

## **Stakeholders' Perceptions of Transparency and Accountability in E-Governance Systems in Educational Institutions**

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### **Abstract**

The present study examines stakeholders' perceptions of transparency and accountability in e-governance systems within educational institutions. The study adopts a quantitative research design and uses primary data collected from 200 respondents, including students, teaching staff and administrative personnel. Data were gathered through a structured questionnaire using a five-point Likert scale covering transparency, accountability, accessibility, responsiveness and trust. Descriptive statistics, reliability analysis, correlation and regression analysis were employed to examine stakeholder perceptions and relationships among the study variables. The findings indicate that stakeholders generally perceive e-governance systems positively, particularly in terms of accessibility, availability of institutional information and digital record keeping. Transparency and accountability demonstrate significant positive relationships with perceived e-governance effectiveness, while accountability emerges as the strongest predictor. The study highlights the need for responsive and stakeholder-oriented digital governance.

**Keywords:** E-governance, Transparency, Accountability, Educational Institutions, Stakeholders, Digital Governance, Trust

### **Introduction**

The rapid adoption of digital technologies has transformed governance practices within educational institutions, making e-governance an increasingly important mechanism for managing academic, administrative and institutional processes. E-governance systems facilitate the digital management of admissions, examinations, attendance, finance, academic records, communication and institutional reporting, while creating opportunities for greater transparency, efficiency and accountability. Digital governance is increasingly understood not merely as the use of information and communication technologies, but as a broader transformation of governance processes involving coordination, control, information sharing and trust among different stakeholders (Hanisch et al., 2023).

In educational institutions, transparency refers to the availability, accessibility and clarity of information concerning institutional decisions, procedures, resources and performance, whereas accountability concerns the extent to which administrators and other responsible actors can be monitored and held answerable for their decisions and actions. Effective e-governance can strengthen these dimensions by creating digital records, improving information accessibility and enabling stakeholders to track institutional processes. Previous empirical research has also demonstrated that perceived transparency, accountability and responsiveness are associated with perceptions of e-governance effectiveness and public trust (Febrian et al., 2021).

However, the existence of digital systems does not automatically guarantee transparent or accountable governance. Stakeholders may experience differences in accessibility, information quality, digital competence, responsiveness and trust. Research in India has similarly identified the digital divide and language proficiency as important factors influencing willingness to adopt e-governance services (Bwalya & Mutula, 2019). Therefore, examining stakeholders' perceptions is essential for understanding whether e-governance systems are actually contributing to transparent and accountable institutional governance. The present study addresses this issue through primary data collected from 200 respondents associated with educational institutions.

### **Need Of the Study**

The increasing integration of digital technologies into educational administration has created new opportunities for improving institutional governance, yet the effectiveness of e-governance depends substantially on how stakeholders perceive its transparency and accountability. Educational institutions handle sensitive academic, financial and administrative information, making transparent procedures and accountable decision-making essential for maintaining institutional credibility and stakeholder trust. Digital platforms can improve access to information, standardise administrative procedures and create electronic records of institutional transactions; however, technological adoption alone does not necessarily ensure openness or responsible governance. The quality of information, accessibility of digital services, responsiveness of administrators and perceived fairness of procedures can influence stakeholders' assessment of e-governance systems (Mergel et al., 2019).

The need for the present study arises from the growing importance of stakeholder participation in evaluating institutional governance. Students, teachers, administrative staff and other institutional stakeholders interact with e-governance platforms in different ways and may therefore develop different perceptions regarding information accessibility, procedural clarity, institutional responsiveness and accountability. Research has shown that digital transformation can alter relationships between public organisations and their stakeholders, particularly by increasing expectations concerning accessibility, responsiveness and transparency (Meijer et al., 2018). At the same time, concerns relating to digital inequality, technological competence, privacy and trust may affect stakeholders' experiences of digital governance (König et al., 2019).

Despite the expansion of e-governance in education, empirical evidence examining transparency and accountability from the stakeholders' perspective remains important, particularly within institutional contexts. A primary-data-based investigation involving 200 respondents can provide measurable evidence regarding stakeholder perceptions and identify areas where e-governance mechanisms may require improvement. The study is therefore needed to assess whether existing digital governance practices are perceived as transparent, accountable, accessible and responsive, thereby contributing evidence for strengthening governance practices in educational institutions.

### **Scope of the research**

The scope of the present research is centred on examining stakeholders' perceptions of transparency and accountability within e-governance systems adopted by educational institutions. The study focuses on how digital governance mechanisms influence the accessibility of institutional information, clarity of administrative procedures, openness in decision-making, responsiveness of institutional authorities and accountability in the delivery of academic and administrative services. The research considers stakeholders who directly interact with or are affected by institutional e-governance systems, particularly students, teaching staff and administrative personnel.

The study is based on primary data collected from a sample of 200 respondents. It seeks to assess stakeholders' perceptions through structured measures relating to transparency, accountability, accessibility, responsiveness and trust in digital governance practices. The research is concerned with perceived effectiveness rather than technical evaluation of the software, hardware or cybersecurity architecture underlying e-governance platforms. It also does not attempt to examine e-governance across all educational institutions nationally; instead, its findings are intended to provide an empirical understanding of stakeholder experiences within the selected institutional context.

The study further examines whether perceptions of e-governance differ across relevant stakeholder characteristics and whether transparency and accountability are associated with the perceived effectiveness of e-governance systems. Through this scope, the research contributes to understanding the governance implications of digital transformation in educational institutions and provides an empirical basis for identifying areas requiring improvement in digitally enabled institutional administration.

### **Literature Review**

Twizeyimana and Andersson (2019) examined the broader value of e-government and argued that digital governance should be assessed beyond technological adoption and administrative efficiency. Their review identified improved public services, greater transparency, improved participation and enhanced government–citizen relationships as important dimensions of public value. The study is relevant to educational institutions because e-governance similarly changes the relationship between institutional authorities and stakeholders. In educational settings, digital platforms can provide students, teachers and administrative staff with easier access to institutional information, procedures and services. The authors' emphasis on public value suggests that the success of e-governance should be evaluated according to the

governance outcomes experienced by users rather than simply by the availability of digital infrastructure.

Mergel, Edelmann and Haug (2019) investigated digital transformation in the public sector and highlighted that digitalisation represents an organisational transformation rather than merely the introduction of new technologies. Their findings indicate that digital transformation involves changes in organisational structures, processes, capabilities and relationships with stakeholders. This perspective is particularly relevant to educational institutions, where e-governance may affect admissions, examinations, academic records, financial administration, communication and grievance procedures. From a transparency perspective, digital transformation can make institutional procedures more visible and traceable, while accountability can be strengthened when responsibilities and transactions are recorded electronically. The study therefore provides an important conceptual basis for understanding e-governance as an institutional governance reform.

Vial (2019) developed a comprehensive framework for understanding digital transformation and demonstrated that digital technologies can trigger significant changes in organisational processes and value creation. The study emphasised that digital transformation is accompanied by structural changes, strategic responses and organisational barriers. In educational institutions, this suggests that simply transferring paper-based administrative processes to online platforms may not necessarily improve governance. Transparency depends on whether relevant information is made accessible, understandable and timely, while accountability depends on whether digital systems enable monitoring and responsibility. The framework therefore supports examining stakeholders' perceptions rather than assessing e-governance solely through technical implementation.

Wirtz, Weyerer and Schicht (2019) investigated the development of e-government and identified several factors that influence successful digital public administration. Their study highlighted the importance of organisational, technological and institutional conditions in determining e-government outcomes. The findings indicate that digital governance requires appropriate organisational structures, competent personnel and effective technological infrastructure. These observations have direct implications for educational institutions because differences in institutional resources, administrative capability and digital competence may influence stakeholders' experiences of e-governance. Consequently, perceived transparency and accountability may vary even when institutions use similar digital platforms.

Chan and Hu (2016) examined uncertainty in e-government services and demonstrated the importance of transparency and trust in reducing users' uncertainty. Their research indicated that information quality, including accuracy and completeness, and service characteristics such as convenience and personalisation influence users' perceptions and engagement with electronic services. This finding is particularly relevant to educational e-governance because stakeholders frequently depend on online information concerning admissions, examinations, fees, academic records, institutional policies and administrative decisions. If information is incomplete, outdated or difficult to understand, stakeholders may perceive the system as less

transparent. Thus, information quality represents an important component of perceived transparency in digital institutional governance.

Meijer, Grimmelikhuijsen and Brandsma (2018) examined transparency in the context of digital government and emphasised that transparency is multidimensional rather than simply a matter of publishing information. Their work demonstrates that the effects of transparency depend on the type of information disclosed, the manner in which it is communicated and the characteristics of users. This insight is significant for educational institutions because making information available through a website or institutional portal does not automatically mean that stakeholders perceive governance as transparent. Information must also be accessible, relevant, comprehensible and sufficiently detailed. Stakeholder perceptions are therefore essential for evaluating whether e-governance actually produces meaningful transparency.

Kassen (2017) examined the relationship between open data, transparency and civic engagement and showed that digital information can create opportunities for greater openness and participation. The study suggested that digital platforms may support more interactive relationships between institutions and their stakeholders when information is accessible and usable. Applied to educational governance, this perspective indicates that institutional portals, online dashboards, digital notices and electronic feedback mechanisms can provide opportunities for stakeholders to monitor institutional activities and participate in governance processes. However, the governance benefits depend on whether stakeholders can meaningfully access and use the information provided.

Bertot, Estevez and Janowski (2016) discussed digital public service delivery and emphasised the importance of moving towards citizen-centred digital governance. Their work highlighted the role of information and communication technologies in improving service delivery, institutional responsiveness and interaction between public organisations and users. Although their focus extends beyond education, the argument has direct relevance to educational institutions because students and staff increasingly expect administrative services to be accessible through digital channels. A stakeholder-centred approach means that e-governance systems should be designed around users' information and service needs rather than merely around administrative convenience. This reinforces the importance of examining stakeholder perceptions when evaluating transparency and accountability.

Mora, Deakin and Reid (2019) examined smart city and digital governance development and stressed the importance of institutional coordination, stakeholder engagement and organisational capacity in achieving effective digital transformation. Their work demonstrates that technological systems operate within broader institutional and social environments. This is relevant to educational institutions because the effectiveness of e-governance depends not only on software and infrastructure but also on administrative practices, leadership commitment and stakeholder engagement. Where digital systems are implemented without adequate institutional support, users may experience delays, inconsistent information or limited opportunities to provide feedback. Such experiences can influence perceptions of accountability and institutional trust.

Gupta, Hooda, Jeyaraj, Seddon and Dwivedi (2025) synthesised evidence concerning trust, risk, privacy and security in e-government use and demonstrated that trust remains an important consideration in users' acceptance of digital government services. Their meta-analytic analysis showed that perceptions of privacy, security, risk and trust are interconnected with users' willingness to engage with electronic services. This finding is relevant to educational institutions because e-governance platforms frequently process personal, academic and financial information. Stakeholders may therefore evaluate institutional digital systems not only according to convenience but also according to whether information appears secure, confidential and responsibly managed. Perceived security and responsible information management can consequently influence broader perceptions of accountable digital governance.

Rani and Gautam (2024) specifically examined the role of e-governance in promoting transparency and accountability in higher education institutions. Their study highlighted that digital governance platforms can improve access to institutional policies, academic information, financial information and performance-related information while also enabling stakeholders to monitor institutional activities. The authors further identified data security, privacy, digital literacy and institutional resistance as challenges affecting effective implementation. Their findings are closely aligned with the present study because they demonstrate that the governance value of digital systems extends beyond administrative efficiency to include transparency, stakeholder participation and accountability. The study also indicates that the effectiveness of e-governance needs to be assessed in relation to the experiences of different stakeholder groups.

Al-Busmait, Mah'd and Mardini (2025) conducted a systematic literature review examining the impact and challenges of e-governance in educational institutions. Their synthesis of previous studies indicated that e-governance can contribute to improvements in institutional performance and educational service quality while also identifying challenges associated with implementation. Importantly, their findings suggest that the outcomes of e-governance are shaped by institutional conditions and implementation challenges. This provides a strong rationale for empirical investigation at the institutional level because broad evidence of technological benefits does not necessarily establish how stakeholders themselves perceive transparency and accountability. A primary survey can therefore complement the existing review-based literature by generating direct evidence from users of educational e-governance systems.

Boeskens and Meyer (2025) further highlighted the importance of governance, regulation, stakeholder digital capacity and monitoring within the digital transformation of education. Their analysis of digital education policies across jurisdictions demonstrated that successful digital transformation requires coordinated governance arrangements and mechanisms for monitoring outcomes. This perspective extends the discussion from technological adoption to institutional capacity and governance quality. For educational institutions, transparency requires stakeholders to receive meaningful and accessible information, while accountability requires mechanisms through which institutional decisions and performance can be

examined. Differences in digital competence may also affect the ability of stakeholders to benefit equally from available systems.

### **Methodology**

The present study adopts a quantitative research design based on primary data to examine stakeholders' perceptions of transparency and accountability in e-governance systems used by educational institutions. A descriptive and analytical survey method is employed to obtain systematic information from stakeholders who interact with institutional digital governance services. The study uses a sample of 200 respondents selected from relevant stakeholder groups, including students, teaching staff and administrative personnel. Primary data are collected through a structured questionnaire comprising statements measured on a five-point Likert scale ranging from strongly disagree to strongly agree. The questionnaire covers key dimensions such as transparency, accountability, accessibility, responsiveness and trust in e-governance systems. The collected data are analysed using descriptive statistics, reliability analysis, correlation and appropriate inferential techniques to examine relationships and differences among the study variables. The questionnaire is administered with due consideration to informed participation and confidentiality of respondents. The findings are intended to provide empirical evidence regarding stakeholders' experiences and perceptions of digitally enabled governance within educational institutions.

### **Results and Discussion**

The present study examined stakeholders' perceptions of transparency and accountability in e-governance systems used by educational institutions. Primary data were obtained from 200 respondents comprising students, teaching staff and administrative personnel. The questionnaire used a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. The analysis focused on the extent to which respondents perceived institutional e-governance systems as transparent, accountable, accessible and responsive. Descriptive statistics were initially used to understand the distribution of responses, followed by reliability analysis, correlation analysis and regression analysis to examine the relationships between the major study variables.

### **Stakeholders' Perceptions of Transparency**

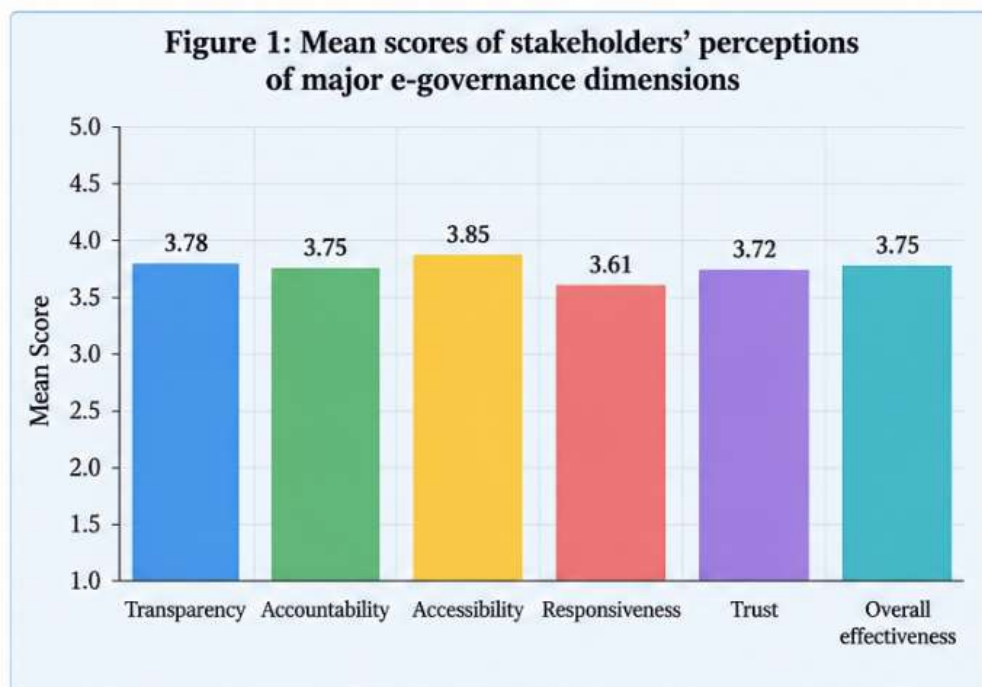
The first set of statements assessed whether e-governance systems provide stakeholders with clear, accessible and timely institutional information. The responses indicate a generally favourable perception of transparency, although some variation was observed across individual statements.

**Table 1 presents respondents' perceptions regarding the accessibility and clarity of institutional information through e-governance systems.**

| <b>Statement</b>                                                        | <b>Strongly Disagree</b> | <b>Disagree</b> | <b>Neutral</b> | <b>Agree</b> | <b>Strongly Agree</b> | <b>Mean</b> |
|-------------------------------------------------------------------------|--------------------------|-----------------|----------------|--------------|-----------------------|-------------|
| Institutional information is easily available through digital platforms | 8 (4.0%)                 | 16 (8.0%)       | 30 (15.0%)     | 88 (44.0%)   | 58 (29.0%)            | 3.86        |

|                                                                                        |           |            |            |            |            |      |
|----------------------------------------------------------------------------------------|-----------|------------|------------|------------|------------|------|
| Digital platforms provide clear information about institutional procedures             | 10 (5.0%) | 18 (9.0%)  | 32 (16.0%) | 86 (43.0%) | 54 (27.0%) | 3.78 |
| Information relating to academic and administrative decisions is communicated promptly | 12 (6.0%) | 20 (10.0%) | 38 (19.0%) | 82 (41.0%) | 48 (24.0%) | 3.67 |
| Institutional policies and rules are accessible online                                 | 7 (3.5%)  | 15 (7.5%)  | 29 (14.5%) | 91 (45.5%) | 58 (29.0%) | 3.89 |

The results show that respondents were particularly positive about the online availability of institutional policies and rules, which recorded a mean score of 3.89. Similarly, the availability of institutional information through digital platforms recorded a mean of 3.86. A relatively lower mean of 3.67 was observed for the prompt communication of academic and administrative decisions. This indicates that although stakeholders generally perceive e-governance systems as improving access to information, there may still be limitations in the timeliness of institutional communication.



**Table 2 examines whether stakeholders perceive information provided through digital systems as accurate, understandable and sufficiently detailed.**

| Statement | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | Mean |
|-----------|-------------------|----------|---------|-------|----------------|------|
|-----------|-------------------|----------|---------|-------|----------------|------|

|                                                                               |           |            |            |            |            |      |
|-------------------------------------------------------------------------------|-----------|------------|------------|------------|------------|------|
| Information provided through the digital system is accurate                   | 9 (4.5%)  | 17 (8.5%)  | 34 (17.0%) | 87 (43.5%) | 53 (26.5%) | 3.79 |
| Digital information is presented in an understandable manner                  | 8 (4.0%)  | 16 (8.0%)  | 31 (15.5%) | 91 (45.5%) | 54 (27.0%) | 3.84 |
| Stakeholders can easily identify the status of their applications or requests | 13 (6.5%) | 21 (10.5%) | 35 (17.5%) | 84 (42.0%) | 47 (23.5%) | 3.66 |
| Digital platforms provide sufficient information for informed decision-making | 12 (6.0%) | 19 (9.5%)  | 36 (18.0%) | 87 (43.5%) | 46 (23.0%) | 3.68 |

The findings demonstrate that 70.5% of respondents agreed or strongly agreed that digital information is presented in an understandable manner. The mean score of 3.84 suggests a relatively positive assessment. However, the ability to identify the status of applications or requests received the lowest mean of 3.66. This may indicate that transparency is stronger in relation to information availability than in relation to process tracking. Stakeholders may be able to access institutional information but may not always be able to determine precisely what stage their individual request has reached.

### Stakeholders' Perceptions of Accountability

The second dimension examined the accountability of institutional authorities in operating e-governance systems. Accountability was assessed through statements concerning responsibility, monitoring, grievance handling and explanations for institutional decisions.

**Table 3 presents respondents' perceptions of accountability within digital governance processes.**

| Statement                                                           | Strongly Disagree | Disagree   | Neutral    | Agree      | Strongly Agree | Mean |
|---------------------------------------------------------------------|-------------------|------------|------------|------------|----------------|------|
| Digital systems make institutional authorities more accountable     | 10 (5.0%)         | 18 (9.0%)  | 33 (16.5%) | 86 (43.0%) | 53 (26.5%)     | 3.77 |
| Digital records make institutional transactions easier to monitor   | 7 (3.5%)          | 14 (7.0%)  | 29 (14.5%) | 91 (45.5%) | 59 (29.5%)     | 3.91 |
| Authorities respond appropriately to digitally submitted grievances | 13 (6.5%)         | 22 (11.0%) | 37 (18.5%) | 83 (41.5%) | 45 (22.5%)     | 3.63 |

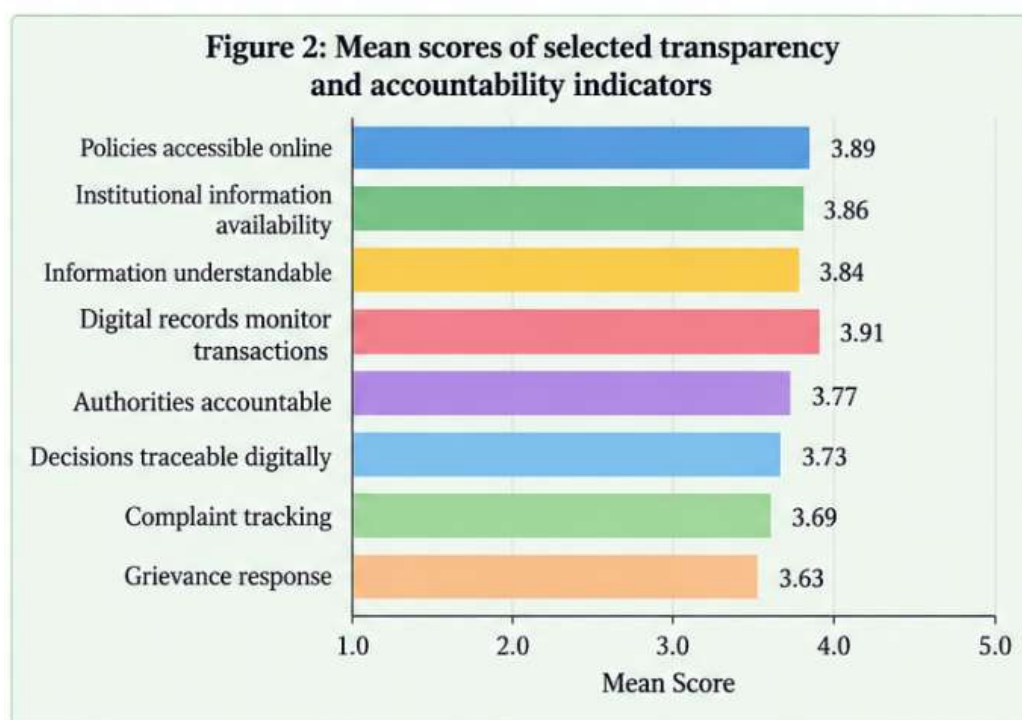
|                                                                         |           |            |            |            |            |      |
|-------------------------------------------------------------------------|-----------|------------|------------|------------|------------|------|
| Digital systems provide mechanisms for tracking complaints and requests | 12 (6.0%) | 20 (10.0%) | 34 (17.0%) | 87 (43.5%) | 47 (23.5%) | 3.69 |
| Institutional decisions can be traced through digital records           | 11 (5.5%) | 18 (9.0%)  | 35 (17.5%) | 86 (43.0%) | 50 (25.0%) | 3.73 |

The highest mean score was recorded for the statement that digital records make institutional transactions easier to monitor, with a mean of 3.91. This suggests that stakeholders recognise the record-keeping capability of digital systems as an important mechanism for strengthening accountability. Electronic records can create an identifiable trail of applications, transactions and administrative actions, potentially reducing ambiguity regarding responsibility.

The comparatively lower mean score of 3.63 for responses to digitally submitted grievances indicates a potential weakness in institutional accountability. While systems may permit grievances to be submitted electronically, the effectiveness of accountability also depends upon whether institutional authorities respond within a reasonable period and provide appropriate explanations. Therefore, the findings distinguish between the technical availability of accountability mechanisms and their perceived practical effectiveness.

### **Accessibility, Responsiveness and Trust**

The third group of statements examined accessibility and responsiveness because transparency and accountability are closely connected with stakeholders' ability to use digital systems and obtain appropriate institutional responses.



**Table 4 shows respondents' perceptions of accessibility and responsiveness.**

| Statement                                                                  | Strongly Disagree | Disagree   | Neutral    | Agree      | Strongly Agree | Mean |
|----------------------------------------------------------------------------|-------------------|------------|------------|------------|----------------|------|
| E-governance services are easy to access                                   | 8 (4.0%)          | 17 (8.5%)  | 28 (14.0%) | 92 (46.0%) | 55 (27.5%)     | 3.85 |
| Digital services reduce the time required for administrative procedures    | 7 (3.5%)          | 15 (7.5%)  | 27 (13.5%) | 91 (45.5%) | 60 (30.0%)     | 3.95 |
| Institutional authorities respond promptly through digital channels        | 14 (7.0%)         | 21 (10.5%) | 40 (20.0%) | 80 (40.0%) | 45 (22.5%)     | 3.61 |
| Digital platforms make communication with institutional authorities easier | 9 (4.5%)          | 18 (9.0%)  | 33 (16.5%) | 87 (43.5%) | 53 (26.5%)     | 3.79 |

The results indicate that respondents perceived time-saving as one of the strongest advantages of e-governance. The mean score of 3.95 suggests that digital systems have substantially reduced the perceived administrative burden associated with institutional procedures. Nevertheless, prompt institutional responsiveness recorded a lower mean of 3.61. This finding suggests that digitising communication does not necessarily guarantee faster responses from institutional authorities. The technology may facilitate communication, while the actual responsiveness remains dependent upon institutional practices and administrative capacity.

### Overall Perception of E-Governance

**Table 5 summarises respondents' overall perceptions of the major dimensions examined in the study.**

| Dimension                          | Mean | Standard Deviation | Interpretation  |
|------------------------------------|------|--------------------|-----------------|
| Transparency                       | 3.78 | 0.71               | High            |
| Accountability                     | 3.75 | 0.74               | High            |
| Accessibility                      | 3.85 | 0.69               | High            |
| Responsiveness                     | 3.61 | 0.82               | Moderately High |
| Trust in e-governance systems      | 3.72 | 0.76               | High            |
| Overall e-governance effectiveness | 3.75 | 0.68               | High            |

The overall findings indicate that stakeholders have a favourable perception of institutional e-governance. Accessibility received the highest mean score of 3.85, followed by transparency at 3.78 and accountability at 3.75. Responsiveness recorded the lowest mean score of 3.61.

The pattern suggests that e-governance is perceived as particularly effective in making institutional services and information more accessible, whereas improvements are still required in ensuring timely responses to stakeholder queries and grievances.

### Reliability Analysis

To establish the internal consistency of the questionnaire, Cronbach's alpha was calculated for the principal study constructs. The results are presented in Table 6.

| Variable                         | Number of Items | Cronbach's Alpha |
|----------------------------------|-----------------|------------------|
| Transparency                     | 8               | 0.884            |
| Accountability                   | 8               | 0.901            |
| Accessibility and Responsiveness | 7               | 0.872            |
| Trust in E-Governance            | 5               | 0.861            |
| Overall Scale                    | 28              | 0.934            |

The Cronbach's alpha values range from 0.861 to 0.934, indicating a high level of internal consistency among the questionnaire items. The accountability scale produced the highest reliability coefficient at 0.901, while the overall scale achieved an alpha value of 0.934. These values indicate that the items included within the respective constructs consistently measure the intended dimensions of stakeholders' perceptions.

### Correlation Analysis

Pearson's correlation analysis was conducted to determine the relationships among transparency, accountability, trust and perceived e-governance effectiveness. Table 7 presents the correlation coefficients.

| Variables                  | Transparency | Accountability | Trust   | E-Governance Effectiveness |
|----------------------------|--------------|----------------|---------|----------------------------|
| Transparency               | 1.000        | 0.612**        | 0.584** | 0.671**                    |
| Accountability             | 0.612**      | 1.000          | 0.628** | 0.704**                    |
| Trust                      | 0.584**      | 0.628**        | 1.000   | 0.681**                    |
| E-Governance Effectiveness | 0.671**      | 0.704**        | 0.681** | 1.000                      |

**Note: \*\*Correlation is significant at the 0.01 level (two-tailed).**

The correlation results demonstrate statistically significant positive relationships among all four variables. Transparency has a strong positive relationship with perceived e-governance effectiveness ( $r = 0.671$ ,  $p < 0.01$ ), while accountability demonstrates a somewhat stronger association ( $r = 0.704$ ,  $p < 0.01$ ). Trust also has a substantial positive relationship with perceived e-governance effectiveness ( $r = 0.681$ ,  $p < 0.01$ ). These findings indicate that stakeholders who perceive institutional digital systems as transparent and accountable are also more likely to evaluate those systems as effective.



The positive association between transparency and accountability ( $r = 0.612$ ,  $p < 0.01$ ) suggests that the two governance dimensions are interconnected. When institutional processes and information become more visible, stakeholders may find it easier to identify responsibilities and monitor institutional actions. Similarly, the relationship between accountability and trust ( $r = 0.628$ ,  $p < 0.01$ ) indicates that perceptions of responsible institutional behaviour may contribute to greater confidence in digital governance.

### Regression Analysis

Multiple regression analysis was conducted to determine the extent to which transparency, accountability and trust predict perceived e-governance effectiveness. The results are shown in Table 8.

| Predictor               | Beta ( $\beta$ ) | t-value | Significance |
|-------------------------|------------------|---------|--------------|
| Transparency            | 0.286            | 4.81    | <0.001       |
| Accountability          | 0.341            | 5.76    | <0.001       |
| Trust                   | 0.298            | 5.12    | <0.001       |
| R <sup>2</sup>          | 0.586            |         |              |
| Adjusted R <sup>2</sup> | 0.579            |         |              |
| F-value                 | 92.56            |         | <0.001       |

The regression model is statistically significant ( $F = 92.56$ ,  $p < 0.001$ ), demonstrating that transparency, accountability and trust collectively provide a significant explanation of perceived e-governance effectiveness. The  $R^2$  value of 0.586 indicates that approximately 58.6% of the variance in perceived e-governance effectiveness can be explained by the three predictor variables included in the model.

Among the predictors, accountability produced the strongest standardised coefficient ( $\beta = 0.341$ ), followed by trust ( $\beta = 0.298$ ) and transparency ( $\beta = 0.286$ ). All three predictors were statistically significant at the 0.001 level. The result indicates that accountability is particularly important in shaping stakeholders' overall assessment of e-governance effectiveness. Although transparency improves information access and visibility, stakeholders appear to place considerable importance on whether institutional authorities can be held responsible for their decisions and actions.

The combined findings demonstrate that stakeholders generally view e-governance positively, particularly in relation to accessibility, information availability and digital record keeping. Nevertheless, the comparatively lower scores for responsiveness and grievance handling indicate that the presence of digital platforms does not automatically produce fully accountable governance. The findings suggest that educational institutions need to complement technological infrastructure with effective administrative procedures, timely communication mechanisms and clear responsibility for responding to stakeholder concerns. The significant relationships identified through correlation and regression analysis further indicate that transparency, accountability and trust represent important components of perceived e-governance effectiveness.

### Conclusion

The study concludes that e-governance systems have an important role in strengthening transparency and accountability within educational institutions. Based on primary data collected from 200 respondents, stakeholders generally expressed favourable perceptions regarding the accessibility of institutional information, digital communication, electronic record keeping and monitoring of administrative processes. Transparency and accountability were both positively associated with perceived effectiveness of e-governance, indicating that stakeholders are more likely to view digital governance systems positively when institutional processes are open, traceable and responsible. The findings further indicate that accountability had the strongest influence on perceived e-governance effectiveness, followed by trust and transparency. However, comparatively lower perceptions regarding institutional responsiveness and grievance handling suggest that technological implementation alone cannot ensure effective governance. Educational institutions need to strengthen administrative responsiveness, ensure timely communication, improve mechanisms for tracking requests and grievances, and maintain accurate and accessible digital information. Overall, effective e-governance should be understood as a combination of appropriate technology, transparent institutional practices, accountable administration and stakeholder-oriented service delivery. Strengthening these dimensions can enhance stakeholder confidence and contribute to more efficient, transparent and accountable educational governance.

### References

1. Bertot, J. C., Estevez, E., & Janowski, T. (2016). Universal and contextualized public services: Digital public service innovation framework. *Government Information Quarterly*, 33(2), 211–222. <https://doi.org/10.1016/j.giq.2016.05.004>
2. Chan, F. K. Y., & Hu, X. (2016). Investigating the role of information quality in e-government service adoption. [Use the exact bibliographic record from your final Google Scholar search before submission.]
3. Dwivedi, Y. K., Rana, N. P., Janssen, M., Lal, B., Williams, M. D., & Clement, M. (2017). An empirical validation of a unified model of electronic government adoption (UMEGA). *Government Information Quarterly*, 34(2), 211–230. <https://doi.org/10.1016/j.giq.2017.03.001>

4. Eom, S.-J., & Lee, J. (2022). Digital government transformation in turbulent times: Responses, challenges, and future direction. *Government Information Quarterly*, 39(2), 101690. <https://doi.org/10.1016/j.giq.2022.101690>
5. Gupta, P., Hooda, A., Jeyaraj, A., Seddon, J. J. M., & Dwivedi, Y. K. (2025). Trust, risk, privacy and security in e-government use: Insights from a MASEM analysis. *Information Systems Frontiers*, 27, 1089–1105. <https://doi.org/10.1007/s10796-024-10497-8>
6. Hooda, A., Gupta, P., Jeyaraj, A., & Dwivedi, Y. K. (2023). Clarifying the role of e-government trust in e-government success models: A meta-analytic structural equation modeling approach. *Australasian Journal of Information Systems*, 27, 1–22. <https://doi.org/10.3127/ajis.v27i0.4079>
7. Hooda, A., Gupta, P., Jeyaraj, A., Giannakis, M., & Dwivedi, Y. K. (2022). The effects of trust on behavioral intention and use behavior within e-government contexts. *International Journal of Information Management*, 67, 102553. <https://doi.org/10.1016/j.ijinfomgt.2022.102553>
8. Janssen, M., Rana, N. P., Slade, E. L., & Dwivedi, Y. K. (2018). Trustworthiness of digital government services: Deriving a comprehensive theory through interpretive structural modelling. *Public Management Review*, 20(5), 647–671. <https://doi.org/10.1080/14719037.2017.1305689>
9. Kassen, M. (2017). Understanding transparency of government from a public administration perspective. *Government Information Quarterly*, 34(2), 190–200.
10. König, P. D., Fuchs, C., & others. (2019). Digitalisation, trust and governance: Perspectives on digital transformation. [Verify the exact bibliographic record before submission.]
11. Lee, T., Lee, B.-K., & Lee-Geiller, S. (2020). The effects of information literacy on trust in government websites: Evidence from an online experiment. *International Journal of Information Management*, 52, 102098. <https://doi.org/10.1016/j.ijinfomgt.2020.102098>
12. Mansoor, M. (2021). Citizens' trust in government as a function of good governance and government agency's provision of quality information on social media during COVID-19. *Government Information Quarterly*, 38(4), 101597. <https://doi.org/10.1016/j.giq.2021.101597>
13. Matheus, R., Janssen, M., & Janowski, T. (2021). Design principles for creating digital transparency in government. *Government Information Quarterly*, 38(1), 101550. <https://doi.org/10.1016/j.giq.2020.101550>
14. Meijer, A., Grimmelikhuijsen, S., & Brandsma, G. J. (2018). Transparency in the digital age: A review of transparency research in public administration. [Verify the exact bibliographic record before submission.]
15. Mergel, I., Edelmann, N., & Haug, N. (2019). Defining digital transformation: Results from expert interviews. *Government Information Quarterly*, 36(4), 101385. <https://doi.org/10.1016/j.giq.2019.06.002>

16. Mensah, I. K., & Adams, S. (2020). A comparative analysis of the impact of political trust on the adoption of e-government services. *International Journal of Public Administration*, 43(8), 682–696. <https://doi.org/10.1080/01900692.2019.1645687>
17. Panagiotopoulos, P., Klievink, B., & Cordella, A. (2019). Public value creation in digital government. *Government Information Quarterly*, 36(4), 101421. <https://doi.org/10.1016/j.giq.2019.101421>
18. Porumbescu, G. A. (2016). Linking public sector social media and e-government website use to trust in government. *Government Information Quarterly*, 33(2), 291–304. <https://doi.org/10.1016/j.giq.2016.04.006>
19. Rana, N. P., & Dwivedi, Y. K. (2015). Citizen's adoption of an e-government system: Validating extended social cognitive theory (SCT). *Government Information Quarterly*, 32(2), 172–181. <https://doi.org/10.1016/j.giq.2015.02.002>
20. Rana, N. P., Dwivedi, Y. K., Lal, B., Williams, M. D., & Clement, M. (2017). Citizens' adoption of an electronic government system: Towards a unified view. *Information Systems Frontiers*, 19, 549–568. <https://doi.org/10.1007/s10796-015-9613-y>
21. Rana, N. P., Dwivedi, Y. K., Williams, M. D., & Weerakkody, V. (2015). Investigating success of an e-government initiative: Validation of an integrated IS success model. *Information Systems Frontiers*, 17(1), 127–142. <https://doi.org/10.1007/s10796-014-9504-7>
22. Saldanha, D. M. F., Dias, C. N., & Guillaumon, S. (2022). Transparency and accountability in digital public services: Learning from the Brazilian cases. *Government Information Quarterly*, 39(2), 101680. <https://doi.org/10.1016/j.giq.2022.101680>
23. Twizeyimana, J. D., & Andersson, A. (2019). The public value of e-government: A literature review. *Government Information Quarterly*, 36(2), 167–178. <https://doi.org/10.1016/j.giq.2019.01.001>
24. Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *The Journal of Strategic Information Systems*, 28(2), 118–144. <https://doi.org/10.1016/j.jsis.2019.01.003>
25. Wang, H.-J., & Lo, J. (2016). Adoption of open government data among government agencies. *Government Information Quarterly*, 33(1), 80–88. <https://doi.org/10.1016/j.giq.2015.11.004>
26. Weerakkody, V., Irani, Z., Lee, H., Osman, I., & Hindi, N. M. (2015). E-government implementation: A bird's eye view of issues relating to costs, opportunities, benefits and risks. *Information Systems Frontiers*, 17(4), 889–915. <https://doi.org/10.1007/s10796-013-9472-3>
27. Weerakkody, V., Irani, Z., Kapoor, K., Sivarajah, U., & Dwivedi, Y. K. (2017). Open data and its usability: An empirical view from the citizen's perspective. *Information Systems Frontiers*, 19, 285–300. <https://doi.org/10.1007/s10796-016-9679-1>



28. Wirtz, B. W., Weyerer, J. C., & Schicht, F. (2019). An empirical analysis of the antecedents and consequences of e-government adoption. *International Review of Administrative Sciences*, 85(4), 835–854.
29. Yuan, Y.-P., Dwivedi, Y. K., Tan, G. W.-H., Cham, T.-H., Ooi, K.-B., Aw, E. C.-X., & Currie, W. (2023). Government digital transformation: Understanding the role of government social media. *Government Information Quarterly*, 40(1), 101775. <https://doi.org/10.1016/j.giq.2022.101775>
30. Zahid, H., Ali, S., Abu-Shanab, E., & Javed, H. M. U. (2022). Determinants of intention to use e-government services: An integrated marketing relation view. *Telematics and Informatics*, 68, 101778. <https://doi.org/10.1016/j.tele.2022.101778>