Research Article

THE EFFECT OF DIGITAL CULTURE AND WORK BEHAVIOUR ON EMPLOYEE PERFORMANCE AND ITS IMPACT ON ORGANIZATIONAL PERFORMANCE IN HIGHER EDUCATION

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Abstract: This study aims to analyze the influence of digital culture and work behavior on employee performance and its impact on organizational performance in higher education. A quantitative research approach was employed, using structured questionnaires from 230 individuals and the statistical analysis of Partial- Least-Squares Structural- Equation Modeling (PLS-SEM). The findings reveal that digital culture has a positive effect on employee performance; however, its impact on organizational performance through employee performance as an intervening variable is not statistically significant. In contrast, work behavior significantly positively influences employee and organizational performance directly and indirectly through employee performance as an intervening variable. These results highlight the importance of strengthening work behavior and optimizing the implementation of digital culture across all levels of the organization to achieve improved organizational performance.
Keywords: Digital Culture, Work Behaviour, Employee Performance, and Organizational Performance

I. INTRODUCTION

Higher education institutions, particularly private universities (PTS), are facing increasingly fierce competition due to the significant rise in their numbers. Universities with competitive advantages are becoming more attractive to the public, while those lacking such advantages are gradually being left behind. Competition in the higher education sector encompasses various aspects reflecting its dynamic nature, such as innovative curricula, reputation, adaptable teaching methods, student enrollment, pricing and value, industry partnerships, educational globalization, as well as government technology and regulations. To navigate this competitive landscape, institutions must continuously adapt and innovate to maintain or enhance their standing. Private universities, as business entities, rely on various interconnected factors to sustain their performance and longevity. These factors include increased student enrollment, sustainable growth, profitability, adoption of innovative technologies, student satisfaction, and the quality of services provided. Additionally, adaptive leadership, stakeholder networks, and regulatory compliance play pivotal roles in maintaining competitiveness and ensuring operational sustainability in the evolving education industry [1].

In Indonesia, the competitive advantage of higher education institutions requires substantial improvement. A significant weakness lies in the relatively low quality of education compared to other countries. This is evident from Worldtop20 rankings, which placed Indonesia's education system 67th out of 203 countries in 2024. Moreover, the university graduation rate, which stands at only 19%, highlights a substantial challenge in the higher education sector, falling far behind the completion rates of other educational levels [2].

The low quality of higher education also underscores the need for professional management of educational institutions. The poor rankings of Indonesian universities globally and in Asia reflect the inadequate standards of education in the country. Contributing factors include internal issues such as economic limitations forcing individuals to prioritize work over education, high tuition fees, and low public awareness about the importance of higher education. External challenges include the uneven distribution of universities, a shortage of qualified educators, and curricula that fail to align with workforce demands [3].

This low standard of education has far-reaching implications for the national economy, as the lack of a qualified workforce can lead to business failures, high unemployment, inadequate technological proficiency, and resistance to adopting new advancements. As a result, the country often relies on foreign expertise to fill these gaps [24]. Telkom University achieved a perfect score in teaching, facilities, innovation, and employability according to QS Stars 2023. Despite excelling in many

categories, improvements are needed in internationalization efforts. In the Webometrics 2023 rankings, Telkom University ranked first among private universities and 12th nationally, with an international ranking of 1,268. While its online visibility is strong, there is still room for improvement in research quality and international impact [3].

Digital transformation has become a critical strategy for higher education institutions to enhance operational efficiency, service quality, and innovation. Telkom University, as one of Indonesia's leading institutions rooted in information and communication technology, is committed to adapting to technological advancements to maintain its competitive edge. While the university has achieved recognition through high scores in various aspects of the QS Stars assessment, challenges remain in adopting a comprehensive digital culture across all organizational levels. Individual Performance Score (NKI) data from 2021 to 2023 indicates fluctuations in non-academic staff performance, highlighting the need to strengthen digital culture implementation and foster supportive work behavior to achieve organizational goals.

Digital culture refers to the values, norms, and practices that facilitate the effective use of technology within organizations. Key dimensions, such as innovation, data-driven decision-making, and collaboration, are essential for enhancing employee efficiency. At Telkom University, the implementation of digital culture aims to not only improve operational processes but also create an ecosystem that encourages cross-unit collaboration. However, the inconsistent application of digital culture among non-academic staff suggests areas for improvement in employee engagement to fully support organizational performance. Work behavior is another critical factor influencing both individual and organizational performance. Encompassing elements such as job engagement, collaboration, adaptability, positive work behavior enables employees to efficiently complete tasks and contribute significantly to organizational goals. However, the role of work behavior as an intervening variable in the relationship between digital culture and organizational performance remains underexplored, particularly in the context of higher education institutions. This gap necessitates further investigation to understand the dynamics between these variables.

Organizational Culture Theory provides a relevant framework for examining the interplay between shared organizational values, employee behavior, and performance outcomes. According to this theory, consistently internalized values within an organization shape behavioral patterns that support organizational objectives. In the context of Telkom University, a strong digital culture is expected to act as a catalyst for enhancing the work behavior of non-academic staff, ultimately leading to improved organizational performance.

Previous studies support the importance of digital culture and work behavior in driving organizational success. [4] and [5] found that digital culture fosters efficiency and innovation; however, their research primarily focuses on industrial sectors and does not address the unique dynamics of higher education. Similarly, [6] highlights the necessity of cultural and behavioral changes in digital transformation. Despite these findings, their application to non-academic staff in higher education institutions remains limited.

The urgency of this research lies in the growing reliance on digital transformation in the education sector and the need to align human resource strategies with technological advancements. Telkom University, as a technology-oriented institution, can lead in implementing effective digital culture practices. To achieve this, a deeper understanding of how digital culture and work behavior influence non-academic staff performance and their impact on organizational performance is crucial.

This study aims to address these gaps by analyzing the influence of digital culture and work behavior on non-academic staff performance and its subsequent impact on organizational performance at Telkom University. By employing quantitative methods and a robust theoretical framework, this research seeks to provide strategic recommendations for optimizing digital culture implementation and fostering positive work behavior. The findings are expected to contribute to the broader literature on digital culture in higher education while offering actionable insights for improving organizational performance in the digital era.

II. LITERATURE REVIEW

A) *Digital Culture*

The rapid advancement of communication technology and virtual connectivity has fundamentally transformed the way organizations manage talent, execute tasks, and perceive workplace culture. Digital technology has enhanced operational efficiency and broadened organizational objectives, reshaping the dynamics of work environments. As noted by [7], these technological advancements redefine task distribution and create new paradigms in organizational interactions. Digital Culture encompasses seven essential attributes: Innovation, Data-Driven Decision-Making, Collaboration, Open Culture, Digital-First Mindset, Agility and Flexibility, and Customer Centricity [8]. These elements collectively enable organizations to leverage technology effectively, fostering improved operational performance and strategic outcomes.

Digital Culture represents a deeply rooted framework of values, beliefs, and norms that promote and sustain the effective use of technology to achieve organizational goals [9]. Emerging as a transformative cultural phenomenon, it reflects the broader impact of digitalization on organizational structures and practices. Scholars such as [10] and [11] emphasize that Digital Culture is not merely an adaptation to technological changes but a redefinition of cultural practices within organizations. By integrating Digital Culture, organizations can cultivate environments that prioritize efficiency, innovation, and customer-centric strategies, aligning their operations with the demands of a rapidly evolving technological landscape.

B) *Work Behaviour*

Work behavior encompasses an individual's responses, including actions, attitudes, or perceptions, toward their job, workplace conditions, and interactions with supervisors. [12] emphasize that work behavior reflects self-actualization through attitudes, shaping how employees act in the work environment. Similarly, [13] highlights that work behavior is influenced by working conditions and the treatment received from supervisors, encompassing both the attitudes and perceptions of employees. Work behavior can be understood as a reaction expressed through actions or attitudes toward one's professional role and environment. It also serves as a mechanism for employees to actualize themselves within the workplace, underscoring the influence of organizational conditions and leadership interactions in shaping employee behavior [14].

C) Employee Performance

Employee performance refers to the outcomes achieved by individuals in fulfilling their assigned responsibilities and contributing to organizational goals. [15] emphasize that performance is measured by the extent of employees' contributions, irrespective of whether the results are deemed good or bad. Similarly, [16] view employee performance as the result of work efforts without qualitative or quantitative judgment. [17] highlight its critical role as the foundation of organizational performance, significantly influencing organizational effectiveness. [18] expand this definition by incorporating behaviors driven by technical knowledge, skills, adaptability, and interpersonal relationships, which enhance team spirit and organizational loyalty.

D) Organizational Performance

Organizational performance is broadly defined as the overall effectiveness of an organization in meeting stakeholder needs through systematic efforts and continuous improvement of its capabilities [19]. It serves as an indicator of achievement and organizational success, reflecting the outcomes achieved by its members. Similarly [20] describe organizational performance as the results attained within a specific period, aligned with predetermined standards and long-term objectives. Both perspectives highlight that organizational performance is closely tied to employee productivity, effectiveness, and efficiency. A high level of employee performance contributes to the organization's ability to meet its goals successfully. Conversely, failure to meet set targets signifies poor organizational performance. Thus, organizational performance reflects the capacity to achieve sustainable improvements while ensuring satisfaction among stakeholders and members.
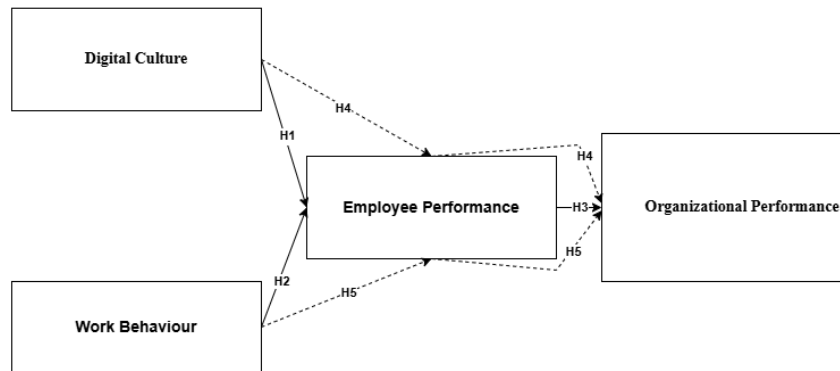

Figure 1: Conceptual Framework

By elucidating the relationship between digital culture and work behavior on organizational performance, this study aims to contribute to the existing body of literature. It is essential to conduct research across diverse cultural contexts to validate previous findings and develop practical applications for various situations. This study considers employee performance engagement as a mediating variable, as it examines a conceptual framework of both direct and indirect relationships concerning employee performance. Figure 1 shows the conceptual framework of this study. There are six hypotheses tested, namely:

H1: The Influence of Digital Culture on Employee Performance at Higher Education
H2: The Influence of Work Behavior on Employee Performance at Higher Education.
H3: The Influence of Employee Performance on Organizational Performance at Higher Education.
H4: Employee Performance Mediates the Effect of Digital Culture on Organizational Performance at Higher Education.
H5: Employee Performance Mediates the Effect of Work Behavior on Organizational Performance at Higher Education.

In this study, an explanatory approach is used to examine the relationship of each variable. The instrument employs a Likert-Scale ranging from 1 (strongly disagree) to 5 (strongly agree). The data collected was analyzed using Partial Least Squares

Structural Equation Modeling (PLS-SEM), which was selected because the variables under study were unobservable through multiple indicators.

III. RESULTS AND DISCUSSION

A. Resoindent Characteristics

The total sample size was 230 respondents, representing a response rate of approximately 95% from the total population of 539 non-academic staff at Telkom University. Respondents included individuals with diverse characteristics, predominantly female (58%), aged 26–30 years (49.1%), holding a bachelor's degree (61.3%), and with 4–5 years of work experience (40.8%).

Tabel 1: Respondent Demographics

Characteristics Based on Gender		
Gender	**Total (Person)**	**Percetange (%)**
Male	96	42
Female	134	58
Characteristics Based on Age		
< 25 Tahun	26	11,3%
26 - 30 Tahun	113	49,1%
31 - 35 Tahun	62	26,9%
36 - 40 Tahun	16	6,9%
41 - 45 Tahun	5	2,1%
46 - 50 Tahun	5	2,1%
>51 Tahun	3	1,3%
Characteristics Based on Work Experience		
< 1 Tahun	10	4,3%
1 – 3 Tahun	89	38,6%
4 – 5 Tahun	94	40,8%
>5 – 10 Tahun	37	16%
Characteristics Based on Education		
SMA/ SMK	10	4,3%
DIPLOMA	56	24,3%
S1	141	61,3
S2	23	10%

B) Measurement model

This study employs Partial Least Squares (PLS) analysis using SmartPLS 4.0 to explore the relationships among the variables being investigated. The analysis is conducted in two stages: evaluating the measurement model (outer model) and the structural model (inner model). The outer model evaluation assesses the reliability and validity of the constructs through convergent validity, discriminant validity, and composite reliability, ensuring that the indicators accurately represent their respective latent variables. Meanwhile, the inner model evaluation examines the relationships between the latent variables, focusing on path coefficients, the explanatory power of the model (R^2), predictive relevance (Q^2). Together, these evaluations ensure the validity and robustness of the findings, providing meaningful insights into the variable relationships in the study
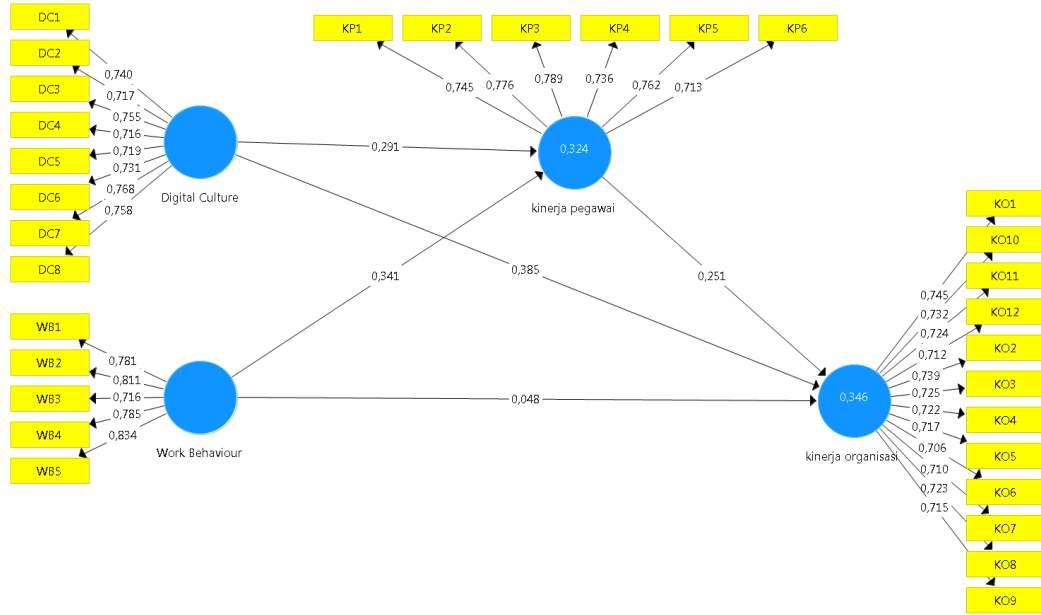
Figure 2: Outer Model Diagram

The measurement model was first examined to test reliability and validity of the proposed model, as in Tabel 2.

Table 2. The Quality Criterion

Variable	Items	Loading	AVE	Cronbach Alpha	CR
Digital Culture	DC1	0.740	0.545	0.881	0.905
	DC2	0.717			
	DC3	0.755			
	DC4	0.716			
	DC5	0.719			
	DC6	0.731			
	DC7	0.768			
	DC8	0.758			
Work Behaviour	WB1	0.781	0.522	0.845	0.890
	WB2	0.811			
	WB3	0.716			
	WB4	0.785			
	WB5	0.834			
Employee Performance	EP1	0.745	0.568	0.849	0.887
	EP2	0.776			
	EP3	0.789			
	EP4	0.736			
	EP5	0.762			
	EP6	0.745			
Organizational Performance	OP1	0.739	0.619	0.917	0.929
	OP2	0.725			
	OP3	0.722			
	OP4	0.717			
	OP5	0.717			
	OP6	0.710			
	OP7	0.723			

	OP8	0.715			
	OP9	0.732			
	OP10	0.724			
	OP11	0.712			

Source: SmartPLS output (2024)

The evaluation of the measurement model involved testing the reliability and validity of each construct, including Digital Culture, Work Behavior, Employee Performance, and Organizational Performance. Table 2 provides the quality criteria for each construct, including factor loadings, Average Variance Extracted (AVE), Cronbach's Alpha, and Composite Reliability (CR). All constructs met the threshold values, with AVE values exceeding 0.50, Cronbach's Alpha values above 0.70, and CR values above 0.80, indicating acceptable convergent validity and internal consistency.

The two-step data analysis process began with the measurement model, which confirmed that the indicators reliably measured their respective constructs. The second step involved analyzing the structural model to test the hypotheses and examine the relationships among variables. The findings demonstrated that Digital Culture and Work Behavior significantly influenced Employee Performance, while Employee Performance further mediated their impact on Organizational Performance.

These results underscore the importance of adopting robust analytical tools like PLS-SEM to explore the relationships between constructs and their mediating effects. The analysis provided insights into the role of Digital Culture and Work Behavior in enhancing Employee Performance and, ultimately, Organizational Performance at Telkom University. Therefore, we conclude that all variables used in this model have achieved high validity and reliability.
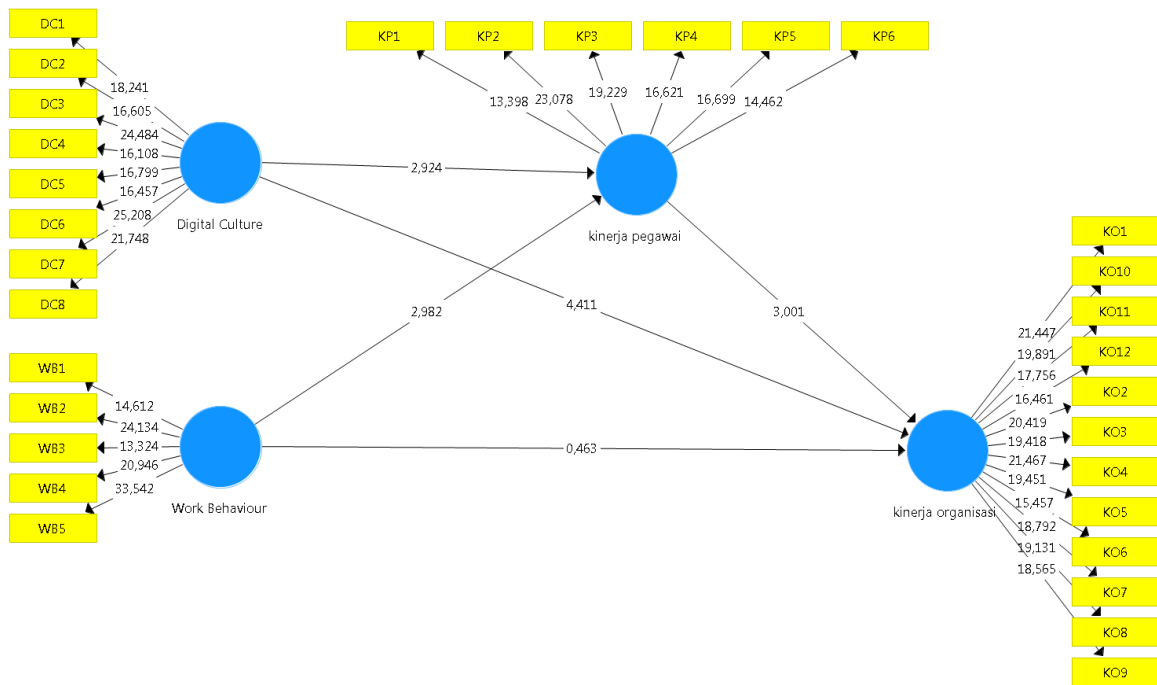

Figure 3: Inner Model Diagram

The evaluation of the **inner model** involves assessing the structural model to predict causal relationships between latent variables and test hypotheses. This evaluation is conducted using criteria such as **R-squared (R²)** and **Q-squared predictive relevance (Q²)**. Table 3 provides the Structural Model Evaluation (Inner Model) for the inferential results.

Table 3. R Square (R^2) and Q Square (Q^2)

Variables	R Square (R^2)	Q^2
Employee Performance	0.346	0.272
Organizational Performance	0.324	0.275

Source: SmartPLS output (2024)

Based on Tabel 3 digital culture and work behavior have a moderate influence on organizational performance and a weak influence on employee performance. Table 4 shows that all hypotheses for direct effects are accepted, except for the effect of digital culture on organizational performance mediated by employee performance. All indirect relationships tested in the study demonstrated significant effects. These findings are further elaborated in the discussion section.

Table 4. Hypothesis Testing Result of Direct and Indricet Influence

Hipotesis	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	Keterangan
H1: DC -> KP	0.291	0.298	0.105	2.777	0.006	Accepted
H2: WB -> KP	0.341	0.339	0.118	2.893	0.004	Accepted
H3: KP -> KO	0.251	0.248	0.082	3.060	0.002	Accepted
H4: DC -> KP -> KO	0.073	0.075	0.040	1.835	0.067	Rejected
H5: WB -> KP -> KO	0.086	0.082	0.039	2.209	0.027	Accepted

Source: SmartPLS output (2024)

Result Hypothesis Testing:

H1: With a t-statistic value of 2.777 (>1.96), a p-value of 0.006 (<0.05), and an original sample value of 0.291 (positive), the hypothesis is accepted. Digital Culture has a positive effect on Employee Performance.

H2: With a t-statistic value of 2.893 (>1.96), a p-value of 0.004 (<0.05), and an original sample value of 0.341 (positive), the hypothesis is accepted. Work Behavior has a positive effect on Employee Performance.

H3: With a t-statistic value of 3.060 (>1.96), a p-value of 0.002 (<0.05), and an original sample value of 0.251 (positive), the hypothesis is accepted. Employee Performance has a positive effect on Organizational Performance.

H4: With a t-statistic value of 1.835 (<1.96), a p-value of 0.067 (>0.05), and an original sample value of 0.073 (positive), the hypothesis is rejected. Employee Performance does not significantly mediate the influence of Digital Culture on Organizational Performance.

H5: With a t-statistic value of 2.209 (>1.96), a p-value of 0.027 (<0.05), and an original sample value of 0.086 (positive), the hypothesis is accepted. Employee Performance mediates the influence of Work Behavior on Organizational Performance.

C) Discussion

This study investigated the influence of digital culture and work behavior on employee performance and its subsequent impact on organizational performance at Telkom University. The findings provide valuable insights into the mediating role of employee performance and its implications for organizational success.

The results reveal that work behavior significantly influences employee performance, which in turn positively impacts organizational performance. This aligns with [21]. who emphasized the importance of proactive, adaptive, and collaborative behaviors in enhancing individual performance. Similarly, [22] highlighted the role of organizational citizenship behavior (OCB) in improving organizational efficiency and effectiveness through consistent and collaborative individual contributions. These findings underscore the critical role of fostering positive work behaviors to achieve sustainable organizational outcomes.

In contrast, the mediating effect of employee performance in the relationship between digital culture and organizational performance was found to be insignificant. This finding suggests that while digital culture positively influences employee performance, its full potential in driving organizational performance may be hindered by challenges in implementation. This observation aligns with [23], who noted that digital transformation often fails to yield significant results without comprehensive changes in organizational culture, employee training, and leadership support. Furthermore, [23] identified challenges in integrating digital culture into organizational strategies, which can limit its effectiveness in achieving strategic objectives.

The findings highlight the need for Telkom University to enhance the integration of digital culture across all organizational levels. This includes fostering leadership that actively supports cultural transformation, providing targeted training programs to enhance employee adaptability, and aligning digital initiatives with organizational goals. Such efforts can strengthen the link between digital culture and organizational performance, ensuring that the benefits of technological advancements are fully realized.

Moreover, the significant role of work behavior as a driver of employee performance emphasizes the importance of cultivating a work environment that encourages engagement, collaboration, and adaptability. By promoting these behaviors,

organizations can achieve higher levels of employee and organizational performance, even amidst dynamic changes in the external environment.

Overall, this study contributes to the growing body of literature on digital culture and work behavior, particularly within the context of higher education institutions. The findings provide practical recommendations for organizations aiming to optimize employee performance and organizational outcomes in the digital era.

IV. CONCLUSION

This study investigated the influence of digital culture and work behavior on employee performance and their subsequent impact on organizational performance at Telkom University. The results indicate that digital culture positively influences employee performance, but its indirect effect on organizational performance, mediated by employee performance, is not statistically significant. Conversely, work behavior shows a significant positive impact on both employee performance and organizational performance, directly and indirectly through employee performance. These findings emphasize the importance of cultivating positive work behaviors and effectively implementing digital culture to enhance organizational performance.

While this study offers valuable insights, it has certain limitations. First, the research focuses exclusively on non-academic staff at Telkom University, which may limit the applicability of the findings to other sectors or to academic staff. Second, the use of self-reported questionnaires could introduce response bias due to social desirability or subjective perceptions. Third, the cross-sectional research design restricts the ability to infer causality between the variables.

V. REFERENCES