

Role of Vendor Responsiveness, Information Quality, and Trust in Indian Public Sector Procurement through Government e-Marketplace

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Abstract

Digital public procurement platforms are argued to improve transparency, cost efficiency, and purchase administration. Prior literature has examined the user behaviour vis a vis software implementation and success. This study examines the role of outside vendors and information exchange, taking an ecosystem approach of technological infrastructure efficiency.

This study investigates the interaction between quality of information provided (IQ) by and responsiveness (RESP) of vendor, trust (TR), user satisfaction (US), Perceived Process Performance (PP), and Behavioural Intention (BI) in the context of Indian Public Sector Undertaking (PSU). Data is collected from procurement officers (n=91) operating on India's Government e-Marketplace (GeM) in various PSUs. This study is based on the DeLone and McLean Information Systems Success Model (DeLone & McLean, 2003), Service Quality (SERVQUAL), and Unified Theory of Acceptance and Use of Technology (UTAUT). The study develops a structural model using Partial Least Squares Structural Equation Modeling (PLS-SEM) to empirically test different propositions.

Results suggest that vendor responsiveness strongly influence trust formation exerts. The trust formation further significantly enhances user satisfaction and continued platform use. Information quality does not directly improve the perceived performance. Information quality mediates trust and satisfaction. Thus, the reliability of vendor behaviour becomes an important determinant of digital procurement legitimacy in PSU environment. This study contributes to the literature of information system success by extending it to external vendors, bringing in a stakeholder perspective. It also offers actionable insights for platform governance and vendor management in large-scale digital platform.

Keywords: Public e-procurement, Information quality, Responsiveness, Trust, PLS-SEM, Government e-Marketplace, Digital governance

1. Introduction

Public procurement is one of the important functions of government influencing the economy. Additionally, governments use it for enforcing policy and welfare objectives. It is used as a tool for fiscal governance, service delivery and industrial development. Thus, its role in an emerging economy like India is crucial. Public procurement contributes significantly to the gross domestic product (GDP) of a country. Across OECD countries, procurement expenditure ranges from 12 to 13 percent of GDP and it exceeds beyond 15 percent for several emerging economies (OECD, 2019; World Bank, 2020). Beyond the fiscal aspects, procurement systems influence market competition, smoothens regulatory implementation, ensures integrity, and improves institutional accountability. These systems, over a period, have become digitally

enabled to manage huge transaction volumes and complexity in procurement. Additionally, such digital public procurement platforms ensure transparency, minimize management discretion, and improve auditability and efficiency (Becker, 2018; OECD, 2019).

Public sector in India is large compared to other economies. Public expenditure and operations of Public Sector Undertakings (PSUs) assumes a structural and policy significance. To cater to the requirement of uniformity across public sector procurement operations, localized procurement, export substitution, and operational improvement, the Government e-Marketplace (GeM) was launched in 2016. This platform functions as India's centralized procurement infrastructure. Broad functionalities include digitalization of vendor registration, facilitating bidding in auctions, contract process, and order management. The GeM platform has witnessed sustained growth in vendor empanelment, participation, transactions and monitoring (Bringing a Paradigm Shift in Public Procurement, 2023).

However, digital infrastructure alone may not guarantee its effectiveness. Users and institutions access, generate services, and take decision based on the information, which can play a contributory role for overall effectiveness. Research also acknowledges that e-government performance depends on institutional trust and participants' behaviour around the platform (Bannister & Connolly, 2011; Janssen & Estevez, 2013). Participants of the platform develop relational reliability which helps them to coordinate and create value in the process (Tiwana et al., 2010). In a large scale procurement ecosystems, buyers interact with system interfaces and vendors. Vendors provide documentations and respond to information requirements. Thus, documentation accuracy, responsiveness, and compliance discipline helps the buyer to evaluate documents efficiently and make appropriate decisions. Research referring to assessments have found that even a digital procurement systems has procedural inconsistencies, document verification challenges, and delays due to coordination in the public procurement contexts (OECD, 2023; Vaidya et al., 2006). Evidence across countries suggest that gains from a digital e-market place depends on the participants of the system and enforceable discipline derived from the technological design and functionality. (Bannister & Connolly, 2011; OECD, 2019).

Thus, the central question remains if the success of the platform depends on system design or agencies interacting with it and the reliability of their behaviour.

A majority of e-procurement research has largely focussed on various adoption drivers, system quality, and derivable efficiency from the system (Thai, 2017; Vaidya et al., 2006). Subsequent set of literature based on the Information Systems Success Model argues system, information, and service quality derived from the use as determinants of net benefits, satisfaction, and success (DeLone & McLean, 2016). However, limited empirical attention has been given to vendor-side behavioral determinants within large-scale public digital marketplaces, particularly from the perspective of accountable institutional buyers.

Recent digital public service research suggests that trust and satisfaction arise not only from system attributes but also from participant reliability within platform environments (Janssen et al., 2021). In public e-procurement ecosystems, vendors represent the primary transactional counterpart of PSU buyers. Vendor-provided Information Quality (IQ) and Responsiveness (RESP) may therefore serve as antecedents of Trust (TR), which influences User Satisfaction (US), Perceived Process Performance (PP), and Behavioral Intention (BI) to continue platform use.

Accordingly, this study examines PSU buyers' experiences of vendor behavior on GeM. Rather than evaluating macro-level reform or platform engineering, it isolates vendor-facing behavioral determinants within a mandated procurement system. Using Partial Least Squares Structural Equation Modeling (PLS-SEM), the study tests a hybrid framework integrating the DeLone and McLean IS Success Model, SERVQUAL, and UTAUT to conceptualize e-procurement success as a relational outcome shaped by vendor behavior.

This research contributes to the literature by shifting focus from platform characteristics to the reliability of vendor behaviour. We propose that vendor responsiveness drives trust and continued usage, and show that information quality influences behavioral intention of use primarily through relational mediation. This study advances a relational understanding of digital governance performance by proposing that the digital procurement legitimacy is contingent upon a behavioral discipline beyond the e-market place functionality alone, in public sector ecosystems.

2. Literature Review and Theoretical Framework

2.1 Public E-Procurement Research

Initial digitization of public procurement was aimed at digitizing various procedures. Subsequently, digitalization was targeted as a central mechanism of digital governance. PSU reforms were also part of this central mechanism. Early literature focussing on developing economies also emphasized on implementation barriers, adoption challenges, system acceptability, transparency, and cost efficiency under infrastructural and regulatory constraints (Thai, 2017; Vaidya et al., 2006).

Recent literature argues that technological deployment alone is not sufficient condition for institutional performance. Findings suggests that outcomes in e-government systems depends on the system design and the behavioral reliability of participating actors (Bannister & Connolly, 2011; Janssen & Estevez, 2013). In a procurement ecosystem, buyers are engaged with digital interfaces and also with information provided by vendors in terms of documentation quality, responsiveness, and post-award conducts shaping procedural integrity. Vendors and buyers have different set of expectations and engagement behaviour. Clubbing these two categories to a single user category is inappropriate. Even with this knowledge, the role of vendor in shaping trust and performance remains undertheorized. Vendors are considered as system users rather than contributing to the trust formation and system performance. This gap is especially consequential in large digital marketplaces such as GeM where vendor behavior directly influences confidence and perceived effectiveness. Therefore, it is essential to conceptualize public e-procurement platforms as socio-technical systems in which technological architecture and behavioral discipline jointly shape institutional outcomes.

2.2 DeLone and McLean Information Systems Success Model

The DeLone and McLean Information Systems Success Model (DeLone & McLean, 2003; DeLone & McLean, 2016) identified Information Quality, System Quality, and Service Quality as antecedents of User Satisfaction and Net Benefits. Information Quality defined as accuracy, completeness, relevance, and timeliness has been consistently associated with appropriate evaluation and perceived effectiveness (Petter et al., 2008).

In public procurement, documents submitted by vendors constitute the primary inputs for decision-making. Deficiencies in the document uploaded to the e-marketplace increase the cost and effort of verification and increases compliance risk. A higher document information quality

increases satisfaction in digital systems (DeLone & McLean, 2016; Petter et al., 2008) but its translation into perceived performance may depend on assurance in a high-accountability contexts. Therefore, trust likely mediates the influence of vendor-provided information on operational perceptions.

2.3 SERVQUAL: Responsiveness as Behavioral Reliability

Reliability and responsiveness are important SERVQUAL dimensions, others being assurance, empathy, and tangibility (Parasuraman et al., 2002). Responsiveness can be defined as the timely and disciplined engagement in a digital procurement environment. Responsiveness is identified with prompt clarifications, deadline adherence, and consistent post-award participation.

Prior research on digital services argues responsiveness strengthens trust and satisfaction (Carter & Bélanger, 2005; Geffen et al., 2003). In procurement settings in PSUs, delays can create audit and financial risk. Responsiveness of the vendor functions as a visible indicator of professionalism and reliability. Thus, responsiveness is a behavioural mechanism which builds confidence and reduces risk. This responsiveness dimension belongs to the SERVQUAL model and applicable in the governance-sensitive procurement contexts. Responsiveness becomes responsible in developing relational confidence.

2.4 Unified Theory of Acceptance and Use of Technology (UTAUT) and Continued Usage Intention

This theory argues that behavioral intention predicts sustained system usage (Venkatesh et al., 2003, 2012). In the case of GeM, participation of vendors is mandatory, though the engagement quality, responsiveness, and experience differs.

Service quality perception and continued usage of a system is interlinked. The perception of service quality builds trust and satisfaction leading to use of systems. Thus, trust and satisfaction mediate the relationship between service perceptions and continued usage. Public sector procurements are accountability-intensive. Therefore, the relational confidence becomes pivotal to sustained use. These elements of UTAUT therefore becomes important to examine how informational adequacy and reliability translate into continued platform engagement.

2.5 Research Gap

The IS Success Model, SERVQUAL, and UTAUT are well established models. However, an integrated approach within public e-procurement is novel and points to the following gaps:

1. Information Quality provided by vendor and behaviour have not been examined from a system use perspective.
2. Trust formation in government e-marketplace platforms remains undertheorized from buyer's perspective.
3. Current literature considers process performance as an outcome of software functions rather than from a relational perspective shaped by vendor behavior.

These research gaps require a theoretical integration that focuses on vendor behaviour within digital e-marketplace context.

2.6 Integrated Theoretical Framework

This study integrates the DeLone and McLean IS Success Model, SERVQUAL, and UTAUT to model vendor-driven trust formation in public sector e-procurement. The quality of information forms the base. Responsiveness relates to the behavioural reliability and finally, trust and satisfaction manifests in continued usage of the e-marketplace system.

Together, these models propose e-procurement as a relational process. Vendors provide information and engage in a disciplined manner to give rise to trust, perceived performance, and sustained reliance within the e-marketplace ecosystem. Table 1 summarizes the theoretical alignment.

Table 1 Summary of Constructs Relevant to e-Procurement and Theoretical Bases

Framework	Core Constructs Utilized	Relevance to GeM Context	Illustrative Sources
DeLone & McLean IS Success	Information Quality → User Satisfaction → Net Benefits	Accurate and verifiable vendor documentation strengthens confidence and perceived process effectiveness	Petter et al. (2008); DeLone & McLean (2016)
SERVQUAL	Responsiveness (Behavioral Reliability)	Timely clarifications and disciplined engagement enhance relational trust	Parasuraman et al. (2002); Geffen et al. (2003)
UTAUT	Trust, Satisfaction → Behavioral Intention	Relational evaluations influence continued platform reliance	Venkatesh et al. (2012)

Note: The table presents different adapted constructs and their context

3. Conceptual Model and Hypotheses Development

The study proposes a model conceptualizing the vendor Information Quality (IQ) and Responsiveness (RESP) as primary exogenous variable to the GeM ecosystem. These inputs shape the relational mechanisms of Trust (TR) and User Satisfaction (US). The trust and user satisfaction subsequently influence Behavioral Intention (BI) and Perceived Process Performance (PP). The framework integrates informational quality from the IS Success Model, behavioral service reliability from SERVQUAL, and continuation intention from UTAUT. This article argues that public e-procurement success is a relational outcome embedded within digital governance.

Information Quality and Trust: The accuracy, completeness, relevance of information provided by the vendor through GeM portal is considered as the Information Quality. Inaccurate, incomplete and irrelevant information increases time for scrutiny, verification burden and perceived risk. High quality information reduces uncertainty and improves confidence. This also aligns with IS success model (Petter et al., 2008). Large public sector procurement are risk-sensitive procurement environments. In this context the transparency and verifiability of the documents function as credibility signal and reflects on vendor integrity. Therefore, we form the null hypothesis as H01: Information Quality has no relationship with Trust formation.

Responsiveness and Trust: Responsiveness is reflected in the timeliness in submitting documents, and responding to queries demonstrated by vendors during procurement process and interactions, within clarification cycles and post-award engagement. SERVQUAL identifies responsiveness as a core determinant of customer expectations (Parasuraman et al., 2002). PSU procurements are accountability-intensive wherein the responsible officer has the responsibility for compliance. Therefore, timely engagement by the vendor indicate higher

reliability and reduces transactional uncertainty. Thus, we coin the null hypothesis as H02: Responsiveness and Trust has no relationship.

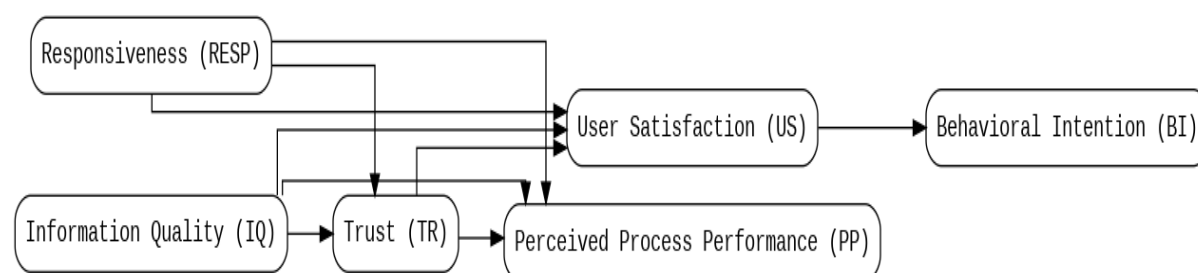
Trust and User Satisfaction: Trust can mitigate perceived risk in a highly regulatory environment. In PSU procurement contexts, trust may reduce the burden of monitoring and help procurement officers to evaluate vendor interactions. This evaluation process can influence the satisfaction from the process. Prior research suggests that relational confidence strengthens satisfaction in digital services (Carter & Bélanger, 2005). GeM being a digital service environment where buyers and vendors interact; trust in vendors is likely to influence positive platform experience and an intention to use the platform continuously. Thus the null hypothesis is described as H03: Trust does not influence User Satisfaction in GeM environment.

User Satisfaction and Behavioral Intention: User Satisfaction results from an overall evaluation of interactions facilitated by the platform. UTAUT model suggests that positive assessments of overall experience drive the intention to use the platform continuously (Venkatesh et al., 2003). Where systems are made compulsory for use, satisfaction from overall transactions can influence perception of reliability and generate confirmation of digital workflows. Therefore, the null hypothesis H04: User Satisfaction positively influences Behavioral Intention, was proposed.

Vendor Inputs and Perceived Process Performance: In the PSU procurement process through GeM platform, Perceived Process Performance reflects buyers' assessment of efficiency and procedural smoothness experienced during the process. Unambiguous documentation can reduce confusion and subsequent rework. This is reflected in IS Success logic. Additionally, responsiveness may prevent delays and process interruptions. The relational governance theory suggests that trust reduces oversight intensity, leading to improved perceived efficiency. The following null hypotheses were proposed to be evaluated: H05: Information Quality has no influence on Perceived Process Performance, H06: Responsiveness has no relation with the perception of Process Performance, and H07: Trust does not influence Perceived Process Performance.

Direct Effects on Satisfaction: Vendor behaviour may directly or indirectly shape satisfaction. The IS Success Model proposes information quality as an antecedent to satisfaction, but the SERVQUAL model points to responsiveness as a determinant of user evaluation (Carter & Bélanger, 2005; Parasuraman et al., 2002). Therefore two null hypotheses are proposed as below: H08: Information Quality does not influence User Satisfaction, and H09: Responsiveness has no influence on User Satisfaction. Figure 1 represents the hypotheses conceptualised.

Figure 1. Conceptual Model and Hypothesized Relationships



Source: Developed by the author

4. Research Methodology

Research Design: This study adopted cross-sectional survey design to collect responses from PSU procurement officers within the GeM ecosystem. The interactions between Information Quality (IQ), Responsiveness (RESP), Trust (TR), User Satisfaction (US), Perceived Process Performance (PP), and Behavioral Intention (BI) were modelled through PL-SEM. The research considered a survey design since the constructs were perceptual in nature. The relationship between constructs was expected to predict the performance perception. PLS-SEM also helped in evaluating different mediation paths through a variance-based structural equation modelling.

A pilot testing of the questionnaire was carried out to ensure content validity. Selected procurement officers with higher experience were expertis during this phase. Minor modification and conceptualizations were carried to ensure applicability in Indian PSU procurement context. A five point Likert Scale (1 = Strongly Disagree; 5 = Strongly Agree) was used for item responses.

Sample and Data Collection: Procurement officers of Indian PSUs were defined as the target population. The qualifying criteria was that they must have used or using the Government e-Marketplace (GeM) platform for doing procurement activities. Procurement officers were required to have (1) experience of at least one year on GeM platform and (2) completed at least three procurement cycles and be conversant on informed evaluation of vendor behaviour. From the population of 109 received, 91 usable questionnaires were retained after removing incomplete responses.

Sampling adequacy was tested by the post-hoc power assessment based on the “10-times rule” and Cohen’s (1988) guidelines (Cohen, 2013). The sampling adequacy was confirmed. The guideline suggested if a maximum of three predictors are available per endogenous construct, the minimum sample size was 30. Thus, the final sample in this study (N = 91) was adequate. This also ensured adequate statistical power to detect medium-sized effects..

Measurement Instrument: Items for each construct were adopted from established IS and service-quality instruments. Minor contextual modifications for the GeM environment was done at the pilot stage. A five-point Likert scale (1 = Strongly Disagree; 5 = Strongly Agree) was used to measure item responses.

Information Quality construct consisted the following items: perceived accuracy, completeness, and clarity of documents submitted by vendor. Responsiveness included assessed timeliness of responses and engagement with process during procurement interactions. Trust was measured by the confidence in vendor reliability. User Satisfaction was

measured as an overall evaluative judgment of vendor interactions by the buyer. Perceived Procurement process Performance included the perception of workflow efficiency and reduction of procedural conflicts. Behavioral Intention indicated the buyers' reliance on GeM. Table 2 presents operational definitions and its sources..

Table 2. Construct Operationalization and Measurement Sources

Construct	Contextual Definition	No. of Items	Example Item	Source
Information Quality (IQ)	Perceived accuracy, completeness, and clarity of vendor documentation	3	"Vendor documentation submitted on GeM is complete and free from ambiguity."	DeLone & McLean (2003); Petter et al. (2008)
Responsiveness (RESP)	Timeliness and commitment during procurement interactions	3	"Vendors respond promptly to clarification requests on GeM."	Parasuraman et al. (2002)
Trust (TR)	Confidence in vendor reliability and integrity	3	"I consider vendors participating on GeM to be reliable."	Venkatesh et al. (2003)
User Satisfaction (US)	Overall satisfaction with vendor interactions	3	"Overall, I am satisfied with my procurement experience on GeM."	DeLone & McLean (2016)
Perceived Process Performance (PP)	Perceived efficiency and reduction of procedural friction	3	"Using GeM improves procurement efficiency and reduces rework."	Adapted from IS success literature
Behavioral Intention (BI)	Intention to continue using GeM	3	"I intend to continue using GeM as my primary procurement platform."	Venkatesh et al. (2003)

Source: Synthesized for research by the author

4.4 Data Analysis

To test the proposed hypotheses and conceptual framework, this study employed Partial Least Squares Structural Equation Modeling (PLS-SEM) using the SmartPLS software. This multivariate analysis technique was deemed the most appropriate for several reasons. First, the primary objective of the research is prediction-oriented, aiming to explain and predict key target constructs. Second, the theoretical model is complex, involving multiple mediation paths that require simultaneous estimation. Third, PLS-SEM is robust and well-suited for the study's moderate sample size. Finally, the technique allows for the concurrent evaluation of both the measurement model and the structural model, ensuring that the constructs are measured reliably before assessing the relationships between them. To determine the significance of the path coefficients and other statistical parameters, a non-parametric bootstrapping procedure with 5,000 resamples was performed.

4.5 Measurement Model Evaluation

Prior to testing the structural hypotheses, the measurement model was rigorously assessed to ensure the reliability and validity of the constructs. This evaluation adhered to established PLS-SEM criteria. Internal consistency reliability was confirmed by examining Cronbach's Alpha and Composite Reliability, with all values required to meet the threshold of 0.70. Convergent validity was established through the Average Variance Extracted (AVE), where a value of 0.50 or higher indicates that the construct explains at least half of the variance of its indicators. Furthermore, discriminant validity—the extent to which constructs are empirically distinct—was verified using the Heterotrait-Monotrait (HTMT) ratio of correlations, ensuring all values were below the conservative threshold of 0.85. Finally, to check for potential multicollinearity issues, the Variance Inflation Factors (VIF) were examined for the indicators.

4.6 Structural Model Evaluation

After validating the measurement model, the structural model was evaluated to test the study's hypotheses and assess the model's predictive power. The assessment focused on several key indicators. The strength and direction of the hypothesized relationships were examined using standardized path coefficients (β), while their statistical significance was determined by the bootstrapped t- and p-values. The model's explanatory power was evaluated using the coefficient of determination (R^2), which indicates the amount of variance in the endogenous constructs explained by the model. To understand the substantive impact of each predictor, effect sizes (f^2) were calculated. Additionally, the model's predictive relevance was assessed using the Stone-Geisser Q^2 value, obtained through the blindfolding procedure, where a Q^2 greater than zero indicates that the model has predictive relevance for a given endogenous construct. Finally, the model's overall fit was examined using the Standardized Root Mean Square Residual (SRMR). Together, these indicators provide a comprehensive assessment of the model's explanatory power, predictive capacity, and overall structural robustness.

5. Results

Measurement Model Assessment: Before testing the structural relationships, the reflective measurement model was evaluated to ensure it met required psychometric properties. Following the established PLS-SEM guidelines, we assessed the internal consistency to confirm indicators measuring the same constructs are tightly correlated; convergent validity to assess that the items in a construct shared high proportion of variance; and discriminant validity to ensure each construct was empirically distinct from others (Hair et al., 2021; Henseler et al., 2015).

Table 3 lists the validity and reliability measure of various constructs used in the study. Cronbach's alpha and composite reliability (CR) were considered internal consistency measures (Hair et al., 2021; Kline, 1999). All constructs exceed the recommended thresholds ($\alpha \geq 0.70$; $CR \geq 0.70$), and indicated satisfactory reliability. Information Quality (IQ) and Behavioral Intention (BI) exhibited strong internal coherence ($CR > 0.90$).

Average Variance Extracted (AVE) value was considered for convergent validity ($AVE > 0.50$) explaining that each latent variable explains at least 50 percent variance in its indicator. The cut-off value was as recommended value (Fornell & Larcker, 1981).

Discriminant validity was measured by the Heterotrait–Monotrait (HTMT) ratio. All HTMT values fell within limits of the threshold value of 0.85 (Henseler et al., 2015). This demonstrated adequate distinctiveness between constructs. The distinctiveness between Trust and User Satisfaction was noteworthy and consistent with theory. The model demonstrated

satisfactory reliability and validity required for structural model estimation. The values were computed in the SmartPLS 4 using 5,000 bootstrap resamples.

Table 3: Reliability and Validity Assessment of Reflective Constructs

Construct	Cronbach's α	Composite Reliability (ρ_c)	AVE	Highest HTMT
Behavioral Intention (BI)	0.867	0.909	0.714	0.430
Information Quality (IQ)	0.869	0.911	0.719	0.533
Responsiveness (RESP)	0.765	0.849	0.585	0.528
Trust (TR)	0.831	0.886	0.660	0.614
User Satisfaction (US)	0.764	0.849	0.586	0.614

Source: Computed from source data collected by the author

Structural Model Assessment: After the initial confirmation of measurement model validity, we evaluated the structural model with 5,000 bootstrap resamples (two-tailed, $\alpha = 0.05$). Following tests results were assessed for reporting: collinearity diagnostics, explanatory power (R^2), path significance, effect sizes (f^2), predictive relevance (Q^2_{predict}), mediation analysis, and global model fit.

Model Fit: The Global model fit indicators Standardized Root Mean Square Residual (SRMR) and Normed Fit Index (NFI) demonstrated acceptable adequacy of the model. The values of SRMR = 0.085 (≤ 0.10 threshold) and NFI = 0.66 (Although the value was below covariance-based SEM thresholds, the NFI is acceptable in prediction-oriented PLS contexts.). These statistics indicated that the model balances parsimony and predictive accuracy within the theoretical framework.

Collinearity Diagnostics: Inner variance inflation factors (VIF) values calculated to understand any potential multicollinearity among predictors. All VIF values, in this study, ranged between 1.22 and 1.51. These values were below the threshold of 3.3 (Hair et al., 2021; Kock, 2015). Therefore, the structural estimates did not suggest redundancy among predictors. The results suggested a reliable interpretation of path coefficients.

Explanatory Power (R^2): The coefficient of determination (R^2) indicated the explanatory power of the model. R^2 values between 0.15–0.35 are considered acceptable in behavioral research (Hair et al., 2021). Results indicated that 34.0% of variance is explained by User Satisfaction, 22.7% in Trust, 21.5% in Process Performance, and 15.4% in Behavioral Intention. According to established benchmarks (Cohen, 2013; Hair et al., 2021), these values indicate weak-to-moderate predictive strength, appropriate for behavioural models in public-sector contexts. A higher score for User Satisfaction suggests that behavioural input of the vendor has a stronger influence on experiential outcomes than on continuation behaviour.

Path Coefficients and Hypothesis Testing: Table 5 shows the results based on bootstrapping of 5000 resamples. The results suggests a behavioral transmission chain and three paths are statistically significant. The direct path from Information Quality (IQ) to User Satisfaction (US) was not significant and showed a marginal effect. Further, direct paths to Process Performance were not statistically significant. These findings suggested that the vendor responsiveness influences the trust building process subsequently enhancing satisfaction and intention to continue platform use.

Table 5: Bootstrapped Direct Effects

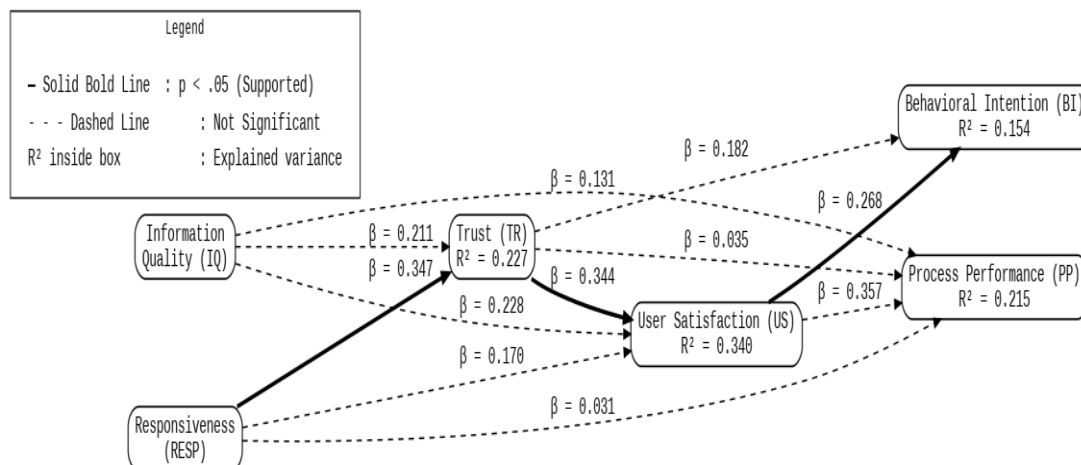
Hypothesis	Path	β	T	p	Result
H1	IQ $\rightarrow$ TR	0.211	1.50	.134	Not Supported
H2	IQ $\rightarrow$ US	0.228	1.81	.070	Marginal
H3	RESP $\rightarrow$ TR	0.347	2.84	.005	Supported
H4	RESP $\rightarrow$ US	0.170	1.55	.120	Not Supported
H5	TR $\rightarrow$ US	0.344	3.69	.000	Supported
H6	US $\rightarrow$ BI	0.268	2.10	.036	Supported
H7–H9	Direct paths to PP	—	—	>.05	Not Supported

Effect Size (f^2): The effect sizes were evaluated for different paths. The path responsiveness (RESP) to trust (TR) demonstrated a medium effect ($f^2 = 0.127$). The path from trust (TR) to user satisfaction approached a medium effect ($f^2 = 0.139$). Finally, the path from user satisfaction (US) to behavioural intention to use platform (BI) reflected a small-to-moderate effect ($f^2 = 0.064$). Other effects were small or negligible. These results suggest trust and satisfaction function as behavioral mechanisms within the model.

Predictive Relevance (Q^2_{predict}): The analysis confirmed positive values for constructs (0.028 for PP to 0.099 for US). A lower RMSE values than the linear benchmark model suggested better predictive performance of the PLS model. Behavioral constructs (Trust and Satisfaction) displayed stronger predictive association than operational outcomes (Process Performance). This predictive relevance suggested the importance of relational mechanisms in digital procurement process.

Mediation Analysis: The indirect-effect testing confirmed partial mediation through Trust and User Satisfaction. The path from responsiveness (RESP) to trust (TR) to user satisfaction (US) to behavioural intention (BI) showed the value $\beta = 0.11$, $p = .004$. Similarly, the path information quality (IQ) to trust (TR) to user satisfaction (US) and behavioural intention (BI) showed the value $\beta = 0.09$, $p = .015$. These results show that vendor responsiveness and information quality drive continued usage mainly through trust and satisfaction, not through direct operational effects. Figure 2 summarizes these relationships, displaying the standardized path coefficients and explained variance (R^2) for the final model.

Figure 2. Standardized Path Coefficients in the Structural Model



(Source: Developed by the author)

Structural Summary

The structural assessment in the model revealed a coherent chain of behaviors. Findings indicate a causal chain in which the perceived responsiveness of vendor fosters buyers trust. This trust subsequently enhances user satisfaction, which is the primary driver for the buyers' intention of continued usage of the platform. Operational performances are indirectly and positively, influenced by these mediators. Further, these findings emphasize that the digital procurement effectiveness is primarily behavioural and relational. The input and behaviour of outside vendors influence the perception of inside buyers.

6. Discussion

This study intended to understand and model the effect of vendor behaviour such as responsiveness and information quality in the document to indicate buyers trust and continued intention to use GeM platform in PSU procurement environment.

Responsiveness: Responsiveness of vendor was the strongest predictor of trust in this model, in the GeM ecosystem. The statistically significant link from responsiveness to trust shows that vendors to give timely clarifications, and engage actively during the purchase process to signal their reliability. This becomes important when procurement processes in PSU are accountable, with various audit stipulations. PSU procurements are also of high value and require discipline. The model suggests that behavioural discipline outweighs documentation quality. Digital platforms have standardized procedures, but vendor commitment and trust from observable responsiveness within transactions forms an integral part. Responsiveness serves as a credibility cue to purchase managers. It reduces uncertainty and reinforces confidence.

Information Quality: Information Quality in the model shows a positive but indirect influence on outcomes. Thus, information quality contributes modestly to user satisfaction. Further, it has a limited direct impact on process performance. Therefore, it is a necessary condition but not sufficient one. Considering a highly regulated procurement in PSUs, the documentation standards are mandatory. Performance perceptions go beyond information quality and depends more on relational factors such as trust and responsiveness. Thus, information quality is essential for procedural legitimacy, but performance requirement demands behavioural reliability.

Trust: In the model, trust was the key mediating construct. It linked vendor behaviour to satisfaction and subsequently, to the intention of continued usage. Mediation results indicated

that responsiveness and information quality shape continued usage mainly through relational effect rather than direct operational outcome.

7. Theoretical Contributions

This study advances e-marketplace governance literature in three important ways. First, it extends the IS Success Theory to Vendor Contexts. The DeLone and McLean framework is tested in the public e-procurement context by repositioning vendor behaviour which is a core precondition of relational and performance outcomes. Second, this study conceptualized responsiveness as a behavioural reliability in PSU procurement settings and demonstrated its substantive role. This aspect also linked the SERVQUAL model. Lastly, the mediation pathways were clarified which established that trust and satisfaction are sequential mediators translating informational and service-quality inputs into continued usage intention. Collectively, these findings reposition public e-procurement success as a behavioural phenomenon where relational confidence mediates technological functionality.

8. Practical Implications

The findings of this study suggest few actionable implications for policymakers and administrators of the Government e-Marketplace (GeM). Vendor responsiveness improves procurement efficiency, generates trust and user satisfaction. Therefore, vendor performance dashboards can be redesigned to institutionalize real-time vendor responsiveness metrics including their responsiveness to different activities. Related nudging mechanisms can be based on Service Level Agreement (SLA) can be helpful in reducing procedural delays in procurement. Document pre-validation through automated tools can improve information quality. Finally, the development of comprehensive vendor reliability scorecards can aggregate behavioral indicators such as response times and bid withdrawals to help in disciplined participation fostering a more trustworthy and efficient procurement ecosystem. Such behavioral governance mechanisms can be an integral part of public e-marketplaces to strengthen trust and performance outcomes.

9. Limitations and Future Research

This research has a cross sectional design thus limits any causal inferences. Longitudinal and event specific research can better capture emerging trust dynamics between vendor and buyer across multiple procurement cycles. This study context is procurement through GeM in Indian PSUs. Therefore, non-GeM buying and other country contexts are likely to be different. Possible institutional and cultural variations cannot be ruled out. Though, this research considered significant constructs, they are not exhaustive. For example, organization culture, procurement complexity, or regulatory limitations are not considered in this research. Future research may consider how multiple technology layers (Analytics) as software enhancements have influenced buyer and vendor behaviour to enhance the system effectiveness.

10. Conclusion

The success of large digital public procurement platforms such as GeM depends on the vendors interacting with buyer in the purchase process. Rich functionality and technological sophistication of the software are not sufficient conditions to the success of the procurement platform. Buyers operate within the procurement policy and rules, deviations are subjected to risk of audit and others. Thus, buyers play a vital role by their responsiveness and reliability to provide good information quality. Such information quality and responsiveness creates trust

among buyer-seller, satisfaction and intention to use the platform of Government e-Marketplace.

While information quality remains a necessary condition, the responsiveness of vendors observed through timely engagement and credible participation finally shapes the buyer confidence. The success of public procurement success through e-market place platform, is therefore not purely technological; it is relational, behavioral, and institutional. Policymakers and administrator can consider various measures to enhance the relational behavioural aspects to improve the procurement governance process.

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