The Interplay of digitalization, organizational support, workforce agility and task performance in a blended working environment: evidence from Indian public sector organizations

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Abstract
Dynamic changes in business environment due to unforeseen factors such as COVID-19 pandemic may pose a threat to business continuity of an organization and challenge traditional ways of working. Blended working arrangement could be a possible alternative under such situations. This study examines the role of perceived usefulness of digitalization (PUD), workforce agility (WA) and perceived organizational support (POS) in task performance (TPBW) and explains the underlying process. Survey results of 201 managers of Indian public section organizations show that PUD, WA and TPBW are positively related to each other. However, POS neither plays a direct nor a moderating role in their relationships. WA partially mediates the relationship of PUD and TPBW. Theoretical contributions and managerial implications have been discussed.

Keywords  Agility · COVID-19 · Organizational support · Digitalization · Performance

Introduction
Blended working (BW) i.e. working both from home (WFH) as well as office / actual work location, has been practised by organizations operating in information technology-enabled services for a long time (Van Yperen & Wörtler, 2017; Van Yperen et al., 2014; Wörtler et al., 2020). Contrarily, many large organizations including the public sector and state-owned organizations have been primarily following the practice of work from an office (WFO). However, the lockdown decision by respective
national and provincial governments because of the coronavirus (COVID-19) pandemic forced such organizations to explore an alternate work arrangement to WFO. Against this backdrop, the BW arrangement was implemented for the first time by many of these organizations (Wörtler et al., 2020).

BW arrangement has been a unique experience for many organizations and their employees as it was implemented for the first time during 2020. Due to the newness of this system and challenges posed by a dynamic business environment because of COVID-19, maintaining business continuity may be a challenge for the organization. Under such conditions, it is important to understand employees’ performance behaviours and their drivers which have not been sufficiently covered in the extant literature on BW (e.g. Van Yperen & Wörtler, 2017; Van Yperen et al., 2014; Wörtler et al., 2020).

Certain other work arrangements such as telecommuting, teleworking and remote working are also referred to as alternate work arrangements (e.g. Allen et al., 2015; Ansong et al., 2017; Sullivan, 2003, 2012). However, these forms of work arrangements are slightly different from BW as they primarily emphasize remote working such as WFH (Allen et al., 2015) and not so much on WFO. Therefore, the current investigation assumes even more significance due to the uniqueness of the context.

BW involves shuffling between WFO and WFH. Therefore, providing seamless access to essential official records, documents and information by organizations to their employees may become crucial for effective working. Organizations may do so by undertaking suitable digitalization initiatives. Digitalization is a socio-technical process for exploiting digitization potentials to achieve the operational and strategic objectives of the organization (Strohmeier, 2020). This could be in the form of digitization of documents, allowing access to and use of these documents from home, submitting and seeking online approval of any activities and project work including proposals (through email or any other online tool), conducting official meetings in online mode, recording and approving their minutes, promoting online capability development programmes instead of physical training and workshops etc.

Although digitalization may enhance productivity (Vuori et al., 2019), however, using the unified theory of acceptance and use of technology (UTAUT) (Venkatesh et al., 2003), it may also be argued that this might be possible only when employees perceive these initiatives as useful and relevant. Digitalization initiatives may act as enablers or hindrances in task performance (Vuori et al., 2019) depending upon their perceived usefulness. This linkage between the perceived usefulness of digitalization (PUD) and task performance during BW (TPBW) arrangement, although relevant, has not been sufficiently examined in the case of the BW environment. The current empirical study investigates these missing links and attempts to bridge the gap in our understanding.

A volatile, uncertain, complex and ambiguous (VUCA) environment (Bennett & Lemoine, 2014) like the ones created due to the COVID-19 pandemic, may require employees to make additional efforts for adjusting to new job requirements. One of the important behaviours that may play a significant role in adapting effectively to such environments is workforce agility (WA) (Abrishamkar et al., 2021; Sherehiy & Karwowski, 2014). It helps in effectively dealing with unpredictable situations and non-routine job demands (Abrishamkar et al., 2021).
WA signifies an ability to respond to change (Zhang & Sharifi, 2000), an attitude of being comfortable with change (Plonka, 1997) and a combination of proactive, adaptive and resilient behaviour (Sherehiy & Karwowski, 2014). This may also affect employees’ job performance and encourage innovative behaviour (Franco & Landini, 2022). Although this aspect has been widely studied in information technology and related industry, not sufficient understanding is available regarding its role in the public sector context more so during a BW arrangement.

Better job performance during a VUCA environment may require enablers from the organization as well. Organizational support is one such enabler (e.g. Caesens et al., 2016; Eisenberger et al., 2001). Perceived organizational support (POS) indicates employees’ beliefs about the extent to which their organization cares about their well-being and values their contributions (Eisenberger et al., 1986). It is considered as an outcome of an effective social exchange process and is based on the principles of reciprocity. It not only improves work engagement (Caesens et al., 2016) but also raises employees’ affective commitment (e.g. Eisenberger et al., 2001). When POS is high, employees are likely to make more efforts towards performing roles and jobs that are expected by their organizations. There are multiple factors influencing POS. For example, abusive supervision may be considered as an indication of low POS and can lead to poor employees’ performance (Chen et al., 2021). Although POS has a mixed effect on performance during normal times (e.g. McDonald & Siegall, 2012; Stamper & Johlke, 2003), very little is known regarding its nature of effect i.e. direct or moderating on task performance in a blended working environment.

Synthesizing the above-mentioned research gaps and acknowledging their relevance, the present study investigates the interplay of perceived usefulness of digitalization (PUD), perceived organizational support (POS), workforce agility (WA) and task performance during blended working (TPBW) using a unified theory of acceptance and use of technology (UTAUT) (Venkatesh et al., 2003) and social exchange theory (Blau, 1964). This study aims to explain the factors, both personal (e.g. agility) and organizational (e.g. digitalization and organizational support) and conditions that may contribute to effective task performance under a non-traditional work arrangement such as BW. As there is limited understanding of the aforementioned relationships, it is even more relevant considering the mixed findings related to the effectiveness of BW arrangement for the organization (e.g. Rice, 2017; Wörtler et al., 2020). The study may also provide an insight into the effects of organizational support systems and digitalization initiatives in the whole process. These findings may help employees and organizations, who had never experimented with BW previously, to devise ways and means to ensure sustained performance even during VUCA times similar to what the whole world is currently experiencing. Additionally, the linkages with WA may be useful for organizations in managing similar changes in future as well without negatively affecting the performance. These findings are likely to have an impact on policy framing related to BW arrangement, particularly in a public sector context.
Theory and hypotheses

The unified theory of acceptance and use of technology (UTAUT)

Technology and innovation plays a crucial role in explaining the competitive potential of firms (Giroud & Tucci, 2012). However, the implementation of technological innovation is not easy. Successful implementation of any technological initiative depends on its acceptance by the users (Davis et al., 1989). Accordingly, these users show pro- or counter- organization behaviours while working. However, this acceptance may depend on multiple factors (Venkatesh et al., 2003). UTAUT (Venkatesh et al., 2003) provides a framework through which one can understand the intention of users to use any new technological intervention/information system (such as digitalization) while performing their job. The theory states that performance expectancy (PE), effort expectancy (EE) and social influence affect intention to use any technology and consequently promote its actual use. Facilitating conditions directly influence the use of such technologies. These relationships are moderated by age, gender, work experience and voluntariness to use the technology.

PE indicates “the degree to which an individual believes that the system helps to improve job performance” (Venkatesh et al., 2003). When PE is high, the individuals might view the new initiative/technology as useful for their work. PE is a good indicator of the perceived usefulness of technology (Wu et al., 2012). Therefore, in the current study, PUD has been synonymously used for PE. PE was introduced in the UTAUT model by considering the perceived usefulness of technology (Venkatesh et al., 2003). Facilitating conditions is another important variable in UTAUT and indicates the extent to which resources required to enable the use of the intended technology or systems are available to the users. These resources are primarily provided by the organization. In our study, organizational support has been assumed as one of such facilitating conditions.

The social exchange theory

Social exchange theory (Blau, 1964) highlights that individuals engage in a certain interaction expecting that there would be similar reciprocal behaviour by the other entity (an organization or an individual). These social interactions (or exchanges) are also aimed at maximizing benefits and minimizing costs, both tangible and intangible forms. These social interactions may involve a series of exchanges depending upon the reciprocal behaviours and may result in some sort of obligations (Cropanzano & Mitchell, 2005).

Perceived organizational support (POS) indicates employees’ perception about the extent to which their respective organizations value their contributions and care for their well-being. This perception is developed based on a series of past incidences and experiences (Eisenberger et al., 1986). Employees tend to reciprocate in the form of favourable dispositions towards the organization when they have high POS (Kurtessis et al., 2017). This reciprocal behaviour has been explained by the
The Interplay of digitalization, organizational support, social exchange theory. In the current study, the same has been used to explain the role of POS on WA and TPBW.

**Relationship between perceived usefulness of digitalization, workforce agility and task performance during blended working**

Information technology helps in integrating the works that are spatially distributed in the form of WFO and WFH in a BW arrangement. Digitalization is one such technological initiative that enables seamless access to work-related information and records to employees, facilitate project and activity approval processes in an online mode and promote virtual interactions as explained earlier. Many organizations, particularly those having no or limited experience of WFH arrangement, had to accelerate such digitalization drives as a response to sudden lockdowns in 2020 due to the COVID-19 pandemic (McKinsey, 2020). The experience of the past 1 year shows that many organizations are now promoting a digitalized mode of communication and business processes that could not be imagined in the pre-COVID era and have implemented BW arrangements.

Multiple factors act as enablers for workforce agility such as management practices promoting teamwork and learning, training (Muduli, 2016) and knowledge sharing (Almahamid, 2018). An effective communication system also has a positive effect on workforce agility (Bunton, 2017). Digitalization may help in making the communication system open and more collaborative (Strohmeier, 2020). Having an open and collaborative system becomes even more important in situations when employees are expected to work in a BW arrangement. This may help them to be comfortable with the change (Plonka, 1997) and accordingly manage change (Zhang & Sharifi, 2000). These attributes are reflective of employees’ higher agility (Sherehiy & Karwowski, 2014). When they perceive digitalization as helping them in managing their jobs in a changing business environment (Abrishamkar et al., 2021), they tend to display agile behaviour. In fact, digital self-efficacy helps in improving employees’ agility (Maran et al., 2022). Lucas and Goh (2009) also emphasized the positive role of digitalization in promoting agility in organizations. Once this is experienced, they are more likely to perform their jobs effectively. Therefore, the following hypothesis has been provided:

**Hypothesis 1** Perceived usefulness of digitalization (PUD) will be positively related to workforce agility (WA).

Although BW was a new work setup for many organizations, still a higher level of performance is expected out of their employees, more so when the business environment becomes (and continues to remain) very competitive, complex and volatile (Cognizant, 2020). Under such unusual work conditions, employees showing a higher level of adaptation and proactivity may be more likely to manage their work (Bennett & Lemoine, 2014). This type of behaviour is indicative of workforce agility (Dyer & Shafer, 2003). These behaviours may play a significant role during uncertain times as it encourages them to explore possible solutions (Menon & Suresh,
Agility capabilities have been found to have a positive effect on business performance (Abrishamkar et al., 2021; Al-kasasbeh et al., 2016; Vazquez-Bustelo et al., 2007). Employees’ performance plays a significant role in business performance, and therefore, it may be argued that workforce agility may also affect task performance even during a BW arrangement.

Sherehiy and Karwowski (2014) found that workforce agility improves the potential for acquiring new skills that may be required for the job. When employees have more skills, they are more likely to manage their work with fewer efforts (i.e. performance effort may be low). In presence of required skills as enablers, such employees may also experience high-performance expectancy. This, according to UTAUT, may then result in higher task performance during BW arrangement. Thus, based on the above arguments and theoretical support, the following hypotheses are made:

**Hypothesis 2** Workforce agility (WA) will be positively related to task performance during blended working (TPBW).

Perceived usefulness of technology (PUD) is an important constituent of performance expectancy according to UTAUT (Venkatesh et al., 2003). It has a positive effect on task performance (Davis et al., 1989). Thus, when individuals perceive technology useful in carrying out their day to day jobs, they are more likely to make efforts to perform jobs dependent on such technologies (Sherifi, 2018). The empirical evidence about the relationship between perceived usefulness of technology and performance is mainly from either WFH (e.g. remote working) or WFO arrangement but the same in the case of BW arrangement is still unexamined (as could be understood based on various references provided in Sherifi, 2018). However, drawing an analogy from earlier works (e.g. Sherifi, 2018; Venkatesh et al., 2003) it may also be posited that the perceived usefulness of digitalization (a technology) (PUD) could also have a positive effect on task performance during a blended work arrangement (TPBW). This is also supported by UTAUT.

**Hypothesis 3** Perceived usefulness of digitalization (PUD) will be positively related to task performance during blended working (TPBW).

The perceived usefulness of technology has a positive effect on task performance (Venkatesh et al., 2003). Similarly, Breu et al. (2002) found that information and communications technology applications enhance workforce agility mainly when used for collaborative working. Digitalization, as a technological initiative, provides quicker access to information required for doing work by employees. It also expedites the learning process through open and collaborative platforms. As a part of their digitalization drive for capability development, many organizations also implemented e-learning system for their employees during the COVID-19 period (Adedoyin & Soykan, 2020). These all initiatives taken together may help in faster knowledge acquisition and sharing. These features of digitalization may accordingly help employees to adapt and respond quickly to the emerging job requirements, thereby promoting more agile responses in their work. Past studies have also found
The Interplay of digitalization, organizational support, learning (Muduli, 2016) and knowledge sharing (Almahamid, 2018) play an important role in workforce agility.

Based on UTAUT it may be stated that PUD may result in enhanced task performance even in a normal work environment. However, in the case of a highly volatile and ambiguous operating environment (as witnessed during the COVID-19 pandemic), employees are expected to quickly adapt and respond to emerging job requirements indicating that they should show higher agility during such times (Muduli, 2016, 2017). A BW arrangement may not only take care of the ‘business as usual scenario’ (in the form of WFO) but is also based on the assumption that employees would be equally effective in managing their ‘new and emerging job demands’ when doing WFH. Thus, an agile workforce is required for better performance under such settings (Abrishamkar et al., 2021). When useful technologies are extended to employees in such VUCA working conditions, this may help them to respond with agility leading to better task performance (Al-kasasbeh et al., 2016). Thus, PUD may be posited to influence TPBW both directly as well as indirectly through WA. Based on the above arguments and supportive evidence, WA may be posited to act as an intermediate process through which PUD might be influencing task performance even in the blended work environment. Accordingly, the following hypothesis is provided:

**Hypothesis 4** Workforce agility (WA) will mediate the relationship between perceived usefulness of digitalization (PUD) and task performance during blended working (TPBW).

### Role of perceived organizational support (POS)

Many employees had to initially make more efforts to adjust to BW due to the newness of this work design. They were facing challenges in managing their new job requirements. During the initial period of COVID-19, employees and organizations perceived the situation as highly complex filled with uncertainty, volatility and ambiguity. Under such unfamiliar contexts, employees have to make more efforts and may require additional support from their organization for smoothly performing their work. Perceived organizational support may play an important role in managing the new work requirements in this kind of setup (e.g. Kurtessis et al., 2017).

Facilitating conditions is an important variable in the UTAUT model and directly affects the use of any new technology or system. These conditions indicate the extent to which resources required to enable the use of the intended technology or systems are available to the users. Implementation of a new system (such as blended working) may be stressful for employees (Wörtler et al., 2020). However, if employees perceive organizational support during this challenging time, they may perform their job effectively as inferred from social exchange theory. Thus, organizational support, according to UTAUT, may act as a facilitating condition promoting adoption and use of digitalization and displaying an agile behaviour while managing their jobs. Therefore, POS could also play a positive role in TPBW and WA by amplifying (i.e. positively moderating) the application of digitalization.
POS refers to employees’ beliefs about the extent to which their organization cares about their well-being and values their contributions (Eisenberger et al., 1986). It improves work engagement (Caesens et al., 2016), raises employees’ affective commitment (e.g. Eisenberger et al., 2001; Kurtessis et al., 2017) and helps in the fulfilment of socio-emotional needs (Kurtessis et al., 2017). Employees with higher POS are likely to put more effort towards the management of new job demands as expected by their organizations. These employees are likely to show a higher level of agility when the working environment is very complex and dynamic, as in the case of COVID-19. This is because when there is a high POS; employees are also likely to show a high level of social exchange with their organization. Thus, they may display pro-organization reciprocal behaviour in the form of their keenness to adjust to the new job requirements and put more effort into effective job performance (Eisenberger et al., 2020). According to social exchange theory, such behaviours are also a reflection of their obligation towards the organization that has supported them in difficult times.

POS helps in enhancing the self-efficacy of employees, thereby encouraging them to be more involved (i.e. make more efforts) in managing the job demands (Eisenberger & Stinglhamber, 2011). Previous studies indicate that self-efficacy improves workforce agility (Muduli, 2017). Therefore, based on these findings, it may be argued that employees with high POS are likely to be more agile and better job performers. Management support, a form of organizational support, plays an important role in enhancing workforce agility (Menon & Suresh, 2020).

Employees with higher POS also display creative behaviour (Zhang et al., 2016) meaning that they may be confident of exploring new systems (such as digitalization initiatives) more than others having a low POS. Thus, they may show more agility and are likely to accept digitalization initiatives (Baran et al., 2012) for job performance. Past studies also suggest a positive effect of POS on job performance (Chen et al., 2009; Kurtessis et al., 2017; Shoss et al., 2013). POS also moderates the relationship between work stressors and role-based performance (Wallace et al., 2009). Using the aforementioned arguments and theoretical support from UTAUT & social exchange theory, the following relationships are proposed:

**Hypothesis 5** POS will moderate the positive relationship of PUD and WA such that the relationship will be stronger under high POS than under low POS.

**Hypothesis 6** POS will moderate the positive relationship of PUD and TPBW such that the relationship will be stronger under high POS than under low POS.

**Methods**

**Sampling and data collection process**

The study was conducted on managers working in Indian public sector enterprises (PSEs) who were exposed to BW arrangements for the first time. Indian PSEs are primarily government-owned enterprises and play a critical role in the
Indian economy, more so during emergencies such as the COVID-19 pandemic. Therefore, the proposed study is highly relevant to the chosen context. A self-administered survey questionnaire was used to collect responses from managers working in PSEs. Personal contacts were used to approach employees of these organizations for participating in the study and request them for encouraging their other colleagues to do the same as well. A survey link created in google forms was sent to more than 850 managers working in these organizations with a request to further share it with other employees (only managers) of their organizations. Data collection was undertaken when employees were working under BW arrangement for the initial period and this work setting was relatively new for them. There was no financial incentive for participating in this survey. Participation and identity disclosure was optional in this survey. Finally, 219 responses were obtained and 201 samples were used for further analysis after screening for large scale missing values. This study is a part of the larger research project on blended working.

The final sample consisted of 22.4% females and 77.6% males. The average age of respondents was 35.67 years (SD=9.16) with an average work experience in the organization of 10.74 years (SD=8.07). In the finally selected sample, there were 52.7% as junior managers, 45.3% as middle managers and 2% as senior managers.

Measures

Perceived usefulness of digitalization (PUD) was measured using an adapted 5-item scale of perceived usefulness of technology (Davis, 1989). A sample item included “Using digitalization initiatives taken by my organization in my job would enable me to accomplish tasks more quickly”. Responses were rated on a Likert scale of 1 to 7 (1 = strongly disagree to 7 = strongly agree). Cronbach’s alpha for the scale was 0.94.

Workforce agility (WA) was measured using a 7-item scale (Muduli, 2017). A sample item included “I am comfortable with change, new ideas, and new technologies in my organization”. Responses were obtained on a Likert scale of 1 to 3 (1 = low, 2 = medium, 3 = high). Cronbach’s alpha for the scale was 0.77.

Task performance during blended working (TPBW) was measured using the 4-item task performance subscale of the Individual Work Performance Questionnaire (IWPQ) (Koopmans et al., 2014). A sample item included “Ever since blended working (i.e. work from home plus work from office/site) was started by my organization, I managed to plan my work so that it was done on time”. Responses were rated on a Likert scale of 0 to 4 (0 = strongly disagree, 4 = strongly agree). Cronbach’s alpha for the scale was 0.84.

Perceived organizational support (POS) was measured using an 8-item scale (Eisenberger et al., 1986, 1997). A sample item included “Help is available from my organization when I have a problem”. Responses were obtained on a Likert scale of 1 to 7 (1 = strongly disagree to 7 = strongly agree). One item was dropped due to poor loading. Cronbach’s alpha for the scale was 0.88.
Control variables

The UTAUT considers age, gender and experience as some of the important moderators of the acceptance and use of technology. Accordingly, age, work experience and gender were included as control variables in the study.

Validity and reliability of measures

Reliability was assessed using Cronbach’s alpha. These values were more than 0.70 for each of the four study variables suggesting their sufficient reliability. A confirmatory factor analysis (CFA) with four main latent variables used in the study (refer to Fig. 1) was performed to assess convergent validity.

As mentioned in Fig. 1, the four constructs used in the study had adequate indicator loadings. Also, the goodness-of-fit indices for the measurement model were in sync with the popularly recommended criteria i.e. $\chi^2 (219) = 345.46$, $p < 0.001$, TLI = 0.94, CFI = 0.95, RMSEA = 0.054, SRMR = 0.060, suggesting adequate convergent validity (Hu & Bentler, 1999). Each of the four study constructs also had adequate convergent validity as shown in Table 1.

![Fig. 1 CFA of 4-Factor model, Standardized loadings. Note: $n = 201$; PUD perceived usefulness of digitalization, WA workforce agility, POS perceived organizational support, TPBW task performance during blended working. Standardized estimates including indicator loadings shown. D1 to D5, A1 to A7, OS1 to OS7 and Ch1 to P1 to P4 refers to corresponding indicators of PUD, WA, POS and TPBW, respectively. $\chi^2 (219) = 345.46$, $p < 0.001$, TLI 0.94, CFI 0.95, RMSEA 0.054, SRMR 0.060]
Table 1  CFA analysis results for study constructs

| Construct | $\chi^2$ | TLI | CFI | RMSEA | SRMR |
|-----------|---------|-----|-----|-------|------|
| POS       | $\chi^2 (12)=22.33, p=0.034$ | 0.98 | 0.98 | 0.066 | 0.030 |
| PUD       | $\chi^2 (5)=9.94, p=0.077$ | 0.99 | 0.99 | 0.070 | 0.014 |
| WA        | $\chi^2 (11)=19.41, p=0.054$ | 0.95 | 0.97 | 0.062 | 0.037 |
| TPBW      | $\chi^2 (2)=1.999, p=0.368$ | 1.00 | 1.00 | 0.000 | 0.015 |

Table 2  Means, standard deviations, reliabilities and correlations of the study variables

| Variable | Mean | SD  | CR  | 1   | 2   | 3   | 4   | 5   | 6   | 7   |
|----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1. Age   | 35.67| 9.16|     |     |     |     |     |     |     |     |
| 2. Gender| 1.78 |     |     | .057|     |     |     |     |     |     |
| 3. Exp   | 10.74| 8.07| .846**| -.065|     |     |     |     |     |     |
| 4. PUD   | 5.94 | 1.01| .89 | .191**| -.004| .188**| (0.867)|     |     |     |
| 5. WA    | 2.60 | 0.36| .94 | .166* | .217**| .112 | .358**| (0.584)|     |     |
| 6. POS   | 5.07 | 1.25| .78 | .228**| -.049| .233**| .307**| .145*| (0.738)|     |
| 7. TPBW  | 3.22 | 0.76| .82 | .104 | .036 | .151*| .338**| .279**| .132 | (0.732)|

n = 201

$PUD$ perceived usefulness of digitalization, $WA$ workforce agility, $POS$ perceived organizational support, $TPBW$ task performance during blended working.

Common-method bias and assessment of alternate models

Common-method bias is generally encountered in behavioural science studies. Although certain guidelines recommended by Podsakoff et al. (2003) were followed while preparing and administering the questionnaire, still, presence of the same may not be completely ruled out. Therefore, to estimate the extent of this effect, two methods were applied. Initially, Harman’s single-factor test was conducted to know the largest variance of a single factor. The variance explained by the single factor was 26.94% in this study. Secondly, a comparison of the proposed four-factor model was done with possible alternate models using a Chi-square test to shortlist the best
fitting model. The results provided in Table 3 indicate that the proposed model is the best fitting model based on various criteria (Hu & Bentler, 1999) and Chi-square test results. These results also suggest adequate discriminant validity of the constructs being studied and there is no major issue of common-method variance in this study. This approach has also been used in a recently published paper (Kim et al., 2021).

**Data analysis and results**

After assessment of reliability and validity of measurement scales and examining common-method bias, suitable analytical techniques were applied to test various hypotheses involving direct, mediation and moderation effects. The summated score of all four study variables was calculated and used for further analysis.

For example, multiple linear regression analysis was used to test hypotheses 1 to 3. Model no. 4 of the PROCESS macro of SPSS (Hayes, 2013) was used to test hypothesis 4, while model no. 1 was used for evaluating the moderation effect namely hypotheses H5 and H6. Gender, age and work experience were included as covariates (control variables) in the model. These analyses results are provided in Table 4.

The study found a positive and significant relationship of PUD with WA ($B=0.122$, $\beta=0.340$, $p<0.001$) (H1) and TPBW ($B=0.244$, $\beta=0.325$, $p<0.001$) (H3). This relationship was also positive and significant ($B=0.585$, $\beta=0.280$, $p<0.001$) in the case of WA and TPBW as hypothesized (H2). The indirect effect of PUD on TPBW through WA was 0.048 (95% BootLLCI=0.011, 95% BootULCI=0.094), thus, highlighting partial mediation by WA and supporting the hypothesis (H4).

The moderation effect of POS on the relationship of PUD and WA was non-significant (effect = −0.002, $p>0.05$). A similar non-significant effect was also observed in the case of the relationship of PUD and TPBW (effect = −0.051, $p>0.05$). Thus, hypotheses H5 and H6 were not supported. The aforementioned findings were controlled for gender, age and work experience.

**Discussion**

**Theoretical contributions**

The current study indicates that the perceived usefulness of digitalization is indeed a very important factor for improving workforce agility and task performance during the blended working arrangement. However, perceived organizational support may not play a significant role in either enhancing workforce agility or task performance during such situations.

The study makes many important theoretical contributions. First, although perceived usefulness of technology has been found to have a positive effect on task performance (Venkatesh et al., 2003) yet there has been limited understanding about such relationships in the case of a blended working environment, that too in entirely
Table 3  Alternate models and comparison

| Model | Description                                | $\chi^2$         | TLI   | CFI   | RMSEA | SRMR  | $\Delta \chi^2$ (Δdf) |
|-------|--------------------------------------------|------------------|-------|-------|-------|-------|------------------------|
| 1     | 4-Factor model consisting of PUD,WA,POS,TPBW | $\chi^2 (219) = 345.46, p < 0.001$ | 0.94  | 0.95  | 0.054 | 0.060 | -                      |
| 2     | 3-Factor model consisting of PUD + WA,POS,TPBW | $\chi^2 (222) = 525.27, p < 0.001$ | 0.86  | 0.87  | 0.083 | 0.094 | 179.81 (3)**           |
| 3     | 2-Factor model consisting of PUD + WA + POS,TPBW | $\chi^2 (224) = 991.38, p < 0.001$ | 0.64  | 0.68  | 0.131 | 0.150 | 645.92 (5)**           |
| 4     | Single-factor model consisting of PUD + WA + POS + TPBW | $\chi^2 (225) = 1205.13, p < 0.001$ | 0.54  | 0.59  | 0.148 | 0.161 | 859.67 (6)**           |

$n=201$, $PUD$ perceived usefulness of digitalization, $WA$ workforce agility, $POS$ perceived organizational support, $TPBW$ task performance during blended working

**$p < 0.01$
unprecedented circumstances such as COVID-19 pandemic. The current study for the first time empirically tests these relationships in a blended working arrangement and the results, thus, obtained support the generic understanding of the relationship of perceived use of technology and task performance. Thus, it may be inferred that the perceived usefulness of technology (as in the case of digitalization) may have a positive effect on task performance in all three forms of work designs e.g. WFH, WFO and BW environment.

Table 4 Results of regression analysis: direct, mediation and moderation effects

| Predictors | WA | TPBW |
|------------|----|------|
|            | $B$ ($\beta$) | SE | $t$ | $R^2$ ($F$) | $B$ ($\beta$) | SE | $t$ | $R^2$ ($F$) |
| PUD        | 0.122 | 0.024 | 5.189* | (11.653)a | 0.244 | 0.051 | 4.778 | 0.128 | (7.203)b |
| WA         | 0.010 | 0.020 | 0.497 | 0.193 | (7.746)b | 0.018 | 0.044 | 0.403 | 0.138 | (5.180)b |
| POS        | 0.002 | 0.016 | 0.121 | 0.002 | 0.016 | 0.121 | 0.002 | 0.016 | 0.121 | 0.002 | 0.016 | 0.121 |

Mediation analysis results

| Effect | SE | 95% LLCI | 95% ULCI |
|--------|----|----------|----------|
| Total effect of PUD on TPBW | 0.244 | 0.051 | 0.143 | 0.345 |
| Direct effect of PUD on TPBW | 0.197 | 0.054 | 0.090 | 0.303 |
| Indirect effect of PUD on TPBW through WA* | 0.048 | 0.021 | 0.011 | 0.094 |

Notes: $n = 201$, $B$ unstandardized coefficients, $\beta$ standardized coefficients, PUD perceived usefulness of digitalization, WA workforce agility, POS perceived organizational support, TPBW task performance during blended working

* $p < 0.001$

*a Bootstrapped values (5000 samples)

For ease of representation, the regression coefficients for control variables e.g. age, gender and work experience have not been shown

*a Indicate values of $R^2$ and $F$ statistic when control variables have been included in the model

*b Indicate values of $R^2$ and $F$ statistic when control variables have been included in the model. Both direct effect and moderation effect of POS included in the model

Second, this study establishes that digitalization initiatives may have a positive effect on workforce agility only if such initiatives are perceived as useful by employees. Although information systems that promote collaboration have a positive effect on workforce agility (as mentioned in Muduli, 2016), the same in the context of digitalization implemented in the BW environment was still unknown. The current study confirms that PUD is an important enabler of WA. Lucas and Goh (2009) had
also emphasized that digitalization contributes to agility in organizations. Thus, the current study supports their conclusions as well.

Third, workforce agility has a positive effect on task performance during the BW environment. Although there have been studies linking workforce agility and employee productivity (e.g. Newman, 2018), however, these results are not related to a blended working arrangement. Thus, the study largely supports these previous findings, although in a different context.

Fourth, the study explains the underlying process in the form of workforce agility through which PUD enhances TPBW. By explaining this linkage, the study expands the existing knowledge about their interrelationships. This intermediate process may also provide some clue for expanding the UTAUT (Venkatesh et al., 2003). PUD can be construed broadly as a component of performance expectancy as provided in the UTAUT. In their model, the behavioural intention has been shown as a mediator between performance expectancy and use behaviour. Based on these results, workforce agility could be classified as one of such behaviours under the UTAUT framework acting as a mediator.

Fifth, the study found a non-significant role (direct as well as moderating) of POS in WA and TPBW and, thus, support as well as contradicts some of the previous findings (e.g., Detnakarin & Rurkkhum, 2019; Hur et al., 2015; Kurtessis et al., 2017; Levy, 2013; Shoss et al., 2013). This finding probably suggests an important role played by other contextual factors and underlying processes influencing agility and task performance in a BW arrangement.

A possible explanation for the non-significant role of POS on workforce agility and employees’ performance could be related to the role of specific contexts such as the public sector. POS develops in an individual when the organization displays a series of discretionary behaviours (Eisenberger et al., 2020) leading to employees’ perception that their organization values their contributions, take care of their well-being and helps them in the fulfilment of their socio-emotional needs (Kurtessis et al., 2017). It means that POS may be more effective when employees perceive that the action of their organization towards their well-being is differential and is customized specifically for them rather than a result of any standard organizational practice. Such discretionary behaviours are less prevalent in public sector organizations, the context of the current study. In public sector settings, organizational support is regulated through approved policies and systems and is applicable and extendible to all eligible employees. In such situations, organizational support related initiatives may be perceived just as a ‘hygiene factor’ and not a ‘motivator’ (Herzberg, 1968). Employees no longer view such supports as a sign of favour or privilege bestowed by their organization (Lambert, 2000) and accordingly may not show a high level of reciprocal behaviour to manage organizational requirements (i.e. manage tasks effectively and show a high level of agility) (Eisenberger et al., 2020). Hierarchical structure in public sector enterprises may also limit the discretion of managers for extending support to their subordinates, thereby discouraging required reciprocity from employees towards the organization.
Managerial implications

The present study has significant implications for organizations and practitioners. First, by establishing the critical role of relevant digitalization efforts (in the form of perceived usefulness of digitalization) in performance enhancement, particularly during a blended working arrangement, the study shows that relevant digitalization could be an important tool for the organization to manage employees’ performance. This finding is even more significant for an organization considering the varying level of effectiveness of such work arrangement (e.g., Rice, 2017; Wörtler et al., 2020). Some of the examples of these relevant digitalization initiatives could be Artificial Intelligence (AI) powered chatbots, AI-enabled requisition systems and internet-based self-service portal that may help in improving employees’ performance during a blended working set up in challenging times such as the current one due to COVID.

Second, in a highly volatile, uncertain, complex and ambiguous business environment, employees are required to show a higher level of flexibility and adaptability. Thus, an agile workforce is highly important during such situations for the better performance of the organization. The study indicates that PUD helps in making the workforce more agile and thereby enhancing task performance. The usefulness of technology such as digitalization could be improved if organizations make efforts towards improving self-efficacy of employees through training and capability development programmes, reducing their discomfort with technology, promoting a norm for use of such technologies (also known as subjective norms), discouraging desire for personal contacts and reduce the perceived risk associated with the application of such technologies (Rose, 2006).

Third, realizing that POS may not be a panacea for managing performance during uncertain circumstances such as during the COVID-19 pandemic, organizations should explore other options that could improve performance. These options could be in the form of implementing user-friendly technological interventions and systems in addition to sensitizing employees for displaying agility. Efforts towards agility should be a continuous process in current times. Receiving regular feedback from the users (employees) might help in the process.

Fourth, PSEs are bureaucratic organizations and have a hierarchical structure. Employees tend to rely more on face to face interaction and pen and paper-based media for communication than interacting through virtual media. One may be tempted to assume that working in virtual mode may reduce their job performance. However, the current study shows that by providing suitable enablers namely technological support in the form of useful digitalization initiatives and social support in the form of POS, even employees of public sector organizations may perform tasks efficiently under a blended working environment. The study found a positive correlation between POS and WA. By establishing these relationships, the study has major implications on employee-driven job demand management, job redesigning (Sameer & Priyadarshi, 2021) and policymaking related to a blended working arrangement.
Limitations and areas for future research

This study responds to the call for providing more empirical evidence about the effect of digitalization on agility and their consequences in the form of task performance under a new working arrangement i.e. blended working environment. By exploring the role of POS, the study also provides factors that can have an impact on WA in combination with PUD. One of the strengths of this study is that it investigated these aforementioned relationships on employees who were exposed to BW arrangements for the first time. Still, we see certain limitations in our study.

The first limitation could be related to the use of a single research design for the study. If multiple methods are used, then the results are likely to be more confirmatory. Therefore, other research designs such as longitudinal studies could be explored in future studies. Extending this study to other contexts (i.e. other than the public sector) can further help in improving the generalizability of the findings. By doing so, potential researchers may add significant knowledge about the role of work context on performance under BW arrangement. The study had a low response rate due to the use of a web-based survey method and, therefore, might have resulted in a non-response bias. This could affect the generalizability of research findings. However, such anticipation may not always be true (Holbrook et al., 2007; Mellahi & Harris, 2016). There is a wide variation in the response rates ranging from 16 to 91 per cent in the case of published research (Carley-Baxter et al., 2013). Recent studies (e.g., Pielsticker & Hiebl, 2020) have also reported the prevalence of low response rates in well-accepted studies. Although common-method bias was not an important issue as far as results of this study are concerned, still due to self-reported measures the same may not be completely ruled out.

The BW environment provides an interesting area of research in times to come due to its relevance and managerial implications. Therefore, future studies could explore the role of several other individual and organizational level factors on workforce agility such as the role of big-five personality. Similarly, the role of contextual factors such as other work designs and human resource practices on workforce agility needs deeper investigation. Enquiry such as ‘whether workforce agility is always functional for both employees and organizations or can it also have dysfunctional outcomes in the form of stress and burnout for employees resulting in non-compliance and deviance (from approved policies of organizations)’ could be interesting to investigate in future studies. Another area less explored is related to conditions when workforce agility results in organizational agility, or when POS could be useful for task performance especially under innovative work settings and consequently contribute to agility enhancement. A lot could be known about the interrelationships among PUD, POS, WA and TPBW if these questions are explored in future studies.

Conclusion

Individual characteristics namely resilience, agility and entrepreneurship have helped in fighting against COVID-19 (Liu et al., 2020) which has significantly disrupted the business environment by augmenting its volatility, uncertainty, complexity and ambiguity
S. K. Sameer

Innovative ways of working arrangements are being explored by many organizations for adapting to these new realities. Blended working seems to be one such arrangement and is likely to continue in the near future as well. Therefore, the role of useful technologies such as digitalization becomes very crucial for making employees agile and productive. The agility and performance could be further improved if organizations keep on investing in employees’ focussed practices which can strengthen their positive perception about organizational support. However, this is likely to be more challenging for the organization as there would be limited opportunities for physical interactions with the employees in the new work arrangement. Therefore, organizations would be required to explore innovative ways and means that are more personalized, context and industry-specific so that employees view those initiatives as useful and relevant for their work.

Workforce agility is likely to be one of the key differentiators in organizational performance in times to come (AON, 2021). It is likely to be crucial for the sustainability of an organization (Munteanu et al., 2020). Therefore, organizations are likely to benefit by investing in the aforementioned efforts and initiatives that may help in managing performance in the coming times.

References

Abrishamkar, M. M., Abubakar, Y. A., & Mitra, J. (2021). The influence of workforce agility on high-growth firms: The mediating role of innovation. The International Journal of Entrepreneurship and Innovation, 22(3), 146–160.

Adedoyin, O. B., & Soykan, E. (2020). Covid-19 pandemic and online learning: the challenges and opportunities. Interactive Learning Environments. https://doi.org/10.1080/10494820.2020.1813180

Allen, T. D., Golden, T. D., & Shockley, K. M. (2015). How effective is telecommuting? Assessing the status of our scientific findings. Psychological Science in the Public Interest, 16(2), 40–68.

Al-kasasbeh, A. M., Halim, M. A. S. A., & Omar, K. (2016). E-HRM, workforce agility and organizational performance: A review paper toward theoretical framework. International Journal of Applied Business and Economic Research, 14(15), 10671–10685.

Almahamid, S. O. U. D. (2018). Knowledge management processes and workforce agility: A theoretical perspective. International Journal of Management and Applied Science, 4(7), 28–33.

AON. (2021). Two Qualities Will Help Workers Face the Future: Agility and Resilience. https://insights.humancapital.aon.com/talent-assessment-blog/two-qualities-will-help-workers-face-the-future-agility-and-resilience

Ansong, E., Lovia Boateng, S., & Boateng, R. (2017). Determinants of e-learning adoption in universities: Evidence from a developing country. Journal of Educational Technology Systems, 46(1), 30–60.

Baran, B. E., Shanock, L. R., & Miller, L. R. (2012). Advancing organizational support theory into the twenty-first-century world of work. Journal of Business and Psychology, 27(2), 123–147.

Bennett, N., & Lemoine, G. J. (2014). What a difference a word makes: Understanding threats to performance in a VUCA world. Business Horizons, 57(3), 311–317.

Blau, P. M. (1964). Justice in social exchange. Sociological Inquiry, 34(2), 193–206.

Breu, K., Hemingway, C. J., Strathern, M., & Bridger, D. (2002). Workforce agility: The new employee strategy for the knowledge economy. Journal of Information Technology, 17(1), 21–31.

Bunton, T. E. (2017). Agility within higher education it organizations: A loosely coupled systems perspective (Doctoral dissertation, The University of Wisconsin-Milwaukee).

Caesens, G., Marigue, G., Hanin, D., & Stinglhamber, F. (2016). The relationship between perceived organizational support and proactive behaviour directed towards the organization. European Journal of Work and Organizational Psychology, 25(3), 398–411.
Chen, Z., Eisenberger, R., Johnson, K. M., Sucharski, I. L., & Aselage, J. (2009). Perceived organizational support and extra-role performance: Which leads to which? *The Journal of Social Psychology, 149*(1), 119–124.

Chen, Y., Wang, Y., Cooke, F. L., Lin, L., Paillé, P., & Boiral, O. (2021). Is abusive supervision harmful to organizational environmental performance? Evidence from China. *Asian Business & Management*. https://doi.org/10.1057/s41291-021-00148-0

Cognizant (2020, July 23). Five Profound Changes in the Business Environment. https://www.cognizant.com/perspectives/five-profound-changes-in-the-business-environment

Croppanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management, 31*(6), 874–900.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319–340.

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science, 35*(8), 982–1003.

Detnakarin, S., & Rurkkhum, S. (2019). Moderating effect of perceived organizational support on human resource development practices and organizational citizenship behaviour. *Journal of Asia-Pacific Business, 20*(3), 215–234.

Dyer, L., & Shafer, R. (2003). Dynamic organizations: Achieving marketplace and organizational agility with people. In R. S. Peterson & E. A. Mannik (Eds.), *Leading and managing people in the dynamic organization* (pp. 7–38). Lawrence Erlbaum Associates.

Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology, 71*(3), 500–507.

Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P. D., & Rhoades, L. (2001). Reciprocity of perceived organizational support. *Journal of Applied Psychology, 86*(1), 42–51.

Eisenberger, R., & Stinglhamber, F. (2011). *Perceived organizational support: Fostering enthusiastic and productive employees*. American Psychological Association.

Eisenberger, R., Rhoades Shanock, L., & Wen, X. (2020). Perceived organizational support: Why caring about employees counts. *Annual Review of Organizational Psychology and Organizational Behavior, 7*, 101–124.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39–50.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39–50.

Franco, C., & Landini, F. (2022). Organizational drivers of innovation: The role of workforce agility. *Research Policy, 51*(2), 104423.

Giroud, A., & Tucci, C. L. (2012). ‘Technology, innovation and knowledge: An Asian perspective’: Introduction. *Asian Business & Management, 11*(1), 5–7.

Hayes, J. R. (2013). *The complete problem solver*. Routledge.

Herzberg, F. (1968). *One more time: How do you motivate employees* (Vol. 65). Harvard Business Review.

Holbrook, A., Krosnick, J. A., & Pfent, A. (2007). The causes and consequences of response rates in surveys by the news media and government contractor survey research firms. *Advances in Telephone Survey Methodology, 60607*, 499–458.

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modelling: A Multidisciplinary Journal, 6*(1), 1–55.

Hur, W.-M., Han, S.-J., Yoo, J.-J., & Moon, T. W. (2015). The moderating role of perceived organizational support on the relationship between emotional labor and job-related outcomes. *Management Decision, 53*(3), 605–624.

Kim, S. L., Cheong, M., Srivastava, A., Yoo, Y., & Yun, S. (2021). Knowledge sharing and creative behavior: The interaction effects of knowledge sharing and regulatory focus on creative behavior. *Human Performance, 34*(1), 49–66.

Koopmans, L., Bernaards, C. M., Hildebrandt, V. H., Van Buuren, S., Van der Beek, A. J., & De Vet, H. C. (2014). Improving the individual work performance questionnaire using rasch analysis. *Journal of Applied Measurement, 15*(2), 160–175.

Kurtessis, J. N., Eisenberger, R., Ford, M. T., Buffardi, L. C., Stewart, K. A., & Adis, C. S. (2017). Perceived organizational support: A meta-analytic evaluation of organizational support theory. *Journal of Management, 43*(6), 1854–1884.

Lambert, S. J. (2000). Added benefits: The link between work-life benefits and organizational citizenship behavior. *Academy of Management Journal, 43*(5), 801–815.
Levy, P. E. (2013). Industrial/Organizational Psychology, 4th Edition. In P. E. Levy (Ed.), Industrial/Organizational Psychology (4th ed.). Worth Publishers.

Liu, Y., Lee, J. M., & Lee, C. (2020). The challenges and opportunities of a global health crisis: The management and business implications of COVID-19 from an Asian perspective. Asian Business & Management, 19(3), 277–297.

Lucas, H. C., Jr., & Goh, J. M. (2009). Disruptive technology: How Kodak missed the digital photography revolution. The Journal of Strategic Information Systems, 18(1), 46–55.

Maran, T. K., Liegl, S., Davila, A., Moder, S., Kraus, S., & Mahto, R. V. (2022). Who fits into the digital workplace? Mapping digital self-efficacy and agility onto psychological traits. Technological Forecasting and Social Change, 175, 121352.

McDonald, T., & Siegall, M. (2012). The effects of participative goal setting on future sustainability-related behaviors and attitudes. Journal of Sustainability Education, 3, 1–18.

McKinsey & Company (2020, October 5). How COVID-19 has pushed companies over the technology tipping point—and transformed business forever. https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-covid-19-has-pushed-companies-over-the-technology-tipping-point-and-transformed-business-forever

Mei-Ying, W., Pei-Yuan, Y., & Weng, Y. C. (2012). A study on user behavior for i pass by UTAUT: Using Taiwan’s MRT as an example. Asia Pacific Management Review, 17(1), 91–111.

Mellahi, K., & Harris, L. C. (2016). Response rates in business and management research: An overview of current practice and suggestions for future direction. British Journal of Management, 27(2), 426–437.

Menon, S., & Suresh, M. (2021). Factors influencing organizational agility in higher education. Benchmarking: An International Journal, 28(1), 307–332.

Muduli, A. (2016). Exploring the facilitators and mediators of workforce agility: An empirical study. Management Research Review., 39(12), 1567–1586.

Muduli, A. (2017). Workforce agility: Examining the role of organizational practices and psychological empowerment. Global Business and Organizational Excellence, 36(5), 46–56.

Munteanu, A. I., Bibu, N., Nastase, M., Cristache, N., & Matis, C. (2020). Analysis of practices to increase the workforce agility and to develop a sustainable and competitive business. Sustainability, 12(9), 3545.

Newman, D. (2018). Workplace agility: The true secret to improving productivity and efficiency. Retrieved from https://www.forbes.com/sites/danielnewman/2018/11/05/workplace-agility-the-true-secret-to-improving-productivity-and-efficiency/?sh=26e8338b275e

Pielsticker, D. I., & Hiebl, M. R. (2020). Survey response Rates in family business research. European Management Review, 17(1), 327–346.

Plonka, F. E. (1997). Developing a lean and agile workforce. Human Factors and Ergonomics in Manufacturing & Service Industries, 7(1), 11–20.

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. Journal of Applied Psychology, 88(5), 879–903.

Rice, R. E. (2017). Boundaries, and information and communication technologies. The Wiley Blackwell Handbook of the Psychology of the Internet at Work, 7696, 175–194.

Rose, J., & Fogarty, G. J. (2006). Determinants of perceived usefulness and perceived ease of use in the technology acceptance model: senior consumers’ adoption of self-service banking technologies. In Proceedings of the 2nd Biennial Conference of the Academy of World Business, Marketing and Management Development: Business Across Borders in the 21st Century (Vol. 2, pp. 122–129). Academy of World Business, Marketing and Management Development.

Sameer, S. K., & Priyadarshi, P. (2021). Interplay of organizational identification, regulatory focused job crafting and job satisfaction in management of emerging job demands: Evidence from public sector enterprises. International Review of Public Administration, 26(1), 73–91.

Sherehyi, B., & Karwowski, W. (2014). The relationship between work organization and workforce agility in small manufacturing enterprises. International Journal of Industrial Ergonomics, 44(3), 466–473.

Sherifi, D. (2018). Perceived usefulness and perceived ease of use impact on patient portal use. Walden Dissertations and Doctoral Studies. 4756. https://scholarworks.waldenu.edu/dissertations/4756

Shoss, M. K., Eisenberger, R., Restubog, S. L. D., & Zagenczyk, T. J. (2013). Blaming the organization for abusive supervision: The roles of perceived organizational support and supervisor’s organizational embodiment. Journal of Applied Psychology, 98(1), 158–168.
Stamper, C. L., & Johlke, M. C. (2003). The impact of perceived organizational support on the relationship between boundary spanner role stress and work outcomes. *Journal of Management, 29*(4), 569–588.

Strohmeier, S. (2020). Digital human resource management: A conceptual clarification. *German Journal of Human Resource Management, 34*(3), 345–365.

Sullivan, C. (2003). What’s in a name? Definitions and conceptualisations of teleworking and homeworking. *New Technology, Work and Employment, 18*(3), 158–165.

Sullivan, C. (2012). Remote working and work-life balance. In *Work and quality of life* (pp. 275–290). Springer.

Van Yperen, N. W., Rietzschel, E. F., & De Jonge, K. M. (2014). Blended working: For whom it may (not) work. *PLoS ONE, 9*(7), e102921.

Van Yperen, N. W., & Wörtler, B. (2017). Blended working and the employability of older workers, retirement timing, and bridge employment. *Work, Aging and Retirement, 3*(1), 102–108.

Vázquez-Bustelo, D., Avella, L., & Fernández, E. (2007). Agility drivers, enablers and outcomes: Empirical test of an integrated agile manufacturing model. *International Journal of Operations & Production Management, 27*(12), 1303–1332.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly, 27*(3), 425–478.

Vuori, V., Helander, N., & Okkonen, J. (2019). Digitalization in knowledge work: The dream of enhanced performance. *Cognition, Technology & Work, 21*(2), 237–252.

Wörtler, B., Van Yperen, N. W., & Barelds, D. P. (2020). Do individual differences in need strength moderate the relations between basic psychological need satisfaction and organizational citizenship behavior? *Motivation and Emotion, 44*(2), 315–328.

Wu, M.-Y., Yu, P.-Y., & Weng, Y.-C. (2012). A study on user behavior for I Pass by UTAUT: Using Taiwan’s MRT as an example. *Asia Pacific Management Review, 17*(1), 92–111.

Zhang, Z., & Sharifi, H. (2000). A methodology for achieving agility in manufacturing organizations. *International Journal of Operations & Production Management, 20*(4), 496–513.

Zhang, L., Bu, Q., & Wee, S. (2016). Effect of perceived organizational support on employee creativity: Moderating role of job stressors. *International Journal of Stress Management, 23*(4), 400.

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