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Jonatas Dutra Sallaberry, Edicreia Andrade dos Santos, Maryely Andrea Jimenez Franco, Antônio Zanin
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Administração Pública e Gestão Social, vol. 16, núm. 1, 2024 Universidade Federal de Viçosa
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Cultural Managerial Controls and Task Performance of Public Servants in Telework

Controles Gerenciais Culturais e Desempenho de Tarefas de Servidores Públicos em Teletrabalho

Controles Culturales de Gestión y Desempeño Laboral de los Servidores Públicos en Teletrabajo

Jonatas Dutra Sallaberry
Universidade Federal do Paraná e Universidade do Contestado, Brasil.
jonatas.sallaberry@hotmail.com

Edicreia Andrade dos Santos
Universidade Federal do Paraná, Brasil.
edicreiaandrade@yahoo.com.br

Maryely Andrea Jimenez Franco
Universidade Federal do Paraná, Brasil.
andrea.franco@ufpr.br

Antônio Zanin
Universidade Federal do Mato Grosso do Sul, Brasil.
zanin.antonio@ufms.br

Recepción: 2023-05-05
Aprobación: 2023-07-18
Publicación: 2024-01-13

Abstract

Research objective: This study purpose to analyze the effects of cultural controls on task performance of servers, mediated by the social interaction of individuals in telecommuting situations.

Theoretical framework: The research adopts the theoretical support of the systems of managerial controls for cultural controls of Merchant and Van der Stede (2007) under a background of task performance in the face of social interaction of individuals in the telework environment in the public sector (De Vries, Tummers, & Bekkers, 2018).

Methodology: To this end, we applied a survey single Entity to 468 servers of a federal agency of the justice system, whose data were analyzed quantitatively by applying the structural equations technique.

Results: The results revealed that there is no direct significant relationship between cultural controls and task performance; however, the mediation of social interaction makes the relationship statistically significant and positive. Furthermore, the evidence indicates that the social interaction of telecommuting individuals has a positive and direct influence on their task performance.

Originality: The research highlights the consideration of cultural controls in organizations under a deepening in the telecommuting context.

Theoretical and practical contributions: it is suggested that the greater interaction and proximity between bosses, subordinates and peers allows modeling and encouraging the values, policies, rules and procedures of the organization, thus gaining the trust of individuals and stimulating greater task performance.

Keywords: Social interaction, Managerial control systems, Structural equations, Public sector.

Resumo

Objetivo da pesquisa: Este estudo teve por objetivo analisar os efeitos dos controles culturais no desempenho de tarefas de servidores, mediado pela interação social em situações de teletrabalho.

Enquadramento teórico: A pesquisa adota o suporte teórico dos sistemas de controles gerenciais para os controles culturais de Merchant e Van der Stede (2007) sob um plano de fundo do desempenho de tarefas diante da interação social dos indivíduos no ambiente de teletrabalho no setor público (De Vries, Tummers, & Bekkers, 2018).

Metodologia: Para tal, aplicou-se uma *survey single Entity* a 468 servidores de um órgão federal do sistema de justiça, cujos dados foram analisados quantitativamente por meio da aplicação da técnica de equações estruturais.

Resultados: Os resultados revelaram que não há uma relação significativa direta entre os controles culturais e o desempenho de tarefas, entretanto, a mediação da interação social torna a relação estatisticamente significativa e positiva. Ademais, as evidências indicam que a interação social dos indivíduos em teletrabalho influencia de forma positiva e direta no seu desempenho de tarefas.

Originalidade: A pesquisa realça a consideração dos controles culturais nas organizações sob um aprofundamento no contexto de teletrabalho.

Contribuições teóricas e práticas: sugere-se que a maior interação e proximidade entre chefias, subordinados e pares permite modelar e incentivar os valores, as políticas, as regras e procedimentos da organização, conquistando assim, a confiança dos indivíduos e estimulando maior desempenho de tarefas.

Palavras-chave: Interação Social, Sistemas de controle gerencial, Equações estruturais, Setor público.

Resumen

Objetivo de la investigación: Este estudio pretende analizar los efectos de los controles culturales en el rendimiento de las tareas de los servidores, mediados por la interacción social de los individuos en situaciones de teletrabajo.

Marco teórico: La investigación adopta el soporte teórico de los sistemas de controles gerenciales para controles culturales de Merchant y Van der Stede (2007) bajo un trasfondo de desempeño de tareas ante la interacción social de los individuos en el ambiente de teletrabajo en el sector público (De Vries, Tummers, & Bekkers, 2018).

Metodología: Para ello, se aplicó una *survey single Entity* a 468 servidores de un órgano federal del sistema de justicia, cuyos datos fueron analizados cuantitativamente mediante la aplicación de la técnica de ecuaciones estructurales.

Resultados: Los resultados revelaron que no existe una relación significativa directa entre los controles culturales y el desempeño en la tarea, sin embargo, la mediación de la interacción social hace que la relación sea estadísticamente significativa y positiva. Además, las pruebas indican que la interacción social de los individuos en el teletrabajo tiene una influencia positiva y directa en su rendimiento en la tarea.

Originalidad: la investigación pone de relieve la consideración de los controles culturales en las organizaciones bajo una profundización en el contexto del teletrabajo.

Contribuciones teóricas y prácticas: se sugiere que la mayor interacción y proximidad entre superiores, subordinados y compañeros permite modelar y fomentar los valores, políticas, normas y procedimientos de la organización, ganando así la confianza de los individuos y estimulando un mayor rendimiento en las tareas.

Palabras clave: Interacción social, Sistemas de control de gestión, Ecuaciones estructurales, Sector público.

1 INTRODUCTION

New models and methods of working, such as telecommuting, are experimented with as a way to increase job satisfaction and service quality in the public sector. This trend is not recent, but due to the growing expectations of citizens, budget restrictions and a series of problems that, due to their complexity, cannot be solved with standardized solutions, it has generated a growing demand in organizations, mainly in the public sector, for adopt innovative practices (Hartley *et al.*, 2013).

In this sense, innovations are often encouraged by government organizations to seek the best ways to meet the needs of citizens, offering them an adequate provision of public services (De Vries, Tummers, & Bekkers, 2018). In large private sector organizations such

as Microsoft, employees have been able to organize their work flexibly for some years, choosing in-person, remote or hybrid formats. In public sector organizations, for example, in the Dutch context, since 2014, municipal employees choose their place of work, while others do hybrid work (De Vries, Tummers, & Bekkers, 2018).

In Brazil, a superior court was the first judicial body to adopt teleworking, it began as a pilot project in 2012 which was implemented in 2013, with the purpose of innovating people management and keeping up with the pace of the job market (Tribunal Superior do Trabalho, 2020). However, the authorization and adoption of teleworking in other public sector organizations in the country was relatively low until the start of the Covid-19 pandemic, which forced its adoption, becoming mandatory and later optional (Santos, 2021), so that services remained active and workers continued to contribute to the execution of work activities.

However, as teleworking is a relatively recent work arrangement and little explored in management literature, research is needed to analyze its characteristics and determining factors (facilitators and hindrances) for its implementation, in addition to its interactional influences on individuals and public organizations. For example, it is necessary to understand the influences of antecedent factors (such as management controls, organizational structure, etc.) and consequent factors (individual task performance, satisfaction, commitment, etc.) that enable or empower public sector managers to lead these changes (Aslan *et al.*, 2022; Dandalt, 2021; Taskin & Edwards, 2007). Thus, this research aims to analyze the effects of cultural management controls on the performance of tasks by public servants of a federal public entity in Brazil mediated by social interaction in teleworking situations.

In particular, by focusing on the analysis of social interaction as a mediating variable in the relationship between cultural controls and the task performance of teleworking employees, the importance of this study is twofold. First, by identifying social interaction as a factor that determines greater commitment to task performance, it reduces isolation by highlighting the importance of social interaction in teleworking environments. As a second aspect, it is clear that greater interaction has a positive impact on the relationship between cultural controls and the performance of tasks by public servants because, although teleworking brings several benefits to teleworkers, it can also generate feelings of isolation and difficulties in separating personal and professional life.

In addition, this study is justified considering the need to develop more research as previous findings are conflicting in relation to the performance of tasks carried out via teleworking, regardless of whether applied to the public or private sector (Kowalski & Swanson, 2005; Vries, Tummers, & Bekkers, 2019). It is also justified by contributing to studies related to the management of teleworking in the public sector (Dandalt, 2021; De Vries, Tummers, & Bekkers, 2018; Ortiz-Lozano *et al.*, 2022) and the implications (antecedent and consequent) of teleworking in Management Control Systems (MCS), by highlighting how cultural controls in public organizations are observed in teleworking environments directing policies, values, beliefs, norms and social procedures. Finally, it contributes to the people management literature in relation to factors related to intra and inter organizational collaboration and cooperation interactions in which managerial support, maintenance of efficiency, and maintenance of social interaction are necessary for the success of teleworking (Abdel, Bakker, & Häusser, 2021; Kazekami, 2020; Peters, Dulk, & Ruijter, 2010).

This study consists of this introduction and four more chapters. The second is the theoretical framework followed by the methodological procedures that describe how the research is operationalized. The fourth chapter presents the analysis and discussion of

the results and ends with the final conclusions. Finally, it ends with a description of the references that supported this study.

2 THEORETICAL FRAMEWORK

2.1 Teleworking

In the 1970s, teleworking began to gain prominence due to the oil crisis and the concern about expenses with commuting to work and, therefore, some functions began to be carried out at home or in places close to the employees' homes (Campo, Avolio, & Carlier, 2021; Dandalt, 2021; Lupton & Haynes, 2000; Gajendran & Harrison, 2007). Thus, different conceptions of the term began to emerge, however, even today there is no commonly accepted definition for remote work agreements (Kowalski & Swanson, 2005; Santos, Sallaberry, & Mendes, 2022).

In this sense, some terms can be used such as telecommuting or home working for working at home, telework or teleworking to refer to distance work and among others such as working from home, mobile work, remote work, and flexible workplace (Nilles, 1997; Ruth & Chaudhry, 2008). In Brazil, Law No. 13,467/2017 (Labor Reform) introduced teleworking, consolidating it in labor laws as the provision of services outside the employer's premises in which the use of information and communication technologies (ICTs) predominates (Brazil, 2017). Therefore, organizations nationwide have sought in recent years to adopt alternative work arrangements such as teleworking that allow them to carry out their tasks in a location other than the main workspace (Gajendran & Harrison, 2007; Santos, Sallaberry, & Mendes, 2022).

Nilles (1997) conceptualizes teleworking as an activity that facilitates and encourages carrying out activities in any location, reducing travel and pollutant emissions. However, with new forms of work organization, new human resource management policies, participatory cultures, training programs and motivation and reward systems are necessary (Peters, Dulk, & Ruijter, 2010). Teleworking has come to be seen as a new way of restructuring work relationships which, together with the use of ICTs, facilitates the execution of work activities outside the organizational environment (Peters, Dulk, & Ruijter, 2010; Prodanova, & Kocarev, 2021; Santos, 2021). For Palumbo *et al.* (2021), the advancement of ICTs has developed a higher stage for teleworking called Smart working, which is established as the virtualization of the work environment, that is, more flexible work structures that allow employees to decide what will be the location and time to develop functions using ICTs, which make it easier to carry out tasks and provide greater autonomy.

In the literature on the subject, there is research that sought detailed analyzes of the effects of teleworking on organizations and individuals, and identified benefits, concerns and barriers linked to the development of these work relationships (Aslan *et al.*, 2022; Dandalt, 2021; Kazekami, 2020; Kowalski & Swanson, 2005; Lupton & Haynes, 2000; Ollo-López, Goñi-Legaz, Erro-Garcés, 2021; Vesala & Tuomivaara, 2015).

The benefits to organizations refer to significant cost reductions due to higher levels of productivity, the ability to attract and retain employees and a higher level of job satisfaction (Aslan *et al.*, 2022; Kazekami, 2020; Kowalski & Swanson, 2005; Kuruzovich, 2021; Lupton & Haynes, 2000). For Ollo-López, Goñi-Legaz and Erro-Garcés (2021), teleworking helps organizations attract and retain the most committed individuals, increasing productivity and reducing the cost of the work structure. For Vesala and Tuomivaara (2015), the benefits also include operational savings, innovative hiring

options and greater ability to make organizational adjustments. However, Kowalski and Swanson (2005) argued that there must be a clear structure that includes support, communication and trust, which are critical factors for the success of teleworking. For Aslan *et al.* (2022) defining goals, days and hours of work, as well as specifying the expected results, are fundamental aspects for teleworking.

Regarding the usefulness of teleworking from the perspective of employees, Ollo-López, Goñi-Legaz and Erro-Garcés (2021) highlight the time savings by avoiding travel and interruptions at work, in addition to the fact that teleworking is perceived as a measure that helps them balance work and family. Dandalt (2021), when exploring the behaviors of public managers in Canada when teleworking during the Covid-19 pandemic, identified that teleworking facilitated the hiring process with the use of digital tools, which was perceived as saving money. In addition to their normal responsibilities, managers performed support tasks to meet subordinates' psychological needs and adaptation to new ways of working, which generated a climate of organizational empathy (Dandalt, 2021).

In countries like Spain, teleworking also represents a challenge in terms of overcoming cultural and customs barriers that have existed for years. In this sense, Ortiz-Lozano *et al.* (2022) found that there is a low level of adherence among Spanish employees to teleworking, with the biggest difficulties being (i) availability of spaces with furniture and adequate temperature for home office, which is a basic requirement; (ii) resources, such as personal computers, printers, cell phones, tablets and good internet connections, in addition to the capacity for self-management, training and experience in the use of ICTs; and (iii) domestic settings.

For Kazekami (2020), discretion in teleworking is another factor that increases productivity and job satisfaction. However, Baker, Gayle and John (2007) had already demonstrated that individual work style, such as planning the day, dividing multiple tasks and the difficulty in determining when to stop working, are not related to job satisfaction and productivity of individuals in teleworking.

Other studies such as Maruyama and Tietze (2012), Jackson and Fransman (2018), and Abdel, Bakker and Häusser (2021) highlight increased stress in balancing work and domestic tasks as barriers and concerns regarding teleworking; emotional exhaustion and unproductivity, a product of family interruptions; social isolation and less social interaction with co-workers. In Dandalt (2021) study, for example, he noticed that managers developed a feeling of 'digital fatigue' with redundant communications and increased performance expectations, eliminating the boundaries between personal and professional life.

Another consequence investigated regarding teleworking is that carrying out tasks in solitude makes it difficult to accumulate knowledge and reduces opportunities for innovation (Kazekami, 2020). Certainly, because face-to-face communication, entrepreneurship and internal know-how are fundamental to innovation. Furthermore, there are unfavorable effects of teleworking, such as the absence of employees, creating isolation that does not allow social interaction with colleagues, generating a negative effect on the work environment (Kazekami, 2020). In this regard, Baker, Moon and Ward (2006), Golden, Veiga and Dino (2008) had already argued that teleworking can lead to restrictions in social interactions between employees. However, from the perspective of Kuruzovich (2021) findings, ICTs can facilitate social interactions by improving work processes and task results.

In summary, it can be seen that there are positive and negative results for performing tasks in teleworking, regardless of whether it is carried out in the public or private sector.

Furthermore, it is difficult to understand the extent to which motivations and concerns translate into positive or negative experiences for individuals who perform their tasks remotely (Kowalski & Swanson, 2005; Vries, Tummers, & Bekkers, 2019). On the other hand, the literature also shows the emergence of a new vision of relationships and interactions of collaboration and intra and inter-organizational cooperation in which managerial support, maintenance of efficiency, maintenance of social interaction are necessary for the success of teleworking (Abdel, Bakker, & Häusser, 2021; Kazekami, 2020; Peters, Dulk, & Ruijter, 2010). For West (2017), senior management and management support must understand the value of the benefits of teleworking, the relationships and social interactions of employees with the organization and the commitment to adopting alternative work arrangements. Furthermore, it must be evaluated how employees achieve the objectives, according to the assigned or stipulated activities - the performance of the task while teleworking (Cuello, Fructus, & Panduro, 2020).

2.2 Cultural controls and task performance

MCS are management instruments designed to support the implementation, monitoring and control of strategies and to assist decision-making at any organizational level (Malmi & Brown, 2008). In general terms, MCSs aim to support the organization with useful and timely information for planning, decision-making, monitoring and evaluating activities, as well as influencing employee behavior to align them with organizational objectives.

The management literature highlights different taxonomies and types of management controls that adapt depending on the type of strategy and organizational objectives (Malmi & Brown, 2008; Merchant & Van der Stede, 2007, 2017). Among these, there are cultural management controls that can be represented by the set of beliefs and organizational culture and can be expressed in the mission, vision and values of the organization, which allows mutual monitoring of employees (Merchant & Van der Stede, 2007, 2017).

Cultural management controls are composed of the principles of the organization and enable individuals to face specific situations and act in accordance with organizational objectives, promoting greater cooperation and commitment (Goebel & Weißenberger, 2017; Kleine & Weißenberger, 2014; Merchant & Van Der Stede, 2007, 2017). In general terms, they are more comprehensive values and patterns of behavior that have been shaped over time at the organizational level and are continuously reproduced among members, being passed on to new members as they enter, adjust and reproduce what is passed on to them in the environment. In the context of public organizations, cultural controls are based on values, beliefs and social norms established in the organization and can be used to indirectly direct the behavior of employees to achieve the entity's policies, rules and procedures.

In the public sector, new policies and forms of work organization have managed to permeate organizational structures, generating the adoption of innovations with the aim of improving the provision of services to citizens, increasing work performance and employee satisfaction at work (De Vries, Tummers, & Bekkers, 2018; Ortiz-Lozano *et al.*, 2022). However, even though teleworking increases the team's happiness, satisfaction or shared values, sometimes these factors do not directly influence the productivity and performance of individuals (Kazekami, 2020), as it involves a reorganization of task management, the which affects the work relationship in different ways (Taskin & Edwards, 2007).

From this perspective, the management and performance of tasks must be analyzed, that is, the ways in which the server contributes directly or indirectly to the technical core of the organization (Cuello, Fructus, & Panduro, 2020). Task performance is understood as the fulfillment by individuals of the duties and responsibilities linked to each position or function, according to their capabilities and knowledge (Aslan *et al.*, 2022; Cuello, Fructus, & Panduro, 2020). Therefore, in addition to validating how effective and efficient the server is in carrying out their duties, an accurate, reliable and clear description of the work, an appropriate environment and moral qualities are important for high task performance (Aslan *et al.*, 2022).

In a teleworking context, the tangible elements that establish connections between perceived overall task performance and organizational culture can be affected (Aslan *et al.*, 2022; De Vries, Tummers, & Bekkers, 2018). For Gajendran and Harrison (2007), teleworking increases the server's autonomy, expands the range of tasks they can perform, and this suits organizations with a participatory culture in which formal controls are not so important. Mahama and Cheng (2013) argue that individuals must perceive a more liberating and less restrictive environment to feel more empowered in the development of their roles. Therefore, a participatory organizational environment, with cultural management controls, aimed at stimulating and empowering employees, and freedom of access to information will result in better performance for individuals.

In this sense, the teleworking environment in which cultural controls are more flexible and understood as less restrictive and more autonomous can facilitate the performance of tasks. Thus, it is argued that cultural controls transmitted informally in the teleworking environment reinforce the basic values, purposes and direction of the entity, which is positively associated with the server's task performance. This leads to the following hypothesis:

H₁: Cultural controls positively influence individuals' task performance.

2.2 Social interaction in teleworking and task performance

Social interaction can exist between two, three or more individuals and, during this interaction, people design rules, institutions and systems in which they seek to live or work (Haddadi & Ghafari, 2012). It can be compromised if communication with colleagues, supervisors or managers is interrupted and if the enthusiastic and emotional aspects of the interaction are not attended (Haddadi & Ghafari, 2012). In the context of social interaction in teleworking, Ruiller *et al.* (2019) highlight that the team needs extensive relationship building to achieve objectives and better task performance, which implies special attention to how to manage perceived proximity. For the authors, controlling work production can provide a means to control perceived proximity and social interaction between managers and teleworkers through monitoring activities or tasks that become a rite in the relationship.

De Vries, Tummers and Bekkers (2018), when analyzing the benefits of teleworking for public servants, confirmed negative effects on days when they worked entirely from home, perceiving greater professional isolation and less organizational commitment. Therefore, it is predicted that when there is high social interaction in teleworking, it positively influences individuals' task performance. However, some studies conclude that working from home is negatively related to social interaction and lower task performance (Lupton & Haynes, 2000; West, 2017). Thus, it is indicated that for organizations to have success and high performance from their employees, it is necessary to promote and/or facilitate social interaction between them, and therefore the following hypothesis is proposed:

H₂: Social interaction in teleworking positively influences individuals' task performance.

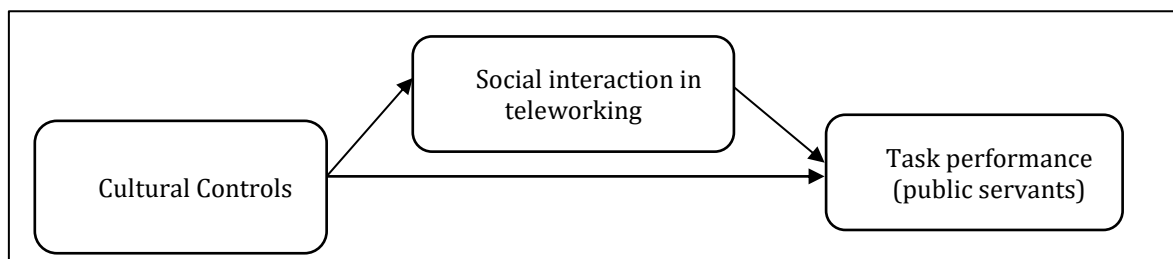
For Kowalski and Swanson (2005), productivity should be measured based on the performance of tasks and projects, rather than counting hours in the workplace. Therefore, for teleworking to be successful, a culture of good communication, interaction and trust is important, since a culture based on trust requires the organization to reconsider work relationships and how it should actually measure productivity.

When there is social interaction between teleworkers, it is expected that cultural controls can also be better transmitted, which allows for improved communication, trust and support. For Kowalski and Swanson (2005), communication is related to support in terms of ICTs that allows teleworkers to interact with anyone, anywhere, at any time, certainly reflecting the fulfillment of their functions for the high performance of tasks. Thus, it is assumed that social interaction in teleworking intervenes in the relationship of cultural controls, allowing indirectly directing the behavior of employees to achieve the organization's policies, rules and procedures, reflecting positively on task performance. It is also noteworthy that social interaction can alleviate communication problems and isolation, contributing to strengthening a culture of trust. This leads to the following hypothesis:

H₃: Social interaction in teleworking mediates the relationship between cultural controls and individuals' task performance.

Based on the description and hypotheses, relationships are postulated between the three variables, shown in Figure 1.

Figure 1: Conceptual Model of the Research



Source: Prepared by the authors.

3 METHODOLOGICAL PROCEDURES

3.1 Research sample

This research is characterized as descriptive, carried out through the application of a single entity survey, whose population was employees of a body of the federal judiciary system. For its operationalization, the instrument was sent in a form in the SurveyMonkey® application, via email to the servers between February 8 and April 15, 2021. At the end of the collection, 468 valid responses were obtained.

To validate the sample size and statistical power, the total effect of two predictor variables (cultural control system and social interaction) on the dependent variable (task performance) was considered. A sufficient sample size was previously calculated, with a median effect of 0.15 (F₂) and test power of 95%, corresponding to a significance level of 5% (F test, LMR, SD 0, a priori), which required minimum sample of 107 valid responses, based on the application of the G*Power software (Cohen, 1998; Faul, Erdefelder, & Lang,

2009; Hair Jr. *et al.* 2016). Thus, the sample under analysis proved to be theoretically sufficient to indicate the relationship between the set of variables.

Analysis of data from respondents shows that of the 468 employees, 242 are female (51.71%) and 224 participants are male (47.86%), while two respondents preferred not to identify themselves. The average age of respondents was 43 years old, and the average time in the organization was 12 years and 7 months. As for education, 3.85% have secondary or technical education; 31.41% have higher education; 58.33% have already completed a *latu sensu* postgraduate course; 5.98% have a master's degree and only 0.43% have a doctorate. Finally, regarding the classification of positions, 303 are technical employees (64.74%); 127 of them are analysts (27.14%); and 38 hold commissioned or requested positions (8.12%).

3.2 Data collection and analysis instrument

For data collection, a questionnaire was used as a research instrument consisting of 2 blocks. The first block was composed of the constructs of (i) cultural controls - CC (Merchant & Van Der Stede, 2007, 2017); (ii) social interaction in teleworking - SIT (West, 2016; Haddadi & Ghafari, 2012) and; (iii) task performance - TP (Souza & Beuren 2018; Mahama & Cheng, 2013), all with 5 statements each, measured using a Likert scale ranging from 1 (totally disagree) to 5 (totally agree) (Appendix 1). The second block contained questions about the respondents' profile with questions about gender, age, and time at the institution. It should be noted that, before applying the research instrument, back-translation procedures and 3 pre-tests were carried out with a view to validating and refining the questions. Furthermore, it is ensured that all precautions related to ethical research procedures were taken as determined by the specific ethical guidelines for the human and social sciences set out in Resolution No. 510/2016 of the Conselho Nacional de Saúde (National Health Council).

For data analysis, descriptive statistics and Structural Equation Modeling (SEM) procedures were adopted using the SmartPLS® statistical software. The application of PLS-SEM was carried out in two stages: the first is based on verifying the adequacy validity of the constructs, through the relationship between the indicators and the latent variables; the second deals with the relationship between latent variables and allows the researcher to verify whether an exogenous latent variable is related to an endogenous latent variable (Hair Jr. *et al.*, 2016).

4 ANALYSIS AND DISCUSSION OF RESULTS

4.1 Measurement Model

To operationalize the structural equations, the adequacy validity of the constructs was first tested, in which the internal consistency reliability (composite reliability and Cronbach's alpha), convergent validity and discriminant validity (Fornell-Larcker Matrix) were assessed. Internal consistency reliability provides the credibility of indicators within latent variables; convergent validity shows the extent to which an indicator positively correlates with other alternatives of the same latent variable, and discriminant validity shows the extent to which a latent variable is distinct from others by empirical standards (Hair Jr. *et al.*, 2016).

The satisfactory Composite Reliability and Cronbach's Alpha indicators signal that the

sample is theoretically free of bias and that the data collection instrument used is reliable (Hair Jr. *et al.*, 2016). In the present sample, Cronbach's Alpha results showed an acceptable degree of fidelity. In turn, the analysis of convergent validity evidenced through the average variance extracted (AVE), Composite Reliability (CC), and Cronbach's Alpha presented satisfactory coefficients, respectively from 0.5, 0.7 and 0.7 (Fornell & Larcker, 1981), shown in Table 1. The discriminant validity analysis also identified satisfactory indicators in the Fornell-Larcker matrix.

Table 1 Model Validities

Constructs	Alpha	CC	AVE	R ²
Social Interaction in Teleworking	0.773	0.846	0.526	0.104
Cultural Controls	0.840	0.887	0.617	
Task Performance	0.876	0.910	0.671	0.474
Panel Fornell-Larcker				
Constructs	SIT	CC	TP	
Social Interaction in Teleworking (SIT)	SIT	0.725		
Cultural Controls (CC)	CC	0.325	0.785	
Task Performance (TP)	TP	0.690	0.244	0.819

Source: research data.

Very important for the analysis of the result, the relevance of the relationship lies in the identification and appropriation of the coefficients of determination (R²) for the variables that indicate how much the model explains a certain variable. In this study, it was shown that the model explains more than 47% of server task performance.

4.2 Structural model

The analysis of the structural model allows us to statistically validate the relationships between the constructs and the connections built according to the structure of a theoretically based path diagram (Hair Jr. *et al.*, 2016). To evaluate the validity of the structural model, the criteria of (i) the size and significance of the path coefficients and (ii) Pearson's coefficients of determination (R²) through the Bootstrapping technique, and (iii) the Predictive Relevance (Q²) on the blindfolding platform, in addition to (iv) effect sizes (F²) (Hair Jr. *et al.*, 2016).

In bootstrapping, subsamples are created with observations randomly taken from the original data set (with replacement) and are then used to estimate the PLS path model, in this case 5,000 different subsamples were generated (Hair Jr. *et al.*, 2016). By blindfolding, F² was obtained, which is the measure that assesses whether there is a substantial impact on the dependent construct, for which a large effect of the model is perceived. The Q² criterion of predictive relevance shows how close the model is to what is expected in the model prediction, greater than zero, which denotes the existence of conformity (Geisser, 1974; Stone, 1974). The indicators obtained from bootstrapping and blindfolding are presented in Table 2, along with the relationship coefficients.

Table 2: Effects Between Constructs

Structural Relationship	β	Statistic T	P value
Hypothesis 1			

Cultural Controls -> Task Performance	0.023	0.658	0.255
Hypothesis 2			
Social Interaction -> Task Performance	0.683	23.759	0.000
Hypothesis 3			
Cultural Controls -> Social Interaction	0.325	8.536	0.000
Cultural Controls -> Social Interaction-> Task Performance	0.222	7.732	0.000

Notes: N = 468. * p < 0.05; ** p < 0.01; *** p < 0.001.

Q² = Social Interaction (0.054); Task Performance (0.312); F² = Social Interaction (0.796); Cultural Controls (0.001)

Source: research data.

It is observed that the values of the structural path coefficients were considered significant at levels of 1% for hypotheses 2 and 3. Thus, only hypothesis 1 was not statistically corroborated in this significant level.

4.3 Discussion of results

According to the results, it was found that the first hypothesis, which predicted a positive relationship between cultural controls and the task performance of individuals teleworking, was not statistically confirmed (β 0.023, p-value > 0.001). The results show that, although cultural controls are relevant for providing guidance, emphasizing the importance of organizational norms and values, indirectly communicating expected behaviors and enabling greater commitment from individuals (Goebel & Weißenberger, 2017), they do not affect individuals to perform better tasks. This allows us to infer that in the context investigated, cultural controls are not as relevant to promote the performance of individuals' tasks, perhaps due to the fact that employees do not perceive them as present when teleworking.

On the other hand, it can be said that the individual's social interaction positively influences the individuals' task performance, thus confirming the second hypothesis (β : 0.683, p-value < 0.001). It is clear from this result that the employees did not realize that their social interactions had been compromised by carrying out their activities remotely. Therefore, it is worth reinforcing organizations to use techniques and/or tools to reduce the social isolation experienced by employees who telework full-time with a view to providing opportunities to involve them in informal social activities and meetings.

These findings corroborate the studies by Kowalski and Swanson (2005) who argue that there must be constant communication, training to prepare the work space and define how the interaction between the team and managers will be carried out, the frequency with which they should call to the office, etc., because employees need to know what is expected of them and feel that they are still part of the organization. Kazekami (2020) argues that face-to-face communication is important to reduce the unfavorable effects of teleworking, such as separation and isolation. In short, the development of social interaction for the development of teleworking increases communication, interaction and empathy between teams (Dandalt, 2021), reducing feelings of isolation, stress and increasing the engagement of teleworkers (Bakker & Häusser, 2021; Golden, Veiga, & Dino, 2008; Palumbo *et al.*, 2021).

On the other hand, professionally isolated teleworkers are less confident in their skills and knowledge as they lack 'social barometers' that they can use to compare themselves with others, which can put them at a clear disadvantage when performing their tasks (Golden, Veiga, & Dino, 2008). In this sense, the findings clarify the argument that greater

social interaction reduces feelings of isolation at work, positively influencing the performance of employees' tasks.

The third hypothesis statistically confirmed that social interaction mediates the relationship between cultural controls and individuals' task performance. This suggests that greater interaction reflects positively on the relationship between cultural control and the task performance of public servants. These results are in line with the findings of Ruiller *et al.* (2019) in which they corroborate that when there is greater interaction or perceived proximity between the leader and teleworkers, team members perceive that the team leader accompanies his employees, positioning himself as a facilitator. Therefore, this greater interaction and proximity allows leaders to model values, share the organization's policies, rules and procedures, thus gaining the trust of employees (Kowalski & Swanson, 2005; Merchant & Van Der Stede, 2007).

On the other hand, these results differ from the study by De Vries, Tummers, and Bekkers (2019) who attributed negative effects of teleworking on days when employees worked entirely from home, perceiving greater professional isolation and less organizational commitment. These findings show that regardless of employees working all day at home, social interaction is what determines the reduction of isolation and consequent greater commitment to performing tasks. In line with the findings of Aslan *et al.* (2022), employees who work from home full-time or on certain days of the week have a better overall perception of task performance compared to those who work only at the workplace.

The results can improve organizational or MCS conditions in the study by Dandalt (2021), in which public managers who led their organizations remotely during the restrictions of the Covid-19 pandemic, described professional isolation as difficulties in relation to having fewer opportunities to socialize with your subordinates or team members. However, managers claimed to have intangible and tangible benefits, changing the belief system surrounding working conditions for the public service, in which public servants no longer accommodated themselves to the idea that work processes are the same after the pandemic. Thus, the study shows that social interaction can help cultural control and task performance when teleworking, specifying an aspect that can reduce concerns and barriers linked to the development of these work relationships.

5 CONCLUSIONS

5.1 Theoretical and practical implications

This study aimed to analyze the effects of cultural controls on the performance of civil servants' tasks, mediated by social interaction in teleworking situations. To this end, a questionnaire was administered to 468 employees of a federal public body in the area of justice, whose data were processed using structural equations. Among the main results, it was evident that, when there is social interaction between individuals, their task performance tends to be greater. Furthermore, it was confirmed that social interaction reflects positively on the relationship between cultural management controls and the performance of public servants' tasks.

This study theoretically contributes to the literature related to telework management in the public sector (Dandalt, 2021; De Vries, Tummers, & Bekkers, 2018; Ortiz-Lozano *et al.*, 2022) by highlighting which nuances must be observed, as evidenced, social interaction is an aspect that cannot be ignored. Although teleworking can bring several benefits to teleworkers (for example: improving their time flexibility and increasing

independence), it can generate feelings of isolation and difficulties in separating employees' personal lives from their professional lives.

Empirically, it contributes by showing how management controls can be seen by teleworking employees. It is observed that although control over teleworkers during work can be exercised with greater emphasis through ICT, in most cases, work autonomy is expanded and, therefore, better understanding the application of MCS is relevant. This is because they need to be rethought differently from those applied when the individual is in person in the workplace.

5.2 Future Research and Limitations

Despite the indication of some important contributions of this study, it must be seen in the context of its limitations, which open avenues for future research. Firstly, the relationship with other factors such as job satisfaction, organizational commitment and trust, which are clearly important factors in a teleworking situation, was not analyzed.

Secondly, this study did not incorporate characteristics of employees, such as previous experience, training or skills, training and support in terms of technologies and tools that are fundamental to successful work performance and that can influence interaction relationships in teleworking. Thirdly, the context-specific sample of employees from a justice-related body required to telework during the Covid-19 pandemic in which the proposed relationships were tested calls into question the generalizability of the findings. As such, additional research could examine whether the findings can be generalized to employees in other countries, other organizations, and in contexts other than mandatory telework.

Finally, based on these findings, future research is encouraged to seek to identify other factors linked to social interaction as a mediating or moderating variable in teleworking, preferably comparing the findings resulting from these factors with tests between different people or groups, to verify whether the differences in results may in fact determine a predominant pattern.

Referências

- Abdel, S., Bakker, A. B., & Häusser, J. A. (2021). The role of leisure crafting for emotional exhaustion in telework during the Covid-19 pandemic. *Anxiety, Stress and Coping*, 1-15. <https://doi.org/10.1080/10615806.2021.1903447>
- Aslan, M., Yaman, F., Aksu, A., & Güngör, H. (2022). Task performance and job satisfaction under the effect of remote working: Call center evidence. *Economics and Sociology*, 15(1), 284-296. <https://doi.org/10.14254/2071-789X.2022/15-1/18>
- Baker, P. M., Moon, N. W., & Ward, A. C. (2006). Virtual exclusion and telework: Barriers and opportunities of technocentric workplace accommodation policy. *Work*, 27, 421-430.
- Baker, E., Gayle, C. A., & John, C. (2007). Satisfaction and perceived productivity when professionals work from home. *Research and Practice in Human Resource Management*, 15(1), 37-62.
- Brasil (2016). *Resolução nº 510, de 07 de abril de 2016*. Dispõe sobre as normas aplicáveis a pesquisas em Ciências Humanas e Sociais. Diário Oficial [da] República Federativa do Brasil, Brasília, DF, 24 maio 2016.

- Campo, A. M. D. V., Avolio, B., & Carlier, S. I. (2021). The Relationship Between Telework, Job Performance, Work-Life Balance and Family Supportive Supervisor Behaviours in the Context of COVID-19. *Global Business Review*. <https://doi.org/10.1177/097215092111049918>
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*. 2nd ed., Lawrence Erlbaum Associates, Hillsdale, NJ.
- Cuello, R. B., Fructus, R. C., & Panduro, J. D. A. (2020). El desempeño laboral desde una perspectiva teórica. *Revista de Investigación Valor Agregado*, 7(1), 54-60. <https://doi.org/10.17162/riva.v7i1.1417>
- Dandalt, E. (2021). Managers and telework in public sector organizations during a crisis. *Journal of Management & Organization*, 27(6), 1169-1182. <https://doi.org/10.1017/jmo.2022.1>
- De Vries, H., Tummers, L., & Bekkers, V. (2018). A stakeholder perspective on public sector innovation: why position matters. *International Review of Administrative Sciences*, 84(2), 269-287. <https://doi.org/10.1177/0020852317715513>
- Euske, K. J., & Riccaboni, A. (1999). Stability to profitability: managing interdependencies to meet a new environment. *Accounting, Organizations and Society*, 24(5-6), 463-481. [https://doi.org/10.1016/S0361-3682\(99\)00020-3](https://doi.org/10.1016/S0361-3682(99)00020-3)
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.G. (2009). Statistical power analyses using G*Power 3.1: tests for correlation and regression analyses. *Behavior Research Methods*, 41(4), 1149-1160.
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(3), 382- 388. <https://doi.org/10.2307/3150980>.
- Gajendran, R. S., & Harrison, D. A. (2007). The good, the bad, and the unknown about telecommuting: meta-analysis of psychological mediators and individual consequences. *Journal of applied psychology*, 92(6), 1524.
- Goebel, S., & Weißenberger, B. E. (2017). Effects of management control mechanisms: Towards a more comprehensive analysis. *Journal of Business Economics*, 87(2), 185-219.
- Golden, T. D., Veiga, J. F., & Dino, R. N. (2008). The impact of professional isolation on teleworker job performance and turnover intentions: Does time spent teleworking, interacting face-to-face, or having access to communication-enhancing technology matter? *The Journal of Applied Psychology*, 93, 1412-1421. <https://doi.org/10.1037/a0012722>
- Haddadi, H. A. A., & Ghafari, F. (2012). Investigation of the requirement and constraints affecting teleworking in government institutes; case study: Research institutes of ministry of roads and urban development. *International Journal of Information, Security and Systems Management*, 1(2); 96-103.
- Hair Jr., J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*. USA: Sage Publications.
- Jackson, L. T. B., & Fransman, E. I. (2018). Flexi work, financial well-being, work-life balance and their effects on subjective experiences of productivity and job satisfaction of females in an institution of higher learning. *South African Journal of*

- Economic and Management Sciences*, 21(1), 1-13.
<https://doi.org/10.4102/sajems.v21i1.1487>
- Kowalski, K. B., & Swanson, J. A. (2005). Critical success factors in developing teleworking programs. *Benchmarking: An International Journal*, 12(3), 236-249.
<https://doi.org/10.1108/14635770510600357>
- Kazekami, S. (2020). Mechanisms to improve labor productivity by performing telework. *Telecommunications Policy*, 44(2), 101868.
<https://doi.org/10.1016/j.telpol.2019.101868>
- Kleine, C., & Weißenberger, B. E. (2014). Leadership impact on organizational commitment: The mediating role of management control systems choice. *Journal of Management Control*, 24, 241-266.
- Kuruzovich, J., Paczkowski, W., Golden, T., Goodarzi, S., & Venkatesh, V. (2021). Telecommuting and Job Outcomes: A Moderated Mediation Model of System Use, Software Quality, and Social Exchange. *Information & Management*, 58 (3), 103431.
<https://doi.org/10.1016/j.im.2021.103431>
- Lupton, P. & Haynes, B. (2000). Teleworking - the perception-reality gap. *Facilities*, 18(7-8), 323-37. <https://doi.org/10.1108/02632770010340726>
- Mahama, H., & Cheng, M. M. (2013). The effect of managers' enabling perceptions on costing system use, psychological empowerment, and task performance. *Behavioral Research in Accounting*, 25(1), 89-114. <https://doi.org/10.2308/bria-50333>
- Malmi, T., & Brown, D. A. (2008). Management control systems as a package- Opportunities, challenges and research directions. *Management accounting research*, 19(4), 287-300. <https://doi.org/10.1016/j.mar.2008.09.003>
- Maruyama, T. & Tietze, S. (2012). From anxiety to assurance: concerns and outcomes of telework. *Personnel Review*, 41 (4), 450-469.
<https://doi.org/10.1108/00483481211229375>
- Merchant, K. A., & Otley, D. T. (2007). A review of the literature on control and accountability. *Handbooks of management accounting research*, 2, 785-802.
- Merchant, K. A., & Van der Stede, W. A., (2017). *Management control systems: performance measurement, evaluation and incentives*. Harlow UK: FT Prentice Hall.
- Nilles, J. M. (1997). *Fazendo do teletrabalho uma realidade*. Editora Futura.
- Olló-López, A., Goñi-Legaz, S. & Erro-Garcés, A. (2021). Home-based telework: usefulness and facilitators. *International Journal of Manpower*, 42(4), 644-660.
<https://doi.org/10.1108/IJM-02-2020-0062>
- Ortiz-Lozano, J. M., Martínez-Morán, P. C., & de Nicolás, V. L. (2022). Teleworking in the Public Administration: An Analysis Based on Spanish Civil Servants' Perspectives During the Pandemic. *SAGE Open*, 12(1).
- Palumbo, R., Flamini, G., Gnan, L. & Pellegrini, M.M. (2021). Looking for meanings at work: unraveling the implications of smart working on organizational meaningfulness. *International Journal of Organizational Analysis*, 31(3), 624-645.
<https://doi.org/10.1108/IJOA-04-2021-2708>
- Peters, P., Dulk, L. & Ruijter, J. (2010). May I work from home? Views of the employment relationship reflected in line managers telework attitudes in six financial-sector

- organizations. *Equality, Diversity and Inclusion*, 29(5), 517-531. <https://doi.org/10.1108/02610151011052799>
- Prodanova, J., & Kocarev, L. (2021). Employees' dedication to working from home in times of Covid-19 crisis. *Management Decision*, 60 (3), 509-530. <https://doi.org/10.1108/MD-09-2020-1256>.
- Ruiller, C., Van Der Heijden, B., Chedotel, F., & Dumas, M. (2018). "You have got a friend": The value of perceived proximity for teleworking success in dispersed teams. *Team Performance Management: An International Journal*. 25(1/2), 2-29. <https://doi.org/10.1108/TPM-11-2017-0069>
- Ruth, S., & Chaudhry, I. (2008). Telework: A productivity paradox? *IEEE Internet Computing*, 12(6), 87-90.
- Santos, E. A., Sallaberry, J. D., & Mendes, A. C. A. (2022). The influence of telework and management controls on the congruence of civil servant objectives. *REGE Revista De Gestão*, 29(3), 287-299. <https://doi.org/10.1108/REGE-07-2021-0137>
- Santos, V. M. D. (2021). *Desenho do trabalho e bem-estar de teletrabalhadores brasileiros* (Doctoral dissertation, Universidade de São Paulo).
- Souza, G. E. D., & Beuren, I. M. (2018). Reflexos do sistema de mensuração de desempenho habilitante na performance de tarefas e satisfação no trabalho. *Revista Contabilidade & Finanças*, 29, 194-212. <https://doi.org/10.1590/1808-057x201805850>
- Taskin, L. & Edwards, P. (2007). The possibilities and limits of telework in a bureaucratic environment: lessons from the public sector. *New Technology, Work and Employment*, 22(3), 195-207. <https://doi.org/10.1111/j.1468-005X.2007.00194.x>
- Tribunal Superior do Trabalho. (2020). *Secretaria de Comunicação Social*. Recuperado em: <https://www.tst.jus.br/teletrabalho>
- Vesala, H., & Tuomivaara, S. (2015). Slowing work down by teleworking periodically in rural settings? *Personnel Review*, 44(4), 511-528. <https://doi.org/10.1108/PR-07-2013-0116>
- West, Y. (2017). *Differences in Perceived Constraints of Telework Utilization among Teleworkers and Office Workers*. Dissertation Doctor of Philosophy Management. Walden University. Recuperado em <https://scholarworks.waldenu.edu/dissertations/3267>. Acesso em 20 de março de 2022.

Appendix 1 - Data Collection Instrument

Construct - References - Indicator

Cultural Controls (CC) - Merchant and Van Der Stede (2007, 2017).

1. Employees are aware of the organization's main values.
2. In the organization, great emphasis is placed on sharing informal culture among employees.
3. Traditions, values and norms play an important role in the organization

4. The mission statement of the organization (body) conveys its fundamental values to employees.
5. Employees perceive the values declared in the organization's mission as motivating

Social Interaction in Teleworking (SIT) - Haddadi and Ghafari (2012) and West (2016)

1. Teleworking makes teamwork difficult.
2. Managers trust teleworkers less.
3. Managing remote workers is difficult.
4. Servers like to telework.
5. Interaction tools enable easy communication with colleagues

Task performance (TP) - Mahama and Cheng (2013) and Souza and Beuren (2018)

1. Teleworking increases the precision of the work performed
2. Teleworking increases the amount of work performed
3. Teleworking increases operational efficiency
4. Teleworking increases the satisfaction of my users/bosses
5. When teleworking, it increases punctuality in meeting delivery deadlines