Esperienze precedenti con il lavoro a distanza e accettazione del lavoro da casa durante la pandemia

Il ruolo dell'avere figli in un modello di mediazione moderata

Simone Donati¹, Ferdinando Toscano¹, Gianluca Viola¹ e Salvatore Zappalà²

Sommario

Adottando il *Technology Acceptance Model* (TAM) come quadro teorico, questo studio ha indagato se precedenti esperienze di lavoro a distanza prima della pandemia si legassero alle percezioni di facilità d'uso e di utilità del lavoro da casa durante la pandemia da Covid-19. In particolare, considerando che la letteratura suggerisce che la percezione di facilità d'uso influenza l'utilità di una tecnologia, lo studio ha indagato se, in un contesto pandemico, la percezione di facilità d'uso attribuita al lavoro da casa mediasse la relazione tra le precedenti esperienze di lavoro a distanza e l'utilità del lavoro da casa. Inoltre, lo studio ha testato l'effetto di moderazione dell'avere un figlio/figli nella relazione tra le precedenti esperienze di lavoro a distanza e la percezione di facilità d'uso del lavoro da casa. I risultati hanno per lo più confermato le nostre ipotesi. Tuttavia, contrariamente alle nostre aspettative, i dipendenti con precedenti esperienze di lavoro a distanza che avevano un figlio/figli hanno percepito la WFH (*Work from Home*) pandemica come più facile rispetto ai loro colleghi senza figli. Alcune possibili spiegazioni ai meccanismi trovati, e alcune implicazioni teoriche e pratiche, sono infine fornite in questo studio.

Parole chiave

Technology Acceptance Model, Work From Home, Esperienza precedente, Work-life balance, Facilità d'uso percepita, Utilità percepita.

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STUDIES AND RESEARCHES

Previous Experience with Remote Work and Acceptance of Work from Home during the Pandemic

The Role of Having Children in a Moderated Mediation Model

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Abstract

This study adopted the Technology Acceptance Model (TAM) as a theoretical framework to investigate whether previous experience with remote work before the Covid-19 pandemic was related to perceptions of ease of use and usefulness of working from home during the pandemic. In particular, considering that literature suggests that the perceived ease of use of technology influences its perceived usefulness, the study investigated whether, in a pandemic context, perceived ease of use of working from home mediated the relationship between previous experiences with remote work and perceived usefulness of working from home. In addition, the study tested the moderation effect of having a child/children in the relationship between previous experience with remote work and perceived ease of use. Results mostly confirmed our hypotheses. However, contrary to our expectations, employees with previous remote work experience who had a child/children perceived working from home during the pandemic as easier than their colleagues without children. Possible explanations of such results, as well as theoretical and practical implications, are provided in the conclusion.

Keywords

Technology Acceptance Model, Work from home, Previous experience of remote work, Work-life balance, Perceived ease of use, Perceived utility.

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Introduction

Due to the Covid-19 pandemic, organisations are widely adopting work from home (WFH) practices for their employees. In Italy, remote workers have increased from 8% of the total workforce in 2019 to about one-third of the national workforce (Caronia, 2021). Although WFH has been generally welcomed by workers (Vyas & Butakhieo, 2020), previous studies highlighted differences in the acceptance and usage of WFH across groups of employees (Donati et al., 2021).

The adoption of this way of working, differently from the past, was not a choice. Instead, it was an obligation for companies and workers at the solicitation of national governments due to the Covid-19 pandemic (Toscano & Zappalà, 2020). Therefore, the large shift of many employees from face-to-face work, first to WFH throughout the week during lockdowns, and later to a hybrid WFH (in which work from home is alternated with regular work in the office), prompted scholars to investigate employees' acceptance of this way of working (Donati et al., 2021; Razif et al., 2020; Shamsi et al., 2021).

This study follows this research stream and investigates how employees perceive their WFH during the Covid-19 pandemic using the Technology Acceptance Model (TAM; Davis et al., 1989) as a framework. Specifically, this study attempts to investigate the relationship that the TAM dimensions, Perceived Ease of Use (PEoU) and Perceived Usefulness (PU), have with employees' previous experience of working remotely. We assume that previous experience is positively correlated with perceived ease of use and usefulness of WFH. Finally, this study intends to test whether having children negatively affects the supposed positive relationship between previous remote work experience and employees' perceptions of ease of use because dealing with children to care for should result in an additional burden for workers from home during the pandemic context (Xiao et al., 2021).

The theoretical rationale of our research hypotheses is presented in the following paragraphs. Subsequently, the method and results sections ensue. Finally, the discussion and conclusion elaborate on the results and suggest practical implications.

Remote work experience and ease of use and usefulness of remote work

Literature on acceptance of technology has become particularly relevant in explaining how individuals' perceptions of a specific technology affect their intention to use or reject that technology, as well as its actual usage. The TAM, one of the most widely used models in this regard, considers two specific individual beliefs: perceived ease of use, defined as the degree to which a person believes that using Information Technology (IT) will be free of effort, and perceived

usefulness, defined as the extent to which a person believes that IT will enhance their job performance (Davis et al., 1989).

The TAM approach has already been used to study remote work. A theoretical article by Pérez Pérez et al. (2004) listed some of the main individual, organisational and contextual variables potentially affecting remote work's perceived ease of use and usefulness. It suggests, for example, that factors such as the manager's knowledge of remote working and training concerning this work arrangement influence respectively the perceived ease and usefulness of this way of working. The study by Silva Cortés et al. (2019), conducted on a sample of managers, highlighted instead that PEoU and PU of remote work were related respectively to anxiety towards the new technology and managers' self-efficacy, underlining that the adoption of this practice partly depended on the perceptions of «comfort» with this way of working.

In this study, we argue that, even in a context such as WFH during the pandemic, the level, in a broad sense, of familiarity that employees have with this work arrangement, relates to their perception of ease of use and usefulness. Although not based on the TAM model, we believe that the evidence found that one's experience with remote work can also influence employees' perceptions of ability and self-efficacy related to this technology (Staples et al., 1999) may also be applied to a context of forced WFH. For this reason, in this study, we intend to suggest that those employees who already have experience with remote work practices may have even better perceptions of ease of use and usefulness of working from home because of Covid-19.

The TAM model suggests that ease of use affects the perception of the usefulness of a specific technology. Previous literature and meta-analytic studies underline the positive effect played by the perception of ease of use of technology on the perception of its usefulness and, in turn, on the intention to use that specific technology (King & He, 2006; Marangunić & Granić, 2015). This positive influence seems to be also confirmed by recent empirical studies on telework adoption (Ollo-López et al., 2021; Silva Cortès et al., 2019). Following the TAM assumptions and considering previous research findings, we suppose that perceiving WFH as an easy way of work is related to employees' perception of its usefulness.

The moderating role of having children

Literature on WFH reports that when working at home, both in normal times and during the pandemic, the presence of children at home influences parents' experience of work and childcare (Song & Gao, 2020; Xiao et al., 2021). Previous studies furthermore report that people with children, in regular times, are less likely to telework, probably because teleworking may increase both work-to-family conflict and family-to-work conflict (Zhang et al., 2020). The difficulty of

managing both work and children when working at home may have been further exacerbated during the pandemic. Parents had to support their children in a period in which the usual educational and leisure agencies were almost, or entirely, absent. Employees with children had, for example, to monitor children during online lessons or afternoon homework (Ribeiro et al., 2021), entertain them or cook, or do all this at the same time (Syrek et al., 2022) in a context in which house space, as well as hardware devices and connections, were shared with other family members (Donati et al., 2021; Galanti et al., 2021). This may have made the WFH experience more difficult for employees during the pandemic. Taking into account what is presented above about the positive effect of previous remote work experience on the PEoU of remote work, the positive relationship between the employees' PEoU and the PU of WFH, and the moderation effect of having a child/children on the relationship between previous remote work experience and PEoU, we also suppose a moderated mediation of employees' WFH PEoU and having a child/children at home on the relationship between employees' previous remote work experience and WFH PU.

Therefore, based on the literature presented in the above paragraphs, we posit that:

- H1: Previous remote work experience is positively related to employees' perception of ease of remote work (H1a) and perception of the usefulness of remote work (H1b);
- H2: Employees' perception of ease of remote work is positively related to employees' perception of the usefulness of WFH,
- H3: Having a child/children negatively moderates the relationship between employees' previous remote work experience and employees' perception of ease of remote work;
- H4: There is an indirect relationship between employees' previous remote work experience and perception of the usefulness of remote work through the mediation effect of employees' perception of ease of WFH, and this indirect relationship is negatively moderated by having a child/children at home.

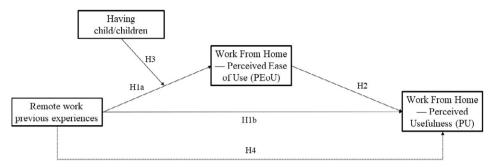
Figure 1 summarises the study hypotheses.

Method

Participants

From mid-November 2020 to mid-January 2021, an online questionnaire published on the Qualtrics platform was answered by 121 Italian employees working both from home and at the office.

Figure 1



Summary of the study hypotheses.

Participants reported an average age of 42.12 years (SD = 9.64; Min = 23; Max = 64). Females constituted 38.8% of respondents, while 50.4% reported having a child/children. Most participants had at least a university level education (75.2%). The majority of the respondents worked in for-profit private companies (76%), had full-time employment (89.3%), and performed their job in collaboration within a team (89.3%). Regarding organisation size, 14.9% of respondents worked in small companies, 18.2% in medium-sized enterprises, and 66.9% in large companies. Each participant was involved in a WFH programme that required them to work from home at least one day a week at the time of the data collection; respondents reported working from home an average of 3.7 days per week (SD = 1.57; Min = 1 day, Max = 6 days). Almost fifty percent (43.8%) had started working remotely before the first national lockdown (March-April 2020), whereas 56.2% started WFH during the first lockdown, at the outbreak of the pandemic.

Measures

Participants' demographic data and professional characteristics, current work situation and organisational information were gathered using single-item, multiple-choice questions. The study variables were instead collected using the following measures.

- Remote work previous experiences. Participants answered a question about their experience with remote work by choosing one of the following alternatives: «1:
 I started to work remotely during the first Covid-19 lockdown»; «2: I started to work remotely before the first Covid-19 lockdown».
- *Having a child/children*. Participants indicated that they were not parents («1: No») or that they were parents of a child/children («2: Yes»).
- WFH Acceptance. Based on the Technology Acceptance Model (TAM), six items measured Perceived Ease of Use (PEoU) (e.g., «Remote work is easy to

learn»; $\alpha = .78$), and six items measured Perceived Usefulness (PU) of WFH (e.g., «Working remotely speeds up the work»; $\alpha = .88$). The items developed by Davis (1989), and used in the Italian context by Mariani et al. (2013), were adapted to this study considering work from home as a technology. A 5-point Likert scale (from 1 = «completely disagree» to 5 = «completely agree») was used. We conducted two Confirmatory Factor Analyses to test whether the twelve items measured the PEoU and PU sub-scales as expected. We compared the goodness of the fit of a two-factor model with the fit of a one-factor model. The two-factor model showed a better fit to the data (N = 121, χ^2 = 87.55, χ^2/df = 1.78; RMSEA = .08; SRMR = .07; CFI = .95; IFI = .95), than the one-factor model $(\chi^2 = 269.92, \chi^2/df = 5; RMSEA = .18; SRMR = .08; CFI = .69; IFI = .70)$. All the fit indices of the two-factor model were within the cut-off criteria indicated by Hair et al. (2018), thus supporting this model. The convergent and discriminant validity of the two TAM subscales were investigated, respectively, by calculating the composite reliability (CR) and the average variance extracted (AVE) values for each construct. The results confirmed acceptable reliability and validity of the two sub-scales, respectively above .54 for AVE and above .75 for CR. The AVE value for each factor was higher than the square of the correlation between the two factors, thus providing support for the discriminant validity of the two constructs (Anderson & Gerbing, 1988; Fornell & Larcker, 1981).

Gender. Previous studies' findings suggested that female workers are more prone
to adopt telework than male workers (i.e. Sarbu, 2015). Because gender might
influence remote work acceptance both directly (Pérez Pérez et al., 2004) and
indirectly (Malik et al., 2016), we controlled for the gender of each participant.

Procedure

The online survey was announced and the link to answer the questionnaire was posted on the LinkedIn and Facebook profiles of two researchers on this study.

Before answering the survey, the respondents had to read a web page explaining the reasons behind the research and information on the protection of their data and had to explicitly agree to participate in the study. Participation in the study was free and voluntary, and the refusal to join the study did not entail any consequences. Italian informed consent and privacy laws were respected as regards data processing.

Data analysis

Before testing the hypotheses, descriptive statistics and Pearson's correlations were computed. The study model was tested using the PROCESS macro (Model number 7). All the analyses were performed in SPSS 26.

Results

Table 1 shows that the correlations among the study variables revealed significant relationships, except for having a child/children, which was not related to the other variables. Remote work previous experiences were moderately and significantly related to WFH PU (r = .36; p < .01) while they were also significantly but weakly related to WFH PEoU (r = .18; p < .01). The correlation between WFH PEoU and WFH PU was significant and strong (r = .52; p < .01). Finally, gender was significantly correlated to remote work previous experiences (r = .19; p < .05), and, for this reason, it was included as a control in the following analyses.

Table 1Means, Standard Deviations, and correlations among the study variables.

Variables	Mean	SD	1	2	3	4
1. Remote Work experience	1.44	.49	-			
2. Having a child/children	1.50	.50	.07	-		
3. Perceived Ease of Use (PEoU)	4.09	.52	.18*	.03	-	-
4. Perceived Usefulness (PU)	3.48	1.25	.36**	.01	.52**	-
5. Gender	1.61	.49	.19*	02	.06	04

Note. N = 121. * p < 0.05; ** p < 0.01.

The test of the hypothesised model using the PROCESS macro firstly confirmed the association of remote work previous experiences both with WFH PEoU (B = .21; p < .05; H1a confirmed) and with WFH PU (B = .48; p < .01; H1b confirmed). Results also showed that WFH PEoU was significantly related to WFH PU (B = .73; p < .01; H2 confirmed). Regarding the control variable, gender was not correlated with either PEoU (B = -.08; p > .05) or PU (B = .05; p > .05).

The moderating effect of living with a child/children was tested on the relationship between remote work previous experiences and WFH PEoU. A significant, positive moderation effect of having child/children (B = .42; p < .05) was observed. Figure 2 shows the single slope test: having a child/children improves WFH PEoU scores, while no effect was found for remote workers who had no child. The moderation effect hypothesis (H3) is thus partially confirmed, in the opposite direction to what we postulated.

Finally, the study results show a significant moderated mediation effect when considering the indirect relationship between remote work previous experiences

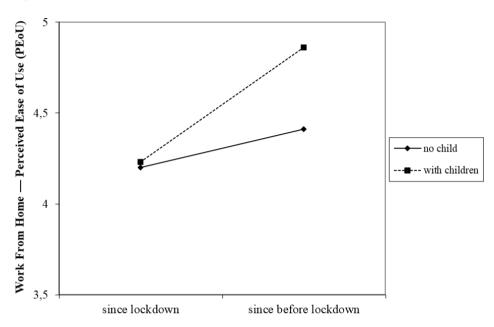
and WFH PU through WFH PEoU. In particular, this indirect effect was B = -.50 [-.20; .21] for employees with no child/children, and B = .49 [.11; .56] for employees having a child/children. These results only partially confirm H4. Figure 3 shows the results of the entire tested model.

Discussion

In a sample of Italian employees who worked from home during the pandemic, this study tested whether previous remote work experience was associated with perceived ease of use and usefulness of working at home during the pandemic, and whether having children moderated the relationship between previous remote work experience and perceived ease of use. The study hypotheses were in most cases confirmed: previous experience with remote work was significantly related to WFH PEoU, and both these variables were in turn related to WFH PU. Furthermore, a moderating effect of having children was found in the relationship between remote work previous experience and WFH PEoU. Contrary to our expectations, the results showed a positive interaction effect. This is a surprising result, which contradicts previous literature that suggested that caring for children represents a burden for remote workers during the pandemic (Galanti et al., 2021; Syrek et al., 2022; Xiao et al., 2021) and instead highlights that people already accustomed to this work arrangement and with children may find WFH easier than those without children.

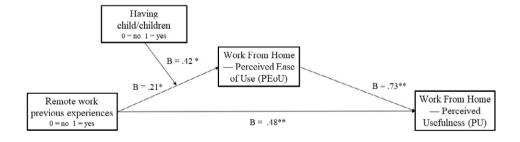
Such an unexpected effect cannot be interpreted univocally, and different possible explanations can be drawn. As suggested in a recent study in which a similar hypothesis was disconfirmed (Toscano & Zappalà, 2021), workers from home who are also parents may activate the resource gain mechanism postulated by Hobfoll and colleagues (2018). This resources gain would consist in the fact that, as suggested by literature, remote work before the pandemic was a resource for taking care of family life (such as children or an elderly relative). During the pandemic, remote work allowed employees to take care more concretely of their children, who were at home all day long. This opportunity became an incentive to manage remote work better, becoming even more competent in using remote work technologies. During the pandemic, having the possibility to work from home and, at the same time, take care of their children at home all day was a reason, and a resource, that gave employees the perception that working from home was easier than working in the office and having to take care of their children only when they got home. In other words, it probably made their work-life balance even easier. Such an observation would also explain the limited or no benefit generated by the experience in employees without children who did not have this work-life balance mechanism.

Figure 2



Moderation effect of having a child/children on the relationship between remote work previous experiences with WFH PEOU.

Figure 3



Indirect effect of employees' previous remote work experience on perception of WFH usefulness via employees' perception of WFH ease of use:

B = -.50 [-.20; .21] in the condition of employees with no child;

B = .49 [.11; .56] in the condition of employees with child/children.

Results of the tested model.

On the other hand, according to another theoretical point of view, past experiences with WFH might also have favoured the development of an integration boundary preference (Chen et al. 2009), which consists of a preference towards an accepted work and private life integration, preferable to the separation of these two worlds. Such a preference for integrating those two spheres of life made WFH easier during the pandemic when private and work life were forced to be combined for contextual reasons.

In contrast to the more speculative explanations of the moderation encountered, this study also emphasises that, in adopting new technology, the perceived ease of use also determines an increase in perceptions of usefulness of the technology itself. In addition, we highlight the interesting result according to which the previous experience with WFH correlated with its actual perceived usefulness, both directly and also indirectly, through the tested moderating mediation process. Considering work from home is an easy-to-use arrangement, but also having had previous experience with this way of working, increases its perceived usefulness in workers if they are parents. In this case, having experienced remote working in the past may have helped reap its benefits, which may not be as evident at the beginning of the experience compared to the more obvious burdens such as working at home and managing children and their interference during working hours.

This study has some limitations. Among these, the small sample, the specificity of the context analysed and the poor informative capacity of some questions (which distinguish only between past experiences before or after the first lockdown or having or not having children, without adequately quantifying these measures). Another limitation is the limited attention given to age. In fact, childless homeworkers may be senior employees, whose children have already left home, while homeworkers with children are, obviously, younger parents. In this case, the increased ease of use of employees with children might overlap with a higher competence in using information technology. Finally, having had previous remote work experience may suggest the existence of a precise preference for this work arrangement, in a time when it was possible, compared to less experienced remote workers who might have experienced this type of work arrangement as an imposition in response to the pandemic. The difference in attitudes toward work from home should be considered more deeply in future studies.

Despite these limitations, we believe that, in theoretical terms, this study raises the question of the differences between remote workers with and without children, both in the current situation and in the future, when we hope that the pandemic will end. The mechanisms that associate the management of children, and in general of private life, with the outcomes of remote work are still partially obscure and report conflicting results (Allen et al., 2021). It is, therefore, essential to continue this line of research. On the other hand, it seems more consolidated

that the TAM, a widely used model of acceptance of technologies, can explain the acceptance of WFH arrangements.

From a practical point of view, however, although — as mentioned — the results of this study have limited generalisability, we believe it may provide, in particular to HR officers and managers, some critical suggestions. Specifically, we are inclined to think that groups of parent-employees can benefit, more than childless workers, from WFH practices. Therefore, we believe that, even when the pandemic is over, people with children should be considered privileged interlocutors when choosing whom to grant, especially in the existence of potential structural limits (e.g. a maximum number of workers that can be placed in remote work), the possibility to work from home. We hope this research contributes to extending knowledge about remote work and provides useful suggestions for professionals, especially in this age in which remote work has undergone an unprecedented surge.

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