

## The Influence of E-Leadership, Innovative Work Behavior, And Digital Culture on the Performance of Teacher at XYZ High School in Palu City



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### ABSTRACT

**Introduction/Main Objectives:** Dynamic changes in the education sector, marked by technological advancements, place high demands on the role of teachers as educators. In this context, the abilities and qualities of teachers are crucial to remain relevant in the evolving times.

**Background Problems:** Based on the phenomena of fluctuations and suboptimal performance achievements among teachers, a lack of proficiency in utilizing technology, as well as issues related to self-management and a lack of understanding of learning concepts at XYZ Public High School in Palu City, this research becomes intriguing for investigation. It is essential to address this through the enhancement of other variables such as e-leadership, innovative work behavior, and the teacher culture.

**Novelty:** The novelty sought in this study is to add the e-leadership theory to teachers who are still lacking it and to explore the relationship between e-leadership, innovative work behavior, and their impact on teacher performance.

**Finding/Results:** From the research, especially in technology use at XYZ Public High School in Palu City. E-leadership, innovative work behavior, and digital culture are identified as critical factors influencing teacher performance.

**Conclusion:** this thesis research highlights the commendable quality of E- Leadership, Innovative Work Behavior, and Teacher Performance within XYZ State High School. E-Leadership and Innovative Work Behavior both exhibit strong support from respondents, underscoring their pivotal roles in the educational setting. While E-Leadership alone does not demonstrate a significant positive effect on Teacher Performance, Innovative Work Behavior emerges as a decisive factor in enhancing teacher effectiveness.

**KEYWORDS:** E-Leadership, Innovative Work Behavior, Digital Culture, Teacher Performance

### 1. INTRODUCTION

Currently, the industry has entered the 4.0 Revolution era which continues to rely on technological advances. Therefore, the Indonesian education system needs to prepare itself by developing students' potential in intelligence, creativity and innovation. The goal is that learning can run effectively following the times. (Lestari et al., 2020). The digital revolution has transformed global institutions, including education, shifting from conventional ways to better technological approaches. This transformation has improved the quality of teachers and students and overall accuracy. Thoha (2019) emphasized that a leader has authority and power in decision- making. In educational institutions, the principal is the main leader in the school. Breikopf (2018) defines leadership in education, it is important for leaders to encourage individuals to become technology users and be able to implement various technologies with the support of a diverse team.

Teacher creativity has a major impact on educational success. The development of these new ideas can improve quality through better services, to achieve the desired results (Rahmawati et al., 2022; Sutionah et al., 2018). Innovative work behavior, also known as IWB, can be defined as a set of behaviors that aim to introduce new ideas that can be developed and implemented to improve employee performance in an organization (Diana et al., 2020). The research at SMA Negeri XYZ involved a public school in the Indonesian education system with a Principal and several vice principals. Teacher performance assessment at SMA Negeri XYZ includes pedagogic, personality, social, and professional according to set points. The assessment is presented in the following table:

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**Table 1.1 Data on Average Accumulated Results of Teacher Performance of XYZ State Senior High School**

| Point Penilaian | Angka Capaian Rata-Rata |                 |                  |                 |                  |                 | Hasil |
|-----------------|-------------------------|-----------------|------------------|-----------------|------------------|-----------------|-------|
|                 | 2020                    |                 | 2021             |                 | 2022             |                 |       |
|                 | Periode Jan-Juni        | Periode Jul-Des | Periode Jan-Juni | Periode Jul-Des | Periode Jan-Juni | Periode Jul-Des |       |
| Nilai Rata-Rata | 78,2                    | 79,7            | 79,5             | 82,2            | 72,8             | 80,2            | 79,5  |

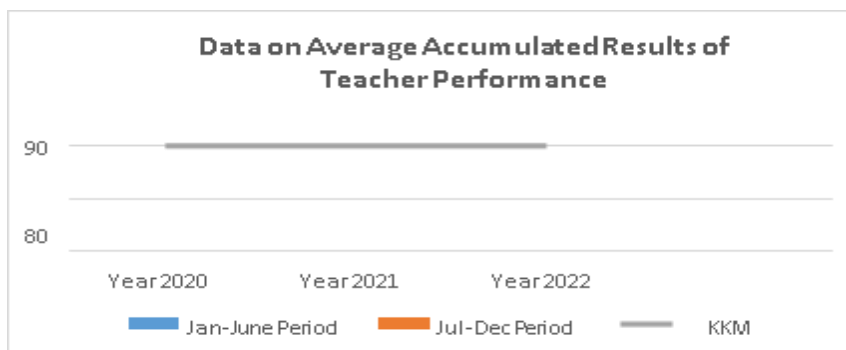
Keterangan :

Angka capaian adalah 79,5 yang artinya cukup

| Rentang Nilai |               |
|---------------|---------------|
| 110 - 120     | sangat baik   |
| 90 - 109      | baik          |
| 70 - 89       | cukup         |
| 50 - 69       | kurang        |
| 0 - 49        | sangat kurang |

**Source:** Internal Data of SMA Negeri XYZ, 2023

Table 1.1 explains the average accumulation of teacher performance at SMA Negeri XYZ, which is carried out every 6 months. From the data, it can be taken that SMA Negeri XYZ conducted an assessment with an achievement of 79.5%. This assessment shows fluctuations and non-optimal achievement of student learning. It can be seen that from July to December 2021, the assessment points fluctuate, with a significant decrease from July to December 2021 to January to June 2022



**Figure 1.2 Average Teacher Performance Data of XYZ State Senior High School**

**Source:** Internal Data of SMA Negeri XYZ, 2023

Figure 1.2 illustrates the data in a diagram showing fluctuations in teacher performance at SMA Negeri XYZ. There are variations in achievement in each period. This indicates that teacher performance is not optimal. To improve the quality of their performance, teachers need to have adequate competencies. In several studies on Digital Leadership, it is also known as e-leadership, which is a form of leadership centered on the use of electronic technology (Roman et al., 2018; Van Wart et al., 2019; Wang et al., 2021). This concept was originally introduced by (Avolio et al., 2000) in his research who defined e-leadership as a process of social influence mediated by technology to produce changes in individual and group attitudes, feelings, thoughts, behaviors, and performance in an organizational context. Other research shows that competence in Digital Leadership separates organizations that have embraced digital technology from those that are still developing in terms of digitalization (Abbu et al., 2020). E-leadership has an impact on teacher performance at SMAN XYZ, Palu. This study aims to measure competence in digital leadership through the leader's level of digital skills in driving organizational digital transformation (Roman et al., 2019). According to Permendiknas No. 16/2007 on Standards for Academic Qualifications and Teacher Competencies, there are four competency standards that teachers should have through professional education. These include pedagogical and professional competencies

Strong digital leadership will lead to improved teacher performance at SMAN XYZ. In the digital transformation of organizations, leaders with a digital outlook are needed to achieve the desired changes (Hai et al., 2021). Studies show competence in digital leadership affects the achievement of organizational goals (Imran et al., 2020; Henderikx & Stoffers, 2022). As educators, teachers introduce innovations in teaching. Innovative work behavior (IWB) is an effort to introduce new ideas to improve performance in organizations (Diana et al., 2020). Creating an innovative organization involves the development of employee innovative behavior (De Jong and Den Hartog in Kurniawan et al., 2021).

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To dig deeper, the researcher held a discussion forum with 33 teachers at SMAN XYZ, Palu. This represents about 25% of the teachers. The forum consisted of 5 sessions, each with 6-7 teachers according to subject and student level. The discussion results revealed the challenges of using technology in learning: (1) Online methods require detailed explanations (see transcript 1, line 6). (2) Students prefer face-to-face (see transcript 1, line 7). (3) Online learning is considered less effective, understanding is different when face-to-face (see transcript 1, line 8; transcript 2, lines 65 and 67). (4) Online student supervision is difficult (see transcript 1, line 9).

(5) Students have difficulty focusing online (see transcript 2, line 66). (6) Technical constraints such as connection and devices (see transcript 3, line 122; transcript 5, line 251). (7) Differences in home and classroom learning (see transcript 4, line 182).

Teachers need to pay attention to the six dimensions of e-leadership: Communication, Social, Team, Change, Technology, and Trust. Discussions with teachers of SMAN XYZ showed barriers in implementing e-leadership.

Teachers at SMAN XYZ take several actions in addition to technology problems: (1) Using Power Point to explain the material or address the lagging material (see transcript 1, line 11; transcript 3, line 127). (2) Involving Q&A or evaluation when students are confused (see transcript 1, line 12; transcript 5, line 256). (3) Making creative videos for assignments (see transcript 1, line 12). (4) Presentations are used to encourage student engagement (see transcript 1, line 15; transcript 2, line 74; transcript 5, line 257). Teachers show innovation in teaching students. However, there is a need to improve self-management to achieve goals and personal evaluation to improve achievement. Furthermore, teachers need to explore more deeply in the implementation of learning ideas.

From the explanation above, E-Leadership and innovative work behavior are crucial for individuals. Previous research proves E-Leadership positively influences teacher performance (Talibo., 2023). According to (Avolio et al., 2003), taken from (Talibo et al., 2023), e-leadership is the ability to lead and manage organizations through information and communication technology (ICT). Previous research shows E-leadership builds individual awareness of personal achievements that improve performance (Adri et al., 2022). E-leadership is social influence through digital computer applications, changing the behavior and performance of individuals and groups of teachers in schools (Benitez et al., 2022). In this context, E-leadership refers to the use of digital technologies, including computers and related applications, to influence the behavior and performance of teachers in schools (Benitez et al., 2022). (Tetriko et al., 2022) asserted the more effective E-leadership is implemented by principals, the higher teachers' ability in online learning. Previous research also found that innovative work behavior affects teacher performance (Sary et al., 2022).

Based on the previous description, this study aims to investigate teachers' digital competencies through e-leadership and teachers' innovative behavior through innovative work behavior, and their impact on teacher performance. It also aims to explore the relationship between e-leadership and innovative work behavior, and its implications on teacher performance. This research tries to provide new knowledge about e-leadership in the context of teachers. This study aims to investigate "The Effect of E-Leadership and Innovative Work Behavior on Teacher Performance at SMA Negeri XYZ."

## B. Research Methods

This research uses quantitative methods for collecting and analyzing numerical data. Quantitative research is systematic research, connecting phenomena, and selecting formulas according to the type of population (Hasibuan et al., 2022). This type of research is descriptive and causal. Descriptive research investigates certain situations, conditions, or events and the results are presented in a report (Arikunto, 2019). Descriptive analysis is used to analyze data and generate in-depth understanding. This research aims to understand the relationship between E-Leadership, Innovative Work Behavior, and teacher performance at SMAN XYZ through discussions with 25% of teachers. To fulfill the research objectives, the researcher used a survey method with a questionnaire. Questionnaires were distributed to 130 teachers at SMAN XYZ in Palu City. Data collection methods included Likert scale, and data analysis used descriptive analysis. This research also utilized secondary data from SMAN XYZ as support.

## 2. LITERATURE REVIEW

Human resource management (HR) is a formal process created by an organization to ensure that human talent is used well to achieve company goals. (Tinangon et al., 2019). Planning, recruiting, HR analysis, equal employment opportunities, benefits and compensation, health, security and safety, as well as the relationship between labor and labor are examples of actions included in HR management (Mathis et al., 2019).

According to Thoha (2019) leadership is defined as implementation decision maker and authority. This can also take the form of an action initiative produce consistent patterns of action to solve joint problems. In this context, leadership is defined as an individual or group that having authority or power to make decisions and direct people others in an organization or environment. Benitez et al. (2022) define e-leadership as a method of influence social media facilitated by digital computer applications that change behavior and individual and group performance of teachers in school organizations. In this context, e-Leadership refers to the use of digital technology, such as computers and applications related, to influence teacher behavior and performance in school organizations. With the help of e-leadership, leaders can use communication tools electronics and digital platforms to interact,

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influence and motivate teachers. This research used E-Leadership dimensions which include; communications skills, Social skills, Team building skills, Change management skills, Technological skills, Trustworthiness.

Innovation is the process of developing something new or introduce significant changes in products, services, processes or models business in consistently tight competition (Sari & Palupiningdyah, 2020: 153). Therefore, the participation of all parties, both leaders and employees, very important in planning and implementing innovative work behavior (Nugroho & Ranihusna, 2020: 133). According to Sari (2021), innovation is defined as a process or the result of creating something new or introducing changes to existing products, services or processes. Innovative Work Behavior (IWB) can be defined as something that generate new ideas, find creative solutions, and drive change constructive in the workplace (Asurakkody & Kim, 2020).

According to Lestari et al. (2020) Teacher innovativeness can be defined as a teacher's ability using innovative and new learning methods and approaches, as well as their ability to use technology in the learning process. Based on the expert opinion above, it can be concluded that the dimensions used in this research are awareness and volition (awareness and will), task motivation (task motivation), constructive cognition (thinking constructive).

Improved communication technology and virtual connections have opened up the world for new ways of acquiring, developing, and managing talent and work, including changing the way work is distributed. Aside from that changing perceptions about work, the people in it and digital culture overall. Digital technology has dramatically impacted culture digital around the workplace and at work, use of digital technology Facilitate work effectiveness and expand work targets to be achieved (Buchanan et al., 2016:2). Based on the explanation of the indicators or dimensions of digital culture that have been explained by the experts, it can be concluded that the experts have criteria separate and different from one expert to another, but there are several the same indicators or dimensions, namely innovation, collaboration or working together between units within the organization, a culture of openness to the external environment, and agility, as well flexibility. In this study, researchers will use measurement dimensions digital culture proposed by Buvat et al. (2020) which consists of seven dimensions measurements, namely Innovation, Data-Driven Decision-Making, Collaboration, Open Culture, Digital First Mindset, Agility and Flexibility, and Customer Centricity.

According to the Regulation of the Minister of State for the Empowerment of State Apparatus and Bureaucratic Reform Number 16 of 2009, PK TEACHER is an evaluation of each component of the teacher's main task activities related to career development, rank and position. The teacher's ability to master knowledge and application of skills required by the Regulation of the Minister of National Education Number 16 of 2007 concerning Academic Qualification Standards and Teacher Competencies very important for the implementation of the teacher's main duties. The PK TEACHER system is a system The assessment is intended to find out how well the teacher is doing task is to assess the mastery of competencies demonstrated in work performance they. Based on the expert opinion above, it can be concluded that the dimensions used in this research are quality of work, work accuracy (work accuracy), initiative in work (initiative in work), work ability (ability work), communication (communication).

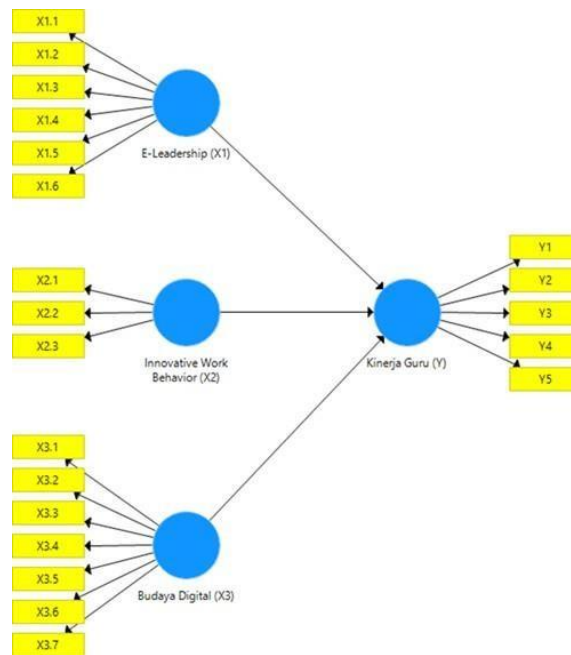
### **3. METHOD, DATA, AND ANALYSIS**

This research uses quantitative methods for collecting and analyzing numerical data. Quantitative research is systematic research, connecting phenomena, and selecting formulas according to the type of population (Hasibuan et al., 2022). This type of research is descriptive and causal. Descriptive research investigates certain situations, conditions, or events and the results are presented in a report (Arikunto, 2019). Descriptive analysis is used to analyze data and generate in-depth understanding. This research aims to understand the relationship between E-Leadership, Innovative Work Behavior, Digital Culture and teacher performance at SMAN XYZ through discussions with 25% of teachers. To fulfill the research objectives, the researcher used a survey method with a questionnaire. Questionnaires were distributed to 130 teachers at SMAN XYZ in Palu City. Data collection methods included Likert scale, and data analysis used descriptive analysis. This research also utilized secondary data from SMAN XYZ as support.

### **4. RESULT AND DISCUSSION**

In this verification analysis, related to the formation of structural equation models, hypothesis testing will be carried out using the PLS-SEM method. The PLS-SEM method allows estimating complex models with indicator variables, constructs, and structural paths without forcing distribution assumptions on the data (Hair et al., 2019). The following is the PLS-SEM model in this study.

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**Figure 4.1 Conceptual Diagram of PLS- SEM Model**

Through the conceptual diagram in the figure above, the structure can generally be described through the following equation (Ghozali, 2014: 37):

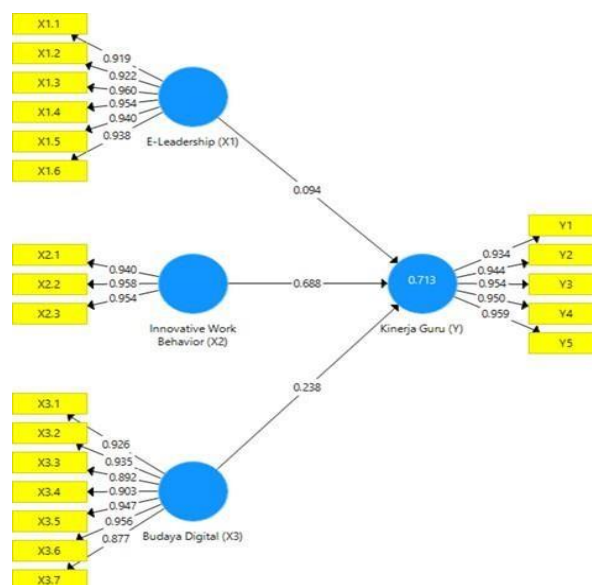
$$\eta = \gamma_1\xi_1 + \gamma_2\xi_2 + \zeta$$

## Outer Model Testing (Measurement Model)

This test uses Smart PLS-3 for testing the outer model. The outer model is used to check validity, reliability, and convergence and discrimination in the form of convergent validity, discriminant validity, and internal consistency. The following is the outer model used in this study.

### 1. Convergent Validity

The first step is to assess convergent validity. Indicator validity is considered good if the loading factor is more than 0.70. However, loading factors between 0.50 and 0.60 are still acceptable for models that are still under development (Ghozali, 2014: 39). Based on the estimation results using the SmartPLS 3 program application, the following output is obtained.



**Figure 4. 2 Diagram of Loading Factor Value of Outer Evaluation**

From the results of testing the final model, all observed variables have a loading factor above 0.70. Therefore, the SEM-PLS model has good construct validity. The following is a table showing the detailed loading factor values on the model.



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**Table 4.1: Loading Factor**

| <b>Construct</b>                      | <b>Loading Factor</b> | <b>R kritis</b> | <b>Criteria (Loading Factor &gt; 0,7)</b> |
|---------------------------------------|-----------------------|-----------------|---|
| X1.1 <- E-Leadership (X1)             | 0,919                 | 0,7             | Valid                                     |
| X1.2 <- E-Leadership (X1)             | 0,922                 | 0,7             | Valid                                     |
| X1.3 <- E-Leadership (X1)             | 0,960                 | 0,7             | Valid                                     |
| X1.4 <- E-Leadership (X1)             | 0,954                 | 0,7             | Valid                                     |
| X1.5 <- E-Leadership (X1)             | 0,940                 | 0,7             | Valid                                     |
| X1.6 <- E-Leadership (X1)             | 0,938                 | 0,7             | Valid                                     |
| X2.1 <- Innovative Work Behavior (X2) | 0,940                 | 0,7             | Valid                                     |
| X2.2 <- Innovative Work Behavior (X2) | 0,958                 | 0,7             | Valid                                     |
| X2.3 <- Innovative Work Behavior (X2) | 0,954                 | 0,7             | Valid                                     |
| X3.1 <- Digital Culture (X3)          | 0,926                 | 0,7             | Valid                                     |
| X3.2 <- Digital Culture (X3)          | 0,935                 | 0,7             | Valid                                     |
| X3.3 <- Digital Culture (X3)          | 0,892                 | 0,7             | Valid                                     |
| X3.4 <- Digital Culture (X3)          | 0,903                 | 0,7             | Valid                                     |
| X3.5 <- Digital Culture (X3)          | 0,947                 | 0,7             | Valid                                     |
| X3.6 <- Digital Culture (X3)          | 0,956                 | 0,7             | Valid                                     |
| X3.7 <- Digital Culture (X3)          | 0,877                 | 0,7             | Valid                                     |
| Y1 <- Teacher Performance (Y)         | 0,934                 | 0,7             | Valid                                     |
| Y2 <- Teacher Performance (Y)         | 0,944                 | 0,7             | Valid                                     |
| Y3 <- Teacher Performance (Y)         | 0,954                 | 0,7             | Valid                                     |
| Y4 <- Teacher Performance (Y)         | 0,950                 | 0,7             | Valid                                     |
| Y5 <- Teacher Performance (Y)         | 0,959                 | 0,7             | Valid                                     |

Source: Data Processing (2023)

In Table 4.1, the loading factor for each construct of each variable is shown. All loading factors are above 0.7. This indicates that each construct in the study has strong validity. To strengthen the convergent validity results, average variance extracted (AVE) testing will be carried out with the standard that the AVE value is > 0.5 (Hair et al., 2019), to confirm the validity of the constructs used in the study. The following presents the results of testing the *average variance extracted* using the PLS 3.0 program:

**Table 4.2: Average Variance Extracted Value**

| <b>Latent</b>                        | <b>Average Variance Extracted (AVE)</b> | <b>R kritis</b> | <b>Kriteria (AVE &gt; 0.5)</b> |
|--------------------------------------|---|-----------------|--------------------------------|
| <i>E-Leadership (X1)</i>             | 0,882                                   | 0,5             | Valid                          |
| <i>Innovative Work Behavior (X2)</i> | 0,904                                   | 0,5             | Valid                          |
| Budaya Digital (X3)                  | 0,846                                   | 0,5             | Valid                          |
| Kinerja Guru (Y)                     | 0,899                                   | 0,5             | Valid                          |

Based on table 4.2, the results of *convergent validity* can be seen based on the *average variance extracted value*. These results show that all latent variables have an AVE value of more than 0.5. This indicates that the indicators that make up the latent construct have good *convergent validity* when viewed from the *average variance extracted value*.

**2. Discriminant Validity Test**

This test aims to measure the extent to which a construct is different from other constructs. Using the Fornell-Lacker Criterion, discriminant validity testing is carried out by comparing the correlation between variables or constructs with the square root of the Average Variance Extracted ( $\sqrt{AVE}$ ). Predictions are said to have good validity if the AVE square root value of each variable is greater than the correlation between other variables. The following is the *Fornell-Lacker Criterion* table:

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**Table 4.3: Fornell Lacker Criterion**

|                               | <b>E-Leadership (X1)</b> | <b>Innovative Work Behavior (X2)</b> | <b>Performance Teacher (Y)</b> |       |
|-------------------------------|--------------------------|--------------------------------------|--------------------------------|-------|
| E-Leadership (X1)             | 0.058                    | 0.939                                | 0.951                          |       |
| Innovative Work Behavior (X2) | 0.238                    | 0.721                                | 0.813                          |       |
| Digital Culture (X3)          | 0,920                    |                                      |                                |       |
| Teacher Performance (Y)       | 0.407                    | 0.604                                |                                | 0.948 |

**Source :** Data Processing (2023)

From testing discriminant validity with the Fornell-Lacker criterion, it appears that the root AVE ( $\sqrt{\lambda}$ ) of each construct exceeds the correlation between constructs. Another way to measure discriminant validity is cross-loading analysis between indicators and their constructs, by comparing the correlation of indicators to their associated constructs with the correlation coefficients of other constructs. The correlation coefficient of the indicator against its associated construct must be greater than that of other constructs. The following are the results of the *cross-loading* analysis of the research data:

**Table 4.4: Discriminant Validity Test Value Cross Loading**

|             | <b>E-Leadership (X1)</b> | <b>Innovative Work Behavior (X2)</b> | <b>Teacher Performance (Y)</b> |
|-------------|--------------------------|--------------------------------------|--------------------------------|
| <b>X1.1</b> | <b>0,919</b>             | 0,650                                | 0,528                          |
| <b>X1.2</b> | <b>0,922</b>             | 0,629                                | 0,520                          |
| <b>X1.3</b> | <b>0,960</b>             | 0,704                                | 0,589                          |
| <b>X1.4</b> | <b>0,954</b>             | 0,718                                | 0,610                          |
| <b>X1.5</b> | <b>0,940</b>             | 0,664                                | 0,567                          |
| <b>X1.6</b> | <b>0,938</b>             | 0,691                                | 0,581                          |
| <b>X2.1</b> | 0,675                    | <b>0,940</b>                         | 0,753                          |
| <b>X2.2</b> | 0,709                    | <b>0,958</b>                         | 0,782                          |
| <b>X2.3</b> | 0,673                    | <b>0,954</b>                         | 0,782                          |
| <b>Y1</b>   | 0,589                    | 0,758                                | <b>0,934</b>                   |
| <b>Y2</b>   | 0,551                    | 0,756                                | <b>0,944</b>                   |
| <b>Y3</b>   | 0,565                    | 0,766                                | <b>0,954</b>                   |
| <b>Y4</b>   | 0,571                    | 0,778                                | <b>0,950</b>                   |
| <b>Y5</b>   | 0,588                    | 0,795                                | <b>0,959</b>                   |

**Source:** Data Processing (2023)

From table 4.4, it can be seen that all indicators have a higher correlation with their constructs than with other constructs. This implies that the research model has good discriminant validity in terms of cross-loading.

**3. Reliability Test**

*Cronbach's Alpha* and *Composite Reliability* are used to evaluate construct reliability. If the value of both exceeds 0.70 (Hair et al, 2017), the construct is considered reliable. However, values above 0.60 also indicate good reliability. The following presents the results of the *reliability* test using the Smart PLS 3.0 program.

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**Table 4. 5: Cronbach's Alpha and Composite Reliability values**

| Latent Variable               | Cronbach's Alpha | Composite Reliability |
|-------------------------------|------------------|-----------------------|
| E-Leadership (X1)             | 0,973            | 0,978                 |
| Innovative Work Behavior (X2) | 0,947            | 0,966                 |
| Digital Culture (X3)          | 0,970            | 0,975                 |
| Teacher Performance (Y)       | 0,972            | 0,978                 |

Source: Data Processing (2023)

Table 4.5 shows that the latent constructs have *Cronbach's Alpha* above 0.7, indicating good reliability. All latent constructs also have *Composite Reliability* above 0.70. Based on the *Cronbach's alpha* and *composite reliability* values obtained, it shows that the model has good reliability.

### Structural Model Testing (Inner Model)

*Inner model* evaluation is an analysis of the results of the relationship between constructs. Inner model testing consists of R square, f square, *Q-square predictive relevance*, and hypothesis testing.

#### 1. R Square

Furthermore, based on the test results with SmartPLS 3., the R Square results are obtained as follows.

**Table 4.6: R Square**

|                         | R Square | Relationship |
|-------------------------|----------|--------------|
| Teacher Performance (Y) | 0,713    | Moderate     |

Source: Data Processing (2023)

According to Chin (1998) in Yamin and Kurniawan (2011: 21), R Square of 0.67 indicates a strong model, 0.67 indicates a moderate model, and 0.19 indicates a weak model. From table 4.33, the R- Square for the Teacher Performance variable is 0.713, indicating that *E-Leadership and Innovative Work Behavior* together affect Teacher Performance by 71.3%, while the remaining 28.7% is influenced by other variables not explained in this study.

#### 2. f-Square

Next, pay attention to the f Square value. The f Square value of 0.02 indicates a small effect, Effect Size 0.15 indicates a medium effect, and Effect Size 0.35 indicates a large effect (Cohen, 1988 in Yamin and Kurniawan) (2011: 21). Based on the test results with SmartPLS 3, the F Square results are as follows.

**Table 4.7: f Square**

| Variables                            | Effect Size | Rating       |
|--------------------------------------|-------------|--------------|
| <b>Teacher Performance (Y)</b>       |             |              |
| <i>E-Leadership</i> (X1)             | 0,002       | Small        |
| Innovative Work Behavior (X2)        | 0.728       | Big          |
| <i>Innovative Work Behavior</i> (X2) | 0,181       | intermediate |

Source: Data Processing (2023)

#### 3. Q<sup>2</sup> Predictive Relevance

Q-square testing measures the accuracy of observation values and parameter estimates in the model.



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If the Q-square is more than 0, the model has predictive relevance, while if it is less than 0, the model has less relevant predictions (Cohen, 1988 in Yamin and Kurniawan (2011: 21). The *Q-square* value obtained using the R value<sup>2</sup> in the table above, the calculation results are as follows:

**Table 4. 8: Q<sup>2</sup> Predictive Relevance**

| Variables               | R Square                  | 1-R Square |
|-------------------------|---------------------------|------------|
| Teacher Performance (Y) | 0,713                     | 0,287      |
| Q2 =                    | Q2 = 1- (1-0.713) = 71.3% |            |
| Error =                 | Q2 = 100% - 71.3% = 28.7% |            |

**Source:** Data Processing (2023)

Based on the above calculations, the Q square is greater than 0, indicating that the observed values have been well reconstructed, demonstrating the predictive relevance of the model. This means that 71.3% of the influence of the structural model has been reflected in the observed measurements of the endogenous latent variables, and 28.7% is model error.

#### 4. Goodness of Fit (GoF)

This index is used to evaluate measurement and structural models and provides a simple measure of the overall predictability of the model. GoF 0.10 indicates the small category, GoF 0.250 indicates the medium category, and GoF 0.36 indicates the *large category*. For this reason, the *GoF index* is calculated from the square root of the *average communality index* and *average R-square* values as follows:

$$\begin{aligned} \text{GoF} &= \sqrt{\text{Avrg Comm} \times \text{Avrg R}^2} \\ &= 0,883 \times 0,713 = 0,793 \end{aligned}$$

Based on the above calculations, it is known that the GoF value obtained is 0.793, so it is known that the GoF value is included in the *large* (high) category.

#### Hypothesis Testing

Hypothesis testing in this study uses the *path coefficient*, *t-value*, and *p-value*. Significance and prediction in hypothesis testing are evaluated through the *path coefficient*, *t-value*, and *p-value* (Kock, N. 2016). The t-table value can be seen in the following table.

**Table 4.9 T-table values**

|         | <i>One-tailed</i> |
|---------|-------------------|
| t-table | 1,64              |

According to Kock, N. (2016), with a confidence level of 95% (alpha 5%), *one-tailed*, the t-table value is obtained as follows:

1. If the t-statistic value > 1.64 (used for direct effects), then H<sub>0</sub> is rejected and H<sub>1</sub> is accepted.
2. If the t-statistic value < 1.64 (used for direct effect), then H<sub>0</sub> is accepted and H<sub>1</sub> is rejected.

The magnitude of the significance value between the variables tested is presented in the form of the value contained in the arrow that connects one of the variables to the variable of interest.

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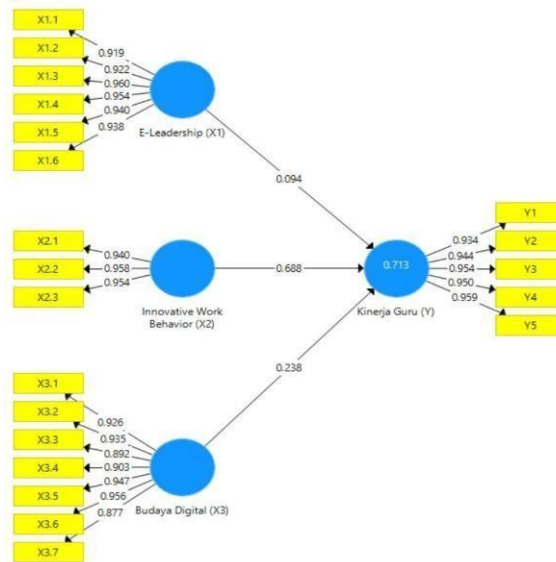


Figure 4. 3 Structural Model (path coefficient, beta)

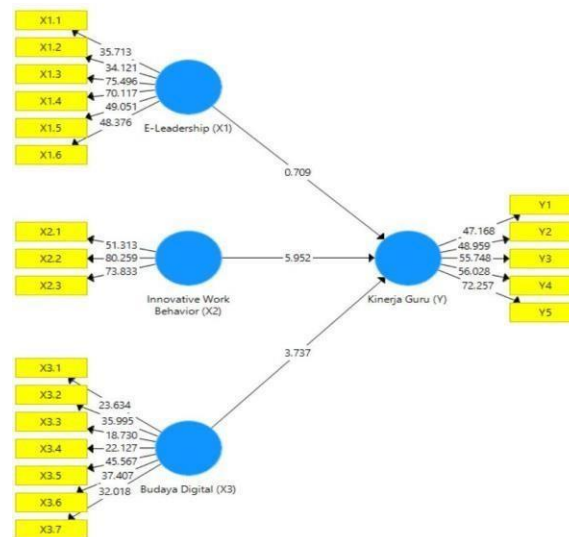


Figure 4. 4 Significance value (t-count)

Source: Data processing output using SmartPLS (2023)

## 4. CONCLUSION AND SUGGESTION

From this study can be concluded:

1. E-Leadership among teachers at SMAN XYZ does not have a significant positive influence on teacher performance.
2. Innovative Work Behavior among teachers at SMAN XYZ has a significant positive influence on teacher performance.
3. Digital Culture among teachers at SMAN XYZ has a significant positive influence on teacher performance.
4. Teacher performance at SMAN XYZ can be enhanced by promoting Innovative Work Behavior.
5. The influence of E-Leadership on teacher performance at SMAN XYZ is not significant.
6. The influence of Innovative Work Behavior on teacher performance at SMAN XYZ is significant.
7. The influence of Digital Culture on teacher performance at SMAN XYZ is significant.
8. The combined influence of E-Leadership, Innovative Work Behavior, and Digital Culture on teacher performance at SMAN XYZ is not significant.

From this research also emerged suggestions, including ;

1. Practical training programs should be implemented to enhance Innovative Work Behavior among teachers, as it has been identified as a significant factor in improving teacher performance.
2. Strategies should be devised to cultivate a Digital Culture among teachers, which has shown to positively impact teacher performance.

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3. While E-Leadership did not show a significant influence on teacher performance in this context, further exploration into different leadership styles and their effects could be beneficial.
4. Continuous assessment and feedback mechanisms should be established to monitor and evaluate the effectiveness of interventions aimed at improving teacher performance.
5. Collaboration among stakeholders, including school administrators, teachers, and policymakers, is essential in implementing and sustaining initiatives aimed at enhancing teacher performance.

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