lideranca, também associada à eficácia percebida, na comunicação entre gestores e subordinados no ambiente de trabalho remoto. O objetivo deste estudo foi entender como a comunicação de liderança é percebida pelos funcionários em termos de eficácia direta dos líderes e como esses dois fatores estão estatisticamente relacionados à intenção de rotatividade. A intenção de volume de negócios refere-se à decisão individual e voluntária de deixar uma organização (Anwar, 2016). Adotando uma metodologia quantitativa,



o estudo procurou contribuir tanto para o discurso acadêmico quanto para a compreensão prática de práticas de trabalho remoto. Em abril de 2022, uma amostra diversa de 203 entrevistados válidos foi pesquisada, incluindo subordinados de 14 países e líderes advindos de 30 nacionalidades. Os resultados revelaram uma correlação positiva muito forte (rho de Spearman = 0,812) entre a comunicação de liderança e sua eficácia percebida, sugerindo que os subordinados que consideram a comunicação altamente também percebem maior eficácia de liderança. No entanto, há uma correlação negativa significativa, ainda que fraca, entre a comunicação de liderança e as intenções de rotatividade (rho de Spearman = -0.343), e da mesma forma, entre a percepção da eficácia da liderança e as intenções de rotatividade (rho de Spearman = -0,299). O estudo não encontrou evidências significativas da percepção da eficácia da liderança mediando a relação entre comunicação e intenções de rotatividade em ambientes remotos, com um efeito indireto menor (Rho de Spearman = -0,0271; valor p = 0,64), compreendendo cerca de 14% do efeito comunicativo total na intenção de rotatividade. Essas descobertas contribuem para a literatura sobre dinâmica de trabalho remoto, destacando a importância de uma comunicação eficaz sobre liderança para a retenção de funcionários. Apesar de certas limitações do estudo, como tamanho da amostra e especificidade do contexto, as percepções fornecidas são valiosas para a liderança organizacional e acadêmica, ressaltando o papel vital da comunicação no gerenciamento remoto da força de trabalho.

Keywords: Percepção da Eficácia da Liderança. Comunicação de Liderança. Intenção de Rotatividade. Trabalho Remoto. Equipes Virtuais.

RESUMEN

En el cambiante panorama del trabajo remoto, la intersección de la comunicación del liderazgo y la intención de rotación de empleados se ha convertido en un importante punto de interés para los estudios organizacionales. Este artículo presenta una investigación cuantitativa sobre cómo la comunicación de liderazgo es percibida por los subordinados en términos de la efectividad de sus líderes, y cómo estas percepciones se relacionan estadísticamente con las intenciones de los subordinados de abandonar la organización. Judy y d'Amico (1997) predijeron que el trabajo remoto se convertiría en una realidad en las siguientes décadas, con trabajos más calificados que exigen cerebros sobre músculos y presencia física en un lugar específico que se vuelven irrelevantes. Neufeld et al. (2010) exploraron el impacto de la percepción de liderazgo, también asociada con la efectividad percibida, en la comunicación entre gerentes y subordinados en el entorno de trabajo remoto. El objetivo de este estudio fue comprender cómo la comunicación de liderazgo es percibida por los empleados en términos de efectividad de los líderes directos y cómo estos dos factores están estadísticamente relacionados con la intención de rotación. La intención de rotación se refiere a la decisión individual y voluntaria de abandonar una organización (Anwar, 2016). Adoptando una metodología cuantitativa, el estudio buscó contribuir tanto al discurso académico como a la comprensión práctica de las prácticas de trabajo remoto. En abril de 2022, se encuestó a una muestra diversa de 203 encuestados válidos, incluidos subordinados de 14 países y



líderes de 30 nacionalidades. Los resultados revelaron una correlación positiva muy fuerte (Rho de Spearman = 0.812) entre la comunicación de liderazgo y su efectividad percibida, lo que sugiere que los subordinados que consideran la comunicación altamente también perciben una mayor efectividad de liderazgo. Sin embargo, hay una correlación negativa significativa pero débil entre la comunicación del liderazgo y las intenciones de rotación (Rho de Spearman = -0.343), y de manera similar, entre la efectividad percibida del liderazgo y las intenciones de rotación (Rho de Spearman = -0.299). En el estudio no se encontró evidencia significativa de la percepción de la eficacia del liderazgo como mediador de la relación entre las intenciones de comunicación y de recambio en entornos remotos, con un efecto indirecto menor (Rho de Spearman = -0.0271; valor de p = 0.64), que comprende alrededor del 14% del efecto comunicativo total sobre la intención de recambio. Estos hallazgos contribuyen a la literatura sobre la dinámica del trabajo remoto, destacando la importancia de una comunicación efectiva del liderazgo para la retención de los empleados. A pesar de ciertas limitaciones del estudio, como el tamaño de la muestra y la especificidad del contexto, los conocimientos proporcionados son valiosos para el liderazgo organizacional y el mundo académico, lo que subraya el papel vital de la comunicación en la gestión remota de la fuerza laboral.

Palabras clave: Percepción de la Efectividad de Liderazgo. Comunicación de Liderazgo. Intención de Rotación. Trabajo Remoto. Equipos Virtuales.

1 INTRODUCTION

Remote work has gained increasing prominence in recent years, following the trend of greater flexibility and mobility in the job market (Yu et al., 2019). The COVID-19 pandemic has accelerated this trend, with Eurostat estimates (2021) indicating that approximately 50% of Europeans have started working from home, at least partially. The phenomenon of the "Great Resignation" has also been partly attributed to the adaptation to remote work (Welpe, 2021).

In this context, it is important to examine how leaders communicate and how their effectiveness is perceived by subordinates in remote environments (Neufeld et al., 2010; Otara, 2011). Additionally, it is necessary to understand how these factors relate to turnover intention (Bothma & Roodt, 2013; Dwivedi, 2015). As remote work becomes, in many cases, the norm rather than the exception, the strategic, economic, and social value of this type of work model, as well as its alignment with the needs and expectations of various stakeholders,



require close examination by researchers and the world of work in general (Vijaykar & Karhade, 2021).

The overall objective of this study was to analyze the relationship between the communication model adopted by leaders in remote environments and turnover intention, considering the perceived leadership effectiveness by subordinates. This study aimed to contribute to both the academic environment and the corporate world by assisting in the understanding of effective communication and leadership dynamics in remote work environments and their implications for turnover intention.

2 LITERATURE REVIEW

Remote work, as defined by Nilles (1973), refers to the use of telecommunications and computers to replace daily commuting to work (Hill & Fellows, 2014). Telework (or remote) opportunities have expanded with technological advancements and globalization, leading to new forms of employment and work organization (Kizza et al., 2013; Nilles, 1988). In this context, virtual teams emerge, consisting of individuals who collaborate on projects despite geographical and temporal distribution (Ferrazzi, 2014; Dubé & Robey, 2008; Kratzer et al., 2006). This modality brings benefits such as cost reduction but also challenges like a sense of non-belonging (Lassk et al., 2009; Bell, 2012).

Leadership becomes vital in organizing remote work, and leadership concepts evolve over time and in human relationships (Ayub et al., 2014; Volkmann, 2012). Leadership is understood as an interactive influence process that seeks to achieve common goals (Reed et al., 2019; Silva, 2016). McCleskey (2014) argues that a single definition of leadership may be impossible, as it depends on the researcher's interest and the problem or situation under study (Silva, 2016). Leadership, according to Kotter (1988), is the process of moving a group in a certain direction, primarily through non-coercive means.

Neufeld et al. (2010) emphasized that in remote environments, as organizations and employees become more dispersed, communication becomes

Page 5



the primary means by which individuals exert leadership in its essence; leadership is enacted through communication (Barge, 1994). Communication is an essential aspect of leadership, responsible for the controlled and purposeful transfer of meaning (Barrett, 2006; Zerfass & Huck, 2007). In remote environments, communication effectiveness is a strong predictor of leaders' performance, acting as a mediator of leadership behavior (Neufeld et al., 2010). Effective leaders help followers understand the relevance of activities, primarily through language and interpersonal communication (Pondy, 1978). The physical distance between leaders and members, as well as leadership style, impacts followers' performance (Howell & Hall-Merenda, 1999).

Effective communication is essential for leadership, as it controls interactions between employer and employee. motivates, balances organizational goals, and aids decision-making (Ayub et al., 2014). Leaders use formal and informal communication skills and resources to overcome interferences and guide, direct, motivate, and inspire action (Barrett, 2006; Galli, 2021). Communication effectiveness and its perception are crucial in team studies (Delgado-Piña et al., 2008). Group effectiveness is indicated by output, member impacts, and improved future performance capacity (Guzzo & Dickson, 1996), aspects related to belonging, engagement, and turnover intention. Turnover refers to the rotation of individuals in the job market (Abbassi & Hollman, 2000). Turnover intention, according to Mobley et al. (1978), is the likelihood of an employee leaving the organization, while Kerlinger (1973) defines it as the individual's estimated probability of a deliberate intention to permanently leave the organization shortly. Turnover intention, as Anwar (2016) explains, refers to the individual and voluntary decision to leave the organization, as opposed to involuntary turnover. According to Steers and Mowday (1981), individual turnover decisions are often characterized by individuals rationally choosing to leave their job and the organization. Researchers measure turnover intention using specific time intervals, associating it with an individual's choice to leave the organization at a specific future time (Wong et al., 2015).

Saripudin and Rosari (2019) highlight that combined with effective management, effective leadership can help control chaotic situations. In virtual



teams, where communication occurs through electronic means, coordination is more complex, and communication is less fluid (Flavian et al., 2019). With the increasing importance of remote environments, it is necessary to understand subordinates' perceptions of leadership effectiveness (Otara, 2011). Pham (2016) found a significant relationship between perceived leadership behavior and employee engagement in the virtual environment.

Waldron et al. (2015) analyzed the Perceived Leadership Scale in a U.S. fire department, which assesses perceptions of competent decision-making, personal genuineness, and supervisor integrity. The results showed that higher leader ratings were related to increased engagement and job satisfaction. Naufer and Sanath (2020) confirmed, in an empirical study, the relationship between superior-subordinate relationships, employee engagement, and turnover intention.

The shift to virtual work arrangements requires leaders to take on greater responsibility for working with distant followers (Neufeld et al., 2010). Galli (2021) states that leaders spend 70 to 90% of their time interacting with other groups and teams, and with advancements in communication technologies, this percentage has increased. However, there is no clear consensus in the literature on patterns of leadership processes for virtual teams and whether traditional mechanisms apply to them (Bisbe & Sivabalan, 2017). Neufeld et al. (2010) highlight that leadership communication plays a precursor role in effectiveness and performance. Perceiving leadership effectiveness is crucial for employee engagement and their interest in staying with the organization (Otara, 2011).

3 OBJECTIVES AND HYPOTHESES

This study aimed to answer the following research question: Were there statistically significant relationships between the effectiveness of the communication model adopted by leaders in the remote work environment, the perception of subordinates, and the influence of these variables on their turnover intention? The overall objective of this study was to analyze the relationship between the communication model adopted by leaders in the remote work



environment and turnover intention through perceived leadership effectiveness. Based on the proposed objectives, the following hypotheses were formulated: H1: In the remote work environment, there was a significant and positive relationship between communication and perceived leadership effectiveness. H2: In the remote work environment, communication was negatively related to turnover intentions. H3: In the remote work environment, perceived leadership effectiveness was negatively related to turnover intention. H4: In the remote work environment, perceived leadership effectiveness mediated the relationship between communication and turnover intention.

4 METHODOLOGY

This study adopted a quantitative approach to investigate the relationships among the variables of interest in the context of remote work. Quantitative research allows for the identification of deep-rooted realities, relationship systems, and dynamic structures (Esperón, 2017). The focus was on establishing relationships between the variables as indicated by the hypotheses. Data collection was conducted through an online questionnaire available in English, Spanish and Portuguese. The questionnaire was distributed through WhatsApp, email, and LinkedIn. Messages were sent by the author and often shared by respondents with contacts in their networks, resulting in a sample with international reach and greater representativeness. Respondents' nationalities covered 14 countries, and the headquarters/origin countries of the organizations represented in the sample included 24 countries. The leaders of the respondents represented 30 different nationalities.

The expected number of participants was 200, considering statistical significance. Ferrazzi's (2014) definition of virtual teams, which includes those performing activities in different physical locations consistently or intermittently, was used as a criterion to select participants. This ensured that they were subordinated to formal (hierarchical) leadership in the virtual environment. The research focused on organizations with more than 5 employees and respondents who had experienced the remote work context in the past 12 months. Those who

CADERNO PEDAGÓGICO

did not meet this criterion were excluded from the final sample: *initial* n = 225; *final* n = 203. To maintain ethical considerations regarding the perception theme and sensitive data such as turnover intention, the form was completely anonymous. The Perceived Leadership Communication Questionnaire (PLCQ) (Schneider et al., 2015), the Turnover Intention Scale (TIS-2004) (Roodt, 2004), and the "supervisor rating" questionnaire from the study on Emotional Intelligence and Leadership Effectiveness (Kerr et al., 2006) were utilized. The scales were translated from English to Portuguese using the translation/back-translation method (Brislin, 1970). Data collection was conducted through an online form (Google Forms), and statistical analysis was performed using IBM SPSS, version 26. The form contained geographical information and four main sections, following the logic of the presented hypotheses and the scales constructed by the mentioned authors. All questions were mandatory, except for the age question, which allowed for direct input.

After descriptive analysis of the sample, variables were categorized by question blocks, summing questions of the same scale and transforming them into a single variable. This categorization was performed for the variables of Leadership Communication, Turnover Intention, and Supervisor Rate, aiming to reduce data complexity and enable subsequent analyses. In the Leadership Communication block, the five questions were summed, resulting in a new variable with a maximum possible value of 24. The closer the value to 24, the higher the respondent's perception of the leader's communication competence. This variable was used to analyze the relationship between leader communication and the respondent's remote work experience. In the Turnover Intention block, the five questions were summed, resulting in a new variable with a maximum possible value of 20. The closer the value to 20, the higher the probability of turnover for the respondent. This variable was used to analyze the relationship between turnover intention and the respondent's remote work experience. In the Supervisor Rate block, the six questions were summed, resulting in a new variable with a maximum possible value of 100. The closer the value to 100, the higher the respondent's perception of the leader's effectiveness. This variable was used to analyze the relationship between the perception of



leadership effectiveness and the respondent's remote work experience. The categorization of variables allowed for a simpler and more direct analysis of the data, as well as the utilization of these new variables in subsequent analyses, such as correlations and regressions. However, it is important to note that this categorization may have lost important information present in the individual questions, and the interpretation of the results should be approached with caution, considering the limitations of this data simplification.

4.1 SAMPLE ANALYSIS

For the responses to be considered valid, participants had to be subordinated to a formal (hierarchical) leadership in the virtual environment. To confirm this model, Ferrazzi's definition (2014) was used, considering virtual teams as those that perform activities in different physical locations, either consistently or intermittently. As a deeper characterization of what this quantitative research considers as a data collection context, there was no geographical limitation, but it was delimited that organizations had more than 5 employees and that the respondent had experienced the remote context in the last 12 months. At the time of survey administration (April 2022), the ongoing Covid-19 pandemic certainly continued to heavily contribute to the adoption of remote work models by many organizations worldwide. The descriptive analysis of the sample reveals factors that support this statement, with 76% of respondents reporting remote work experience ranging from 1 to 3 years (as of April 2022), and 56.7% indicating that their work model was "fully remote" in the past 12 months.

For ethical reasons involving the perception theme and sensitive data of professionals, such as turnover intention, the form used was completely anonymous and did not include any demographic data that could generate individual identification of people or organizations. The analysis of the sample revealed interesting insights. The building model of the questionnaire ensured that there were no missing data in the final analyzed dataset, which consisted of 203 responses (n=203), for those who met the study criteria, previously



mentioned. Regarding the type of organizations the participants worked for, the majority (92.49%) were from private organizations, while a smaller percentage (3.29%) belonged to public organizations, and 2.82% were from NGOs. This distribution provides a snapshot of the composition of the sample. Furthermore, the data showed that a significant portion (65%) of the professionals had been with their current organization for less than three years. This suggests a relatively high turnover rate or a tendency for employees to change companies within a relatively short timeframe.

An intriguing finding was the percentage of respondents working in organizations with over 1000 employees, which stood at more than 28%. This figure was surprising considering that the majority of active companies in the non-financial business economy of the EU in 2019 were micro, small, and medium-sized enterprises (SMEs), in comparison. These SMEs accounted for 99.8% of the companies and contributed 52.3% of the value added to the economy. This highlights the presence of larger organizations within the sample, which deviates from the overall composition of the business landscape.

As advocated by Judy and d'Amico (1977), "skilled" workers are those more likely to engage in remote work without the need for physical presence in a specific location. In the analyzed sample, over 96% of respondents have a higher education degree, with 46.3% holding a master's or MBA degree. OECD (2021) pointed out that highly digitalized industries, including information and communication services, professional, scientific, and technical services, as well as financial services, achieved the highest rates of remote work during the pandemic - over 50% of employees on average. These insights shed light on the characteristics of the sample and provide valuable information for understanding the context in which the study was conducted. The findings indicate a diverse range of organizations, a relatively high turnover rate, and a well-educated group of participants, which can help in interpreting the subsequent analyses and drawing conclusions from the research conducted in the field of remote work.

Page 11



4.2 KEY FINDINGS AND HYPOTHESES CHECK

Hypothesis H1, which stated that there is a statistically significant positive relationship between leadership communication and perceived leadership effectiveness, was validated. The correlation analysis using the Spearman coefficient estimated at 0.812 showed that the correlation between the variables is classified as "very strong" (range between 0.7 and 0.89), and the simple linear regression indicated that the leadership communication block significantly explains the perceived leadership effectiveness block. Hypothesis H2, which stated that there is a statistically significant negative relationship between leadership communication and turnover intention, was partially validated. The correlation analysis using the Spearman coefficient estimated at -0.343 showed that the correlation exists but is of low magnitude. Additionally, the simple linear regression indicated that the leadership communication block has a significant impact on the variability of the turnover intention block, although with a reduced dimension.

Hypothesis H3, which stated that there is a statistically significant negative relationship between perceived leadership effectiveness and turnover intention, was validated. The correlation analysis using the Spearman coefficient estimated at -0.299 showed a statistically significant negative relationship between the variables. Furthermore, the simple linear regression indicated that the perceived leadership effectiveness block has a significant impact on the variability of the turnover intention block, albeit with a reduced dimension. However, Hypothesis H4, which proposed that perceived leadership effectiveness mediates the relationship between communication and turnover intention in the remote work environment, was not validated. The results do not provide statistical significance to support this mediating relationship, as the mediating effect is of reduced dimension and not significant, representing approximately 14% of the total effect that communication, mediated by perceived leadership effectiveness, has on turnover.



5 DISCUSSIONS

The discussion of the results addresses the four specific research objectives based on the formulated hypotheses. The results indicate that the effectiveness of communication and leadership are closely linked, suggesting that leaders who possess effective communication behaviors also demonstrate strong performance. Furthermore, physical distance does not seem to influence the effectiveness of communication in remote leadership environments.

Regarding turnover intention, upward and downward communication between supervisors and subordinates can influence employees' organizational commitment. Ineffective communication with managers can lead to the intention to leave the company. On the other hand, leadership effectiveness is inversely related to turnover intention, suggesting that organizations can reduce turnover rates by enhancing leadership effectiveness. As for Hypothesis H4, which suggests that perceived leadership effectiveness mediates the relationship between communication and turnover intention, the results did not confirm this mediating relationship. However, both communication and perceived leadership effectiveness directly impact the relationship with turnover intention. In conclusion, effective communication is crucial for leadership effectiveness and talent retention. Effective leaders provide regular, detailed, and timely communication with their followers. Upward and downward communication between supervisors and subordinates can influence employees' organizational commitment and turnover intention. Leadership effectiveness is inversely related to turnover intention, suggesting that organizations can reduce turnover rates by effectiveness. enhancing leadership However, perceived leadership effectiveness does not appear to mediate the relationship between communication and turnover intention.

6 LIMITATIONS AND CONCLUSION

One limitation is related to the use of self-report measures, which can be prone to biases resulting from social desirability, random responses, fabrication,



or response style. As this is a correlational and cross-sectional study, causality cannot be inferred, and the effects of common method biases may be present (Podsakoff et al., 2003). One of the main limitations of this study is that only two variables explain turnover intention on their own (leadership communication and perceived effectiveness). In addition to the relationship between supervisory practices and turnover, several studies have found that poor personal relationships between management and employees, such as inadequate delegation of authority, can be responsible for increased turnover (Pettman, 1973). Turnover can be caused by various factors, and these turnover intention factors differ from one organization to another (Belete, 2018). Jha (2009) stated that no single factor can be attributed to turnover intention and proposed a holistic approach to studying the factors affecting employee turnover intention. Therefore, multiple dimensions from different fields of social sciences and leadership studies are needed to further clarify the criteria involved in turnover intention.

Given the sample size and data collection format, it is also important to mention possible biases. Sampling errors can occur when a probabilistic sampling method is used to select a sample, but that sample does not reflect the general population or the appropriate population in question. This results in limitations known as "sampling bias" or "selection bias." For example, if you surveyed to obtain research results, you asked your sample (participants) to respond to the survey questions. However, you may have had limited access to the appropriate type or geographic scope of participants. In this case, the people who responded to your survey questions may not truly represent a random sample.

As Neufeld et al. (2010) found in their research, communication effectiveness was also a strong predictor of leadership performance and acted as a mediator of leadership behavior in performance. The perception of communication effectiveness and leadership effectiveness can be seen as relevant in this present study, regardless of their mediating role with turnover intention. Effective leadership communication plays a vital role in the remote work environment. The use of quantitative research to relate the authors cited in this



study to the reality of 203 professionals spread across different countries of the world brings a supportive character to this research, which strongly relates to people's daily lives, particularly when addressing remote work, leadership communication, perceived effectiveness, and turnover intention. Through the statistical analyses conducted, to a greater or lesser degree, it was possible to perceive that all three variables play a significant role in the remote work context, and leadership communication and perceived leadership effectiveness are factors that influence turnover intention in this same remote environment. The theoretical and practical implications of this study offer opportunities for research and practical measures in the daily operations of companies, serving as a guide for relevant actions in the human resources sector and upper and middle management. For future studies, it is suggested to increase the sample size or analyze a specific context, such as an organization or region. As remote work is a growing trend in the modern work world, this context is a fertile ground for researchers interested in this topic, which should be further explored in the coming years.



REFERENCES

 Abbasi, S. M., & Hollman, K. W. (2000). Turnover: The real bottom line. Public

 Personnel
 Management,
 29(3),
 333–342.

 https://doi.org/10.1177/009102600002900303

Abdien, M. (2019). Impact of communication satisfaction and work-life balance on employee turnover intention. *Journal of Tourism Theory and Research*, *5*(2), 228-238. <u>https://doi.org/10.24288/jttr.526678</u>

Akoglu, H. (2018). User's guide to correlation coefficients. *Turkish Journal of Emergency Medicine*, *18*(3), 91-93. <u>https://doi.org/10.1016/j.tjem.2018.08.001</u>

Anwar, Muhammad (2016). Factors affecting turnover intentions; Empirical evidence from Pakistan. *Humanistic Management Network, Research Paper Series, 34*(16). http://doi.org/10.2139/ssrn.2828145

Avolio BJ (1999) Full leadership development: building the vital forces in organizations. *Sage, Thousand Oaks, CA*

Ayub, S. H., Manaf, N. A., & Hamzah, M. R. (2014). Leadership: communicating strategically in the 21st century. *Procedia - Social and Behavioral Sciences, 155,* 502-506. <u>https://doi.org/10.1016/j.sbspro.2014.10.330</u>

Baker, D. P., Horvath, L., Campion, M., Offermann, L., & Salas, E. (2005). The ALL teamwork framework. *International adult literacy survey, measuring adult literacy and life skills: New frameworks for assessment, 13,* 229-272.

Barrett, Deborah, J. (2006). Leadership communication: A communication approach for senior-level managers. *Emerald Group Publishing Limited*. <u>https://hdl.handle.net/1911/27037</u>

Barge, J. K. (1994). Putting leadership back to work. ManagementCommunicationQuarterly,8(1),95–109.https://doi.org/10.1177/0893318994008001005

Bass, B. M. (1990). From Transactional to Transformational Leadership: Learning to Share the Vision. *Organizational Dynamics, 18, 19-32.* http://dx.doi.org/10.1016/0090-2616(90)90061-S

Belete, A. K. (2018). Turnover intention influencing factors of employees: An empirical work review. *Journal of Entrepreneurship & Organization Management*, 7(3), 1-7. <u>https://doi.org/10.4172/2169-026X.1000253</u>

Bell, B. (2012). Remote work: Examining current trends and organizational practices. *International HR Adviser, 49,* 4-6. https://hdl.handle.net/1813/76024



Bisbe, J., & Sivabalan, P. (2017). Management control and trust in virtual settings: A case study of a virtual new product development team. *Management Accounting Research, 37,* 12-29. <u>https://doi.org/10.1016/j.mar.2017.02.001</u>

Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-Cultural Psychology, 1*(3), 185–216. https://doi.org/10.1177/135910457000100301

Bogdan, R., & Biklen, S. K. (2006). *Qualitative research for education: an introduction to theories and methods* (5th ed.). Pearson Education, Inc.

Bothma, C. F., & Roodt, G. (2013). The validation of the turnover intention scale. *SA Journal of Human Resource Management, 11*(1), 1-12. <u>https://doi.org/10.4102/sajhrm.v11i1.507</u>

Cao, Shun & MacLaren, Neil G. & Cao, Yiding & Dong, Yingjun & Sayama, Hiroki & Yammarino, Francis J. & Dionne, Shelley D. & Mumford, Michael D. & Connelly, Shane & Martin, Robert & Standish, Colleen J. & Newbold, Tanner R. & England, Samantha & Ruark, Gregory A. (2020). An agent-based model of leader emergence and leadership perception within a collective. *Complexity*, 1-11. <u>https://doi.org/10.1155/2020/6857891</u>

Delgado-Piña, M. I., María Romero Martínez, A., & Gómez Martínez, L. (2008). Teams in organizations: a review on team effectiveness. *Team Performance Management, 14*(1/2), 7-21. <u>https://doi.org/10.1108/13527590810860177</u>

Dubé, L., & Robey, D. (2009). Surviving the paradoxes of virtual teamwork. *Information Systems Journal, 19,* 3-30. https://doi.org/10.1111/j.1365-2575.2008.00313.x

Dulebohn, J. H., & Hoch, J. E. (2017). Virtual teams in organizations. *Human Resource Management Review*, 27(4), 569-574. <u>https://doi.org/10.1016/j.hrmr.2016.12.004</u>

Dwivedi, S. (2015). Turnover intentions: Scale construction & validation. *Indian Journal of Industrial Relations, 50*(3), 452–468. http://www.jstor.org/stable/24549107

Eberly, L. E. (2007). Correlation and simple linear regression. In Ambrosius, W.T. (Ed.) Topics in Biostatistics. *Methods in Molecular Biology*[™] (404, 143-164). Humana Press. <u>https://doi.org/10.1007/978-1-59745-530-5_8</u>

Torres Esperón, Julia Maricela. (2017). Pesquisa quantitativa na ciência da enfermagem. *Escola Anna Nery Revista de Enfermagem, 21*(1), 1-2. <u>https://www.redalyc.org/articulo.oa?id=127749356015</u>

Eurofound. (2018). *Living and working in Europe 2017.* (H. Burke, Ed.). Publications Office. https://data.europa.eu/doi/10.2806/603802



Eurostat. (2019). *Structural business statistics overview.* <u>https://ec.europa.eu/eurostat/statistics-</u> explained/index.php?title=Structural business statistics overview

Eurostat. (2021). Working from home across EU regions in 2020. *Products Eurostat News*. <u>https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20210923-1</u>

Ferrazzi, K. (2014). Managing yourself: Getting virtual teams right. *Harvard Business Review*, 120-123. <u>https://hbr.org/2014/12/getting-virtual-teams-right</u>

Flavian, C., Guinalíu, M., & Jordan, P. (2019). Antecedents and consequences of trust on a virtual team leader. *European Journal of Management and Business Economics*, 28(1), 2-24. <u>https://doi.org/10.1108/EJMBE-11-2017-0043</u>

Galli, B. J. (2021). The relationship and impact of communication on leadership: A research note. *International Journal of Applied Management Sciences and Engineering (IJAMSE), 8*(1), 1-11. <u>http://doi.org/10.4018/IJAMSE.2021010101</u>

Gardner, H., & Matviak, I. (2020). The coronavirus could force teams to work remotely. *Harvard Business Review*. <u>https://hbr.org/2020/03/coronavirus-could-force-teams-to-work-remotely</u>

Guzzo, R. A., & Dickson, M. W. (1996). Teams in organizations: Recent research on performance and effectiveness. *Annual Review of Psychology*, *47*(1), 307-338. <u>https://doi.org/10.1146/annurev.psych.47.1.307</u>

Hauke, J., & Kossowski, T. (2011). Comparison of values of Pearson's and Spearman's correlation coefficients on the same sets of data. *Quaestiones Geographicae*, *30*(2), 87. https://doi.org/10.2478/v10117-011-0021-1

Hill, E. J., & Fellows, K. J. (2014). Telecommuting. In Michalos A.C. (Eds). *Encyclopedia of Quality of Life and Well-Being Research.* Springer, Dordrecht. <u>https://doi.org/10.1007/978-94-007-0753-5_2985</u>

Howell, J. M., & Hall-Merenda, K. E. (1999). The ties that bind: The impact of leader-member exchange, transformational and transactional leadership, and distance on predicting follower performance. *Journal of Applied Psychology, 84,* 680-694. <u>https://psycnet.apa.org/doi/10.1037/0021-9010.84.5.680</u>

Jha, S. (2009). Determinants of employee turnover intentions: A review. *Management Today*, *9*(2), 26-33. <u>https://ssrn.com/abstract=2442689</u>

Judy, R. W., & d'Amico, C. (1997). *Workforce 2020: Work and workers in the 21st century.* Hudson Institute, Herman Kahn Center. <u>https://files.eric.ed.gov/fulltext/ED409463.pdf</u>



Kayworth, T. R., & Leidner, D. E. (2002). Leadership effectiveness in global virtual teams. *Journal of management information systems*, *18*(3), 7-40.

Kerlinger, F. N. (1973). *Review of research in education.* F. E. Peacock.

Kerr, R., Garvin, J., Heaton, N., & Boyle, E. (2006). Emotional intelligence and leadership effectiveness. *Leadership & Organization Development Journal*, *27*(4), 265–279. <u>https://doi.org/10.1108/01437730610666028</u>

Kizza, J. M., Kizza, W., & Wheeler. (2013). *Guide to computer network security.* Berlin: Springer.

Klauss, R., Bass, B. M. (1982). *Interpersonal communication in organizations.* Academic Press, New York.

Kotter, J. (1988). *The leadership factor (1st ed.).* Free Press. <u>https://doi.org/10.1177/103841119002800417</u>

Kratzer, J., Leenders, R., & Engelen, J. (2006). Managing creative team performance in virtual environments: An empirical study in 44 R&D teams. *Technovation*, *26*(1), 42-49. <u>https://doi.org/10.1016/j.technovation.2004.07.016</u>

Krone, Kathleen & Jablin, F. M. & Putnam, L. L. & Roberts, K. & Porter, L. (1987). Communication theory and organizational communication: Multiple perspectives. In F. M. Jablin, & L. L. Putnam, & K. H. Roberts, & L. W. Porter (Eds.), *Handbook of organizational communication* (18-40).

Lassk, F., Mulki, J., Bardhi, F., & Nanavaty-Dahl, J. (2009). Set up remote workers to thrive. *MIT Sloan Management Review*, *51*(1), 63-69. <u>https://sloanreview.mit.edu/article/set-up-remote-workers-to-thrive/</u>

Marill, K. A. (2004). Advanced statistics: linear regression, part I: Simple linear regression. *Academic Emergency Medicine, 11*(1), 87-93. <u>https://pubmed.ncbi.nlm.nih.gov/14709436/</u>

Matos, M. (2014). Metodologias qualitativas e quantitativas: de que falamos?. *Fórum Sociológico, Série II*(24). <u>https://doi.org/10.4000/sociologico.1061</u>

Mobley, W. H., Griffeth, R. W., Hand, H. H., & Meglino, B. M. (1979). Review and conceptual analysis of the employee turnover process. *Psychological Bulletin*, *86*(3), 493. <u>https://doi.org/10.1037/0033-2909.86.3.493</u>

Moreira, Carlos Diogo. (1994). A pesquisa quantitativa. Planejamento e estratégias da investigação social, Lisboa: *ISCSP*.

Mustamil, N., Yazdi, A. M., Syeh, S. S., & Ali, M. A. (2014). A dimensional analysis of the relationship between communication satisfaction and turnover intention:



The mediating role of organizational commitment. *International Journal of Business and Management, 9*(9), 75. <u>https://doi.org/10.5539/ijbm.v9n9p75</u>

Neufeld, D., Wan, Z., & Fang, Y. (2010). Remote leadership, communication effectiveness and leader performance. *Group Decision and Negotiation, 19,* 227-246. <u>https://doi.org/10.1007/s10726-008-9142-x</u>

Nilles, Jack M. (1988). Traffic reduction by telecommuting: a status review and selected bibliography. *Transportation Research Part A: General, 22*(4), 301-317. <u>https://doi.org/10.1016/0191-2607(88)90008-8</u>

Nogueira, A. M., & Patini, A. C. (2012). Trabalho remoto e desafios dos gestores. *INMR - Innovation & Management Review, 9*(4), 121-152. <u>https://doi.org/10.5773/rai.v9i4.800</u>

Northouse, Peter G. (2001). *Leadership: Theory and practice* (2nd ed.). Western Michigan University. <u>https://scholarworks.wmich.edu/books/651</u>

Nunnally, J. C., & Bernstein, I. H. (1994). The Assessment of Reliability. *Psychometric Theory*, *3*, 248-292.

OECD Policy Responses to Coronavirus (COVID-19). (2021). *Remote working in the COVID-19 pandemic: Trends and prospects.* https://www.oecd.org/coronavirus/policy-responses/remote working-in-the-covid-19-pandemic-trends-and-prospects-72a416b6/#boxsection-d1e32

OnPoint Consulting. (2013). Best practices if you plan to go virtual or if you already are. <u>https://www.benzinga.com/pressreleases/13/12/p4128935/onpoint-consulting-llc-urges-virtual-teams-to-rethink-their-approach-to</u>

Otara, A. (2011). Perception: A Guide for Managers and Leaders. *Journal of Management and Strategy*, 2. <u>https://doi.org/10.5430/jms.v2n3p21</u>

Penley, L. E., & Hawkins, B. (1985). Studying interpersonal communication in organizations: A leadership application. *Academy of Management Journal, 28*(2), 309–326. <u>https://doi.org/10.2307/256203</u>

Pettman, B. O. (1973). Some factors influencing labour turnover: a review of research literature. *Industrial Relations Journal, 4*(3), 43–61. <u>https://doi.org/10.1111/j.1468-2338.1973.tb00831.x</u>

Pham, H. (2016). An empirical research on the relationship between leadership behavior and employee engagement within virtual-working environment at technology enterprises in Vietnam. *SSRN*. <u>https://doi.org/10.2139/ssrn.2838542</u>

Podsakoff, P., MacKenzie, S., Lee, J., & Podsakoff, N. (2003). Common method biases in behavioral research: A critical review of the literature and recommended





remedies. *Journal of Applied Psychology, 88*(5), 879-903. <u>https://doi.org/10.1037/0021-9010.88.5.879</u>

Pondy L (1978) Leadership as a language game. In: Mccall MWJ, Lombardo MM (eds) Leadership: where else can we go?. Duke University Press, Durham, NC pp 87–99

Reed, B. N., Klutts, A. M., & Mattingly, T. J. (2019). A systematic review of leadership definitions, competencies, and assessment methods in pharmacy education. *American Journal of Pharmaceutical Education*, *83*(9). <u>https://doi.org/10.5688/ajpe7520</u>

Riaz, H., Akhtar, N., Moazzam, A., Luqman, R., Naz, H., & Tufail, H. S. (2017). Leadership effectiveness, turnover intention and the mediating role of employee commitment: A case of academic institutions of Pakistan. *European Online Journal of Natural and Social Sciences*, *6*, 526-534. <u>https://europeanscience.com/eojnss/article/view/5053</u>

Rizvi, I. A., & Popli, S. (2021). Revisiting Leadership Communication: A Need for Conversation. *Global Business Review.* <u>https://doi.org/10.1177/09721509211061979</u>

Rydenfält, C., Odenrick, P., & Larsson, P. A. (2017). Organizing for teamwork in healthcare: an alternative to team training?. *Journal of Health Organization and Management*, *31*(3), 347-362. <u>https://doi.org/10.1108/JHOM-12-2016-0233</u>

Saripudin, W., & Rosari, R. (2019). Does spiritual leadership model enhance work engagement? Empirical evidence from an Islamic hospital in Yogyakarta. *Journal of Leadership in Organizations*, *1*(2), 112-133. <u>https://doi.org/10.22146/jlo.45520</u>

Schneider, F. M., Maier, M., Lovrekovic, S., & Retzbach, A. (2015). The perceived leadership communication questionnaire (PLCQ): Development and validation. *The Journal of Psychology, 149*(2), 175-192. <u>https://doi.org/10.1080/00223980.2013.864251</u>

Schober, P., Boer, C., & Schwarte, L. A. (2018). Correlation coefficients: Appropriate use and interpretation. *Anesthesia and analgesia, 126*(5), 1763-1768. <u>https://doi.org/10.1213/ANE.00000000002864</u>

Staples, D. S., Hulland, J. S., & Higgins, C. A. (1998). A self-efficacy theory explanation for the management of remote workers in virtual organizations. *Journal of Computer-Mediated Communication, 3*(4). https://doi.org/10.1111/j.1083-6101.1998.tb00085.x

Steelman, L. A., Levy, P. E., & Snell, A. F. (2004). The feedback environment scale: construct definition, measurement, and validation. *Educational and Psychological Measurement, 64*(1), 165-184. https://doi.org/10.1177/0013164403258440

Page 21



Steers, R. M., & Mowday, R. T. (1981). Employee turnover and post-decision accommodation processes. *Research in Organizational Behavior, 3*, 235-281. <u>https://asset-pdf.scinapse.io/prod/435940661/435940661.pdf</u>

Tingley, D., Yamamoto, T., Hirose, K., Keele, L., & Imai, K. (2014). Mediation: R package for causal mediation analysis. *Journal of Statistical Software, 59*(5). <u>https://cran.r-project.org/web/packages/mediation/vignettes/mediation.pdf</u>

Vijaykar, S., & Karhade, P. (2021). Remote virtual workplaces in the pandemic: The case of IT-enabled service leadership. *PACIS 2021 Proceedings, 91*. <u>https://aisel.aisnet.org/pacis2021/91</u>

Yu, Rongrong & Burke, Matthew & Raad, Nowar. (2019). Exploring impact of future flexible working model evolution on urban environment, economy and planning. *Journal of Urban Management, 8*(3). 447-457 <u>https://doi.org/10.1016/j.jum.2019.05.002</u>

Wada, K. (2020). Outliers in official statistics. *Japanese Journal of Statistics and Data Science*, *3*, 669–691. <u>https://doi.org/10.1007/s42081-020-00091-y</u>

Waldron, Alexis L., Schary, David P., & Cardinal, Bradley J. (2015). Measuring wildland fire leadership: the crewmember perceived leadership scale. *International Journal of Wildland Fire*, 24(8), 1168-1175. <u>https://doi.org/10.1071/WF15077</u>

Watson, K. D. (2007). Remote management: traditional leadership behaviors in a contemporary work environment. *Kansas State University*. <u>http://hdl.handle.net/2097/432</u>

Wong, Y.-t., Wong, Y.-W., & Wong, C.-s. (2015). An integrative model of turnover intention: Antecedents and their effects on employee performance in Chinese joint ventures. *Journal of Chinese Human Resource Management, 6*(1), 71-90. <u>https://doi.org/10.1108/JCHRM-06-2014-0015</u>

Zar, J. H. (1972). Significance testing of the Spearman rank correlation coefficient. *Journal of the American Statistical Association*, 67, 578-580. <u>https://doi.org/10.1080/01621459.1972.10481251</u>

Zerfass, A., & Huck, S. (2007). Innovation, communication, and leadership: New developments in strategic communication. *International Journal of Strategic Communication*, *1*, 107-122. http://doi.org/10.1080/15531180701298908