



Workplace digital transformation: the impact of employees' autonomy and relatedness on employees' intention to actively support digital transformation

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Abstract

The existence of the Covid-19 pandemic has significantly changed the world order to become completely digital. Therefore it is necessary to have the desire to continue to change with the times, whether for each individual or the company. Before carrying out digital transformation in the workplace, companies need to think about how their employees can actively support digital transformation. This research examines several factors, such as autonomy, relatedness, and performance, in actively fostering employee intentions to support digital transformation in the workplace. Using the cross-sectional method, there were 95 respondents from employees in the banking sector in Surakarta and its surroundings. In general, this study found that autonomy, relatedness, and performance can increase employee intention to support digital transformation in the workplace. This research is expected to provide insights for companies to examine what factors are needed to prepare for workplace digital transformation. In addition, this research is also expected to add to the literature for up-to-date research on digital transformation in Indonesia.

Keywords: Self-determination theory; psychological needs; performance; banking

1. Introduction

Since the Covid-19 pandemic, many companies have implemented remote work from their homes, commonly known as *work from home*. Implementation *work from home*, which many companies have adopted, will continue even though the pandemic is over. A survey conducted by IoD found that more than 50% of 1000 directors stated that they would reduce the use of their workplaces in the long term, and three-fourths stated that they would anticipate a large amount of homework after the pandemic. Based on this, a hybrid system could occur in daily work, where some employees work directly in the office, and others work remotely from their respective homes. This is not a good thing, and many challenges must be faced in implementing digital change in the workplace.

Companies that do not have the ability to change quickly will have a negative effect on increasing the risk of financial and physical stress experienced by their employees (Iansiti & Richards, 2020). In addition, with a hybrid system, many women will choose to work from home, considering that this can be done while doing household chores, so more men will work directly at work, indirectly creating gender inequality. Employees who only work from home will feel ignored and not considered, even if their performance may not be visible compared to employees who work in offices (Partridge, 2021). In the era of advanced world technology, the digital world is experiencing rapid changes. This fast-paced digital change has also affected several work environments to become digital-based work environments as well. Changes in the digital-based work environment also make employees who work in that environment familiar with using various existing digital tools (Martin, 2004). An employee in a

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digital environment needs to apply digital technology and use this technology as a supporting tool in completing his duties at work (Margaryan et al., 2011; Derks et al., 2016).

A digital-based workplace simultaneously requires and needs to improve employee capabilities, where each employee has different abilities, such as the ability of employees to be in a continuous learning process, take action on unexpected matters, or the way employees solve problems, problems that exist collaboratively (Dittes et al., 2019). According to Bouée (2015) the factors that lead to success in a digital-based workplace environment are processes and the adaptability of employees who will use the technology, not how efficiently the company owns the technology. Therefore, employees in the work environment need to learn how to use available technology, which can help them to increase employee productivity and performance (Venkatesh et al., 2003).

According to Schwarzmüller et al. (2018), on the way to a digital work environment, there is a need for a cultural shift owned by the organization and work culture. Organizations will increasingly shift towards a culture focusing on digital innovation and deep employee participation (Svahn et al., 2017). Based on this, digital change in the workplace does not only start from a shift in the mindset of leaders and organizations but also the mindset of employees in the organization.

In the digital transformation that takes place in the workplace, the employee's intention to continue to contribute by using tools in the digital workplace is also crucial. What are the hope and positive perspective that employees have is an important thing and must be considered. In the process of digital transformation in the workplace, it should not only focus on increasing employee productivity and performance but also pay attention to employee well-being.

In addition to the things mentioned earlier, the impact of leader behavior can also affect the intentions employees have in supporting digital change in the workplace. According to Bolden & O'Regan (2016), digital change poses new challenges for leaders. Different leader behavior will undoubtedly impact employee autonomy in implementing digital technology in the workplace. The impact of leader behavior on employee intentions will be examined alongside exploring the moderating effect of digital maturity in the organization.

2. Literature review

Employee autonomy

Employee autonomy can be defined as the extent to which an employee is given the flexibility and freedom to determine the schedule of tasks and the procedures used to carry out these tasks (Hackman & Oldham, 1976). An employee working remotely usually works longer and more intensely (Selimović et al., 2021). According to Dittes et al. (2019) an employee who is given the opportunity to make a decision independently in some situations and who has autonomy in doing the work that is responsible for them can increase productivity, innovation, and employee welfare. Research Gomber et al. (2018) also said that employees who have autonomy would have a negative effect on job burnout and a positive effect on work commitment. This is supported by (Bakker & Demerouti, 2017), autonomy is a situational work resource that facilitates performance and is contextualized through different motivations such as increased work involvement, commitment, and development.

According to Hon (2012); Duda & Peters (2014) said that if a manager supports employee autonomy in carrying out their duties, these employees will be more motivated and creative in completing their tasks. On the other hand, Khedhaouria et al. (2015) also states that management behavior promoting work autonomy and freedom will improve organizational and individual performance. In a meta-analysis study, (Christian et al., 2011) also showed that autonomy has a positive effect on task performance in various work contexts. An employee who is given the freedom to use digital tools at work will improve his performance in completing the assigned tasks. Therefore, the following hypothesis is proposed:

H₁. Work autonomy has a positive effect on employee work performance in the digital workplace

Employee relatedness

Employee relatedness can be described through an individual's connectedness with significant others who share the same values (Deci et al., 1991). In addition to employee performance and how employees carry out their duties in their way, employees also depend on how they relate to other people at work. Employee relatedness requires collaboration that contributes to exchanging ideas, confirmation, and knowledge, ultimately affecting employee performance improvement and innovation (Gilson et al.

2015; Karoui et al. 2015). When employees can deal with existing obstacles, they will make them carry out their duties more effectively and efficiently, which can make the business more agile and competitive (Igloo, 2017). Based on this description, individual engagement with other individuals can improve individual performance in the digital workplace. Therefore, the following hypothesis is proposed:

H₂. Employee engagement has a positive effect on employee work performance in the digital workplace

Employee performance

Employee performance can be defined as how each individual performs in work-related activities that are part of their requirements and responsibilities and how they contribute to the company differently (Hornyak et al., 2020; Williams & Anderson, 1991). According to some literature, such as Wang et al. (2017); Tarafdar et al. (2020); Maier et al. (2019), stated that the main driving factor in the occurrence of transformation in the workplace is employee performance felt by employees. The positive expectations that employees have regarding their performance and the well-being they feel at work in the future can influence employee motivation and intentions in the process of supporting transformation (Selimović et al., 2021). Briggs & Makice (2012) state that employees will feel comfortable accepting technology in the workplace because it will reduce resistance to future workplace changes.

An employee who feels satisfied with his performance in the organization and feels the fulfillment of psychological well-being due to digital presence in the workplace will make the employee less likely to resist changes in the workplace. Therefore, the following hypothesis is proposed:

H₃. Employee performance positively correlates with employee intentions in digital transformation in the workplace.

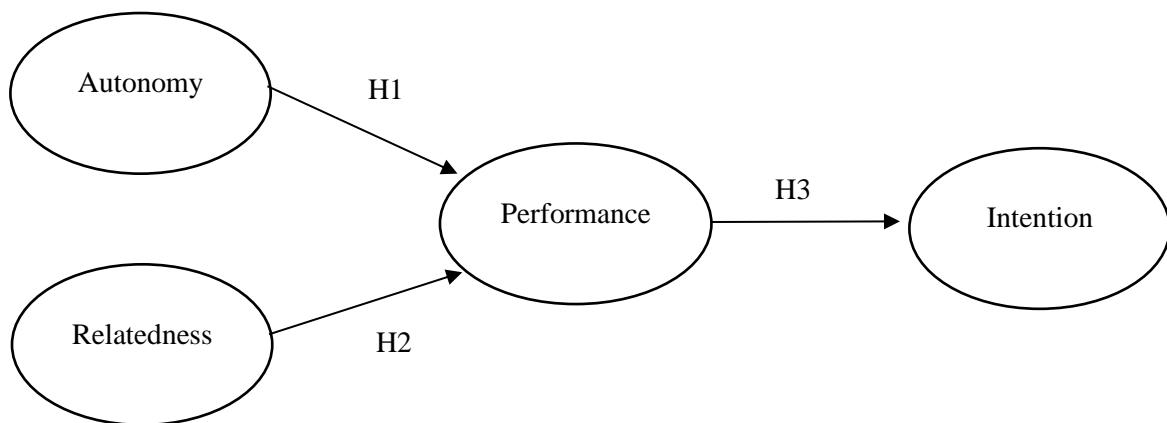


Figure 1. Research model

3. Method

This study uses a quantitative research design using surveys in its data collection techniques. In addition, this study used a cross-sectional method where data collection was carried out in October - November with an analysis unit for regional bank employees in the Surakarta Residency. Questionnaire distribution was done manually offline by visiting each branch office and unit in Solo Raya. A total of 135 questionnaires were distributed, but only 124 questionnaires were returned. Before conducting the analysis, respondents' answers were filtered again to separate answers with a standard deviation below 0.5. From this process, 95 respondent data were left, which were then analyzed using Smart-PLS version 3.0.

This research questionnaire includes several main variables, namely autonomy, relatedness, performance, and intention. The items contained in the questionnaire were evaluated using a 5-point Likert scale, namely 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. Question items for all variables were adopted from research by (Meske & Junglas, 2021). There are 3 item questions for autonomy (for example, I can be myself when working in a digitally changing workplace). Meanwhile, relatedness also has 3 question items (for example, I get along with people in my digital work environment). The performance variable contains 4 question items, with one of the questions being "Using a digitally changing workplace will increase my productivity". Finally, for the

intention variable, there are 5 question items, one of which is "I plan to participate constructively in the change process towards a digitally changing workplace".

4. Result and discussion

Result

Each existing construct is tested for validity and reliability testing. The validity test uses two types, namely, convergent validity and discriminant validity. Meanwhile, the reliability test was measured using Cronbach's Alpha and Composite Reliability (CR). Tables 1 and 2 summarize all the validity and reliability tests that have been carried out.

Table 1. Convergent validity and reliability

Items	Loadings	Cronbach's Alpha	CR	AVE
Autonomy		0,850	0,908	0,766
AU1	0,861			
AU2	0,890			
AU3	0,974			
Relatedness		0,800	0,882	0,713
RE1	0,804			
RE2	0,824			
RE3	0,902			
Performance		0,892	0,925	0,755
PE1	0,866			
PE2	0,866			
PE3	0,861			
PE4	0,881			
Intention		0,870	0,906	0,659
IN1	0,749			
IN2	0,839			
IN3	0,847			
IN4	0,769			
IN5	0,849			

Table 1 summarizes the results of the convergent validity and reliability, as well as the external loading of each construct. Starting from outer loading, all items can be accepted where each has an outer loading value of more than 0.708 (Hair et al. 2016). In addition, the results of the AVE value are also stated to be high, which is more than 0.5. This explains that the construct can explain more than half of the variance of the indicator (Hair et al. 2016). Based on this, each of the variables tested passed the convergent validity test. In addition, Cronbach's alpha value in this study also has high reliability, where the value is between 0.70 – 0.90 (Hair et al. 2016). In addition, composite reliability is also relatively high, composite reliability values range from 0 to 1, where the higher value indicates higher reliability. Based on this, each construct is declared reliable and reliable.

Table 2 summarizes the results of discriminant validity. Discriminant validity is how a construct shows a more unique construct than its counterparts. Based on Table 2, each construct has a unique value compared to other constructs, and this indicates that each existing question item can explain each construct.

This study tested R^2 adjusted, where the value can indicate the model's predictive power by showing the variance of the endogenous variables that the exogenous variables can explain. R value² adjusted in this study is 0.594, which shows that all the combined constructs can explain 59.4% of the variance in intention. Furthermore, this research also examines the value of Q^2 , where the value of Q^2 has a function to assess the value of the predictive relevance generated by the variable. The Q^2 value for performance is 0.439 and for intention is 0.385. The Q^2 value in this study is stated to have predictive relevance because it has a value above 0 (Chin, 2010). Furthermore, the discussion regarding hypothesis testing can be seen in Figure 2 and Table 3.

Table 2. Discriminant validity

	Autonomy	Intention	Performance	Relatedness
Autonomy	0,875			
Intention	0,669	0,812		
Performance	0,692	0,774	0,869	
Relatedness	0,587	0,621	0,696	0,845

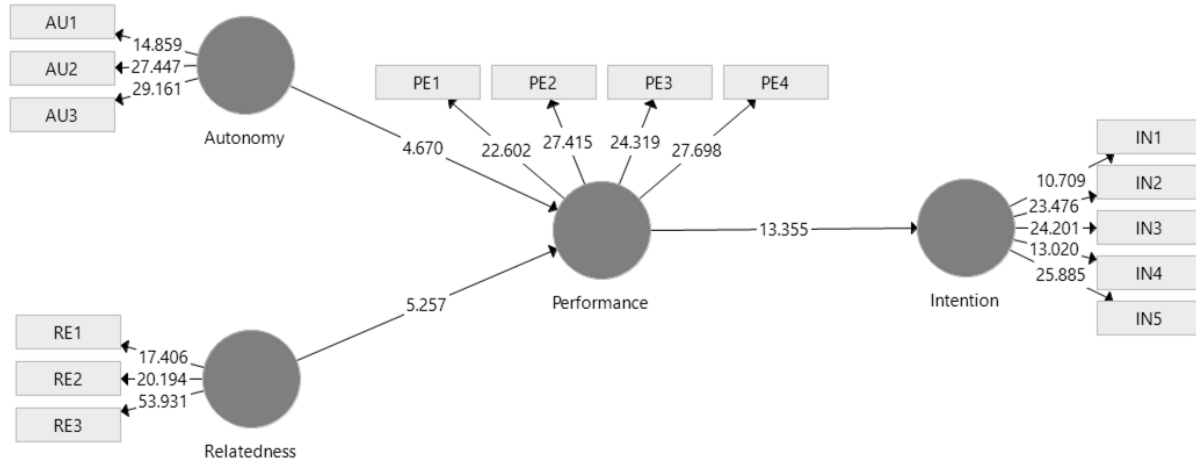


Figure 2. PLS path model

Table 3. Hypothesis testing

H#	Relationship	Std. dev	t-statistics	p-values	Result
H1	Autonomy -> Performance	0,096	4,522	0,000	Supported
H2	Relatedness -> Performance	0,092	4,791	0,000	Supported
H3	Performance -> Intention	0,057	13,510	0,000	Supported

The results of hypothesis testing were carried out using Bootstrapping Smart-PLS analysis. All results regarding the hypothesis test are shown in Figure 2 and Table 3. Based on Table 3, autonomy positively affects performance (p-value 0.000), which means that H1 is accepted. Furthermore, relatedness and performance also have a positive relationship (p-value 0.000) which means that H2 is accepted. Finally, H3 is also accepted because there is a positive influence between performance and intention (p-value 0.000).

Discussion

Different from research by Selimović et al. (2021), this study found that employees who have autonomy or freedom in determining how they complete their tasks have a positive effect on the performance of these employees in a digital work environment. This research supports previous existing research, such as research Gomber et al. (2018), which states that employees who have high autonomy have a negative effect on work fatigue. In addition, in the context of a digital work environment, the autonomy possessed by employees to make decisions is a strong predictor in determining employee performance (Meske & Junglas, 2021). (Koopman et al., 2002) also found a positive relationship between flexible work arrangements and employee productivity. Based on this, employees who have control over tasks and decision-making related to employees can have a positive effect on their performance.

Furthermore, this study also found that relatedness by each employee with other employees in the digital workplace also positively influence employee performance. The findings from this study support by Selimović et al. (2021), suggested that employees who feel connected to other individuals at work will achieve higher performance levels. In addition, employee relatedness requires collaboration that contributes to exchanging ideas, confirmation, and knowledge, ultimately affecting employee

performance and innovation (Gilson et al. 2015; Karoui et al. 2015). Furthermore, Colbert et al. (2016) states that an increase in technology has a direction in increasing employee relational expectations in digital places. Therefore, employees can feel connected with stakeholders and customers by having information, knowledge, and ideas (Dery et al., 2017). The relationship one individual owns with another individual in the digital workplace is one of the human psychological needs, namely relatedness. Having relatedness can significantly affect employee performance in a digital workplace.

Finally, the relationship between employee performance has a positive relationship with employee intentions to participate in supporting digital transformation, which is also proven in this study. This is in accordance with proprietary research by Selimović et al. (2021), which states that high-performance employees tend to be more prepared and willing to support digital transformation in the workplace. Colbert et al. (2016) state that employees who interact with technology will develop many competencies, such as how smoothly they use digital technologies that enable them to achieve desired results, solve problems, and design new ways of working. In addition, studies (Maier et al., 2017) find that performance is one of the key drivers for employees to support digital transformation in the workplace. Therefore, to prepare employees to support digital transformation in the workplace, it is necessary to improve employee performance first.

5. Conclusion

The development of digital technology in the world is one form of progress in human civilization. Therefore, it is necessary to have an attitude to keep abreast of technological developments, whether for individuals or companies. Companies must also be aware that digital transformation in the workplace is determined by how sophisticated the tools are and by the availability of adequate human resources. In increasing high performance to increase employee desire to support digital transformation in the workplace, it is necessary to fulfill basic psychological needs such as autonomy and relatedness. This can concern any company wishing to undertake digital transformation in the workplace. Companies can pay attention to the psychological needs of their employees before deciding to carry out digital transformation.

On the other hand, this study has several limitations and suggestions for further research. This study only focuses on basic psychological needs such as autonomy and relatedness and employee performance as independent variables. For future research, it may be possible to add variables on the role of leadership, corporate culture, and other factors that can influence employee intentions to support digital transformation in the workplace. In addition, this research is only limited to the banking financial sector, so the research results cannot describe more broadly. Further research can expand to other sectors, such as manufacturing, hospitality, or others sectors. Lastly, the method used still uses cross-sections due to time constraints. Therefore, future research is expected to use the longitudinal method to explain the processes that occur in objects.

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