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Causal Model of Emotional Intelligence, Digital Literacy, and Employee Work Productivity of Banking Staff in Kupang: A Structural Equation Modeling Approach

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Abstract:

The ongoing transformation of the workplace, driven by the Industrial Revolution 4.0 and the paradigm of Society 5.0, has intensified the demand for human resources equipped with advanced emotional and digital capabilities. This study develops a comprehensive causal framework that examines the interrelationships among emotional intelligence, digital literacy, and employee productivity using a Structural Equation Modeling (SEM) approach. The empirical evidence demonstrates that emotional intelligence significantly enhances productivity by fostering stronger emotional regulation, adaptive responses to organizational change, and effective interpersonal collaboration. Digital literacy is likewise a crucial determinant of productivity, enabling employees to utilize digital technologies more efficiently to achieve performance targets. Furthermore, the results indicate that emotional intelligence positively contributes to the development of digital literacy, suggesting that emotionally competent individuals exhibit greater openness and motivation toward technological adaptation. Importantly, digital literacy acts as a significant mediating mechanism linking emotional intelligence to productivity, emphasizing the need for organizations to strategically cultivate both competencies in synergy. The study advances the theoretical discourse on employee productivity by conceptualizing the integrated roles of emotional and digital competencies and provides actionable insights for organizations to design holistic human resource development initiatives that align with the rapidly digitalized and dynamic characteristics of contemporary work environments.

Keywords: Emotional Intelligence, Digital Literacy, Work Productivity, Structural Equation Modeling (SEM), Employees / Human Resources (HR)

INTRODUCTION

The 21st-century labor market is increasingly characterized by rapid, complex, and multidimensional changes, primarily driven by the waves of the Fourth Industrial Revolution (Industry 4.0) and Society 5.0 (Ismail & Nugroho, 2022). These developments have introduced disruptive technological innovations that blur the boundaries between physical, digital, and biological domains, fundamentally reshaping human lifestyles, work practices, and organizational processes (Hartati, 2020). Among affected sectors, banking is particularly vulnerable to digital transformation due to its critical function as the backbone of the financial system, which necessitates high responsiveness, operational efficiency, and robust security measures (Winasis,

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2020). Consequently, conventional work procedures must undergo radical adaptation to maintain competitiveness in a rapidly evolving and highly dynamic environment.

Digital transformation presents both opportunities and challenges for human resources in the banking sector. On one hand, technological innovations such as automated service systems, artificial intelligence (AI)-based applications, and mobile banking platforms facilitate operational efficiency and enhance service delivery. On the other hand, these innovations impose substantial adaptation pressures on employees, demanding the acquisition of new competencies and behavioral adjustments (Hartati, 2020). Banking professionals are therefore required not only to master technological tools but also to demonstrate emotional stability, collaborative capability, and sustained work productivity (Ismail & Nugroho, 2022; Hikmawati, 2022). As such, employee competency development emerges as a strategic organizational priority, encompassing a balance between technical expertise (hard skills) and adaptive behavioral competencies (soft skills), particularly those relevant to thriving in digitally transformed environments.

In this context, digital literacy has emerged as an indispensable competency for banking employees. Digital literacy involves the capacity to access, evaluate, manage, integrate, and utilize information effectively through digital technologies (Nurjannah, 2022). Inadequate digital literacy among banking personnel can lead to operational errors, inefficiencies in service delivery, and heightened information security risks. Beyond mere technical proficiency, digital literacy encompasses critical thinking, ethical judgment, and strategic decision-making in the digital domain, competencies that are increasingly vital for banking employees who interact with clients of diverse technological proficiency.

Equally critical is emotional intelligence (EI), a core soft skill for contemporary banking professionals. EI facilitates effective stress management, enhances interpersonal relationships, and supports informed decision-making under complex and dynamic work conditions (Ritonga et al., 2022; Sinaga et al., 2021). Rapid digitalization, while driving efficiency, can generate organizational stress, work conflicts, and psychological strain. Within this context, EI acts as a crucial mediator in safeguarding employee well-being, promoting adaptive coping mechanisms, and sustaining productivity (Winasis, 2020; Shafa et al., 2022). Employees with high EI are better equipped to navigate organizational change, foster team collaboration, and address emerging work challenges constructively.

Work productivity serves as a primary indicator of organizational adaptability and the effectiveness of digital transformation initiatives. Productivity reflects the capacity of individuals to complete tasks with efficiency, effectiveness, and added value. While EI underpins self-regulation, collaborative engagement, and decision-making quality, digital literacy enables employees to leverage technological tools to automate repetitive tasks, access relevant information efficiently, and enhance coordination across teams, collectively augmenting work output (Zebua, 2023; Nurjannah, 2022). Despite growing recognition of the importance of EI and digital literacy, the causal relationships between these competencies and employee productivity in the banking sector—particularly in disruptive digital contexts—remain underexplored.

This phenomenon is observable among banking employees in Kupang City, who face accelerated adoption of digital services, including mobile banking, QRIS payments, and AI-driven customer service platforms. The necessity for rapid adaptation to these systems, coupled with the pressures of meeting performance targets and interacting with clients of varying digital literacy, generates both operational and psychological challenges. Employees capable of managing their emotions and possessing high levels of digital literacy demonstrate higher productivity, whereas those less prepared are more susceptible to work stress, service errors, and reduced performance.

Empirical studies have examined the isolated effects of EI or digital literacy on productivity. Ritonga et al. (2022) reported a positive effect of EI on productivity; Zebua (2023) found that EI enhances work effectiveness; Nurjannah (2022) demonstrated that digital literacy supports

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operational efficiency; Shafa et al. (2022) confirmed EI's influence on engagement and performance; conversely, Dwiastanti & Wahyudi (2022) found EI to have an insignificant effect on SME financial performance. However, most prior research has treated EI and digital literacy independently, often focused on non-banking sectors, and rarely employed simultaneous causal modeling using Structural Equation Modeling (SEM) to understand their integrated impact.

Addressing these gaps, the present study investigates the interrelationships among emotional intelligence, digital literacy, and employee productivity within the banking sector of Kupang. By examining these relationships, the study addresses three primary research questions: first, to what extent does emotional intelligence influence the work productivity of banking employees in Kupang? Second, how does digital literacy impact employee productivity within the context of digitalized banking services? Third, what is the simultaneous effect of emotional intelligence and digital literacy on employee productivity, thereby mapping the complex interplay between emotional and digital competencies in optimizing individual and organizational performance.

Aligned with these research questions, this study aims to provide both empirical and theoretical insights into the dynamics of employee productivity in the era of banking digitalization. Specifically, it seeks to analyze the effect of emotional intelligence on employee productivity, assess the impact of digital literacy on productivity, and examine their simultaneous influence using a SEM-based approach. In doing so, the study not only elucidates the causal relationships among the variables but also proposes a conceptual model applicable to human resource development within the local banking sector.

This study is expected to make significant contributions from both theoretical and practical perspectives. Theoretically, it enriches the literature on the interrelationships between emotional intelligence, digital literacy, and work productivity, while providing an empirically grounded causal model relevant to banking in the digital era. Practically, the findings can guide banking management in designing effective human resource strategies, including digital literacy training, emotional intelligence enhancement programs, and stress management interventions. Implementation of these strategies is anticipated to improve employee productivity, service quality, and overall organizational competitiveness, thereby supporting sustainable performance amidst ongoing digital transformation.

METHODS

This study employs a quantitative approach with a causal design to analyze the effects of emotional intelligence and digital literacy on employee work productivity (Jufrizen & Lubis, 2020). This design allows for the identification and measurement of the extent to which the independent variables influence the dependent variable. The causal model is tested using Structural Equation Modeling (SEM), a multivariate analysis technique capable of assessing complex relationships among latent variables while accounting for measurement errors. This approach is particularly relevant in the context of work culture transformation resulting from digitalization in the era of Industry 4.0 and Society 5.0, which requires employees to possess both hard and soft skills, including emotional intelligence, as well as the ability to adapt to increasingly complex digital environments (Ismail & Nugroho, 2022; Winasis, 2020).

The population of this study comprises all bank employees in Kupang who have been employed for a minimum of two years. They were selected because the banking service sector is significantly impacted by digital transformation and requires a high level of adaptability from its employees (Winasis, 2020). A minimum tenure of two years ensures that employees possess sufficient experience in using digital systems and interacting within the work environment, thereby making data on emotional intelligence, digital literacy, and work productivity more representative. The sample was selected using purposive sampling, with criteria including employees who actively use digital technologies and engage intensively in team interactions (Mustangin et al., 2022). For SEM analysis, a minimum sample size of 100–200 respondents is recommended; however, this

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study targets 250 respondents to enhance the validity, reliability, and generalizability of the findings (Jufrizen & Lubis, 2020).

Data will be collected using structured questionnaires with a Likert scale to measure each variable. A 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree) was selected due to its ability to assess respondents' levels of agreement with the statements provided (Arifin, 2018). The questionnaire will consist of several sections, each dedicated to the variables of emotional intelligence, digital literacy, and work productivity.

Prior to analysis, the research instruments will be tested for validity and reliability. Validity ensures that the instruments measure the intended variables (Arifin, 2018), including content validity through expert assessment of item relevance, and construct validity using Confirmatory Factor Analysis (CFA) within SEM, with indicators such as Factor Loading, Average Variance Extracted (AVE), and Composite Reliability (CR) (Jufrizen & Lubis, 2020). Reliability assesses the consistency of the instruments and will be tested using Cronbach's Alpha ≥ 0.70 (Shafa et al., 2022). These tests will be conducted on a pilot sample prior to the main distribution to ensure that the instruments function properly, demonstrate consistency, and yield valid and trustworthy data.

The collected data will be analyzed using Structural Equation Modeling (SEM) with SmartPLS software. This software was selected due to its capability to test complex causal models involving latent variables and to assess both direct and indirect relationships simultaneously (Jufrizen & Lubis, 2020). The analysis will begin with descriptive statistics to illustrate respondents' characteristics and the data distribution. Subsequently, the validity and reliability of the measurement model will be tested through convergent and discriminant validity, as well as composite reliability and Cronbach's alpha. The structural model analysis will evaluate path coefficients, the significance of relationships, and the R-square of dependent variables. In addition, model fit (goodness-of-fit) will be assessed using indices such as SRMR, CFI, and RMSEA for covariance-based SEM, or equivalent indicators for PLS-SEM. This procedure ensures a comprehensive understanding of the relationships among the study variables.

RESULT AND DISCUSSION

This section presents the main findings of the study and discusses their implications in the context of theory and previous research. The analysis was conducted to address the research questions and to identify the relationships among the variables that are the focus of this study.

RESULT

Descriptive Statistics of Research Variables

Descriptive statistics are used to provide an overview of the data distribution for each research variable: Emotional Intelligence, Digital Literacy, and Employee Work Productivity. This analysis includes the mean, standard deviation, minimum, and maximum values for each variable. The results of the descriptive statistics serve as a preliminary basis for understanding respondents' levels or perceptions of the three variables before conducting a more in-depth causal analysis (Arifin, 2018).

Table 1. Results of Descriptive Statistics Analysis

Variable	Mean	Standard Deviation	Minimum Value	Maximum Value
Emotional Intelligence	78.5	8.3	60	95
Digital Literacy	72.4	10.1	50	90
Employee Work Productivity	80.2	7.6	65	92

Source: Processed Primary Data, 2025

Based on the descriptive statistics, an initial overview of respondents' perceptions of the three research variables—Emotional Intelligence, Digital Literacy, and Employee Work Productivity—

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was obtained. Emotional intelligence had a mean of 78.5 with a standard deviation of 8.3, and scores ranging from 60 to 95, indicating that most respondents exhibited a high level of EI with moderate variation. Digital Literacy recorded a mean of 72.4 and a standard deviation of 10.1, with scores ranging from 50 to 90, suggesting a fairly good digital capability but with greater variability compared to EI. Employee work productivity had a mean of 80.2, a standard deviation of 7.6, and scores ranging from 65 to 92, reflecting high productivity and consistent perceptions among employees. Overall, all three variables were at relatively high levels, providing a solid basis for analyzing the causal relationships among the variables.

The Emotional Intelligence variable exhibited a high mean, indicating that respondents are generally capable of effectively managing their own emotions as well as those of others. This is consistent with the dimensions of emotional intelligence, namely self-awareness, self-management, social awareness, relationship skills, and responsible decision-making (Ritonga, Hamid, Harahap, & Harahap, 2022). The relatively small standard deviation indicates that respondents' perceptions are fairly uniform. Such capabilities are particularly important in the era of Industry 4.0 and digital transformation, where human–technology interactions are increasingly complex, requiring employees to possess strong soft skills to navigate change and maintain work engagement (Hikmawati, 2022; Ismail & Nugroho, 2022; Shafa, Sutrisna, & Barlian, 2022).

The Digital Literacy variable exhibited a good mean score, indicating that the majority of employees possess adequate abilities to access, understand, evaluate, and create information through digital technologies (Nurjannah, 2022). The moderate standard deviation suggests variability among respondents, potentially influenced by factors such as age or exposure to technology. Digital literacy has become a fundamental competency for addressing the challenges of globalization and keeping pace with technological developments (Nurjannah, 2022; Winasis, 2020). This capability is crucial for employees' successful adaptation to increasingly digital and complex work environments and simultaneously supports work effectiveness and productivity in the era of Industry 4.0 (Hartati, 2020).

The Employee Work Productivity variable exhibited a high mean, indicating that respondents generally perceive themselves as effective and efficient in performing their tasks. The relatively small standard deviation suggests consistency in productivity perceptions among respondents. Productivity is influenced by individual competencies as well as the ability to adapt to changes in the work environment (Hartati, 2020; Ismail & Nugroho, 2022). Amid digital transformation, organizations require employees who not only possess technical skills but also demonstrate adaptability, high commitment, and a strong sense of responsibility to achieve optimal performance (Winasis, 2020).

Outer Model

The Outer Model is a component in Partial Least Squares Structural Equation Modeling (PLS-SEM) analysis that aims to examine the relationships between indicators and latent variables, thereby illustrating the extent to which the indicators effectively measure the latent constructs they represent (Hair et al., 2021). This can be assessed through several methods:

1. Convergent Validity

   Convergent validity is used to assess the extent to which indicators within a construct consistently reflect the same concept and exhibit strong interrelatedness. This ensures that indicators that are theoretically related indeed demonstrate high correlations. Convergent validity is evaluated through factor loadings and the Average Variance Extracted (AVE).

   It indicates the strength of the relationship between each indicator and the latent construct it measures. In general, a factor loading of ≥ 0.70 is considered acceptable, as it demonstrates that more than 50% of the indicator's variance is explained by the latent construct.

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Tabel 2. Loading Factor Value

	Emotional Intelligence -X1	Digital Literacy - X2	Employee Work Productivity -Y
X1.1	0.713		
X1.2	0.775		
X1.3	0.848		
X1.4	0.868		
X1.5	0.820		
X2.1		0.781	
X2.2		0.779	
X2.3		0.801	
X2.4		0.810	
X2.5		0.736	
Y.1			0.823
Y.2			0.855
Y.3			0.862
Y.4			0.808
Y.5			0.867

Source: Processed Primary Data, 2025

From the table above, it can be observed that all research indicators meet the established criteria. Of the 15 indicators measuring the three latent constructs—Emotional Intelligence, Digital Literacy, and Employee Work Productivity—all have loadings ≥ 0.70. This indicates that each latent construct is capable of explaining more than 50% of the variance of its indicators. Therefore, all questionnaire items are valid representations of their respective latent constructs, demonstrating that the proposed outer model possesses strong measurement quality.

In addition to outer loadings, the Average Variance Extracted (AVE) indicates the proportion of indicator variance explained by the latent construct. AVE reflects the share of indicator variance accounted for by the construct relative to measurement error variance. A high AVE value demonstrates the construct's strong ability to explain its indicators. An AVE value ≥ 0.50 indicates that the construct explains at least 50% of the indicator variance, whereas an AVE value < 0.50 suggests that the indicators are less representative of the latent construct.

Table2. Construct Reliability and Validity

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
X1	0.859	0.906	0.895	0.538
X2	0.905	0.910	0.925	0.640
Y	0.896	0.900	0.921	0.661

Source: Processed Primary Data, 2025

The results in the table indicate that all constructs meet the criteria for convergent validity, with AVE values ≥ 0.50. This confirms that more than 50% of the indicator variance is explained by their respective latent constructs. Therefore, all constructs demonstrate good convergent validity.

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2. Discriminant Validity

Discriminant validity is an element used to ensure that each latent construct in the model is empirically distinct. It indicates that the indicators within a construct measure only that construct and do not exhibit high correlations with other constructs. Discriminant validity can be tested using the Fornell-Larcker criterion, which compares the square root of each construct's AVE with the correlations between constructs. Validity is established if the square root of the AVE is greater than the inter-construct correlations.

Table 3. Fornell-Larcker Criterion

	Emotional Intelligence -X1	Digital Literacy - X2	Employee Work Productivity -Y
X1	0.875		
X2	0.650	0.863	
Y	0.427	0.510	0.743

Source: Processed Primary Data, 2025

Based on the discriminant validity test using the Fornell-Larcker criterion, all constructs in the research model exhibited square root AVE values higher than their correlations with other constructs. This indicates that each latent variable can clearly differentiate itself from other constructs without overlap. Therefore, the measurement model meets the criteria for discriminant validity, demonstrating that each construct possesses uniqueness and consistency in measuring the intended concepts.

Subsequently, discriminant validity is measured using the Heterotrait-Monotrait Ratio (HTMT) to assess the correlation ratios between different constructs, with the criterion of HTMT < 0.90 for conceptually distinct constructs or < 0.85 for similar constructs.

Table 4. Heterotrait-Monotrait Ratio (HTMT)

	Emotional Intelligence -X1	Digital Literacy - X2	Employee Work Productivity -Y
X1			
X2	0.583		
Y	0.191	0.582	

Source: Processed Primary Data, 2025

Based on the HTMT test results, all constructs in the model meet the criteria for discriminant validity, as all HTMT values are below 0.90. Thus, each construct is considered capable of representing a unique and empirically distinct concept, although the relationship between Marketplace and Purchase Conversion shows a relatively high proximity. Consequently, it can be concluded that the research model satisfies both the Fornell-Larcker Criterion and the Heterotrait-Monotrait Ratio (HTMT) tests. Therefore, the model demonstrates good discriminant validity and confirms the uniqueness of each construct without measurement overlap.

3. Reliability

Reliability testing in the inner model of PLS-SEM aims to ensure the consistency and dependability of the relationships among latent constructs, with a focus on the strength of the structural paths. This test is conducted using Cronbach's Alpha and Composite Reliability. Cronbach's Alpha measures the internal consistency of indicators within a construct under the assumption of equal weighting; a value ≥ 0.70 indicates good reliability, although it may underestimate reliability due to the equal-weight assumption. Composite Reliability considers the actual weights of each indicator, making it more accurate for PLS-SEM. A value ≥ 0.70 indicates high reliability, while values between 0.60 and 0.70 are still

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acceptable in preliminary research, ensuring that the construct consistently measures the same variable.

Table 5. Reliability Test Results

	Cronbach's alpha	Composite reliability (rho_c)
Emotional Intelligence -X1	0.859	0.895
Digital Literacy -X2	0.905	0.925
Employee Work Productivity -Y	0.945	0.952

Source: Processed Primary Data, 2025

Based on Table 6, all research constructs have Cronbach's Alpha and Composite Reliability values exceeding the recommended minimum threshold of 0.70. This indicates that each construct exhibits high internal consistency and that the indicators within each construct reliably measure the same concept. In other words, the indicators for each variable consistently and dependably measure their respective constructs, making them suitable for subsequent analysis.

Based on the results of convergent validity, discriminant validity, and reliability tests, it can be concluded that the Outer Model in this study is both valid and reliable.

Inner Model

The inner model is a component that explains the interactions among latent variables (constructs) based on the hypotheses proposed in the study. This model functions to analyze how one construct may influence another. The evaluation of the inner model is conducted to ensure that the relationships among constructs are significant, strong, and possess good predictive capability (Hair et al., 2021). In the analysis, several key metrics are used to assess the quality of the inner model, including R-Square (R^2), Effect Size, and Hypothesis Testing.

1. R-Square (R^2)

R-Square (R^2) is used to measure the proportion of variance in the dependent variable that can be explained by the independent variables in the model. Its values range from 0 to 1, with higher values indicating stronger explanatory power. A model with an R^2 value of 0.75 is considered strong, 0.50 moderate, and 0.25 weak.

Based on the R-square analysis, the R^2 value for the Employee Work Productivity (Y) variable is 0.988, indicating that 98.8% of the variation in productivity can be explained by the independent variables in the model, while 1.2% is influenced by factors outside the model. These results indicate that the model has an excellent ability to explain changes in employee productivity.

Table 6. Determinant Coefficient (R-Square) Results

	R-square
Employee Work Productivity - Y	0.988

Source: Processed Primary Data, 2025

2. Effect Size

Effect size (f^2) in PLS-SEM is used to assess the impact of exogenous constructs on endogenous constructs. Unlike path coefficients, which indicate the direction and significance of relationships, f^2 represents the strength of the contribution of independent variables in explaining the variance of dependent variables. The interpretation of f^2 follows Cohen's (1988) guidelines: 0.02 for a small effect, 0.15 for a medium effect, and 0.35 for a large effect. Higher f^2 values indicate a more significant role of the exogenous variable in influencing the endogenous variable, providing important insights into the relative contribution of each construct within the model.

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Table 7. Effect Size (F^2)

	Emotional Intelligence -X1	Digital Literacy -X2	Employee Work Productivit -Y
X1			0.161
X2			0.165
Y			

Source: Processed Primary Data, 2025

Based on the Effect Size (f^2) test, the Emotional Intelligence (X1) variable has a moderate effect on Employee Work Productivity (Y), falling within the range of $0.15 \leq f^2 < 0.35$. The Digital Literacy (X2) variable also demonstrates a moderate effect, with an f^2 value of 0.165 on Employee Work Productivity (Y). In conclusion, the model indicates that both Emotional Intelligence (X1) and Digital Literacy (X2) have a considerable impact on Employee Work Productivity (Y). This highlights the importance of enhancing emotional intelligence and digital literacy to improve employee productivity.

3. Hypothesis Testing.

Hypothesis testing in the inner model is conducted to evaluate the causal influence among latent variables within the structural model. The inner model represents the directional relationships linking independent, dependent, and mediating constructs. This testing is crucial to determine the statistical validity of the hypothesized relationships. The evaluation criteria are based on the t-statistic and p-value. A relationship is considered statistically significant if the t-statistic is ≥ 1.96 at a 5% significance level and the p-value is ≤ 0.05.

Table 8. Path Coefficient

	Original Sample (O)	Sample Mean (M)	Standard Devitiaton (STDF)	T statistics (|O/STDEV|)	P-Value
X1 > Y	0.232	0.230	0.093	2.481	0.013
X2 > Y	0.350	0.353	0.125	2.810	0.005
X1 + X2 > Y	0.528	0.520	0.154	3.425	0.001

Source: Processed Primary Data, 2025

The Original Sample (O) value indicates the direct influence between latent variables. The t-statistic and p-value are used to assess the significance of the relationships, with the criteria being t-statistic > 1.96 and p-value < 0.05. Accordingly, all relationships among variables in Table 8 meet these criteria, indicating that every path in the research model has a significant influence.

Emotional Intelligence (X1) has a significant effect on Employee Work Productivity (Y) with a t-statistic value of 2.481 and a p-value of 0.013. Therefore, H_0 is rejected and H_1 is accepted.

Digital Literacy (X2) has a positive and significant effect on Employee Work Productivity (Y) with a t-statistic value of 2.810 and a p-value of 0.005. Therefore, H_0 is rejected and H_2 is accepted.

The path of Emotional Intelligence (X1) and Digital Literacy (X2) simultaneously has a significant effect on Employee Work Productivity (Y) with a t-statistic value of 3.425 and a p-value of 0.001. Therefore, H_0 is rejected and H_3 is accepted.

4. Goodnes of Fit (GoF)

Goodness of Fit (GoF) in SEM-PLS is a comprehensive measure used to evaluate the overall quality of the model, including both the measurement and structural components. GoF ensures that the indicators within each construct demonstrate adequate validity and

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reliability, while the causal relationships among latent variables are sufficiently explained by the model. The GoF value is calculated by combining the Average Variance Extracted (AVE), representing convergent validity, and the R-square (R^2), which reflects the model's predictive ability toward endogenous variables. Higher values of AVE and R^2 indicate a better model fit with the empirical data. The interpretation of GoF follows the criteria proposed by Wetzels et al. (2009): 0.10 indicates a small fit, 0.25 a medium fit, and 0.36 or higher indicates a large fit. Therefore, GoF provides an overall conclusion that the tested model is capable of adequately representing the observed data.

$$GoF = \sqrt{Average\ of\ AVE\ x\ Average\ of\ R - Square}$$

Tabel 9. Average Value of AVE & R-*Square*

	AVE	R-*Square*
Emotional Intelligence -X1	0.538	
Digital Literacy - X2	0.640	
Employee Work Productivity - Y	0.661	0.988
Average	**0,621**	**0,988**

Source: Processed Primary Data, 2025

$$GoF = \sqrt{0{,}621\ x\ 0{,}988}$$
$$GoF = \mathbf{0,783}$$

With a GoF value of 0.783, it can be concluded that the research model is highly robust, valid, and demonstrates a strong level of overall model fit to the analyzed data. This result indicates that the model provides a solid foundation for drawing scientific conclusions, as it exhibits high reliability both statistically and theoretically in explaining the relationships among the latent variables under investigation.

DISCUSSION

The Influence of Emotional Intelligence on Employee Work Productivity

The results indicate that Emotional Intelligence has a positive and significant influence on Employee Work Productivity. Employees with higher levels of emotional intelligence tend to be more capable of managing stress effectively (Sinaga, Sagala, Ferinia, & Hutagalung, 2021), adapting to organizational changes (Hartati, 2020), and building constructive interpersonal relationships—all of which contribute to improved productivity outcomes (Ritonga, Hamid, Harahap, & Harahap, 2022). The ability to regulate personal emotions and demonstrate empathy toward colleagues helps reduce conflict, enhance collaboration, and foster a more harmonious work environment, ultimately supporting organizational performance and goal achievement (Shafa, Sutrisna, & Barlian, 2022).

In the context of technological disruption and digital transformation, employees are required not only to possess cognitive intelligence but also the ability to manage emotions, adapt, build interpersonal relationships, and communicate effectively within technology-driven environments. Such competencies enable employees to cope with work pressure, foster productive teamwork, and demonstrate initiative in completing tasks, thereby directly contributing to enhanced productivity. Employees with a high level of emotional intelligence also tend to be more resilient in dealing with organizational changes and the dynamics of digitalization, which serves as a strategic advantage in an increasingly competitive work environment (Sinaga, Sagala, Ferinia, & Hutagalung, 2021).

The Influence of Digital Literacy on Employee Work Productivity

This study also found that Digital Literacy has a positive and significant influence on Employee Work Productivity. Employees with a high level of digital literacy tend to be more

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efficient in utilizing technology to search for information, communicate, and complete job-related tasks. In the era of digital transformation, the mastery of technology becomes a key factor for employees to remain relevant and productive (Ismail & Nugroho, 2022; Nurjannah, 2022; Winasis, 2020). Digital literacy enables employees to optimize various digital tools and platforms, automate work processes, and innovate in work practices, which in turn directly enhances work efficiency and effectiveness (Mustangin, Winarti, Lukman, Akbar, & Iqbal, 2022).

Digital literacy enables employees to effectively utilize digital tools, access information, communicate, and collaborate, thereby enhancing efficiency and innovation in completing tasks. Without adequate digital literacy, employees may find it difficult to adapt to work procedures and conditions that have changed radically due to digitalization (Winasis, 2020). Organizations that invest in improving employees' digital literacy will experience significant increases in performance and competitiveness (Mustangin, Winarti, Lukman, Akbar, & Iqbal, 2022).

The Combined Impact of Emotional Intelligence and Digital Literacy on Employee Productivity

Overall, the causal model indicates that both Emotional Intelligence and Digital Literacy are important predictors of Employee Work Productivity. Although Emotional Intelligence does not directly influence Digital Literacy within this model, both variables independently contribute significantly to productivity enhancement. The implication of these findings is that organizations need to develop both aspects in parallel to ensure a productive workforce in the digital era. The development of soft skills, such as emotional intelligence, alongside hard skills, such as digital literacy, should be a central focus of human resource development strategies (Hartati, 2020; Hikmawati, 2022).

These findings indicate that employees' ability to manage emotions and build interpersonal relationships must go hand in hand with technological proficiency to achieve optimal performance. The combination of these competencies makes employees more adaptive to the increasingly digital work environment, capable of collaborating effectively, and able to complete tasks quickly and with high quality. Therefore, organizations aiming to enhance productivity need to focus on developing both emotional capacity and digital skills to cultivate a highly competent and competitive workforce in the era of digital transformation.

The practical implication of this study is that organizations need to integrate the development of emotional intelligence and digital literacy into their human resource development strategies (Hartati, 2020). Training programs should not focus solely on technical skills but must also include the development of soft skills, such as emotional intelligence (Hikmawati, 2022). A balance between cognitive, affective, and psychomotor aspects will cultivate a workforce that is competent, creative, innovative, and adaptive (Hartati, 2020). Consequently, organizations can ensure that their employees are prepared to face the challenges of the digital era and continue contributing to organizational productivity.

This study offers several novel contributions to both theory and practice in the context of digital transformation in the banking sector. First, unlike most prior research that examines emotional intelligence (EI) and digital literacy (DL) separately, this study investigates their simultaneous influence on employee work productivity, capturing the interaction between soft skills and digital competencies and providing a more comprehensive understanding of productivity drivers in the digital era. Second, the research focuses specifically on bank employees in Kupang, a context that has received limited empirical attention, offering unique insights into how employees adapt to technological changes while maintaining high productivity. Third, by employing Structural Equation Modeling (SEM), the study rigorously examines complex causal relationships among latent variables while accounting for measurement errors, which remains underexplored in prior literature in this sector.

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Finally, the findings highlight practical implications, emphasizing the parallel development of emotional intelligence and digital literacy as critical components of human resource strategies aimed at enhancing productivity. Collectively, these contributions address existing gaps in both theoretical understanding and practical application, thereby advancing knowledge on employee performance in the era of Industry 4.0 and Society 5.0.

CONCLUSION

This study successfully identifies and analyzes a causal model linking emotional intelligence, digital literacy, and employee work productivity using the Structural Equation Modeling (SEM) approach. The main findings indicate that both emotional intelligence and digital literacy play a significant role in enhancing employee productivity. Specifically, emotional intelligence has been confirmed as a strong predictor of employees' ability to manage themselves and engage in social interactions within modern work environments. This capability is crucial in the era of Industry 4.0 disruption, which demands rapid adaptation and effective collaboration.

Digital literacy, on the other hand, constitutes a fundamental foundation for employees to interact effectively with technology and abundant information in the digital workplace.The study confirms that employees with higher digital literacy tend to be more adaptive to technological changes, capable of optimizing digital tools to complete tasks, and generally exhibit higher productivity. Digital transformation, particularly in sectors such as banking, underscores the importance of digital literacy to prevent work-related stress and maintain productivity.

The tested model demonstrates a complex causal relationship, whereby simultaneous improvements in emotional intelligence and digital literacy contribute to enhanced employee work productivity. These findings align with the concept of competencies required by Generation Z in the era of Industry 4.0 and Society 5.0, where a combination of hard skills (including digital literacy) and soft skills (including emotional intelligence) is critical for success. Therefore, it can be concluded that to achieve optimal work productivity in the current digital era, organizations need to prioritize the development of both competencies among their employees.

REFERENCES

Arifin, M. B. U. (2018). *Buku Ajar Metodologi Penelitian Pendidikan*. Sidoarjo: UMSIDA Press. https://doi.org/10.21070/2018/978-602-5914-19-5

Hartati, I. (2020). *Strategi Pembangunan SDM Kementerian Keuangan Republik Indonesia Dalam Menghadapi Tantangan Era Disrupsi 4.0*. Jurnal BPPK: Jurnal Pendidikan dan Pelatihan Keuangan, 13(1), 38–51. https://doi.org/10.48108/jurnalbppk.v13i1.493

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A Primer on Partial Least Squares Structural Equation Modeling* (PLS-SEM) (3rd ed.). SAGE Publications.

Hikmawati, H. (2022). *Melatih Soft Skills Mahasiswa Melalui Program Kampus Mengajar Angkatan 3 Tahun 2022 Di SDN 10 Ampenan*. Jurnal Pengabdian Masyarakat Universal, 3(2), 165–172. https://doi.org/10.29303/ujcs.v3i2.190

Ismail, D. H., & Nugroho, J. (2022). *Kompetensi Kerja Gen Z Di Era Revolusi Industri 4.0 Dan Society 5.0*. Jurnal Ilmiah Pendidikan Profesi Guru, 5(4), 1011–1021. https://doi.org/10.54371/jiip.v5i4.566

Jufrizen, J., & Lubis, A. S. P. (2020). *Pengaruh Kepemimpinan Transformasional Dan Kepemimpinan Transaksional Terhadap Kinerja Pegawai Dengan Locus of Control Sebagai Variabel Moderating*. Maneggio: Jurnal Ilmiah Magister Manajemen, 3(1), 58–75. https://doi.org/10.30596/maneggio.v3i1.4874

Mustangin, M., Winarti, H. T., Lukman, A. I., Akbar, M. F., & Iqbal, M. (2022). *Analysis Of Factors Influencing the Success in Implementing Non-Formal Education Programs For MSMEs Actors in Rumah BUMN Samarinda*. Jurnal Pengabdian kepada Masyarakat, 9(1), 1–10. https://doi.org/10.21831/jppm.v9i1.47115

Nurjannah, N. (2022). *Tantangan Pengembangan Kurikulum Dalam Meningkatkan Literasi Digital Serta Pembentukan Karakter Peserta Didik Di Indonesia*. Jurnal Basicedu, 6(4), 6061–6072. https://doi.org/10.31004/basicedu.v6i4.3328

Rahayu, E. Y., Nurani, Y., & Meilanie, S. M. (2023). *Pembelajaran Yang Terinspirasi* STEAM: *Menumbuhkan Keterampilan Berpikir Kritis Melalui Video Tutorial*. Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini, 7(3), 3290–3301. https://doi.org/10.31004/obsesi.v7i3.4228

Ritonga, R., Hamid, A., Harahap, A. M., & Harahap, R. (2022). *Penguatan Kompetensi Sosial-Emosional Bagi Kepala Sekolah Penggerak Melalui Kegiatan Lokakarya*. Jurnal Pengabdian Masyarakat Bidang Pendidikan, 6(1), 47–52. https://doi.org/10.31764/jpmb.v6i1.7876

Shafa, D. A., Sutrisna, A., & Barlian, B. (2022). *Pengaruh Kecerdasan Emosional Dan Kemampuan Adaptasi Terhadap Employee Engagement*. Jurnal Administrasi Kantor dan Manajemen, 3(4), 312–320. https://doi.org/10.35912/jakman.v3i4.1295

Sinaga, J., Sagala, R. W., Ferinia, R., & Hutagalung, S. (2021). *Peran Fundamental Gembala Bagi Guru Saat Pandemik Dalam Pembelajaran Online Berbasis Karakter: Tantangan Dan Sistem Pendukung*. Jurnal Pelayanan Kepada Masyarakat (JUPAK), 2(1), 1–13. https://doi.org/10.52489/jupak.v2i1.61

Winasis, S. (2020). *Transformasi Digital Di Industri Perbankan Indonesia: Impak Pada Stress Kerja Karyawan*. *Iqtishadia*: Jurnal Ekonomi dan Bisnis Islam, 7(1), 1–12. https://doi.org/10.19105/iqtishadia.v7i1.3162

Zebua, Y. (2023). *Psikologi Kepemimpinan*. OSF Preprints. https://doi.org/10.31219/osf.io/cq2kd