Preference for teleworking during the COVID-19 pandemic in Spain: an exploratory study

Preferencia por el teletrabajo durante la pandemia de COVID-19 en España: un estudio exploratorio

Preferência pelo teletrabalho durante a pandemia de COVID-19 em Espanha: um estudo exploratório

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Abstract

Purpose – While teleworking has become widespread during COVID-19, there is still little understanding of teleworking preferences. This study aims to explore how teleworking during the pandemic influences employees' preference for teleworking in the future.

Design/methodology/approach – This study used secondary survey data collected by the centro de investigaciones sociológicas (CIS) in Spain, from a sample of 430 individuals. The study used regression analysis to test how effort expectancy and perceived usefulness impact preference for teleworking through satisfaction with teleworking.

Findings – Results showed the importance of satisfaction with teleworking in explaining preference for teleworking. Moreover, satisfaction with teleworking was influenced by both effort expectancy and perceived usefulness. Specifically, individuals who perceived teleworking as useful and were more satisfied were also more likely to prefer teleworking after the pandemic, whereas individuals were less likely to prefer teleworking if it required more effort.

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Originality/value – This study makes a significant contribution to the current literature by providing a new perspective on the topic of teleworking. This study focuses on exploring teleworking preferences during the pandemic from a post-adoption approach.

Keywords Perceived usefulness, Effort expectancy, Satisfaction with teleworking, Preference for teleworking, COVID-19 pandemic

Paper type Research paper

Resumen

Propósito – El teletrabajo ha sido prevalente durante la pandemia de COVID-19, pero poco se sabe todavía sobre la preferencia de los empleados por el teletrabajo en este contexto. Este estudio tiene como objetivo explorar cómo el teletrabajo durante la pandemia influye en la preferencia de los empleados por el teletrabajo en el futuro.

Diseño/metodología/enfoque – Este estudio utilizó datos secundarios recopilados por el CIS en España. La muestra fue de 430 individuos. El análisis de regresión se aplicó para analizar la influencia de la expectativa de esfuerzo y la utilidad percibida en la preferencia por el teletrabajo a través de la satisfacción con el teletrabajo.

Hallazgos – Los resultados mostraron la importancia de la satisfacción para explicar la preferencia por el teletrabajo. Además, la satisfacción con el teletrabajo fue influenciada tanto por la expectativa de esfuerzo como por la utilidad percibida. Específicamente, aquellos individuos que percibieron el teletrabajo como útil y estaban más satisfechos también eran más propensos a preferir el teletrabajo, mientras que los individuos eran menos propensos a preferirlo cuando suponía un mayor esfuerzo.

Originalidad – Este estudio hace una contribución significativa a la literatura actual al proporcionar una nueva perspectiva sobre el teletrabajo. Este estudio se centra en explorar la preferencia por el teletrabajo durante la pandemia desde un enfoque post-adopción.

Palabras clave Utilidad percibida, Expectativa de esfuerzo, Satisfacción con el teletrabajo, Preferencia por el teletrabajo, Pandemia de COVID-19

Tipo de artículo Trabajo de investigación

Resumo

Objetivo – O teletrabalho tem sido prevalente durante a pandemia de COVID-19, mas ainda se sabe pouco sobre a preferência dos funcionários pelo teletrabalho neste contexto. Este estudo pretende explorar como o teletrabalho durante a pandemia influencia a preferência dos trabalhadores pelo teletrabalho no futuro.

Projeto/metodologia/abordagem – Este estudo utilizou dados secundários coletados pelo CIS na Espanha. A amostra foi de 430 indivíduos. A análise de regressão foi aplicada para analisar a influência da expectativa de esforço e da utilidade percebida na preferência pelo teletrabalho através da satisfação com o teletrabalho.

Resultados – Os resultados mostraram a importância da satisfação para explicar a preferência pelo teletrabalho. Além disso, a satisfação com o teletrabalho foi influenciada tanto pela expectativa de esforço como pela utilidade percebida. Especificamente, os indivíduos que perceberam o teletrabalho como útil e estavam mais satisfeitos eram também mais propensos a preferir o teletrabalho, enquanto que os indivíduos eram menos propensos a preferi-lo quando isso implicava um maior esforço.

Originalidade – Este estudo traz uma contribuição significativa para a literatura atual, fornecendo uma nova perspectiva sobre o teletrabalho. Este estudo se concentra nos fatores que impulsionam a intenção de uso contínuo, explorando a preferência das pessoas pelo teletrabalho durante a pandemia a partir de uma abordagem pós-adoção.

Palavras-chave Utilidade percebida, Expectativa de esforço, Satisfação com o teletrabalho, Preferência pelo teletrabalho, Pandemia de COVID-19

Tipo de papel Trabalho de pesquisa

Introduction

Teleworking is a flexible work arrangement in which "employees perform all or a substantial part of their work physically separated from the location of their employer, using IT for operation and communication" (Baruch, 2001, p. 114). Teleworking can be done from various locations besides home, including coworking spaces, client-provided spaces, cafes and anywhere with internet access. Engagement with teleworking varies from full-time to less intense forms such as part-time teleworking (e.g. one or two days). Teleworking is a different way of working that can save organizations money on office space and offer more flexibility to employees (Ipsen *et al.*, 2021). It enhances job performance and engagement (Delanoeije and Verbruggen, 2020), while reducing stress and unnecessary communication (Fonner and Roloff, 2010).

The COVID-19 pandemic has resulted in a substantial increase in telework. Before the pandemic, only a small percentage (around 12.3%) of employees in the EU regularly worked from home, with this rate remaining relatively stable at approximately 5% over the past decade (Eurostat, 2021). However, approximately 48% of EU-27 employees worked remotely during the pandemic, and 34% worked exclusively at home. It is also worth noting that approximately 46% of those who teleworked during the pandemic did so for the first time. A low rate of telework before the crisis was also observed in Spain, with approximately 5% of employees regularly working from home in 2019 (INE, 2020).

Organizations are enhancing their teleworking policies and transitioning to a combination of home and office work (Ipsen *et al.*, 2021). Thus, it is likely that post-pandemic teleworking will remain significantly higher than it was before the onset of the pandemic. Despite social isolation and inadequate workspace, most teleworkers had a positive experience during the pandemic (Ipsen *et al.*, 2021) and want to continue teleworking sometimes (Beck *et al.*, 2020; Nguyen, 2021). According to a survey by Eurofound in April 2020, 78% of EU-27 employees would like to work from home sometimes, even if there were no COVID-19 restrictions (Ahrendt *et al.*, 2020).

The pandemic is a natural experiment in mass teleworking, allowing us to study the experience of employees who would not normally telework. The willingness of these employees to telework in the future may be essential to ensure a successful post-pandemic. Thus, we need more research on teleworking in the new and unforeseen circumstances brought on by the pandemic crisis. In this context, this study aims to explore the preference of employees for teleworking during the pandemic crisis in Spain. This knowledge can support the development of effective telework policies and practices.

Preference for teleworking

Research on teleworking preferences has primarily focused on conventional teleworking situations and pre-pandemic contexts. Mokhtarian and Salomon (1997) identified several drivers and constraints of teleworking preferences. Reduced commuting time and work–family balance were examples of drivers. Social isolation and household distractions were examples of constraints. Ismail *et al.* (2019) found that the predictors of teleworking preferences differ among university staff. Specifically, administrative staff were influenced by the number of young children and the characteristics of the job. Academic staff preferences for teleworking were influenced by travel and work characteristics. Haddad *et al.* (2009) also found differences depending on whether they were white or blue-collar workers. White-collar workers prefer part-time home-working more than their blue-collar counterparts. The same result was found regarding whole-day home-working.

The pandemic has made some of these factors less important in determining teleworking preferences. For example, commuting costs or time spent in traffic can be less salient during

the pandemic. The unique circumstances of the pandemic compelled organizations to implement teleworking abruptly. The pandemic required employees to work from home full-time. Compared to voluntary teleworking, employees could not decide whether they preferred working from home or the office. This reduced their control over their work location and schedule. Therefore, we need to explore the factors that influence teleworking preferences in these situations.

On the other hand, there are few studies on whether employees want to continue working from home or go back to the office after the pandemic. To the best of the author's knowledge, the study by Appel-Meulenbroek *et al.* (2022) is one of the first to investigate this issue. It examined which employees wanted to continue working from home and which preferred to go back to the office. It also explored the workspace conditions affecting employees' choices of their preferred work location. Its findings showed two employee segments with different preferences. Home-workers preferred to work from home as much as possible, while office workers preferred the office for communicative work. This study also showed that employee choices were affected by the expected crowdedness of the office. The availability of private spaces for concentration and meetings was also a determinant factor. These results shed some light on this issue. However, more research is needed to know if employees want to continue teleworking or return to the office in the post-pandemic context.

The present study

To address this research gap, the present study explores preference for teleworking after the pandemic. This is done from a post-adoption perspective. Post-adoption research has examined the determinants of continuance intention (Ambalov, 2018). However, the pandemic has imposed a mandatory teleworking situation. In this situation, the preference for teleworking can be a better indicator of the willingness to continue teleworking. When users are not given a choice to use a system, their intentions to use it may not accurately represent their attitudes toward it (Hwang *et al.*, 2016). This is because mandatory use is more related to rewards and punishments than to beliefs about the usefulness of the technology (Brown *et al.*, 2002).

The preference for teleworking may be less affected by the anticipated consequences of not using a mandatory system. This may be because the preference for teleworking reflects a desire to telework. A desire is "a state of mind whereby an agent has a personal motivation to perform an action or to achieve a goal" (Perugini and Bagozzi, 2004, p. 71). Desires do not involve a conscious decision to act upon; instead, they reflect the motivation to act (Perugini and Bagozzi, 2004). The rewards and punishments of the situation can be used as reasons for teleworking. However, a person can be motivated to telework regardless of the reasons for it. As a desire, the preference for teleworking may reflect the employee's motivation to continue teleworking. Thus, it is not so affected by the constraints of the situation, but depends mainly on individual motivations. This makes the preference for teleworking appropriate to assess future teleworking during the pandemic.

Post-adoption research shows that satisfaction is essential for the continued use of various technologies (Yan *et al.*, 2021). Satisfaction is defined as a psychological or affective state resulting from a cognitive appraisal of discrepancies (or confirmation) in the expected performance (Bhattacherjee, 2001). Previous research has shown that teleworking is related to job satisfaction (Gajendran and Harrison, 2007; Hornung and Glaser, 2009; Vega *et al.*, 2015). However, research on the effects of satisfaction with teleworking is still scarce. Teleworking has the benefits of saving time and travel costs, allowing greater autonomy and avoiding work interruptions. These benefits foster a more favorable attitude toward teleworking (Abdel-Wahab, 2007; Iscan and Naktiyok, 2005), while increasing the preference or desire for teleworking (Haddad *et al.*, 2009; Ismail *et al.*, 2019). Satisfaction is an indicator of the success

or failure of a technological system (Petter *et al.*, 2008). It depends on the confirmation of the expected benefits of a particular technology after using it. Thus, the success of teleworking may depend on how satisfied people are with it. It means that the more employees are satisfied with teleworking, the more likely they are to prefer it in the future.

This study aims to explore two important factors that affect how satisfied employees are with teleworking. These factors are perceived usefulness and effort expectancy. Perceived usefulness is defined as the degree to which a user believes that teleworking will bring performance benefits. This variable is key in Bhattacherjee's (2001) post-adoption model. According to this model, satisfaction with information systems is determined by perceived usefulness and confirmation (or disconfirmation) of performance expectations following initial use, which in turn positively influences perceived usefulness. This model is mainly focused on the performance aspect of the system. However, users have expectations about different aspects of the system other than performance (Venkatesh *et al.*, 2011). For instance, users are more satisfied with products, services and information systems that are easy to use (Capece and Campisi, 2013; Filieri *et al.*, 2021; Meuter *et al.*, 2005). Effort expectancy is defined as the extent to which a user believes that using a system is free of effort. It may be a relevant factor to understand teleworking preferences during the pandemic. Teleworking was a new experience for most employees during the pandemic, and adapting to it required effort (Carillo *et al.*, 2021).

The pandemic has provided an opportunity to experience teleworking for many employees. This experience may have helped employees understand teleworking better and assess how satisfied they are with it. Hands-on experience can help to adjust perceptions of performance and effort expectations to reality (Venkatesh and Davis, 1996). Employees will be more or less satisfied with teleworking, depending on the degree to which they have experienced its benefits. Remote work enhances job performance and engagement while reducing stress and unnecessary communication (Delanoeije and Verbruggen, 2020; Fonner and Roloff, 2010). According to previous research, employees are positive about teleworking when it is useful. Working from home during COVID-19 in Australia resulted in a better attitude toward teleworking in the future (Beck *et al.*, 2020). Nguyen (2021) found that workers in Hanoi who found home-based teleworking helpful during the pandemic supported its future promotion. Thus, if teleworking is perceived as useful, employees will be more satisfied with it.

Effort expectancy may also be affected by the teleworking experience during the pandemic. Employees can compare the effort needed for teleworking and colocated work. Employees will be more satisfied with teleworking if it requires less effort than working in an office. As teleworking is a new experience for most due to the pandemic, it is unclear if it will increase employee satisfaction. While employees may find teleworking helpful, they could also think that it is more challenging and requires greater effort than working in the office (Chong *et al.*, 2020; Ipsen *et al.*, 2021). They might believe that the advantages of teleworking are not worth the effort needed. This may be especially true for employees who have teleworked for the first time.

Based on these assumptions, the present study aims to further explore the phenomenon of teleworking during the pandemic. Thus, the following research questions (*RQs*) are explored:

RQ1. To what extent is the preference for teleworking affected by perceived usefulness, effort expectancy and satisfaction with teleworking within the post-adoption framework?

RQ2. Is satisfaction with teleworking predicted by both perceived usefulness and effort expectancy?

RQ3. Can both perceived usefulness and effort expectancy indirectly influence the preference for teleworking through satisfaction with teleworking?

Method

Data set

This study used secondary survey data collected by the centro de investigaciones sociológicas (CIS) (the Spanish public research institute in charge of social studies). The data were collected through a computer-assisted telephone interview in October 2020 in Spain (CIS, 2020). Landline and mobile telephone numbers were randomly selected with a percentage of 29.5% and 70.5%, respectively. Gender and age quotas were applied to the sampling. The sample included 2,861 individuals over the age of 18 from 1,059 municipalities, with a 95.4% survey response rate. The sampling error was 1.9%, and the confidence level was 95.5%. The sample is based on a stratified sampling of 17 autonomous regions and two autonomous municipalities, which allows for a representative sample of the Spanish population.

The survey includes questions about the consequences of the COVID-19 pandemic in different spheres. These questions are about affective states caused by the pandemic, cohabitation during lockdown or changes in the way people work. The section of the survey dedicated to teleworking was selected. Those individuals who chose options other than "Currently working" for the filter question of this section ("What is your current employment situation?") were dropped. Thus, the original sample was reduced to a subsample of 472 individuals who answered the questions selected for this study (16.5% of the collected surveys). Finally, 430 individuals were selected for this study based on those who provided complete answers referring to the variables used in this study. Of respondents, 39% were technicians and associate professionals, 25% were professionals, 12% were clerical support workers, 13% were corporate managers and directors, 8% were service and sales workers and the rest were from various occupations.

Variables

This research used proxy variables from the "Effects and consequences of coronavirus" study developed by the CIS (2020). Specifically, to operationalize perceived usefulness, the following question was used: "Do you believe that teleworking is a good way to organize and do work regardless of the pandemic, or, on the contrary, do you think that is not the case?" Response options were coded as "Yes, it is" (1) and "No, it is not" (0).

To operationalize effort expectancy, the following question was used: "Do you believe that teleworking requires more effort and dedication than colocated work, or less effort and dedication?" Response options were coded as "More effort" (1), "Same amount of effort" (2) and "Less effort" (3).

To measure satisfaction with teleworking, respondents were asked to indicate their degree of satisfaction with teleworking on a five-point Likert-type scale ranging from "very satisfied" (1) to "not at all satisfied" (5). Because it was negatively coded, the scale of this variable was reversed, so higher values indicate greater satisfaction. Thus, the recoded variable ranged from "not at all satisfied" (1) to "very satisfied" (5).

The preference for teleworking was measured with the following question: "Would you like to telework after the pandemic?" Responses were coded as "Yes, I would" (1) and "No, I would not" (0). This variable has been consistently measured across studies by a question of the type "Would you like to telework?". However, response options vary from binary to ordered categories ("definitely yes," "may consider" and "not at all") depending on the study (Haddad *et al.*, 2009; Ismail *et al.*, 2019; Mokhtarian and Salomon, 1997).

In all the questions, respondents were offered "don't know" or "not sure" and "no answer" responses. With the preference for teleworking, there was another response alternative: "My job does not allow it." Participants who answered with any of them were omitted from the

analysis. Age, gender, education level, occupation profile and frequency of teleworking before the pandemic were also considered.

Statistical analysis

The data were analyzed using IBM SPSS v.22 for Windows and Mplus 7.4, and three consecutive steps of analysis were followed. First, descriptive statistics were calculated for the variables of age, gender, education level, occupation profile and frequency of teleworking before the pandemic.

Second, as the preference for teleworking is a binary outcome variable, logistic regression was applied to model it. The following model was fitted:

$$Logit(Y) = \ln\left[\frac{p}{1-p}\right] = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3$$

where p is the probability that the preference for teleworking is 1, X_1 is perceived usefulness, X_2 is effort expectancy, and X_3 is satisfaction with teleworking. β_1, β_2 and β_3 are logistic regression coefficients. Logistic regression slopes, standard errors and odds ratios (ORs) with their 95% confidence interval (CI) were calculated. Ordinary least squares regression was used to regress satisfaction with teleworking on effort expectancy and perceived usefulness.

Third, the indirect effects of effort expectancy and perceived usefulness on the preference for teleworking through satisfaction with teleworking were analyzed using Mplus. The mediation analysis was based on counterfactuals. This approach to mediation is appropriate when the analysis involves a binary outcome and a continuous mediator (Muthén *et al.*, 2016). Thus, the natural direct and indirect effects were estimated for each predictor. Statistical inferences about the indirect, direct and total effects were based on 10,000 bootstrap samples drawn from the sample of this study. If zero is not included in the 95% bootstrap CI, the indirect, direct and total effects are statistically significant. The ORs for the indirect, direct, and total effects are also computed. If one is not included in the CI for ORs, it can be inferred that there is an association between the predictors and the outcome.

In addition, as effort expectancy has three categories, two dummy variables were created to enter it into the regression equations. For the first dummy variable, respondents who stated that teleworking required less effort and dedication than working at the office were assigned a score of 1, and respondents in the other subgroups (more effort and same amount of effort) were assigned a score of 0. For the second dummy variable, respondents who stated that teleworking required more effort and dedication than working at the office were assigned a score of 1, and respondents in the other subgroups were assigned a score of 0. Respondents with scores of 0 across the two dummy variables were the reference group. Thus, those who stated that teleworking required the same amount of effort and dedication as working at the office served as the reference group. Because perceived usefulness was dichotomous, a dummy variable was created to enter it into the regression equations. Respondents who considered teleworking to be a good way to organize and do work were assigned a score of 1. Those who considered teleworking to be a bad way to organize and do work were assigned a score of 0 (reference group).

Results

The sample was composed of 204 females and 226 males with an average age of 42.77 (SD = 10.43). Regarding education, 79% of respondents stated that they had higher education qualifications.

Of the respondents, 73% indicated that they had never or rarely teleworked before the pandemic. Nine percent teleworked several times a week before the pandemic. Six percent teleworked less than once a month, and 12% at least once a month.

Regarding perceived usefulness, 81% of respondents stated that teleworking is a good way to organize and do work. For effort expectancy, 41% stated that teleworking required more effort and dedication than colocated work, whereas for 16% it was less. Of the respondents, 43% stated that teleworking required the same amount of effort and dedication as colocated work. Regarding the preference for teleworking, 69% stated that they would like to telework after the pandemic. The mean level of satisfaction with teleworking was 3.68 ($SD = 1.25$).

I also examined the influence of sex, age, education level and frequency of teleworking before the pandemic. There were no statistically significant differences in the preference for teleworking based on sex ($\chi^2_{(1)} = 0.04$; $p = 0.85$), age ($z = -1.30$; $p = 0.19$), education level ($\chi^2_{(1)} = 0.77$; $p = 0.38$) or teleworking frequency before the pandemic ($\chi^2_{(3)} = 1.01$; $p = 0.80$).

OLS regression was conducted to address *RQ2*. It showed that those who considered teleworking to be a good way to organize and do work had a higher level of satisfaction with teleworking ($B = 1.56$; $p < 0.01$). Effort expectancy reduced the level of satisfaction with teleworking. Specifically, dummy 2 (more effort vs same amount of effort) affected satisfaction with teleworking negatively ($B = -0.48$; $p < 0.01$), whereas the effect of dummy 1 (less effort vs same amount of effort) was not statistically significant ($B = -0.11$; *ns*). Thus, employees who considered teleworking to require more effort than colocated work were less satisfied with it. However, employees who considered teleworking to require less effort were as satisfied as the reference group. The reference group is composed of those who stated that teleworking required the same amount of effort and dedication as working at the office.

Table 1 shows the results of the logistic regression analysis conducted to address *RQ1*. The influence of satisfaction with teleworking on the preference for teleworking was statistically significant. The OR was equal to 2.63 (95% CI = 2.03 to 3.42). Thus, for a one-unit increase in the level of satisfaction with teleworking, the odds of preference for teleworking are 2.63 times greater. As shown in Table 1, the direct effect of perceived usefulness on the preference for teleworking was statistically significant. The OR of perceived usefulness was 26.08 (95% CI = 10.38 to 65.56). According to this result, those who considered teleworking a good way to organize and conduct work were much more likely to prefer it after the pandemic. Regarding effort expectancy, dummy 2 had a significant direct effect on the preference for teleworking, although this was not the case for dummy 1 (see Table 1). The OR of dummy 2 was 0.50 (95% CI = 0.25 to 0.97). Based on this result, people who found teleworking difficult are less likely to prefer it after the pandemic.

Variables	Coefficient	SE[a]	OR[b]	95% CI[c]
Satisfaction with teleworking	0.97 ***	0.13	2.63	2.03–3.42
Perceived usefulness	3.26 ***	0.47	26.08	10.38–65.56
Dummy $1_{\text{(Less vs Same amount of effort)}}$	0.07	0.52	1.07	0.39–2.93
Dummy $2_{\text{(More vs Same amount of effort)}}$	−0.70*	0.34	0.50	0.25–0.97
−2LL	278.89			
Cox-Snell's R^2	0.45			
Negelkerke's R^2	0.63			
N	430			

Notes: [a]SE = standard error; [b]OR = odds ratio; [c]CI = confidence interval. *$p < 0.05$; ***$p < 0.001$
Source: Table by author

Table 1.
Logistic regression estimates for preference for teleworking

Table 2 shows the bootstrap analysis conducted to address *RQ3*. Results showed that the indirect effect of perceived usefulness on the preference for teleworking through satisfaction was statistically significant (estimate of the effect = 0.20; 95% CI = 0.12 to 0.30). This result suggests that those who considered teleworking to be a good way to organize and conduct work were more satisfied with teleworking, which in turn increased the likelihood of preferring teleworking after the pandemic by a factor of 3.73. The relationship between effort expectancy and the preference for teleworking was also mediated by satisfaction with teleworking. More specifically, the indirect effect of dummy 2 (more effort vs same amount of effort) was not zero (estimate of the effect = −0.02; 95% CI = −0.05 to −0.01). The OR of the indirect effect was 0.65. However, the indirect effect of dummy 1 (less effort vs same amount of effort) was not statistically significant (estimate of the effect = −0.01; 95% CI = −0.05 to 0.02). This result indicates that for those whose teleworking has involved more effort, their satisfaction with teleworking has been lower, which in turn has made them less likely to want to telework after the pandemic.

Discussion

Teleworking has prevailed during the COVID-19 pandemic, which has forced its widespread adoption. Teleworking offers numerous advantages at different levels. On a societal level, it alleviates traffic congestion in cities and reduces pollution levels during specific periods. Organizations can improve office space and hire employees from diverse locations. At the individual level, it offers greater flexibility and a better work-life balance. However, some drawbacks of telework include isolation and a lack of social interaction with coworkers. It is therefore crucial to draw meaningful conclusions to improve the implementation of teleworking. The exploration of teleworking during the pandemic can provide useful insights.

This study explores how being satisfied with it, finding it easy and seeing it as helpful make people want to continue teleworking. Results showed that those who experienced a higher level of satisfaction were more likely to prefer teleworking. This result is in line with the predictions of Bhattacherjee's (2001) post-adoption model. Although this model is primarily focused on continuance intention, the prediction of the impact of satisfaction is

Variables	Effects of predictors Estimate (95% CI)	ORs Estimate (95% CI)
Effort expectancy (dummy 1)		
Tot natural IE	−0.01 (−0.05–0.02)	0.91 (0.70–1.15)
Pure natural DE	0.01 (−0.09–0.15)	1.06 (0.44–3.40)
Total effect	−0.00 (−0.10–0.14)	0.96 (0.37–3.22)
Effort expectancy (dummy 2)		
Tot natural IE	−0.02 (−0.05 – −0.01)	0.65 (0.49–0.80)
Pure natural DE	−0.06 (−0.13 – −0.00)	0.53 (0.28–0.97)
Total effect	−0.08 (−0.17 – −0.02)	0.34 (0.17–0.63)
Perceived usefulness		
Tot natural IE	0.20 (0.12–0.30)	3.73 (2.69–5.49)
Pure natural DE	0.57 (0.44–0.70)	15.77 (7.60–55.12)
Total effect	0.77 (0.66–0.86)	58.74 (28.08–217.46)

Notes: CI = confidence interval; Tot natural IE = total natural indirect effect; pure natural DE = pure natural direct effect
Source: Table by author

Table 2. Bootstrap CIs for indirect, direct and total effects of effort expectancy and perceived usefulness on preference for teleworking based on counterfactuals

also confirmed in the case of the preference for teleworking. Thus, this finding indicates that employees are motivated to telework in the future (Perugini, 2004; Perugini and Bagozzi, 2004) and that those who are satisfied with the current use of teleworking are more likely to prefer to continue with it.

It was also found that perceived usefulness increased satisfaction with teleworking. Those who considered teleworking to be a good way to organize and conduct work were more satisfied with it. This can be explained because of the benefits of teleworking. It increases work engagement and performance while reducing stress and unnecessary communication in the workplace (Delanoeije and Verbruggen, 2020; Fonner and Roloff, 2010). Perceived usefulness also increases the likelihood that employees will prefer to telework after the pandemic. Similar findings were found by Beck *et al.* (2020) and Nguyen (2021). These findings are again in line with Bhattacherjee's (2001) post-adoption model.

Employees who perceived teleworking as more demanding were less satisfied with it. However, there were no differences in the level of satisfaction between those who considered that teleworking required less effort than colocated work and those who considered that it required the same effort. This finding indicates that although teleworking seems to be useful for most employees, it may have required a great deal of effort for them. This is probably because teleworking during the pandemic was their first experience. Moreover, effort expectancy also had a direct effect on the preference for teleworking. Employees who perceive teleworking as requiring more effort than colocated work are less likely to prefer it. This finding is not in line with the fact that users are more satisfied with products, services and information systems that are easy to use (Capece and Campisi, 2013; Filieri *et al.*, 2021; Meuter *et al.*, 2005). However, it shows that it is important to consider aspects other than system performance when examining satisfaction (Venkatesh *et al.*, 2011). In this study, effort expectancy plays a relevant role in satisfaction with teleworking. It is also shown that the performance expectations of teleworking may be offset by the required effort to use it.

Theoretical implications

Although exploratory, the present study contributes to past research in several ways. First, this study was conducted within the context of a pandemic that forced organizations to adopt teleworking. This enables us to determine the experience of those employees who would not have teleworked under normal circumstances. Thus, this study gives us an overview of the experience of a relatively large sample of employees in Spain. Second, this study emphasizes the importance of desires, a topic that is typically overlooked in attitudinal models (Perugini, 2004). Mainstream attitudinal models focus on the underlying reasons to act rather than on motivations. However, desires can be more appropriate to assess future-oriented teleworking amid the pandemic. Compared to intentions, desires are enacted over longer timeframes, less tied to actions and less performable (Perugini and Bagozzi, 2004). Thus, desires can be less affected by factors other than feelings about using the system and the perceived usefulness of teleworking. Third, previous research has focused on socio-economic, travel and work-related factors. Examples are savings in commuting time and costs, increased autonomy at work or avoiding interruptions at work (Haddad *et al.*, 2009; Ismail *et al.*, 2019; Mokhtarian and Salomon, 1997). However, post-adoption behaviors are required to fully unleash the potential of technology investments (Kim and Son, 2009). The present study investigates the determinants of preference for teleworking from a post-adoption perspective. Thus, this study expands on prior studies by including effort expectancy, perceived usefulness and satisfaction with teleworking. Finally, previous research has shown the significance of teleworking for job satisfaction. The present research has shown the importance of satisfaction with teleworking. This variable

provides information on the quality of the teleworking experience during the pandemic. This is essential for a better understanding of the preference to continue teleworking.

Practical implications

Several practical implications arise from the present study. First, managers should be committed to the teleworking program. This can be achieved by fostering mutual respect and trust between the supervisor and employees (de Vries *et al.*, 2019). Second, cultivate a performance-oriented culture (Kwon and Jeon, 2020). Organizations should establish a performance-oriented culture that focuses on results rather than physical presence. There are some measures that can help develop a performance-oriented culture. Examples are setting measurable goals, having regular performance evaluations and providing achievement rewards. Third, organizations should focus on improving the perceived usefulness of teleworking for employees. To do so, organizations should provide tools and technologies that facilitate remote work. The continuous improvement of teleworking conditions based on employee feedback can also be necessary. Fourth, training employees to improve their teleworking skills and ICT proficiency is essential (Carillo *et al.*, 2021). It helps employees better manage the drawbacks of teleworking and reduces the effort that the adaptation to telework may require. This may enhance the perceived benefits of and satisfaction with teleworking. Training should include topics such as effective remote collaboration, time management and cybersecurity. Finally, the alignment between teleworking practices and employees' satisfaction and preferences should be ensured. This may yield benefits for the organization because if employees value the organizational efforts aimed at improving their quality of life using teleworking arrangements, they will experience job satisfaction (Gajendran and Harrison, 2007), which in turn improves job performance.

Limitations and future directions

First, this is a cross-sectional study, so interpretations about causality must be made with caution. Second, the survey by the CIS relied on self-reporting. Although it assured anonymity and requested honest answers, common-method bias cannot be neglected. Future longitudinal studies would help reduce the risk of common method variance. Longitudinal studies have additional strengths. For example, the predictive validity of the predictors in this study can be tested with a longitudinal design. It can also be applied to analyze how the preference for teleworking changes over time or the impact of each pandemic wave and restrictions on mobility. Third, proxy variables and single-item measures were used, which can affect reliability and validity. The survey questions were pragmatic, and the answers may faithfully reflect respondents' perceptions. However, future studies should use validated measurement instruments. Fourth, this study could be improved by looking at whether people choose to telework and what factors influence their decision. This would make it possible to evaluate whether preferences are turned into behaviors. It is also possible to identify the drivers that lead individuals to behave according to their preferences (Mokhtarian and Salomon, 1997). Fifth, this research did not measure the confirmation of pre-usage expectations regarding teleworking. However, employee judgments about teleworking are based on experience and the pre-pandemic office work. Future research should directly measure the discrepancy between employees' expectations and their experience. Sixth, it would be interesting to conduct cross-country studies in the future to compare the results with other countries. Preference for teleworking can be modeled more accurately, considering other determinants. These determinants exist at different levels. The macro-environment includes the government policy or legal issues related to restrictions. Organizational factors include organizational support for telework or

organizational readiness to implement teleworking. Other individual factors are user intentions. Finally, the use of secondary data may have limited the scope of the research questions asked in this study. Future research should explore other relevant issues. Examples are why telework is preferred, how employees face the challenges of telework or the specific ways in which telework is beneficial. Addressing these research issues would provide a more complete understanding of telework experiences. Despite the limitations, this study is one of the first to offer valuable insights into the preference for teleworking in the context of the COVID-19 pandemic and with a national sample.

Conclusions

The COVID-19 pandemic has driven the global adoption of remote work. It has reshaped work practices and offered new perspectives on employment. This research offers a new understanding of the factors that shape teleworking preferences after its adoption. It highlights the importance of satisfaction, perceived usefulness and effort expectations. Furthermore, this research broadens the field by exploring teleworking preferences in the context of pandemic-induced change, emphasizing the influence of personal desires on teleworking preferences after the pandemic. This research was conducted in an EU country, but its findings can be applied to other regions with similar economies. Finally, the future of teleworking will probably involve a combination of remote and on-site work. This hybrid model would provide flexibility while maintaining in-person collaboration. Organizations can make teleworking successful in the long run by personalizing it to each employee's preferences. Organizations can also increase employee satisfaction and productivity by being flexible and supportive of their needs and preferences.

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