

Vendor Satisfaction in E-Procurement: The Roles of System Quality, Service Quality, Transparency, and Trust

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ABSTRACT

Purpose – Evaluating vendor satisfaction is increasingly important because it supports the sustainability of the partnership relationship and the achievement of the company's Key Performance Indicators (KPIs). However, measurement of vendor satisfaction in SMARTGEP remains limited, so it cannot provide a comprehensive picture of the factors affecting it. Therefore, this study aims to analyze how system quality, service quality, and transparency shape vendor satisfaction through trust in the SMARTGEP e-procurement system.

Design/methodology/approach – This study uses a quantitative approach, collecting data from 108 respondents via an online survey distributed to SMARTGEP user vendors. The data were analyzed using the PLS-SEM method.

Finding/Results – The results showed that six of the seven proposed hypotheses were significantly supported, while one hypothesis, namely the influence of system quality on vendor satisfaction, was not found to be significant. In addition, this study identified three indirect influences on vendor satisfaction, with trust as a mediator.

Originality/Value – Provide insights for improving vendor satisfaction in digital procurement systems.

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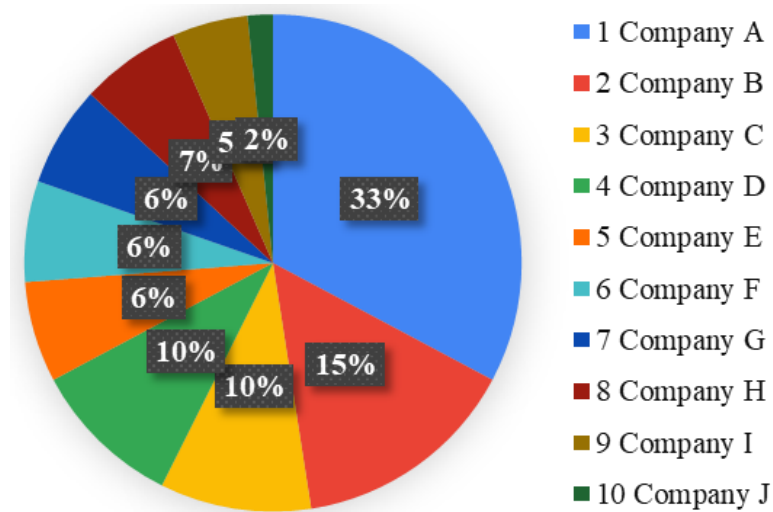
1. Introduction

The Industrial Revolution 4.0 introduces new technologies that can fundamentally change the company's business strategy (Delke et al., 2023). The results of Corboş et al. (2023) research suggest that technology in the Industrial Revolution 4.0 is adopted in strategic procurement management to achieve sustainability and enhance corporate competitiveness in the context of the circular economy. Supported by the statement of Jantaro & Badir (2024) Without digital technology, the procurement process will cost companies dearly and cause many delays. Based on this statement, it is clearly proven that the adoption of digital technology in procurement management is needed to improve the quality of service delivery, accountability, and effectiveness of the procurement process (Musa et al., 2024)

According to Presidential Regulation No. 17 of 2003 concerning the Acceleration of Digital Transformation in the Procurement of Government Goods/Services (2023) and Setyowati (2025) the electronic procurement system can provide easy, transparent procurement services for goods and services. E-procurement can improve efficiency, procurement management outcomes, customer satisfaction, timeliness, and cost reduction (Ibrahim et al., 2023). The implementation of e-procurement in the construction supply chain has been shown to accelerate information flow, reduce reliance on manual procedures, and improve coordination among supply chain actors (Gurgun et al., 2024). From a digital governance perspective, the implementation of national e-procurement platforms also helps improve the quality of e-government services through a digital-by-default approach that simplifies access, enhances system reliability, and improves the user experience (Špaček, D., & Špačková, 2025). In addition, the success of e-procurement systems is influenced by factors such as system quality, service quality, and institutional support, which significantly shape suppliers' perceptions of transparency (Aminah et al., 2018). The synergy between e-procurement, Robotic Process Automation (RPA), and Business Process Management (BPM) can optimize operational efficiency, minimize administrative errors, and create a more adaptive and performance-oriented procurement process (Santos et al., 2025).

The company used as the reference location for the research is determined through a preliminary public survey to identify companies with the most well-known digital procurement systems and those considered active in implementing digital procurement. The results of the preliminary survey were then used to define the research boundaries by selecting 10 SOEs (State-Owned Enterprises) in Indonesia with the highest level of recognition for implementing digital procurement. This state-owned company was chosen because it contributes to the development of the national economy in general and state revenue in particular (Law Number 1 of 2025 concerning the Third Amendment to Law Number 19 of 2003 concerning State-Owned Enterprises, 2025). In addition, SOEs have a broad operational reach, enabling them to implement digital procurement across various sectors in Indonesia. Based on the preliminary survey results, "Company A" was identified as the dominant and most recognized among the Community, so it was chosen as the main reference location for this study

Figure 1. Preliminary Survey Results



Company A is a downstream subholding company of a leading energy company in Indonesia, competing globally and ranked 171st in the Fortune Global 500 list in 2025 (Company A, 2025). "Company A" has adequate infrastructure to support the processing, distribution, and marketing of energy products produced, including oil refineries, ships, fuel products, lubricants, LPG, asphalt, and petrochemical products, both to meet the needs of retail and industrial consumers throughout the country and abroad (Company A, 2026). As a company with a broad operational scope, "Company A" continues to drive digital transformation across various aspects of the business to improve its effectiveness, efficiency, transparency, and accountability. One implementation of digital transformation is evident in the procurement function, which plays an important role in supporting the Company's smooth operations. "Company A" adopts one of the most well-known and popular digital procurement systems in the world, namely SMARTGEP. SMARTGEP is a digital procurement system that adopts best practices to optimize supplier or vendor engagement holistically. Through this system, the Company is confident it can strengthen collaboration with vendors, shorten procurement lead times, simplify contract execution, and create mutually beneficial value for both the Company and vendors (GEP, 2026). SMARTGEP is present as a digital procurement system with the following benefits: more effective collaboration through the use of an integrated system for sourcing-to-contract process management, increasing the transparency of the portfolio of goods and services to buyers through the supplier catalog publishing feature, automatically receiving Purchase Order (PO) notifications, and the ability to create Advanced Shipping Notifications (ASN) to support better procurement tracking.

The company is adopting the technology through GEP, a global leader in procurement and supply chain transformation. GEP helps companies harness the power of AI and digital technologies to stay ahead in the economy. Through AI-based Solutions, GEP enables businesses to operate more efficiently and effectively. GEP partners with various Fortune 500 and Global 2000 companies across various industries to build high-performance, resilient, and

sustainable supply chains (GEP, n.d.). The company's SMARTGEP meets the needs of buyers and vendors, from the initial procurement process through work negotiation, in a systematic and structured manner. However, according to prior literature, a gap persists between SMARTGEP's usefulness as a digital procurement platform and the quality of the services and systems it provides. Therefore, this research focuses on the digital procurement system within the procurement function of "Company A" as part of the Company's efforts to optimize business processes.

Based on the provisions of "Company A" in particular, Vice President of Procurement Asset and Management that vendor satisfaction is one of the supporters of the Key Performance Indicator (KPI), however, the vendor satisfaction survey is carried out 1 time in 1 year as a whole for services not specifically the media in the digital procurement, so that this is one of the main focuses of the researcher. In addition, based on the Guidelines for the Procurement of Goods/Services, "Company A" is also in line with the Presidential Regulation that, in facing the challenges of rapid global business development and change, it is necessary to adopt a system based on digital technology so that business processes run effectively and efficiently (Procurement & Asset Management, 2025). Usas et al. (2024) explained that system quality has the greatest impact on user satisfaction. In the vendor experience, satisfaction is also highly determined by the quality of services provided through the system (Amiruddin et al., 2023). In addition, Delke et al. (2023) In their article stated that adopting e-procurement can form relationships between parties that increase transparency and trust. Transparency is useful to ensure equal access for all parties, thereby fostering trust in every process that runs on an electronic or digital system (Altino et al., 2025). In line with Fernando's (2025) statement, Trust plays an important role in shaping user decisions and success factors for the services used. In accordance with the principle of the satisfaction and profit chain, better vendor satisfaction can improve business performance (Zega et al., 2025), so that some of these aspects have a role in supporting customer satisfaction.

Although the digitization of procurement (e-procurement) is adopted as part of the company's supply chain management improvements, various studies show that many significant challenges still hinder the effectiveness of such systems. Akmal, E., Panjaitan, H. P., & Ginting (2023) stated that service quality does not have a significant influence on customer satisfaction. The results of a study by Yenchristie (2025) also stated that trust has no influence on customer satisfaction. Pamuji, A., & Fachrodji (2022) explained from the results of their research that trust has no effect on customer satisfaction. In addition, Kim & Yang (2025) show that a decline in digital quality directly reduces trust and user satisfaction. Even though procurement digitalization has advanced, system quality, service quality, and transparency remain the main determinants of vendor trust and satisfaction in procurement management. This phenomenon is also evident in the implementation of SMARTGEP, a digital procurement system designed to increase efficiency and transparency for vendors.

Previous studies have examined user satisfaction and trust in digital public services, emphasizing service quality and perceived value. Research that simultaneously integrates

system quality, service quality, and transparency to explain vendor satisfaction through trust in electronic procurement remains limited. Previous e-procurement studies have identified system quality and service quality as determinants of trust and system success, but have not empirically tested trust as a mediator linking the dimensions of quality and governance to vendor satisfaction within an integrated quantitative model. Therefore, this study makes a novel contribution by proposing an integrated structural model that examines the combined effects of system quality, service quality, and transparency on vendor satisfaction through trust, in the context of implementing SMARTGEP electronic procurement. In this study, it is argued that vendor satisfaction in digital procurement is not only a technical issue, but also a rational and governance issue, so that system quality creates vendor operational trust in the reliability of the procurement system, service quality shapes the support experience that vendors receive while using the system, transparency reduces the perception of procedural injustice in the procurement process, while trust plays a role as a psychological mechanism which translates these various perceptions into vendor satisfaction. In addition, by extending the application of DeLone and McLean's Information Systems Success Model into a business-to-business (B2) commercial *e-procurement* environment, the study shifts the focus from end-user satisfaction to vendor satisfaction, thus providing new theoretical and empirical insights into how integrated technology, service, and governance factors together shape the vendor experience in commercial digital procurement platforms. Therefore, the novelty of this research not only develops an integrated model but also fills the research gap related to the digital procurement system regarding the mechanism of forming vendor satisfaction in the digital procurement system. Accordingly, based on these phenomena and research gaps, this research proposal was undertaken to address the gap by analyzing "Vendor Satisfaction in E-Procurement: The Roles of System Quality, Service Quality, Transparency, and Trust"

2. Literature Review & Hypothesis Development

2.1 Information System Success

This study uses the DeLone and McLean Information System Success Model as a grand theory in explaining the success of an information system. This model was first introduced by William H. DeLone and Ephraim R. McLean in 1992 and updated in 2003 to adapt to the evolving digital business environment and service-based systems (DeLone, W. H., & McLean, 1992, 2003). The model explains that the success of an information system is determined by 6 (six) interrelated dimensions, namely information quality, system quality, service quality, intention to use, user satisfaction, and net benefits. The model aligns with SMARTGEP as a digital procurement system that reflects the convenience of users (vendors), thereby providing a strong theoretical foundation for explaining how technology and business factors shape vendor satisfaction within the digital procurement system.

2.2 System Quality

DeLone, W. H., & McLean (2003) explain that high system quality will lead to higher user satisfaction and utilization, thereby positively impacting individual and organizational

productivity. System Quality is the main determinant of the formation of trust in digital platforms through the elements of reliability, functionality, and usefulness (Oesterreich et al. 2025). Research from Masri et al. (2020) shows that system quality has a positive and significant influence on trust. Seo, Tan, & Warman (2018) stated that procurement system services have a positive effect on vendor satisfaction, so that the quality of the system affects user confidence in the SMARTGEP system. Therefore, the reliability of the system can increase user satisfaction and trust (Aminah, S., Nugroho, Y., & Syafrullah 2018). Research from Baskara, Nuryakin, & Handayani (2024) explains that system quality in procurement plays an important role in building trust.

2.3 Service Quality

Dandis & Wright (2020) emphasized that technology-based service quality plays a strategic role in reducing user uncertainty and increasing trust in service providers. The results of research from Purnamasari & Suryandari (2023) stated that the quality of electronic services has a positive effect on customer trust. Vendor satisfaction starts from the level of service provided; service quality is essential for the success of an organization to provide a competitive advantage and increase satisfaction through functional quality and technical quality (Osarenkhoe et al., 2024).

2.4 Transparency

Transparency in technology can build user trust by providing accurate, relevant, and easily accessible information (Fu et al., 2022). Information transparency can build trust by clearly communicating how data is used (Peng et al., 2025). Transparency in a technology system can drive user trust levels that affect satisfaction to ensure successful integration (Glassberg et al., 2025). Increased transparency in the procurement process is able to reduce inefficiencies that can strengthen vendors' trust in the system, thereby increasing vendor satisfaction (Yazıcılar Sola & Güzel, 2025).

2.5 Trust

Mayer, R. C., Davis, J. H., & Schoorman (1995) Explain that trust is built through three main dimensions: ability, generosity, and integrity, which are relevant in the context of a digital procurement system. Vendors build trust not only in the procurement company, but also in the system used to be a medium in managing the tender process. This trust reflects the vendor's belief that the system can facilitate all procurement activities without causing adverse risks or obstacles, so that the procurement process can run consistently, accurately, safely, and reliably. In line with research by Fernando (2024) explained that trust is an important factor in influencing the improvement of convenience for users. The existence of trust in a trading system is a fundamental aspect of vendor satisfaction with the system (Claybaugh et al., 2021).

2.6 Vendor Satisfaction

Vos et al. (2016) explained that satisfaction in business-to-business relationships is formed through positive perceptions of system quality, service quality, and process fairness and transparency. Seo et al. (2018) found that the ease and reliability of the procurement system had a positive effect on vendor satisfaction, while Osarenkhoe et al. (2024) emphasized that

superior service quality is an important factor in increasing the satisfaction and loyalty of business partners. Thus, transparency and trust also contribute significantly to vendor satisfaction to create shared value in the supply chain (Yazıcılar Sola & Güzel, 2025).

3. Methodology

3.1 Research Design

This research is quantitative, chosen because it involves collecting, analyzing, interpreting, and reporting the results. According to Creswell, J.W., & Creswell (2018), quantitative research is suitable for testing theories by examining relationships among variables measured with standard instruments and analyzed using inferential statistical techniques. This quantitative research was conducted using the Partial Least Squares–Structural Equation Modeling (PLS-SEM) approach through a questionnaire.

3.2 Data Collection

Data collection started from November to December 2025 through a questionnaire which was carried out online using Google Form during the tender process and distributed to the company's vendors as respondents in the type of oil, gas and energy pipeline construction services, including maintenance (engineering work), production facility services, oil and gas storage, including maintenance (engineering work) and labor provider services. Specifically, data collection is carried out during the tender meeting process starting from the Announcement of Opening Administration, Bid Documents, Negotiations, and Winner Announcements, so that respondents can provide an assessment of the system during the meeting process. Therefore, respondents have direct experience of the entire series of tender processes and can provide a more comprehensive and reliable assessment.

3.3 Population and Sample Size

The population in this study is 407 vendors who have actively participated in the tender process in the last 2 (two) years based on the Company's Dashboard data. The determination of the number of samples refers to the guidelines of Hair et al. (2019) In the PLS-SEM model, the minimum sample size is ten times the maximum number of arrows leading to one construct in the structural model, so that the minimum number of samples needed is 40 (forty) respondents. Although the 10 times rule serves as a starting guideline, the sufficiency of the sample should also be evaluated based on the complexity of the model and the ability to obtain parameter estimates. Therefore, the final sample of 108 respondents far exceeded the recommended minimum limit of a population of 407 active vendors, resulting in a response rate of 26.5% and was considered adequate for PLS-SEM analysis. In addition, the sample size is in line with current methodological guidelines for estimating structural models with a moderate level of complexity in business research. The sampling technique uses purposive sampling, based on the following consideration: those who have been actively involved in the tender process at SMARTGEP for the last 2 (two) years. The analysis unit in this study is a vendor representative consisting of 1 or more individuals who are directly responsible for and interact with the SMARTGEP system during the procurement process, system access and

procurement activities are not limited to managerial personnel, but can also be carried out by procurement staff or other employees who have authority within the same vendor organization. Therefore, more than one representative from one vendor can participate in this survey. Eligibility is determined by active involvement in managing the tender process and by possession of a power of attorney or official appointment from the vendor Company authorizing representation in the tender through SMARTGEP. In addition, respondents are users who have repeatedly participated in the tender process over the past two years, from uploading administrative documents and submitting bids to evaluating processes and announcing the tender winner. Through this experience, respondents are considered to have adequate understanding and experience operating SMARTGEP, enabling them to provide a reliable assessment of system quality, service quality, transparency, trust, and satisfaction with SMARTGEP. The demographic attributes of the sample are shown in Table 1.

Table 1. Demographic Profile of The Respondents

Demographic Items	Frequency	Percentage (%)
Gender		
Male	57	53
Female	51	47
Job Position		
Managerial	44	41
Non-managerial	64	59
Age		
18-25	11	10
26-35	52	48
36-45	31	29
46 and above	14	13
Working Experience		
1-5 years	44	41
6-10 years	32	30
11-15 years	16	15
Over 15 years	16	15
Education		
Bachelor's and below	101	94
Post-graduate	7	6

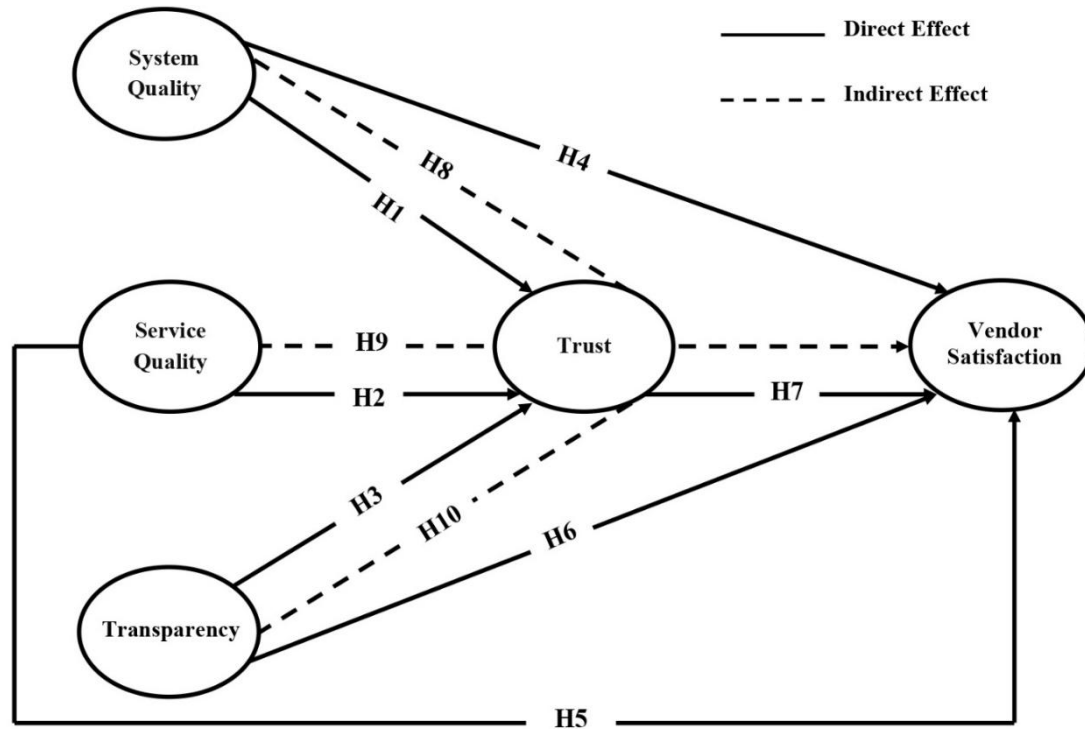
3.4 Hypotheses Development

The development of hypotheses in this study is based on the synthesis of relevant theories and empirical findings from previous research. The relationships between variables are analyzed conceptually as illustrated in figure 2. to build scientific conjectures that are further tested through empirical analysis, so that the hypotheses proposed are as follows:

- H1 : System Quality Affects Trust
- H2 : Service Quality affects Trust
- H3 : Transparency affects Trust

- H4 : System Quality Affects Vendor Satisfaction
H5 : Service Quality affects Vendor Satisfaction
H6 : Transparency affects Vendor Satisfaction
H7 : Trust affects Vendor Satisfaction
H8 : System Quality Affects Vendor Satisfaction through Trust
H9 : Service Quality Affects on Vendor Satisfaction through Trust
H10 : Transparency affects Vendor Satisfaction through Trust

Figure 2. Proposed Model of the Study



3.5 Measurement Instrument

This questionnaire was compiled by applying a five-point Likert scale ranging from "1" (strongly disagree) to "5" (strongly agree) to measure the research construct (Advanced et al., 2025). This study uses the "5" point likert scale because it provides a balanced, precise, and statistically compatible method to capture the complexity of personal traits and technological readiness (Nurqamarani et al., 2024). The questionnaire variables were developed based on key components from previous research, as presented in Table 2.

Table 2. Items Included in the Questionnaire of the Study

Variables	Kode	Items	References
System Quality	SYQ1	Adapting to the needs of the vendor in the procurement process	DeLone, W. H., & McLean (2003)
	SYQ2	The system is easily adaptable when there are changes in procedures or regulations	
	SYQ 3	Works consistently without errors	
	SYQ 4	Easy to learn even for new users	

Variables	Kode	Items	References
Service Quality	SQ1	Quickly process and deliver tender information	Dandis & Wright, (2020); Parasuraman et al. (2005)
	SQ2	Protect vendor data and information in procurement process activities	
	SQ3	Not sharing vendor data with unauthorized parties in the procurement process	
	SQ4	Provide clear information about when procurement services will be carried out	
Transparency	TC1	Provide information about the stages of the procurement process	Fu et al. (2022)
	TC2	Presenting procurement process information objectively without causing bias	
	TC3	Provide information on technical requirements in the procurement process	
	TC4	Presenting procurement documents objectively and accountably	
Trust	TR1	Always consider the interests of the vendor in the procurement process	Mayer, R. C., Davis, J. H., & Schoorman (1995)
	TR2	Feel supported during the procurement process	
	TR3	The procurement process is in accordance with applicable rules and procedures	
	TR4	Convey procurement information in an honest, transparent, and accountable manner	
Vendor Satisfaction	VS1	The relationship between vendor and buyer is mutual respect and cooperative	Vos et al. (2016)
	VS2	Vendors feel valued during the procurement process	
	VS3	Provide opportunities for my company (vendor) to get new projects or additional contracts	
	VS4	Provide opportunities for my company (vendor) to increase capacity and capabilities	

4. Result and Discussion

4.1 Result

4.1.1 Measurement Model

The validity and reliability of the items are assessed in Table 3. Hair et al. (2019) Convergent validity was assessed using a factor charge (>0.708) and an Average Variance Extracted (AVE) value of 0.50 or higher. This value indicates that the construct explains at least 50% of the variance of the indicator. Meanwhile, construct reliability is assessed through Composite Reliability (CR) and Cronbach's Alpha to demonstrate internal convergence or adequate consistency with a value criterion of 0.70 or more (Hair et al., 2019). The assessment of validity and reliability for the statement items is shown in table 3. All items show as valid and reliable according to the threshold criteria. In addition, to check the validity of discriminators, the

criteria of cross-factor loadings are used (Henseler, J., Ringle, C. M., & Sarstedt, 2015), where each indicator indicates a tierhigh loading on the intended construct. This approach is consistent with the existing PLS-SEM guidelines, which recognize cross-loading as one of the procedures for evaluating discriminant validity, specifically to verify that the indicator shows a stronger relationship to the established construct than to other constructs. Given that all indicators meet the cross-loading criteria, the measurement model shows acceptable discriminant validity. So the results show a value of >0.70, which indicates the validity of the accepted construct (Hair et al., 2019), as shown in table 4.

Table 3. Loading, Alpha Values, CR, and AVE.

Variables	Outer Loading	Cornbach's Alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	AVE
System Quality (X1)					
SYQ1	0,904	0,896	0,902	0,928	0,765
SY2	0,884				
SY3	0,770				
SY4	0,930				
Service Quality (X2)		0,910	0,910	0,937	0,788
SQ1	0,909				
SQ2	0,871				
SQ3	0,865				
SQ4	0,907				
Transparency (X3)		0,927	0,927	0,948	0,820
TC1	0,927				
TC2	0,865				
TC3	0,894				
TC4	0,935				
Trust (M)		0,933	0,933	0,953	0,835
TR1	0,943				
TR2	0,842				
TR3	0,915				
TR4	0,952				
Vendor Satisfaction (Y)		0,927	0,927	0,948	0,820
VS1	0,911				
VS2	0,894				
VS3	0,885				
VS4	0,932				

Table 4. Discriminant Validity – Cross-Factor Loading Criteria.

Scale Items	Service Quality	System Quality	TC	Trust	Vendor Satisfaction
SYQ1	0.909	0.777	0.796	0.784	0.801
SYQ2	0.871	0.806	0.852	0.847	0.812
SYQ3	0.865	0.821	0.843	0.858	0.844

Scale Items	Service Quality	System Quality	TC	Trust	Vendor Satisfaction
SYQ4	0.907	0.803	0.813	0.784	0.816
SQ1	0.852	0.904	0.861	0.880	0.811
SQ2	0.807	0.884	0.763	0.752	0.743
SQ3	0.706	0.770	0.709	0.675	0.731
SQ4	0.789	0.930	0.795	0.822	0.766
TC1	0.824	0.807	0.927	0.811	0.838
TC2	0.838	0.789	0.865	0.874	0.815
TC3	0.876	0.843	0.894	0.866	0.852
TC4	0.836	0.810	0.935	0.838	0.882
TR1	0.834	0.860	0.844	0.943	0.831
TR2	0.837	0.770	0.866	0.842	0.858
TR3	0.851	0.804	0.855	0.915	0.879
TR4	0.850	0.850	0.851	0.952	0.850
VS1	0.838	0.741	0.825	0.785	0.911
VS2	0.806	0.823	0.864	0.889	0.894
VS3	0.839	0.814	0.835	0.898	0.885
VS4	0.859	0.781	0.864	0.815	0.932

4.1.2 Structural Model

This structural model can describe the dependency relationship between independent variables versus dependents mediated through mediated variables, including situations where dependent variables function as independent variables in other structural pathways (Hair et al., 2019). Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt (2017) stated that the main criteria for evaluating structural (internal) models in PLS-SEM are based on the magnitude of the R^2 value and the measure of predictive relevance of Q^2 .

R^2 describes the simultaneous influence of independent variables on dependent variables, thus showing the amount of variance in endogenous constructs that all related independent constructs can explain (Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, 2017). The R^2 assessment criteria were 0.25 as weak, 0.50 as moderate, and 0.75 as substantial (Hair et al., 2019). Based on the following table 5, it can be concluded that exogenous variables show strong explanatory ability against independent variables that have a value of >0.75 (see table 5)

These Q^2 values are obtained through a blindfolding procedure, a resampling technique that systematically omits some data, reestimates the model, and compares the actual and predicated values, which are generally applied to endogenous constructs with reflective measurement models or single indicators (Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, 2017). The smaller the difference between the actual and predicated values, the greater the Q^2 value, so the model is considered to have good predictive ability if it shows adequate predictive power (Hair et al., 2019). Table 6 shows that two endogenous variables have a Q^2 value greater than 0. This result shows that all Q -square values get a value of more than 0, so the model in this study has good predictive power. Thus, the reported R^2 and Q^2 values have been verified using

SmartPLS output. These high values indicate that the proposed model has substantial explanatory and predictive capabilities.

Table 5. Outcomes of R² Values.

	R-square
Trust	0,903
Vendor Satisfaction	0,911

Table 6. Outcomes of Q² Values.

	Q² predict
Trust	0,898
Vendor Satisfaction	0,893

4.1.3 Hypotheses Testing

At partial influence, 6 hypotheses were accepted and 1 hypothesis was rejected based on the criterion $p \leq 0.05$ described by (Hair et al., 2019). The results are described in table 7. Furthermore, according to Baron, R. M., & Kenny (1986), mediation analysis was carried out to find out whether the relationship between independent and dependent variables is explained through mediation variables. Table 8 shows the results of the mediation test according to the criteria developed by (Zhao, X., Lynch Jr, J. G., & Chen, 2010).

Table 7. Direct Effect

Hypothesis	Path Coefficients	T-Statistics	P-values	Result
System Quality -> Trust	0,208	2,165	0,030	Supported
Service Quality -> Trust	0,283	2,578	0,010	Supported
Transparency -> Trust	0,486	4,031	0,000	Supported
System Quality -> Vendor Satisfaction	-0,037	0,448	0,654	Not Supported
Service Quality -> Vendor Satisfaction	0,248	2,192	0,028	Supported
Transparency -> Vendor Satisfaction	0,358	2,755	0,006	Supported
Trust -> Vendor Satisfaction	0,406	3,375	0,001	Supported

Table 8. Indirect Effect

Hypothesis	Path Coefficients	T statistics	P-values	Result
System Quality -> Trust -> Vendor Satisfaction	0,084	1,798	0,072	Indirect-only Mediation
Service Quality -> Trust -> Vendor Satisfaction	0,115	1,890	0,059	Competitive Mediation
Transparency -> Trust -> Vendor Satisfaction	0,198	2,752	0,006	Complementary Mediation

4.2 Discussion

The results of the study provide clear empirical evidence regarding the adoption of e-procurement in the procurement process at "Company A" on vendor behavior at each stage of the tender, thus showing the following direct influences: The first hypothesis was accepted which explained the positive influence of system quality on trust which is in line with the results of the research from (Masri et al., 2020) that the quality of the information system has a positive influence on user trust which is proven to increase user confidence in the *platform* provided, This shows an effect on trust, but does not directly affect vendor satisfaction. The findings show that in the implementation of SMARTGEP, vendors no longer evaluate satisfaction based solely on the technical performance of the system, such as ease of use, speed of access, reliability, and stability of the platform. These aspects are seen as basic requirements that must be possessed by an e-procurement system, so their existence is not enough to create vendor satisfaction. On the other hand, system quality first builds vendor confidence that the procurement process takes place reliably, safely, and consistently, so that trust becomes a mechanism that bridges the influence of system quality on vendor satisfaction. This finding also expands the understanding of the information system success model put forward by (DeLone, W. H., & McLean, 1992), by showing that B2B electronic procurement, the quality of technology alone is not enough to produce satisfaction if it is not followed by a procurement process that is able to build trust. Then the second hypothesis of the quality of service shows a positive influence on trust. This supports the argument from Amiruddin et al. (2023) who state that service quality has a positive and significant influence on customer trust, this indicates that the higher the perception of the service provided, the stronger the trust from customers. The third hypothesis, namely, transparency has been shown to have a positive influence on trust, this is in line with the statement from Kwateng et al. (2025) who affirm that accurate and timely information as a form of transparency, directly encourages the formation of trust.

The fourth hypothesis, system quality has no effect on vendor satisfaction, the findings indicate that system quality is an important component in the implementation of e-procurement, the system quality felt by vendors has not been able to increase the level of satisfaction directly. Vendors generally expect systems to operate reliably, be accessible, and have adequate functionality as a fundamental feature, not just a value-added benefit. As a result, the fulfillment of those expectations may prevent dissatisfaction, but it may not be enough to create satisfaction. Vendor satisfaction is more likely to arise when a technically reliable system is supported by transparent procurement procedures, responsive support services, and trust in the fairness and integrity of the procurement process. These findings suggest that in commercial e-procurement, the quality of technology alone is not enough to improve vendor satisfaction, unless it is integrated with governance and service factors that strengthen vendors' confidence in the procurement process. This is in line with the research of Gurgun et al. (2024) That although e-procurement promises to increase efficiency, there are still obstacles in implementation such as inconsistent system quality and low trust between

stakeholders due to weak integrative systems. The fifth hypothesis shows the influence of service quality on vendor satisfaction, in line with the opinion of Osarenkhoe et al. (2024) vendor satisfaction starts from the level of service provided, service quality has an important role for the success of organizations to provide competitive advantages and increase satisfaction through functional quality and technical quality. The sixth hypothesis, showing the positive influence of transparency on vendor satisfaction, supports the statement. Yazıcılar Sola & Güzel (2025) that increasing transparency in information technology has the potential to have a positive impact on vendor satisfaction by increasing process openness, minimizing inefficiencies, and strengthening trust in the supply chain. The seventh hypothesis, namely trust has a positive influence on vendor satisfaction, emphasizes research from Claybaugh et al. (2021) that trust in a procurement system is a fundamental aspect of vendor satisfaction with the system.

In addition to direct influence, this study produces indirect influence through trust mediation, so the eighth hypothesis shows the results of indirect-only interpretation, which states that the identified mediators are consistent with the hypothesized theoretical framework (Zhao, X., Lynch Jr, J. G., & Chen, 2010). The ninth hypothesis results in the mediation of the competitive category and the tenth hypothesis shows complementary mediation, which means that the theoretical framework used is still incomplete, the mediator variables found are consistent with the hypothesized theoretical framework. However, there is a possibility that there are other mediators that are not included in the model on the direct path of influence. In addition, the results of the study also show that transparency has a strong influence on vendor trust and satisfaction. This condition indicates that the disclosure of information regarding the tender stages, the status of the procurement process, evaluation criteria, and the basis for decision-making is able to reduce uncertainty, perception bias, suspicion, and procedural ambiguity that often arise in the tender process. When vendors view that the entire process is open, fair, and accountable, the level of trust in the system decreases and ultimately builds satisfaction with the use of SMARTGEP. Therefore, the success of SMARTGEP implementation depends not only on the quality of technology, but also on transparent procurement governance and responsive service quality. Based on these findings, the Company needs to develop a strategy that not only focuses on improving system performance, but also on strengthening procurement governance through the provision of real-time tender status tracking features, clearer vendor communication channels, service response time standards, submission of transparent evaluation criteria, well-documented complaint and rebuttal handling mechanisms, training on the use of SMARTGEP for vendors, and periodic monitoring of vendor satisfaction as the basis for continuous improvement. Overall, the results of the study confirm the role of trust as a mediating variable that is consistent with the proposed theoretical framework. These findings show that system quality, service quality, transparency not only affect vendor satisfaction directly, but also through the formation of trust in digital procurement systems, thus contributing by showing that SMARTGEP, vendor satisfaction is more determined by trust built through transparency and quality of service than by the quality

of the system directly, so that the success of the implementation of e-procurement is not only determined by the technological aspect, but also by the quality of governance and the relationship between the organization and the vendor.

5. Conclusion and Suggestion

Based on the results of the study, it can be concluded that system quality, service quality, and transparency have an important role in shaping vendors' trust in the SMARTGEP e-procurement system, which further affects their satisfaction. System quality has been shown to have a significant effect on trust, but it does not have a direct impact on vendor satisfaction, confirming that trust serves as the main mediator in transforming technical quality into relational satisfaction. Meanwhile, service quality and transparency have a direct and indirect influence on vendor satisfaction, with trust as a mediation mechanism that strengthens the relationship. These findings confirm that vendor satisfaction depends not only on the technical performance of the system, but also on the service experience and perception of fairness in the digital procurement process

In addition to making theoretical contributions by integrating system quality, service, and transparency in one structural model to explain vendor satisfaction through trust, this study also provides practical implications for companies in improving the effectiveness of SMARTGEP implementation. The results of the study recommend improving service quality and information transparency as the main strategies to build vendor trust and satisfaction. Other recommendations strengthen SMARTGEP by implementing more operational improvements, including real-time* tender tracking to improve process visibility, clearer and standardized tender evaluation criteria, service response standards set for vendor inquiries, vendor-specific helpdesks to provide timely technical and administrative support, structured documentation of the complaint and rebuttal process to strengthen transparency procedural, periodic vendor training to improve system utilization, as well as periodic vendor satisfaction surveys specifically designed to evaluate SMARTGEP services. These initiatives are expected to increase transparency, strengthen vendor trust, improve service quality, and ultimately increase vendor satisfaction with the e-procurement system. The study has limitations regarding the number of respondents and the scope of the company, so follow-up studies are recommended to expand the sample and consider additional variables, such as organizational culture factors and technological adaptation, to strengthen the generalization

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