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The Effect of Digital Mindset and Critical Thinking on Employee Performance at Bank Mandiri (Persero) Tbk., Region I Sumatera 1

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Abstract

This study aims to analyze the influence of digital mindset and critical thinking on the performance of employees of Bank Mandiri (Persero) Tbk. Region I Sumatra 1. The era of rapid digital transformation requires banking organizations to have human resources that are adaptive, innovative, and able to think critically in the face of changing business dynamics. Digital mindset is understood as a mindset that is open to digital technology, innovation, and change, while critical thinking is the ability to systematically analyze, evaluate, and synthesize information to produce appropriate and quality decisions. The research uses a quantitative approach with a survey method. The research population is all employees of Bank Mandiri Region I Sumatra 1 which totals 1,250 people, with a sample of 304 respondents selected using the proportional stratified random sampling technique. Data were collected through a structured questionnaire with a 5-point Likert scale and analyzed using the Structural Equation Modeling Partial Least Squares (SEM-PLS) method with the help of SmartPLS 4.0 software. The results showed that digital mindset had a positive and significant effect on employee performance ($\beta = 0.412$; $p < 0.001$), critical thinking had a positive and significant effect on employee performance ($\beta = 0.358$; $p < 0.001$), and digital mindset and critical thinking simultaneously had a significant effect on employee performance with an R^2 value of 0.621, which means that the two variables were able to explain 62.1% of employee performance variations. These findings affirm the importance of developing a digital mindset and critical thinking skills as the main strategy in improving the performance of human resources in the banking sector in the digital era.

Keywords: Digital Mindset, Critical Thinking, Employee Performance, Bank Mandiri, Digital Transformation

INTRODUCTION

Indonesia's banking industry is undergoing a fundamental transformation due to the acceleration of digitalization accelerated by various factors, ranging from changes in consumer behavior, the development of financial technology (fintech), to the impact of the Covid-19 pandemic which has accelerated the massive adoption of digital services. Bank Mandiri (Persero) Tbk. as one of the largest and leading banks in Indonesia is inseparable from the dynamics of these changes, especially in the operational area of Region I which includes the provinces of North Sumatra, Aceh, and its surroundings.

The phenomenon that is of serious concern in this study is the existence of a significant gap between the performance targets set by management and the realization of employee

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performance in the field. Based on the internal performance report of Bank Mandiri Region I Sumatra 1 for the 2021-2023 period, the average achievement of Key Performance Indicators (KPIs) of employees is at 78.3%, still below the optimal target set at 90%. This condition indicates a fundamental problem in the ability of employees to adapt to the ever-evolving digital-based work ecosystem.

On the other hand, an initial survey conducted by researchers on 45 employees of Bank Mandiri Region I Sumatra 1 in October 2023 found several worrying facts: as many as 62.2% of respondents admitted that they still had difficulties in operating the new digital system implemented by the company; 57.8% stated that they did not have an adequate understanding of digital-based data analysis; and 53.3% admitted that they often experience obstacles in decision-making that require deep analytical thinking when facing complex customer problems. These findings directly direct attention to two critical variables: digital mindset and critical thinking.

Digital mindset is a person's way of view and mental orientation that is open to digital technology, change, virtual collaboration, and continuous innovation (Solberg et al., 2020). Employees with a strong digital mindset tend to be more proactive in adopting new technologies, more adaptive to changes in work processes, and more creative in utilizing digital platforms to increase productivity. Meanwhile, critical thinking refers to the structured cognitive process of analyzing, evaluating, and synthesizing information to produce logical, rational, and evidence-based conclusions and decisions (Paul & Elder, 2020).

In the context of digital banking, the combination of digital mindset and critical thinking is very relevant because employees are not only required to be technically proficient in using technology, but also must be able to think critically in evaluating massive information, detecting potential risks, understanding customer needs deeply, and designing innovative solutions. These two abilities interact synergistically in forming comprehensive employee competencies in the industrial era 4.0.

Previous studies have partially proven the relevance of these two variables. For example, Kusumawardani et al. (2022) found that digital mindset has a positive effect on employee performance in the banking sector in Jakarta with a coefficient of 0.48. Meanwhile, Wahyuningtyas and Puspitasari (2023) in a study on SOEs in the financial sector proves that critical thinking contributes significantly to improving the quality of decisions and the effectiveness of employee work. However, research that specifically examines the simultaneous influence of these two variables on employee performance in the context of regional banking in Sumatra is still very limited, so this study is here to fill the research gap.

Based on the background that has been described, this study aims to: (1) analyze the influence of digital mindset on the performance of Bank Mandiri Region I Sumatra 1 employees; (2) analyzing the influence of critical thinking on the performance of Bank Mandiri Region I Sumatra 1 employees; and (3) analyze the simultaneous influence of digital mindset and critical thinking on the performance of Bank Mandiri Region I Sumatra 1 employees.

METHOD

Research Design and Approach

This study uses a quantitative approach with an explanatory research design, which aims to explain the causal relationship between the variables studied. The data collection method was carried out through a survey using a structured questionnaire distributed online (via Google Forms) and offline to selected respondents.

Population and Sample

The research population is all permanent employees of Bank Mandiri (Persero) Tbk. Region I Sumatra 1 which totals 1,250 people, spread across various positions and work units. The determination of the sample size was based on the Slovin formula with an error rate of 5%,

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resulting in a minimum sample of 303 respondents. The researcher assigned a sample of 304 respondents to meet the adequacy of the SEM-PLS data (10 times the number of indicators). The sampling technique uses proportional stratified random sampling, where the proportion of samples is adjusted to the distribution of the population based on job title and work area.

Research Instruments

The research variables were measured using a 5-point Likert scale (1 = Strongly Agree to 5 = Strongly Agree). The digital mindset was measured by 18 statement items adapted from Solberg et al. (2020) and Gartner (2021). Critical thinking was measured with 15 statement items adapted from the Watson-Glaser Critical Thinking Appraisal (Watson & Glaser, 2022) and Facione (2021). Employee performance was measured by 12 statement items adapted from Bernardin and Russel in Robbins and Judge (2023) and Armstrong and Taylor (2023). The total instrument amounts to 45 statement items. Instrument trials were conducted on 40 non-sample respondents to ensure validity and reliability.

Data Analysis Techniques

Data analysis was conducted using the Structural Equation Modeling Partial Least Squares (SEM-PLS) method with SmartPLS 4.0 software. The analysis was carried out in two stages: (1) Evaluation of the Measurement Model (Outer Model) which included the test of convergent validity (Average Variance Extracted/AVE > 0.50; outer loading > 0.70), discriminant validity (Heterotrait-Monotrait Ratio/HTMT < 0.85), and reliability (Composite Reliability/CR > 0.70; Cronbach's Alpha > 0.70); and (2) Evaluation of the Structural Model (Inner Model) which includes R^2 value, path coefficient, t-statistical value, and p-value through a bootstrapping procedure with 5,000 subsamples.

RESULTS AND DISCUSSION

Characteristics of Respondents

Of the 304 questionnaires distributed, all of them returned and could be used in the analysis (100% response rate). Table 1 presents the demographic profile of the respondents.

Table 1. Respondent Characteristics (n = 304)

Characteristics	Categories	Frequency (%)
Gender	Male	168 (55,3%)
	Women	136 (44,7%)
Age	< 25 years old	42 (13,8%)
	25 – 35 years old	128 (42,1%)
	36 – 45 years old	96 (31,6%)
	> 45 years old	38 (12,5%)
Education	D3	47 (15,5%)
	S1	218 (71,7%)
	S2/S3	39 (12,8%)
Tenure	< 5 years	76 (25,0%)

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	5 – 10 years	112 (36,8%)
	11 – 20 years	84 (27,6%)
	> 20 years old	32 (10,5%)
Departments	Staff/Implementer	142 (46,7%)
	Supervisor	89 (29,3%)
	Manager	57 (18,8%)
	Senior Manager+	16 (5,3%)

Instrument Validity and Reliability Test

Evaluation of the measurement model (outer model) is carried out to ensure the validity and reliability of the research construct. Table 2 presents a summary of the results of the outer model test.

Table 2. Evaluation Results of Measurement Model (Outer Model)

Construct	AVE	CR	α Cronbach	Ket.
Digital Mindset (DM)	0,612	0,943	0,935	Valid & Reliable
Critical Thinking (CT)	0,584	0,921	0,908	Valid & Reliable
Employee Performance (KK)	0,597	0,918	0,901	Valid & Reliable

All constructs met the criteria of convergent validity (AVE > 0.50) and reliability (CR > 0.70; α > 0.70). The HTMT value between constructs was also below the limit of 0.85 (HTMT DM-CT = 0.742; HTMT DM-KK = 0.761; HTMT CT-KK = 0.718), so that the discriminant validity is met.

Table 3. Outer Loading Indicator per Construct

No.	Indicator	Outer Loading	Remarks
	Digital Mindset		
DM1	Openness to new digital technologies	0,821	Valid
DM2	Adaptability to digital change	0,798	Valid
DM3	Data-driven decision-making orientation	0,814	Valid
DM4	Collaboration in the digital ecosystem	0,773	Valid
DM5	Innovation and experimentation orientation	0,802	Valid
DM6	Commitment to continuous learning	0,789	Valid
	Critical Thinking		

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CT1	Complex information analysis capabilities	0,804	Valid
CT2	Ability to evaluate arguments and evidence	0,791	Valid
CT3	Systematic problem-solving orientation	0,816	Valid
CT4	Evidence-based reasoning	0,782	Valid
CT5	Openness of intellectual mind	0,763	Valid
	Employee Performance		
KK1	Quality of work results	0,812	Valid
KK2	Output quantity produced	0,794	Valid
KK3	Timeliness of task completion	0,808	Valid
CD4	Initiative and innovation in work	0,776	Valid
KK5	Effectiveness of teamwork and collaboration	0,783	Valid
KK6	Utilization of digital technology	0,798	Valid

Structural Model Test Results (Inner Model)

Table 4. Hypothesis Test Results (Bootstrapping 5,000 Subsamples)

Hypothesis	β	Std. Error	T-Statistics	p-value	Results
H1: DM → CD	0,412	0,061	6,754	< 0.001	Supported
H2: CT → KK	0,358	0,058	6,172	< 0.001	Supported
H3: DM+CT → KK	—	—	—	< 0.001	Supported

Table 5. Coefficient of Determination and Effect Size

Endogenous constructs	R^2	Q^2 (Blindfolding)	f^2
Employee Performance (KK)	0,621	0,384	—
Effects of DM on KK	—	—	0.248 (Medium)
Effects of CT on KK	—	—	0.193 (Medium)

Discussion

The Influence of Digital Mindset on Employee Performance

The results of the first hypothesis test (H1) showed that digital mindset had a positive and significant effect on the performance of employees of Bank Mandiri Region I Sumatra 1, with a path coefficient (β) of 0.412 and a t-statistical value of 6.754 ($p < 0.001$). These findings mean that every one increase in the employee's digital mindset will contribute to an increase in performance by 0.412 units, assuming other variables are constant. The effect size (f^2) of 0.248 indicates a moderate to strong effect.

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These findings are in line with several previous studies. Kusumawardani et al. (2022) found that the coefficient of influence of digital mindset on the performance of banking employees was 0.48, slightly higher than the findings of this study, which could be due to differences in geographical context (Jakarta vs. Sumatra). Bharadwaj et al. (2021) in a cross-country study in the financial services sector also confirmed the significant influence of digital mindsets on individual performance, especially in the dimensions of data-driven decision-making and agility. Substantively, Bank Mandiri employees who have a strong digital mindset show better performance in several aspects: they are faster in adopting and optimizing digital platforms such as Mandiri Online Business, Livin' by Mandiri, and AI-based CRM systems; be more proactive in utilizing customer data for service personalization; and be more adaptive when there is a system update or a change in the company's digital policy. This condition ultimately contributes to increased productivity, service quality, and the achievement of overall KPI targets.

The Influence of Critical Thinking on Employee Performance

The second hypothesis test (H2) proved that critical thinking had a positive and significant effect on employee performance, with a path coefficient (β) of 0.358 and a t-statistical value of 6.172 ($p < 0.001$). Although the effect is slightly smaller than that of the digital mindset, critical thinking is still a strong and significant predictor of employee performance, with an effect size (f^2) of 0.193 that falls into the medium category.

These findings are consistent with the research of Purwanto et al. (2023) which reported a path coefficient of 0.441 for the influence of critical thinking on performance in the context of state-owned banks, as well as research by Watson and Glaser (2022) which meta-analytically proved a positive relationship between critical thinking skills and work performance. In the operational context of Bank Mandiri Region I Sumatra 1, employees with good critical thinking have proven to be superior in: (1) detecting and analyzing potential fraud or transaction anomalies; (2) providing creative and data-driven solutions to customers; (3) managing the complexity of non-performing credit cases with a systematic approach; and (4) make quick but appropriate decisions in high-pressure situations.

Interestingly, further analysis of the research data showed that the most powerful critical thinking dimensions contributed to performance were problem-solving orientation (outer loading = 0.816) and analytical ability (outer loading = 0.804), which are consistent with the complex and dynamic operational demands of banking services.

The Simultaneous Influence of Digital Mindset and Critical Thinking on Performance

The third hypothesis test (H3) confirmed that digital mindset and critical thinking simultaneously had a positive and significant effect on employee performance ($p < 0.001$). The R^2 value of 0.621 shows that the two independent variables are able to explain 62.1% of the variation in the performance of employees of Bank Mandiri Region I Sumatra 1. A Q^2 (predictive relevance) value of 0.384 also confirms that the model has good predictive relevance.

These findings have important theoretical and practical implications. Theoretically, the results of the study confirm the argument of Social Cognitive Theory (Bandura, 2022) that individual cognitive capabilities—both in the form of a digital mindset and critical thinking skills—are fundamental determinants for work behavior and performance. Practically, this finding provides an empirical justification for Bank Mandiri's management to make the development of digital mindset and critical thinking a strategic priority in human resource development programs, especially in the era of increasingly intensive digital banking competition.

The relative significance of the two variables (digital mindset $\beta = 0.412$ > critical thinking $\beta = 0.358$) indicates that in the context of massive digital banking transformation, the dimension of mindset and orientation towards digital technology tends to have a slightly greater impact on performance than critical thinking skills. However, the two are complementary and mutually

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reinforcing in forming comprehensive employee competencies.

CONCLUSION

Based on the results of the analysis and discussion that has been described, this study produces three main conclusions:

First, the digital mindset has a positive and significant effect on the performance of employees of Bank Mandiri (Persero) Tbk. Region I Sumatra 1 ($\beta = 0.412$; $t = 6.754$; $p < 0.001$), so that the first hypothesis (H1) is accepted. These findings confirm that employees with an open mindset and adaptive to the digital ecosystem show consistently higher performance.

Second, critical thinking has a positive and significant effect on employee performance ($\beta = 0.358$; $t = 6.172$; $p < 0.001$), so the second hypothesis (H2) is accepted. The ability to analyze, evaluate, and solve problems systematically has been proven to improve the quality and effectiveness of banking employee performance in real terms.

Third, digital mindset and critical thinking simultaneously have a positive and significant effect on employee performance ($R^2 = 0.621$; $p < 0.001$), so that the third hypothesis (H3) is accepted. The combination of these two variables was able to explain 62.1% of the variation in performance, indicating that the development of these two competencies in an integrated manner will have an optimal impact on improving the performance of banking human resources.

Based on these conclusions, this study recommends that the management of Bank Mandiri Region I Sumatra 1 develop an integrated training program that comprehensively builds the digital mindset and critical thinking of employees. These programs can include: digital transformation bootcamps, digital leadership programs, data analytics training, design-based problem-solving workshops, and learning community development that encourages the exchange of knowledge and best practices between employees.

This study has several limitations, including: (1) cross-sectional design that does not allow longitudinal change observation; (2) the use of self-reports that have the potential to contain social desirability bias; and (3) the scope of research is limited to one region. Future research is suggested to use longitudinal design, add relevant mediating or moderation variables (such as organizational culture or transformational leadership), as well as expand geographic coverage to allow for broader generalizations.

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