

# EMPLOYEE READINESS FOR DIGITAL TRANSFORMATION IN LOGISTICS PROCUREMENT: THE IMPLEMENTATION OF E-PROCUREMENT AND E-VENDOR MANAGEMENT SYSTEMS AT PT ENERGIA PRIMA NUSANTARA

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**Abstract.** *The advancement of digital transformation has encouraged organizations to plan the implementation of digital-based procurement systems, such as E-Procurement and the E-Vendor Management System (E-VMS). However, the success of implementing these systems is not determined solely by technological readiness, but also by the readiness of employees as the primary users. This study aims to analyze employee readiness toward the planned implementation of E-Procurement and E-VMS in the logistics procurement function using the Unified Theory of Acceptance and Use of Technology (UTAUT) framework. This study employs a quantitative approach using a survey method. Data were collected through questionnaires distributed to employees who met the research criteria. Data analysis was conducted using Partial Least Squares–Structural Equation Modeling (PLS-SEM) with the assistance of SmartPLS software. The variables examined in this study include Performance Expectancy and Effort Expectancy as independent variables, Behavioral Intention as a mediating variable, and Use Behavior as the dependent variable. The results indicate that Performance Expectancy and Effort Expectancy have a positive effect on Behavioral Intention. Furthermore, Behavioral Intention has a significant influence on Use Behavior and functions as a mediating variable in the relationship between Performance Expectancy and Effort Expectancy toward Use Behavior. These findings suggest that perceived system benefits play a crucial role in shaping users' intention to use and employee readiness, particularly in supporting digital transformation within the logistics procurement function.*

**Keywords:** *Digital Transformation; E-Procurement; Employee Readiness; E-VMS; PLS-SEM; UTAUT*

## 1. INTRODUCTION

Procurement serves as a critical function in organizational operations as it significantly influences cost structures and overall organizational performance (Mwangata, Chrine, and Hapompwe, 2024). In the current digital era, many organizations face increasing pressure to continuously enhance efficiency, quality, and responsiveness within their procurement practices (Mutegi & Karani, 2024). Traditional or manual procurement methods are frequently confronted with various challenges that may negatively affect organizational performance, including process inefficiencies, high operational costs, limited transparency, as well as the potential for human error and procedural delays (Wairimu & Erick, 2024). Consequently, digital transformation within the procurement function has become strategically important for organizations seeking to improve effectiveness and efficiency in response to these challenges. One of the primary approaches to achieving such transformation is the implementation of E-Procurement systems and E-Vendor Management Systems (E-VMS). These systems are designed to streamline procurement processes, reduce costs, enhance transparency, strengthen governance, and ultimately contribute to improved organizational performance.

In practice, several tangible issues have been identified in the previous procurement system, including limited availability of historical procurement data, tender processes that remain manually executed and therefore time-consuming, and the absence of systems that support data-driven evaluation. These conditions also have implications for logistical operations, such as

delivery delays resulting from prolonged tender completion, as well as insufficient integration between the procurement function and overall logistics supply chain management. Such circumstances contribute to delayed supply chain visibility, which in turn may increase logistics costs. These challenges have prompted the Company to pursue digital transformation through the planned implementation of E-Procurement and E-VMS as a strategic initiative to address existing problems.

Numerous studies have examined the impact of E-Procurement and E-VMS on organizational performance. In general, the implementation of E-Procurement has been shown to streamline procurement processes and reduce costs (Mwangata, Chrine, & Hapompwe, 2024). Wairimu and Erick (2024) report that E-Ordering, as one of the key components of E-Procurement, has demonstrated positive effects on procurement efficiency, including faster order processing and reduced lead times. Furthermore, the E-Vendor Management System (E-VMS) is widely recognized as a crucial mechanism for enhancing efficiency within global supply chains (Abbey et al., 2023). Previous studies indicate that E-VMS can improve supplier performance, reduce supplier-related risks, enhance procurement efficiency, support risk management, increase transparency, and even mitigate the risk of corruption (Wairimu & Erick, 2024). However, to the best of the researcher's knowledge, there has been no study that specifically analyzes employee readiness for digital transformation within the logistics procurement function at PT Energia Prima Nusantara. Therefore, this study is necessary as it is aimed to provide new insights into the factors influencing the success of digital transformation in the company's logistics procurement function.

PT Energia Prima Nusantara (EPN) is a company operating in the energy sector in Indonesia. In response to the growing need for digital transformation, PT EPN has planned a strategic initiative to modernize its procurement function. The company intends to commence the implementation of E-Procurement and E-VMS in 2025. This initiative explicitly aims to create a smart procurement experience through process automation. Given that the system is currently at the implementation planning stage, employee readiness for digital transformation is considered critically important. Accordingly, this study seeks to explore employee readiness for digital transformation as a preparatory step toward the transition to full operational implementation.

## **2. LITERATURE REVIEW**

### *2.1 Digital Transformation in Logistic Procurement*

Digital transformation refers to the process of enhancing organizational activities by triggering significant changes through the integration of information technology, computing, communication, and connectivity (Wang & Pettit, 2022). Wang and Pettit further explain that digital transformation can be understood as a corporate initiative to leverage new capabilities enabled by digital technologies in order to reshape organizational strategies and operations (2022). Such transformation does not necessarily originate solely within the organization but may also be driven by changes at the industry or societal level. Within the context of supply chains, digital transformation aims to develop supply chains that are resilient, customer-centric, intelligent, and both connected and secure. In the digital era, organizations are under continuous pressure to improve efficiency, quality, and responsiveness in their procurement practices (Mutegei & Karani, 2024). Digitalization has therefore become a strategic imperative, as it enhances connectivity among business partners and improves access to and distribution of critical data (Wang & Pettit, 2022). Without digital transformation, procurement activities are often characterized by inefficient processes, high operational costs, limited transparency, susceptibility to human error, and procedural delays (Wairimu & Erick, 2024).

## *2.2 E-Procurement and E-Vendor Management System (E-VMS)*

E-Procurement is a digital procurement system that utilizes internet-based technology to support the purchasing of goods and services through electronic communication between buyers and sellers (Ramadhan & Rahman, 2022). The implementation of E-Procurement aims to improve efficiency, reduce procurement costs, enhance transparency, and strengthen governance by streamlining administrative processes and shortening procurement cycle times (Septianingsih, 2022). In addition, E-Procurement increases transparency and accountability by providing open access to procurement information, thereby reducing the potential for corruption, collusion, and nepotism while improving data security and document confidentiality (Ramazan & Najamudin, 2021; Septianingsih, 2022). Key components of E-Procurement include E-Tendering and E-Purchasing, which facilitate electronic tender processes and procurement through electronic catalogs to ensure faster and more transparent transactions (Hendrio, 2024). The E-Vendor Management System (E-VMS) complements E-Procurement by enabling systematic supplier selection, evaluation, and monitoring. E-VMS contributes to improved supplier performance, reduced supplier-related risks, and strengthened supply chain governance, thereby supporting procurement efficiency and transparency within the supply chain (Abbey et al., 2023; Mutegi & Karani, 2024; Wairimu & Erick, 2024).

## *2.3 Factors Influencing the Readiness of Implementing Digital Transformation in Logistics Procurement*

### *2.3.1 Resources*

The availability of resources is a fundamental prerequisite for effective policy implementation (Wibawa, 2011). In the context of digital transformation, resources encompass human resources, financial resources, and information technology infrastructure and facilities. Human resources represent a critical factor, as they involve both the quality (skills, competencies, knowledge, and integrity) and the adequate quantity of personnel (Wibawa, 2022). Human resource readiness also includes the ability of employees to adapt to new systems and requires intensive training to enhance competence and reduce learning time (Ramazan & Najamudin, 2021). Technical expertise in information technology is particularly essential for operating E-Procurement systems, including an understanding of relevant regulations, system analysis capabilities, basic coding knowledge, and information security awareness. Financial resources are equally important, as the availability of sufficient budgetary support is a key determinant for the acquisition of infrastructure, hardware and software licenses, operational activities, and training programs (Wibawa, 2011). Furthermore, information technology infrastructure is required to support digital transformation, including hardware (such as servers, computers, scanners, and printers), software applications (procurement systems and helpdesk platforms), and communication networks (local area networks, internet connectivity, and bandwidth).

### *2.3.2 Technology and Integration System Level*

Technology refers to the application systems (software) utilized in procurement processes, such as E-Tendering and E-Vendor Management Systems (E-VMS), as well as the supporting infrastructure (Wibawa, 2011). From a system perspective, the quality and functionality of these applications should be capable of streamlining processes, reducing costs, and enhancing transparency (Ramadhan & Rahman, 2022). Data security, system reliability, and ease of use are critical aspects of technological readiness. However, digital applications may encounter various challenges, including system errors, limitations in filtering qualified vendors, system complexity, and incompatibility with users' devices (Ramazan & Najamudin, 2021). Integration between the procurement function and overall logistics supply chain management can lead to delivery delays and limited supply chain visibility. The failure to integrate new technologies with

existing platforms may disrupt organizational information flows. Therefore, system integration is essential to enhance visibility and transparency across the entire supply chain, enabling more effective monitoring of order status, inventory levels, and delivery processes (Wang & Pettit, 2022).

#### *2.4 Research Focus*

The focus of this study is to analyze employees in relation to digital transformation within the logistics procurement function by examining key variables derived from the Unified Theory of Acceptance and Use of Technology (UTAUT), as proposed by Venkatesh et al. (2003). The variables examined in this study are described as follows:

##### *2.4.1 X1 (Independent Variable 1): Performance Expectancy (PE) Definition:*

Performance Expectancy refers to the degree to which employees believe that the E-Procurement and E-Vendor Management System (E-VMS) will enhance their job performance.

Indicators:

- The system accelerates task completion
- The system increases employee productivity
- The system improves work quality
- The system supports the achievement of work targets

##### *2.4.2 X2 (Independent Variable 2): Effort Expectancy (EE) Definition:*

Effort Expectancy refers to the perceived ease of use of the digital system. Indicators:

- The system is easy to learn
- The system is clear and easy to use
- The system does not require excessive effort
- Interaction with the system is not confusing

##### *2.4.3 Y (Mediating Variable): Behavioral Intention (BI) Definition:*

Behavioral Intention refers to employees' intention to use the digital system in performing their work-related tasks.

Indicators:

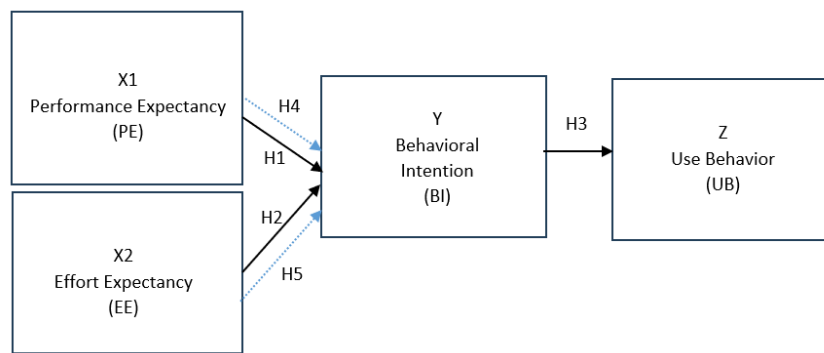
- Intention to use the system
- Willingness to use the system frequently
- Motivation to integrate the system into routine work activities

##### *2.4.4 Z (Dependent Variable): Use Behavior (UB) Definition:*

Use Behavior refers to the actual use of the digital system by employees.

Indicators:

- Frequency of system usage
- Consistency of system usage
- Utilization of the main features of the E-Procurement and E-Vendor Management System (E-VMS)



**Figure 1.** Conceptual Framework of the Study  
Source : Author's Analysis, 2025

### 2.5 Research Hypotheses

Based on the Unified Theory of Acceptance and Use of Technology (UTAUT) proposed by Venkatesh et al. (2003), the hypotheses formulated in this study are as follows:

- *H1: Performance Expectancy (X1) has a significant effect on Behavioral Intention (Y).*
- *H2: Effort Expectancy (X2) has a significant effect on Behavioral Intention (Y).*
- *H3: Performance Expectancy (X1) has a significant effect on Use Behavior (Z) through Behavioral Intention (Y).*
- *H4: Effort Expectancy (X2) has a significant effect on Use Behavior (Z) through Behavioral Intention (Y).*
- *H5: Behavioral Intention (BI) has a significant effect on Use Behavior (UB).*

## 3. RESEARCH METHODS

### 3.1 Research Design

This study employs a quantitative research design to examine the relationships among variables within the Unified Theory of Acceptance and Use of Technology (UTAUT) framework in the context of digital transformation in logistics procurement at PT Energia Prima Nusantara. Data were collected through a structured questionnaire using a Likert scale, and the sample size was determined using the Slovin formula.

### 3.2 Research Location

The research was conducted at PT Energia Prima Nusantara, located at Jl. Rawagelam I Blok J No. 23, RT.10/RW.9, Jatinegara, Cakung District, East Jakarta, Special Capital Region of Jakarta, 13930. The organizational units involved in this study included all departments with authority and relevance to procurement and logistics activities.

### 3.3 Research Subject

The subjects of this study consisted of employees of PT Energia Prima Nusantara who are directly involved as prospective users of the E-Procurement and E-Vendor Management System (E-VMS). A total of 84 respondents participated in the study, and 100% of the respondents voluntarily agreed to complete the questionnaire.

#### 3.3.1 Sampling Technique

The sampling technique employed in this study was purposive sampling. This method was chosen to ensure that data was collected from respondents who met specific criteria aligned

with the research objective, namely assessing employee readiness for digital transformation.

### *3.3.2 Research Subject Criteria*

To ensure data accuracy and relevance, the following criteria were applied:

- Permanent or contract employees working in relevant departments.
- Minimum tenure of one year, to ensure sufficient understanding of existing manual business processes.
- Willingness to participate as questionnaire respondents.
- Minimum educational background of Diploma 3 (D3)
- Inclusion of both male and female employees

### *3.3.3 Demographic Characteristics of Respondent*

Based on the data collected, the demographic characteristics of the 84 respondents were summarized as follows:

- Gender: The majority of respondents were male, accounting for 75% (63 respondents), while female respondents constituted 25% (21 respondents).
- Length of Employment: All respondents had a minimum tenure of one year. Specifically, 47.6% (40 respondents) had worked for 1–3 years, while 52.4% (44 respondents) had more than three years of work experience.
- Departmental Distribution Respondents were drawn from departments directly related to procurement and logistics functions, with the following distribution.
  - Operation and Maintenance: 11.9% (10 respondents)
  - Information Technology (IT): 7.1% (6 respondents)
  - Business Development: 13.1% (11 respondents)
  - Project Management: 16.7% (14 respondents)
  - Health, Safety, and Environment (HSE): 6.0% (5 respondents)
  - Supply Management: 9.5% (8 respondents)
  - Engineering: 14.3% (12 respondents)
  - Human Capital and General Services (HCGS): 10.7% (9 respondents)
  - Legal: 2.4% (2 respondents)

### *3.4 Data Collection Technique*

Data collection technique was conducted using a questionnaire survey with a five-point Likert scale (1–5). This approach enables the collection of quantitative data that can be processed using statistical methods. Data was gathered through a structured closed-ended questionnaire, which was designed to measure respondents' perceptions, attitudes, and levels of agreement toward the constructs examined in the study. The Likert scale used in this research is defined as follows:

- 1 = Strongly Disagree / Very Unready / Very Low
- 2 = Disagree / Unready / Low
- 3 = Neutral / Moderate / Average
- 4 = Agree / Ready / High
- 5 = Strongly Agree / Very Ready / Very High

The type of data utilized in this study is primary data, obtained directly from respondents' answers to the questionnaire.

### *3.5 Population and Sample*

The population of this study consisted of 84 employees of PT Energia Prima Nusantara who are directly involved as prospective users of the E- Procurement and E-Vendor Management

System (E-VMS). These employees are drawn from the following departments: Business Development, Engineering, Supply Management, Operation and Maintenance, Project Management, Safety, Health, and Environment (SHE), Human Capital and General Services, Legal, and Information Technology (IT). The sampling technique applied in this study is purposive sampling, whereby respondents are selected based on specific criteria relevant to the research objectives. This method ensures that data are collected exclusively from individuals who possess sufficient knowledge and involvement in procurement and logistics processes, thereby enhancing the relevance and accuracy of the findings.

### *3.6 Data Analysis Technique*

The data analysis technique employed in this study is Structural Equation Modeling using the Partial Least Squares approach (SEM-PLS), conducted with SmartPLS version 4 software. SEM-PLS was selected because it is appropriate for studies with a relatively small sample size, a predictive research orientation, and models involving multiple latent variables with reflective indicators. This approach has been widely applied in recent studies within the fields of operations management, information systems, and supply chain management (Permana et al., 2024; Fatma et al., 2024; Rahman et al., 2025; Hendra & Saputra, 2025).

The use of SEM-PLS is also recommended because it allows the analysis of causal relationships among latent constructs without requiring multivariate normality, and it is capable of modeling complex relationships based on perceptual constructs, such as those commonly examined in digital transformation and technology adoption research (Fatma et al., 2024; Rahman et al., 2025). Furthermore, SEM-PLS is frequently utilized in supply chain and quality management studies due to its ability to explain variance in endogenous variables (Permana et al., 2024).

### *3.7 Stages in SEM PLS-Analysis*

#### *3.7.1 Outer Model Evaluation*

Conducted to assess indicator validity and reliability using factor loadings ( $>0.70$ ), Average Variance Extracted (AVE  $>0.50$ ), Cronbach's Alpha, and Composite Reliability ( $>0.70$ ) (Hendra & Saputra, 2025).

#### *3.7.2 Inner Model Evaluation*

Performed to examine the relationships among constructs based on path coefficients, t-statistics and p-values obtained from bootstrapping, and R-square ( $R^2$ ) values (Permana et al., 2024; Fatma et al., 2024).

#### *3.7.3 Effect Size ( $f^2$ ) and Predictive Relevance ( $Q^2$ )*

Both used to evaluate the contribution and predictive capability of exogenous variables in the structural model (Permana et al., 2024).

#### *3.7.4 Descriptive Statistical Analysis*

Was conducted, including minimum, maximum, mean, and standard deviation values, to describe respondents' perceptions (Rahman et al., 2025).

#### *3.7.5 Content Validity*

Was assessed through expert judgment to ensure alignment between indicators and their respective constructs (Hendra & Saputra, 2025).

## **4. RESULTS AND DISCUSSION**

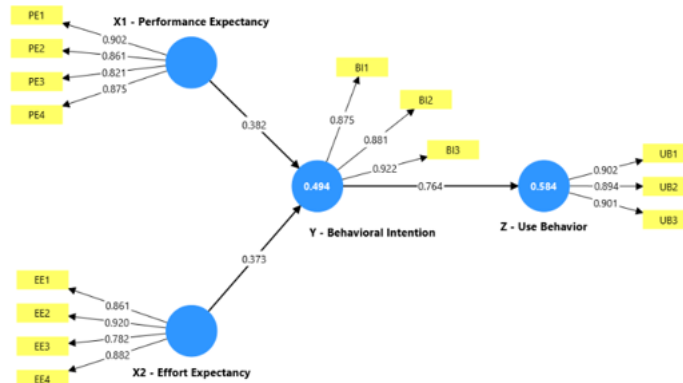
### *4.1 Descriptive Statistical Analysis Results*

A descriptive statistical analysis was conducted as a preliminary step to evaluate the adequacy and distribution of the measurement indicators. This analysis primarily examined the indicator loadings to verify whether each item sufficiently represented its corresponding latent construct.

The results indicate that all measurement items achieved loading values exceeding the recommended threshold of 0.70. Such values demonstrate that each indicator reliably reflects its intended construct. This finding suggests a consistent perception among respondents regarding the relevance and clarity of the measurement items.

#### 4.2 Measurement Model Evaluation

Convergent validity was evaluated by examining the factor loading values of each indicator. According to Permana et al. (2024), an indicator is considered valid if it has a loading factor greater than 0.70. Based on the results of data processing using SmartPLS 4, all indicators associated with the constructs Performance Expectancy (PE), Effort Expectancy (EE), Behavioral Intention (BI), and Use Behavior (UB) exhibited loading factor values exceeding 0.70. These findings indicate that all indicators meet the criteria for convergent validity and are therefore deemed appropriate for inclusion in the research model.



**Figure 2.** Measurement Model (Outer Model) with loading value factors in each indicator  
Source: Author's Analysis, 2025

**Table 1.** Outer Loadings

Construct	Indicator	Loading
Performance Expectancy (X1)	PE1	0.902
	PE2	0.861
	PE3	0.821
	PE 4	0.875
Effort Expectancy (X2)	EE1	0.861
	EE2	0.920
	EE3	0.782
	EE4	0.882
Behavioral Intention (Y)	BI1	0.875
	BI2	0.881
	BI3	0.922
Use Behavior (Z)	UB1	0.902
	UB2	0.894
	UB3	0.901

Source: Primary data processed using PLS-SEM (SmartPLS), 2025

These results confirm that all indicators satisfy convergent validity criteria, and

therefore no indicators were excluded from the model.

**Table 2** Construct Reliability and Validity

Variabel	Cronbach's Alpha	Composite Reliability (pa)	Composite Reliability (pc)	Average Variance Extracted (AVE)
X1 – Performance Expectancy	0.888	0.896	0.923	0.749
X2 – Effort Expectancy	0.884	0.896	0.921	0.744
Y – Behavioral Intention	0.873	0.877	0.922	0.797
Z – Use Behavior	0.881	0.886	0.926	0.808

Source: Primary data processed using PLS-SEM (SmartPLS), 2025

The discriminant validity assessment indicates that each construct demonstrates distinct characteristics, with no significant overlap among the measured variables. The reliability and validity results further confirm that all constructs meet the recommended thresholds for Cronbach's Alpha, composite reliability, and AVE. Therefore, the measurement model can be considered satisfactory and appropriate for subsequent structural model evaluation.

#### 4.3 Structural Model Evaluation (Inner Model)

##### a. Coefficient of Determination (R-Square)

The structural model was evaluated by examining the coefficient of determination ( $R^2$ ), which reflects the model's explanatory capability.

**Table 3.** R-Square Values

Variable	$R^2$	$R^2$ Adjusted
Behavioral Intention (Y)	0.494	0.482
Use Behavior (Z)	0.584	0.579

Source: Primary data processed using PLS-SEM (SmartPLS), 2025

The results indicate that 49.4% of the variance in Behavioral Intention (BI) can be explained by Performance Expectancy (PE) and Effort Expectancy (EE). Meanwhile, 58.4% of the variance in Use Behavior (UB) is explained by Behavioral Intention (BI). These findings suggest that the proposed model demonstrates moderate to strong explanatory power, which is considered acceptable in behavioral and technology acceptance research using SEM-PLS.

##### b. Effect Size ( $f^2$ )

Effect size analysis is conducted to assess the relative contribution of each independent variable to the dependent variable within the structural model.

**Table 4.** Effect Size ( $f^2$ )

Relationship	$f^2$	Category
X1- Performance Expectancy -> Y - Behavioral Intention	0.135	Small

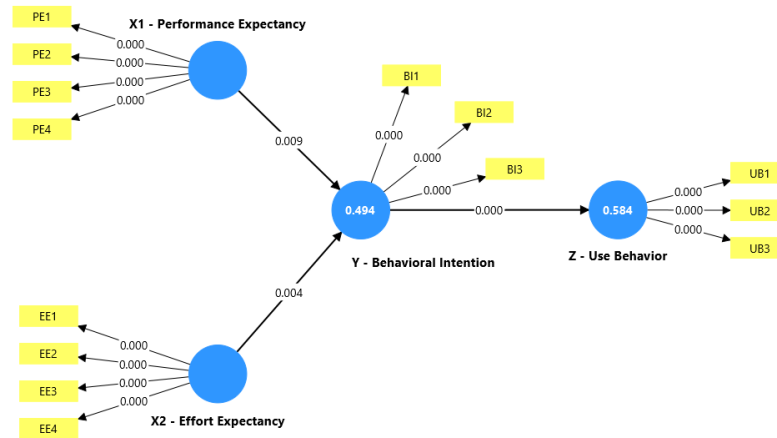
X2 - Effort Expectancy -> Y - Behavioral Intention	0.129	Small
Y - Behavioral Intention - > Z - Use Behavior	1.402	Large

Source: Primary data processed using PLS-SEM (SmartPLS), 2025

The effect size ( $f^2$ ) analysis was conducted to assess the relative contribution of each exogenous construct to the endogenous variables. The results indicate that Performance Expectancy and Effort Expectancy have small effect sizes on Behavioral Intention. This suggests that although both variables significantly influence intention, their individual contributions are relatively modest.

In contrast, Behavioral Intention demonstrates a large effect size on Use Behavior. This finding indicates that Behavioral Intention is a strong predictor of actual system usage and plays a central role in explaining user behavior.

### c. Hypothesis Testing Results



**Figure 3.** Result of Inner Model Analysis (Bootstrapping) between PE,EE,BI, dan UB construct.

Source : Author's Analysis, 2025

Hypothesis testing is conducted to determine whether the proposed hypotheses are accepted or rejected based on the values of path coefficients, t-statistics, and p-values.

**Table 5.** Path Coefficient, T-Statistic, P-Value

Hypothesis	Relationship Between Variables	Original Sample (O)	Sample Mean (M)	T-Statistic	P-Value	Result
H1	X1 > Y	0.382	0.393	2.605	0.009	Supported
H2	X2 > Y	0.373	0.367	2.886	0.004	Supported
H3	X1 > Y > Z	0.292	0.306	2.302	0.0021	Supported
H4	X2 > Y > Z	0.285	0.279	2.950	0.003	Supported
H5	Y > Z	0.764	0.767	12.341	0.000	Supported

Source: Primary data processed using PLS-SEM (SmartPLS), 2025

The results of the SEM-PLS analysis indicate that all proposed hypotheses are supported, thereby confirming the applicability of the Unified Theory of Acceptance and Use of Technology (UTAUT) developed by Venkatesh et al. (2003) in explaining employee acceptance of digital transformation within the logistics procurement function.

- H1. Performance Expectancy (X1) has a significant effect on Behavioral Intention (Y) ( $\beta = 0.382$ ;  $T = 2.605$ ;  $P = 0.009$ ). This indicates that employees' beliefs regarding the ability of the E-Procurement and E-Vendor Management System (E-VMS) to improve task efficiency, accuracy, and timeliness significantly increase their intention to use the system. This finding supports the UTAUT model, which identifies Performance Expectancy as a primary determinant of technology adoption intention (Venkatesh et al., 2003).
- H2. Effort Expectancy (X2) significantly influences Behavioral Intention (Y) ( $\beta = 0.373$ ;  $T = 2.886$ ;  $P = 0.004$ ). This suggests that the perceived ease of learning and using the E-Procurement and E-VMS plays an important role in shaping employees' intention to adopt digital systems. However, compared to Performance Expectancy, its influence is relatively weaker, which may be attributed to the system still being at the planning stage, where ease of use is assessed conceptually rather than through direct experience.
- H3. Performance Expectancy (X1) has a significant indirect effect on Use Behavior (Z) through Behavioral Intention (Y) ( $\beta = 0.292$ ;  $T = 2.302$ ;  $P = 0.002$ ). This indicates that Behavioral Intention partially mediates the relationship, meaning that perceived performance benefits influence actual system usage primarily through the formation of employees' intention to use the system.
- H4. Effort Expectancy (X2) significantly affects Use Behavior (Z) through Behavioral Intention (Y) ( $\beta = 0.285$ ;  $T = 2.950$ ;  $P = 0.003$ ). This finding demonstrates that perceptions of system ease of use do not directly lead to actual usage, but instead must first strengthen employees' intention to use the system. This highlights the mediating role of Behavioral Intention within the UTAUT framework.
- H5. Behavioral Intention (Y) has a strong and significant effect on Use Behavior (Z) ( $\beta = 0.764$ ;  $T = 12.341$ ;  $P = 0.000$ ), indicating that intention is the most critical determinant of actual system usage. This result is fully aligned with the UTAUT model (Venkatesh et al., 2003), which positions Behavioral Intention as the direct predictor of technology use behavior.

Overall, the findings indicate that employee readiness for digital transformation in logistics procurement is strongly influenced by perceived system benefits and perceived ease of use, which shape Behavioral Intention and subsequently lead to actual system usage. These results suggest that successful implementation of E-Procurement and E-Vendor Management Systems depends not only on technological availability, but also on employees' readiness and intention to adopt the system, consistent with the core propositions of the UTAUT model.

## **CONCLUSION AND RECOMMENDATIONS**

### *Conclusion*

This study concludes that Performance Expectancy and Effort Expectancy both play a significant role in shaping users' Behavioral Intention to use the system. The structural model indicates that Behavioral Intention is moderately explained by these two antecedents, demonstrating that users are more likely to intend to use the system when they perceive it as useful and easy to operate. Furthermore, Behavioral Intention shows a strong influence on actual Use Behavior, confirming its critical mediating role in translating expectations into real usage. The descriptive statistics indicate that the data are well distributed and standardized, supporting the robustness of the analysis. Overall, the findings are consistent with the UTAUT

framework and highlight the importance of enhancing system usefulness and ease of use to encourage both intention and actual system utilization.

#### *Recommendations*

Based on the findings and conclusions of this study, the following recommendations are proposed:

#### *Practical Recommendations*

1. Organizations are advised to prioritize enhancing Performance Expectancy in the implementation of E-Procurement and E-VMS. This can be achieved by ensuring that the systems deliver tangible benefits, such as reducing redundant tasks, improving procurement process accuracy, and accelerating work completion. Strong perceptions of system usefulness will foster sustained behavioral intention among employees.
2. To strengthen the influence of Effort Expectancy, organizations should ensure that the systems are easy to understand and use. This can be accomplished through user-friendly system design, the development of clear user guidelines, and the provision of comprehensive training and socialization prior to full system implementation.
3. Organizations should focus on strengthening employees' Behavioral Intention as a top priority. This can be supported through effective internal communication, strong managerial support, and reinforcing the understanding that E-Procurement and E-VMS are integral components of the logistics procurement workflow.

#### *Academic Recommendations*

1. Future research is encouraged to incorporate additional variables from the UTAUT model, such as Social Influence and Facilitating Conditions, to obtain a more comprehensive understanding of factors influencing digital system adoption.
2. Subsequent studies may also be conducted during the post-implementation stage, allowing the effects of Effort Expectancy and Use Behavior to be examined based on actual system usage experience.
3. In addition, future research may employ a longitudinal approach to observe changes in behavioral intention and usage behavior over time.

#### **REFERENCES**

- Abbey, A. B. N., Olaleye, I. A., Mokogwu, C., Olufemi-Phillips, A. Q., & Adewale, T. T. (2023). Advancing vendor management models to maximize economic value in global supply chains. *International Journal of Frontline Research in Science and Technology*, 02(02), 042–050. <https://doi.org/10.56355/ijfrst.2023.2.2.0057>
- Asbari, M., Novitasari, D., Gazali, ..., Silitonga, N., & Pebrina, E. Analisis kesiapan untuk berubah di masa pandemi Covid-19: Studi pengaruh kepemimpinan transformasional terhadap kinerja karyawan. *Perspektif: Jurnal Ekonomi & Manajemen*, Vol. 18 No. 2 September 2020.
- Fatma, L., Annur, A. K., Samudin, S., dan Ampang, A. (2024). Integrated Supply Chain Quality Management and an Organizational Performance Insights: A two stage PLS-SEM and Artificial Neural Network (ANN) approach. *Jurnal of Information Systems and Technology (JIST)*.
- Hendra, I., dan Saputra, D. (2025). Analisis Validitas dan Reliabilitas Kuesioner dengan Metode Partial Least Squares Structural Equation Modelling pada Aplikasi SmartPLS. *Jurnal Teknologi dan Informatika (JPTI)*, 7(1).
- Hendrio. (2024). Urgensi Penerapan E-Katalog Terhadap Pelaksanaan Pemilihan Pengadaan Barang/Jasa Melalui Penyedia (Studi Empiris Pada Pemerintah Daerah Kabupaten Kampar). *Bagian Pengadaan Barang/Jasa Sekretariat Daerah Kabupaten Kampar*

- Mutegi, D. M., & Karani, A. M. (2024). Vendor Management Practices and the Performance of Energy State Corporations in Kenya. *International Journal of Social Science and Humanities Research*, 2(1), 97-113. <https://doi.org/10.61108/ijsshr.v2i1.72>
- Mwangata, M. M., & Hapompwe, C. C. (2024). An Assessment of the Effect of *E-Procurement* on Procurement Processes and Efficient Performance in Zambia's Government Institutions: A Case Study of the Local Government Service Commission. *Journal of Economics, Finance and Management Studies*, 7(07), 4753-4761. <https://doi.org/10.47191/jefms/v7-i7-91>
- Permana, A.A., Arifin, D., dan Widodo, R. (2024). Pengaruh Manajemen Rantai Pasokan terhadap Kinerja Perusahaan Kosmetik menggunakan Structural Equation Modeling- Partial Least Square. *Globe: Jurnal Manajemen dan Bisnis*, 8(2).
- Permana, S. M., Yusuf, H. N., Susiloningtyas, D., Sukoraharjo, S., & Baihaqi, B. Faktor-faktor yang mempengaruhi kesiapan peserta lelang menggunakan aplikasi pelelangan ikan: Studi SEM (Structural Equation Modeling) / Factors influencing auction participants' readiness to use fish auction applications: SEM study. *Jurnal Penelitian Perikanan dan Kelautan Indonesia*, (2024). (Vol 30 no 4).
- Rahman, F., Suryani, D., dan Lubis, R (2025). Analisis Faktor Penerimaan Sistem Informasi Akuntansi Menggunakan PLS-SEM: Studi Kasus El Rahma Lombok Rinjani Syari'ah. *MISI: Jurnal Manajemen dan Sistem Informasi*, 4(1).
- Ramadhan, D. F., & Rahman, A. (2022). Implementasi Kebijakan Pengadaan Barang/Jasa Pemerintah melalui E-Procurement pada Layanan Pengadaan Secara Elektronik Kota Depok. *Transparansi : Jurnal Ilmiah Ilmu Administrasi*, 5(1), 6-18
- Ramazan, S., & Najamudin. (2021). Implementasi Sistem *E-Procurement* pada Bagian Pengadaan Barang dan Jasa Sekretariat Daerah Kabupaten Aceh Barat. *Journal of Public Service*. (Catatan: Tahun publikasi pada halaman judul PDF adalah 2020, namun Anda merujuknya sebagai 2021. Detail volume dan nomor spesifik tidak tersedia di sumber yang diberikan).
- Septianingsih, C. A. (2022). Analisis Perencanaan Pengadaan Dan Sistem Pengadaan Barang Jasa Secara Elektronik (*E-Procurement*) Dalam Mewujudkan Transparansi Dan Akuntabilitas Pemerintahan (Studi Kasus Pada Dinas Pekerjaan Umum Perumahan Rakyat dan Kawasan Permukiman dan Bagian Layanan Pengadaan Gunungkidul). Tesis. Program Studi Magister Akuntansi, Fakultas Bisnis dan Ekonomika, Universitas Islam Indonesia, Yogyakarta.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). *User Acceptance of Information Technology: Toward a Unified View*. *MIS Quarterly*, 27(3), 425-478.
- Wairimu, K. J., & Erick, N. (2024). Procurement Automation and Performance of Government Agencies in Nairobi City County, Kenya. *Int Journal of Social Sciences Management and Entrepreneurship* 8(4): 280-293.
- Wang, Y., & Pettit, S. (Eds.). (2022). *Digital Supply Chain Transformation: Emerging Technologies for Sustainable Growth*. Cardiff University Press.
- Wibawa, H. T. (2011). ANALISIS TERHADAP KESIAPAN IMPLEMENTASI *E-PROCUREMENT* DI LINGKUNGAN PEMERINTAH KABUPATEN SUKOHARJO. Tesis. Program Pascasarjana Universitas Sebelas Maret, Surakarta