Enhancing Productivity at Home: The Role of Smart Work and Organizational Support in the Public Sector

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Abstract: In recent years, Italian Public Administrations (PAs) have swiftly adapted to flexible work arrangements due to the impact of COVID-19. The flexible work has led to addressing new challenges including the need to balance work demands with family commitments, a lack of social support, struggles with inadequate technology, and managing home interruptions that negatively affect home performance. Based on the job demands-resources (JD-R) model, the present study aims at examining the negative impact of home interruptions on smart working performance and the moderating role of two potential job resources: organizational support and perceived quality of the smart working. A convenience sample of 301 Italian public employees engaged in smart working completed an online questionnaire. Multivariate regression analysis results showed that organizational support plays a moderating role in reducing the negative effect of interruptions on home performance. However, the findings did not support a moderating role for the perceived quality of smart working. Overall, these findings highlight the critical role of social factors in buffering the negative effects of smart working, as compared to the quality of the technological arrangements. This information could be valuable for organizations looking to enhance the effectiveness of smart working by focusing on organizational support.

Keywords: home performance; interruptions; organizational support; perceived quality of smart working; public administration

1. Introduction

Modern organizations have undergone significant transformations due to a series of impactful events. Among these, the COVID-19 pandemic has been a catalyst for change. This circumstance has compelled organizations to adapt and embrace smart working arrangements that emphasize autonomy, overcoming the bound of time and space [1–3]. In this scenario, the introduction of smart working within the Italian Public Administrations deserves specific attention, which, at least at the beginning, was introduced without extensive support from employees or adaptation to the specific needs of the public sector [4]. Smart working represents a paradigm shift in traditional work models, emphasizing flexibility and autonomy in job execution without stringent constraints on time or location. This approach necessitates a mutual agreement between the employee and employer, underscoring the importance of adaptability in the modern labor market [5,6]. The adoption of smart working practices has surged globally, driven by its potential to reshape workforce

dynamics and influence policy development [7]. From this perspective, smart working is conceptualized as a strategic resource, enabling the customization of work processes to align with individual preferences and facilitate attaining professional objectives. Within the Italian context, the discussion on the adoption of flexible forms of working in the public sector began in the last decade, focusing on two main issues: increasing public administration productivity and facilitating the work–life balance of employees [8,9]. The first experiences of flexible working in Italian public administration began in the 1980s with new public management models oriented towards greater efficiency [10]. The first important reform of the Italian public function, in particular Legislative Decree 29/1993, had the objective of harmonizing the rules of the public and private sectors to strengthen the competitiveness and productivity of the public sector, employing flexibility in organizational design [11].

However, these forms of work were used on an experimental basis in the public sector until the COVID-19 health emergency made it necessary to identify new ways of working to balance the continuity of administrative and economic activities with the protection of the health public [12,13]. Nevertheless, previous research has indicated that the shift to smart working can yield both positive and negative outcomes. On the one hand, it has been noted that, under certain conditions, smart working can enhance performance and wellbeing by reducing the conflict between work and family [14–16]. On the other hand, this transition has introduced new challenges, including social isolation, difficulties in disconnecting, unsuitable tools for meeting objectives, enforced cohabitation, and diminished organizational support, which also encompasses communication challenges with supervisors and colleagues [17]. Furthermore, it has upset the balance between work and personal life [18–22] and led to increased interruptions [23], particularly at home, thereby undermining wellbeing in the workplace [18,24]. While the dichotomous impact of smart working has been recognized, the literature on the subject is still scarce. For instance, few studies have examined the influence of smart working quality and organizational support on the relationship between interruptions and performance at home, particularly within the public sector [25].

Work interruptions are increasingly common in today's workplaces due to the use of technology and shared workspaces, whether physical or virtual. Specifically, in a smart working condition, interruptions can arise from the overlap of work and family domains, resulting in a significant loss of working time and decreased performance, with many unfinished tasks [26,27]. In particular, in order to overcome the negative effect of interruptions on employees' performances, especially at home, attention should be focused on the impact of the quality of technology on home performance, and the perception of receiving support from the organization to carry out the task work remotely in a smart way.

Several studies have highlighted how the use of new technology in smart working [28] without adequate training [29,30], specific competencies [31], and technical support [32] could cause work overload. At the same time, other studies have underlined that when combined with complementary organizational changes, investments in technology lead to improved performance [33–35]. Therefore, given these premises, it seems important to examine the quality of technology—specifically, its perceived quality in facilitating smart working—to understand its impact on enhancing remote (home-based) performance. Likewise, attention should be directed towards perceived organizational support, recognized as a vital resource for workers and defined as the degree to which employees believe that their organization values their contribution and cares about their wellbeing [36–40]. Eisenberger [41], for example, highlights how a positive perception of organizational support helps employees achieve goals, improve results, and decrease counterproductive behaviors in the organization, and promotes the acceptance of new technologies by increasing intrinsic motivation and promoting the better performance of tasks. Furthermore, this support is frequently associated with improved performance [42–44] and acts as a moderator in numerous studies, mediating the relationship between workplace demands and positive outcomes [45–49].

In light of the above, this study aims to explore the negative impact of home interruptions on smart working performance and the moderating role of two potential job resources: organizational support and perceived quality of smart working. Specifically, we examined these relationships within the job-demands resources (JD-R) model [50,51], which describes how job resources (i.e., in this study, perceived organizational support and perceived quality of smart working) can moderate the negative effect of job demands (i.e., in this study, interruptions) on home performance. The following sections discuss the theoretical background and present the hypothesis and the aims of this study.

2. Theoretical Background and Hypotheses

Flexible work arrangements are increasingly common across Europe and worldwide. A 2022 study by Eurofound [52] revealed that approximately 35% of European workers engage in teleworking or other forms of technology-assisted remote work. In Italy, the nature and execution of work have similarly shifted toward greater flexibility. According to the 2023 report from the Observatory on Smart Working at the Polytechnic University of Milan, the number of remote workers in Italy has slightly increased to 3.585 million, compared to 3.570 million in 2022. This represents an increase of 541% compared to the period before the COVID-19 pandemic. The report also highlighted that nearly all large companies (96%) offer smart working initiatives. Small- and medium-sized enterprises have adopted these practices at 56%, with public administration at a slightly higher rate of 61%. Italian law encourages this shift, with regulations supporting the technological and organizational innovations in work. Law No. 81 of 2017 provides a framework for flexible work methods, introducing "agile working"—also termed "smart working" during the legislative process— as a modality of executing an employment contract without stringent time or location constraints, and potentially incorporating technological tools (Article 18). The shift towards smart working has garnered significant interest among law and organizational scholars, leading to a substantial discourse on the subject. Yet, despite its relevance to work and organizational psychology, the literature on the topic appears limited [53]. However, the psychological impacts of agile working are significant. Working remotely, even if only for one or two days a week, can influence work–life balance, the sense of autonomy over work tasks, and ultimately, the quality of work performance [54,55]. Research has often shown a positive relationship between smart working and job performance, e.g., [56]. Nonetheless, the discussion is far from complete, with conflicting results in the academic literature indicating a need for a nuanced understanding of the effects of context, such as working from home, and the type of work on performance in flexible arrangements. Our study used the job demands-resources (JD-R) model [50,51] as the theoretical lens to investigate the dynamics between the studied constructs. This transactional model posits that working conditions can be categorized into job demands and the resources needed to address them. Job demands, which may be physical, psychological, social, or organizational, represent the necessities imposed by the organization. On the other hand, resources are instrumental in achieving organizational objectives like physical, psychological, social, or organizational demands. Both demands and resources have the potential to elicit positive and negative effects on workers individually, but they also interact with each other, influencing wellbeing and performance [57].

This study considered work interruptions as specific job demands [27,32,58–60] related to using technologies in smart working. Implementing smart working can deplete employees' energy and force them to encounter frequent interruptions and it requires continuous cognitive effort to resume their tasks efficiently. Meanwhile, the perceived organizational support [61–63] and perceived quality of smart working [64,65] have been considered resources that can positively influence workers' tasks such as home performance.

2.1. Work Task Interruptions and Their Negative Effect on Performance

Work interruptions can be seen as demands that can impact employees' performance. We align with the definition proposed by Puranik [27]: "A work interruption is an unex-

pected cessation of behavioral performance and/or attentional focus from an ongoing work task" (p. 12). Such interruptions, according to Jett and George [58], disrupt a task's performance and can hinder or prevent its execution. This phenomenon, and its psychological impacts on worker wellbeing, warrant further study to prevent situations that negatively affect employee wellbeing [66].

The literature indicates that the execution of an ongoing work task can be interrupted in two ways: either by halting the behavioral performance of the task [67] or by diverting attentional focus away from the task [68]. However, scholars do not unanimously agree on differentiating between interrupting work behavior and performing a task with diminished concentration. Some argue that an interruption occurs only when the task is suspended, while others consider it interrupted even if the worker performs it with less attention. Regardless of these differing views, there is a general agreement that interruptions can impact employees' performance, particularly in a smart working context where such disruptions can occur frequently [69–73]. Interruptions can significantly affect job performance, often leading to decreased productivity and heightened stress [74,75]. The impact of interruptions on work performance may vary based on the work's nature, the interruptions' frequency, and individual differences [76]. Interruptions can disrupt concentration and workflow, making it challenging for individuals to focus on tasks [77]. The perception that interruptions are obstacles to effective task performance may result in lower job satisfaction. Work interruptions can contribute to high stress levels, especially when individuals feel pressured to compensate for lost time. Chronic stress can adversely affect mental and physical wellbeing, further impairing work performance [78]. Bailey et al. [79] demonstrate that interruptions have a disruptive effect on both a user's task performance and emotional state. Prodanova and Kocarev [80] found that interruptions perceived by workers inhibit work effectiveness and performance during smart working among a sample of employees and supervisors, corroborating the findings of Mirhoseini et al. [81]. Addas and Pinsonneault [82] argue that interruptions negatively affect performance, especially when they are incongruent and contain information irrelevant to the primary task. Chen and Karahanna [83] examined how technology-mediated interruptions influence work, concluding that frequent non-work-related interruptions detrimentally affect performance.

Based on the above, we formulate the following hypothesis.

Hypothesis 1: *Work interruptions during smart working are negatively related to home performance.*

2.2. The Moderating Effect of Organizational Support between Work Tasks' Interruptions and Performance

Perceived organizational support (POS) has been defined as the organization's assurance that help will be available to do one's job effectively and deal with stressful situations [84–87]. This study considers perceived organizational support (POS) as a resource that enables workers to navigate numerous interruptions caused by the widespread use of technology in smart working, thereby positively influencing their capacity to handle demands and maintain performance [42–44]. Research has consistently pointed out the key role of support in moderating the negative impact of work interruptions on wellbeing factors such as self-efficacy and job satisfaction, marking it as a buffer in high-pressure situations [88]. Moreover, it has been found that support from supervisors can lessen the compound stress resulting from interruptions and the resultant job performance assessment. Benlian [89] has identified the beneficial role of perceived social support in diminishing the stress incurred by interruptions in remote working settings [76,90–92].

Research has shown that poor interactions with supervisors and peers can influence how interruptions affect performance, providing a buffer against the negative impact on task completion [93,94]. Gupta and colleagues [95] and Butts and colleagues [96] have observed that interruptions from superiors can be particularly disruptive when compared to other sources. Furthermore, LePine and colleagues [97] have highlighted that the support perceived by supervisors can change how an interruption is viewed, lessening its

detrimental effect on performance. This finding was corroborated by a study involving military personnel.

Zappalà and colleagues [25] found that while interruptions can hinder performance during smart working, this adverse effect is mitigated when employees perceive the quality of smart working to be high and when they receive support from supervisors and colleagues. Investigating a smart-working workforce, Golden and Gajendran [98] concluded that a high level of social support can modulate the dynamic between the extent of smart working, including its disruptions, and job performance. In essence, stronger social support correlates with a more positive impact of smart working on job performance.

Such support during challenging times or work breaks can aid in coping with stress and frustration, contributing to a more positive emotional state and potentially improving overall performance [99]. Given the aforementioned studies, organizational support may play a moderating role in acting as a resource in managing interruptions effectively.

In light of the above, we propose the following hypothesis.

Hypothesis 2: *Perceived organizational support moderates the negative relationship between work interruptions and home performance during smart working.*

2.3. The Moderating Effect of Quality of Smart Working between Work Task Interruptions and Performance

Smart working has seen considerable growth during the pandemic [21,100], and its adoption post-crisis is tied to workers' experiences during the lockdown [101]. The favorable perception of smart working has significantly surfaced in recent years, buoyed by technological advancements and evolving workplace dynamics [102,103]. This approach to work enables employees to have more flexible time management, fostering a better integration of work and personal life [14]. The liberty to work from varied locations, not just the traditional office, grants employees greater choice and reduces the costs associated with maintaining a physical workspace [104]. Furthermore, organizations that offer smart working are more likely to attract talent, as they signal a commitment to employee wellbeing; flexibility thus becomes a competitive edge in the job market [105]. Therefore, factors that contribute to a positive perception of smart working include the flexibility of work hours and location, and the capacity to balance work and life concerns [24,106].

In sum, the benefits of smart working are epitomized by schedule and location flexibility, technology that streamlines work, and processes that promote a work–life balance (WLB). As mentioned, smart working can positively influence workers' performance and, in general, their wellbeing, reducing work–family conflict [14–16]. Conversely, its drawbacks are associated with increased work intensity, limited workspaces, technostress, isolation, and an intensified domestic and caregiving workload [22].

Angelici and Profeta [107] assert that workers hold a more favorable perception of smart working due to the considerable autonomy it provides and its aid in balancing work and life demands. Kelliher and Anderson [108] suggest that this autonomy perception strongly enhances employees' views of smart working quality, especially when control and autonomy are coupled with the ability to manage work and life.

A positive perception of smart working equips workers with the means to manage organizational demands, the burdens of extensive ICT use, and the interruptions stemming from excessive information and requests, as well as familial obligations [109,110].

Building on the foregoing, we present the following hypothesis.

Hypothesis 3: *Perceived quality of smart working moderates the negative relationship between work interruptions and home performance during smart working. The research model is depicted in Figure 1.*
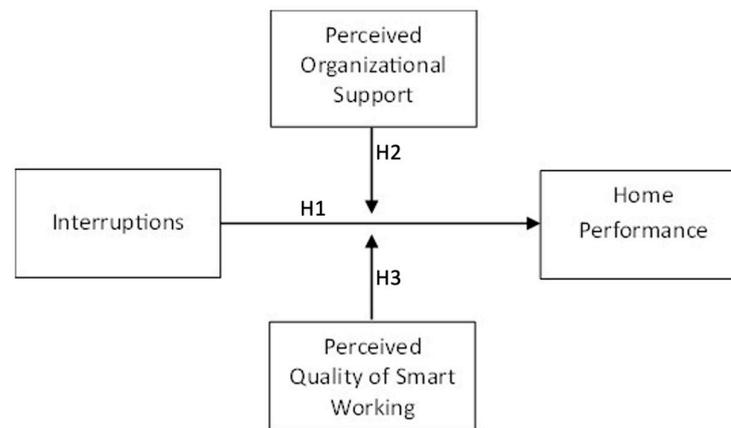
Figure 1. Research model.

3. Materials and Methods

3.1. Participants and Procedure

The research was carried out in Italy, focusing on a sample of 301 employees from the public administration, who were selected using convenience sampling methods. In 2023, data gathering was conducted through an online survey. Participants completed a specially designed ad hoc questionnaire that covered various constructs, and socio-demographic and contextual variables relevant to this study. They were informed of the aim of the study and provided consent to participate in the research. The survey was anonymous. Of the total of participants, 183 were men (60.8%) and 118 were women (39.2%). The participants had an average age of 49 years (*SD* = 9.67). The tenure was 15.6 years (*SD* = 10.5). On average, they worked two days per week in smart working (*SD* = 1.19) and declared having sufficient autonomy at work (*M* = 3.33; *SD* = 0.11).

3.2. Socio-Demographic and Control Variables

The online survey included questions about demographic and contextual variables, such as age, gender, job position, sectors of employment, organizational tenure, days per week worked in smart working, and autonomy at work on performance. Previous studies have highlighted the impact of those variables on performance (for a meta-analysis, see [111]). Those variables were considered in statistical analysis to control their potential effect on performance. Age was categorized into three categories (1 = 18–34; 2 = 35–54; 3 ≥ 54), gender was categorized into three categories (1 = male; 2 = female; 3 = other), job position in two categories (1 = manager; 2 = employees), and sectors of employment in eight categories (1 = fincance/banks/insurances; 2 = healthcare; 3 = services; 4 = education; 5 = transport; 6 = industry; ICT = 7; 8 = other). Autonomy was measured with a Likert scale at five points (from "not at all" = 1 to "a lot" = 5) and the frequency of the days per week was measured with a Likert scale at six points (from 1= daily to 6= less than a day a week). Age and organizational tenure were treated as continuous variables in the analysis. Table 1 shows the frequency of each category.

Table 1. Frequency of variables categories (*N* = 301).

	Frequency
Age	
18–34	26
35–54	177
>54	98

Table 1. *Cont.*

	Frequency
Gender	
Male	183
Female	118
Other	-
Job Position	
Managers	182
Employees	119
Sectors of Employment	
Finance/banks/insurance	20
Healthcare	13
Services	77
Education	67
Transports	15
Industry	3
ICT	9
Municipalities	77
Other	20

3.3. Measures

Work interruptions at home were evaluated using three items extracted from the work-from-home questionnaire developed by Prodanova and Kocarev [80]. The original version of the Prodanova and Kocarev scale was utilized in previous studies, encompassing both managers and employees engaged in homework across different countries. Employees have indicated their agreement with each item on a 5-point Likert scale, ranging from completely agree (=1) to completely disagree (=5). The items considered were as follows: "My work is always interrupted when working from home"; "I feel my work environment is quite disturbing when working from home"; "My concentration is inhibited when working from home". Internal consistency was evaluated using Cronbach's alpha, resulting in a high reliability value of 0.90.

Work performance at home was measured with four items extracted from the smart working questionnaire [112]. The original Mascagna's scale was used among Italian employees working at home. Employees expressed their agreement with each item on a 5-point Likert scale, ranging from completely agree (=1) to completely disagree (=5). The four items were: "The adoption of this working method is useful to improve your performance within the company"; "The home office helps me achieve my business objectives more efficiently than working from the usual office"; "The adoption of the home office is useful to improve the performance of everyone within the company"; "The adoption of the home office is useful to increase company profits". The Cronbach's alpha value was 0.93.

The Italian eight-items version of the Perceived Organizational Support scale (POS) [113] was used in previous research in private and public sectors across different countries. Employees express their level of agreement on a 5-point Likert scale, ranging from completely agree (=1) to completely disagree (=5). An illustrative item is "My organization strongly considers my goals and values". The Cronbach's alpha value was 0.90.

The Perceived Quality of Smart Working was assessed through the following two questions: "Do you that smart working can enhance the way you organize your work?"; "Do you think that smart working can improve the quality of your life?". Employees rated their responses on a 5-point Likert scale, ranging from never (=1) to always (=5). The Cronbach's alpha value was 0.87.

3.4. Data Analysis

Preliminarily, we examined the variables under investigation and verified the distribution of the data. To verify the factorial structure of all the constructs, taking into account in this study, an exploratory factor analysis (EFA) was performed. Subsequently, based on

the EFA results, the total score was computed for each construct by summing the rating of individual respondents where a higher score indicated a higher level for each construct. Further, we examined the measurement model, and both convergent and discriminant validity by analyzing the composite reliability (CR) and average variance extracted values (AVE) of each construct within the measurement model. CR values higher than 0.7 [114] and AVE values greater than 0.5 [115] indicate acceptable reliability, while root values of the AVE exceeding the correlation between other constructs denote adequate discriminant validity [116]. Additionally, we evaluated the reliability of the scale under consideration by calculating Cronbach's alpha. A value greater than 0.80 [117] indicates good reliability. Furthermore, we examined an assessment of the Common Method Bias (CMB) through the Harmans' single factor test [118]. All the construct items for the four factors under consideration in the present study were entered in the exploratory factor analysis to analyze the potential presence of bias. CMB is a concern if a single factor explains the majority of the total variance, specifically exceeding 50% of the total variance.

Bravais–Pearson's Correlation was used to examine the bivariate correlations among study variables. Following this, a hierarchical regression analysis with four steps was performed to test our hypothesis, regarding the relationship between work interruptions at home and home performance. In the first step, we included age, gender, organizational tenure, days per week worked in smart working, job position, sectors of employment, and autonomy to control for confounding effects. In the second step, the construct variables were entered. In the third and fourth steps, we analyze the potential joint moderation effect of perceived organizational support and perceived quality of smart working on the relationship between work interruptions at home and home performance. In the third step, the interaction between interruptions and perceived quality of smart working was included while in the fourth step the interaction between interruptions and perceived organizational support was entered. The predictors have been standardized before calculating the interaction terms.

Data analysis was performed using IBM SPSS version 20 and Process Macro for SPSS.

4. Results

4.1. Descriptive Statistics and Correlations

As reported in Table 2, a significant and positive relationship was found between organizational tenure, days per week worked in smart working, autonomy, and home performance. Further, work interruptions at home significantly negatively correlated with the quality of smart working and home performance. However, work interruptions did not correlate with perceived organizational support. Furthermore, perceived organizational support and perceived quality of smart working were significantly positively related with home performance.

Table 2. Study variables: descriptive statistics and bivariate correlations (*N* = 301).

		M	*SD*	1	2	3	4	5	6	7	8	9	10	11
1.	Age	48.9	9.67	1										
2.	Gender	-	-	−0.046	1									
3.	Organizational Tenure	15.6	10.5	0.629 ***	0.016	1								
4.	Days per week worked in SW	4.04	1.19	0.094	0.084	0.113 *	1							
5.	Job position	-	-	0.016	−0.102	0.001	0.019	1						
6.	Sector of employment	-	-	0.066	−0.025	0.082	0.089	−0.018	1					
7.	Autonomy	3.33	0.11	0.111	−0.020	0.089	−0.001	0.166 **	−0.031	1				

Table 2. *Cont.*

		M	SD	1	2	3	4	5	6	7	8	9	10	11
8.	Quality of SW	3.69	1.03	0.053	0.047	0.044	−0.163 **	−0.020	−0.014	0.190 ***	1			
9.	Organizational Support	3.93	0.88	0.009	−0.030	−0.046	−0.033	0.079	−0.078	0.207 ***	0.192 ***	1		
10.	Interruptions	2.09	1.02	−0.099	−0.078	−0.102	0.067	−0.001	0.041	−0.256 ***	−0.359 ***	0.102	1	
11.	Home Performance	3.60	0.91	0.112	0.039	0.134 *	−0.134 *	0.017	−0.085	0.273 ***	0.594 ***	0.350 **	−0.339	1

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

4.2. Hypothesis Test and Common Method Bias

The measurement model showed an acceptable fit (χ^2 = 174.748 df = 80, p = 0.000, χ^2/df = 3.023; CFI = 972; TLI = 963; RMSEA = 0.063; SRMR = 0.051). As shown in Table 3, the average variance extracted values were above 0.50, the composite reliability values were higher than 0.60, and the Cronbach's Alpha values were higher than 0.8. Further, as reported (in bold) in the Table 3, the AVE square was greater than its correlation with the other constructs. The results of the CMB analysis indicated that the first factor accounts for 37% of variance, which is less than 50%. As shown in Table 4, in model 1, the results of the hierarchical regression analysis showed a significant negative relationship between days per week worked in smart working and home performance ($p < 0.01$) and between autonomy and home performance (and $p < 0.001$), but did not show a significant relationship between age, gender, organizational tenure, job position and sectors of employment, and home performance. In model 2, the results showed that interruptions at home were significantly negatively related with home performance ($p < 0.01$). In model 3, the results did not show the moderating effect of perceived quality of smart working between interruption at home and home performance. In model 4, the findings showed the moderating effect of perceived organizational support between work interruptions at home and home performance ($p < 0.05$). Further, to examine the condition effect of interruptions at home on performance at home for different levels values of the significant moderator, the simple slope test was performed. Results of the simple slope test showed that for a lower level of perceived organizational support, the relationship between interruptions at home on performance at home was stronger (β = −0.51; CI = −0.657 to 0.378) as compared to that for the low level (β = −0.38; CI = −0.477 to 0.295) and at the mean level (β = −0.25; CI = −0.356 to 0.154). These results mean that with the enhancing of the perceived organizational support, the negative effect of interruptions decreased.

Table 3. Values of Cronbach's alpha, Composite Reliability (CR), Average Extracted Variance (AVE), and AVE root square (in bold) for each construct of the study and correlations.

	Alpha	CR	AVE	1	2	3	4
1. Perceived quality of smart working	0.878	0.880	0.786	**0.886**			
2. Home performance	0.932	0.935	0.784	0.634	**0.885**		
3. Home interruptions	0.908	0.908	0.768	−0.402	−0.343	**0.876**	
4. Perceived organizational support	0.901	0.901	0.605	0.220	0.392	0.118	**0.778**

H1 and H2 were supported but the results did not confirm H3.

Table 4. The hierarchical regression results of the association of socio-demographic, work variables, and interruptions at work in SW with home performance, and regression analysis of Quality of Smart Working (QSW) and Perceived Organizational Support (POS) as moderators between interruptions at work and home performance relationship (N = 301).

	Home Performance											
	Model 1			Model 2			Model 3			Model 4		
Model 1	β	t	p	β	t	p	β	t	p	β	t	p
Age	0.039	0.542	0.588	−0.004	−0.072	0.943	−0.004	−0.078	0.938	0.003	0.051	0.960
Gender	0.052	0.939	0.348	0.015	0.352	0.725	0.016	0.364	0.716	0.012	0.274	0.784
Organizational Tenure	0.107	1.487	0.138	0.115	2.049	0.041	0.116	2.055	0.041	0.104	1.839	0.067
Days per week worked in SW	−0.146	−2.621	0.009	−0.050	−1.133	0.258	−0.051	−1.140	0.255	−0.045	−1.019	0.309
Job position	−0.019	−0.399	0.735	−0.007	−0.170	0.865	−0.008	−0.171	0.864	0.002	0.057	0.955
Sectors of Employment	−0.073	−1.313	0.190	−0.054	−1.238	0.217	−0.054	−1.240	0.216	−0.062	−1.432	0.153
Autonomy	0.261	4.648	0.000	0.080	1.791	0.087	0.079	1.690	0.092	0.073	1.557	0.120
Model 2												
Work interruptions				−0.164	−3.457	0.001	−0.164	−3.357	0.001	−0.207	−3.955	0.000
Quality of SW				0.455	9.445	0.000	0.455	9.420	0.000	0.440	9.073	0.000
Organizational Support				0.264	5.736	0.000	0.264	5.730	0.000	0.271	5.906	0.000
Model 3												
Work interruptions × Quality of SW							−0.009	−0.203	0.839	−0.039	−0.869	0.396
Model 4												
Work interruptions × Organizational Support										0.107	2.190	0.029
Adjusted R^2	0.096			0.448			0.446			0.453		
Omnibus test of the regression	$F_{(7292)} \leq 0.001$			$F_{(10,289)} \leq 0.001$			$F_{(11,288)} \leq 0.001$			$F_{(12,287)} \leq 0.001$		

5. Discussion and Practical Implication

Grounded in the JD-R model [50,51], this study explored the adverse effect of interruptions, recognized as organizational demands, on home performance during smart working. Additionally, we examined the potential buffering role of perceived quality of smart working and organizational support, as job resources, in reducing this negative relationship.

Our research findings, aligned with our hypothesis (H1), underscore the considerable negative impact that interruptions can have on home performance. These results are consistent with previous studies that indicate the negative effects of interruptions on workers' performance [79,81,119,120] and psychological consequences, impacting general wellbeing [66]. Persistent interruptions, whether emerging from technological sources within a smart working context or from domestic environments, can break concentration, diminish productivity, and result in errors or incomplete tasks [74,75,78,80,121].

Additional findings from our study highlight the pivotal role of a supportive organizational environment in mitigating the negative impact of work interruptions on performance, thus confirming our second hypothesis (H2). These results reinforce what has been observed in previous studies [25,89], which identified organizational support as a resource that enables employees to carry out their jobs with greater effectiveness and efficiency. Such support is essential for creating a work environment that fosters productivity, job satisfaction, and overall wellbeing. Therefore, organizational support is a resource in work organization and plays a fundamental role in promoting work engagement [122], job satisfaction [123], increasing job performance, and reducing turnover intentions [124]. By investing in this resource, organizations can cultivate a positive workplace culture where employees feel valued, motivated, and empowered, enabling them to perform at their optimal performance.

Contrary to our third hypothesis (H3), it was found that the perceived quality of smart working does not act as a moderator between work interruptions and performance. This unexpected finding may depend on individual, contextual, and environmental factors. Research has shown that the extensive use of technologies entails constant interruptions stemming from excessive information and requests, as well as familial obligations [109,110], which affect performance.

Upon analyzing the use of smart working and observing the correlations between the perceived quality of smart working and the number of days worked weakly in smart working, we noted a negative correlation between the number of days worked in smart working during the week and the perceived quality of smart working (r = −0.163). These results suggest that the workload due to smart working can be related to the resources of employees. In other words, the more days employees work, the less they can maintain attentional focus away from the task [68] and recover from the organizational demands, thereby reducing the perception of smart working quality. This negative effect might also depend on personal factors such as concentration ability, stress management, and flexibility, which can affect an employee's ability to manage downtime in a smart working mode without compromising performance. As shown by Tudu and Singh [125] work-from-home performance can be moderated by dispositional or individual characteristics, and motivational and social factors. Furthermore, prior research revealed how the ability of employees to adapt quickly to interruptions and maintain concentration on core activities depends, for example, on environmental and family atmosphere [126], and office arrangements [127].

In addition, a positive correlation has been found between perceived autonomy and perceived quality of smart working (r = 0.190). This implies that the more autonomy employees perceive in carrying out their tasks, the more likely they are to attribute a higher quality to their work in smart working. This finding marks the role of organizational job design. Individuals who have more autonomy tend to hold a more favorable perception of smart working [107]. Autonomy supports them in balancing work and life demands. Thus, given these promising findings, public organizations should support workers by granting them the desired degree of autonomy to enhance the perceived quality of smart working. However, in this study, employees' autonomy is not particularly high (M = 3.33; *SD* = 0.11), consequently impacting the perceived quality of smart working.

Considering that research on the subject is limited, our study first contributes to the literature on smart working's impact on employee performance, albeit without claiming to fill the existing gap. The results clearly show that work interruptions related to technology use and new work demands negatively affect performance when working from home. However, the resources we considered, such as perceived organizational support, help lessen the detrimental effects of these interruptions on home-based performance. Secondly, they allow us to reflect on the practical implications that organizations need to consider. The use of this method of carrying out the employment relationship has advantages and disadvantages that are important to investigate further to allow for the organization to achieve its objectives and the employees to perform in conditions of wellbeing [128,129].

When organizations invest in their employees' wellbeing and address their needs, they foster positive performance outcomes, even amid technology-related disruptions. Our study proposes that organizations should strengthen employee support perception by enhancing technological competencies and fostering autonomy in disruption management rather than merely attempting to reduce interruptions [58,76,130,131].

Although smart working is recognized for its benefits, it is widely believed that it introduces several challenges, particularly in the field of human resource management, which traditionally focuses on office-based staff [132–135]. HR strategies must evolve from those used for conventional workplaces [61]. Current research has yet to definitively determine the full impact of smart working on performance and wellbeing [136], also considering the importance of allowing employees to choose smart working voluntarily and to work autonomously, as highlighted by previous studies [137]. Furthermore, the transition to smart working goes beyond simply updating organizational infrastructure and process capabilities; it requires a fundamental acceptance of change by the workforce [136,138].

6. Limitations and Future Research

The present study is subject to certain limitations stemming from its research design, which leave several questions open for future exploration. Firstly, the cross-sectional nature of this study precludes analyzing the cause-and-effect relationships between the

variables. Secondly, our use of a convenient sample was limited, excluding various contexts and cultures during data collection that could be pertinent for extending the findings. Thirdly, the variables we investigated included self-report measures, potentially affected by the common method bias. Incorporating objective measures to assess the quality of smart working, social support, and home performance would be beneficial. Lastly, it is critical to monitor how the relationship among the variables in this study evolves through longitudinal follow-up measurements.

Future research on work interruptions could explore additional dimensions to assess their positive and negative impacts and to develop enhancement strategies [27]. Future studies could include wellbeing dimensions to explore how interruptions might adversely affect stress levels, job satisfaction, and workers' mental health in both the short and long term [78]. A specific focus should be on how interruptions may reduce workplace safety, particularly in high-activity settings or those requiring meticulous attention to detail. The investigation into the technologies and organizational processes employed, especially for smart working designed to mitigate the impact of disruptions, is equally significant [32].

Furthermore, although previous research has generally pointed out that work interruptions harm workers' performance and wellbeing [27], not all interruptions are detrimental. For instance, family interruptions can have negative effects by hindering work and positive effects by contributing to achieving family goals [139]. Additionally, breaks, whether planned or spontaneous, can positively affect performance and wellbeing by preventing the impairing effects of accumulated strain [140]. These effects could vary significantly depending on numerous variables that have the potential to alleviate the negative effect of interruptions. Future studies could consider individual, social, and environmental factors as mediators or moderators in the relationship between interruptions and different negative outcomes. Studies could also consider individual differences, such as personality traits, cognitive and coping styles, and job crafting abilities [141], to understand how individuals respond to interruptions and strategies to counteract their negative effects. For instance, researchers could examine the role of leadership styles combined with cultural and organizational elements that can foster a conducive atmosphere. It is important to include multidimensional measures of interruptions to understand which ones negatively and which ones positively affect performance. Lastly, qualitative studies could explore which specific home activities interfere with employees' performance.

7. Conclusions

This research focused on smart working within public administrations, which involves a flexible work mode and the use of technology for remote operations. This study highlighted the critical role of perceived social support in mitigating the impact of work interruptions and performance. The advantages of organizational support are evident to both employees and the entire organization [142]. When employees perceive adequate organizational support, they feel valued and recognized, leading to increased motivation. Organizational support enables workers to handle even technologically demanding requests without stress, balance life and work—especially in smart working environments—and develop greater confidence in their process management skills with autonomy and in achieving their objectives.

Employees who feel supported by their organization are more inclined to remain in the organization over the long term, which can lower the costs associated with absenteeism and employee turnover and promote resilience [143]. Public organizations that provide strong organizational support are able to attract top talent and retain them over the long term in a market characterized by open borders, thanks to the dematerialization of the workplace. Lastly, when employees feel supported and respected by their organization, they are more likely to feel free to share ideas and propose innovative solutions.

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