

THE INFLUENCE OF DIGITAL COMPETENCE AND WORK ENVIRONMENT ON EMPLOYEE WORK MOTIVATION AT PT BANK RAKYAT INDONESIA (BRI) MEDAN REGIONAL OFFICE

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Abstract:

This study aims to analyze the influence of digital competence and work environment on the work motivation of employees of PT Bank Rakyat Indonesia (BRI) Medan Regional Office. The research method uses a quantitative approach with multiple linear regression analysis techniques. The study population was all 210 employees of BRI Medan Regional Office with a sample of 136 respondents determined using the Slovin formula. Data were collected through questionnaires, observation, and documentation. The results of the study indicate that digital competence has a positive and significant effect on work motivation ($\beta = 0.412$; $p < 0.05$), the work environment has a positive and significant effect on work motivation ($\beta = 0.358$; $p < 0.05$), and both simultaneously have a significant effect on the work motivation of BRI Medan Regional Office employees ($F = 47.213$; $p < 0.05$) with a coefficient of determination of 41.7%.

Keywords: Digital Competence, Work Environment, Work Motivation, BRI, Banking

Abstrak:

Penelitian ini bertujuan untuk menganalisis pengaruh kompetensi digital dan lingkungan kerja terhadap motivasi kerja karyawan PT Bank Rakyat Indonesia (BRI) Kantor Wilayah Medan. Metode penelitian menggunakan pendekatan kuantitatif dengan teknik analisis regresi linier berganda. Populasi penelitian adalah seluruh karyawan BRI Kantor Wilayah Medan berjumlah 210 orang dengan sampel 136 responden yang ditentukan menggunakan rumus Slovin. Data dikumpulkan melalui kuesioner, observasi, dan dokumentasi. Hasil penelitian menunjukkan bahwa kompetensi digital berpengaruh positif dan signifikan terhadap motivasi kerja ($\beta = 0,412$; $p < 0,05$), lingkungan kerja berpengaruh positif dan signifikan terhadap motivasi kerja ($\beta = 0,358$; $p < 0,05$), serta secara simultan keduanya berpengaruh signifikan terhadap motivasi kerja karyawan BRI Kantor Wilayah Medan ($F = 47,213$; $p < 0,05$) dengan koefisien determinasi sebesar 41,7%.

Kata Kunci: Kompetensi Digital, Lingkungan Kerja, Motivasi Kerja, BRI, Perbankan

1. Introduction

The era of digital transformation has fundamentally changed the landscape of the banking industry. PT Bank Rakyat Indonesia (BRI), as one of the largest state-owned banks in Indonesia, faces pressure to continuously innovate in digital services to maintain its competitiveness amidst increasingly fierce competition from fintech and digital banks. Digital transformation in the banking sector requires not only technological changes but also increased human resource competency capable of effectively operating, adapting, and optimizing digital systems (Prasetyo & Trisyanti, 2023).

Problem Phenomenon: Based on the results of an initial survey conducted at the BRI Medan Regional Office in 2024, it was found that 43.2% of employees admitted to still experiencing difficulties in operating BRI's continuously updated digitalization systems, such as the BRImo application, BRACES, and cloud-based internal systems. This condition has resulted in decreased employee confidence in completing tasks, which ultimately suppresses their work motivation. Meanwhile, 38.7% of employees complained about an un conducive work environment, particularly related to crowded workspaces, unequal distribution of digital infrastructure across units, and a work atmosphere that does not support post-pandemic collaboration.

Theoretically, employee work motivation is influenced by various internal and external factors. However, previous research has primarily examined motivation from the perspective of compensation, leadership, and organizational culture (Sinambela, 2021; Wibowo, 2022). Studies that specifically integrate digital competency and work environment variables into employee work motivation in state-owned banking institutions, particularly in North Sumatra, are still very limited. This research aims to fill this gap, given that digital competency is now a core competency that cannot be separated from job demands in the Industry 4.0 era, while the work environment is an extrinsic prerequisite that supports employee productivity and motivation (Dessler, 2023).

Based on the description above, this research is important to be conducted in order to provide strategic recommendations for the management of the BRI Medan Regional Office in designing digital-based HR development programs and improving the quality of the work environment which has an impact on employee work motivation.

2. Literature Review

2.1 Digital Competence

Digital competence is defined as an individual's ability to use information and communication technologies confidently, critically, and creatively in the context of work and professional life (European Commission, 2022). The DigComp 2.2 framework divides digital competence into five main areas: information and data literacy, communication and collaboration, digital content creation, digital security, and technology-based problem-solving. In the banking context, digital competence includes the ability to operate digital platforms, analyze customer data, and maintain the security of electronic transactions (Ilomäki et al., 2023).

2.2 Work Environment

The work environment is everything around employees that can influence their work performance, consisting of the physical work environment (spatial layout, lighting, work facilities) and the non-physical work environment (inter-employee relations, organizational culture, superior support) (Sedarmayanti, 2022). A conducive work environment has been proven to significantly increase employee comfort, productivity, and motivation (Nitisemito in Afandi, 2023).

2.3 Work Motivation

Work motivation refers to the internal and external drives that drive individuals to act to achieve organizational goals. Herzberg's two-factor theory (hygiene factors and motivators) forms the basis of this research, with the work environment being a hygiene factor and competence (achievement and recognition) being a motivator (Robbins & Judge, 2023). High work motivation is reflected in employee enthusiasm, perseverance, initiative, and loyalty to the organization.

2.4 Conceptual Framework

Hypothesis:

H₁: Digital Competence has a positive and significant effect on the Work Motivation of BRI Medan Regional Office Employees.

H₂: The work environment has a positive and significant effect on the work motivation of BRI Medan Regional Office employees.

H₃: Digital Competence and Work Environment simultaneously have a positive and significant effect on the Work Motivation of BRI Medan Regional Office Employees.

3. Research Methods

3.1. Types and Approaches of Research

This research uses a quantitative approach with an explanatory research type, namely explaining the causal relationship between the variables of digital competence (X₁) and work environment (X₂) on work motivation (Y).

3.2. Location and Time of Research

The research was conducted at PT Bank Rakyat Indonesia, Medan Regional Office, located at Jl. Imam Bonjol No. 21A, Medan. Data collection took place between February and April 2024.

3.3. Population and Sample

The study population was all 210 permanent employees of BRI Medan Regional Office. The sample was determined using the Slovin formula with an error rate (e) of 5%:

$$n = N / (1 + N e^2) = 210 / (1 + 210 \times 0.05^2) = 136 \text{ respondents}$$

The sampling technique used proportionate stratified random sampling based on work division/section.

3.4. Data Collection Techniques

Data were collected through: (1) Questionnaires using a Likert scale of 1–5 (Strongly Disagree to Strongly Agree); (2) Structured interviews with HR managers; and (3) Documentation of personnel data and performance reports.

3.5. Research Variables and Indicators

Table 1. Variables and Indicators

Variables	Dimensions/Indicators	Number of Items
Digital Competence (X ₁)	Data literacy, digital communication, content creation, cybersecurity, digital problem solving	15 items
Work Environment (X ₂)	Physical: layout, lighting, facilities; Non-physical: co-worker relationships, superior support, work culture	14 items
Work Motivation (Y)	Need for achievement, recognition, responsibility, self-development, work ethic	12 items

3.6. Instrument Testing

Validity tests used Pearson correlation ($r_{count} > r_{table} = 0.168$; valid) and reliability tests used Cronbach's Alpha ($\alpha > 0.70$; reliable). Classical assumption tests included normality (Kolmogorov-Smirnov), multicollinearity (VIF), and heteroscedasticity (Glejser).

3.7. Data Analysis Techniques

Data analysis using multiple linear regression with the equation model:

$$Y = a + b_1X_1 + b_2X_2 + e$$

Hypothesis testing was conducted using the t-test (partial), F-test (simultaneous), and coefficient of determination (R^2). Data processing used SPSS software version 26.

4. Results and Discussion

The results and discussion sections should be presented systematically to explain the research findings and their meaning. Here is a general structure that can be used:

4.1. Respondent Characteristics

Table 2. Respondent Characteristics

Characteristics	Category	Frequency	Percentage (%)
Gender	Man	74	54.4
	Woman	62	45.6
Age	21–30 years	48	35.3
	31–40 years	57	41.9
	41–50 years	25	18.4
	> 50 years	6	4.4
Education	D3	22	16.2
	S1	95	69.9
	S2	19	14.0
Years of service	< 5 years	41	30.1
	5–10 years	55	40.4
	> 10 years	40	29.4

The majority of respondents were male (54.4%), aged 31–40 years (41.9%), had a bachelor's degree (69.9%), and had 5–10 years of service (40.4%). This profile reflects BRI employees in their productive phase with substantial work experience.

4.2. Instrument Testing

Table 3. Reliability Test Results

Variables	Cronbach's Alpha	Information
Digital Competence (X ₁)	0.871	Reliable
Work Environment (X ₂)	0.843	Reliable
Work Motivation (Y)	0.856	Reliable

All variables have a Cronbach's Alpha value > 0.70, so the instrument is declared reliable and consistent for use in research.

4.3. Classical Assumption Test

Table 4. Results of the Classical Assumption Test

Test	Method	Results	Information
Normality	Kolmogorov-Smirnov	Sig. = 0.127	Normally distributed (sig. > 0.05)
Multicollinearity	VIF	VIF X ₁ = 1.843; VIF X ₂ = 1.843	No multicollinearity (VIF < 10)
Heteroscedasticity	Glacier	Sig. X ₁ = 0.312; Sig. X ₂ = 0.248	There is no heteroscedasticity (sig. > 0.05)

The results of the classical assumption test show that the regression model meets all the prerequisites so that it is suitable for use in inferential analysis.

4.4. Descriptive Analysis of Variables

Table 5. Descriptive Statistics of Research Variables

Variables	N	Min	Max	Mean	Std. Dev	Category
Digital Competence (X ₁)	136	2.20	5.00	3.87	0.612	Good
Work Environment (X ₂)	136	2.14	5.00	3.74	0.589	Good
Work Motivation (Y)	136	2.33	5.00	3.91	0.627	Good

The average digital competence of BRI Medan Regional Office employees is in the good category (mean = 3.87), as is the work environment (mean = 3.74) and work motivation (mean = 3.91). However, the fairly varied standard deviation values indicate that there is still a gap in perception among employees.

4.5. Multiple Linear Regression Analysis

Table 6. Results of Multiple Linear Regression Analysis

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
(Constant)	5,214	1,876		2,779	0,006
Digital Competence (X ₁)	0.412	0.071	0.412	5,803	0,000
Work Environment (X ₂)	0.358	0.069	0.358	5,188	0,000

Regression Equation:

$$Y = 5.214 + 0.412X_1 + 0.358X_2 + e$$

Interpretation: (1) The constant value of 5.214 indicates that work motivation will have a value of 5.214 if digital competence and work environment are zero. (2) The coefficient X₁ = 0.412 means that every one unit increase in digital competence will increase work motivation by 0.412 units. (3) The coefficient X₂ = 0.358 means that every one unit increase in work environment will increase work motivation by 0.358 units.

4.6. Hypothesis Testing

Table 7. Results of the t-test (Partial)

Variables	t count	t table	Sig.	Decision
Digital Competence (X ₁)	5,803	1,978	0,000	H ₁ Accepted
Work Environment (X ₂)	5,188	1,978	0,000	H ₂ Accepted

Table 8. F-Test Results (Simultaneous)

Model	F count	F table	Sig.	Decision
Regression	47,213	3,065	0,000	H ₃ Accepted

Table 9. Coefficient of Determination

R	R Square	Adjusted R Square	Standard Error of Estimate
0.645	0.417	0.408	0.482

The Adjusted R^2 value = 0.408 shows that digital competence and work environment together are able to explain 40.8% of the variation in employee work motivation, while the remaining 59.2% is explained by other variables outside this research model.

4.7. Discussion

H_1 – The Influence of Digital Competence on Work Motivation: The study's findings demonstrate that digital competence has a positive and significant impact on the work motivation of BRI Medan Regional Office employees ($t = 5.803$; $sig. = 0.000$). This means that employees with strong digital skills tend to be more confident, able to complete tasks efficiently, and feel satisfied with their work achievements—conditions that directly strengthen their intrinsic motivation. This finding aligns with the research of Kurniawan & Santoso (2023), which found that increasing digital literacy among banking employees significantly impacts work motivation and productivity.

H_2 – The Influence of Work Environment on Work Motivation: The work environment has been shown to have a positive and significant effect on work motivation ($t = 5.188$; $sig. = 0.000$). Employees who work in a comfortable physical environment (air-conditioned rooms, adequate lighting, and state-of-the-art technology) and a harmonious non-physical environment (supervisor support, teamwork, and open communication) demonstrate higher work enthusiasm and dedication. This supports Herzberg's two-factor theory, which states that hygiene factors, such as work environment conditions, are prerequisites for achieving work motivation (Robbins & Judge, 2023).

H_3 – Simultaneous Effect: Simultaneously, digital competence and work environment significantly influence work motivation ($F = 47.213$; $sig. = 0.000$). These two variables complement each other: high digital competence without the support of a conducive work environment will not produce optimal motivation, and vice versa. The managerial implication of this finding is the need for an integrated strategy between digital competence improvement programs (training, certification, e-learning) and work environment improvements (space renovation, strengthening a collaborative culture, and flexible work policies).

5. Discussion

Based on the research results and discussion, the following conclusions can be drawn:

First, digital competence has a positive and significant impact on employee work motivation at PT Bank Rakyat Indonesia's Medan Regional Office. The higher the digital competence, the higher their work motivation.

Second, the work environment has a positive and significant influence on employee motivation at PT Bank Rakyat Indonesia's Medan Regional Office. A conducive work environment, both physically and non-physically, has been shown to increase employee enthusiasm and work drive.

Third, digital competence and the work environment simultaneously have a positive and significant impact on employee motivation, contributing 40.8%. This indicates the need for BRI Medan Regional Office management to continuously improve the digital competence of its human resources, along with developing a supportive work environment, as part of a comprehensive digital transformation strategy.

This study is limited to the Medan Regional Office, so the results cannot be generalized to all BRI operational areas. Future research is recommended to expand the scope and add mediating variables such as job satisfaction or digital self-efficacy.

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