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## Digital Leadership as a Resource to Enhance Managers' Psychological Well-Being in COVID-19 Pandemic Situation in Indonesia

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# Digital Leadership as a Resource to Enhance Managers' Psychological Well-Being in the COVID-19 Pandemic Situation in Indonesia

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## Abstract

**Research Aims** - The forced digitalization of work due to the coronavirus disease (COVID-19) pandemic has led to excessive job demands that might reduce workers' psychological well-being. Hence, this study aims to explore the relationship between digital leadership and psychological well-being during the COVID-19 pandemic situation.

**Design/Methodology/Approach** - A total of 1,899 managers participated in this study. A logistic regression analysis was performed to test for associations between well-being and digital leadership skills.

**Research Findings** - The results show that as a unidimensional variable, digital leadership is a strong predictor of psychological well-being. However, as a multidimensional variable, the digital leadership–skill dimension has significant and positive effects on psychological well-being, whereas the digital leadership–attitude, competencies, and behaviour dimension does not have a significant effect on psychological well-being.

**Theoretical Contribution/Originality** - As a multidimensional variable, digital leadership has a partial effect in determining individuals' psychological well-being.

**Managerial Implications in the Southeast Asian Context** - Improving digital leadership does not guarantee that psychological well-being will improve. However, specifically improving the digital leadership–skill dimension will considerably influence the likelihood of individuals having high psychological well-being.

**Research Limitation & Implications** - The slightly low, but still acceptable, Cronbach's alpha coefficient on the digital leadership–attitudes, competencies, and behaviour dimension scale may improve if more items are added. Since the study participants were from one organisation and one country, future studies could include several organisations and countries to enrich the findings.

**Keywords** - digitalization, leadership, psychological well-being, digital leadership, mental health, COVID-19 pandemic

## INTRODUCTION

The global health crisis caused by the novel coronavirus disease (COVID-19) has triggered a sudden, massive worldwide transformation of social, economic, and everyday life. The crisis has resulted in many deaths, putting extremely high pressure on health systems, and has forced lockdowns in many countries, resulting in the worst global recession to date (Gopinath, 2020). People are facing a challenging, uncertain and stressful situation caused by this pandemic. This may result in high distress and negatively affect their psychological well-being, which can lead to poor mental health. Due to this situation, research on mental health topics has increased, especially regarding the impact of the crisis caused by the COVID-19 pandemic.

In this crisis mode, organisations, governments, and communities need to stay alert and adaptive in facing related challenges to survive and overcome the crisis. Organisations particularly depend on their leaders when responding to a crisis. Hence, these leaders face significant challenges and stresses in organisations, which calls for increased research on this topic (Dirani et al., 2020). Many leaders and managers find it challenging to help their employees cope with the rapid, extensive changes caused by the pandemic in both the work environment and the social environment. Therefore, organisations must focus on the increased uncertainty among employees, and, in particular, among leaders, which will affect their psychological well-being and performance.

In this regard, leaders and managers tend to have heavy work demands and experience high levels of work-related stress, which decreases their psychological well-being (Cocker et al., 2013; Fiedler et al., 2018; Persson Asplund et al., 2018; Zeike et al., 2019b). Psychological well-being is closely related to mental health and significantly affects individuals at the workplace. Poor mental health may affect employees' work performance, leading to ineffective decision-making, increased absenteeism, low motivation and commitment, a negative work climate, and a higher risk of workgroup conflicts (Baumann et al., 2010; Harnois & Gabriel, 2000). Work-related factors and working conditions are significant factors that influence employees' psychological well-being and health (Fiedler et al., 2018; Lee et al., 2014; Schütte et al., 2014). The pandemic has created a challenging working environment, and managers and leaders must quickly identify ways to help the workforce adapt and deal with the massive changes in the working and social environments (Carnevale & Hatak, 2020). One type of challenge in working environments is that of communication challenges, which have forced many organisations to adopt technology-based solutions that require managers and leaders to communicate extensively via multiple technology-based channels, such as email, intranet, video conferencing platforms and applications, messaging applications, and other tools (Sanders et al., 2020). The high demand for using these technology-based tools can become a source of distress to leaders and managers, thus affecting their psychological well-being.

The COVID-19 pandemic has forced many organisations to implement or boost digital transformation to ensure their survival (Dirani et al., 2020). Technology helps organisations to continue running their businesses while following the necessary health protocols to prevent the worsening of the pandemic. Restrictions on the number of people who can physically gather in one place can be overcome with technology. In this situation, leaders play the most important role in driving their employees to adopt new technologies as well as learning and mastering the new technologies themselves. Leaders also facing the most challenges in ensuring successful digital transformation within the organisation. The digital transformation processes in organisations are generally considered a great challenge for leaders and the top management (Kakabadse et al., 2011; Westerman et al., 2014). Currently, leaders and managers are forced to drive digital transformation in the organisation and be aware of the latest digital technology developments, and they must make tough, complex decisions under high unpredictability, which requires them to

deal with a more complex, uncertain, and stressful situation than before (Mullan & Wajcman, 2017). Leaders and managers play the most important role in the digital transformation implementation process, and they need to be able to influence and drive the workforce as well as act as a digital player with the ability to use digital tools and execute the organisation's digital strategies (Cortellazzo et al., 2019; Westerman et al., 2014). In line with these conditions, a new leadership role, termed digital leadership, has emerged. Digital leadership indicates the leader's ability to clearly describe the road ahead in the digitalization process and the capability to drive the organisation's digital strategies (Larjovuori et al., 2016). This new type of leadership, called digital leadership, is considered a requirement in organisations dealing with digital changes.

The Job Demands–Resources (JD-R) model suggests that excessive job demands are associated with a decrease in psychological well-being and a higher possibility of work-related burnout if not compensated with sufficient job resources (Bakker & Demerouti, 2007; Schaufeli & Bakker, 2004). We used the framework of the JD-R model to assume that the digitalization of work because of the changing working arrangements forced by the pandemic can constitute excessive job demands that can reduce psychological well-being. In contrast, we assume that digital leadership can serve as a job resource that can enhance the psychological well-being of managers who drive the digital transformation.

Digital leadership consists of two dimensions: 1) attitude toward and competence in using technology and 2) awareness of digital transformation processes and capabilities needed to implement digital strategies in the organisation (Zeike et al., 2019a). A previous study by Zeike et al (2019a) found that managers' digital leadership skills significantly influence their psychological well-being. However, that study did not analyse in more detail the effect of each dimension of digital leadership on psychological well-being. Therefore, we seek to explore the relationship of digital leadership with the aforementioned two dimensions as well as with psychological well-being. As far as we know, there has been no research on this subject in Indonesia, so we also seek to explore whether the results are valid in Indonesia and during the present pandemic situation.

## LITERATURE REVIEW

### *Psychological Well-being*

Psychological well-being refers to how well people are able to cope with their lives. It is based on a combination of satisfactory emotional states and of effective performance in daily life (Huppert, 2009). The concept of satisfactory emotional states encompasses not only happiness and satisfaction but also emotions such as curiosity, involvement, confidence, and attachment. The concept of psychologically performing effectively involves continuous learning by individuals so as to increase their capacity, their sense of control in their lives and goals to pursue, and their involvement in positive relationships. Individuals with high levels of psychological well-being are aware of their abilities; can adapt to, and manage normal everyday stresses; can perform well at work; and can contribute to their community (World

Health Organization, 2001).

Psychological well-being is closely related to mental health and significantly affects individuals at the workplace (Fiedler et al., 2018; Harnois & Gabriel, 2000; Lee et al., 2014; Schütte et al., 2014). Happy people, or individuals with positive affect, tend to have positive cognitions that lead to improved coping skills, stronger relationships, and vitality (Ryan & Deci, 2001). Further, individuals' affect and emotions at the workplace can have positive or negative effects on their organisational outcomes, such as their job performance, decision-making, creative problem-solving, organisational citizenship behaviour, prosocial behaviour, group cooperation, or leadership (Barsade, 2002; Barsade & Gibson, 2007). In particular, managers with a more positive mood tend to perform better in their workgroups compared to managers with a less positive mood (George, 1995). Conversely, when managers have negative moods or low levels of psychological well-being, they may influence their work teams negatively, such that the team members may show the same feelings and their job motivation may decrease (Lewis, 2000; Lyubomirsky et al., 2005; Sy et al., 2005).

Work-related factors and working conditions are significant factors that influence employees' psychological well-being and health (Baumann et al., 2010; Kopp et al., 2008; Lee et al., 2014; Schütte et al., 2014). Working conditions, such as job demands, working time, job security, leadership quality, work environment, job satisfaction, and work-related stress, are associated with employees' psychological well-being (Lee et al., 2014). The changing working conditions caused by technological developments and the push toward digital transformation in organisations are considered major challenges for managers that can affect their psychological well-being (Kakabadse et al., 2011; Mullan & Wajcman, 2017; Westerman et al., 2012; Zeike et al., 2019b).

### ***Digital Leadership***

Digital leadership is a phenomenon that has emerged recently along with the massive acceleration of digitalization in many organisations, particularly due to the COVID-19 pandemic. Topics about leadership and digitalization use different terms, such as digital masters, e-leadership, and digital leadership (Cortellazzo et al., 2019; Larjovuori et al., 2016; Torre & Sarti, 2020; Westerman et al., 2014). Digital leadership is defined as leaders' ability to create a clear, meaningful vision for the digitalization process and their capability to execute strategies to actualize this vision (Larjovuori et al., 2016). This definition indicates that digital leadership reflects leaders' ability to engage all employees in the organisation in the organisational change based on digitalization, as well as their ability to identify and develop their and others' skills and abilities needed to execute this change (Larjovuori et al., 2016).

Digital leadership capabilities require leaders to integrate the business perspective and the digitalization agenda, to have the leadership ability to ensure that every member of the organisation is engaged in the digitalization agenda, and to build

the digital skills needed for the digitalization processes (Westerman et al., 2014). Effective digital leadership is attained through two dimensions: having the required attitudes and competencies for using technology and a distinct awareness of digital transformation processes and capabilities to implement digital strategies in the organisation (Zeike et al., 2019a).

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### *Relationship between Digital Leadership and Psychological Well-being*

The Job Demands Resources (JD-R) model suggests that excessive job demands are associated with a decrease in psychological well-being and a higher possibility of work-related burnout if not compensated with sufficient job resources (Bakker & Demerouti, 2007; Schaufeli & Bakker, 2004). The increasing use of technology and mobile internet in Indonesia demonstrate the increased technological readiness and acceptance of new technology in the country (Daryanti & Simanjuntak, 2016; Munandar & Munthe, 2019). In turn, the increased job demands of adoption of new technology can affect employees' psychological well-being. Digital leadership is expected to serve as a job resource for employees to deal with such excessive job demands.

We used the framework of the JD-R model to assume that digitalization of work because of the changing working arrangements forced by the pandemic represents an excessive job demand that can reduce psychological well-being. In contrast, we assume that digital leadership can serve as a job resource that can enhance the psychological well-being of managers who drive the digital transformation. Therefore, in line with the JD-R model framework, we hypothesize:

**Hypothesis 1:** Digital leadership has a positive effect on psychological well-being.

Based on the above definition, digital leadership comprises two dimensions. Since a prior study showed that digital leadership influences psychological well-being, we assume that both dimensions of digital leadership also affect psychological well-being. Thus, we propose our second hypothesis as follows:

**Hypothesis 2:** Both dimensions of digital leadership – 1) attitude, competencies, and behaviour and 2) skill – have a positive effect on psychological well-being.

## **RESEARCH METHOD**

### **Study Design and Participants**

This study was conducted at one government institution in Indonesia that had 16,179 employees across the country and that is currently undergoing a digital transformation process in the organisation. The study obtained ethical clearance from the Faculty of Psychology Universitas Indonesia and the participating organisation. We requested permission and support from the general secretary and the head of the human resources department of the organisation. The department then sent an online official invitation to all managerial-level employees in the organisation to participate in this survey (N = 4,298). The managerial-level employees included in this survey were in the position of leading subordinates. A total of 2,299 managers

(53%) participated in the survey, but only 1,899 responses (44% of the total invitations sent) were usable for this study because some respondents provided incomplete responses, selected the wrong attention check picture, did not understand the consent guidelines, or did not provide consent.

The data were collected in April 2020 using the online survey tool SurveyMonkey. The use of SurveyMonkey allowed us to automatically randomised all items in each page of our survey, so as to reduce the probability of common method bias in this study (Chang et al., 2010; Podsakoff et al., 2003, 2012; Tehseen et al., 2017). Participation in this study was voluntary, and participants were able to exit the survey at any time. The data collected were anonymised and analysed. All respondents were presented with a detailed notice of consent to guide their participation. The survey used an attention check to ensure that they responded to the survey carefully (Kung et al., 2018; Oppenheimer et al., 2009).

### *Measures*

We used the World Health Organization (WHO-5) Well-Being Index as our primary outcome measure (Topp et al., 2015). This self-administered questionnaire is among the most commonly accepted and used questionnaires for measuring psychological well-being and has proven application in workplace settings for measuring psychological well-being (Bonsang & Klein, 2012; Kesavayuth et al., 2016; Topp et al., 2015; Zeike et al., 2019a, 2019b). The questionnaire has five items to measure psychological well-being, such as “In the past 2 weeks, I have felt cheerful and in good spirits.” The WHO-5 Well-Being Index uses a 4-point Likert scale, ranging from 1 (never) to 4 (always). Cut-off scores were used to indicate low and high psychological well-being. A raw score below 11 indicates low psychological well-being.

The 6-item digital leadership scale of Zeike et al. (2019a) was used to measure the two dimensions of digital leadership. The first dimension comprises leaders’ attitudes, competencies, and behaviour in using digital tools (digital leadership – attitudes, competence, and behaviour), and the second dimension relates to digital leadership skills in executing digital transformation strategies (digital leadership – skills). An example item of the attitudes, competencies, and behaviour dimension is: “When it comes to digital knowledge, I am always up to date.” An example item of the skills dimension is: “I can make others enthusiastic about the digital transformation.” Both scales were scored on a 5-point Likert scale ranging from 1 (disagree completely) to 5 (agree completely). We summed the item scores to obtain the total score for each dimension, serving as a multidimensional variable. Next, we also summed each item’s scores for each dimension, serving as a unidimensional variable.

The scales of both psychological well-being and digital leadership were adapted and translated into the Indonesian language by four translators with good English and Indonesian language skills and then synthesized to check the compatibility of the translated items. This translation process was based on the translation guide-

lines for the cross-cultural adaptation process of research instruments or scales (Sousa & Rojjanasrirat, 2011)

### *Statistical Analysis*

Responses for psychological well-being were scored and were separated into groups of high and low psychological well-being according to the cut-off score of <11. We used a *t*-test to determine whether the groups of low and high psychological well-being had equal means. To test the relationships between all the study variables, we conducted a Pearson's correlation analysis. To analyse the impact of digital leadership on psychological well-being, we performed a logistic regression analysis. In this study, we used the statistical software IBM SPSS version 26 to analyse our data.

### *Common Method Variance*

The use of a questionnaire for data collection to measure the predictor variables and the outcome variables simultaneously in this study with the same respondents could result in bias due to common method variance (Chang et al., 2010; Podsakoff et al., 2003, 2012; Tehseen et al., 2017). To minimize this risk, we used several procedural and statistical treatments to measure and control common method variance. Some procedural remedies that we used included randomizing the items in the questionnaire, providing a clear explanation about the anonymity and confidentiality of the responses, and assuring the respondents that there were no right or wrong answers so that they would give honest answers. The statistical procedure that we used was Harman's single factor test for the presence of common method variance (Chang et al., 2010; Podsakoff et al., 2003, 2012; Tehseen et al., 2017). The result indicated that the total variance explained by a single factor was 31.43%. This means that 31.43% of all items are loaded onto one common factor. Since this value was less than 50%, this result suggests that common method variance did not affect the data (Podsakoff et al., 2003, 2012).

## **FINDINGS**

### *Sociodemographic Characteristics of the Participants*

A total of 1,899 responses from employees at the managerial level were used in this study. The respondent group consisted of more men (64.5%) than women (35.5%). This survey was also dominated by respondents from the exploration stage (aged 25–44 years, 47.5%) and the establishment stage (aged 45–64 years, 48.6%) (Super, 1980). Most of the respondents were graduates with a Bachelor's degree (54.8%), followed by postgraduates with a Master's degree (42.2%) and those with a doctoral degree (1.9%). Regarding the job level, the majority of the respondents were from the Echelon 4 level (79.3%), and the others were from the Echelon 3 level (19%), the Echelon 2 level (1.4%), and the Echelon 1 level (0.3%). The descriptive analysis shows that most respondents were classified as having high well-being (96.5%).

Table 1 presents the Pearson correlation *r* and reliability values for all study variables. The results indicated that digital leadership ( $r = 0.246$ ,  $p < 0.001$ ) and the two dimensions—the digital attitude, competencies, and behaviour dimension



( $r = 0.147, p < 0.001$ ) and the digital skills dimension ( $r = 0.278, p < 0.001$ )—are significantly correlated with psychological well-being. Moreover, the digital leadership skills dimension is significantly correlated with the age ( $r = -0.06, p < 0.01$ ) and the managerial level ( $r = 0.056, p < 0.05$ ) of participants. Specifically, younger respondents from higher managerial levels rated their digital leadership skills significantly higher. Table 1 also shows that most variables had good internal consistency, as indicated by the Cronbach’s alpha coefficient of 0.614 and above for each variable, indicating acceptable reliability (Ursachi et al., 2015).

Based on bivariate comparisons between the groups of low and high well-being using a *t*-test (see Table 2), we found significant differences in digital leadership and in each digital leadership dimension between the high and low well-being groups. Based on this result, we can conclude that the difference in well-being between the two groups is caused by the differences in their digital leadership.

**Associations Between Digital Leadership and Psychological Well-Being**

A summary result based on the logistic regression analysis to determine the relationships between well-being and digital leadership is presented in Table 3. The result shows that as a unidimensional variable, digital leadership is a strong predictor of psychological well-being. Digital leadership has a significant and positive effect on psychological well-being ( $\beta = 0.169, OR = 1.184, p < 0.05$ ), which means that for every one-unit increase in digital leadership, psychological well-being is likely to increase by 0.542 (54.2%). This result fully supports Hypothesis 1.

Table 3 also provides the logistic regression analysis for each dimension of digital leadership. The results show that the digital leadership–skill dimension has a significant and positive effect on psychological well-being ( $\beta = 0.292, OR = 1.339, p < 0.05$ ), which means that for every one-unit increase in this dimension, psychological well-being is likely to increase by 0.573 (57.3%). However, the results also show that the attitude, competencies, and behaviour dimension does not have a significant effect on psychological well-being ( $\beta = 0.006, OR = 1.006, p < 0.05$ ).

| Variable                        | (1)            | (2)            | (3)            | (4)            | (5)       | (6)      | (7)       | (8) |
|---------------------------------|----------------|----------------|----------------|----------------|-----------|----------|-----------|-----|
| 1 Well-being                    | <b>(0.879)</b> |                |                |                |           |          |           |     |
| 2 Digital Leadership (Total)    | 0.246***       | <b>(0.808)</b> |                |                |           |          |           |     |
| 3 Digital Leadership - Attitude | 0.147***       | 0.863***       | <b>(0.614)</b> |                |           |          |           |     |
| 4 Digital Leadership-skills     | 0.278***       | 0.906***       | 0.568***       | <b>(0.821)</b> |           |          |           |     |
| 5 Age                           | -0.018         | -0.045         | -0.016         | -0.060**       | -         |          |           |     |
| 6 Gender                        | -0.004         | -0.027         | -0.030         | -0.019         | -0.161*** | -        |           |     |
| 7 Education Level               | -0.001         | -0.006         | 0.029          | -0.033         | 0.125***  | 0.016    | -         |     |
| 8 Managerial Level              | 0.025          | 0.032          | -0.004         | 0.056*         | -0.370*** | 0.182*** | -0.209*** | -   |

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

**Table 1**  
Results of Pearson’s  
Correlations and Reliability

| Variable  | Managers with High Well-Being |       |      |        | Managers with Low Well-Being |       |      |        | T-Test<br>p-Value |
|---|-------------------------------|-------|------|--------|------------------------------|-------|------|--------|-------------------|
|   | N                             | M     | SD   | Median | N                            | M     | SD   | Median |                   |
| Digital Leadership  | 1833                          | 20.10 | 3.25 | 20     | 66                           | 18.18 | 3.44 | 18     | 0.000             |
| Digital Leadership - Attitudes, competencies, and behaviour | 1833                          | 10.04 | 1.67 | 10     | 66                           | 9.42  | 1.96 | 10     | 0.004             |
| Digital Leadership – Skills                                 | 1833                          | 10.05 | 2.00 | 10     | 66                           | 8.76  | 1.98 | 9      | 0.000             |

**Table 2**  
Descriptive statistics of the  
independent variables for  
managers with high and low  
psychological well-being

This means that regardless of the level of the attitudes, competencies, and behaviour dimension, the skill dimension is the dimension that influences psychological well-being. Thus, this result partially supports Hypothesis 2.

The results also show that the pseudo-R square for our model is 0.042, which means that about 4.2% of the variance in psychological well-being can be explained by the digital leadership–skills variable. The Hosmer and Lemeshow test shows a good model fit with the data ( $\chi^2 = 6.113, df = 7, p < 0.05$ ). Therefore, this study has validated the JD-R model, which suggests that sufficient job resources—in this case, digital leadership skills—are linked with the decrease in both psychological well-being and the risk of work-related stress in dealing with too many job demands (Bakker & Demerouti, 2007; Schaufeli & Bakker, 2004).

### DISCUSSION

Our findings support a previous study by Zeike et al. (2019a), who showed that managers with low digital leadership tend to have low psychological well-being. Furthermore, this study also confirmed the Job Demands–Resources model, indicating that digital leadership can serve as a resource in dealing with job demands reflected by the digitalization of work, which in turn affect psychological well-being (Bakker & Demerouti, 2007; Zeike, et al., 2019a). In addition, the present study also identified the impact on the psychological well-being of the digital leadership dimensions used in previous study by Zeike et al. (2019a).

The attitude, competencies, and behaviour dimension of digital leadership represents the attitudes, competencies, and behaviour needed in the digital working environment, representing high digital literacy, whereas the skill dimension represents a distinct awareness of the digital transformation processes and capabilities needed to implement digital strategies in an organisation (Zeike et al., 2019a). The skill dimension has a significant effect on psychological well-being, but the attitudes, competencies and behaviour dimension does not. This can be explained by the fact that this study was conducted in an organisation in the process of digital transformation, where the need for managers to actualize digital strategies and to influence their subordinates to drive the digital transformation of their unit is very high. In this scenario, managers with a high skill dimension of digital leadership consider themselves successful in fulfilling the organisational agenda and therefore feel more optimistic and happier than their counterparts, which leads to their high psychological well-being.

| Variable  | $\beta$ | OR    | Psychological Well-Being<br>(High=1, Low=0) |          |               |
|---|---------|-------|---|----------|---------------|
|   |         |       | P   | <i>p</i> | 95% CI        |
| Digital Leadership  | 0.169   | 1.184 | 0.542                                       | 0.000    | 1.103 - 1.272 |
| Digital Leadership - Attitudes, competencies, and behaviour | 0.006   | 1.006 | 0.502                                       | 0.950    | 0.845 - 1.197 |
| Digital Leadership–Skills                                   | 0.292   | 1.339 | 0.573                                       | 0.000    | 1.166 - 1.539 |
| Cox & Snell R Square  |         |       | 0.011                                       |          |               |
| Nagelkerke’s pseudo-R Square                                |         |       | 0.042                                       |          |               |
| Hosmer & Lemeshow Test                                      |         |       | $\chi^2 = 6.113, df = 7, p = 0.527$         |          |               |

**Table 3**  
Results of the logistic regression analysis

Our findings show that the attitudes, competencies and behaviour dimension of digital leadership, which indicates high digital literacy, has no significant effect on psychological well-being. This result is likely due to the fact that the majority of technology and mobile internet users in Indonesia are savvy and loyal users (Daryanti & Simanjuntak, 2016). Therefore, they consider digital literacy to be commonplace, and it does not affect their psychological well-being. In addition, a previous study showed that Indonesia had high trust in and optimism toward the ability of technology to support and facilitate their daily activities, demonstrating that their passion drives the implementation of new technology (Munandar & Munthe, 2019). Hence, regardless of their level of digital literacy, as long as they can drive the digital transformation of their unit, they will be likely to experience high psychological well-being.

The substantial difference in the impact of the two digital leadership dimensions on psychological well-being can be explained by the fact that this study was conducted in a country that has a collectivist culture, which is likely to be an important determinant of psychological well-being (Diener, 2000). The attitudes, competencies, and behaviour dimension reflects individualism in terms of personal digital literacy, whereas the skills dimension reflects the collectivist culture in terms of how these managers can drive the digital transformation in their working area, which indicates workplace collectivism and solidarity.

#### **MANAGERIAL IMPLICATIONS IN THE SOUTHEAST ASIAN CONTEXT**

This study offers some managerial implications. First, the management should note that improving digital leadership does not in and of itself guarantee that psychological well-being will improve. However, specifically improving the skill dimension of digital leadership, which comprises the competencies organisational leaders need to execute digital transformation strategies, will significantly influence the likelihood of their having high psychological well-being. Further, conducting training and development to improve the digital literacy of managers or employees in facing the COVID-19 pandemic and the related technological challenges is insufficient for improving managers or employees psychological well-being.

Organisations should also strongly consider taking steps to improve their managers' capabilities to drive digital transformation. This includes having a distinct awareness of digital transformation processes and capabilities to implement digital strategies in the organisation. Providing a clear and comprehensive strategy for digital transformation as well as the business or organisational perspectives in the organisation can help managers take a more appropriate role in the digital transformation agenda and support the success of the digital transformation process in organisations.

The managerial implications of this study can be extended to any other organisation that is currently undergoing a digital transformation process or facing massive digital changes like those faced by with our respondents in this study. Furthermore, the managerial implications of this study can also be extended and applied to other

organisations in the Southeast Asia region, as most countries in this region have similarities in their cultural values (Hofstede, 2010). Specifically, these implications can be extended to other countries with similar collectivist cultures.

### THEORETICAL IMPLICATIONS

Zeike et al. (2019a) studied the association between digital leadership and psychological well-being and showed that digital leadership significantly influences managers' psychological well-being. Our study contributes to enriching and complementing their study by analysing the effects of digital leadership, both as a unidimensional variable and as a multidimensional variable including the two dimensions of digital leadership, on psychological well-being. We showed that among the two dimensions of the digital leadership variable, only one, the skill dimension, significantly affects psychological well-being. This study also contributes to validating the scale of digital leadership developed by Zeike et al (2019a).

This study has some limitations. Although the sample was large, the participants were quite homogenous, as they were recruited from one organisation and one country. Hence, we suggest that future research be conducted in various organisations and across different countries to enrich the findings of this study. Another limitation is based on the reliability coefficient results for the attitudes, competencies, and behaviour dimension of digital leadership; the slightly low, but still acceptable, Cronbach's alpha coefficient could be improved by adding more items to the scale (Taber, 2018; Ursachi et al., 2015). Although we used several procedures to minimize the risk of common method bias, the use of a single source of data in this study is one limitation that could result in bias due to common method variance (Chang et al., 2010; Podsakoff et al., 2003, 2012; Tehseen et al., 2017). Therefore, we suggest using multiple sources of data collection, such as other-reported digital leadership and self-rated surveys for psychological well-being variables for future studies.

### CONCLUSION

This study explored the relationship between digital leadership and psychological well-being. As a unidimensional variable, digital leadership has a positive and significant effect on psychological well-being. However, as a multidimensional variable, it has a partial effect on determining psychological well-being. Further, the skill dimension of digital leadership has a significant effect on psychological well-being, whereas the attitudes, competencies, and behaviour dimension does not. This means that, regardless of the level of the attitudes, competencies, and behaviour dimension, the skill dimension is the one that influences managers' psychological well-being.

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