

E-PROCUREMENT IN INDIA: A CASE STUDY OF THE CENTRAL PUBLIC PROCUREMENT PORTAL

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ABSTRACT

Electronic procurement, or e-procurement, is the method of using the internet to make business supply and support easier, faster, and less expensive. The Government and public/private sector units are adopting e-procurement services to minimize cost and facilitating business and services faster and making it more affordable and convenient to all. Since e-procurement is a sensitive task for the business there for its need a reliable platform to perform e-procurement practices. With the objective of ease of business doing government of India started Central Public Procurement Portal. With trust and technology the portal is offering better services year by year which are reflecting in business world and its annual report. The present paper is an effort to facilitate e-procurement and bring the good practices of the Central Public Procurement Portal among common people, student, researcher and policy makers etc for ease of business and facilitate startups.

Keywords:E-procurement, Innovation, Information technology, SMEs, Business organizations.

INTRODUCTION

In era of technology term "e-procurement" refers as electronic procurement, a revolutionary approach to supply chain management and procurement that has become increasingly popular in the current digital era. In the ever-changing and fiercely competitive business world public sector units of India, adopted e-procurement practices and it becomes a crucial tool for improving accountability, efficiency, and transparency in the procurement processes. Development of e-procurement changes the way government agencies engage with suppliers, resource allocators and provide services to the public by using digital platforms and internet-based technology to expedite and optimize the procurement of goods and services.

The major adopters of e-procurement practices in recent years are Government and public sector units to tackle challenges such as bureaucratic inefficiencies, corruption, and excessive paperwork. To speed up procurement in organizations and ensure transparency, the Department of Expenditure has taken action to setup a Central Public Procurement Portal (CPP Portal in 2012). The National Informatics Centre (NIC) has been given the responsibility for setting up CPP portal with the primary objective to provide a single point access of the information on procurement made in various Ministries and the government departments. The portal is accessible at the URL <http://eprocure.gov.in>. It is mandatory for all Ministries/ Departments of the Central Government, Central Public Sector Enterprises (CPSEs) and Autonomous and Statutory Bodies to publish all their tender inquiries in the CPPP portal.

The system provides a platform which is simple to use for all types of procurement, covering works, services, and goods. By offering open access to tender supplies, explanations, and safe online submission, it seeks to promote transparency and nondiscrimination among bidders bid submission and public access to the bid opening event, accessible to all, 24/7, from anywhere, using the system through the Internet in an easier, safer way by implementing standards.

Central Public Procurement Portal provides Wide-ranging procuring entities' requirements for procurement and has been designed in a way that is resilient, adaptable, and workflow-based. An organization can set this up to be used at both the highest level and at lower levels, where tenders can be floated separately.

E-procurement serves as a powerful tool for modernizing procurement practices, improving governance, and achieving economic benefits. Its purpose is to enhance efficiency, transparency, and accountability in the procurement process, whether in the public sector or private enterprises.

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|------------------------------------|-----------------------------------|
| • Efficiency | • Reduction of Errors |
| • Cost Reduction | • Data Management and Analysis |
| • Transparency and Accountability | • Real-time Monitoring |
| • Improved Competition | • Environmental Sustainability |
| • Supplier Relationship Management | • Standardization and Consistency |
| | • Ease of Accessibility |

- Reduced Fraud and Corruption
- Compliance with Regulations
- Innovation and Emerging Technologies
- Economic Development

OBJECTIVES

- I. To examine the role of e-procurement in enhancing public procurement practices.
- II. To evaluate the efficiency and cost-effectiveness of the e-procurement system in reducing delays and improving decision-making.
- III. To analyze the impact of CPPP on transparency and accountability in government procurement processes.
- IV. To assess the challenges and limitations of adopting the CPPP.

LITERATURE REVIEW

Forms of E-procurement

Electronic procurement commonly known as E-procurement is a digital means of acquiring products and services through the use of online electronic platforms which improves and accelerates the procurement process by integrating web-based solutions and information technology. Various operations of procurement including order placement, payment processing, and supplier management can be incorporated into e-procurement. It is a useful tool for public as well as private enterprises due to increase the procurement process more effective, efficient, and cost-effectiveness.

Each E-procurement offers distinct features and benefits. Here are some of the common forms of e-procurement:

- a. **E-Tendering:** E-tendering offers electronic submission of tenders or bids by suppliers in response to requests for proposals (RFPs) or procurement requests. It promotes competition and transparency in the procurement process by allowing suppliers to submit their proposals online.
- b. **E-Auctions:** It facilitates competitive bidding among suppliers for the procurement of goods or services through Reverse auctions, where suppliers compete to offer the lowest price, are a common type of e-auction. E-auctions can drive cost savings and promote efficient supplier selection.

- c. **E-Contract management:** E-contract management is a tool to help in create, manage, and monitor contracts with suppliers electronically. This ensures that contractual terms and obligations are consistently meet and reduces the risk of disputes among parties.
- d. **E-Catalogs:** Electronic databases of goods and services provided by certified vendors on portal are known as e-catalogs. Authorized users can choose products from a catalogue with option of an online shopping cart. This type of electronic procurement is helpful for regular purchases like stationery etc.
- e. **E-Sourcing:** E-sourcing platforms provide tools for organizations to identify, evaluate, and select suppliers from the pool of vendors. This platforms support in supplier discovery, negotiation, and collaboration to make an informed procurement decisions.
- f. **E-Invoicing:** E-invoicing streamlines the invoicing and payment processes by digitalizing the creation, submission, and approval of online invoices. It reduces paperwork, minimizes errors, and accelerates the payment cycle in procurement.
- g. **Mobile e-procurement:** Apps and platforms for mobile e-procurement are increasing in demand as mobile devices are used more frequently. With the help of these apps, users may complete procurement-related tasks including tracking orders, examining catalogues, and approving buy requests while on the road.
- h. **E-procurement suites:** Such comprehensive solutions integrate a variety of e-procurement options, such as analytics, supplier management, requisitioning, and purchasing. Such systems offer complete end-to-end assistance for the full procurement procedure.

Historical development of e-procurement

The historical development of e-procurement in the public sector is a journey marked by technological advancements, changing regulatory landscapes, and growing emphasis on efficiency, transparency, and accountability in government procurement. Here's an overview of the key milestones and developments in the adoption of e-procurement in the public sector:

- a. **Emergence of IT Infrastructure (1990s):** As the governments started to invest in information technology infrastructure, it laid the foundation e-procurement. The widespread implementation of electronic procurement systems was made

possible by the expansion of the internet in the digitization in 1990s with the emergence of IT infrastructure. The adoption of electronic procurement systems in organizations was made possible by digitization of government activities and the spread of internet access.

- b. **Early E-Procurement Initiatives (Late 1990s to Early 2000s):** In this period several countries, like United States, United Kingdom, Singapore etc initiated e-procurement as pilot projects to explore the potential benefits of electronic procurement in this decade. The early efforts focused on automation of select aspects of the procurement process, such as electronic tendering and online vendor registration.
- c. **Legal Framework and Regulations (Early 2000s):** In this decade governments started to introduce legal frameworks and regulations to support and promote e-procurement. These regulations aimed to secure data security and fair competition in electronic procurement process.
- d. **Spread of E-Procurement System (Mid-2000s):** With spread of internet services E-procurement systems began to gain wider adoption in various countries. Many governments started to realize the potential of e-procurement on cost savings, reduced paperwork, and increased transparency associated with electronic procurement. National and local governments started to implement this system in various sector such as education, healthcare, defense, transportation etc.
- e. **Global Standards and Interoperability (2000s - 2010s):** To promote and facilitate cross-border trade and interoperability, international organizations like the United Nations developed standards and frameworks for e-procurement process. These efforts aimed to harmonize e-procurement practices and making it easier for suppliers to participate in procurement processes globally.
- f. **Centralized E-Procurement Platforms (2010s):** To offer one-stop platform for suppliers and streamlined the procurement process some governments established centralized e-procurement platforms that consolidated procurement activities across government agencies.
- g. **Integration with e-Government Initiatives (2010s):** Governments aimed to create seamless end-to-end electronic government services, which included procurement as a key component. This integration contributed to improved efficiency and transparency.

- h. **Emphasis on Transparency and Anti-Corruption (2010-2020s):** Governments and international organizations promoted the use of e-procurement to mitigate corruption risks by the use of e-procurement as a tool for enhancing transparency and reducing corruption in public procurement gained prominence.
- i. **Mobile and Cloud-Based E-Procurement (2010–2020s):** The advancement in mobile technologies and cloud computing further transformed e-procurement. Mobile e-procurement apps and cloud-based solutions allowed users to access procurement from anywhere fostering flexibility and accessibility.
- j. **Emerging Technologies (2020s - Present):** Emerging technologies like artificial intelligence (AI), block chain, and data analytics further enhance the e-procurement process in the public sector to increased efficiency, fraud detection, and enhanced decision-making in e-procurement.

RESEARCH METHODOLOGY

The present case study is a secondary databased study based on e- procurement annual report 2020-21 of Central Public Procurement Portal.

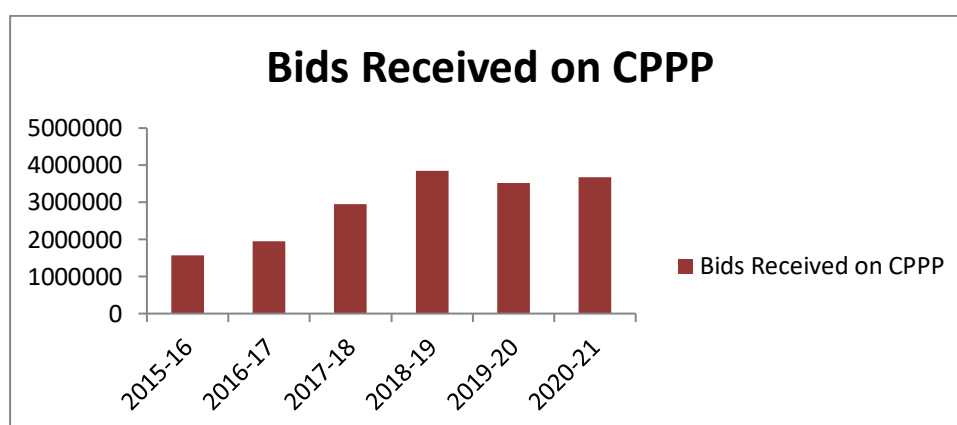
E-Procurement in journey India

Year	Electronic Tenders	Value of Tenders (In ₹ Cr.)	Average no. of Tenders per Month	Average Value of Tenders per Month (In ₹ Cr.)
2020-21	12,62,008	17,33,114	1,05,167	1,44,426
2019-20	13,15,769	15,84,891.71	1,09,647	1,32,074.31
2018-19	13,67,149	18,07,951.49	1,13,929	1,50,662.62
2017-18	11,11,230	19,58,787.38	92,603	1,63,232.28
2016-17	6,81,971	8,90,968.84	56,831	74,247.40

Source: CPPP-Annual Report-2020-21

Year	Bids Received on CPPP
2015-16	1573743
2016-17	1951947
2017-18	2942105

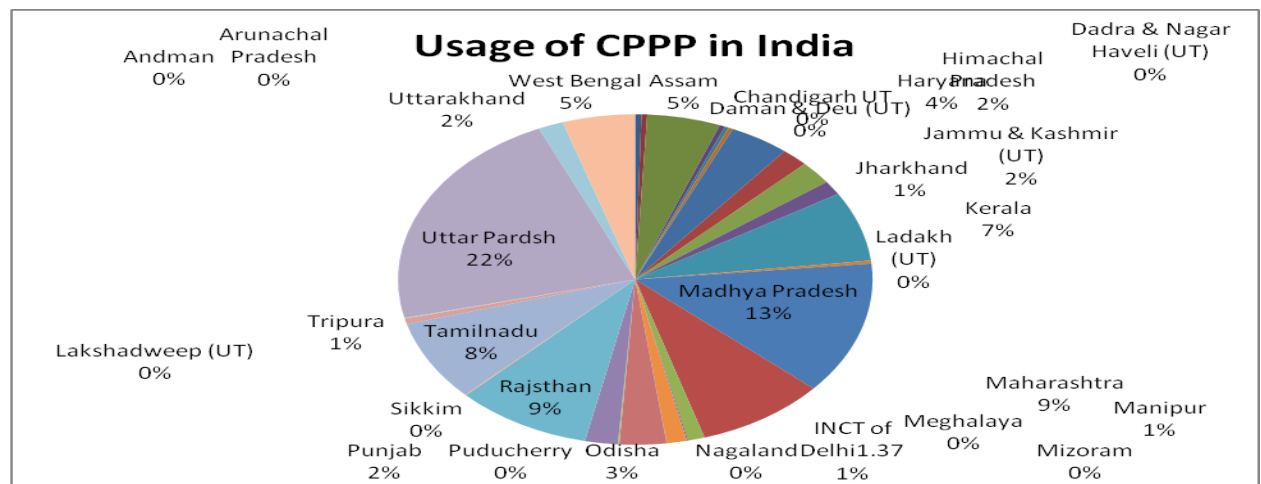
2018-19	3849274
2019-20	3515808
2020-21	3682017



Source: CPPP-Annual Report-2020-21

The e-Procurement System of India enables the business practitioners to explore, apply and monitor online tenders and download the Tender Schedule free of cost and then submit the bids online through this portal. The Central Public Procurement Portal offers all these services to all stakeholders of business to use the platform for ease of business practices. Due to government inclination for good governance and corruption free business operations Central Public Procurement Portal is widely accepted and creating value among business stakeholders. Since inception portal services is on demand and increasing day by day. The given data in annual report clearly depict continuous growth over the period of 2016-17 to 2020-21 except 2019-20 which was adversely affected by COVID-19.

Usages of Central Public Procurement Portal in India



Source: CPPP-Annual Report-2020-21

OBSERVATIONS

Observations of data of Central Public Procurement Portal in India annual report 2020-21 are as follows-

- Continuous growth over the period of time from 2016-17 to 2018-19.
- Decline in e-procurement during 2019-20 due to COVID-19.
- Usage of Central Public Procurement Portal by union territories is higher than states in compare to population and their territories.
- Central Govt organization and Public Sector Units inclination towards Central Public Procurement Portal is higher.

BENEFITS OF E-PROCUREMENT

E-procurement in the public sector has many of benefits. These benefits help to make government procurement procedures simpler, accountable, and transparent. Following are some of the main advantages of e-procurement for the government:

- Transparency and Accountability:** E-procurement platforms provide a transparent and auditable record of procurement. This transparency helps prevent corruption, bribery, and unethical practices, ensuring that procurement decisions are based on merit.

2. **Cost Savings:** It helps to reduce operational costs associated with manual procurement processes. It minimizes paperwork, printing, and physical storage requirements, leading to significant cost savings over time.
3. **Efficiency and Time Savings:** E-procurement streamlines the procurement process by reducing the time which takes to issue tenders, evaluate bids, and make purchasing decisions. This efficiency is useful for timely delivery of public services and projects.
4. **Improved Supplier Relationships:** E-procurement practices facilitate communication and collaboration with suppliers which lead to a stronger, long-term relationship based on trust and mutual benefit.
5. **Enhanced Competition:** A larger pool of suppliers can access bid opportunities, promoting better pricing and service quality by simplifying the bidding process.
6. **Reduced Error Rates:** Automation in e-procurement reduces the chances of manual errors in data entry, calculation, and document handling, resulting in more accurate procurement processes.
7. **Better Data Management:** E-procurement systems provide robust data management and analytics capabilities by allowing public sector organizations to make data-driven decisions and improve procurement strategies.
8. **Real-time Monitoring:** Public sector entities can monitor procurement activities in real-time, enabling quick intervention when issues arise and ensuring compliance with procurement regulations through e-procurement.
9. **Standardization and Consistency:** E-procurement enforces standardized processes and procedures, reducing variations in procurement practices across different departments and agencies within the public sector.
10. **Ease of Accessibility:** E-procurement platforms can be accessed remotely by procurement staff and stakeholders to work from various locations and ensuring accessibility for all involved parties.
11. **Reduced chances of Fraud and Corruption:** Electronic procurement systems can include features like audit trails and authentication measures, making it more difficult for unauthorized individuals to engage in fraudulent activities.

12. **Environmental Sustainability:** By reducing paper usage and promoting electronic communication on document management, e-procurement contributes to environmental sustainability and aligns with green initiatives.
13. **Helps in Economic Development:** E-procurement also helps in economic development by streamlining the bidding process, encouraging fair competition, and promoting SME engagement with government contracts, e-procurement can open doors for small and medium-sized businesses (SMEs).
14. **Regulation and Compliance of Laws:** E-procurement system helps to ensure compliance to government rules and regulations, which helps the application of procurement laws and policies.
15. **Innovation and Adoption of New Technologies:** The integration of cutting-edge technologies like block chain and artificial intelligence (AI) facilitate e-procurement and this can further improve the accuracy and efficiency of procurement procedures.

CHALLENGES AND BARRIERS TO E-PROCUREMENT ADOPTION

While offering various benefits, the adoption of e-procurement in the government organizations and public sector also comes with its set of challenges and barriers. Understanding and addressing these challenges helps in successful implementation. Here are some of the common challenges and barriers to e-procurement adoption in the public sector:

1. **Lack of Technological Infrastructure:** Despite developmentadequate IT infrastructure, poor internet connectivity and outdated hardware can hinder the implementation of e-procurement systems.
2. **Resistance to Change:** Due to accustomed to traditional procurement methods e-procurement can face resistance to change. Change management strategies and training are often necessary to overcome this resistance.
3. **Complexity of Integration:** Integrating e-procurement systems with existing procurement systems can be complex and costly. Compatibility issues may arise while integrating legacy systems with new technology.
4. **Concerns of Data Security:** The digital nature of e-procurement raises concerns about data security and privacy. Protection and Security of sensitive

procurement information is essential. Cyber security measures and compliance with data protection laws are critical.

5. **Cost of Implementation:** The initial investment in e-procurement systems need significant amount of investment in IT infrastructure. Government agencies may face budget constraints and difficulty securing funds for implementation.
6. **Training and Capacity Building:** Effective implementation of e-procurement needs trained Staff. It becomes time-consuming and resource-intensive.
7. **Complexity of Procurement Processes:** Government procurement can involve complex processes, especially in large-scale projects. Adapting e-procurement systems may require significant restructuring and customization.
8. **Change in Workflows:** E-procurement often necessitates changes in existing procurement workflows. This can lead to temporary disruptions and require adjustment time periods.
9. **Vendor Lock-In:** The choice of e-procurement vendor can lead to vendor lock-in, making it challenging to switch to other systems in the lock in time period. Governments need to carefully consider vendor selection and contract terms.
10. **Digital Divide:** E-procurement may unintentionally exclude individuals or organizations with limited access to digital technologies, potentially leading to inequalities in procurement opportunities.
11. **Maintenance and Support:** E-procurement systems require ongoing maintenance and support. Ensuring the availability of technical support staff and resources for system updates is essential.
12. **Training and Awareness:** End-users must be educated about the benefits of e-procurement and adequately trained to use the systems effectively. Lack of awareness or inadequate training can lead to underutilization of e-procurement capabilities.
13. **Change in Organizational Culture:** The adoption of e-procurement may require a shift in the organizational culture and mindset toward technology and automation, which can be challenging.

CONCLUSION

The implementation of e-procurement in India has significantly transformed the public procurement by introducing transparency, efficiency, and accountability. CPPP has streamlined procurement processes, reduced chances of corruption, and enhanced the ease of doing business with the government.

The adoption of digital procurement mechanisms has not only improved governance but also facilitated better resource allocation, ultimately leading to economic growth and development. The CPPP brings standardization and uniformity across procurement activities of various government departments by centralizing tendering procedures and making them accessible to all its stakeholders. The automation of bid submission and evaluation on CPPP has significantly reduced human intervention and mitigating the risk of favoritism and malpractices. Continuous improvement in technology and its adoption the role of Central Public Procurement Portal is increasing due to its reliability and services. The accountability and transparency in organizations are also propelling the use of e-procurement portal. Being a government portal, it is not only providing state of art services but also confidence among users. As the technology adoption will increase and accountability and transparency will be more prevalent the role of Central Public Procurement Portal will also increase.

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