

Antecedents and job outcomes from a self-efficacy perspective while working from home among professionals during the COVID-19 pandemic

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job outcomes
among
professionals

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Abstract

Purpose – Working from home (WFH) was one of the major changes that occurred in many organizations during the COVID-19 pandemic. This also led to online training being conducted during this WFH period. The present study investigated the role of technology, manager support and peer support on self-efficacy and job outcomes (i.e. training transfer, work engagement and job satisfaction) of employees while WFH.

Design/methodology/approach – The study framework incorporated Bandura's self-efficacy theory. Data were collected from 852 employees in India, and structural equation modeling was used to analyze the data.

Findings – The study found positive relationships between ease of technology use, manager support and peer support on self-efficacy and a negative relationship between self-efficacy and technostress. The study also found significant positive relationships between self-efficacy and training transfer, work engagement and job satisfaction. Moreover, the study also identified the moderating effects of WFH and technical issues in the relationships of self-efficacy with training transfer, work engagement and job satisfaction.

Originality/value – The study is novel in that it extended self-efficacy theory regarding the WFH context with influencers such as technology, managers and peers as organizational factors. It also demonstrated the effectiveness of remote working and online training considering the potential antecedents while WFH. Moreover, the study highlighted the simultaneous role of technology and people (managers and peers) in enhancing job outcomes by increasing self-efficacy among employees.

Keywords Working from home (WFH), Technostress, Self-efficacy, Job satisfaction, Training transfer
Paper type Research paper

Introduction

The COVID-19 pandemic has negatively impacted individuals, organizations, and societies across the world (Donthu and Gustafsson, 2020). One of the most major changes was the introduction and practice of working from home (WFH) among millions of professionals and the accompanying digital transformation that facilitated this change (Fida *et al.*, 2022; Kumar *et al.*, 2022; Lathabhavan and V, 2022). The unprecedented structural change in the form of WFH practice has led researchers to explore and analyze their impacts on job outcomes (Kumar *et al.*, 2022; Nadiy, 2022). However, few research studies have focused on how organizational support impacts the psychological state of employees and consequent job outcomes (Nadiy, 2022).

Self-efficacy, being a positive psychological construct, refers to the belief of individuals in their ability to succeed (Bandura, 1977). Maintaining high self-efficacy is crucial for employees because they assume multiple roles of critic, learner, and mentor for their work while WFH and have experienced unprecedented changes due to the pandemic (Ma *et al.*, 2021). Although there have been studies that have focused on self-efficacy while WFH, a few areas remain unexplored. First, a resilient sense of self-efficacy is essential for enhancing positive well-being among employees during the pandemic, but few studies have discussed environmental effects such as technology, leadership, and peer support on self-efficacy and job outcomes (Fida *et al.*, 2022). Second, self-efficacy can act positively on job outcomes among employees but the impacts of situations such as the occurrence of technical glitches while WFH has not been examined in prior studies (Clauss *et al.*, 2021). Third, although studies have examined the effectiveness of training and its impacts on self-efficacy and job outcomes, the effectiveness of online-job training while WFH is still relatively less addressed (Gopalan *et al.*, 2022). Fourth, in challenging and demanding WFH situations, employees with high self-efficacy can proactively meet the challenges and adapt to them, but considerations such as WFH experience and frequency of technical issues have been much less investigated in the context of emerging economies, due to WFH not being prevalent and the frequent occurrence of technical issues in such countries (Gottlieb *et al.*, 2021; Waizenegger *et al.*, 2020). Considering these research gaps, the present study investigated the (i) antecedents that determine the self-efficacy of employees while WFH. (ii) job outcomes in light of online training and remote working, and (iii) effects of WHF experience and frequency of technical issues on the job outcomes while WFH. The study used Bandura's self-efficacy theory (Bandura, 1977) as the theoretical framework and extended self-efficacy theory to a WFH context.

Considering the research gap in the literature on WFH and the importance of the constructs, three outcome variables (i.e., training transfer, work engagement, and job satisfaction) were considered based on the following rationale. First, although online training events were common while WFH, the effectiveness of such training had not been discussed in great detail (Tønnessen *et al.*, 2021). Therefore, to this address this gap, the present study considered training transfer (effectiveness of training and the learning transfer in the job) while WFH. Second, work engagement can be considered a relevant job outcome measure, but the different impacts of organizational support while WFH are still unexplored (Khan, 2021). Third, because job satisfaction is advantageous for both employers and employees, the personal factors and job features that define job satisfaction while WFH continue to remain ambiguous, which necessitates further studies that examine job satisfaction with personal and job factors as antecedents (Hübler, 2020). Two variables (i.e., frequency of technology-related issues and the length of WFH experience) were considered as moderators in the present study to understand their effects on job outcomes, with the theoretical support of influencers in Bandura's self-efficacy theory. The study also considered WFH experience and technology issues as important variables to examine their influence on self-efficacy and job outcomes associations. Figures 1 and 2 depict the study's proposed models.

Insert Figures 1 and 2 here

The present study contributes to understanding specific aspects of WFH during the pandemic. More specifically, the study (i) extends self-efficacy theory regarding WFH with influencers such as organizational factors, (ii) demonstrates the effectiveness of online job training considering potential antecedents while WFH, and (iii) highlights the role of technology in enhancing job outcomes by increasing self-efficacy among employees.

Theoretical background and hypotheses development

The present study posited a research model concerning online job and training effectiveness in relation to WFH during the COVID-19 pandemic using Bandura's (1977) self-efficacy theory. The theory explains the relationship between influencers of self-efficacy and its outcomes (Bandura, 1977). The theory relates to an individual's beliefs about their capabilities to produce designated levels of performance that exert influence over events that affect their lives (Bandura, 1977). The theory presents the influencers that determine the coping behaviors of employees through self-efficacy and how they define positive and negative outcomes (Bandura and Adams, 1977). In an unprecedented situation (e.g., WFH during the pandemic which contributed to major structural changes from a physical office to the WFH structure), employees' self-efficacy that results from a supportive environment can prepare individuals for positive job outcomes (Kumar *et al.*, 2022).

According to self-efficacy theory, the influencers of self-efficacy are broadly divided into four domains. These are *performance accomplishment* (past and present performance of employee), *vicarious experience* (other's performance), *social persuasion* (support from the environment/surroundings), and *emotional arousal* (sensations from the body and its perceptions in the individual) (Bandura, 1977). Performance accomplishments provide the most influential efficacy information because it is based on personal mastery experiences (Bandura and Adams, 1977). The other sources of efficacy information include the vicarious experiences of observing others succeed through their efforts, verbal persuasion that an individual possesses the capabilities to cope successfully, and states of physiological arousal from which individuals judge their level of anxiety and vulnerability to stress (Bandura, 1983). Connected to this theoretical underpinning, the present study considered organizational support (i.e., technology support, manager support, and peer support) as a potential influencer to explain self-efficacy and job outcomes, since

organizational support was of critical importance while WFH during the pandemic (Errichiello and Pianese, 2021). Manager support and peer support were two other major components of employee support that were considered (Ibrahim et al., 2019; Tønnessen et al., 2021).

As aforementioned, self-efficacy is the belief by individuals in their ability to succeed (Bandura, 1977, 1986). Individuals who perceive themselves as being efficient attribute success to personal efforts (Malureanu *et al.*, 2021). When WFH, self-efficacy acts as a key factor in the achievement of the anticipated outcomes (Peechapol *et al.*, 2018). In the present study, the three outcomes considered were (i) training transfer, (ii) job satisfaction, and (iii) work engagement.

Influencers of self-efficacy while working from home

Given that technology was critical for WFH during the pandemic, employers aimed to align the technological changes with human resource needs in the organization, to provide a better work environment for employees in the virtual domain against the backdrop of various concerns regarding WFH (Darouei and Pluut, 2021; Galanti *et al.*, 2021). WFH depends critically on technology and its familiarity among employees, therefore accessibility and familiarity with technology play a crucial role in their job outcomes (Danilova *et al.*, 2022). Therefore, among the influencers or sources of self-efficacy, technology played a key role during the pandemic (Vahdat, 2022), and can be considered as an influencer of self-efficacy. For this, the basic assumptions of performance accomplishment and emotional arousal were considered by examining the variables using self-efficacy theory. Performance accomplishment can explain the experience of employees with technology. Moreover, emotional arousal can explain the emotional state of employees when challenges arise, and discomfort levels may increase due to technology problems while WFH (Darouei and Pluut, 2021). In the WFH context, the ease of use of technology and technostress

were considered as representing the broad aspects of performance accomplishment and emotional arousal, respectively, within the broad classification of technology as an influencer.

The ease of technology use is an important factor for employees while WFH (Malureanu *et al.*, 2021). Linking to Bandura's theory, the experience of the employee with technology can be considered as an influencer of self-efficacy in the performance accomplishment domain because technology familiarity can enhance confidence among employees (Ju *et al.*, 2018). Based on this literature, the first hypothesis (H) was:

H₁: Technology ease of use positively affects self-efficacy.

Other issues associated with WFH during the pandemic are psychological aspects, such as stress relating to technology (i.e., technostress,) (Molino *et al.*, 2020). Technostress is a modern phenomenon and refers to the inability to cope with new technologies in a healthy way (Califf *et al.*, 2020). Connected to the emotional arousal of the self-efficacy theory, technostress can create an emotional state that may act unfavorably in WFH contexts since the change was unprecedented and new to employees during the pandemic (Bandura, 1977). Moreover, psychological factors cannot be overlooked because they affect job outcomes and personal well-being (Lathabhavan, 2020). Technostress may act as both techno-eustress or techno-distress and can provide positive or negative outcomes, respectively, based on the environment. This implies that low-level technostress leads to positive outcomes and high-level technostress leads to negative outcomes (Califf *et al.*, 2020). Based on this idea, the second hypothesis was:

H₂: Technostress negatively affects self-efficacy.

Supportive managers act as mentors and guides for employees in both favorable and adverse situations (Eibl *et al.*, 2020). Along with motivating employees, managers enhance the confidence

of employees to perform tasks and facilitate self-efficacy (Su et al., 2020). When WFH, managers must handle multiple roles such as technology enablers, innovative communication providers, and guardians of employees (Dirani *et al.*, 2020).

Trust and communication emerged as one of the most important bonding factors in the manager-employee relationship during the pandemic (Chen and Sriphon, 2021). Although all the functions and activities of organizations had to be managed remotely, the responsibilities of the managers towards their subordinates were extended during the pandemic to ensure and enhance the technical skills of the latter (Malureanu *et al.*, 2021). Managerial support can be considered as social persuasion in self-efficacy theory where support from the manager motivates employees and enhances self-efficacy (Chen and Sriphon, 2021). Based on this literature, the third hypothesis was:

H₃: Manager support positively affects self-efficacy.

While WFH, colleague support can enhance confidence among employees through interactions and helping each other at work (Agarwal *et al.*, 2020). This is especially true in job training during which such interactions help in self-course corrections, clarifying concepts, and reinforcing work styles (Yaghi and Bates, 2020). Such support has been reported to enhance confidence among employees and therefore improve their job outcomes (Islam and Ahmed, 2018; Na-Nan and Sanamthong, 2020). Such psychological support can also enhance self-confidence and overall productivity (Giorgi *et al.*, 2020).

Vicarious experience and social persuasion were considered to explain peer support as an influencer in self-efficacy theory. Listening to or seeking the experiences of others who performed well in their job also enhances individuals' interests and confidence toward work, and is therefore

connected with vicarious experience. Likewise, social persuasion refers to the support of colleagues in easing work while WFH, which enhances confidence among employees. Considering this, the fourth hypothesis was:

H4: Peer support positively affects self-efficacy.

The impacts of self-efficacy on job outcomes (training transfer, work engagement, and job satisfaction)

According to self-efficacy theory, self-efficacy acts as a determinant of outcomes (Bandura, 1977). High self-efficacy may lead to positive outcomes and low self-efficacy may lead to negative outcomes (Bandura, 1983, 1986). While considering the job aspects, self-efficacy has been shown to lead to various job outcomes (Carter *et al.*, 2018; Etehadi and Karatepe, 2019). The present study considered training transfer, work engagement, and job satisfaction as the factors that must be studied in the WFH context.

Training transfer is considered valuable for the employee and the organization because it instills a knowledge-based culture in the organization, thereby affording a competitive advantage to it (Islam and Ahmed, 2018), and it relates directly to training effectiveness. Given that many organizations have large budgets for employee training, evaluating its effectiveness is important because the transfer of learning acquired through training appears to be less effective compared to other activities such as competence in a particular area (Iqbal and Dastgeer, 2017). Previous literature has demonstrated that high self-efficacy leads to effective training transfer in normal circumstances (Na-Nan and Sanamthong, 2020), whereas the effectiveness of online training while WFH has hardly been discussed. Based on this, the fifth hypothesis was:

H5: Self-efficacy positively affects training transfer while WFH.

Work engagement is a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption (Lesener et al., 2020). Enhancing knowledge and skills usually boosts the confidence of employees and therefore leads to better engagement in their work (Lathabhavan, 2020). Self-efficacy acts as a potential predictor for work engagement, whereas a simultaneous occurrence of work and family demands of employees such as WFH has not been investigated in previous studies (Chan *et al.*, 2017). Self-efficacy enhances work engagement, even in situations where both family and home demands simultaneously occur in situations such as WFH (Gopalan *et al.*, 2022). However, social desirability factors and online job training were not examined in these studies. Therefore, the sixth hypothesis was that:

H₆: Self-efficacy positively affects work engagement while WFH.

Job satisfaction is the attitude developed by individuals toward their job and job conditions (Lathabhavan *et al.*, 2021). It is also the pleasurable emotions of employees or the perception of the fulfillment of activities in their job. While self-efficacy has been found to be a potential determinant of job satisfaction in WFH situations (Kondratowicz *et al.*, 2022), factors such as supervisor and colleague interaction and technology use have been less frequently discussed. With a supportive environment, the self-confidence of an employee enhances job satisfaction. Based on this, the seventh hypothesis was:

H₇: Self-efficacy positively affects job satisfaction while WFH.

WFH experience as a moderator

Related to the performance accomplishment of the self-efficacy theory, experience with WFH was considered to play an important role in WFH because over time, employees become accustomed to the changes in working practices and overcome difficulties. A few recent studies have explored

the moderating role of work experience in the association among various job-related factors (Yadav and Dhar, 2021), but the moderating effect of WFH experience has not yet been investigated in detail (Solmi *et al.*, 2020). Work experience acts as a stimulus in enhancing the association of the various work constructs of the individual/team with performance (Yadav and Dhar, 2021). Moreover, experience in a particular job or work environment can favorably impact job outcomes (Digutsch and Diestel, 2021).

WFH because of the pandemic was not only unprecedented but also forcibly brought in unavoidable changes. Therefore, resistance to change was not possible (i.e., there was no time to express resistance). However, this could have impacted the psychology of the employees (Papagiannidis *et al.*, 2020). Enforced WFH required considerable time to cope with the new environment for employees (Waizenegger *et al.*, 2020). Although there were many problems for employees relating to resistance to change and difficulty in coping with unexpected changes, experience and familiarity over time with WFH helped them explore it and enhance productivity (Choudhury *et al.*, 2021). Moreover, because employees could adapt and change while WFH, they were likely to enjoy the flexibility of WFH (Galanti *et al.*, 2021). Additionally, recent research has shown that work experience positively impacted job outcomes, and this could also be extended to WFH experience (Kumar *et al.*, 2022). Based on these considerations, the following hypotheses were proposed:

H_{8a}: WFH experience positively moderates the relationship between self-efficacy and training transfer

H_{8b}: WFH experience positively moderates the relationship between self-efficacy and work engagement

H_{8c}: WFH experience positively moderates the relationship between self-efficacy and job satisfaction.

Technical issues frequency as moderator

The frequency of occurrence of technical issues was considered as being related to performance accomplishment in the self-efficacy theory. Over time, employees can understand and analyze the challenges in their work and act accordingly. Geographical distribution/location determines the quality of WFH in terms of technical matters such as internet connectivity, electric power availability, etc. (Althoff *et al.*, 2022). Developing countries like India (where the present study was carried out) faced challenges in such matters during the pandemic, which had negative impacts on WFH outcomes (De' *et al.*, 2020). Inconsistent internet availability and power supply interrupted the work of employees and thereby affected their work and career outcomes (Waizenegger *et al.*, 2020). Frequent technical disruptions like power cuts and internet outages have been shown to adversely impact employee work and productivity (Mendoza Diaz *et al.*, 2020). Recent studies have shown that such external factors moderate the associations with organizational outcomes (Turulja and Bajgoric, 2019). Based on these considerations, the following hypotheses were proposed:

H_{9a}: Technical issues negatively moderate the relationship between self-efficacy and training transfer

H_{9b}: Technical issues negatively moderate the relationship between self-efficacy and work engagement

H_{9c}: Technical issues negatively moderate the relationship between self-efficacy and job satisfaction.

Methods

Participants and data collection procedure

The study used a cross-sectional design to investigate the hypothetical research model. Data were collected from 852 employees who worked from home in India during the pandemic, and who also attended job training during this period. Data were collected from November 2020 to April 2021, from different companies across India. The researchers contacted the human resources department of the companies and collected the contact details of the employees who matched the aims of the present study. Among employees from various companies, 1000 employees were selected as potential participants using a systematic sampling technique, and surveys were distributed through email and social media platforms during the pandemic. Participation in the survey was voluntary and electronic informed consent was provided by each participant. Among the 867 responses received, 852 responses were included after removing those with missing data or wrong entries such as outliers. Therefore, the response rate was 85.2%. The average age of the participants was 39.87 years (SD= 8.72). The sample comprised 479 men (56.22%) and 373 women (43.78%). In relation to working sector distribution, the participants were from information technology (55.87%), banking and financial services (33.69%), manufacturing (7.28%), and others (3.16%).

Developing measures

The survey instruments used in the present study included eight constructs (see Appendix). All the measures were carefully selected and validated from prior previous studies to fulfill the objectives of the study. All the items were assessed on a seven-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Technology ease of use. A four-item scale was used to assess the construct (Brown, 2002). A sample item was “*Online job tools and content structure are easy to learn*”. The Cronbach’s alpha coefficient of the scale was 0.88.

Technostress was assessed using an 11-item scale (Molino *et al.*, 2020). A sample item was “*I do not know enough about technology to handle my job satisfactorily*”. The Cronbach’s alpha coefficient of the scale was 0.90.

Manager support. A six-item scale was used to assess manager support (Holton *et al.*, 2000). A sample item was “*My manager sets goals for me that encourage me to apply my learning on the job*”. The Cronbach’s alpha coefficient of the scale was 0.84.

Peer support. A four-item scale was used to assess peer support (Holton *et al.*, 2000). A sample item was “*My colleagues encourage me to use the skills I have learned*”. The Cronbach’s alpha coefficient of the scale was 0.91.

Self-efficacy was assessed using the six-item Occupational Self-efficacy Scale (Rigotti *et al.*, 2008). A sample item was “*I feel prepared for most of the demands in my job.*” The Cronbach’s alpha coefficient of the scale was 0.88.

Training transfer was assessed with a six-item scale (Xiao, 1996). A sample item was “*I can accomplish my job tasks faster now than before training*”. The Cronbach’s alpha coefficient of the scale was 0.81.

Job satisfaction was assessed using a four-item scale (Autry and Daugherty, 2003). A sample item was “*I feel fairly satisfied with my present job*”. The Cronbach’s alpha coefficient of the scale was 0.85.

Work engagement. The nine-item Utrecht Work Engagement Scale (Schaufeli et al., 2006) was used to assess work engagement. A sample item was “*Time flies when I’m working*”. The Cronbach’s alpha coefficient of the scale was 0.89.

WFH experience was assessed by asking participants the number of months they had worked from home during the pandemic. *Technical issues frequency* was assessed by asking participants about the frequency of technical issues in the past month on a scale of 1-10 (where 1 was “*Once or less*” and 10 was “*10 times or more*”)

Data analysis

Structural equation modeling (SEM) was used to test the research model utilizing AMOS 24.0 (Arbuckle, 2016). SEM is a preferred technique to evaluate multiple interrelated dependent relationships in a research model (Hair *et al.*, 2009). Confirmatory factor analysis was performed with maximum likelihood estimation, to examine the accuracy of the proposed model. The models’ goodness of fit was evaluated using χ^2 test static, the relative chi-square (χ^2/df), the Root-Mean-Square Error of Approximation (RMSEA), Standardized Root Mean Square Residual (SRMR), the Comparative Fit Index (CFI), and Tucker-Lewis index (TLI). Values larger than 0.90 for CFI and TLI, lower than 3 for χ^2/df , and 0.08 or lower for RMSEA indicated an acceptable fit with the model (Byrne, 2013; Hu and Bentler, 1998).

Results

Measurement model assessment

In the initial assessment, the internal consistency, convergent validity, and discriminant validity of all variables were analyzed to check the measurement properties of all constructs. Reliability concerns the consistency of a measure, and validity concerns the accuracy of a measure (Byrne,

1997). Table 1 shows the psychometric properties of all measures included in the study. The values of Cronbach's alphas were all above the critical level of 0.70 and had good internal consistency (Nunnally, 1994). The item loadings were above 0.60 and the average variance extracted (AVE) values were above 0.50. This indicated excellent content and convergent validity for all the measures. Moreover, the AVE values were found to be higher than MSV (maximum shared variance) indicating the strength of AVE and confirming the threshold for discriminant validity (Hew and Syed Abdul Kadir, 2016). The composite reliability values of all latent variables were above 0.75 and therefore adequate. Next, discriminant validity was checked, and Table 2 shows the correlation matrix for all the constructs. The diagonals show the square root of AVEs. The square roots of all AVE scores were higher than their corresponding inter-correlations and this indicated that discriminant validity was established. Based on the above values, it can be said that the measurement model exhibited an adequate level of reliability and validity.

Insert Tables 1 and 2 here

Common method bias (CMB) analysis

Since a common instrument was used for assessing all the variables with different scales, the issue of common method bias may arise. Harman's single-factor test was conducted to check for common method bias. Factor analysis using SPSS was performed, in which all the items were loaded with a threshold to attain one factor. The results showed that a single factor contributed 27.14% of the total variance extracted, which is well below 50%. This confirmed that CMB was not a serious concern in the present study.

Structural equation modeling results

The proposed study hypotheses were validated using structural equation modeling and the findings indicated good model fit ($\chi^2/df=1.72$, CFI=0.94, TLI=0.93, RMSEA=0.05). Table 3 shows the hypotheses results of Model 1 and Model 2 (moderator effects). The relationship between technology ease of use and self-efficacy were found to be significant ($\beta=0.278$; $p<0.001$), supporting H₁. Technostress was found to be negatively related to self-efficacy ($\beta=-0.174$, $p<0.01$), supporting H₂. Manager support and peer support were also found to be significantly related to self-efficacy ($\beta=0.214$, $p<0.05$ and $\beta=0.321$, $p<0.01$ respectively), supporting H₃ and H₄. Self-efficacy had a significant positive relationship with training transfer ($\beta= 0.182$; $p<0.001$), supporting H₅. Self-efficacy was also related significantly to work engagement ($\beta=0.221$; $p<0.001$), supporting H₆. Self-efficacy's relationship with job satisfaction was also found to be significant ($\beta=0.197$; $p<0.001$), supporting H₇.

Insert Table 3 here

Moderation effects - WFH experience

Hypotheses H_{8a}, H_{8b}, and H_{8c} tested the moderating effects of WFH experience in the proposed relationships of H₅, H₆, and H₇. WFH experience was found to significantly moderate the relationships between self-efficacy with training transfer ($\beta=0.224$, $p<.05$), work engagement ($\beta=0.215$, $p<.05$), and job satisfaction ($\beta=0.114$, $p<.05$). These results supported H_{8a}, H_{8b}, and H_{8c}. It can be inferred that as employees continued WFH over an extended period, they became better at working in this new environment. Therefore, increased WFH experience augments the effects of self-efficacy on job outcomes (see Figures 3a, 3b, and 3c).

Insert Figures 3a to 3c here

Moderation effects - Technical issues frequency

Hypotheses H_{9a}, H_{9b}, and H_{9c} tested the moderating effects of the frequency of technical issues regarding the proposed relationships of H₅, H₆, and H₇. Figures 4a, 4b, and 4c show the results. The frequency of technical issues was found to significantly moderate the relationships between self-efficacy with training transfer ($\beta=-0.174, p<.001$), work engagement ($\beta =-0.215, p<.05$), and job satisfaction ($\beta=-0.379, p<.001$). These results suggest that higher frequencies of technical issues hamper the effects of self-efficacy on job outcomes. This is because frequent technical or power disruptions may interrupt the flow of the job and create a stressful environment for the employee and therefore hamper the outcomes. These results supported H_{9a}, H_{9b}, and H_{9c}.

Insert Figures 4a to 4c here

Discussion

Theoretical implications

The contributions of this study are multifold. First, the study extended Bandura's self-efficacy theory to the working from home (WFH) context and explained the associations considering the unprecedented organizational changes forcefully introduced during the pandemic. Although previous studies have examined the self-efficacy perspective to explain various job outcomes, an organizational structure of a normal scenario was the basic assumption in all studies and few studies have discussed the WFH context. Therefore, the novelty of the present study is that it examined the antecedents and job outcomes of self-efficacy in the context of WFH, and extended Bandura's self-efficacy theory (Clauss *et al.*, 2021; Gopalan *et al.*, 2022; Peechapol *et al.*, 2018).

Moreover, the study explained the role of organizational support in its various forms (technological, managerial, and peer support) as influencers to enhance the self-efficacy of employees and to provide favorable job outcomes during the pandemic. Although earlier studies

have separately examined organizational support dimensions such as technology, managers, and peers (Agarwal *et al.*, 2020; Eibl *et al.*, 2020; Malureanu *et al.*, 2021), the present study extended organizational support factors within the same framework. The study also adopted a holistic approach and reinforced the importance of various organizational support structures with quantitative research, which could be extended to a previous exploratory study conducted with the same view (i.e., Errichiello and Pianese, 2021).

Second, the present study is the first to use the self-efficacy theory to include technology as an influencer that defines the self-efficacy of the employees in the WFH context, which in turn predicted job outcomes. The study supported the hypothesis that the ease of use of technology was positively associated with self-efficacy (H₁). This is in line with findings of the previous exploratory qualitative research in this area that have not considered the WFH situation, which suggested that the familiarity with technological tools and user-friendliness of applications afford more confidence to employees in performing their jobs (e.g., Malureanu *et al.*, 2021). The present study extended the research using quantitative methods and in a WFH situation. Likewise, H₂ was supported (i.e., there was a negative association between technostress and self-efficacy), and this concurs with previous studies in this area (e.g., Molino, Ingusci, *et al.*, 2020). The study found that technostress was an influencer of self-efficacy related to emotional arousal of Bandura's self-efficacy theory, which may lead to low self-efficacy due to intra-personal conflicts while WFH (Tuan, 2022).

Third, the study demonstrated the importance of organizational support that included technology, managers, and peers to enhance self-efficacy while WFH. The study found that manager and peer support enhance the self-efficacy of employees while WFH (and therefore H₃ and H₄ were supported). This concurs with the findings of earlier studies in this area, which suggested that

organizational support can enhance both individual and organizational outcomes when WFH (Pianese *et al.*, 2022). In WFH contexts, support from managers and peers has been found to generate self-efficacy among employees due to knowledge sharing and the possibility of clarifications (Kashive *et al.*, 2021). In essence, the present study demonstrated the role of organizational support in enhancing the self-efficacy of employees in WFH situations but is also novel in that it considered considering technology, managers, and peers under the broad classification of support.

Fourth, the study extended extant literature by predicting job outcomes during the pandemic, especially considering online training and WFH. The study found a positive association between self-efficacy and training transfer (supporting H₅), and this was also in line with previous studies in normal circumstances before the COVID-19 pandemic (e.g., Islam and Ahmed, 2018), suggesting that high self-efficacy can lead to enhanced training transfer among employees working from home. Another novel contribution is that the study considered online training and its learning transfer in the WFH situation, which has not been investigated previously. Likewise, the positive association between self-efficacy and work engagement was also supported (H₆), which concurs with previous findings reported prior to the pandemic (Song *et al.*, 2018). The high self-efficacy of employees while WFH, driven by supportive organizational factors, enhances their work experience (Khan, 2021). Similarly, H₇ was supported, because the study found a positive association between self-efficacy and job satisfaction, which supports previous observations made during the pre-pandemic work-from-office times (Islam and Ahmed, 2018). Self-efficacy of employees with a supportive environment while WFH leads to high job satisfaction (Bellmann and Hübler, 2020).

Finally, the study extended self-efficacy theory by explaining the moderating roles of WFH experience and technology issues. With regard to the moderating influences of WFH experience in the association of self-efficacy with outcomes, H_{8a} , H_{8b} , and H_{8c} were supported. This suggests that the outcomes in relation to self-efficacy support improved as the employee gained familiarity with their new work environment, (Gong et al., 2018). This suggests that with high self-efficacy, as employees continue working from home for longer periods, the familiarity with technology/virtual environments and continuous learning are enhanced and these result in positive job outcomes. Similarly, the moderating effects of technical issue frequency in the association of self-efficacy with outcomes were also supported (H_{9a} , H_{9b} , and H_{9c}). Technical issues such as inconsistent network and power issues negatively moderated the relationship of self-efficacy with job outcomes, and this is in agreement with the results of previous research in this area (Mazzola and Disselhorst, 2019). The study showed that although there was high self-efficacy among employees, job outcomes could be impacted due to factors such as poor network quality and power interruption.

Practical implications

The present study has important implications for practitioners and organizations regarding WFH. By adopting the workplace application of Bandura's self-efficacy theory, organizations can focus on the influencers of self-efficacy among their employees to help enhance positive job outcomes. For technology support, organizations need to ensure that employees gain proper training based on individual learning capacity for becoming familiar with tools and technology. Moreover, 24/7 Q&A sessions about their work (using either chatbots or real individuals) would help employees solve their work-related problems. Organizations could also implement a stress-free environment while WFH in the context of technology familiarity and facilities (Zheng, 2020). For example,

frequent opinion surveys and one-to-one meetings with managers would help assess the comfort levels of employees concerning technology and work. Considering managerial support, an emphasis on trust-based relationships with staff, managerial support regarding the employee's work-life balance, and job-focused supporting roles (e.g., providing concrete solutions to job issues) can enhance self-efficacy among employees (Pianese *et al.*, 2022).

Peer support can be strengthened by having one-to-one virtual meetings, having short conversations during work hours, providing an environment with freedom to communicate, and hosting unofficial cultural events (Adisa *et al.*, 2021). As technical issues such as internet quality is a major concern in emerging economies, organizations and policymakers must ensure rapid and good quality digitization processes considering the future of work (Lent, 2018). Given that the present study was set in a non-western country that is characterized by a lack of profound digitization policies, governments, organizations, and policymakers must devise new policies and measures for boosting digitization to ensure consistency of internet connectivity, which can help prevent job interruptions.

Limitations and future research

The present study has a few limitations. First, the study design was cross-sectional in nature and cannot determine causal relationships among the variables studied. Future longitudinal studies would minimize self-report bias by ensuring consistent results over time and providing more actionable results. Second, the present study examined a set of variables in a particular cultural context, and this may not be generalized to other contexts. Future studies should explore and integrate other relevant variables to boost the model's predictive power. Lastly, the study employed only WFH experience and technical issues as moderators. Investigating the differential

effects of personality types, leadership, and diversity factors may yield an understanding that would extend the current literature.

Conclusion

The COVID-19 pandemic has affected organizations and changed the work environment from office-based to home-based. The present study used Bandura's self-efficacy theory to examine the roles of various influencers (technology support, manager support, and peer support) in online jobs and training while WFH. The study demonstrated the importance of social persuasion (including technology) while WFH in enhancing the self-efficacy of employees, and thereby, job outcomes. The study also found that WFH experience and technical issues impact the self-efficacy of employees in defining job outcomes. With the novel finding generated from the present study, organizations can work on overall employee well-being to facilitate a more productive work outcome in WFH situations.

References

- Adisa, T.A., Ogbonnaya, C. and Adekoya, O.D. (2021), "Remote working and employee engagement: a qualitative study of British workers during the pandemic", *Information Technology and People*, ahead of print: <https://doi.org/10.1108/ITP-12-2020-0850>.
- Agarwal, B., Brooks, S.K. and Greenberg, N. (2020), "The role of peer support in managing occupational stress: a qualitative study of the sustaining resilience at work intervention", *Workplace Health and Safety*, Vol. 68 No. 2, pp. 57–64.

- Althoff, L., Eckert, F., Ganapati, S. and Walsh, C. (2022), “The geography of remote work”, *Regional Science and Urban Economics*, Elsevier B.V., Vol. 93, available at:<https://doi.org/10.1016/j.regsciurbeco.2022.103770>.
- Arbuckle, J.L. (2016), “IBM® SPSS® User’s Guide Amos™ 24”, *IBM, Chicago, IL.*, pp. 1–720.
- Autry, C.W. and Daugherty, P.J. (2003), “Warehouse operations employees: linking personorganization fit, job satisfaction, and coping responses”, *Journal of Business Logistics*, Vol. 24 No. 1, pp. 171–197.
- Bandura, A. (1977), “Self-efficacy: Toward a unifying theory of behavioral change”, *Psychological Review*, Vol. 84 No. 2, pp. 191–215.
- Bandura, A. (1983), “Self-efficacy determinants of anticipated fears and calamities”, *Journal of Personality and Social Psychology*, Vol. 45 No 2, pp. 464-469.
- Bandura, A. (1986), “The explanatory and predictive scope of self-efficacy theory”, *Journal of Social and Clinical Psychology*, Vol. 4 No. 3, pp. 359–373.
- Bandura, A. and Adams, N.E. (1977), “Analysis of self-efficacy theory of behavioral change”, *Cognitive Therapy and Research*, Vol. 1 No. 4, pp. 287–310.
- Bellmann, L. and Hübler, O. (2020), “Working from home, job satisfaction and work–life balance – robust or heterogeneous links?”, *International Journal of Manpower*, Vol. 42 No. 3, pp. 424–441.
- Brown, I.T.J. (2002), “Individual and Technological Factors Affecting Perceived Ease of Use of Web-based Learning Technologies in a Developing Country”, *The Electronic Journal of Information Systems in Developing Countries*, Vol. 9 No. 1, pp. 1–15.

- Byrne, B.M. (2013), *Structural equation modeling with amos: Basic concepts, applications, and programming*, Routledge, New York, NY.
- Byrne, D. (1997), “An overview (and underview) of research and theory within the attraction paradigm”, *Journal of Social and Personal Relationships*, Vol. 14 No. 3, pp. 417–431.
- Califf, C.B., Sarker, S. and Sarker, S. (2020), “The bright and dark sides of technostress: A mixed-methods study involving healthcare IT”, *MIS Quarterly: Management Information Systems*, Vol. 44 No. 2, pp. 809–856.
- Carter, W.R., Nesbit, P.L., Badham, R.J., Parker, S.K. and Sung, L.K. (2018), “The effects of employee engagement and self-efficacy on job performance: a longitudinal field study”, *International Journal of Human Resource Management*, Vol. 29 No. 17, pp. 2483–2502.
- Chen, J.K.C. and Sriphon, T. (2021), “Perspective on COVID-19 pandemic factors impacting organizational leadership”, *Sustainability*, Vol. 13 No. 6, p. 3230.
- Choudhury, P., Foroughi, C. and Larson, B. (2021), “Work-from-anywhere: The productivity effects of geographic flexibility”, *Strategic Management Journal*, Vol. 42 No. 4, pp. 655–683.
- Clauss, E., Hoppe, A., Schachler, V. and O’Shea, D. (2021), “Occupational self-efficacy and work engagement as moderators in the stressor-detachment model”, *Work and Stress*, Vol. 35 No. 1, pp. 74–92.
- Danilova, K.B., Ulfsten, A., Eikebrokk, T.R., Iden, J., Johannessen, T.V. and Johanson, D. (2022), “Explaining individual job performance in work from home (WFH) arrangements”, *Information Technology & People*, ahead of print: <https://doi.org/10.1108/ITP-01-2021-0039>.

- Darouei, M. and Pluut, H. (2021), “Work from home today for a better tomorrow! How working from home influences work-family conflict and employees’ start of the next workday”, *Stress and Health*, Vol. 37 No. 5, pp. 986–999.
- De’, R., Pandey, N. and Pal, A. (2020), “Impact of digital surge during Covid-19 pandemic: A viewpoint on research and practice”, *International Journal of Information Management*, Vol. 55, p. 102171.
- Dirani, K.M., Abadi, M., Alizadeh, A., Barhate, B., Garza, R.C., Gunasekara, N., Ibrahim, G., *et al.* (2020), “Leadership competencies and the essential role of human resource development in times of crisis: a response to Covid-19 pandemic”, *Human Resource Development International*, Routledge, Vol. 23 No. 4, pp. 380–394.
- Donthu, N. and Gustafsson, A. (2020), “Effects of COVID-19 on business and research”, *Journal of Business Research*, Vol. 117 No. June, pp. 284–289.
- Eibl, B., Lang, F.R. and Niessen, C. (2020), “Employee voice at work: the role of employees’ gender, self-efficacy beliefs, and leadership”, *European Journal of Work and Organizational Psychology*, Vol. 29 No. 4, pp. 570–585.
- Errichiello, L. and Pianese, T. (2021), “The role of organizational support in effective remote work implementation in the post-COVID Era”, *Handbook of Research on Remote Work and Worker Well-Being in the Post-COVID-19 Era*, IGI Publications, pp. 221–242.
- Etehadi, B. and Karatepe, O.M. (2019), “The impact of job insecurity on critical hotel employee outcomes: The mediating role of self-efficacy”, *Journal of Hospitality Marketing and Management*, Vol. 28 No. 6, pp. 665–689.

- Fida, R., Paciello, M., Watson, D. and Nayani, R. (2022), “The protective role of work self-efficacy on wellbeing during COVID-19 pandemic: Results from a longitudinal year-long study”, *Personality and Individual Differences*, Vol. 197, p. 111760.
- Galanti, T., Guidetti, G., Mazzei, E., Zappalà, S. and Toscano, F. (2021), “Work from home during the COVID-19 outbreak: The impact on employees’ remote work productivity, engagement, and stress”, *Journal of Occupational and Environmental Medicine*, Vol. 63 No. 7, pp. E426–E432.
- Giorgi, G., Lecca, L.I., Alessio, F., Finstad, G.L., Bondanini, G., Lulli, L.G., Arcangeli, G., *et al.* (2020), “COVID-19-related mental health effects in the workplace: A narrative review”, *International Journal of Environmental Research and Public Health*, Vol. 17 No. 21, p. 7857.
- Gong, J., Sun, A. and Weic, Z. (2018), “Choosing the pond: On-the-job experience and long-run career outcomes”, *Management Science*, Vol. 64 No. 2, pp. 860–872.
- Gopalan, N., Pattusamy, M. and Goodman, S. (2022), “Family incivility and work-engagement: moderated mediation model of personal resources and family-work enrichment”, *Current Psychology*, Vol. 41, pp. 7350–7361.
- Gottlieb, C., Grobovšek, J., Poschke, M. and Saltiel, F. (2021), “Working from home in developing countries”, *European Economic Review*, Vol. 133, p. 103679.
- Hair, J.F., Black, W.C., Babin, B.J. and Anderson, R.E. (2009), *Multivariate data analysis*. Pearson Education Inc. Upper Saddle River, N.J.
- Hew, T.S. and Syed Abdul Kadir, S.L. (2016), “Understanding cloud-based VLE from the SDT and CET perspectives: Development and validation of a measurement instrument”, *Computers and Education*, Vol. 101, pp. 132–149.

- Holton, E.F., Bates, R.A. and Ruona, W.E.A. (2000), “Development of a generalized learning transfer system inventory”, *Human Resource Development Quarterly*, Vol. 11 No. 4, pp. 333–360.
- Hu, L.T. and Bentler, P.M. (1998), “Fit indices in covariance structure modeling: sensitivity to underparameterized model misspecification”, *Psychological Methods*, Vol. 3 No. 4, pp. 424–453.
- Ibrahim, S.N.H., Suan, C.L. and Karatepe, O.M. (2019), “The effects of supervisor support and self-efficacy on call center employees’ work engagement and quitting intentions”, *International Journal of Manpower*, Vol. 40 No. 4, pp. 688-703.
- Iqbal, K. and Dastgeer, G. (2017), “Impact of self-efficacy and retention on transfer of training”, *Journal of Management Development*, Vol. 36 No. 10, pp. 1270–1282.
- Islam, T. and Ahmed, I. (2018), “Mechanism between perceived organizational support and transfer of training: Explanatory role of self-efficacy and job satisfaction”, *Management Research Review*, Vol. 41 No. 3, pp. 296–313.
- Ju, Y., Park, S. and Lim, E. (2018), “Factors influencing preservice teachers’ intention to use technology : TPACK , Teacher Self-efficacy , and Technology Acceptance Model” *International Forum of Educational Technology & Society*, Vol. 21 No. 3, pp. 48–59.
- Kashive, N., Sharma, B. and Khanna, V.T. (2021), “Work from home: understanding boundary management profiles using boundary-fit perspective”, *International Journal of Organizational Analysis*, ahead of print: <https://doi.org/10.1108/IJOA-04-2021-2695>.
- Khan, A.N. (2021), “A diary study of psychological effects of misinformation and COVID-19 Threat on work engagement of working from home employees”, *Technological Forecasting and Social Change*, Vol. 171, p. 120968.

- Kong, M., Xu, H., Zhou, A. and Yuan, Y. (2019), “Implicit followership theory to employee creativity: The roles of leader-member exchange, self-efficacy and intrinsic motivation”, *Journal of Management and Organization*, Vol. 25 No. 1, pp. 81–95.
- Kumar, N., Alok, S. and Banerjee, S. (2022), “Personal attributes and job resources as determinants of amount of work done under work-from-home: empirical study of Indian white-collar employees”, *International Journal of Manpower*, ahead of print: <https://doi.org/10.1108/IJM-08-2021-0466>.
- Lathabhavan, R. (2020), “Psychological aspects of women’s career growth constraints and outcomes: A longitudinal study from India”, *Australian Journal of Career Development*, Vol. 29 No. 3, pp. 173–184.
- Lathabhavan, R., Aishwarya, S. and Daniel, J. (2021), “A study on the relationships between psychological contract and personal aspects among teachers in higher education institutions in India”, *International Journal of Services, Economics and Management*, Vol. 12 No. 3, pp. 211-227.
- Lathabhavan, R., Balasubramanian, S.A. and Natarajan, T. (2017), “A psychometric analysis of the Utrecht Work Engagement Scale in Indian banking sector”, *Industrial and Commercial Training*, Vol. 49 No. 6, pp. 296-302.
- Lathabhavan, R. and Sudevan, S. (2022), “The impacts of psychological distress on life satisfaction and wellbeing of the Indian general population during the first and second waves of COVID-19: A comparative study”, *International Journal of Mental Health and Addiction*, ahead of print: <https://doi.org/10.1007/s11469-021-00735-4>.

- Lathabhavan, R. and V, M. (2022), “Knowledge diffusion–application association during the COVID-19 pandemic: investigating the role of technology intervention”, *VINE Journal of Information and Knowledge Management Systems*, ahead of print: <https://doi.org/10.1108/VJKMS-04-2022-0136>.
- Lent, R.W. (2018), “Future of Work in the Digital World: Preparing for Instability and Opportunity”, *Career Development Quarterly*, Vol. 66 No. 3, pp. 205–219.
- Lesener, T., Gusy, B., Jochmann, A. and Wolter, C. (2020), “The drivers of work engagement: A meta-analytic review of longitudinal evidence”, *Work & Stress*, Vol. 34 No. 3, pp. 259–278.
- Ma, J., Ollier-Malaterre, A. and Lu, C. qin. (2021), “The impact of techno-stressors on work–life balance: The moderation of job self-efficacy and the mediation of emotional exhaustion”, *Computers in Human Behavior*, Vol. 122, p. 106811.
- Malureanu, A., Panisoara, G. and Lazar, I. (2021), “The relationship between self-confidence, self-efficacy, grit, usefulness, and ease of use of elearning platforms in corporate training during the covid-19 pandemic”, *Sustainability*, Vol. 13 No. 12, p. 6633.
- Mazzola, J.J. and Disselhorst, R. (2019), “Should we be ‘challenging’ employees?: A critical review and meta-analysis of the challenge-hindrancer model of stress”, *Journal of Organizational Behavior*, Vol. 40 No. 8, pp. 949–961.
- Mendoza Diaz, N. v., Barhate, B., Johnston, A. and Jabarkhail, S. (2020), “Career trajectories in a technology management-HRD programme”, *Human Resource Development International*, ahead of print: <https://doi.org/10.1080/13678868.2020.1852819>.

- Molino, M., Ingusci, E., Signore, F., Manuti, A., Giancaspro, M.L., Russo, V., Zito, M., *et al.* (2020), “Wellbeing costs of technology use during Covid-19 remote working: An investigation using the Italian translation of the Technostress Creators Scale”, *Sustainability*, Vol. 12 No. 15, p. 5911.
- Nadiv, R. (2021), “Home, work or both? The role of paradox mindset in a remote work environment during the COVID-19 pandemic”, *International Journal of Manpower*, Vol. 43 No. 5, pp. 1182-1203.
- Na-Nan, K. and Sanamthong, E. (2020), “Self-efficacy and employee job performance support, motivation to transfer and transfer”, *International Journal of Quality and Reliability Management*, Vol. 37 No. 1, pp. 1–17.
- Nunnally, J.C. (1994), *Psychometric theory*, Tata McGraw-Hill Education.
- Papagiannidis, S., Harris, J. and Morton, D. (2020), “WHO led the digital transformation of your company? A reflection of IT related challenges during the pandemic”, *International Journal of Information Management*, Vol. 55, p. 102166.
- Peechapol, C., Na-songkhla, J., Sujiva, S. and Luangsodsai, A. (2018), “An exploration of factors influencing self-efficacy in online learning: A systematic review”, *International Journal of Emerging Technologies in Learning*, Vol. 13 No. 9, pp. 64–86.
- Pianese, T., Errichiello, L. and da Cunha, J.V. (2022), “Organizational control in the context of remote working: A synthesis of empirical findings and a research agenda”, *European Management Review*, ahead of print: <https://doi.org/10.1111/emre.12515>.

- Rigotti, T., Schyns, B. and Mohr, G. (2008), “A short version of the occupational self-efficacy scale: Structural and construct validity across five countries”, *Journal of Career Assessment*, Vol. 16 No. 2, pp. 238–255.
- Solmi, M., Granzio, U., Danieli, A., Frasson, A., Meneghetti, L., Ferranti, R., Zordan, M., *et al.* (2020), “Predictors of stigma in a sample of mental health professionals: Network and moderator analysis on gender, years of experience, personality traits, and levels of burnout”, *European Psychiatry*, Vol. 63 No. 1, p. e4.
- Su, W., Lyu, B., Chen, H. and Zhang, Y. (2020), “How does servant leadership influence employees’ service innovative behavior? The roles of intrinsic motivation and identification with the leader”, *Baltic Journal of Management*, Vol. 15 No. 4, pp. 571–586.
- Tønnessen, Ø., Dhir, A. and Flåten, B.T. (2021), “Digital knowledge sharing and creative performance: Work from home during the COVID-19 pandemic”, *Technological Forecasting and Social Change*, Vol. 170, p. 120866.
- Tuan, L.T. (2022), “Employee mindfulness and proactive coping for technostress in the COVID-19 outbreak: The roles of regulatory foci, technostress, and job insecurity”, *Computers in Human Behavior*, Vol. 129, p.107148.
- Turulja, L. and Bajgoric, N. (2019), “Innovation, firms’ performance and environmental turbulence: is there a moderator or mediator?”, *European Journal of Innovation Management*, Vol. 22 No. 1, pp. 213–232.
- Vahdat, S. (2022), “The role of IT-based technologies on the management of human resources in the COVID-19 era”, *Kybernetes*, Vol. 51 No. 6, pp. 2065-2088.

Waizenegger, L., McKenna, B., Cai, W. and Bendz, T. (2020a), “An affordance perspective of team collaboration and enforced working from home during COVID-19”, *European Journal of Information Systems*, Vol. 29 No. 4, pp. 429–442.

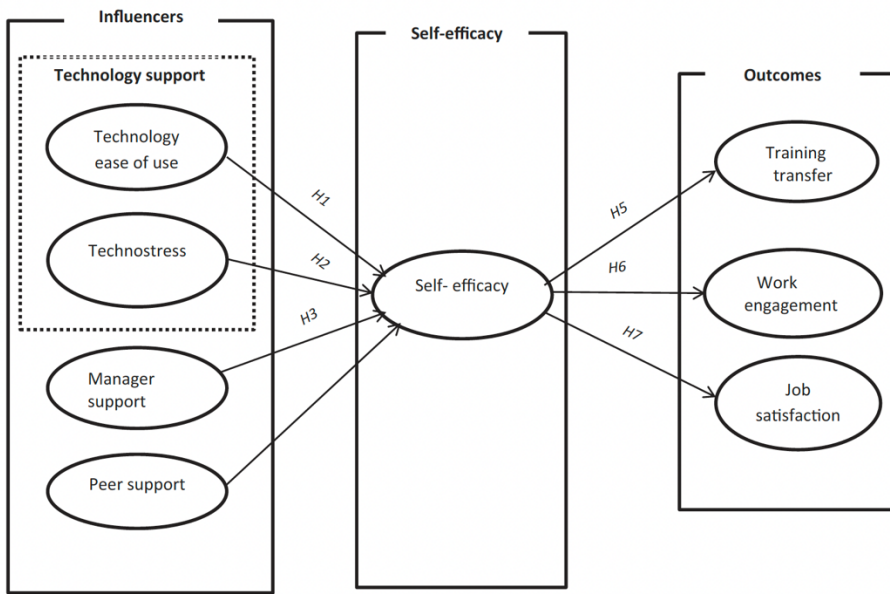
Waizenegger, L., McKenna, B., Cai, W. and Bendz, T. (2020b), “An affordance perspective of team collaboration and enforced working from home during COVID-19”, *European Journal of Information Systems*, Vol. 29 No. 4, pp. 429–442.

Xiao, J. (1996), “The relationship between organizational factors and the transfer of training in the electronics industry in Shenzhen, China”, *Human Resource Development Quarterly*, Vol. 7 No. 1, pp. 55–73.

Yadav, A. and Dhar, R.L. (2021), “Linking frontline hotel employees’ job crafting to service recovery performance: The roles of harmonious passion, promotion focus, hotel work experience, and gender”, *Journal of Hospitality and Tourism Management*, Vol. 47, pp. 485–495.

Yaghi, A. and Bates, R. (2020), “The role of supervisor and peer support in training transfer in institutions of higher education”, *International Journal of Training and Development*, Vol. 24 No. 2, pp. 89–104.

Zheng, W. (2020), “5 strategies to support your Employees through a crisis”, *Harvard Business Review*, October 6. <https://hbr.org/2020/10/5-strategies-to-support-your-employees-through-a-crisis>



Antecedents and
job outcomes
among
professionals

Figure 1.
Research model

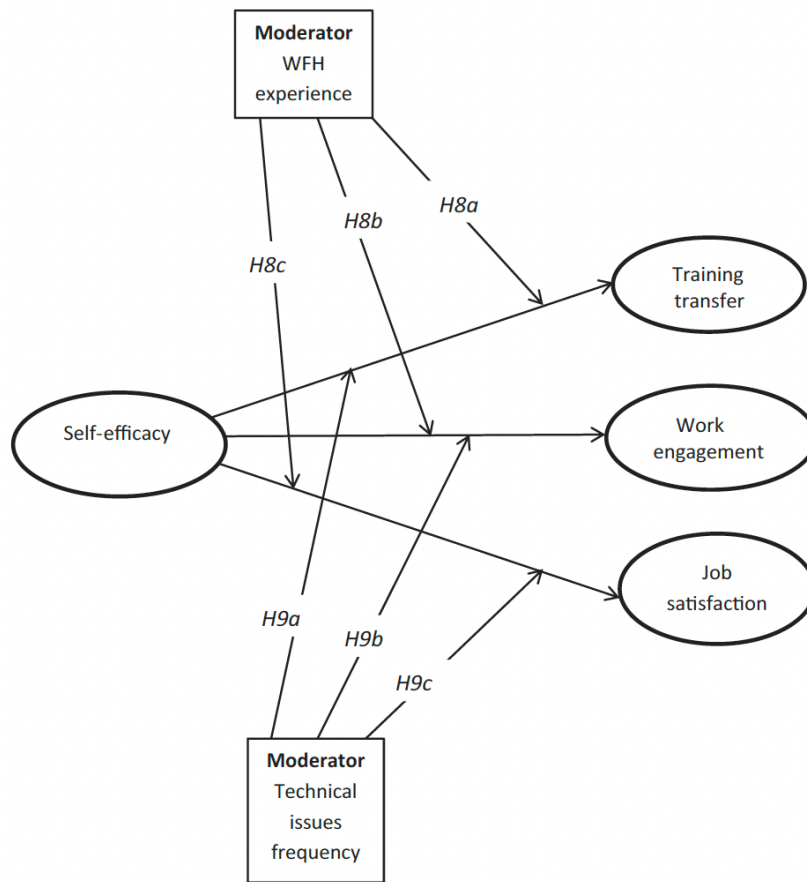


Figure 2.
 Research model 2:
 hypothetical model
 with WFH experience
 and Technical issues
 frequency as
 moderators

Note(s): WFH Experience :Work From Home Experience (in months);
 Technical issues frequency: Technical issues (power and internet) in a month

Construct	Items	Mean	SD	Loadings	CR	AVE	MSV
Technology ease of use (TEU)	TEU1	4.39	0.99	0.88	0.87	0.61	0.08
	TEU2	4.65	0.87	0.91			
	TEU3	4.13	0.88	0.68			
	TEU4	4.42	0.92	0.84			
Technostress (TS)	TS1	4.33	0.94	0.87	0.86	0.67	0.18
	TS2	3.42	1.03	0.77			
	TS3	4.53	0.85	0.87			
	TS4	4.21	0.86	0.92			
	TS5	3.21	0.91	0.78			
	TS6	4.78	0.88	0.88			
	TS7	4.99	0.89	0.76			
	TS8	4.88	0.78	0.91			
	TS9	4.22	1.03	0.88			
	TS10	4.11	0.89	0.89			
	TS11	3.98	1.12	0.77			
Supervisory support (SS)	SS1	4.98	1.21	0.81	0.89	0.66	0.10
	SS2	5.23	1.24	0.86			
	SS3	5.34	1.27	0.85			
	SS4	5.21	1.31	0.93			
	SS5	5.32	0.99	0.66			
	SS6	4.88	1.03	0.62			
Peer support (PS)	PS1	4.44	1.10	0.94	0.86	0.69	0.08
	PS2	4.37	1.13	0.90			
	PS3	4.63	1.04	0.80			
	PS4	4.66	1.05	0.83			
Self-efficacy (SE)	SE1	5.34	0.83	0.87	0.89	0.71	0.09
	SE2	5.37	0.92	0.78			
	SE3	5.22	0.97	0.76			
	SE4	5.67	0.90	0.72			
Training transfer (TT)	TT1	4.23	0.73	0.86	0.82	0.54	0.12
	TT2	4.22	0.89	0.76			
	TT3	4.14	1.25	0.90			
	TT4	4.35	0.77	0.89			
	TT5	4.22	0.86	0.89			
	TT6	4.34	0.99	0.93			
Work engagement (WE)	WE1	4.33	1.12	0.92	0.92	0.82	0.08
	WE2	4.71	1.24	0.84			
	WE3	4.22	1.11	0.83			
	WE4	4.34	1.31	0.92			
	WE5	4.67	1.36	0.83			
	WE6	4.55	1.27	0.86			
	WE7	4.33	1.21	0.72			
	WE8	4.21	1.27	0.91			
	WE9	4.34	1.21	0.76			
Job satisfaction (JS)	JS1	5.67	0.99	0.87	0.86	0.62	0.18
	JS2	5.56	0.87	0.85			
	JS3	5.44	0.86	0.79			
	JS4	5.31	0.91	0.88			

Table 1.
Measurement model
results

	1	2	3	4	5	6	7	8
1.Technology ease of use	0.78							
2.Technostress	-0.44	0.81						
3.Manager support	0.47	-0.31	0.81					
4.Peer support	0.22	-0.12	0.17	0.83				
5.Self-efficacy	0.35	-0.11	0.19	0.20	0.84			
6.Training transfer	0.31	-0.32	0.23	0.19	0.34	0.73		
7.Work engagement	0.27	-0.21	0.18	0.24	0.36	0.15	0.90	
8.Job satisfaction	0.26	-0.35	0.22	0.21	0.29	0.18	0.27	0.79

Note(s): The diagonals value represents $\sqrt{\text{AVE}}$

Table 2.
Descriptive statistics
of measures

Hypotheses	Endogenous construct	Exogenous construct	Model 1 Coefficients	Model 2 Coefficients
H1	Self-efficacy	Technology ease of use	0.278***	
H2	Self-efficacy	Technostress	-0.174**	
H3	Self-efficacy	Manager support	0.214*	
H4	Self-efficacy	Peer support	0.321**	
H5	Training transfer	Self-efficacy	0.182***	
H6	Work engagement	Self-efficacy	0.221***	
H7	Job satisfaction	Self-efficacy	0.197***	
H8a	Training transfer	Self-efficacy × WFH exp		0.224*
H8b	Work engagement	Self-efficacy × WFH exp		0.215*
H8c	Job satisfaction	Self-efficacy × WFH exp		0.114*
H9a	Training transfer	Self-efficacy × Tech. issues freq		-0.174***
H9b	Work engagement	Self-efficacy × Tech. issues freq		-0.215*
H9c	Job satisfaction	Self-efficacy × Tech. issues freq		-0.379***

Note(s): * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3.
Hypotheses testing
results

Figure 3.
Interaction effect of
Self-efficacy × WFH
experience on Training
Transfer

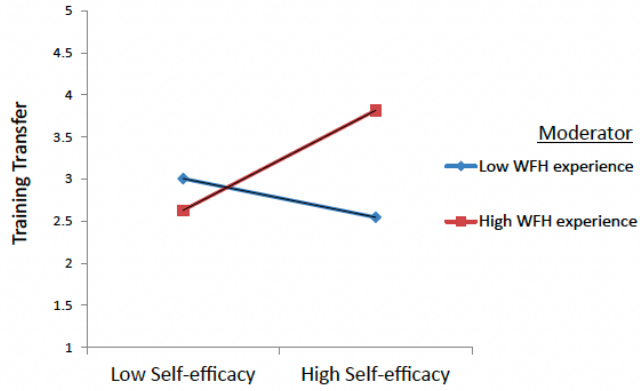


Figure 4.
Interaction effect of
Self-efficacy × WFH
experience on Work
Engagement

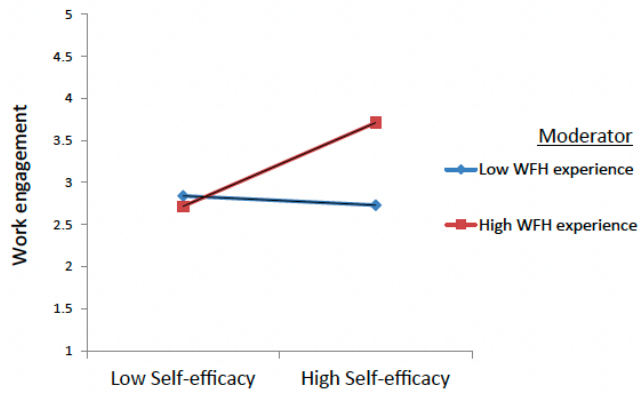
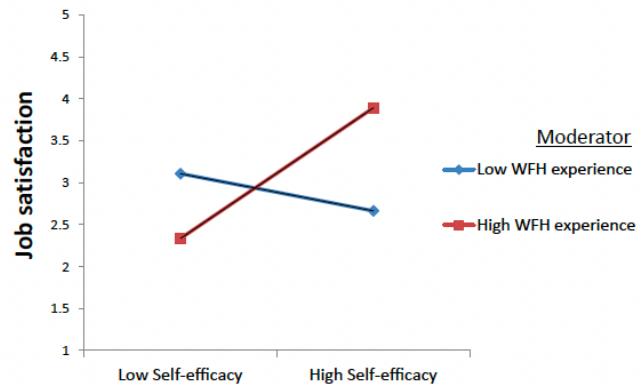


Figure 5.
Interaction effect of
Self-efficacy × WFH
experience on Job
satisfaction



Antecedents and job outcomes among professionals

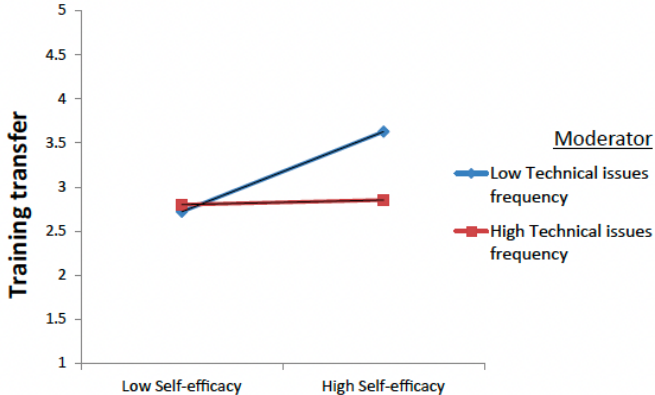


Figure 6. Interaction effect of Self-efficacy × technical issues frequency on training transfer

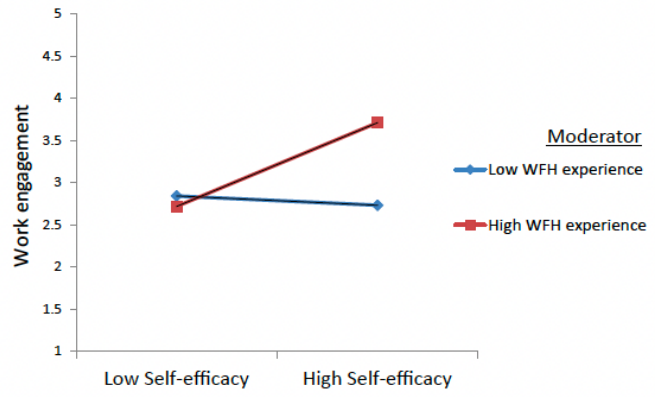


Figure 7. Interaction effect of Self-efficacy × technical issues frequency on work engagement

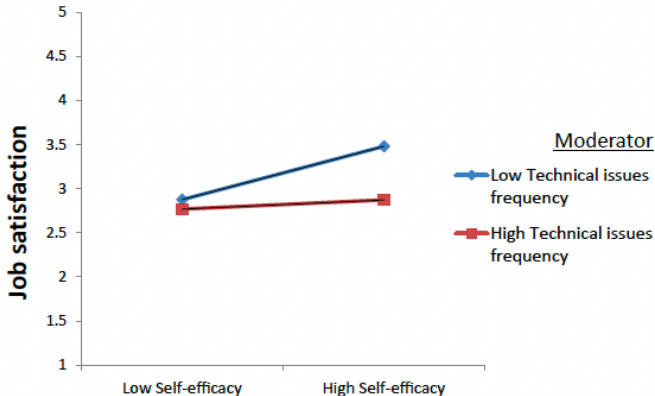


Figure 8. Interaction effect of Self-efficacy × technical issues frequency on job satisfaction