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Strategic Role Digital Transformation: Utilise Digital Leadership to Increase Employee Performance and Organizational Commitment in the Digital Era (Study of Serang City Regional Secretariat Employees)

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ABSTRACT

In the rapidly evolving era of digital transformation, digital leadership has become a critical aspect in enhancing employee performance and organizational commitment. Digital transformation has compelled organizations to fundamentally alter their operational methods, making it an integral part of organizational strategy. This research specifically aims to examine the mediating role of digital transformation in the relationship between digital leadership towards employee performance, and organizational commitment among employees of the Serang City Secretariat. This study employed a quantitative method, utilizing a sample of 372 respondents who were employees of the Serang City Secretariat. The collected data was analyzed using the AnaliSEM application. Descriptive analysis, inner and outer model testing, and hypothesis testing were conducted to analyze this research.

Keywords: Digital Leadership, Employee Performance, Organizational Commitment, Regional Secretariat of Serang City, Digital Transformation

INTRODUCTION

The current period is known as the "digital era," and digital transformation has become a global consensus among companies. 5G, cloud computing, *big data*, artificial intelligence, IoT, *blockchain*, and other technologies have become a driving force and supporter of work (Zhang & Chen, 2024). The impact of digital transformation can be found leading to changes in consumer behavior, evaluation of services and products, and expectations (Yi et al., 2020).

Leadership plays an important role in optimizing employee performance. The application of effective leadership styles, especially transformational leadership, has been shown to increase employee motivation, commitment, and performance results (Saputra & Wahyuningtyas, 2021).

Digital Leadership (DL) significantly impacts AI implementation, as leaders with strong digital skills can strategically direct the integration of AI into business operations (Karakose et al., 2022). Leaders have a role in setting clear goals, providing direction and support, inspiring and motivating their team members, and creating a positive work environment to encourage productivity and engagement (Sary et al., 2024). Digital leadership demands adaptation and strategic decision-making amidst technological change (Espina-Romero et al., 2023). The acceleration of digital transformation has become a primary focus in addressing global challenges and competition. Companies must adopt a holistic approach and develop an integrated strategy to succeed in the transformation. Three key categories are required for implementing the transformation: the use of technology, competent human resources, and changes in management or processes (Purbaya & Noviaristanti, 2024).

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The acceleration of digital transformation has become a major focus in facing global challenges and competition. Companies must adopt a holistic approach and build an integrated strategy to succeed in transformation. There are three categories needed to implement digital transformation, namely the use of technology, competent human resources, and changes in management or processes (Tenggono et al., 2024). The results of interviews with SETDA show that digital transformation is an important need for local governments to improve efficiency, transparency, and public services. The Serang City Government has implemented various digital initiatives, such as managing the OPD website portal which makes it easier for the public to access information on regional services and policies. However, the effectiveness of digitalization still needs to be evaluated, especially regarding the readiness of human resources, technological infrastructure, and the level of utilization by the community.

Table 1 Results of the Performance Evaluation of the Regional Secretariat of Serang City (2020-2023)

Year	Mark	Predicate
2020	55,33	CC
2021	58,68	CC
2022	59,04	CC
2023	60,02	B

Source: Serang City Regional Secretariat (2024)

Organizational Commitment (OC), defined as the degree to which employees identify with and are committed to the goals and values of the organization, is fostered by effective leaders who inspire greater contributions, because employees who feel connected to and supported by their leaders are more likely to be engaged and experience a sense of belonging and purpose in the company (Abu-Orabi, 2024). In an interview with members of the IT section of SETDA, it was stated that digital transformation has a positive impact on employee commitment at the Serang City Regional Secretariat (SETDA), because it encourages their active involvement in every change that occurs. Employees feel motivated to adapt to the new system and are more involved in the digitalization process, along with the active role of the organization and work units in supporting various related activities. Participation in training, socialization, and technology implementation ensures that employees not only understand digital change, but also have a sense of ownership of the ongoing transformation, thereby increasing their loyalty and commitment to the organization.

Table 2 Percentage of Employees Participating in Digital Training (2023-2024)

Year	Number of ASN	Number of followers Digital Training	Percentage %
2023	5106	738	0.14
2024	5267	809	0.15

Source: Serang City Regional Secretariat (2024)

With the increasing awareness of digital transformation, this study aims to deepen the understanding of how digital leadership affects employee performance and organizational commitment, especially in the era of digital transformation in the employees of the Serang City Regional Secretariat. By examining the role of digital transformation intermediaries, this study explores how digital leadership shapes these outcomes in a DT-driven environment.

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RESEARCH METHODS

Quantitative studies are defined as a research method that focuses on quantifying relationships, behaviors, or phenomena through the systematic collection and statistical analysis of numerical data (Byrley, 2016). Quantitative studies are defined as a research approach that emphasizes the collection and analysis of numerical data to identify patterns, relationships, or causal effects (Zamudio-Rodríguez et al., 2021). Sugiyono (2013), stated that descriptive statistical analysis is carried out to provide an overview of the data collected, not to make generalizations. Descriptive statistics is the initial stage of analysis used to describe and summarize data. In this descriptive research, a description can be produced regarding the influence of variables. This study uses individual research by filling out a Google questionnaire form as the unit of analysis.

Based on the involvement of researchers and the research background, this study uses *non-contrived setting*, namely field studies conducted in natural environments where researchers do not manipulate variables but observe phenomena as they are (Hjerm et al., 2020).

Data Collection

This study will collect data through the use of questionnaires. According to Sugiyono (2013) the questionnaire data collection technique is when participants are asked to answer a series of written questions or comments. If there are a large number of respondents spread across a very wide area, this survey will later result in the development of a productive information selection strategy that can be utilized. In this study, the questionnaire will be distributed in the form of an electronic questionnaire using *Google Forms*.

Data Analysis Techniques

There are two techniques used in this study: Partial Least Square-Structural Equation Modeling (PLS-SEM) structural model and descriptive data analysis. The first part of the questionnaire consists of items that measure the research constructs, including DL, DT, EP, and OC using a Likert scale. This study used AnaliSEM software. According to Hair et al., (2017) in PLS there are two testing models, namely *measurement model* or commonly known as *outer model* and *model structural* or commonly known as *inner model testing*.

RESULTS AND DISCUSSION

SEM-PLS Analysis Results

Outer Model Test

The data analysis and model testing process in this study was carried out using software AnaliSEM. The Partial Least Square-Structural Equation Modeling (PLS-SEM) structural model applied in this study is visualized in the following figure:

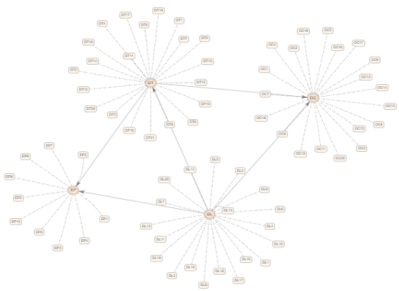

Figure 1 Outer Model

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1. Convergent Validity

In analysis using Structural Equation Modeling-Partial Least Square (SEM PLS), convergent validity is often measured using loading factors.

Tabel 3 Convergent Validity

Indicator ID	Outer Loading
DL1	0.7395
DL10	0.7376
DL11	0.7422
DL12	0.7091
DL13	0.6944
DL14	0.7331
DL15	0.7157
DL16	0.7445
DL17	0.7324
DL18	0.736
DL19	0.7446
DL2	0.7357
DL20	0.6965
DL3	0.738
DL4	0.7338
DL5	0.7506
DL6	0.7288
DL7	0.6971
DL8	0.7103
DL9	0.7024
DT1	0.7849
DT10	0.7843
DT11	0.7982
DT12	0.7747
DT13	0.8083
DT14	0.7699
DT15	0.7827
DT16	0.7923
DT17	0.7475
DT18	0.767
DT19	0.7738
DT2	0.734
DT20	0.7835
DT21	0.7796
DT3	0.7734
DT4	0.7887
DT5	0.7475
DT6	0.7662
DT7	0.7754
DT8	0.772

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Indicator ID	Outer Loading
DT9	0.7693
EP1	0.7454
EP10	0.6666
EP2	0.7025
EP3	0.7544
EP4	0.7331
EP5	0.7115
EP6	0.7486
EP7	0.7435
EP8	0.732
EP9	0.7215
OC1	0.7155
OC10	0.7012
OC11	0.7594
OC12	0.7609
OC13	0.732
OC14	0.7332
OC15	0.7478
OC16	0.732
OC17	0.7305
OC18	0.7276
OC19	0.7652
OC2	0.7198
OC20	0.7698
OC3	0.7164
OC4	0.7224
OC5	0.7427
OC6	0.7154
OC7	0.716
OC8	0.7522
OC9	0.7402

Based on the results of the analysis referring to the output data in the previous table, it can be concluded that no significant problems were found related to convergent validity. Furthermore, almost all research indicators show loading factor values that exceed the threshold of 0.7.

2. Average Variance Extracted (AVE)

The results of the AVE test in this study show that each variable studied succeeded in achieving an AVE value above the 0.50 threshold.

Tabel 4 Average Variance Extracted

No	Variable	Average Variance Extracted
1	DL	0.5276
2	DT	0.6008
3	EP	0.5276
4	OC	0.5406

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3. Composite Reliability and Cronbach's Alpha

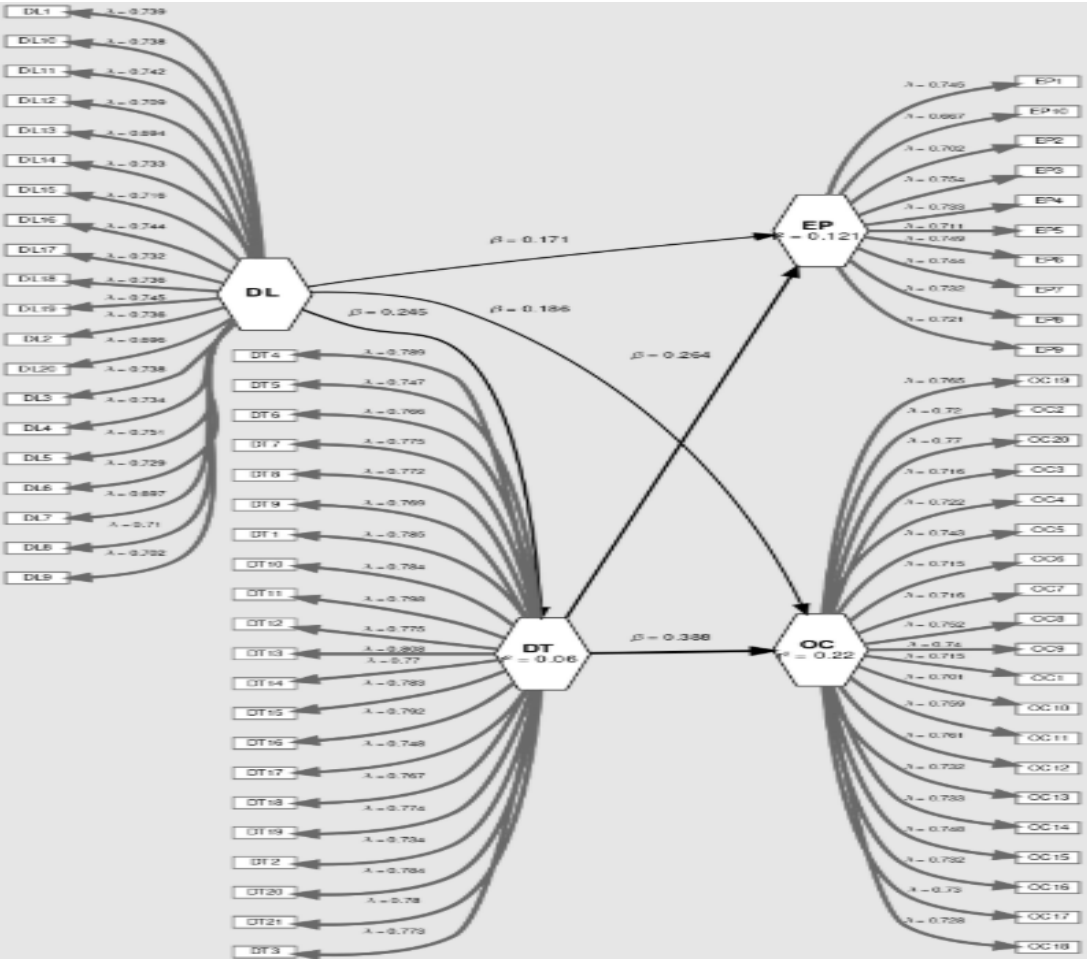
Based on the research findings, it is indicated that each construct tested shows a high level of reliability. This is specifically proven by the Cronbach's alpha value for all constructs which is above the threshold of 0.70 (which also implies that the criteria for composite reliability have been met).

Tabel 5 Cronbach Alpha

No	Variable	Cronbach Alpha	Composite Reliability
1	DL	0.9529	0.9571
2	DT	0.9668	0.9693
3	EP	0.9009	0.9177
4	OC	0.9552	0.9592

Inner Model Test

The structural model must be tested further because the evaluation of the measurement model turned out to be valid and reliable, therefore the next stage is examining the value *R-Square & F-Square* (F2) is a two-stage structural model testing (*inner model*).



1. *R-Square*

Test Test *R-Square* used to understand how independent and dependent variables interact. As a result, the test shows the proportion of the dependent variable that is influenced by the proportion of

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the independent variable. The R2 values for the model are 0.67 (strong), 0.33 (moderate), and 0.19 (weak).

Tabel 6 R-Square

Dependent	R-Square	R-Square Adjusted
DT	0.0602	0.0578
EP	0.1212	0.1166
OC	0.2203	0.2162

Based on Table 6 above, the R-Square results of the DT, EP, and OC variables are at >0.67 which, based on the rule of thumb r-square, is said to have a strong relationship.

2. *F-Square*

Research results value *F-Square* shows that the relationship between the independent and dependent variables as a whole has poor results. The following are the complete results of the test *F-Square* in this study:

Table 7 F-Square Test Results

Variables	DL	DT	EP	OC
DL		0.0640	0.0300	0.0414
DT			0.0726	0.1803
EP				
OC				

Hypothesis Testing

Hypothesis testing is done using t-statistic with a value of 1.96 and a significance level of 5%. The hypothesis is accepted if the t-statistic > 1.96. Table 8 shows the results of the hypothesis test based on the Path Coefficient.

Table 8 *Path Coefficient*

No	*Hypothesis*	*Sample Mean*	*Standard Deviation*	*T-Test*	*Upper CI*	*Lower CI*	*Status*
1	*DL → DT*	*0.2453*	*0.0568*	*4.3227*	*0.1536*	*0.3433*	*Significant*
2	*DL → EP*	*0.1715*	*0.0529*	*3.2442*	*0.0900*	*0.2654*	*Significant*
3	*DL → OC*	*0.1856*	*0.0469*	*3.9616*	*0.1125*	*0.2631*	*Significant*
4	*DT → EP*	*0.2638*	*0.0485*	*5.4346*	*0.1884*	*0.3476*	*Significant*
5	*DT → OC*	*0.3879*	*0.0454*	*8.5446*	*0.3160*	*0.4672*	*Significant*

Source: Processed by Researchers (2025)

In order to test this research framework based on different genders, it can be explained in Table 9 *Path MGA Comparisons*.

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Table 9 *Path MGA Comparisons*

Source	*Target*	*Estimate*	*Group1_beta*	*Group2_beta*	*Diff*	*Group1_beta_mean*	*Group2_beta_mean*	*Pls_mga_p*
DL -> DT	*DL*	*0.25*	*0.23*	*0.26*	*-0.03*	*0.25*	*0.27*	*0.56*
DL -> EP	*DL*	*0.17*	*0.16*	*0.19*	*-0.03*	*0.17*	*0.20*	*0.61*
DT -> EP	*DT*	*0.26*	*0.19*	*0.31*	*-0.12*	*0.21*	*0.31*	*0.85*
DL -> OC	*DL*	*0.19*	*0.25*	*0.16*	*0.09*	*0.25*	*0.16*	*0.17*
DT -> OC	*DT*	*0.39*	*0.37*	*0.40*	*-0.03*	*0.38*	*0.41*	*0.64*

Source: Processed by Researchers (2025)

Hypothesis Testing

1. **Hypothesis 1:** Digital Leadership (DL) has a positive effect on Digital Transformation (DT) with a t-statistic of 4.3227 (H1 is accepted).
2. **Hypothesis 2:** DL has a positive effect on Organizational Commitment (OC) with a t-statistic of 3.9616 (H2 is accepted).
3. **Hypothesis 3:** DL has a positive effect on Employee Performance (EP) with a t-statistic of 3.2442 (H3 is accepted).
4. **Hypothesis 4:** Digital Transformation (DT) has a positive effect on OC with a t-statistic of 8.5446 (H4 is accepted).
5. **Hypothesis 5:** DT has a positive effect on EP with a t-statistic of 5.4346 (H5 is accepted).

CONCLUSION

The results of the study showed that *Digital Leadership* has a positive and significant influence on *Digital Transformation*. This means that the higher the quality of digital leadership possessed by organizational leaders, the higher the level of success of implementing digital transformation in the work environment. Leadership that understands technology and is able to lead in a digital context has been proven to be able to drive systematic changes in work processes and services based on digital technology.

Digital Leadership also proven to have a direct positive influence on *Employee Performance* and *Organizational Commitment*. In other words, when leaders have digital competence, are able to adapt to technology, and demonstrate visionary and participatory leadership, this has a positive impact on employee performance and increases their sense of attachment and loyalty to the organization. Employees who feel led by someone who is responsive to technological developments will be more motivated to work effectively and participate in achieving organizational goals.

Digital Transformation acts as a partial mediating variable in the relationship between *Digital Leadership* to *Employee Performance* and *Organizational Commitment*. This shows that digital transformation is not only a direct impact of digital leadership, but also an intermediary that strengthens the relationship between leaders and organizational results. With an optimal digital transformation process, employee performance and commitment to the organization will increase significantly.

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The results of the analysis also show that the research model used has good feasibility based on the values *R-Square* and *F-Square*. Although there are some values *F-Square* which is in the weak category, overall the structural model built is able to explain the relationship between variables quite well. This strengthens the conclusion that digital leadership and digital transformation play an important role in creating a productive and performance-oriented work environment and organizational commitment.

Thus, overall, it can be concluded that in the context of the Serang City Regional Secretariat, the implementation of effective and sustainable digital leadership is the main foundation in driving digital transformation which has a positive impact on improving employee performance and strengthening organizational commitment in the current digital era.

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