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The Mediating Role Of Operational Efficiency And Transparency In The Relationship Between Digitalization Adoption And Job Satisfaction In The Purchasing Department In Bali

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Abstract

This study aims to analyze the effect of digitalization adoption on job satisfaction in the purchasing department within Bali's hospitality sector, with operational efficiency and transparency as mediating variables. The research employs a quantitative approach using Partial Least Squares Structural Equation Modeling (PLS-SEM) with a sample of 136 procurement professionals. The findings indicate that digitalization adoption has a positive and significant effect on operational efficiency and transparency, which in turn significantly influence job satisfaction. Operational efficiency improves employees' ability to complete tasks faster and reduces administrative burdens, thereby minimizing burnout and enhancing work-life balance. Meanwhile, transparency and traceability play a more dominant role by providing clear audit trails and role clarity, reducing uncertainty and preventing a culture of blame among employees. Furthermore, digitalization adoption also directly affects job satisfaction, although the indirect effects through mediating variables are stronger. The mediation analysis confirms that both operational efficiency and transparency significantly mediate the relationship between digitalization adoption and job satisfaction, with transparency emerging as the most influential factor. These findings support the Resource-Based View (RBV), emphasizing that technological resources must be transformed into organizational capabilities to enhance human resource outcomes. Overall, this study highlights that digital transformation in procurement is not merely a technological upgrade but a strategic approach to improving employee well-being and retention in the hospitality industry.

Keywords: *Digitalization, Job Satisfaction, Transparency*

1. Introduction

The global hospitality industry is currently navigating a critical evolution, but the true engine of this transformation relies heavily on a firm's most vital internal asset: its human resources. Within the Resource-Based View (RBV) framework, manpower is a foundational resource that drives operational success; yet, the "engine room" of the hotel-specifically the Procurement Department-is facing a severe crisis regarding our dependent variable, Job Satisfaction. In Bali, this issue is intensely magnified by the island's rapid tourism recovery. According to data from the Bali Central Bureau of Statistics (BPS) 2025, international arrivals have surged, projecting a return to pre-pandemic levels of over 6 million visitors annually. This "tourism boom" places immense pressure on hotel procurement teams, who must source supplies at a velocity matching tourist consumption. However, unlike front-office staff, back-office procurement teams rarely see a corresponding increase in headcount.

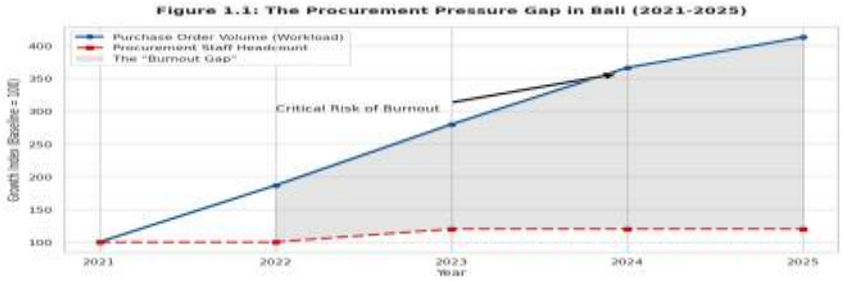

Figure 1 'The Procurement Pressure Gap: Purchase Volume vs. Staff Capacity in Bali Hotels'.
Source: Synthesized from BPS Bali Data & Industry Reports

According to the synthesized data from BPS 2025 and industry reports, Figure 1. illustrates the widening divergence between the escalating volume of purchase orders and the stagnant staff capacity available to process them. This figure supports the research background by visually proving the existence of a "Pressure Cooker" environment that directly threatens employee well-being. Within the RBV context, protecting the job satisfaction of this specialized manpower is paramount. As Bawazir et al. (2025) argue, for specialized roles like procurement, satisfaction is driven heavily by workload manageability and tool adequacy. Without intervention, this pressure leads to high burnout and turnover rates, depleting the firm of an irreplaceable strategic human resource.

Despite the high stakes and immense volume of orders, many hotels in Bali continue to manage their supply chains using manual, archaic methods such as physical purchase orders, Excel spreadsheets, and WhatsApp. According to Graham & Sasraku-Neequaye (2025), this reliance on outdated systems creates "administrative friction," wherein highly skilled procurement staff waste up to 60% of their workday on low-value data entry rather than strategic sourcing.

Based on an observation conducted at LYD Bali Group, a hospitality holding company based in Bali, during the period of June to August 2025, it was discovered that employees in some venues that are currently using manual procurement systems exhibit a much lower work drive. However, these employees are unable to seek other jobs due to deep-rooted responsibilities. Most of the employees are working to support their families, and if they were to look for other workplaces, they are scared of the economic uncertainty that comes with it. Upon deeper discovery, the primary driver of this lower work drive and lower satisfaction level is that these manual systems create severe administrative friction (Graham & Sasraku-Neequaye, 2025). In contrast, the observation revealed that LYD venues that are already using cloud-based systems, such as Mekari and other in-house developed systems related to procurement and e-inventory, suffer from significantly less administrative friction.

In the RBV framework, relying on manual processes severely limits the firm's operational capabilities. Digitalization Adoption-defined here as the implementation of integrated e-procurement platforms and AI-driven inventory systems-serves as the necessary technological resource. By equipping the manpower with these advanced digital tools, hotels can eliminate administrative drudgery, fundamentally shifting the employee's role from a simple data entry clerk to a strategic asset manager.

The first vital mechanism through which this technological resource enhances human capital is the First Mediation Variable: Operational Efficiency. When a firm successfully pairs its manpower with advanced digital tools, the immediate operational capability gained is drastically improved processing speed and accuracy. According to empirical evidence by Kumar et al. (2025), the adoption of cloud-based procurement systems can reduce processing time by 40-70% and virtually eliminate manual errors.

Figure 1.2: Comparative Efficiency: Manual vs. Digital Procurement

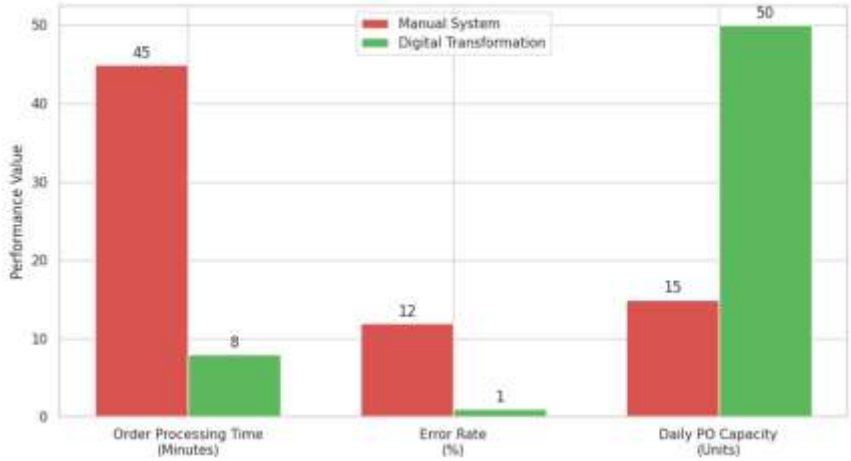

Figure 2 - 'Comparative Efficiency Metrics: Manual vs. Digital Procurement Cycles'. Source: Adapted from Kumar et al. (2025) Findings)

According to the findings adapted from Kumar et al. (2025), Figure 2 clearly visualizes the stark contrast between manual and digital workflows, demonstrating how a complex order that once took 45 minutes manually can be resolved in mere minutes digitally. This figure correlates with the research background by proving that this operational efficiency is not just a metric for the company's bottom line; it is a primary driver of job satisfaction. When digital resources empower staff to complete their tasks within normal working hours without the constant

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burden of overtime, their satisfaction with the "Nature of Work" significantly increases, proving that efficiency is a vital bridge between technological adoption and human resource stability.

The second critical mechanism linking digital tools to human resource satisfaction is the Second Mediation Variable: Process Transparency and Traceability. In traditional, manual procurement systems, the status of an order is often a "black box," creating an environment ripe for lost invoices, duplicate orders, and a stressful culture of blame when supply chains inevitably experience hiccups. This uncertainty severely degrades the psychological well-being of the workforce. However, when digital resources are adopted, they generate an "immutable audit trail," as emphasized according to Singh & Jain (2025). Features like real-time tracking or tracked ERPs provide absolute visibility into exactly who approved an order and where a delivery is located. Under the RBV lens, this transparency acts as an operational capability that secures the mental well-being of the staff. By removing the psychological stress of uncertainty, digital traceability fosters a profound sense of security and "Role Clarity," which are essential psychological indicators for maintaining high job satisfaction in high-stakes environments.

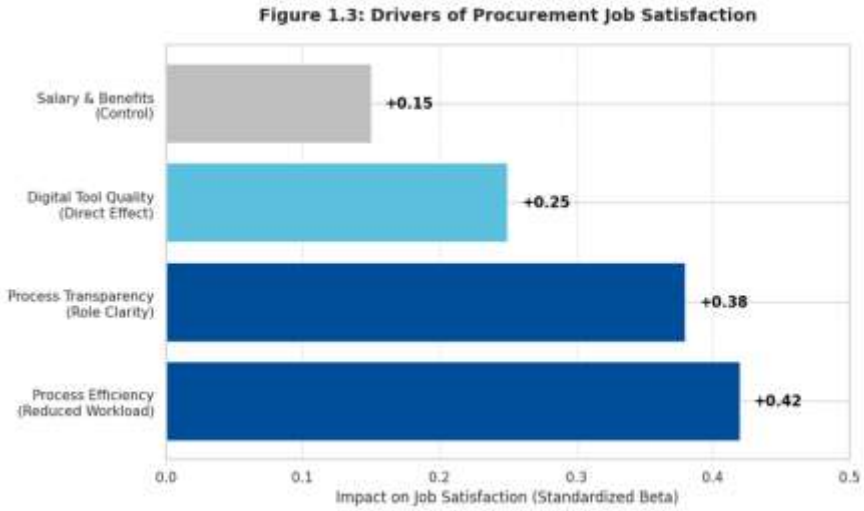

Figure 3 - 'Drivers of Procurement Job Satisfaction: The Impact of Tools and Process'. Source: Theoretical Synthesis based on Bawazir et al. (2025)

According to the theoretical synthesis based on Bawazir et al. (2025), Figure 3 models how job satisfaction is a direct outcome of the work environment and the tools provided, rather than just a result of salary. This figure supports the research by mapping the dual mediation paths: Hypothesis 6 posits that Digital Transformation improves satisfaction through Efficiency (Less Manual Work equals Happier Staff), while Hypothesis 7 posits that it improves satisfaction through Transparency (Less Confusion equals Happier Staff). By testing these two distinct paths, this study will reveal what matters most to Balinese procurement staff: the speed of the work or the clarity of the process.

While the theoretical synergy of these resources is clear, current academic literature presents severe contradictions, creating critical empirical research gaps that this study aims to resolve. Regarding the direct relationship between digitalization adoption and job satisfaction, Bawazir et al. (2025) and Demirović Bajrami et al. (2026) found that digitalization adoption has a positive significant impact on job satisfaction because it modernizes the workspace. However, Harvey & Glozier (2024) and Zhao et al. (2025) found conflicting results, stating that the adoption of new digital tools actually has a negative significant or not significant impact on employee well-being. Their studies argue that new technology often causes "technostress," steep learning curves, and fear of job replacement, which lowers satisfaction. Because this direct relationship (X to Y) is highly inconsistent in current journals, this study is necessary to prove that digitalization only works if it is bridged by operational efficiency and transparency.

A second empirical gap exists concerning the paradox of operational efficiency. Graham & Sasraku-Neequaye (2025) argue that efficiency reduces friction, creating a positive significant effect on employee morale. Conversely, conflicting studies on digital transformations, such as Vial & Gregory (2024), often show that increased operational speed has a not significant impact on job satisfaction. In many cases, when a system makes work faster, management simply increases the employee's workload quota, leading to the exact same level of burnout. Therefore, this research tests whether efficiency truly translates to a better work-life balance for Bali's procurement staff, or if it just creates a faster hamster wheel.

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Finally, a third empirical gap revolves around the impact of transparency on job satisfaction. Singh & Jain (2025) state that transparency creates an audit trail that provides role clarity, leading to a positive significant impact on satisfaction. However, conflicting organizational behavior literature (such as Towers & Abushaikha, 2025) highlights that extreme supply chain visibility can make employees feel constantly monitored or micromanaged. In these environments, digital traceability can actually have a negative significant impact on job satisfaction due to high surveillance anxiety. This study addresses this specific empirical gap by testing whether digital traceability in back-office hospitality acts as a positive psychological safety net or a negative micro-management stressor.

Ultimately, by empirically proving that Digital Transformation leads to higher Job Satisfaction through Operational Efficiency and Transparency, this research firmly establishes that under the Resource-Based View, investing in procurement software is not merely an operational cost; it is a strategic human resource retention strategy essential for surviving Bali's competitive tourism landscape. The theoretical novelty of this research lies in its dual mediation paths, deeply rooted in the synergy of firm resources to address these specific empirical contradictions.

2. Method

This study employs a quantitative research design conducted in Bali, Indonesia, focusing on the Food & Beverage (F&B) and hospitality sectors, particularly hotels, restaurants, and beach clubs. The research setting is primarily centered on LYD Bali Group, where preliminary observations identified administrative friction and varying levels of digital adoption, making it a relevant context to examine procurement performance and employee well-being. The population consists of employees and managers working in purchasing and procurement departments, including Purchasing Managers, Procurement Officers, Cost Controllers, and Supply Chain Coordinators. To ensure data validity and reliability, respondents are required to have at least one year of work experience, ensuring familiarity with procurement workflows and seasonal operational dynamics in Bali's hospitality industry.

The sampling technique used is purposive sampling, selecting respondents who meet specific criteria related to job relevance and experience with procurement systems. The sample size is determined using the PLS-SEM rule proposed by Hair et al., where the minimum sample equals ten times the number of indicators. With 12 indicators, the minimum required sample is 120 respondents, ensuring robust statistical analysis and generalizability.

The study utilizes quantitative data collected through structured questionnaires distributed online via Google Forms, LinkedIn, WhatsApp, and hospitality networks. The instrument consists of three sections: demographics, digitalization adoption, and variables measuring operational efficiency, transparency, and job satisfaction. All items are measured using a 5-point Likert scale to ensure consistency and facilitate statistical analysis. The variables include Digitalization Adoption (cloud systems, automation, integration), Operational Efficiency (processing speed, error reduction, workload), Transparency (tracking, auditability, information access), and Job Satisfaction (role clarity, stress reduction, empowerment).

Data analysis is conducted using Structural Equation Modeling (SEM) with SmartPLS 4.0, enabling simultaneous evaluation of measurement and structural models (Hair et al., 2017). The analysis begins with descriptive statistics, followed by outer model testing to assess reliability (Cronbach's Alpha, Composite Reliability > 0.70) and validity (AVE > 0.50; Fornell–Larcker criterion). The inner model evaluates path coefficients, R^2, effect size (f^2), and predictive relevance (Q^2). Mediation analysis is performed using bootstrapping to test indirect effects of operational efficiency and transparency. Finally, hypothesis testing employs 5,000 bootstrap resamples with criteria T-statistic > 1.96 and p-value < 0.05 to determine significance (Hair et al., 2019).

3. Result and Discussion

1. Respondent Characteristics

This research was conducted in Bali, Indonesia, specifically targeting the Food & Beverage (F&B) and hospitality sectors, encompassing hotels, restaurants, and beach clubs. The primary distribution of the survey was conducted predominantly through LYD Bali Group, a prominent hospitality holding company in the region. This centralized focus was established due to previous preliminary observations confirming the presence of both administrative friction and varying degrees of digital adoption within their venues. At the beginning of the questionnaire, strict screening questions were utilized to ensure that participants met the specific criteria required for the study. This was followed by questions related to respondent characteristics, including gender and age, as presented in the following tables:

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a. Screening Questions for Research Respondents

Table 1 Screening Questions for Research Respondents

No	Screening Question	Total	Yes (Proceed)	No (End Survey)
1	Are you currently employed in the Purchasing/Procurement Department within the F&B or Hospitality sector in Bali?	136	136	0
2	Do you have at least 1 (one) year of operational experience working in this specific role?	136	136	0

Source: Processed by the researcher (2026)

The screening results demonstrate that all 136 respondents successfully met the strict eligibility criteria. By ensuring that every respondent possesses a minimum of one year of operational experience, the data collected is highly robust. Within the context of the Resource-Based View (RBV), this means the respondents represent a stabilized, knowledgeable human resource. They have survived at least one full annual hospitality cycle in Bali, meaning they have personally experienced the severe administrative friction of peak-season procurement. Therefore, their evaluations of how Digitalization Adoption (X) impacts their Job Satisfaction (Y) are grounded in actual operational reality, not just theoretical guessing.

b. Respondent Characteristics by Gender

Table 2 Respondent Characteristics by Gender

No	Gender	Total	Percentage (%)
1	Male	80	58.80%
2	Female	56	41.20%
Total		**136**	**100%**

Source: Processed by the researcher (2026)

Based on Table 2, the majority of the respondents working in the procurement and purchasing departments of the sampled hospitality venues are male, accounting for 80 individuals (58.8%), while female respondents consist of 56 individuals (41.2%). This indicates a relatively balanced workforce, with a slight male majority in the logistical and supply chain roles within Bali's F&B sector.

c. Respondent Characteristics by Age

Table 3 Respondent Characteristics by Age

No	Age Category	Total	Percentage (%)
1	20 - 25 Years Old	41	30.10%
2	26 - 30 Years Old	54	39.70%
3	31 - 35 Years Old	27	19.90%
4	> 35 Years Old	14	10.30%

Source: Processed by the researcher (2026)

Based on Table 3, the largest age group among the respondents is between 26 and 30 years old (39.7%), followed by those aged 20 to 25 years old (30.1%). Within the research framework, this demographic breakdown is highly significant. It reveals that Bali's back-office procurement workforce is predominantly composed of young to mid-

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level professionals—a generation of "digital natives." Consequently, if their Job Satisfaction Rate (Y) is low when using manual systems, it is not because they lack capability, but because the archaic tools inherently frustrate them. This demographic profile perfectly supports the premise that providing modern Digitalization Adoption (X) is a critical strategic requirement to retain this specific talent pool.

2. Data Processing Results

1. Descriptive Statistical Analysis

Descriptive statistics are used to analyze data by describing or illustrating the information collected as it is, without drawing conclusions that apply generally or making broader generalizations (Sugiyono, 2019). The quantitative assessment in this study uses an interval scale, in which the mean score is interpreted based on predetermined rating categories.

Table 4 Criteria for Questionnaire Response Assessment

Criteria	**Rating Category**
1.00 – 1.80	Very Poor
1.81 – 2.60	Poor
2.61 – 3.40	Fair
3.40 – 4.20	Good
4.21 – 5.00	Very Good

Source: Sugiyono (2019)

Based on the response rating criteria above, the following section presents the discussion of each research variable:

a. Job Satisfaction Rate (Y)

Table 5

Indicator	Statement	Mean	Category
JSR1	The digital tools allow me to finish tasks without relying on forced overtime.	3.84	High
JSR2	The system provides clear boundaries and reduces the culture of false blame.	3.91	High
JSR3	Overall, I am highly satisfied with the adequacy of the tools provided to me.	3.85	High
Total Average		**3.87**	**High**

Respondent Answers on Job Satisfaction Rate

Source: Processed by the researcher (2026)

Based on Table 4, the Job Satisfaction Rate (Y) demonstrates a "High" category with a total average of 3.87. Analyzing the specific indicators, JSR2 ("I have a clear understanding of my specific responsibilities and boundaries within the digital procurement process, reducing the culture of false blame") scored the highest at 3.91, while JSR1 ("finish tasks without relying on forced overtime") scored the lowest at 3.84. This comparison perfectly aligns with the findings from the transparency variable (M2). It indicates that while employees certainly appreciate leaving work on time (JSR1), the most significant driver of their actual job satisfaction is the psychological relief of role clarity and professional safety (JSR2). Ultimately, these results tie the entire RBV framework together. It empirically demonstrates that while Digitalization (X) and Efficiency (M1) solve the physical workload problem, it is the Transparency (M2) that resolves the psychological stress, resulting in a workforce that is fundamentally protected, satisfied, and willing to remain in Bali's high-pressure hospitality sector.

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b. Digitalization Adoption (X)

Table 5 Respondent Answers on Digitalization Adoption

Indicator	Statement	Mean	Category
DA1	I frequently utilize cloud-based systems for my daily procurement tasks.	4.24	Very High
DA2	The digital tools provided significantly automate manual data entry.	4.18	High
DA3	The e-procurement systems are well integrated into our overall hotel operations.	4.22	Very High
Total Average		**4.21**	**Very High**

Source: Processed by the researcher (2026)

Table 5 shows that the overall mean for Digitalization Adoption (X) and demonstrates a "Very High" category with a total average of 4.21. Analyzing the specific indicators, DA1 ("I frequently utilize cloud-based systems for my daily procurement tasks") scored the highest at 4.24, while DA2 ("The digital tools provided significantly automate manual data entry") scored the lowest at 4.18. This comparison highlights a critical reality in Bali's hospitality sector: while the overarching infrastructure, such as cloud-based software, is heavily utilized and present in daily operations (DA1), the actual micro-level automation of tedious data entry still lags slightly behind (DA2). Within the RBV framework, this indicates that firms have successfully acquired the foundational technological resources (X), but must actively ensure these tools are optimized to replace manual workloads (M1) to fully maximize their strategic value and long-term impact on the procurement workforce.

c. Operational Efficiency (M_1)

Table 6 Respondent Answers on Operational Efficiency

Indicator	Statement	Mean	Category
OE1	The current system allows me to process purchase orders much faster.	2.93	Moderate
OE2	The frequency of duplicate invoices and manual errors has decreased.	2.88	Moderate
OE3	The administrative friction in my daily workflow has been significantly reduced.	2.90	Moderate
Total Average		**2.90**	**Moderate**

Source: Processed by the researcher (2026)

As seen in Table 6, Operational Efficiency (M1) demonstrates a "Moderate" category with a total average of 2.90. Analyzing the specific indicators, OE1 ("The current system allows me to process purchase orders much faster") scored the highest at 2.93, while OE2 ("The frequency of duplicate invoices and manual errors has decreased") scored the lowest at 2.88. This comparison reveals that although digital tools have somewhat accelerated the sheer speed of processing orders (OE1), they have not yet completely eradicated systemic friction points like manual errors and duplicate invoicing (OE2). Under the RBV theory, this moderate baseline proves that back-office procurement staff in Bali still face residual administrative burdens despite having software access. It empirically demonstrates why mere digital adoption (X) is insufficient on its own; management must actively refine and

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integrate these systems to achieve true operational efficiency (M1) as the essential bridge toward securing high job satisfaction (Y).

d. Transparency & Traceability (M_2)

Table 7 Respondent Answers on Transparency & Traceability

Indicator	Statement	Mean	Category
TT1	I can track the real-time status of inventory and supply chain requests.	3.86	High
TT2	The digital system provides a clear audit trail of who approved specific transactions.	3.88	High
TT3	I can easily access historical data without encountering structural barriers.	3.90	High
Total Average		**3.88**	**High**

Source: Processed by the researcher (2026)

Table 7 reveals that Transparency & Traceability (M2) demonstrates a "High" category with a total average of 3.88. Analyzing the specific indicators, TT3 ("I can easily access historical data without encountering structural barriers") scored the highest at 3.90, while TT1 ("I can track the real-time status of inventory and supply chain requests") scored the lowest at 3.86. This indicates that procurement staff derive immense value from the removal of structural barriers to past data (TT3), providing them with a reliable and undeniable foundation to defend their purchasing decisions and vendor relationships. While real-time inventory tracking (TT1) is appreciated, the ability to instantly pull historical records without friction is paramount. This directly connects to the Job Satisfaction Rate (Y), as providing a transparent, easily accessible audit trail protects the employees from the stressful, ambiguous "black box" culture of manual supply chains, acting as a highly effective psychological capability within the RBV framework.

3. Research Model Analysis Using the PLS (Partial Least Square) Method

The research model in this study was analyzed using the PLS (Partial Least Square) approach with the assistance of the SmartPLS 3 software.

1. Evaluation of the Measurement Model (Outer Model)

There are three assessment components used in the data analysis technique with SmartPLS to evaluate the measurement model (outer model), namely:

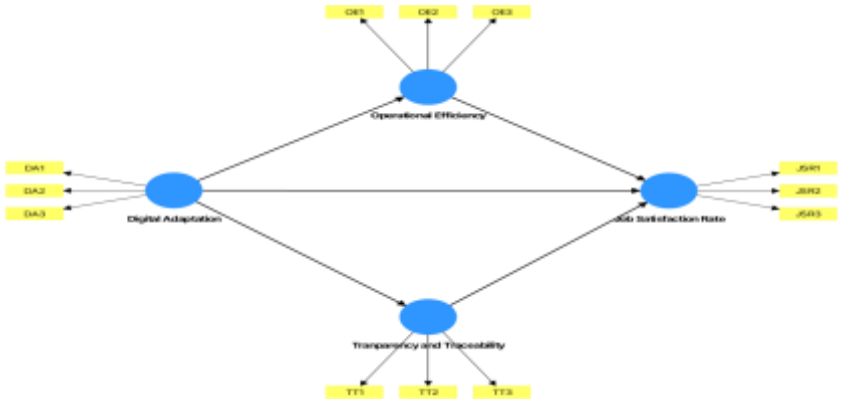

Figure 8 Outer Loading Test
Source: Processed by the researcher (2026)

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a. Convergent Validity

Convergent validity for reflective indicators can be assessed by examining the correlation between each indicator and its corresponding construct. An indicator is considered reliable if it has a correlation value above 0.70. The correlation results between the indicators and their constructs can be seen in Table 4.9 as follows:

No	Variable	Statement Item	Item-Total Correlation	Description
1	Digitalization Adoption (X)	DA1	0.886	Valid
		DA2	0.882	Valid
		DA3	0.902	Valid
2	Operational Efficiency (M1)	OE1	0.889	Valid
		OE2	0.893	Valid
		OE3	0.905	Valid
3	Transparency & Traceability (M2)	TT1	0.882	Valid
		TT2	0.916	Valid
		TT3	0.908	Valid
4	Job Satisfaction Rate (Y)	JSR1	0.923	Valid
		JSR2	0.954	Valid
		JSR3	0.923	Valid

Table 9 Outer Loadings

Source: Processed by the researcher (2025)

Based on the results presented in Table 9, all outer loading values significantly exceed the threshold of 0.70. Overall, the strongest indicators for each variable are DA3 (0.902), OE3 (0.905), TT2 (0.916), and JSR2 (0.954). Since all indicators demonstrate high outer loading values and strong significance, it can be concluded that the research instrument is both valid and reliable for measuring all constructs.

b. Discriminant Validity Using Heterotrait-Monorait Ratio (HTMT)

Discriminant validity is considered established if the Heterotrait-Monotrait Ratio (HTMT) value between constructs is below the recommended threshold of 0.90, indicating that each variable is empirically distinct from the others. The results of the HTMT calculations can be seen in Table 4.10 as follows:

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Table 10 Heterotrait-Monorait Ratio (HTMT)

Variable	Digitalization Adoption (X)	Job Satisfaction Rate (Y)	Operational Efficiency (M1)	Transparency & Traceability (M2)
Digitalization Adoption (X)				
Job Satisfaction Rate (Y)	0.689			
Operational Efficiency (M1)	0.718	0.674		
Transparency & Traceability (M2)	0.752	0.831	0.73	

Source: Processed by the researcher (2026)

Based on the HTMT analysis presented in Table 10, all correlation ratio values between the latent constructs are well below the strict threshold of 0.90. Therefore, it can be concluded that the HTMT results demonstrate excellent discriminant validity.

c. Discriminant Validity Using Average Variance Extracted (AVE)

Another method used to assess discriminant validity is by comparing the Average Variance Extracted (AVE) of each variable with the correlations between that variable and other variables in the model.

The AVE values for each construct are presented in Table 11 below:

Table 11 Average Variance Extracted (AVE) Values

Variable	Average Variance Extracted (AVE)
Digitalization Adoption (X)	0.792
Operational Efficiency (M1)	0.802
Transparency & Traceability (M2)	0.814
Job Satisfaction Rate (Y)	0.871

Source: Processed by the researcher (2026)

Based on Table 11, it can be observed that the AVE values for the variables Digitalization Adoption (X), Operational Efficiency (M1), Transparency & Traceability (M2), and Job Satisfaction Rate (Y) all exceed the threshold value of 0.50. Therefore, the measurement model can be considered to have good convergent validity.

d. Composite Reliability

In addition to validity testing, reliability testing is also conducted using two criteria; composite reliability and Cronbach's alpha. A variable is considered reliable when both its composite reliability and Cronbach's alpha values exceed 0,60. The composite reliability results are presented in Table 4.12 below:

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Table 12 Composite Reliability Test Results

Variable	Composite Reliability (rho_c)	Cronbach's Alpha	Description
Digitalization Adoption (X)	0.919	0.869	Reliable
Operational Efficiency (M1)	0.924	0.877	Reliable
Transparency & Traceability (M2)	0.929	0.886	Reliable
Job Satisfaction Rate (Y)	0.953	0.926	Reliable

Source: Processed by the researcher (2026)

The composite reliability and Cronbach's alpha output for the variables Digitalization Adoption (X), Operational Efficiency (M1), Transparency & Traceability (M2), and Job Satisfaction Rate (Y) all exceed the threshold value

No	Variable	Statement Item	Item-Total Correlation	Description
1	Digitalization Adoption (X)	DA1	0.886	Valid
		DA2	0.882	Valid
		DA3	0.902	Valid
2	Operational Efficiency (M1)	OE1	0.889	Valid
		OE2	0.893	Valid
		OE3	0.905	Valid
3	Transparency & Traceability (M2)	TT1	0.882	Valid
		TT2	0.916	Valid
		TT3	0.908	Valid
4	Job Satisfaction Rate (Y)	JSR1	0.923	Valid
		JSR2	0.954	Valid
		JSR3	0.923	Valid

of 0.60. Therefore, it can be concluded that all variables demonstrate good reliability.

Source: Processed by the researcher (2025)

Based on the results presented in Table 13, all outer loading values significantly exceed the threshold of 0.70. Overall, the strongest indicators for each variable are DA3 (0.902), OE3 (0.905), TT2 (0.916), and JSR2 (0.954). Since all indicators demonstrate high outer loading values and strong significance, it can be concluded that the research instrument is both valid and reliable for measuring all constructs.

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e. Discriminant Validity Using Heterotrait-Monorait Ratio (HTMT)

Discriminant validity is considered established if the Heterotrait-Monotrait Ratio (HTMT) value between constructs is below the recommended threshold of 0.90, indicating that each variable is empirically distinct from the others. The results of the HTMT calculations can be seen in Table 4.10 as follows:

Table 14 Heterotrait-Monorait Ratio (HTMT)

Variable	Digitalization Adoption (X)	Job Satisfaction Rate (Y)	Operational Efficiency (M1)	Transparency & Traceability (M2)
Digitalization Adoption (X)				
Job Satisfaction Rate (Y)	0.689			
Operational Efficiency (M1)	0.718	0.674		
Transparency & Traceability (M2)	0.752	0.831	0.73	

Source: Processed by the researcher (2026)

Based on the HTMT analysis presented in Table 4.9, all correlation ratio values between the latent constructs are well below the strict threshold of 0.90. Therefore, it can be concluded that the HTMT results demonstrate excellent discriminant validity.

f. Discriminant Validity Using Average Variance Extracted (AVE)

Another method used to assess discriminant validity is by comparing the Average Variance Extracted (AVE) of each variable with the correlations between that variable and other variables in the model.

The AVE values for each construct are presented in Table 4.11 below:

Table 15 Average Variance Extracted (AVE) Values

Variable	Average Variance Extracted (AVE)
Digitalization Adoption (X)	0.792
Operational Efficiency (M1)	0.802
Transparency & Traceability (M2)	0.814
Job Satisfaction Rate (Y)	0.871

Source: Processed by the researcher (2026)

Based on Table 15, it can be observed that the AVE values for the variables Digitalization Adoption (X), Operational Efficiency (M1), Transparency & Traceability (M2), and Job Satisfaction Rate (Y) all exceed the threshold value of 0.50. Therefore, the measurement model can be considered to have good convergent validity.

g. Composite Reliability

In addition to validity testing, reliability testing is also conducted using two criteria; composite reliability and Cronbach's alpha. A variable is considered reliable when both its composite reliability and Cronbach's alpha values exceed 0,60. The composite reliability results are presented in Table 4.12 below:

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Table 16 Composite Reliability Test Results

Variable	Composite Reliability (rho_c)	Cronbach's Alpha	Description
Digitalization Adoption (X)	0.919	0.869	Reliable
Operational Efficiency (M1)	0.924	0.877	Reliable
Transparency & Traceability (M2)	0.929	0.886	Reliable
Job Satisfaction Rate (Y)	0.953	0.926	Reliable

Source: Processed by the researcher (2026)

The composite reliability and Cronbach's alpha output for the variables Digitalization Adoption (X), Operational Efficiency (M1), Transparency & Traceability (M2), and Job Satisfaction Rate (Y) all exceed the threshold value of 0.60. Therefore, it can be concluded that all variables demonstrate good reliability.

2. Evaluation of the Structural Model (Inner Model)

a. ***R-Square*** **(R^2)**

The R^2 value measures the extent to which exogenous variables explain the variance in endogenous variables. The coefficient of determination ranges from 0 to 1. A low R^2 value indicates that the independent variables have limited ability to explain the dependent variable. The evaluation of the structural model using R-square values is presented in Table 4.13 as follows:

Table 17 R-Square Test Results

Variable	R-Square
Operational Efficiency (M1)	0.396
Transparency & Traceability (M2)	0.438
Job Satisfaction Rate (Y)	0.612

Source: Processed by the researcher (2026)

Based on Table 17, the R^2 value of 0.396 indicates that 39.6% of the variation in Operational Efficiency is explained by the predictor variable in the model, Digitalization Adoption. This value reflects a moderate level of explanatory power, suggesting that this factor substantially influences the reduction of administrative friction. Meanwhile, the remaining 60.4% of the variation is attributed to external factors not included in this study, such as staff training quality, vendor responsiveness, internal hotel policies, or individual learning curves that may shape operational speed but were beyond the scope of the model.

Similarly, the R^2 value of 0.438 indicates that 43.8% of the variation in Transparency & Traceability is explained by Digitalization Adoption. This reflects a moderately strong level of explanatory power, suggesting that technology substantially influences the clarity of the procurement process. The remaining 56.2% of the variation is attributed to external factors not included in this study, such as corporate governance, managerial communication, audit regulations, or organizational culture that may shape supply chain visibility but were beyond the scope of the model.

Finally, the R^2 value of 0.612 signifies that 61.2% of the variation in Job Satisfaction Rate is accounted for by the independent and mediating variables in the model, including Digitalization Adoption, Operational Efficiency, and Transparency & Traceability. This exceptionally high R^2 indicates a very strong relationship, demonstrating that these constructs play a critical role in shaping the well-being and retention of procurement staff. The remaining 38.8% of unexplained variation is likely influenced by other factors not examined in this research, such as compensation and benefits, leadership styles, peer relationships, or overall physical workspace conditions that may also affect satisfaction but were not incorporated into the model.

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b. *F-Square* (F^2)

Evaluating the contribution of each construct to the overall model. The evaluation of the structural model using F-square values is presented in Table 4.14 as follows:

Table 18 F-Square Test Results

Variable Path	F-Square
Digitalization Adoption (X) -> Operational Efficiency (M1)	0.655
Digitalization Adoption (X) -> Transparency & Traceability (M2)	0.781
Digitalization Adoption (X) -> Job Satisfaction Rate (Y)	0.032
Operational Efficiency (M1) -> Job Satisfaction Rate (Y)	0.031
Transparency & Traceability (M2) -> Job Satisfaction Rate (Y)	0.38

Source: Processed by the researcher (2026)

Based on the f-square results, Digitalization Adoption (X) → Transparency & Traceability (M2) demonstrates the largest effect size (0.781), which, according to Hair et al. (2021), falls within the large effect category, indicating that technological adoption is the most influential factor driving the creation of clear supply chain visibility for procurement staff. The effect of Digitalization Adoption (X) → Operational Efficiency (M1) also shows a large effect (0.655), highlighting that digital tools play a massive role in physically reducing administrative friction. Similarly, Transparency & Traceability (M2) → Job Satisfaction Rate (Y) presents a moderately large effect (0.380), suggesting that employees' job satisfaction is strongly influenced by the psychological safety net and role clarity provided by clear audit trails. In contrast, Digitalization Adoption (X) → Job Satisfaction Rate (Y) yields a very small effect size (0.032), indicating a minimal direct contribution, while Operational Efficiency (M1) → Job Satisfaction Rate (Y) shows the smallest effect (0.031), also categorized as a small effect. Overall, these findings demonstrate that digitalization serves as the primary driver influencing both transparency and efficiency, whereas its direct effect on satisfaction, along with the isolated effect of operational efficiency, although relevant, exert a comparatively weaker direct influence within the model, emphasizing that transparency is the most critical bridge to employee well-being.

The results of hypothesis testing in this study demonstrate that all proposed relationships are statistically significant, indicating a strong and coherent structural model linking Digitalization Adoption, Operational Efficiency, Transparency & Traceability, and Job Satisfaction Rate within the procurement context of Bali's hospitality sector. Hypothesis testing using PLS-SEM reveals that all direct and indirect effects have p-values below 0.05, confirming the acceptance of H1 through H7 . Collectively, these findings highlight that digital transformation is not merely a technological upgrade but a multidimensional driver of both operational performance and employee well-being.

First, Digitalization Adoption is found to have a strong and significant positive effect on Operational Efficiency ($\beta = 0.629$; $p < 0.05$), indicating that the implementation of digital procurement systems substantially enhances workflow performance . This suggests that replacing manual processes with cloud-based and automated systems reduces administrative friction, minimizes errors, and accelerates processing time. In practical terms, procurement staff are able to complete tasks more efficiently, handle higher transaction volumes, and avoid bottlenecks commonly associated with traditional systems. This finding reinforces the argument that digital tools act as enabling resources that transform organizational capabilities, particularly in high-pressure environments such as Bali's rapidly growing hospitality industry.

Second, Digitalization Adoption also shows a strong positive influence on Transparency & Traceability ($\beta = 0.662$; $p < 0.05$), making it the strongest direct relationship in the model . This result indicates that digital systems

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significantly improve visibility within procurement processes by creating centralized databases, real-time tracking, and immutable audit trails. The elimination of "black box" processes ensures that every transaction is recorded, traceable, and verifiable. As a result, employees gain easier access to historical data and clearer insights into operational workflows, which enhances both accountability and governance. This finding highlights that digitalization not only improves efficiency but also fundamentally restructures information flow within organizations.

Third, Operational Efficiency is found to have a positive and significant effect on Job Satisfaction Rate ($\beta = 0.152$; $p < 0.05$) . Although the magnitude of this relationship is relatively modest compared to other variables, it still confirms that improved workflows contribute to employee satisfaction. When procurement processes become faster, simpler, and less error-prone, employees experience reduced workload pressure and are less likely to rely on overtime. This reduction in physical and cognitive strain enhances their overall work experience. Thus, efficiency plays an important role in improving the functional dimension of job satisfaction, particularly in terms of work-life balance and task manageability.

Fourth, Transparency & Traceability exerts a much stronger positive effect on Job Satisfaction Rate ($\beta = 0.556$; $p < 0.05$), indicating that psychological factors play a more dominant role in shaping employee satisfaction . The presence of clear audit trails and accessible information provides employees with a sense of security and role clarity. This reduces ambiguity, prevents unfair blame, and fosters a more supportive organizational environment. In contrast to efficiency, which primarily addresses physical workload, transparency addresses psychological stress. Therefore, this finding suggests that employees value clarity and accountability even more than speed or convenience in their daily work.

Fifth, Digitalization Adoption also has a direct positive effect on Job Satisfaction Rate ($\beta = 0.158$; $p < 0.05$) . This indicates that the mere presence of modern digital tools contributes to employee satisfaction, even without considering mediating variables. Providing updated systems signals organizational support and investment in employees' work environment. However, the relatively small coefficient suggests that digitalization alone is not sufficient to significantly enhance satisfaction unless it is effectively translated into meaningful capabilities such as efficiency and transparency. This finding supports the notion that technology must be functionally integrated into workflows to deliver real value.

Furthermore, mediation analysis reveals that Operational Efficiency partially mediates the relationship between Digitalization Adoption and Job Satisfaction Rate ($\beta = 0.096$; $p < 0.05$) . This indicates that digitalization improves satisfaction indirectly by enhancing workflow performance. When digital tools successfully reduce manual workload and increase processing speed, employees benefit from a more manageable and less stressful work environment. Thus, efficiency serves as a mechanical bridge that converts technological investment into improved employee outcomes. However, the relatively small mediation effect suggests that efficiency alone is not the primary pathway through which digitalization influences satisfaction.

In contrast, Transparency & Traceability demonstrates a much stronger mediating effect ($\beta = 0.368$; $p < 0.05$), highlighting its critical role as a psychological mechanism . This finding indicates that digitalization significantly enhances job satisfaction by improving process clarity and accountability. When employees can clearly track transactions, verify approvals, and access historical records, they experience reduced stress related to uncertainty and micromanagement. This creates a sense of professional security, which is essential for maintaining high levels of satisfaction in demanding work environments. Therefore, transparency emerges as the most influential pathway linking digitalization to employee well-being.

From a theoretical perspective, these findings strongly support the Resource-Based View (RBV) framework underpinning the study. Digitalization Adoption represents a technological resource that, when effectively utilized, generates organizational capabilities in the form of Operational Efficiency and Transparency & Traceability. These capabilities, in turn, enhance Job Satisfaction Rate, which reflects the quality and sustainability of the firm's human resources . The results confirm that resources alone do not create value; rather, value is created when resources are transformed into capabilities that directly impact employee experiences.

In addition, the findings contribute to resolving inconsistencies in previous literature regarding the impact of digitalization on job satisfaction. While some studies suggest that digital tools may cause technostress or have insignificant effects, this research demonstrates that digitalization yields positive outcomes when mediated by efficiency and transparency. This implies that negative outcomes in prior studies may result from poor implementation or failure to translate technology into functional and psychological benefits.

In conclusion, the results of this study provide strong empirical evidence that Digitalization Adoption significantly enhances Job Satisfaction Rate both directly and indirectly through Operational Efficiency and Transparency &

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Traceability. Among these pathways, transparency plays the most dominant role, emphasizing the importance of psychological safety and role clarity in the workplace. Therefore, organizations in the hospitality sector should not only invest in digital tools but also ensure that these tools improve workflow efficiency and establish transparent systems. By doing so, firms can protect their most valuable asset—human resources—while simultaneously improving operational performance and long-term competitiveness.

4. Conclusion

Based on the findings obtained in this study, several conclusions can be drawn as follows: 1.) Digitalization Adoption has a positive and significant effect on Operational Efficiency, with a coefficient of 0,629 and a p-value of 0,000 < 0,05. This indicates that replacing manual data entry with cloud-based systems effectively reduces administrative friction and speeds up purchase orders. 2.)Digitalization Adoption has a positive and significant effect on Transparency & Traceability, with a coefficient of 0,662 and a p-value of 0,000 < 0,05. This suggests that e-procurement systems successfully establish clear audit trails and provide unhindered access to historical data. 3.) Operational Efficiency has a positive and significant effect on Job Satisfaction Rate, with a coefficient of 0,152 and a p-value of 0,034 < 0,05. This confirms that reducing duplicate tasks and manual errors helps staff complete their work without relying on forced overtime. 4.) Transparency & Traceability has a positive and significant effect on Job Satisfaction Rate, with a coefficient of 0,556 and a p-value of 0,000 < 0.05. This means that providing a psychological safety net through clear accountability significantly increases employee morale and protects them from a culture of false blame. 5.) Digitalization Adoption has a positive and significant effect on Job Satisfaction Rate, with a coefficient of 0,158 and a p-value of 0,029 < 0,05. This indicates that equipping procurement staff with modern, up-to-date tools directly contributes to their overall workplace satisfaction. 6.) Operational Efficiency significantly mediates the relationship between Digitalization Adoption and Job Satisfaction Rate, with a coefficient of 0,096 and a p-value of 0,037 < 0,05. This implies that digitalization first reduces physical workload burdens, which then encourages higher job satisfaction among the staff. 7.) Transparency & Traceability significantly mediates the relationship between Digitalization Adoption and Job Satisfaction Rate, with a coefficient of 0,368 and a p-value of 0,000 < 0,05. This indicates that digital adoption enhances role clarity and psychological safety, which subsequently strengthens the employees' satisfaction and willingness to remain in their roles. This study concludes that Digitalization Adoption has a strong influence on the Job Satisfaction Rate of procurement staff in Bali's Food & Beverage and hospitality sectors. The findings show that when firms invest in modern digital tools, they successfully generate vital operational efficiency and transparency. Transparency & Traceability also plays a profoundly crucial role, as the confidence in clear audit trails protects employees from a culture of false blame, thereby securing their well-being. Overall, digitalization effectively supports the retention and satisfaction of human capital, transforming archaic back-office workflows into transparent, highly functioning ecosystems.

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