

Digital Transformation in Government Procurement: Assessing the Impact of GeM in India

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Abstract: *Public procurement utilizes a substantial portion of taxpayers' money. Governments are expected to follow strict procedures to ensure that the process is fair, efficient, transparent and minimizes wastage of public resources. Public procurement refers to the process by which governments and state - owned enterprises purchase goods and services. It is a key economic activity of the government which accounts for nearly 15 - 20% of global GDP. In India, public procurement constitutes about 22% of the GDP. Procurement of goods and services is carried out by various ministries, departments and other local bodies, statutory corporations and public undertakings both at the Central and State level. As public procurement utilises a substantial portion of taxpayers' money, governments are expected to follow strict procedures to ensure that the process is fair, efficient and transparent in order to minimize wastage of public resources. A robust Public procurement system always aims at promotion of efficiency to avoid mismanagement and waste of public funds. Moreover, the public sector, being a large purchaser of goods and services has power to influence the overall resource allocation in the domestic economy which has a deep impact on the overall competitiveness, economic efficiency, socio - economic factors and the pace of product & technological innovation.*

Keywords: Government e Marketplace, Public Procurement, Digital Transformation, E - Governance, India

1. Introduction

The basic principles of public procurement can be anchored into 5 pillars namely: -

- Transparency of process
- Integrity of public procurement practitioners
- Economic efficiency
- Competition and fairness of competition and
- Accountability

The procurement in public sector in India was revolutionized by the launch of Government e Marketplace (GeM) on 9th August, 2016 by the Ministry of Commerce, Government of India for procurement of both Products and Services.

In recent years, there has been a growing interest in using e - commerce platforms to improve the efficiency and transparency of government procurement processes. Government e Marketplaces are online platforms that are designed to streamline the procurement process by facilitating the exchange of information and transactions between government agencies and suppliers.

2. Significance

- 1) The primary objective of this project is to analyze the current state of Government e Marketplace, identify the challenges and barriers and also provide recommendations for improvement.
- 2) To identify the current challenges faced by GeM in terms of its functionality, user experience, and adoption by various stakeholders.
- 3) To analyze the impact of GeM on the procurement process of various government agencies and the private sector, including its ability to promote transparency, efficiency, and cost savings.
- 4) To evaluate the potential of GeM to address emerging trends and challenges in the procurement landscape,

such as the need for greater automation, digitization, and interoperability.

- 5) To assess the role of GeM in supporting the growth and development of small and medium - sized enterprises (SMEs) in India, including its ability to provide access to new markets and opportunities.

3. Literature Review

3.1 Overview of Government e Marketplace

The Government e Marketplace (GeM) is an online platform launched by the Indian government in August 2016. Government e Marketplace (GeM) is one stop portal to facilitate online procurement of common use Goods & Services required by various Government Departments / Organizations / PSUs. GeM aims to enhance transparency, efficiency and speed in public procurement. It provides the tools of e - bidding, reverse e - auction and demand aggregation to facilitate the government users achieve the best value for their money.

The purchases through GeM by Government users have been authorized and made mandatory by Ministry of Finance by adding a new Rule No.149 in the General Financial Rules, 2017.

The platform can be accessed at <https://gem.gov.in/>.

3.2 Government e Marketplace Impact So far

- 1) Transparent and Cost - effective Procurement: GeM is enabling quick, efficient, transparent and cost - effective procurement, especially when government organizations require products and services urgently to fight against the COVID - 19 pandemic.
- 2) Promotion of Atmanirbhar Bharat: GeM has been promoting the Atmanirbhar Bharat policy, introduced in

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the wake of the COVID - 19 pandemic, meant to encourage self - reliance and boost small Indian manufacturers.

- 3) Multiple Entities at One Place: The online marketplace can aggregate demand from multiple entities for similar products, and build on the preferences provided by State governments to small enterprises.
- 4) Easy availability and ease of purchase: A wide range of products and services are available on the online portal approved for purchase at discounted rates for government organizations. It also gives an opportunity to all prospective suppliers from a wide geographical area across the country to participate in the procurement process. Features like bunch bidding, wherein bids of similar nature can be bunched saves the processing time of such different bids at the buyer end.
- 5) Time bound and real time reporting: For all the options of purchases, viz direct purchase, online bidding or reverse auction all the steps of procurement namely delivery of products, receipt and inspection by the buyer organization and payment are time bound. All the time delays are displayed on the dashboard of the user. Such delays also have impact on the ratings of the buyers as well as the seller. Since the bidding is online, the bids are widely advertised. The information related to all the steps of the procurement are conveyed real time through SMS and emails to all stakeholders thereby reducing the paperwork and making the process more efficient.
- 6) Transparency and accountability: One of the main objectives of introducing GeM has been to promote transparency in the public procurement in the country. This is ensured through minimal human interface and real time information been conveyed to all the stakeholders. All these steps are summarized and available on the user - friendly dashboard of the primary user which is the reporting officer of the secondary user, thereby ensuring accountability. The retrievable data online ensures accountability at each step.
- 7) Environment friendly and eliminating paperwork: GeM enables the end to end online procurement. Paperless contracts (the possibility of entering into contracts electronically, either by means of email or using an online platform) promote a faster and wider circulation of information. All the information to all the stakeholders within and outside the organization can be shared real time and without the cumbersome paperwork of the public sector, thus making the process paperless and environment friendly. It is also cost effective as it reduces cost incurred on maintaining files and papers and related manpower.
- 8) Technical support: The GeM helpdesk is available round the clock, where all the queries related to use of the portal and products can be raised and all such queries are dealt with in timely manner, which is a useful feature. Also the GeM portal is continuously updated based on the feedback of the users. Continuous updation and innovative interventions like GeMmy, Gem Samwadare helpful for the user. Interactive sessions are being conducted throughout the country for buyers and sellers to take feedback from end users and address the issues in order to realize its full potential. Further online assistance is also available in the form of a readily available help window.

3.3 Challenges in implementing Government e Marketplace:

With the vision to overcome structural challenges crippling the public procurement in India, the Government of India launched GeM on 9th August 2016. There were several initial challenges in implementing Government e Marketplace (GeM) in India. Some of the key challenges were:

Multiple Portals: There are multiple portals in Central government departments, such as the defence procurement portal, and the Indian Railways e - Procurement System, which could limit GeM's effort to achieve its mandate as the National Public Procurement Portal and provide the benefit of economies of scale and efficiency.

Lack of Compliance: It also faces a bit of a challenge in getting all Central organisations to comply with Rule 149 of the General Financial Rules (GFR) 2017, which mandates that all common - use goods and services that are available on the GeM portal should necessarily be procured on the platform.

Resistance to change: The adoption of GeM represented a significant shift from traditional procurement methods, which can create resistance to change among government officials and suppliers. There was a need to educate and train government officials and suppliers on how to use the platform effectively and overcome resistance to change.

Lack of awareness: There was a lack of awareness among government officials and suppliers about the benefits of GeM and how it worked. There was a need to create awareness campaigns and training programs to increase understanding and adoption rates.

Limited supplier participation: Initially, there was limited participation by suppliers on GeM due to concerns about payment delays, bureaucratic procedures, and lack of trust in the system. The government had to address these concerns and create a more attractive environment for suppliers to participate in the platform.

Technical challenges: The platform relied on technology infrastructure such as servers, networks, and software. Technical challenges such as server downtime, slow response times, and system errors can affect the user experience and confidence in the system. The government had to address these challenges and create a more stable and reliable platform.

Legal and regulatory challenges: Public procurement in India is subject to a complex legal and regulatory framework that can pose challenges for implementing GeM. Ensuring compliance with legal and regulatory requirements was a key challenge for the government.

Overcoming these initial challenges required a collaborative effort between government agencies, suppliers, and technology providers. The government had to invest in creating awareness campaigns, training programs, and improving the platform's technical infrastructure. The government also had to address concerns about payment

delays and create a more attractive environment for suppliers to participate in the platform. The platform had to comply with legal and regulatory requirements to ensure transparency, efficiency, and fairness in public procurement.

4. Current Status

4.1 Overview of the present state of Government e Marketplace -

Since its inception, GeM has proven to be transformative in streamlining and improving public procurement processes in last few years. The Gem has enabled increased compliance through its focus on transparent and rule - based processes. Besides, GeM made the enforcement of complex policies like the public procurement (preference to make in India) (PPP - MII) and public procurement policy for micro and small enterprises (PPP - MSE), which had been challenging to implement and monitor in a manual system efficiently. The Government is committed to the procurement process and experience through GeM for sellers and government buyers to pursue its foundational pillars of inclusivity, usability, transparency, and efficiency. In this context, GeM has a rating system for sellers on the platform, which has a dual purpose: one, to enable buyers to select credible sellers, and two, sellers to establish trust in procurement.

1) Inclusivity

- GeM is integrating with Panchayati Raj Institutions to allow online buying and selling by the Panchayats at the grassroots level. The pilot in Gurgaon district panchayats has been successfully completed.
- GeM has completed online integration with India Post for extending logistics services at the grassroots level. Sellers in the remotest part of the country can opt for availing of logistics services online. There will be complete online visibility of the goods in transit.
- GeM SAHAY app is an initiative to facilitate small sellers to avail of credit financing from various integrated Lenders for the Orders received on GeM Portal.

2) Transparency

- The Forward auction module has been launched facilitating government auctioneers to auction assets using multiple auction modes and monitor the complete selling life cycle of their assets.
- GeM platform supports an advanced analytics framework to identify anomalous behavior and transactions, market intelligence, demand/price forecasting, and procurement planning/monitoring.
- Integration with CPSEs: GeM now has integration with 24 CPSEs ERP systems for post order information exchange. In total over Three lakh orders worth Rs.42, 000 crore were exchanged via the integration.

3) Efficiency

- GeM has implemented Natural Language Processing based search to understand the users' intent thereby allowing the display of relevant and more accurate search results when they search for products or services on GeM.

- GeM has enabled the Buyback mechanism through which the buyer will be able to float a bid to replace old products with new ones and get some additional discount/buyback on the old products.
- BoQ Item - wise evaluation: GeM has enabled schedule - wise evaluation for BoQ (Bill of Quantities) bids. The Buyers can now publish and evaluate item - wise, group - wise, and consignee - wise for the BoQ Bids.

As of February 2023, the Government e Marketplace (GeM) is fully operational and continues to grow in terms of users and transactions. GeM has been able to establish itself as a key procurement platform for the Indian government and has become a model for other countries to emulate.

Some of the key statistics related to GeM's current status are:

Registered buyers: Over 4.8 lakh government buyers have registered on the platform, including central and state government departments, public sector units, and autonomous bodies.

Registered sellers: More than 30 lakh sellers have registered on GeM, including MSMEs, start - ups, and other enterprises.

Transactions: Over 37 lakh transactions have been processed on the platform, with a total value of more than INR 72, 000 crore.

Categories: GeM offers products and services across 20 categories, including electronics, automobiles, office supplies, and consulting services.

GeM 4.0: GeM has launched its fourth version, which includes features such as a unified procurement system, integration with the National Single Window System, and a single sign - on facility for buyers and sellers.

International recognition: GeM has been recognized as the Best Innovation in Public Procurement at the World Procurement Awards 2021 and has been ranked as the top procurement portal in the Asia - Pacific region by the International Trade Centre.

Country of Origin Mandatory: GeM has made it mandatory for sellers to enter the Country of Origin while registering all new products on GeM. This has been enabled on the portal so that the buyers can choose to buy only those products that meet the minimum 50% local content criteria.

GeM Champions – To promote Public procurement digitally, GeM has started an initiative called GeM Champions, wherein Top Buyers, Sellers across the sectors are ranked, the ranking is updated regularly. This ranking is part of non - monetary Incentive Scheme from GeM to ensure that buyers and sellers are rewarded in various ways for their good and desirable behavior at the marketplace.

4.2 Barriers to the adoption and implementation of Government e Marketplace

Portal design issues: The product specification filters are not user friendly. The listing is also not uniform. Similar products are available in different categories, thereby making comparison and processing of the products not possible. Discrepancy in specifications has led to delay/cancellation of many such orders. It is however heartening to mention that queries related to product specification is being addressed by the portal.

Quality assurance: There is a need for a more stringent mechanism for quality assurance of the products available. Since for bulk purchases, bidding has to be opted, the specifications filters on the GeM should be more stringent so as to exclude inferior quality products. In absence of these features and also unavailability of the provision of sample evaluation, complaints regarding the quality have been received on various accounts. Traditionally, for certain products which have generic specifications like gloves, masks etc sample evaluation was done. Presently, in absence of provision for sample evaluation, the buyer has to rely on inspection committee for quality assessment and in case the consignment is rejected at such a terminal phase of procurement, the whole process has to be repeated again which leads to delays. Nevertheless, the facility for pre - inspection is available on portal, but the same is not practical if the order is placed at far off locations and for small amounts. Options for extended warranty AMC CAMC clauses may be looked into.

4.3 Recommendations for improvement

The platform has already been successful in reducing the time and cost of procurement for government entities, while also increasing transparency and efficiency in the procurement process. However, there are several ways that GeM can be further developed and improved:

Expansion of product categories: GeM currently offers a limited number of product categories. Expanding the range of products and services available on the platform could increase its utility and appeal to more government departments and vendors.

Integration with other systems: Integration with other government systems and databases, such as the Ministry of Corporate Affairs or the Goods and Services Tax (GST) network, could further streamline the procurement process and enhance transparency.

Improved vendor management: The GeM platform could introduce better mechanisms for vendor verification and rating, which would help ensure that only reliable and trustworthy vendors are able to participate in the procurement process.

Enhanced user experience: The GeM platform could introduce more user - friendly interfaces and features, making it easier for government departments and vendors to navigate the platform and conduct transactions.

Promotion and awareness: India is a land of entrepreneurs and businessmen, the opening of this new section of market for small sellers has opened a window of opportunities. But not everyone is aware of GeM. An increased awareness needs to be made to get more sellers on the portal which will lead to an increase in choice as well as competition. The Indian government could invest more resources in promoting GeM and increasing awareness of its benefits among government departments, vendors, and other stakeholders. This could help increase adoption and usage of the platform.

Inclusion of international vendors: GeM could consider allowing international vendors to participate in the procurement process, which could increase the range of products available and potentially lead to lower prices.

Product Approval: GeM takes minimum 4 working days to approve a product. Some bids provide 5 - 6 days only to quote rates which includes weekends but product approval time does not include non - working days. This means there is possibility that a bidder may miss a bid if the product is not quoted by him in advance and in process a chance to have a lower price for a goods commodity/service is also lost. Appropriate time should be given to ensure a better competition.

Not all small enterprises on digital platform: Not necessarily a big drawback in the age of smartphones, but yes a digital platform though it open up opportunities for several possible sellers across the country, many small scale enterprises won't benefit out of this marketplace because of the digitised format of the marketplace.

Overall, the future of GeM depends on its ability to adapt to changing market conditions and evolving user needs. By investing in innovation and expanding its reach, GeM has the potential to transform the way that the Indian government procures goods and services, while also promoting greater transparency and efficiency in public procurement processes.

5. Conclusion

5.1 Summary of the study

In conclusion, the introduction of GeM has marked a significant advancement in India's public procurement system. Despite facing initial challenges, GeM promises enhanced transparency, efficiency, and inclusivity. The ongoing evolution of the platform indicates its potential to become a benchmark in digital procurement globally.

5.2 Implications for future research

Government e - Marketplace (GeM) is a relatively new initiative in India that aims to revolutionize the procurement process for government agencies, departments, and public sector undertakings. As the platform continues to evolve and expand, there are several areas where further research can be conducted to better understand its implications for the future. Some suggestions for future research are quoted below: -

- Impact on SMEs: One area of research could focus on the impact of GeM on small and medium - sized enterprises (SMEs) in India. GeM was designed to promote the growth and development of SMEs by providing them with a level playing field and reducing the role of middlemen in procurement. A study could examine whether GeM has achieved this objective and whether SMEs have benefited from increased access to government procurement opportunities.
- Efficiency gains: GeM aims to increase the efficiency and speed of the procurement process for government agencies. Further research could investigate whether the platform has achieved this objective, and whether it has led to cost savings for the government.
- User experience: Another area of research could focus on the user experience of GeM. The platform is designed to be user - friendly and to provide a transparent and fair procurement process. A study could examine whether users find the platform easy to navigate, and whether they feel that it is transparent and fair.
- Impact on corruption: One of the key objectives of GeM is to reduce corruption in government procurement. Further research could investigate whether the platform has been successful in achieving this objective, and whether it has led to a reduction in the role of middlemen in procurement.
- Potential for expansion: As GeM continues to expand and evolve, there may be opportunities to study its potential for further expansion. For example, the platform could be expanded to include procurement by private sector companies, or to include international suppliers. A study could examine the potential benefits and challenges of such an expansion.

To conclude there are several areas where further research could be conducted to better understand the implications of GeM for the future. Studies could focus on the impact of the platform on SMEs, efficiency gains, user experience, corruption, and the potential for expansion.

5.3 Final thoughts

Way Forward

- GeM has ambitions to grow in size and become a one - stop shop for both buyers and sellers. It has gotten off to a great start, and is gradually building an efficient and reliable marketplace ecosystem.
- If it can effectively overcome the challenges that limit its growth, it could go on to be as precious as the shiny mineral crystals that are invoked by its mere name.

A. List of abbreviation used in the project

| | |
|-------|--|
| GeM | Government e Marketplace |
| GDP | Gross domestic product |
| GFR | General Financial Rules |
| SME | Small and medium - sized enterprises |
| TReDS | Trade Receivables Discounting System |
| MSME | Micro, Small and Medium Enterprises |
| IRePS | Indian Railways e - procurement system |
| NSIC | National Small Industries Corporation |
| PSU | Public Sector Undertakings |
| NIC | National Informatics Centre |
| OEM | Original Equipment Manufacturer |
| CRAC | Consignee Receipt - cum Acceptance Certificate |
| PRC | Provisional Receipt Certificate |
| CPSE | Central Public Sector Enterprises |
| ERP | Enterprise Resource Planning |
| BoQ | Bill of Quantities |
| GMV | Gross Merchandise Value |

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