

## **From Paper to Platform: Digital Procurement as a Tool for Financial Transparency in Public Financial Management**

**Bibek Ghimire\***

### **Abstract**

Public procurement is widely recognized as a sensitive and high-risk area for corruption and inefficiency, often affected by opacity and weak accountability. In Nepal, the introduction of the electronic government procurement (e-GP) system signifies a major digital governance reform aimed at enhancing transparency and procedural integrity. This study examines the impact of e-GP on transparency in public procurement, focusing on information accessibility, process visibility, fair competition, and stakeholder trust. The analysis is based on survey data from 84 stakeholders, including government officials, bidders, and oversight personnel. Quantitative techniques, including Friedman Chi-square tests and ANOVA, were employed to assess perceived transparency outcomes. The findings indicate that e-GP has improved access to procurement information and strengthened procedural openness; however, challenges persist in traceability and stakeholder engagement, particularly during bidding and contract award stages. The study highlights that technological reforms alone are insufficient without complementary institutional strengthening.

**Keywords:** Accountability, Corruption, Electronic Government Procurement, Good Governance, Transparency

### **Introduction**

Public financial management (PFM) establishes the framework through which governments mobilize and spend resources. Within this framework, public procurement represents a critical expenditure function, accounting for nearly 20% of global GDP and up to 50% of annual budgets in many developing countries (World Bank Group, 2020; OECD, 2025). Public procurement, involving substantial public expenditure, is widely recognized as highly vulnerable to corruption, collusion, and inefficiencies (Transparency International, n.d.).

---

\* Under Secretary, GoN, email: [bibek.sane63@gmail.com](mailto:bibek.sane63@gmail.com)

Transparency is therefore considered a fundamental principle of sound procurement systems, ensuring openness, accountability, and fairness in decision-making processes (UNODC, 2013).

In Nepal, traditional procurement practices were often criticized for opacity and favoritism. Contracts were awarded under political pressure, bidders colluded to inflate prices, and information was withheld from the public. These practices undermined trust in government spending and contributed to Nepal's low ranking in global corruption indices. To address these challenges, Nepal introduced the electronic government procurement (e-GP) system, mandating digital platforms for all procurement activities. By digitizing the procurement cycle, from bid invitation to contract award, the e-GP system aimed to reduce discretion, limit face-to-face interactions, and make procurement information publicly available.

Transparency in procurement is more than a normative principle; it is a practical mechanism for financial integrity. When procurement information is made publicly available in accessible formats, it allows stakeholders to monitor spending, detect irregularities, and hold institutions accountable (Transparency International, 2025). International experience supports this view: e-GP reforms in countries such as Bangladesh and India have demonstrated improvements in competition and fairness, while broader studies highlight transparency as a key outcome of digital procurement systems. However, much of the existing literature primarily emphasizes technological efficiency and corruption reduction, with comparatively limited attention to how different stakeholder groups perceive transparency outcomes, particularly in developing country contexts.

In the case of Nepal, despite the implementation of the e-GP system as a major governance reform, there remains a lack of systematic empirical evidence examining transparency outcomes across different stages of the procurement process and among diverse stakeholder groups. This gap is particularly important given the institutional and governance challenges that may influence how transparency is experienced in practice.

This paper addresses this gap by focusing specifically on the transparency dimension of procurement governance in Nepal's e-GP system. Drawing on stakeholder-based survey data and statistical analysis, it examines how digital procurement influences perceptions of openness, accessibility, and fairness across different stages of the procurement process. More specifically, the study aims to: (i) assess the extent to which the e-GP system enhances transparency in procurement governance; (ii) analyze stakeholder perceptions of transparency-related outcomes, including access to information and fairness in competition; and (iii) identify key institutional and operational challenges that affect transparency in practice and recommend practical insights for the effective implementation of the e-GP system in Nepal. Based on these findings, the study provides policy-relevant insights to strengthen the effectiveness of e-procurement systems in Nepal and similar developing country contexts.

## **Literature Review**

## **Transparency as a Pillar of Good Governance**

Transparency has long been recognized as a cornerstone of good governance. The World Bank's Governance and Development report (1992) defined governance as the manner in which power is exercised in managing a country's resources, with transparency central to ensuring accountability and fairness. Similarly, the UNDP Governance for Sustainable Human Development policy paper (1997) emphasized transparency as a prerequisite for equitable development, arguing that information must be accessible and understandable to the public to enable oversight and trust. These foundational perspectives establish transparency not only as a normative principle but also as a practical mechanism and a clerical tool for strengthening financial integrity in governance.

## **Transparency in Public Procurement**

Public procurement is particularly vulnerable to corruption and collusion, making transparency essential. Transparency International's Corruption Perceptions Index (2024) ranked Nepal 107th out of 180 countries, underscoring the urgency of reforms, particularly in enhancing transparency in procurement governance. Scholars such as Rotchanakitumnuai (2013) have shown that e-procurement reduces face-to-face interactions, thereby limiting opportunities for fraud and enhancing transparency in contracting. Neupane et al. (2012) demonstrated that public e-procurement systems significantly reduce corruption risks in South Asia, with transparency emerging as an immediate benefit. Similarly, Bangladesh's e-GP reforms have been associated with reduced collusion and improved fairness, reinforcing transparency as a key governance pillar (Islam & Mahbub, 2015).

However, existing studies have paid limited attention to distinctions in the perception of stakeholders regarding transparency across different stages of the procurement cycle. In particular, the relationship between e-GP systems and the openness dimension of digital reform in developing country contexts remains underexplored. This study seeks to address this gap by providing a more context-specific and empirically grounded analysis.

## **Recent Academic Contributions**

Recent scholarship has deepened the understanding of transparency in digital procurement systems. Hochstetter et al. (2023) argue that transparency in electronic public procurement plays a critical role in reducing corruption and promoting sustainable development, positioning it not only as a governance principle but also as a mechanism for long-term institutional trust. Similarly, Nguyen (2024) proposes a structured framework to evaluate transparency in public

procurement, offering measurable dimensions for assessing transparency outcomes in digital systems.

However, while Nguyen's framework provides a valuable methodological foundation, it is primarily designed for generalized evaluation and does not sufficiently account for variations in stakeholder perceptions across different stages of the procurement cycle. In the context of developing countries such as Nepal, where institutional capacity and user engagement vary significantly, such dimensions become particularly important.

Adding to this foundation, the present study adopts selected elements of Nguyen's framework—particularly its focus on measurable transparency outcomes—while extending it through stakeholder-based empirical analysis. By incorporating perception-based data and examining transparency across different procurement stages, the study provides a more context-sensitive evaluation of transparency in Nepal's e-GP system.

### **Nepal-Specific Evidence**

Nepal's procurement system has historically faced challenges of opacity, favoritism, and systemic rent-seeking. The Office of the Auditor General Nepal (2020) reported irregularities such as the misuse of contingency expenses and political interference in contract awards, urging for increased transparency in public financial transactions. In response, the Public Procurement Monitoring Office (PPMO) strengthened the e-GP portal, which publishes tenders, contracts, and procurement data to enhance procurement functions. The UNDP Nepal further analyzed how procurement reforms mitigate corruption risks, showing that transparency in e-GP builds public trust and strengthens governance (Timilsina, 2020). These Nepal-specific studies provide empirical grounding for the argument that transparency is the most feasible and visible outcome of digital reforms. Despite this evidence, the specific dimensions of transparency within e-GP systems have not been systematically assessed, particularly in the Nepalese context.

### **Comparative Insights**

Comparative evidence from developing countries reinforces Nepal's experience. In Bangladesh, the introduction of e-procurement has been associated with improved access to procurement opportunities, enhanced transparency, and greater efficiency in public procurement systems (World Bank, 2021, 2023). Similarly, international development institutions highlight that e-procurement systems promote competition, disclosure, overall transparency, and accountability in procurement processes (Asian Development Bank, 2018). These regional comparisons and findings suggest that while digital procurement systems can enhance transparency and

competition, their effectiveness depends on institutional capacity, governance arrangements, and administrative commitment.

However, existing scholarship has provided limited empirical attention to variations in stakeholder perceptions, particularly between contractors and oversight agencies, within developing country contexts such as Nepal. As a result, there remains insufficient understanding of how the implementation of the e-GP system can be further strengthened to enhance transparency and improve overall procurement governance. In response to this gap, the present study empirically examines differences in stakeholder perceptions regarding the contribution of the e-GP system to procurement transparency in Nepal and further identifies policy and reform implications for improving the effectiveness of digital procurement governance.

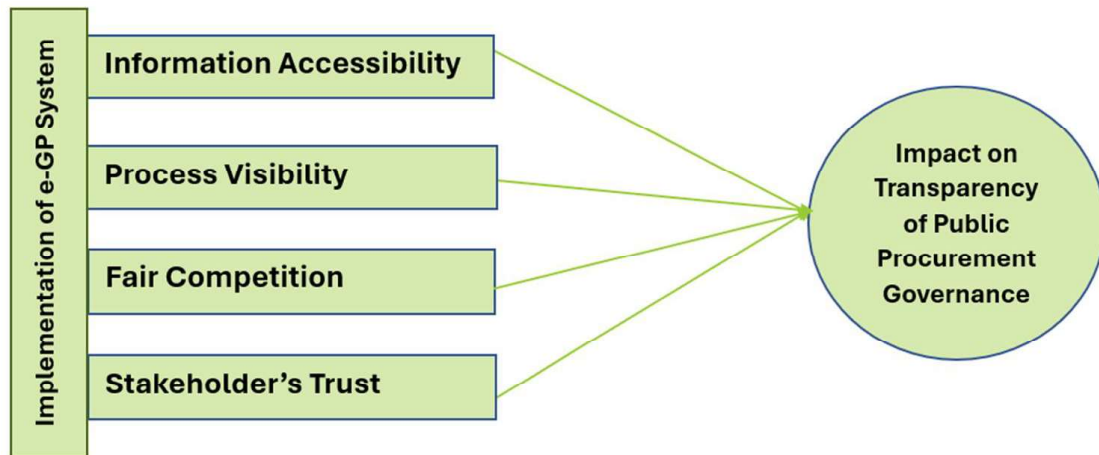
### **Conceptual Research Framework**

The definition of good governance varies across contexts and time, but transparency has consistently been identified as one of its most critical pillars. The World Bank (1992) emphasized that good governance is a necessary complement to sound economic policies, and transparency is central to creating and sustaining equitable development. Similarly, the UNDP (1997) defined governance as the exercise of economic, political, and administrative authority, incorporating transparency as a principle that ensures information is accessible and understandable to the public. Former UN Secretary-General Kofi Annan emphasized that "cost-effective management, efficiency, accountability and transparency" are essential elements for effective governance and institutional performance (Annan, 1999). Recent studies further reinforce that digital governance reforms strengthen transparency, accountability, and institutional trust through improved access to information and open governance practices (Durkiewicz & Janowski, 2021; OECD, 2021).

Within public procurement, transparency means that all stages of the procurement cycle planning, bidding, evaluation, and contract award—are open to scrutiny. The United Nations Office on Drugs and Crime (UNODC) defines transparency as ensuring that information is publicly available and comprehensible, enabling stakeholders to monitor government actions. In the context of Nepal's e-GP system, transparency is operationalized through digital disclosure of procurement notices, bid documents, evaluation criteria, and contract awards. This reduces information asymmetry, curtails collusion, and enhances fairness in competition.

The conceptual research framework for this study was designed by the researcher, with transparency as one of the important dimensions of governance, supported by four questions (see Figure 1).

**Figure 1:** Conceptual Research Framework ( Source: Author)



This framework illustrates how the implementation of Nepal's e-GP system directly influences transparency outcomes in public procurement. By digitizing procurement processes, the system enhances information accessibility, process visibility, fairness in competition, and stakeholder trust. These outcomes collectively strengthen the transparency dimension of good governance (see Figure 1).

In this adapted framework, the implementation of the e-GP system serves as the independent variable, while perceived transparency outcomes—measured through information accessibility, fairness, visibility, and trust—are the dependent variables. Stakeholder groups (government officials, contractors, and oversight agencies) moderate these associations, as their unique perspectives and roles shape how transparency is experienced in practice.

This transparency-focused framework positions e-GP as both a governance tool and a measurable driver of openness in public financial management. By digitizing procurement, Nepal's e-GP system strengthens transparency, which in turn supports accountability, efficiency, and public trust.

The hypotheses of the study are as follows:

**H1:** The e-GP system has a positive influence on information accessibility in public procurement governance.

**H2:** The e-GP system has a positive influence on process visibility in public procurement governance.

**H3:** The e-GP system has a positive influence on fair competition in public procurement governance.

**H4:** The e-GP system has a positive influence on stakeholders' trust in public procurement governance.

## Methodology

### Research Design

A descriptive and analytical research design was adopted to examine how Nepal's e-GP system influences transparency in public procurement governance. The descriptive design helped capture current practices, while the analytical design, through a cross-sectional survey based on perception, identifies the statistical association between e-GP implementation and transparency outcomes of governance.

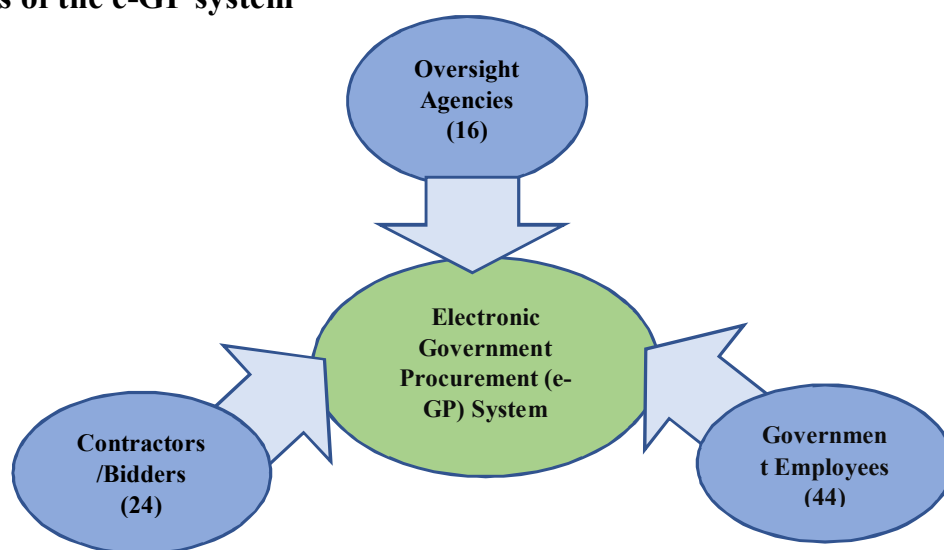
### Population and Sample

The study employed purposive sampling to target stakeholders directly involved in Nepal's electronic government procurement (e-GP) system, including procurement officials, suppliers/contractors, and oversight-related stakeholders (see Figure 2). Due to the specialized institutional nature of the respondent population, the sampling focused on participants with direct operational and policy experience relating to e-GP implementation.

A total of 105 questionnaires were distributed, of which 84 complete responses were received, yielding a response rate of 80%. Although the sample size is relatively modest, such sample sizes are common in exploratory public administration and governance studies involving institution-specific respondents. The sample size was considered adequate for the selected inferential analysis, while acknowledging limitations regarding broader statistical generalizability. Previous studies in governance and e-procurement contexts have similarly employed moderate sample sizes due to the limited accessibility of specialized respondents.

**Figure 2:** Three user groups of an e-GP System (Source: Author)

### Stakeholders of the e-GP system



## **Data Collection**

The survey questionnaire was designed to collect respondents' demographic and professional background information, including age group, respondent category, years of e-procurement experience, and annual participation in e-procurement activities. All responses were anonymized and coded in IBM SPSS Statistics before conducting descriptive statistical analysis.

Data were gathered using a structured Likert-scale questionnaire (1=Strongly Disagree to 5=Strongly Agree). Items focused specifically on transparency outcomes, including:

- Accessibility of procurement information
- Visibility of processes
- Fairness in competition
- Stakeholder trust

Each construct was measured using multiple survey items. Specifically, information accessibility was measured using four items, process visibility using three items, fair competition using three items, and stakeholder trust using one composite perception-based indicator derived from system transparency and usability-related responses. Optional open-ended comments and qualitative responses were also welcomed at the end of the survey questionnaire.

## **Data Analysis**

Responses were analyzed using SPSS software. Statistical techniques included descriptive analysis (Mean), Chi-square tests, and an Analysis of Variance (ANOVA) test to evaluate the hypothesis that e-GP promotes transparency in public procurement governance practices.

## **Validity and Reliability Tests**

Instrument validity was confirmed using the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity. Reliability was assessed using Cronbach's alpha, with the transparency dimension achieving a strong value of 0.812, indicating high internal consistency (see Table 1).

**Table no. 1:** Kaiser-Meyer-Olkin Measure and Bartlett's Test for Transparency

|                                                  |                       |         |
|--------------------------------------------------|-----------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |                       | 0.812   |
| Bartlett's Test of Sphericity                    | Approx.<br>Chi-Square | 298.813 |



|  |      |       |
|--|------|-------|
|  | Df   | 45    |
|  | Sig. | 0.000 |

Source: Author, SPSS

## Results

### Demographic Characteristics of Survey Participants

Government employees constituted the largest proportion of respondents (52.4%), followed by bidders and contractors from non-state actors (28.6%) and personnel from oversight agencies (19.0%). The survey also captured participants with varying levels of engagement with the e-GP system. Around 36.9% of respondents reported using the system more than 15 times annually, while 25.0% utilized it between 5 and 10 times per annum. A further 26.2% reported using the system less than two times annually, and 11.9% denoted usage between 10 and 15 times per year. The diversity in respondent categories and system usage frequency indicates that the study captured a wide range of stakeholder experiences and perceptions regarding the implementation of the e-GP system.

### Survey Results: Stakeholder Perceptions of Transparency in the e-GP System

#### a. Descriptive Statistics

A descriptive analysis was conducted to examine respondents' perceptions of transparency in the e-Government Procurement (e-GP) system across different stakeholder groups. The results are presented in Table 2.

**Table no. 2:** Descriptive Statistics for ANOVA groups

| Dimensions   | Respondent's Category                                 | Mean   | Std. Deviation | N  |
|--------------|-------------------------------------------------------|--------|----------------|----|
| Transparency | Procurement related personnel from procuring entities | 4.0415 | 0.33164        | 41 |
|              | contractor/bidders                                    | 3.8545 | 0.64197        | 22 |
|              | oversight agency personnel                            | 3.7000 | 0.70610        | 15 |
|              | Total                                                 | 3.9231 | 0.52790        | 78 |

Table 2 presents descriptive statistics for transparency perceptions across respondent categories. Procurement-related personnel reported the highest mean score ( $M=4.04$ ,  $SD=0.33$ ), followed by contractors and bidders ( $M=3.85$ ,  $SD=0.64$ ), while oversight agency personnel reported comparatively lower perceptions ( $M=3.70$ ,  $SD=0.71$ ). The overall mean score for transparency was 3.92, indicating generally positive perceptions of transparency-related governance practices across all respondent categories.

These descriptive findings suggest that stakeholders generally perceive the e-GP system as enhancing transparency in public procurement governance through improved accessibility of procurement information, greater process visibility, and more structured disclosure practices. Although perceptions varied slightly among stakeholder groups, the overall responses indicate broadly consistent views regarding the transparency functions of the e-GP system.

### **Friedman Chi-Square and Chi-Square Goodness-of-Fit Test Results**

To further examine the distributional patterns underlying respondents' perceptions of transparency in the e-Government Procurement (e-GP) system, non-parametric tests—including the Friedman Chi-Square test and Chi-Square Goodness-of-Fit tests—were conducted. These tests complement the descriptive analysis by assessing whether observed response patterns significantly deviate from expected distributions.

The Friedman Chi-Square test (Table 3) indicated a statistically significant difference in respondents' rankings of transparency-related indicators,  $\chi^2 (21) = 93.571$ ,  $p < .001$  (see Table 3). This suggests that stakeholders do not perceive all transparency dimensions equally, reflecting variation in perceived importance and effectiveness across indicators.

**Table no. 3:** Friedman Chi-Square Test Results for Transparency

|                                                                                                         |         |
|---------------------------------------------------------------------------------------------------------|---------|
| Chi-Square                                                                                              | 93.571a |
| Df                                                                                                      | 10      |
| Asymp. Sig.                                                                                             | 0.000   |
| a. 10 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 3.8. |         |

Source: Author, SPSS

In addition, Chi-Square Goodness-of-Fit tests were performed for each transparency-related item to determine whether observed response distributions significantly differed from a uniform distribution.

**Table no. 4:** Chi-Square Goodness-of-Fit Test Results for Transparency Measures

| S.N. | Survey Questions                                                                                                                     | Chi-Square | df | Asymp. Sig. |
|------|--------------------------------------------------------------------------------------------------------------------------------------|------------|----|-------------|
| 1    | Public Procurement Act and Public Procurement Regulations as well as other circulars and directives available in e-GP system/website | 162.78a    | 4  | 0.000       |
| 2    | Publication of annual procurement plan is mandatory and accessible to all                                                            | 97.548a    | 4  | 0.000       |
| 3    | Information about procurement is published in the e-GP system in a consistent, timely and user-friendly manner                       | 119.57a    | 4  | 0.000       |
| 4    | Conditions for the participation, selection and award criteria and deadline for submission are established in advance                | 101.23a    | 4  | 0.000       |
| 5    | Provide sufficient time for prospective bidders for the preparation of bids/proposal                                                 | 112.31a    | 4  | 0.000       |
| 6    | Domestic preferences and their requirements are made transparent in 'Invitation of Bids'                                             | 117.19a    | 4  | 0.000       |
| 7    | Complete bidding documents are accessible at real time when published                                                                | 84.452a    | 4  | 0.000       |
| 8    | Bid inquiries including status of bidding process or participates in pre-bid meeting before submission is provided in e-GP           | 91.476a    | 4  | 0.000       |
| 9    | Notification of bid amendment and Opening Minutes (Muchulka) is shared in e-GP system visible for all                                | 67.429b    | 3  | 0.000       |
| 10   | Open discussion forum for procurement issues and bid award details are provided in e-GP                                              | 32.190a    | 4  | 0.000       |

Source: Author, SPSS

All ten transparency indicators in Table 4 showed statistically significant results ( $p < .001$ ), with Chi-Square values ranging from 32.190 to 162.786 (see Table 4). This indicates that respondents' perceptions were not randomly distributed across response categories but instead demonstrated strong directional tendencies.

Specifically, the results suggest that respondents consistently associate the e-GP system with improved transparency outcomes. High levels of agreement were observed across indicators related to the availability of procurement laws and regulatory documents, accessibility of

procurement plans and bidding information, transparency in bid submission and evaluation criteria, timely disclosure of procurement processes and amendments, and the openness of procurement-related communication channels.

These findings align with the descriptive statistics, which indicated generally positive perceptions of transparency across stakeholder groups. The e-GP system has a positive influence on information accessibility, including open access to information regarding procurement laws and decisions, an accessible procurement plan, and proactive disclosure of information in public procurement governance. Furthermore, the e-GP system has a positive influence not only on process visibility but also on fair competition and stakeholders' trust in public procurement governance.

Together, the descriptive and inferential results provide consistent evidence that stakeholders perceive the e-GP system as enhancing transparency in public procurement governance. However, while these tests confirm statistically significant response patterns, they do not in themselves measure causal influence. Therefore, these results are interpreted as evidence of a strong perceived effectiveness of the e-GP system in promoting transparency, rather than a direct causal impact.

**Table no. 5:** Tests of Between-Subjects Effects

| Tests of Between-Subjects Effects (One Way ANOVA within MANOVA framework) |              |                         |    |             |       |       |                     |
|---------------------------------------------------------------------------|--------------|-------------------------|----|-------------|-------|-------|---------------------|
| Source                                                                    |              | Type III Sum of Squares | Df | Mean Square | F     | Sig.  | Partial Eta Squared |
| Corrected Model                                                           | Transparency | 1.424 <sup>a</sup>      | 2  | 0.712       | 2.666 | 0.046 | 0.066               |

Source: Author, SPSS

To further examine whether perceptions of transparency differed significantly across stakeholder groups, an One Way Analysis of Variance (ANOVA) was conducted. The Tests of Between-Subjects Effects revealed a statistically significant difference in transparency perceptions across respondent categories,  $F(2, 75) = 2.666$ ,  $p = .046$ , partial  $\eta^2 = .066$  (see table 5).

The findings indicate that perceptions of transparency varied moderately among procurement personnel, bidders and contractors, and oversight agencies. The effect size suggests a moderate practical impact, implying that a stakeholder's position within the procurement system influences their perception of transparency-related governance outcomes associated with the e-GP system. Overall, the results suggest that the e-GP system is positively perceived as a

mechanism for strengthening transparency in public procurement governance, particularly regarding information accessibility, procedural openness, and disclosure practices.

### **Stakeholder Concerns Regarding Procedural Transparency**

In addition to the quantitative survey findings, survey respondents highlighted several operational and procedural shortcomings within the e-GP system through open-ended comments and qualitative responses. Although stakeholders generally perceived improvements in transparency and systemic information accessibility, recurring concerns were identified regarding the limited traceability of procurement decisions, insufficient debriefing for unsuccessful bidders, and weaknesses during the contract-awarding and implementation stages.

Many respondents suggested that while procurement information is increasingly available through the e-GP platform, the system remains comparatively weaker in ensuring end-to-end transparency throughout the procurement process. In particular, concerns were raised regarding the limited visibility of post-evaluation decision-making processes and inadequate communication mechanisms following bid evaluations. These findings suggest that the procedural and participatory dimensions of procurement governance remain less developed than formal information disclosure practices.

### **Discussion of Findings, Implications, and Recommendations**

The findings suggest that Nepal's electronic government procurement (e-GP) system has contributed to strengthening transparency in public procurement governance by improving the availability, accessibility, and standardization of procurement-related information. The digitization of procurement processes has reduced information asymmetry between stakeholders and enhanced procedural openness through the systematic publication of bid invitations, procurement plans, and contract award information. These developments indicate that e-GP implementation has played a significant role in reducing discretionary spaces in procurement administration.

These outcomes are consistent with Rotchanakitumnuai (2013), who argues that electronic procurement systems promote governance transparency by minimizing direct interaction between procurement officials and bidders, and by standardizing procurement documentation and procedures. In the context of Nepal, the e-GP system appears to have contributed to institutionalizing rule-based procurement practices, thereby strengthening transparency as well as procedural accountability.

The analysis further indicates that transparency improvements are most evident in three interrelated dimensions. First, improved accessibility of procurement information has enabled

stakeholders to better monitor procurement activities and understand procedural requirements, which has directly supported H1: The e-GP system has a positive influence on information accessibility. Second, increased visibility of procurement documents and processes has enhanced traceability and predictability across key stages of implementation, which confirmed positive support for H2: The e-GP system has a positive influence on process visibility. Third, more open access to bidding opportunities has contributed to perceptions of fair competition by reducing opportunities for collusion and preferential treatment, which supported H3: The e-GP system has a positive influence on fair competition. Overall, the evidence indicates that e-GP implementation has contributed to the institutional strengthening of transparency across core procurement functions in Nepal, particularly in information accessibility, procedural visibility, and competitive fairness.

However, the findings also reveal important limitations in the depth and consistency of transparency reforms. Despite improvements in formal information disclosure, gaps remain in ensuring end-to-end transparency across the procurement cycle. In particular, weaknesses in traceability during and after tender evaluation and contract awarding stages, limited stakeholder engagement, and the absence of structured debriefing mechanisms for unsuccessful bidders continue to constrain the full realization of transparency. Despite these limitations, observations such as "the notification of bid amendment and opening minutes (Muchulka) is shared in the e-GP system and visible for all" and "having an open discussion forum for procurement issues and bid award details" provided influential support for H4: The e-GP system has a positive influence on stakeholders' trust.

These findings are consistent with McPherson and Mac Searraigh (2007), who identify tender evaluation and contract award phases as high-risk points for opacity and corruption in public procurement systems. These results suggest that while the e-GP system has significantly improved procedural transparency, its effectiveness in ensuring comprehensive accountability remains uneven across procurement stages. This indicates that transparency in digital procurement systems is not solely a technological outcome but is fundamentally dependent on institutional design and administrative practices.

From a policy perspective, these findings denote that strengthening transparency requires both technological enhancement and institutional reform. Integrating audit trails and automated disclosure mechanisms across procurement stages would improve traceability and accountability. Establishing formal debriefing systems for unsuccessful bidders and implementing stakeholder feedback mechanisms would enhance procedural fairness. Furthermore, integrating e-GP systems with financial management and banking platforms could reduce opportunities for financial irregularities and strengthen end-to-end transaction transparency.

## **Conclusion**

This study examined the role of Nepal's e-Government Procurement (e-GP) system in strengthening transparency within public procurement governance. The findings imply that the e-GP system has contributed to improving access to procurement information, enhancing the visibility of procurement processes, and promoting perceptions of fair competition among stakeholders. Overall, the results suggest that digital procurement reform has played an important role in reducing information asymmetry and strengthening transparency-related governance outcomes in Nepal's public procurement system.

The statistical analysis further supports the existence of strong positive perceptions regarding the transparency-enhancing effects of the e-GP system. However, the findings also indicate that improvements are not uniform across all stakeholders and stages of the procurement cycle, with procedural transparency remaining weaker in comparison to information accessibility and disclosure mechanisms. This highlights the continued importance of institutional and administrative strengthening to fully realize the potential of digital procurement reforms.

From a theoretical perspective, this study contributes to the growing literature on e-governance and public procurement reform by demonstrating how digital systems influence transparency outcomes within a developing country context like Nepal. It reinforces the view that transparency is not solely a technological outcome but is shaped by institutional capacity, administrative practices, and stakeholder engagement.

Several shortcomings should be acknowledged. First, the study is based on cross-sectional survey data, which limits the ability to capture changes in transparency outcomes over time. Second, the sample size, although diverse across stakeholder groups, remains relatively limited and may not fully represent all actors involved in Nepal's procurement system. Third, the study primarily relies on perceptual data, which may be influenced by respondent subjectivity.

Future research could address these limitations by adopting longitudinal research designs to examine transparency outcomes over time. Comparative studies across different national contexts could also provide deeper insights into how institutional environments influence e-GP effectiveness. Additionally, future studies could incorporate broader qualitative stakeholder engagement and explore the integration of e-GP systems with financial management and post-contract monitoring systems to better understand end-to-end procurement transparency.

## **Acknowledgement**

The author would like to express sincere gratitude to respected mentors and well-wishers for their invaluable guidance and encouragement. Profound appreciation is extended for the invaluable support of the stakeholders of the e-GP system during the survey phase of this

research; their shared experiences, opinions, and expertise have immensely influenced and guided the author's policy learning. Similarly, the author would like to honor the Government of Nepal and the Government of Japan for providing the precious opportunity of the JDS scholarship to study for a Master's degree in Japan, where this research was completed. The views expressed in this study are the author's own and do not represent any organization.

## References

- Annan, K. (1999). Cost-effective management, efficiency, accountability, transparency: Keys to a healthy United Nations system. United Nations.
- Asian Development Bank. (2018). E-procurement guidance note.  
<https://www.adb.org/sites/default/files/eprocurement.pdf>
- Durkiewicz, J., & Janowski, T. (2021). Is digital government advancing sustainable governance? A study of OECD/EU countries. *Sustainability*, 13(24), 13603.  
<https://doi.org/10.3390/su132413603>
- Government of Nepal. (2007). Public Procurement Act and Regulation, 2007.  
[https://ppmo.gov.np/image/data/files/PPA%20Ammendment/Public%20Procurement%20Regulation%20\(Final\).pdf](https://ppmo.gov.np/image/data/files/PPA%20Ammendment/Public%20Procurement%20Regulation%20(Final).pdf)
- Hochstetter, J., Vásquez, F., Diéguez, M., Bustamante, A., & Arango-López, J. (2023). Transparency and e-government in electronic public procurement as sustainable development. *Sustainability*, 15(5), 4672. <https://doi.org/10.3390/su15054672>
- Islam, Z., & Mahbub, M. A. (2015, June 29). How digital public procurement has transformed Bangladesh. World Bank Blogs.  
<https://blogs.worldbank.org/en/endpovertyinsouthasia/how-digital-public-procurement-has-transformed-bangladesh>
- McPherson, M., & Mac Searraigh, S. (2007). Corruption in the procurement process/outsourcing government functions: Issues, case studies, implications. World Bank.
- Neupane, A., Soar, J., Vaidya, K., & Yong, J. (2012). Role of public e-procurement technology to reduce corruption in government procurement. In *Proceedings of the International Conference on Public Procurement*.
- Nguyen, D. T. M. (2024). A framework to evaluate transparency in public e-procurement. In *Ethics and innovation in public administration* (pp. 165–182). Springer.  
[https://doi.org/10.1007/978-3-031-67900-1\\_8](https://doi.org/10.1007/978-3-031-67900-1_8)
- Office of the Auditor General Nepal. (2020). Annual report. <https://oag.gov.np>



- Organisation for Economic Co-operation and Development. (2021). The e-leaders handbook on the governance of digital government. OECD Publishing. <https://doi.org/10.1787/ac7f2531-en>
- Organisation for Economic Co-operation and Development. (2025). Government procurement spending as share of GDP. Our World in Data. <https://ourworldindata.org/government-spending>
- Public Procurement Monitoring Office Nepal. (n.d.). Bolpatra e-GP system. <https://bolpatra.gov.np>
- Rotchanakitumnuai, S. (2013). The governance evidence of e-government procurement. *Transforming Government: People, Process and Policy*, 7(3), 309–321. <https://doi.org/10.1108/TG-01-2013-0004>
- Timilsina, A. (2020). Procurement reform to mitigate corruption risks in Nepal. United Nations Development Programme Nepal. <https://nepalpolicyinstitute.org/procurement-reform-to-mitigate-corruption-risks-in-procurement-processes-in-nepal-good-practices-and-lessons-learned/>
- Transparency International. (2024). Public procurement. <https://www.transparency.org/en/our-priorities/public-procurement>
- Transparency International. (2025). Corruption perceptions index 2024. <https://www.transparency.org/en/publications/corruption-perceptions-index-2024>
- United Nations Development Programme. (1997). Governance for sustainable human development: A UNDP policy document. [https://digitallibrary.un.org/record/492551/files/DP\(09\)H9181-\\_PDF.pdf](https://digitallibrary.un.org/record/492551/files/DP(09)H9181-_PDF.pdf)
- United Nations Office on Drugs and Crime. (2013). Guidebook on anti-corruption in public procurement and the management of public finances: Good practices in ensuring compliance with Article 9 of the United Nations Convention against Corruption. United Nations. [https://www.unodc.org/documents/corruption/Publications/2013/Guidebook\\_on\\_anti-corruption\\_in\\_public\\_procurement\\_and\\_the\\_management\\_of\\_public\\_finances.pdf](https://www.unodc.org/documents/corruption/Publications/2013/Guidebook_on_anti-corruption_in_public_procurement_and_the_management_of_public_finances.pdf)
- World Bank. (1992). Governance and development. <https://documents.worldbank.org>
- World Bank. (2021). E-procurement reform in Bangladesh. <https://thedocs.worldbank.org/en/doc/115291611673413993-0090022021/original/eProcurementReforminBangladesh.pdf>
- World Bank. (2023). Introducing e-procurement in Bangladesh: The promise of efficiency and openness (Policy Research Working Paper No. 10390).

<https://openknowledge.worldbank.org/server/api/core/bitstreams/df9024de-93d1-4f90-8b09-5c0bec45cf6c/content>

World Bank Group. (2020). Global public procurement database: Share, compare, improve!

<https://www.worldbank.org/en/news/feature/2020/03/23/global-public-procurement-database-share-compare-improve->