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Improving task performance using digital leadership through individual creativity among employees of PT Rokok Elektrik Enak (Vapeboss) In Surabaya, Indonesia

Rakha Luqmanul Hakim and Amiartuti Kusmaningtyas *

Management Study Program, Faculty of Economics and Business, Universitas 17 Agustus 1945 Surabaya, Indonesia.

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Abstract

This study investigates the impact of Digital Leadership on Task Performance, with Individual Creativity serving as a mediating variable. Utilizing a quantitative approach and data analysis through Structural Equation Modeling – Partial Least Squares (SEM-PLS), the study was conducted in the organizational of PT Rokok Elektrik Enak (Vapeboss) in Surabaya, Indonesia. The findings reveal that Digital Leadership has a strong and statistically significant influence on Individual Creativity and Task Performance. Furthermore, Individual Creativity positively affects Task Performance and also significantly mediates the relationship between Digital Leadership and Task Performance. These results emphasize that Digital Leadership not only directly contributes to improved employee performance but also enhances performance through fostering creativity. The mediating role of Individual Creativity strengthens the influence of leadership on performance outcomes, indicating that creativity is both a pathway and an amplifier for effective leadership. Theoretical contributions of this research lie in its application of Social Exchange Theory in a digital organizational context, showing that leaders who invest in digital competencies and support creative behavior elicit reciprocal improvements in employee performance. Practically, the study highlights the strategic need for organizations to develop digital leadership capabilities and nurture a creative work environment to drive sustained task performance and innovation.

Keywords: Employee Performance; Leader-Member Exchange; LMX; Work Discipline; Work Environment

1. Introduction

In the era of digital transformation, the performance of employees in carrying out their core tasks has become one of the key determinants of organizational success. Task performance refers to an individual's effectiveness and proficiency in executing duties that are central to their role, contributing directly to organizational goals [1]. This includes the quality and quantity of work, timeliness, application of knowledge, and skill in completing tasks in accordance with organizational standards [2]. As the workplace becomes increasingly shaped by technological innovation, organizations are challenged to align human resources with evolving strategic and operational demands.

Effective task performance is no longer solely dependent on traditional management approaches. According to [3], optimizing task performance today requires a strategic approach to talent management, particularly by recognizing how digitalization reshapes the dynamics of employee roles. Companies need to understand how attraction, development, and retention of talent are interconnected with employee performance. One critical component in this context is employee creativity, which enables individuals to respond flexibly and innovatively to new challenges. As [4] point out, digital literacy alone does not necessarily enhance organizational performance; it is through its application in everyday tasks that real value is realized. Employees equipped with digital skills must also possess the creative capacity to translate those skills into effective outcomes.

* Corresponding author: Amiartuti Kusmaningtyas

The importance of leadership in this change cannot be emphasized enough. Digital leadership has surfaced as a modern leadership style that enables the efficient application of digital tools to enhance communication, collaboration, innovation, and flexibility. Digital leaders are expected to understand not only how to implement technology but also how to inspire teams to work creatively and efficiently within a digital framework. Research by [5] confirms that digital leadership positively influences task performance, especially when mediated by employee creativity. Similarly, [6] contend that personal creativity entirely mediates the connection between digital leadership and employee performance, highlighting the necessity for leaders to foster an innovative culture in their organizations.

The theoretical foundation for examining these relationships is grounded in Social Exchange Theory. According to this theory, organizational support expressed through leadership behaviors such as providing resources, trust, flexibility, and recognition acts as a form of exchange that encourages employees to reciprocate with higher levels of commitment and performance [7]. Employees who feel supported are more likely to be engaged, creative, and willing to exceed standard performance expectations. This exchange of value forms the basis for improved task performance in digitally enabled work environments.

Despite the growing body of research linking leadership, creativity, and performance, there remains a limited understanding of how these dynamics operate in developing country contexts, particularly within emerging industries undergoing rapid digitalization. The electronic cigarette industry in Indonesia represents one such context. Companies in this sector are not only adapting to technological shifts but also navigating competitive pressures and changing consumer behavior. One such company, PT Rokok Elektrik Enak (Vapeboss), founded in 2017 in Surabaya, operates with approximately 60 employees and is undergoing a period of digital transformation. This presents a unique opportunity to investigate how digital leadership affects employee outcomes within a real-world, technology-driven environment.

This research, therefore, aims to examine the effect of digital leadership on task performance through the mediating role of individual creativity. The study adopts a quantitative, causal research design to empirically test a conceptual framework developed from previous literature. Primary data were collected through structured questionnaires distributed to employees of PT Rokok Elektrik Enak (Vapeboss), and analyzed using path analysis with SmartPLS version 4.0. The study aims to add to the body of work on leadership and organizational behavior by confirming the theoretical connections among digital leadership, creativity, and task performance.

In practical terms, this study is expected to provide insight for companies navigating digital transformation, particularly in optimizing human capital. By understanding the mechanisms through which digital leadership influences employee performance, organizations can design more effective strategies for leadership development, employee training, and performance management. Specifically, the findings may guide managers in identifying the leadership qualities and organizational conditions that foster creativity and task effectiveness among employees.

Overall, this study addresses a timely and important topic in organizational research, offering both theoretical and managerial implications. In a world increasingly defined by technological disruption, understanding how leadership and creativity interact to drive performance is essential for sustaining competitiveness and growth.

2. Material and methods

This research utilized a quantitative method with a causal research framework to examine the impact of Digital Leadership on Task Performance, where Individual Creativity acted as a mediating factor. The research was conducted over a period of three months, from March to June 2025, at PT Rokok Elektrik Enak (Vapeboss), a Surabaya-based company in the electronic cigarette industry. The company, which employs 60 individuals, operates in a highly dynamic business environment that demands effective leadership and innovative employee performance.

The entire population of 60 employees was involved in the study using a saturated sampling technique, meaning all members of the population were selected as research subjects. This method ensures full data representation without the need for probabilistic sampling and is appropriate when dealing with relatively small populations.

Data were collected using a structured questionnaire, which had been adapted from previously validated instruments used in related research. The questionnaire consisted of items measuring three primary constructs: Digital Leadership, Individual Creativity, and Task Performance. Each item was rated using a five-point Likert scale, ranging from “strongly disagree” to “strongly agree.” A pilot test was conducted prior to distribution to ensure clarity and appropriateness of the questions within the organizational context of Vapeboss.

In addition to primary data, this research also utilized secondary data such as the company's organizational structure, vision and mission, and various internal documents. These secondary sources provided deeper insight into the organizational background, helping contextualize the primary data and support the interpretation of the findings.

The study employed the Structural Equation Modeling (SEM) method with the Partial Least Squares (PLS) technique to evaluate the data and assess the research model, supported by SmartPLS version 4.0. This method was chosen due to its suitability for exploring complex relationships between variables in small to medium-sized samples. The use of SEM-PLS enabled the researchers to examine both direct and indirect effects within the proposed conceptual model, aligning with the study's objective to assess the mediating role of creativity.

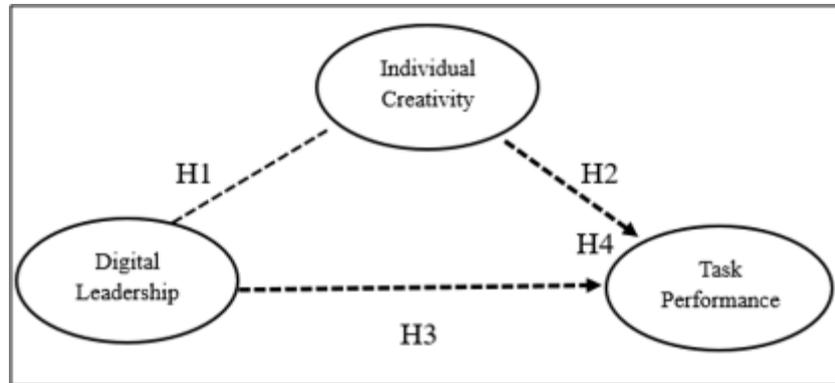


Figure 1 Conceptual Framework

The conceptual framework of the study, as shown in Figure 1, presents the hypothesized relationships among the variables:

- H1: Digital Leadership positively influences Individual Creativity.
- H2: Individual Creativity positively influences Task Performance.
- H3: Digital Leadership directly influences Task Performance.
- H4: Individual Creativity mediates the relationship between Digital Leadership and Task Performance.

These hypotheses were formulated based on the Social Exchange Theory, which suggests that supportive leadership fosters employee reciprocity, leading to increased motivation, creativity, and performance. Leaders who apply digital tools effectively can encourage innovation and adaptive behavior, which translates into improved task execution.

The decision to study this relationship within Vapeboss was based on the company's ongoing efforts to integrate digital tools into its operations and human resource practices. As an organization in a competitive and evolving industry, Vapeboss provides a relevant context to explore how digital leadership strategies influence performance outcomes.

This methodological framework was designed not only to test theoretical assumptions but also to provide practical implications. The findings are expected to inform companies operating in digitally-driven industries about the importance of investing in leadership and creativity development to enhance employee effectiveness.

In conclusion, this study used a clear and rigorous approach to investigate how digital leadership and individual creativity interact to shape employee task performance. The combination of a complete sample, validated instruments, and an appropriate analytical technique ensures that the results of this study are both statistically sound and practically useful.

3. Results

3.1. Outer Model

3.1.1. Convergent validity

Convergent validity pertains to the degree to which indicators anticipated to assess the same variable demonstrate a solid and consistent correlation. The table below displays the outer loading values for each indicator utilized in this research.

Table 1 Outer Loading

Variable	Indicator	Outer Loading
Digital Leadership (X)	X1.1	0.900
	X1.2	0.893
	X1.3	0.862
	X1.4	0.910
Task Performance (Y)	Y.1	0.907
	Y.2	0.880
	Y.3	0.800
	Y.4	0.894
	Y.5	0.906
	Y.6	0.735
	Y.7	0.851
Individual Creativity (M)	M.1	0.812
	M.2	0.879
	M.3	0.847
	M.4	0.929

According to the information presented in table 1 regarding outer loading, it can be seen that the final results of the value of factor loading data processing on the Digital Leadership, Individual Creativity, and Task Performance variables have met the requirements with a factor loading value > 0.70 so it can be concluded that the statement items on the indicators in the variables described in the table are spread declared valid.

3.1.2. Discriminant Validity

Cross loading is used to test the validity discriminant, through observing whether all indicators have higher loading on the measured variable than different variables. The following table shows the cross-loading values of all indicators:

Table 2 Cross Loading

Indicator	Digital Leadership (X)	Task Performance (Y)	Individual Creativity (M)
IC 1	0.800	0.812	0.789
IC 2	0.786	0.879	0.827
IC 3	0.782	0.847	0.804
IC 4	0.781	0.929	0.815
DL 1	0.900	0.827	0.866

DL 2	0.893	0.763	0.857
DL 3	0.862	0.904	0.876
DL 4	0.910	0.729	0.834
TP 1	0.846	0.820	0.907
TP 2	0.883	0.845	0.880
TP 3	0.783	0.735	0.800
TP 4	0.856	0.792	0.894
TP 5	0.850	0.834	0.906
TP 6	0.738	0.731	0.735
TP 7	0.806	0.819	0.851

Table 2 demonstrates that the cross-loading value for every indicator is higher in its respective construct than in the indicators of other constructs. This indicates that every indicator exhibits strong discriminant validity.

Table 3 Average Variance Extracted (AVE)

Variable	AVE	Remark
Digital Leadership	0.795	Valid
Task Performance	0.731	Valid
Individual Creativity	0.753	Valid

Table 3 shows the results of the Average Variance Extracted (AVE) test, indicating that Digital Leadership. The variables of Task Performance and Individual Creativity have an AVE value greater than 0.50. Consequently, it can be determined that the three variables have satisfied the validity criteria established in this research.

3.1.3. Construct Reliability

Composite reliability and Cronbach's alpha are utilized to assess the reliability or internal consistency of the variables. The subsequent table illustrates the composite reliability and Cronbach alpha values for this research.

Table 4 Cronbach Alpha and Composite Reliability

Variable	Cronbach alpha	Composite reliability
Digital Leadership	0.914	0.915
Task Performance	0.938	0.940
Individual Creativity	0.890	0.890

Table 4 shows that the values of Cronbach's alpha and composite reliability for each variable exceed 0.70. Therefore, it can be determined that all variables exhibit strong reliability and can be considered dependable.

3.2. Inner Model

3.2.1. R-Square Test

The R-square value of 0.67 signifies a strong association, indicating that the outcomes are favorable. The R-Square value of 0.33 suggests a moderate correlation. In contrast, the R-Square value of 0.19 suggests a weak correlation [8].

Table 5 R-Square

Variable	R-Square	Indication
Individual Creativity	0.825	High
Task Performance	0.952	High

The R-Square value for the Task Performance variable is 0.952, indicating a strong association. This indicates that 95.2% of Task Performance is affected by Digital Leadership and Individual Creativity, while the remaining 4.8% is shaped by other factors. The R-Square value for the Individual Creativity variable is 0.825, indicating a strong correlation. This indicates that 82.5% of Individual Creativity is affected by Digital Leadership, leaving 17.5% to be influenced by other elements.

3.2.2. Hypothesis Testing

In this research, the hypothesis was evaluated to assess the importance and intensity of the connection between variables. If the path coefficient and T statistic values exceed 1.96, it suggests a substantial effect. The effect is considered substantial when the P-value is <0.05 , while it is viewed as not substantial if the P-value is >0.05 [9]. The following table shows the results of hypothesis testing for each relationship between the variables tested.

Table 6 Path Coefficients

Variable	Original Sample	T statistics	P values
Digital Leadership \rightarrow Individual Creativity	0.908	31.426	0.000
Digital Leadership \rightarrow Task Performance	0.650	4.784	0.000
Individual Creativity \rightarrow Task Performance	0.352	2.452	0.014
Individual Creativity x Digital Leadership \rightarrow Task Performance	0.076	2.018	0.044

Data processing via the application of Structural Equation Modeling – Partial Least Squares (SEM-PLS) revealed that Digital Leadership significantly impacts Individual Creativity, indicated by a path coefficient of 0.908, a T-statistic value of 31.426, and a p-value of 0.000. The values indicate that digital leadership significantly and positively influences individual creativity; in other words, digital leadership has a very strong influence on encouraging individual creativity. The values also satisfied the two parameters for determining statistical significance: T value >1.96 and p value <0.05 , following the definitions outlined by [10].

Additionally, Digital Leadership also statistically significantly influenced Task Performance, with a coefficient of 0.650, a T-statistic value of 4.784, and a p-value of 0.000. This indicates that the higher communicative capacity and IT infrastructure engagement of Digital Leadership has a positive effect on individual task performance within an organization; the greater the level of digital leadership, the higher the task performance.

An analysis of the path coefficients for Individual Creativity suggested that Individual Creativity had a significant effect on Task Performance ($\beta=0.352$, $T=2.452$, $p=0.014$). This shows that a high level of Individual Creativity positively contributes to an improvement of Task Performance, and further supports creativity as a significant element in support of performance.

Interestingly, there was an interaction analysis in this study between Individual Creativity and Digital Leadership (the moderator) that were both included in the analysis with respect to Task Performance that was also significant ($\beta=0.076$, $T=2.018$, $p=0.044$). While the coefficient is relatively small, it's statistically significant. Thus, we can infer that Individual Creativity enhances the connection between Digital Leadership and Task Performance; in other words, the impact of Digital Leadership on Task Performance is more pronounced when the individual possesses a high level of creativity.

In summary, the results help emphasize not only the importance of Digital Leadership on performance, but the importance of Digital Leadership in supporting Individual Creativity. Creativity has both a mediating role, and moderator role to enhance the effect of digital leadership on Task Performance.

4. Discussion

This study discusses the role of digital leadership in influencing employee task performance through individual creativity, conducted within the organizational context of PT Rokok Elektrik Enak (Vapeboss). The discussion is organized according to the main hypothesis paths tested and compared to relevant existing theories and literature to provide deeper insight.

4.1. Digital Leadership and Individual Creativity

The findings indicate that digital leadership has a significant and positive effect on individual creativity among employees. This supports the view that leaders who are technologically adaptive and supportive of digital exploration foster innovative behavior among their teams. The ability to use digital tools strategically and encourage experimentation creates a psychologically safe space where employees can generate novel ideas. This result aligns with [11], who emphasized that effective digital leaders create an environment conducive to innovation. Within Vapeboss, operating in a digital-heavy industry, such leadership becomes essential to stimulate creative thinking as part of everyday work culture.

4.2. Individual Creativity and Task Performance

The study confirms that individual creativity significantly enhances task performance. Employees with higher levels of creativity demonstrate better problem-solving, adaptability, and value-added contributions. This is especially critical in rapidly changing industries such as electronic cigarettes, where product development and marketing innovation determine competitive advantage.

These findings are consistent with [12], who proposed that individual creativity is a core determinant of performance, particularly in dynamic work environments. Creative employees are not only more engaged but also more effective in achieving task-related goals.

4.3. Digital Leadership and Task Performance

Digital leadership is also found to directly impact task performance positively. Leaders who provide technological direction and foster digital competence help employees optimize their task execution. Such leadership improves responsiveness to market demands and boosts operational productivity. In this case, digital leadership plays a strategic role in helping employees understand digital market trends, implement online campaigns, and utilize management tools that enhance efficiency and collaboration.

4.4. The Mediating Role of Individual Creativity

The research indicates that personal creativity acts as a mediator between digital leadership and task performance. When creativity is fostered, the beneficial effect of digital leadership on task performance increases. Conversely, low levels of creativity may reduce the effectiveness of leadership efforts.

This mediating effect highlights the importance of not only developing digital leadership capabilities but also actively fostering individual creativity within the organization. It implies that creativity acts as a bridge through which leadership translates into enhanced employee output.

4.5. Contribution

These findings contribute theoretically by reinforcing the relevance of Social Exchange Theory in digital contexts. Leaders who invest in digital resources and empower employees create a reciprocal dynamic where employees respond with innovation and improved performance. The identified mediating role of creativity enriches conceptual models of digital leadership and organizational performance.

Practical implications are particularly relevant for PT Vapeboss and similar companies:

- **Digital Leadership Development:** Companies should invest in continuous leadership training that emphasizes digital fluency, virtual communication, and data-driven decision-making.
- **Creativity Support Systems:** Organizations should provide structural and cultural support for creativity. This can include idea competitions, innovation rewards, and flexible work systems.
- **Cultural Transformation:** In fast-moving industries, promoting an adaptive and innovation-oriented culture is essential. Building such a culture ensures that employees are resilient, future-ready, and performance-driven.

5. Conclusion

This study examined the effect of digital leadership on task performance, with individual creativity serving as a mediating variable, using the case of PT Rokok Elektrik Enak (Vapeboss) in Surabaya. The findings provide several important conclusions that highlight the strategic role of leadership and creativity in the digital era.

Initially, the research validates that digital leadership positively and significantly impacts individual creativity. Digitally skilled leaders who promote innovation foster a workplace that inspires employees to think imaginatively and pursue fresh concepts. This demonstrates that leadership styles aligned with technological change can foster the intellectual stimulation necessary for innovation at the individual level.

Second, individual creativity significantly affects task performance. Employees who demonstrate creative thinking are more capable of finding effective solutions, adapting to change, and improving work efficiency. Creativity enhances their ability to perform tasks with higher quality and flexibility, which is particularly essential in industries that demand continuous innovation.

Third, digital leadership directly influences task performance, suggesting that leaders who effectively utilize digital tools and strategies contribute to increased productivity, efficiency, and clarity in task execution. This direct relationship reinforces the idea that digital competencies at the leadership level translate into tangible performance improvements.

Ultimately, the research indicates that personal creativity influences the connection between digital leadership and task performance. This means that the impact of digital leadership on performance is strengthened when employees are encouraged to be creative. Without creativity, the influence of leadership may be less effective. Thus, both leadership and creativity must be cultivated simultaneously to achieve optimal task outcomes.

In conclusion, the research emphasizes the dual importance of advancing digital leadership competencies and promoting a creative work culture as key drivers of employee performance in digitally evolving organizations.

Compliance with ethical standards

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Disclosure of conflict of interest

Authors do not have any conflict of interest to declare.

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