The Influence of Autonomy, Competence, Relatedness, and Technostress on Performance Expectations in Digital Transformation of Public Broadcasting Institutions in Indonesia

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Abstract

Digital transformation is an emerging technological phenomenon that profoundly influences various aspects of work within an organization. In this context, the willingness of employees to consistently contribute to a digitally transformed workplace becomes crucial in the overall transformation process. Therefore, this study aimed to determine the influence of autonomy expectations, competence, relatedness, and technostress on employees' performance expectations. It involved permanent employees of LPP TVRI who have been working for a minimum of 2 years and the data were collected using a questionnaire. Furthermore, a total of 238 respondents were included in the study and the data was analyzed using Partial Least Square (PLS-SEM). The results showed a positive influence between expectations of autonomy, competence, and relatedness to performance but technostress had no significant effects on the variable. This study provided insights for practitioners in the public sector, specifically in the broadcasting media, regarding how employees’ performance was shaped by autonomy, competence, relatedness, and technostress.

Keywords: Performance; Competence; Autonomy; Technostress; Digital Transformation; Public Broadcasting Institutions

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Abstrak


Kata Kunci: Kinerja; Kompetensi; Otonomi; Technostress; Transformasi Digital; Public Broadcasting Institutions

INTRODUCTION

Digital transformation has become a critical issue for all sectors of companies in Indonesia. The implementation can impact businesses and enhance community engagement, as well as drive economic growth (Alvarenga, Matos, Godina, & Matias, 2020). Furthermore, Indonesia has tremendous potential to rise and leverage its resources to become a more advanced nation through digitalization. The estimated contribution of the digital economy in 2020 was around 3.17%, with a target of 4.66% by 2024. The government also allocated funds of Rp 13.4 trillion from the state budget (APBN) to accelerate digitalization programs. According to previous studies, the ICT sector contributed 7.54% to the GDP in 2020, and this percentage is expected to increase significantly, reaching 11.2% by 2024 (RPJMN, 2020). Therefore, the Ministry of Communication and Information has prepared a Draft Strategic Plan for 2020 - 2024 to build a structured basis for national digitalization. This is reflected in the 3 strategic objectives of the Ministry of Communication and Informatics to improve quality ICT infrastructure in all regions, accelerate digital transformation driven by human resources in knowledge related to technology, and improve the management of public communications (Renstra Ministry of Communication and Information, 2020). However, Indonesia has not been able to maximize these potentials because there are still challenges to be faced. These challenges include the provision of uneven infrastructure, inadequate human resources, and the community’s lack of literacy in technology (Puskajianggara DPR RI Report, 2021). Indonesia’s lack of
readiness in facing digital transformation can also be seen in the Network Readiness Index report (2020) which evaluates a country's readiness in facing the digital revolution. This assessment can be seen in Figure 1.1 below.

![Figure 2: Indonesia global ranking, overall and by pillar](image)


Based on Figure 1.1, Indonesia ranks 73rd out of 134 countries measured in terms of readiness for digitalization. The assessment is based on the performance across several pillars, including technology, society, governance, and impact. According to the World Digital Competitiveness Ranking Report (2020), the digital transformation process ranks 56th out of 63 countries. In comparison, Malaysia is positioned 26th, and Singapore holds the 2nd position. These rankings indicate that Indonesia lags in terms of digital transformation (IMD World Competitiveness Center, 2020).

Several urgencies are underlying digital transformation in Indonesia. The first is to achieve the vision of 2045, where one of the pillars focuses on human resource development, improving technological literacy, and increasing the prospects of the digital economy by 40% (Coordinating Ministry for Economic Affairs, 2021).

The efforts to support the acceleration of digital transformation include guiding and accelerating the broadcasting programs, which need to be implemented promptly considering the infrastructure lag in digitization globally (Ministry of Communication and Information, 2020). The success of a digitally transformed work environment is not solely dependent on technological efficiency but also on the processes and the ability of human resources to adapt (OJK, 2022).

In addition to the implementation of digital tools, it is crucial to recognize the significance of employees' intention to actively participate in a digitally transformed workplace, accompanied by positive expectations and perceptions. Moreover, attending to the psychological needs of employees, specifically autonomy, competence, and relatedness, assumes great importance, and aligns with the principles of self-determination theory (SDT), where psychological needs profoundly influence performance expectations within a digitally transformed work environment (Selimović, Velić, & Krndžija, 2021).

TVRI is the only public broadcasting institution subjected to a process of transformation by implementing a digital-based system in the past two years. The implementation covers various aspects, including broadcasting systems, production equipment, and employees’ administration management. The positive impact resulting from digital transformation is that employees find it
easier to perform their tasks. Additionally, they are motivated to showcase their creativity. There are obstacles to this digitalization process, particularly from employees accustomed to the manual systems previously in place. The lack of knowledge and confidence in using technology can affect their attitudes and support toward the digitalization process.

Meske & Junglas (2021) contributed to introducing the concept of digital transformation by incorporating a micro-perspective into their study. The study created a new construct that captures employees' intention to support the change process driven by information technology. However, the previous result did not explore the negative aspects experienced by employees when facing digital transformation. To address the gap, this study adds technostress as a factor to complement the previous results. There is still a lack of study development on technostress and its relationship with micro-level theories due to the limited exploration in the broadcasting media sector regarding the readiness to face digital transformation and its relationship with micro-level theories such as the self-determination theory on performance. Therefore, this study confirms previous results (Meske & Junglas, 2021; Selimović, Velić, & Krndžija, 2021) by modifying the approach. Based on the exposition, it is conducted to understand how autonomy, competence, relatedness, and technostress influence performance expectations in digitally transformed workplaces, and their impact on attitudes and intentions to actively support digital transformation. It is believed that employees' active support for the change process is only possible when they have a favorable attitude toward the change process.

Work Design Characteristics

Based on the information provided by management regarding upcoming technological changes, employees form expectations about the possible characteristics of job design and potential work outcomes. The envisioned or expected work outcomes depend on the expectations formed (Meske & Junglas, 2021). In this context, the self-determination theory, which emphasizes the individual's need for autonomy, competence, and relatedness, provides valuable assistance in understanding perceptions and expectations regarding job design characteristics and subsequent work outcomes (Deci, Olafsen, & Ryan, 2017).

The Need for Autonomy in the Digital Workplace

Autonomy can be understood as the feeling of being able to initiate and regulate the actions of an individual (Meske & Junglas, 2021; Deci et al., 1989). The possibility for employees to make independent decisions in certain situations and have autonomy in completing job tasks enhances productivity, and innovation (Selimović et al., 2021).

H1: Expectations of autonomy positively affect the expectations of employees' performance.
Competency Needs in the Digital Workplace

Competence encompasses the comprehension of strategies to attain both external and internal objectives, as well as possessing the ability to execute the required actions proficiently. The need for this variable encapsulates an individual's confidence in actively pursuing and skillfully mastering tasks within their domain (Meske & Junglas, 2021; Deci et al., 1989).

H2: Competency expectations positively influence employees’ performance expectations.

The Need for Connectivity in the Digital Workplace

Connectedness refers to the degree to which digitally transformed workplaces cultivate a sense of unity and collaboration among employees within an organization (Selimović et al., 2021). The need for connectedness refers to an individual's drive to experience a sense of connection with others, to be part of a group with shared values, and to maintain positive social relationships (Meske & Junglas, 2021; Deci et al., 1991). The study by Deci et al. (2017) explained that when colleagues supported relatedness, employees were more self-motivated and creative.

H3: Expectations of relatedness positively influence employees’ performance expectations.

Technostress

According to Tarafdar et al. (2019), technostress is a process that involves the presence of technology-related environmental conditions perceived as demands or techno-stressors affecting individuals. It triggers coping behavior as a response that leads to negative psychological, physical, and behavioral outcomes. There are five categories of techno-stressors, namely techno-insecurity, techno-overload, techno-invasion, and techno-uncertainty.

H4: Technostress negatively influences employees’ performance expectations.

Performance Expectations

Performance expectation captures the proactivity of employees in engaging in activities that positively influence the changing environment, and it is an outcome of psychological states. The variable refers to the level of expectations placed on information technology to enhance individual performance (Meske & Junglas, 2021; Cai, Huang, Liu, & Wang, 2018).

To successfully achieve digital transformation, organizations need to

Figure 2. Study Model

Source: Results Processed by Researchers (2022)

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pay attention to individuals’ basic psychological needs, namely autonomy, competence, and relatedness, ultimately impacting performance expectations. Autonomy, competence, and relatedness have been studied and the result shows a positive influence on performance expectations. This is due to the lack of exploration in the broadcast media sector regarding digital transformation and its relation to micro perspective theories.

**METHOD**

Data collection was carried out on a population of 523 employees at the Television Republic of Indonesia (LPP TVRI) using a structured questionnaire. It used a seven-point Likert Scale of 1 to 7 for strongly disagree to strongly agree. Autonomy, Competence, and Relatedness were measured according to Deci et al. (2001) and Spreitzer (1995), while technostress was accessed based on Nathan et al. (2008). Performance expectations were measured by Vankatesh et al. (2003), and the results of the questionnaire were processed and analyzed using Structural Equation Modeling based on Partial Least Square (PLS-SEM).

**RESULTS AND DISCUSSION**

**A. Characteristics of Respondents**

The characteristics of respondents were gender, age, education, and length of work, as shown in Table 1. below.

**Table 1. Characteristics of Respondents**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>133</td>
<td>55.9%</td>
</tr>
<tr>
<td>Female</td>
<td>105</td>
<td>44.1%</td>
</tr>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;21-30</td>
<td>127</td>
<td>53.4%</td>
</tr>
<tr>
<td>&gt;30-40</td>
<td>49</td>
<td>20.6%</td>
</tr>
<tr>
<td>&gt;40-50</td>
<td>28</td>
<td>11.8%</td>
</tr>
<tr>
<td>Over 50</td>
<td>34</td>
<td>14.3%</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D1/D2/D3</td>
<td>31</td>
<td>13%</td>
</tr>
<tr>
<td>S1/D4</td>
<td>178</td>
<td>74.8%</td>
</tr>
<tr>
<td>S2</td>
<td>16</td>
<td>6.7%</td>
</tr>
<tr>
<td>S3</td>
<td>1</td>
<td>0.4%</td>
</tr>
<tr>
<td>High school/vocational school</td>
<td>12</td>
<td>5%</td>
</tr>
<tr>
<td>Length of work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - 3 years</td>
<td>77</td>
<td>32.4%</td>
</tr>
<tr>
<td>&gt; 3 – 5 years</td>
<td>58</td>
<td>24.4%</td>
</tr>
<tr>
<td>&gt; 5 – 7 years</td>
<td>23</td>
<td>9.7%</td>
</tr>
<tr>
<td>&gt; 7 – 9 years</td>
<td>9</td>
<td>3.8%</td>
</tr>
<tr>
<td>&gt; 9 – 11 years</td>
<td>11</td>
<td>4.6%</td>
</tr>
<tr>
<td>&gt; 11 – 13 years</td>
<td>9</td>
<td>3.8%</td>
</tr>
<tr>
<td>&gt; 13 – 15 years</td>
<td>10</td>
<td>4.2%</td>
</tr>
<tr>
<td>More than 15 years</td>
<td>41</td>
<td>17.2%</td>
</tr>
</tbody>
</table>

Source: Primary Data (2022).

This study involved employees with a minimum and maximum age in the range of <21 and more than 50 years. Based on the table, the majority were male participants with a percentage of 55.9%. Meanwhile, this study encompassed a total of 127 individuals (53.4%), with their ages falling within the range of 21 to 30 years. These participants constituted employees from diverse educational backgrounds, ranging from high school/vocational school to a doctoral degree. The table showed that
the predominant education level among participants was S1/D4, with a total of 178 accounting for 74.8%. The findings indicated that 77 participants in total (32.4%), had amassed work experience spanning 1-3 years.

B. Data Analysis

a. Measurement Model Analysis

The SmartPLS application was used to test the measurement model for validity and reliability. The purpose of the validity test was to ascertain whether the constructs met the necessary criteria to proceed with the study. Furthermore, the reliability test established the accuracy, consistency, and precision of the measurement instruments employed in assessing a construct. The reliability of indicators was evaluated by considering outer loading values exceeding 0.708. For the assessment of internal consistency, composite reliability values above 0.70 were examined. To evaluate convergent validity at the construct level, the average variance extracted (AVE) was scrutinized, with a standard threshold of 0.50 or higher. Finally, the method of discriminant validity was evaluated through the Fornell-Larcker criterion, where the correlations between indicators within each variable were greater than others (Hair et al., 2019).

Table 2 shows that all variables have composite reliability and AVE values above 0.70 and 0.50. The tested variables were valid and also reliable, hence, they should be continued in the subsequent analysis of testing the structural model.

<table>
<thead>
<tr>
<th>Study variable</th>
<th>Composite Reliability</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relatedness</td>
<td>0.85</td>
<td>0.654</td>
</tr>
<tr>
<td>Performance</td>
<td>0.835</td>
<td>0.559</td>
</tr>
<tr>
<td>Competence</td>
<td>0.866</td>
<td>0.683</td>
</tr>
<tr>
<td>Autonomy</td>
<td>0.858</td>
<td>0.668</td>
</tr>
<tr>
<td>Techno Complexity</td>
<td>0.908</td>
<td>0.665</td>
</tr>
<tr>
<td>Techno Insecurity</td>
<td>0.909</td>
<td>0.668</td>
</tr>
<tr>
<td>Techno_Invasion</td>
<td>0.917</td>
<td>0.735</td>
</tr>
<tr>
<td>Techno Overload</td>
<td>0.902</td>
<td>0.647</td>
</tr>
<tr>
<td>Techno Uncertainty</td>
<td>0.863</td>
<td>0.614</td>
</tr>
</tbody>
</table>

Source: Study Processed Results, 2022

b. Structural Model Analysis

In this study, significance testing was conducted to determine whether a hypothesis was accepted or rejected, considering the significance values between constructs, t-statistics, and p-values. Hypothesis testing was performed using Bootstrapping in PLS-SEM with a subsample of 5000, a significance level of 0.05, and a one-tailed test. In the testing method, a hypothesis was accepted when the t-values were greater than 1.65 and/or the p-values were smaller than 0.05. Based on these criteria, Table 3 summarized the results of the hypothesis testing.

The data analysis indicated that autonomy expectation, competence, and connectedness variables had a positive influence on employees’ performance expectation, with a p-value of 0.001 (<0.05), 0.006 (<0.05), and 0.045 (<0.05), respectively. Meanwhile, technostress had no significant influence on

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employees’ performance expectations, with a p-value of 0.057 (>0.05).

Table 3. Hypothesis Test Results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Study variable</th>
<th>Original Sample</th>
<th>T Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Autonomy -&gt; Performance</td>
<td>0.198</td>
<td>3.359</td>
</tr>
<tr>
<td>H2</td>
<td>Competence -&gt; Performance</td>
<td>0.211</td>
<td>2.734</td>
</tr>
<tr>
<td>H3</td>
<td>Relatedness -&gt; Performance</td>
<td>0.148</td>
<td>2.007</td>
</tr>
<tr>
<td>H4</td>
<td>Technology Stress -&gt; Performance</td>
<td>0.101</td>
<td>1.906</td>
</tr>
</tbody>
</table>

Source: Processed by the Author (2022)

This study highlights the significance of fostering employees’ autonomy, competence, and connectedness within the workplace as crucial factors for anticipated future performance. Specifically, the findings indicate that granting autonomy in decision-making has a noteworthy and positive impact on performance. Therefore, employees are provided with an adequate degree of freedom and flexibility to make decisions on their work processes. The results are in line with Meiske & Junglas (2021), where there is a positive and significant influence of the relationship expectations on performance expectations. According to Selimović et al. (2021), engagement with others positively influences performance in the digital workplace. Therefore, employees who feel connected at work achieve higher job performance. The study by Deci et al. (2017) explained that when co-workers supported relatedness, employees were more independently motivated and creative in their work. The study showed that there was no influence of technostress on performance expectations. This was also supported by Su and Chao (2022), where technostress did not have a significant influence on the variable. Therefore, it did not support the hypothesis that technostress had a negative influence on performance.

This study shows that employees are proactively ready to face transformation in the workplace. They have a positive attitude toward transformation in the workplace and are willing to actively participate in the transformation process. This is in line with the Theory of Planned Behavior where attitude is an important predictor of individual intentions (Ajzen & Fishbein 1977). This study explores the employees’ conviction that adopting a digital workplace can enhance overall well-being. Consequently, employees anticipate experiencing increased levels of autonomy, competence, and

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connectedness. They exhibit a sense of confidence in the ability to effectively navigate the digital landscape to make independent decisions. Moreover, employees firmly believed that this transformation fostered an environment conducive to staying connected with others.

CONCLUSION

In conclusion, the three basic human psychological needs (autonomy, competence, and relatedness) under the framework of Self-Determination Theory positively influence employees' performance expectations in digitally transforming workplaces. However, technostress, with its dimensions of techno-overload, techno-invasion, techno-complexity, techno-insecurity, and techno-uncertainty, does not have an impact on performance in digitally transforming workplaces.

This study had several limitations within a specific organizational context, namely LPP and TVRI, limiting the generalizability of the findings. Furthermore, it employed a single cross-sectional design, which did not allow the casual examination of the relationships between the variables studied and their developments over different periods. This study did not conduct interviews to gain a deeper understanding of employees' perceptions.

Suggestions for future studies are to expand the object by targeting several companies. These studies can add to the micro-level perspective of digital transformation to show the different influences on the digital workplace environment with different cultures or levels of organizational digitization. Self-determination should also be compared with other theories that provide similar insights into human motivation and behavior, such as social cognitive theory.

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