

# Impact of E-Governance on Corruption

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**Abstract:** The present study explores the impact of e-Governance initiatives on reducing corruption, with a focus on the role of intermediaries in government processes. The findings reveal that e-Governance has enhanced efficiency and transparency, particularly by minimizing the need for middlemen, especially in the General and Treasury sectors. Chi-Square analysis indicates a significant association between sector type and the necessity of intermediaries, with respondents in the General sector more likely to oppose the need for intermediaries. However, the study also finds no statistically significant difference in respondents' perceptions of corruption and bribery reduction, suggesting that while e-Governance systems have streamlined processes, their effect on corruption reduction remains limited. The lack of significant perception change points to the need to address socio-cultural and institutional challenges that continue to affect governance. Overall, while e-Governance has made notable strides in improving administrative efficiency, its full potential in reducing corruption and enhancing transparency requires further efforts, including better implementation frameworks and digital literacy.

**Keywords:** e-Governance, corruption reduction, intermediaries, transparency

## Introduction

E-governance refers to the use of digital platforms, information and communication technology (ICT), and electronic systems to deliver government services, facilitate communication, and improve public sector management. Its implementation is seen as a potential tool for reducing corruption by promoting transparency, accountability, and efficiency in government processes. By digitizing services, e-governance minimizes face-to-face interactions between public officials and citizens, thereby reducing opportunities for bribery and other forms of corrupt practices. Moreover, e-governance

systems often provide real-time monitoring and reporting capabilities, enhancing oversight and ensuring that government actions are in line with established norms and regulations. Despite these potential benefits, the impact of e-governance on corruption is not straightforward, as challenges such as digital illiteracy, cybersecurity risks, and inadequate infrastructure may hinder its effectiveness in certain contexts. This study seeks to examine the relationship between e-governance initiatives and the reduction of corruption, exploring how these systems can be optimized to foster good governance and accountability within public administration.

**e-Governance** can be encapsulated as **SMART governance**, which stands for:

- **Simple:** Streamlining government processes to make them easy to understand and accessible to all citizens.
- **Moralistic:** Ensuring that governance is ethical and based on principles of integrity and justice.
- **Accountable:** Holding government bodies responsible for their actions, fostering trust and transparency.
- **Responsive:** Responding promptly and effectively to the needs of citizens, ensuring efficient public service delivery.
- **Transparent:** Making government actions open and visible to the public, thereby reducing corruption and increasing trust.

e-Governance is more than just posting information online; it is a **reformative process** that focuses on enhancing the interaction between government and citizens. It encourages governments to be more engaged and responsible in achieving socio-economic development goals. By leveraging technology, e-Governance seeks to enhance the efficiency and inclusivity of government operations, ensuring that citizens' needs are met more effectively. This transformation is essential for promoting good governance and ensuring the successful implementation of socio-economic policies on a global scale.

The **domains of e-Governance**, as identified by **Heeks (2001)**, outline the various areas in which ICT can be utilized to enhance the functioning of government and its interaction with different stakeholders. These three primary domains are:

- **E-Administration:** This focuses on **improving internal government processes** through the use of ICT. It involves digitizing and streamlining government operations, making them more efficient, reducing bureaucracy, and lowering the costs of government administration. It covers areas like financial management systems, human resource management, and document management.

- **E-Services:** The goal of this domain is to **connect individual citizens with their government**. E-services allow citizens to access public services through digital platforms, providing convenience and efficiency. Examples include online payment systems for taxes and fees, digital applications for permits or licenses, and e-portal services where citizens can interact with government agencies.
- **E-Society:** This domain emphasizes **building interactions with and within civil society**. It focuses on promoting collaboration and engagement between the government and various societal actors, such as non-governmental organizations (NGOs), businesses, and citizens. E-society aims to empower civil society, foster participation in governance, and encourage transparent and accountable practices.

These three domains illustrate how ICT can transform not only the internal workings of government but also its relationship with citizens and civil society, contributing to more effective governance.

### Impact of e-Governance

India has come across numerous challenges in the execution of e-Governance initiatives, which differ significantly from those faced by developed countries. While developed nations might envision a seamless 24/7 interaction with government services through one-stop online platforms, achieving such a level of efficiency and flexibility in developing countries, including India, has proven difficult due to several hurdles.

1. Many e-Governance initiatives in India suffer from unclear goals and expectations, which leads to inefficiencies in planning and execution.
2. Limited financial resources hinder the expansion and maintenance of e-Governance projects, particularly in rural areas.
3. There is often resistance from government officials and employees due to fear of change and losing control over traditional systems.
4. Frequent changes in government leadership and priorities disrupt the continuity of e-Governance projects.
5. Corruption undermines the effectiveness of e-Governance by obstructing transparent and accountable systems.
6. Shortage of skilled personnel to manage and operate advanced ICT systems impacts the success of these projects.

7. The task of digitizing a large volume of historical data is time-consuming and complex, leading to delays.
8. Resistance to change and difficulty in adapting to new processes within government departments make implementation challenging.
9. Poor coordination between different government departments hampers the integration of services.
10. Insufficient internet connectivity, especially in rural and remote areas, limits the reach of e-Governance services.
11. Existing laws are not flexible enough to accommodate rapid advancements in ICT, slowing down the pace of implementation.
12. Maintaining and updating systems after they are implemented is often overlooked, leading to technical failures and inefficiencies.

In rural areas, many people lack the digital skills and access to technology needed to effectively utilize e-Governance services. India has achieved significant progress in socio-economic development through ICT, despite these challenges.

The National e-Governance Plan (NeGP), Aadhaar, Digital India, and state-specific projects like Bhoomi in Karnataka demonstrate impressive advancements. These initiatives have improved transparency, accountability, and service delivery in various sectors. Furthermore, the government's ongoing investment in ICT infrastructure and capacity-building programs shows a strong commitment to overcoming barriers and expanding e-Governance's reach. The global interest in e-Governance highlights the importance of efficient and dependable service delivery, an area in which India is making notable strides. With sustained efforts, India can continue to progress in this regard. It has the potential to achieve greater socio-economic benefits, despite the existing hurdles. The implementation of e-Governance has significantly transformed governance in India, bringing about various positive changes that have reshaped the way public administration operates. Some impacts include:

- Transparency
- Accountability
- Better services delivery leading to
  1. Citizen services under one roof.
  2. Fast, cost-efficient and transparent services.
  3. Decrease in government expenditure.
  4. Minimise transaction cost.

5. Reducing the hassle and bureaucratic complexities.
6. Readiness for digital governance.
7. Similar projects in other states.
8. Simple procedures, logical, administration and restructured the administrative system.

Indeed, e-Governance is crucial for achieving **Good Governance** in developing countries like India. It offers the potential to **minimize corruption** by promoting transparency in government processes and reducing the need for intermediaries in public service delivery. With digitized systems, the scope for manipulation and inefficiency is reduced, making governance more **accountable** and **transparent**.

### Objectives of e-Governance

The objectives of e-Governance are clearly defined to ensure that its implementation benefits citizens and enhances government processes. Here are some objectives:

**Access to Information:** One of the primary goals of e-Governance is to provide citizens with easy access to government information. This ensures transparency and allows people to obtain details about government projects, schemes, and policies, enabling them to avail themselves of government benefits effectively.

**Enhanced Services:** E-Governance seeks to provide streamlined, one-stop services to citizens, ensuring they can access various services from a single platform or location. Citizens no longer need to visit multiple offices; they can access services either in person at integrated centers or from their homes through online platforms.

**Citizen Participation in Government Processes:** A key objective is to improve citizen involvement in governance by encouraging participation in decision-making processes. This enhances transparency and accountability, empowering people to engage more actively in the democratic process.

**Reduce Government Expenditure:** E-Governance aims to reduce the costs associated with the physical delivery of information and services by minimizing the use of paper and resources. By shifting to digital communication, it saves time and money, making government operations more efficient.

**Integration of Various Departments:** Another crucial objective is to ensure the integration of back-end systems across various government departments. This allows for the seamless flow of information, making it easier for users to access interconnected services and reducing administrative bottlenecks.

**Reduction in Corruption:** One of the significant goals of e-Governance is to reduce corruption. By digitizing processes, the opportunities for corrupt practices are

minimized, improving trust in governance. Transparent processes contribute to fairer access to services and promote equitable development.

**Overcome Barriers in Government Services:** India's diversity in language, culture, and administrative procedures can pose challenges to accessing government services. E-Governance aims to overcome these barriers by localizing services and making them accessible in multiple languages, ensuring inclusivity across different regions.

**Make Government Accountable:** e-Governance also seeks to make the government more accountable to its citizens by ensuring transparency. With increased access to information and better participation, citizens can hold the government responsible for its actions and decisions.

## Review of Literature

*Aditya Gautam, Indu Gautam, and Sameeksha Jain (2018)* discuss the transformative potential of Information and Communication Technology (ICT) in enhancing public sector governance in India. They highlight the efforts of the Indian government to leverage ICT for improving planning, monitoring, and administration in remote and underserved areas. However, they point to persistent barriers such as poverty, technical illiteracy, and language issues, which hinder the widespread adoption and effectiveness of e-Governance. Despite these challenges, the authors assert that e-Governance has the potential to reduce corruption and improve service delivery, particularly by promoting transparency and accountability.

*Agili John Nyangueso's (1990)* research underscores the importance of good governance, emphasizing transparency, ethics, and integrity, especially in relation to service quality in Kenya's higher education system. By employing the SERVQUAL model, Nyangueso demonstrates how accountability and transparency can significantly enhance service delivery, which is in line with the potential benefits of e-Governance.

*Rogers W'O Okot-Uma (2002)* discusses the integral role of ICT in redefining good governance. He argues that e-Government, encompassing e-Democracy, e-Government, and e-Business, can bridge governance gaps by improving socio-economic relations and fostering sustainable development. According to Okot-Uma, e-Government can strengthen public administration by enhancing service delivery and reinforcing democratic processes.

*Kwami Ahiabenu (2013)* explores how digital technologies, including mobile apps and social media, are used in the 15 ECOWAS countries to improve governance and reduce corruption. He highlights how affordable ICT tools facilitate communication between governments, citizens, and businesses, thereby promoting transparency,

accountability, and efficient public service delivery. This study suggests that ICT can play a pivotal role in fostering good governance by enhancing economic transparency and reducing corruption.

**Backus M. (2001)** evaluates e-Governance initiatives in developing countries, focusing on Ghana, Tanzania, and Kenya, where ICT tools are being employed to combat corruption and improve governance. Backus emphasizes the need for citizen education on ICTs and e-Governance to increase engagement and ensure broader adoption. The study suggests that e-Democracy and e-Governance initiatives can transform governance structures by promoting greater participation and transparency.

**Ankita Gupta and S.S. Gautam (2018)** examine how ICT has revolutionized service delivery in sectors such as agriculture, education, healthcare, and rural development. Their study illustrates the potential of ICT to bridge the rural-urban divide, enhance service delivery, and foster good governance by improving accessibility to government services. By leveraging ICT, the authors argue that public administration can become more transparent, accountable, and efficient.

**Ajay Datta and Mandalika Syamala Devi (2015)** investigate the implementation of e-Governance in India, particularly through programs like the National Rural Employment Guarantee Scheme (NREGS) and Smart Government initiatives in Andhra Pradesh. They highlight how Government-to-Citizen (G2C), Government-to-Business (G2B), and Government-to-Government (G2G) services can improve service delivery, reduce corruption, and enhance transparency. Their study underscores the importance of ICT in reducing administrative costs, enhancing citizen empowerment, and improving revenue generation.

**Vikram Singh and Subhash Chander (2012)** examine e-Governance initiatives in Punjab, India, and their impact on transparency, service delivery, and corruption. The study emphasizes the role of ICT in improving the efficiency of government services and highlights challenges faced by rural communities in accessing these services. Singh and Chander suggest that m-Governance, leveraging mobile technology, might offer a more effective strategy to overcome these barriers, particularly in rural areas. Their study also notes that the availability of local language software can further enhance the accessibility and effectiveness of e-Governance services.

These studies collectively suggest that e-Governance holds significant promise for improving governance, reducing corruption, and enhancing public service delivery, particularly in developing countries. However, the effectiveness of e-Governance depends on addressing barriers such as digital illiteracy, infrastructure gaps, and resistance to change. Future research should focus on overcoming these challenges to

fully realize the potential of e-Governance in promoting transparency, accountability, and good governance.

$H_0$ : e-Governance does not reduce red tapism and corruption

$H_A$ : e-Governance reduces red tapism and corruption.

**Table 1.1: Results of Chi-Square Test**

	Type of Respondents				
		General	Treasury	Other Government	Total
No need to pay to middleman	Agree	16 (48.5)	7 (21.2)	10 (30.3)	33 (100)
	Neutral	14 (41.2)	4 (11.8)	16 (47.1)	34 (100)
	Disagree	126 (56.3)	73 (32.5)	25 (11.2)	224 (100)
	Total	156	84	51	291

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	31.796	4	.000
Likelihood Ratio	27.734	4	.000
Linear-by-Linear Association	8.862	1	.003

Source: SPSS Output Table

The significant Chi-Square test results suggest that respondents' opinions on the necessity of paying a middleman are significantly influenced by their sector affiliation. The distribution of responses indicates that individuals in the General sector exhibit a higher propensity to disagree with the statement compared to individuals in the Treasury and Other Government sectors. Specifically, a notable majority of respondents in the General sector (126 out of 156) expressed disagreement, while only 7 respondents in the Treasury sector and 10 in the Other Government sector expressed agreement.

The differences in observed responses relative to expected values further underscore the statistical significance of the relationship between sector and opinion. For instance, the General sector's observed agreement (16) is considerably lower than its expected frequency (48.5), indicating a strong tendency to disagree. Conversely, the Other Government sector shows a notable degree of neutrality with 16 neutral responses against an expected count of 47.1.

The Pearson Chi-Square statistic is  $\chi^2(4) = 31.796$  with a p-value is 0.000, indicating that is well below the significance level of 0.05, indicating a statistically significant association between the type of respondent and their opinion on the necessity of paying a middleman. This suggests that opinions on the necessity of intermediaries vary significantly among different types of respondents.

The Likelihood Ratio Chi-Square is  $\chi^2 (4) = 27.734$  with a p-value is 0.000. This result supports the Pearson Chi-Square findings, confirming a significant association between respondent type and opinions regarding the necessity of a middleman.

The Linear-by-Linear Association statistic is 8.862 with a p-value of 0.003. This finding indicates a significant trend in the data, suggesting that there is a systematic relationship between the ordinal nature of the responses and the categorical groups.

The analysis reveals a significant association between the type of respondent and their stance on the necessity of paying a middleman. Specifically:

General Respondents are more likely to disagree with the necessity of a middleman, with a significantly higher observed frequency of disagreement compared to expected values. Treasury Respondents show fewer agreements and neutrals than expected, with a higher proportion of disagreement, indicating a stronger sentiment against intermediaries within this group.

Other Government Respondents have a mixed pattern with fewer agreements than expected, more neutrals than anticipated, and a higher observed frequency of disagreement, suggesting varied opinions in this group. Overall, the significant Chi-Square test results indicate that opinions on the necessity of paying a middleman vary depending on the respondent type. The linear trend suggests that these differences in opinions follow a consistent pattern across respondent types. Further investigation could explore the specific reasons behind these varying opinions and how they relate to the roles and experiences of different respondent groups.

The results of the Chi-Square test strongly support the alternative hypothesis ( $H_a$ ), indicating that e-Governance plays a significant role in reducing red tapism and corruption by decreasing the need for intermediaries across various respondent groups. A significant association between respondent type and opinions on the necessity of paying middlemen was found, with General and Treasury respondents exhibiting a higher tendency to disagree with the need for intermediaries. This suggests that e-Governance initiatives streamline processes, making them more transparent and reducing opportunities for corruption. By minimizing the reliance on middlemen, e-Governance enhances efficiency and accountability, fostering a more direct and corruption-free system.

$H_0$ : e-Governance does not reduce red tapism and corruption

$H_A$ : e-Governance reduces red tapism and corruption.

**Table 1.2: Results of Chi-Square Test (Reduced corruption (Bribe))**

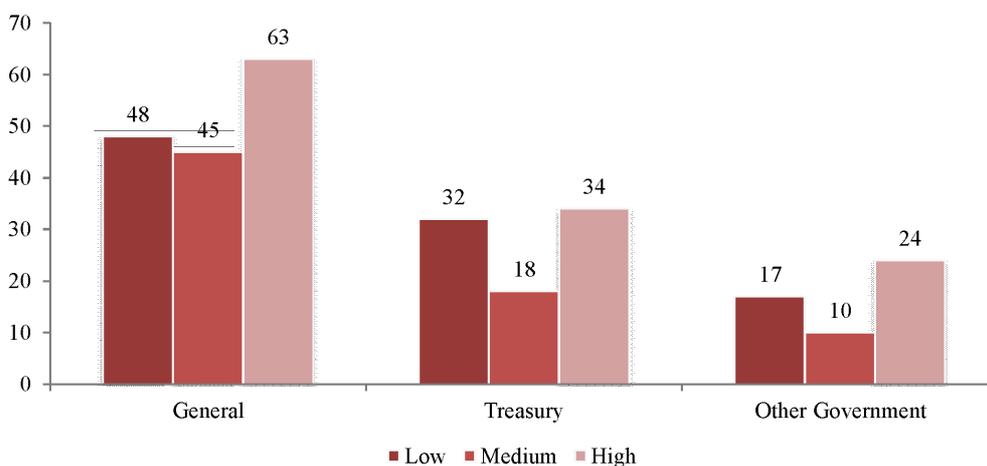
Reduced corruption (Bribe)	Type of Respondents				
		General	Treasury	Other Government	Total
Low		48 (49.5)	32 (33.0)	17 (17.5)	97 (100)
Medium		45 (61.6)	18 (24.7)	10 (13.7)	73 (100)
High		63 (52.1)	34 (28.1)	24 (19.8)	121 (100)
Total		156	84	51	291

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.263	4	.515
Likelihood Ratio	3.264	4	.515
Linear-by-Linear Association	0.003	1	.953

Source: SPSS Output Table

The observed frequencies of perceptions regarding corruption/bribery reduction across different respondent types General, Treasury and Other Government are compared to the expected frequencies to assess any deviations.

For low perceived corruption/bribery reduction, the observed frequencies are close to the expected values for all respondent types. General respondents observed 48 cases (close to the expected 49.5), Treasury respondents had 32 (near the expected 33.0), and Other Government respondents reported 17 cases (very close to the expected 17.5). This indicates that perceptions of low corruption reduction are distributed as anticipated among these groups.

**Graph 4.Q: Perceptions of Corruption Reduction across Different Government Sectors**

Source: Table-4.31

In the case of medium perceived corruption/bribery reduction, there are notable deviations. General respondents reported 45 cases, whereas the expected frequency was 61.6, indicating a lower perception of medium reduction. Treasury respondents had 18 observed cases compared to the expected 24.7, also reflecting a lower-than-expected perception. Similarly, Other Government respondents reported 10 cases against an expected 13.7, suggesting fewer perceptions of medium reduction than anticipated.

For high perceived corruption/bribery reduction, the observed frequencies show some interesting trends. General respondents had 63 cases, which is higher than the expected 52.1, indicating a stronger perception of high reduction. Treasury respondents reported 34 cases, exceeding the expected 28.1, reflecting a higher-than-expected perception. Meanwhile, Other Government respondents observed 24 cases compared to the expected 19.8, suggesting a somewhat higher perception of high reduction.

Overall, while the frequencies for low perceived corruption are close to expectations, perceptions of medium and high reductions show significant deviations. General and Treasury respondents in particular exhibit higher perceptions of high corruption reduction, while the expected number of medium perceptions is not fully realized across the respondent types.

The Pearson Chi-Square statistic is  $\chi^2(4)=3.263$  with a p-value is 0.515, The p-value exceeds the 0.05 significance threshold, indicating that there is no statistically significant association between the type of respondent and their perception of corruption/bribery reduction. This suggests that perceptions of corruption reduction do not vary significantly across different respondent types.

The Likelihood Ratio Chi-Square is  $\chi^2(4)=3.264$  with a p-value is 0.515. This result supports the Pearson Chi-Square findings, confirming the absence of a significant association between respondent type and perceptions of corruption reduction.

The Linear-by-Linear Association statistic is  $\chi^2(4)=0.003$  with a p-value is 0.953. The very high p-value indicates that there is no significant linear trend between the type of respondent and their perception of corruption reduction, further supporting the conclusion of no significant association.

The results of the Chi-Square test for Hypothesis 3B indicate that there is no statistically significant association between respondent type and their perception of corruption reduction. With a p-value of 0.515, we fail to reject the null hypothesis ( $H_0$ ), suggesting that e-Governance has not had a noticeable impact on how respondents perceive corruption or bribery reduction across the General, Treasury, and Other Government groups. While e-Governance may aim to streamline processes and reduce corruption, these results imply that respondents do not significantly differ in their views

on the extent to which it has achieved this goal. Perceptions of corruption reduction remain consistent across groups.

## Conclusion

This study examined the relationship between e-Governance initiatives and corruption reduction, focusing on the role of intermediaries in government processes. The findings highlight that e-Governance has improved efficiency and transparency by reducing the need for middlemen, particularly in the General and Treasury sectors. However, the analysis of corruption and bribery perceptions reveals no statistically significant difference in views across respondent groups. Despite advancements in digital governance, the direct impact of e-Governance on perceptions of corruption reduction remains unclear. This suggests that challenges such as socio-cultural and institutional barriers may still impede its full potential. In conclusion, while e-Governance has enhanced administrative efficiency and reduced opportunities for corruption, its broader impact on corruption reduction perceptions requires further effort. Addressing systemic challenges, improving digital literacy, and fostering accountability will be crucial for maximizing e-Governance's effectiveness in promoting good governance and reducing corruption.

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