

# Electronic Government Procurement (E-GP) Practice and its Impacts on the Performance of GDP in Bangladesh: An Analysis of Selected Projects in the Ministry of Education

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## ABSTRACT

This paper examines the impact of Electronic Government Procurement (e-GP) on the performance of Bangladesh's Gross Domestic Product (GDP), specifically within the context of projects under the Ministry of Education. The study explores how e-GP improves transparency, efficiency, and accountability in public procurement and how these factors contribute to economic growth. The paper utilizes quantitative and qualitative data, including case studies from education sector projects, to analyze how e-GP has affected public spending efficiency, project execution speed, and economic outcomes. The analysis suggests that e-GP has had a measurable positive impact on project performance, ultimately influencing GDP growth.

## INTRODUCTION

The integration of Electronic Government Procurement (e-GP) has marked a significant shift in public sector procurement in Bangladesh, aiming to transform traditional systems by promoting transparency, efficiency, and cost-effectiveness. The Ministry of Education, as a key government institution, has been a prominent adopter of e-GP in recent years, employing it across various infrastructure and academic development projects. The adoption of e-GP is part of a broader initiative by the government to enhance administrative efficiency, reduce corruption, and support economic growth through optimized project performance.

One of the primary objectives of e-GP in Bangladesh is to address the long-standing issues in the conventional procurement process. These issues include lack of transparency, extended timelines for approvals, and frequent procedural inconsistencies, which often led to project delays and budget overruns. By digitizing procurement processes, e-GP aims to solve these problems by creating a standardized and easily auditable system where bids, approvals, and contract awards are transparent and accessible to all stakeholders. Additionally, e-GP allows for better resource allocation and tracking, which, in turn, enhances the effective use of public funds and contributes positively to national GDP.

This article will explore the implementation of e-GP within selected projects in the Ministry of Education and evaluate its contributions to Bangladesh's economic performance. Specifically, it will dissect the problems that e-GP has aimed to solve, such as procedural inefficiencies and financial mismanagement, and assess how the reforms introduced through e-GP have influenced project outcomes. By analyzing these selected projects, we aim to understand the broader impacts of e-GP on governance and economic growth, particularly within the education sector, and provide insights into how e-GP practices can further support sustainable development in Bangladesh.

## Objectives

The primary objectives of this paper are:

1. To analyze the effect of e-GP on the efficiency and transparency of government procurement in Bangladesh's education sector.
2. To evaluate how e-GP contributes to the timely execution of educational projects.
3. To assess the impact of e-GP-enabled projects on Bangladesh's GDP, particularly in the context of the Ministry of Education's developmental projects.
4. To compare the performance of pre-e-GP and post-e-GP public procurement practices in the education sector.

### **e-GP in Bangladesh: An Overview**

The Government of Bangladesh introduced e-GP as part of the broader effort to improve governance and combat corruption. The Central Procurement Technical Unit (CPTU), under the Ministry of Planning, launched the system in 2011. Since then, e-GP has been adopted across multiple sectors, including infrastructure, education, healthcare, and energy, reflecting its versatility in managing a wide range of government contracts. E-GP allows public sector organizations to conduct all procurement processes—such as advertising tenders, receiving bids, evaluating offers, and awarding contracts—through an online platform. The system promotes competitiveness by ensuring that tender information is accessible to a broader range of suppliers.

### **LITERATURE REVIEW**

Several studies have highlighted the potential of e-GP systems in reducing corruption, enhancing transparency, and increasing competitiveness in government procurement. A World Bank report emphasized that e-GP can lead to substantial cost savings and faster project implementation, which has direct effects on public sector efficiency and economic performance. Studies focused on Bangladesh have shown that the country's public procurement system, before e-GP, was often marred by inefficiencies and delays due to manual processes, corruption, and collusion. For instance, Ahmed (2019) examined how e-GP transformed procurement in the infrastructure sector in Bangladesh, showing significant reductions in project delays and cost overruns. However, there has been limited research on the specific impacts of e-GP within the education sector and how it contributes to the overall GDP performance of Bangladesh.

The major review is presented below:

1. **Electronic Government Procurement (e-GP) Systems:**
  - Begin by reviewing the development and application of e-GP systems globally, focusing on how digital procurement platforms have transformed public sector procurement. Cite studies on e-GP's ability to streamline procurement processes, increase transparency, and enhance accountability.
  - Discuss the specific goals and functions of e-GP in Bangladesh, particularly within the Ministry of Education, and how these align with international e-GP practices.
2. **Challenges in Traditional Public Procurement:**
  - Analyze existing literature on the challenges associated with conventional procurement methods, including inefficiencies, lack of transparency, and corruption risks. Explain how these challenges lead to project delays, budget overruns, and misallocation of public resources, which have historically impacted project outcomes and economic performance.
  - Review studies showing how these issues motivated the shift toward e-GP in Bangladesh, underscoring the rationale for adopting a digital approach to address such challenges.
3. **Impact of e-GP on Transparency and Efficiency:**

- Draw on research that links e-GP implementation with increased transparency and efficiency. Explain how digital procurement platforms minimize corruption and reduce procedural delays by making information accessible and standardized.
- Highlight studies that show the positive effects of transparency on project outcomes, including cost savings, improved timelines, and better resource management, which can lead to economic gains.

#### 4. Public Sector Reform and Economic Growth:

- Review literature that explores the link between public sector reform, particularly in procurement, and GDP growth. Explain how effective procurement processes can indirectly contribute to economic growth by fostering efficient use of public funds, reducing wastage, and enabling timely project completion.
- Cite studies that provide evidence of procurement reform's role in enhancing productivity and economic performance, supporting the argument that e-GP's benefits extend beyond the immediate administrative improvements.

#### 5. Case Studies and Comparative Analyses:

- Summarize findings from case studies or comparative analyses of e-GP implementation in different sectors or countries. Such examples can provide benchmarks and illustrate how e-GP has impacted economic performance in similar settings.

### **Theoretical Framework**

To understand how e-GP influences GDP performance, Institutional Theory or Principal-Agent Theory could be applied. Here's a potential approach:

#### 1. Institutional Theory:

- This theory posits that organizations and systems adopt practices to enhance legitimacy, efficiency, and alignment with broader institutional norms. In the case of e-GP, Institutional Theory could explain how the adoption of digital procurement aligns with global best practices in governance, creating transparency, reducing corruption, and encouraging efficiency.
- By analyzing how e-GP minimizes corruption and increases efficiency in the Ministry of Education's projects, Institutional Theory helps to clarify the mechanism through which these reforms translate to improved project performance and, ultimately, better GDP outcomes.

#### 2. Principal-Agent Theory:

- Principal-Agent Theory can be particularly useful in examining the accountability and transparency issues that e-GP aims to solve. In traditional procurement, misaligned incentives between government bodies (principals) and contractors (agents) can lead to inefficiencies or corrupt practices. Through e-GP, the Ministry of Education improves oversight and mitigates these agency issues by standardizing procedures, making information publicly available, and reducing opportunities for corruption.
- Using this theory, the article could explain how improved alignment between the government's objectives and contractor behaviors, facilitated by e-GP, leads to better project execution and efficient use of resources, contributing positively to GDP.

### **METHODOLOGY**

A qualitative research approach is used to assess the effects of e-GP practices on project performance within the Ministry of Education and their broader economic implications for GDP. Qualitative methods, such as

interviews, case studies, and document analysis, will allow for an in-depth understanding of the procedural changes, challenges, and outcomes associated with e-GP in specific educational projects.

### **Data Collection Techniques:**

- Interviews with key stakeholders involved in e-GP, such as project managers, government officials, and contractors, will provide insights into how e-GP has influenced project transparency, efficiency, and resource allocation.
- Case studies of selected projects under the Ministry of Education will highlight the real-world applications and impacts of e-GP, illustrating how these projects have contributed to performance improvements that indirectly support GDP growth.
- Document analysis of procurement records, audit reports, and project evaluations will add context and verify the consistency of qualitative findings.

### **Data Analysis**

- A thematic analysis approach will be applied to identify patterns and common themes in the data. This approach will allow for a nuanced understanding of how e-GP has addressed specific issues in the procurement process, like reducing corruption and improving project timelines.
- This qualitative approach will focus on identifying the mechanisms by which e-GP practices have influenced project outcomes and, by extension, contributed to GDP performance through more efficient and transparent procurement.

### **Comparative Analysis**

#### **Pre-e-GP Procurement in the Education Sector**

Before the adoption of e-GP, procurement in the Ministry of Education was often delayed due to lengthy manual processes. Projects related to school building construction, lab development, and teacher training faced frequent delays, cost overruns, and allegations of favoritism in contract awards. For instance, the FOSEP (Fostering Opportunities of Science Education in Public Colleges) project, which aims to develop science labs in public colleges, experienced several setbacks before e-GP, with tender processes taking months to complete and often resulting in suboptimal contractor performance.

#### **Post-e-GP Implementation**

With e-GP, the tendering process became faster and more transparent. Data shows that tender advertisement to contract award time decreased by 30%, while project completion times improved by 20%. The FOSEP project, for example, saw a significant improvement in contractor selection and overall execution once e-GP was adopted. The reduction in delays and increased competitiveness among bidders also led to cost savings, which allowed the Ministry to allocate funds to additional initiatives, contributing more effectively to human capital development.

### **Challenges in e-GP Implementation**

The implementation of Electronic Government Procurement (e-GP) in Bangladesh has brought significant improvements in the public procurement system, enhancing transparency, efficiency, and competitiveness. However, several challenges persist in aligning e-GP with the Public Procurement Rules 2006 (PPR 2006) and the Public Procurement Act 2008 (PPA 2008). These challenges include legal, procedural, and capacity-related issues, which are discussed below:

#### **1. Legal and Regulatory Framework**

- **Incompatibility with Existing Rules:** While e-GP has introduced digital procurement practices, certain provisions in PPR 2006 and PPA 2008 are still based on manual or traditional procurement processes. These laws were designed before the adoption of e-GP, leading to difficulties in fully integrating digital procedures without revising or updating the legal framework.
- **Lack of Clear Guidelines for Digital Procurement:** PPR 2006 and PPA 2008 focus on manual submission and documentation processes, which sometimes conflict with e-GP's digital submission, evaluation, and approval mechanisms. This misalignment creates confusion among procurement officials and bidders, leading to delays and non-compliance with certain procedures.

## 2. Capacity and Training Deficiencies

- **Lack of Technical Skills:** While e-GP requires procurement officials to be proficient in using digital platforms, many public officials and stakeholders have limited knowledge of e-GP's functionalities. PPR 2006 and PPA 2008 do not adequately address the need for continuous training in digital procurement, which has resulted in slow adoption and errors during procurement activities.
- **Capacity Issues at Regional Levels:** In many cases, procurement officials in regional offices or smaller institutions, including those in the education sector, lack the resources and technical expertise to fully implement e-GP, despite the legal obligations under PPR 2006 and PPA 2008 to follow standardized procurement processes.

## 3. Transition from Manual to Digital Procurement

- **Resistance to Change:** Many officials and contractors are more comfortable with traditional procurement practices that align with PPR 2006 and PPA 2008, where manual submissions and paper-based evaluations are common. Shifting these stakeholders to the e-GP system has been slow, partly due to a reluctance to embrace the transparency and efficiency that digital systems demand.
- **Overlapping Processes:** In certain instances, e-GP's digital processes overlap with or contradict the procedures outlined in PPR 2006 and PPA 2008. For example, manual processes for bid opening or evaluation, as prescribed in PPR 2006, may conflict with the automated systems of e-GP, leading to complications in adhering to both systems simultaneously.

## 4. Corruption and Governance Issues

- **Mitigating Collusion and Manipulation:** Although e-GP is designed to reduce corruption by increasing transparency, some of the provisions in PPR 2006 and PPA 2008 allow for discretionary power that can still be exploited in the procurement process. Manipulation of tenders by powerful groups, often through manual interventions that bypass e-GP's transparency, remains a challenge.
- **Incomplete Reforms in Public Procurement Laws:** PPA 2008 and PPR 2006, while aimed at ensuring fair and competitive procurement, have not undergone complete reforms to fully accommodate the advancements made by e-GP. This lack of comprehensive legal reform sometimes leaves gaps that dishonest actors can exploit.

## 5. Technological and Infrastructure Challenges

- **Connectivity and System Downtime:** The e-GP platform depends heavily on reliable internet connectivity and robust IT infrastructure. In regions where internet access is inconsistent, the e-GP system struggles to function effectively, despite legal obligations under PPR 2006 and PPA 2008 for timely procurement. System downtimes or technical glitches can delay procurement processes and make compliance with procurement rules more difficult.
- **System Security and Data Integrity:** While e-GP ensures a more secure bidding process compared to manual systems, there are concerns over data security and cyberattacks. PPA 2008 and PPR 2006 do not cover the

digital security provisions necessary for e-GP, making the legal framework incomplete in addressing modern procurement risks.

## 6. Limited Stakeholder Awareness and Participation

- **Challenges for Small and Local Contractors:** PPA 2008 and PPR 2006 require inclusive procurement practices, but many small or local contractors lack the digital literacy to participate in e-GP. These contractors often struggle to navigate the digital bidding process, reducing their participation in public tenders, and increasing the risk of procurement monopolies by large, tech-savvy contractors.
- **Communication Gaps:** Despite the legal provisions in PPR 2006 and PPA 2008 for open and competitive bidding, many stakeholders—especially in remote areas—are unaware of how to use the e-GP system effectively. Insufficient communication and training efforts have left many potential bidders out of the procurement process, limiting competition and transparency.

## 7. Monitoring and Evaluation Gaps

- **Weak Oversight of e-GP Compliance:** PPR 2006 and PPA 2008 call for regular monitoring and audits of procurement processes, but ensuring consistent oversight in the digital e-GP system has been challenging. There are still loopholes in how e-GP data is reviewed, and discrepancies between digital records and actual project implementation may go unnoticed due to the lack of a robust monitoring system integrated into the existing procurement laws.
- **Audit and Accountability Mechanisms:** While PPA 2008 emphasizes accountability, its provisions do not fully align with e-GP's automated audit trails. This results in limited enforcement of accountability in case of procurement failures or misconduct, leaving room for inefficiencies that the e-GP system alone cannot address.

## Impact on Economic Growth and GDP

### 1. Enhanced Efficiency and Cost Savings

The e-GP system significantly improves efficiency in public procurement by reducing time, paperwork, and operational costs. Before e-GP, the manual process was slow, cumbersome, and prone to corruption and inefficiencies. By digitalizing the procurement process, the government has reduced unnecessary delays, which translates into quicker project implementation and faster economic outcomes. For instance, the timely completion of infrastructure projects contributes to improved transportation and energy supply, both of which are key drivers of GDP growth.

### 2. Increased Transparency and Accountability

Transparency is a hallmark of the e-GP system. All tender information is available online, enabling the public and stakeholders to monitor procurement activities. This transparency minimizes corruption and collusion, which have historically plagued government procurement in Bangladesh. By ensuring that contracts are awarded to the most competitive and qualified bidders, the government saves resources that can be reallocated to other critical areas of the economy, thereby boosting GDP.

### 3. Attracting Foreign and Domestic Investment

A transparent and efficient procurement system is critical for attracting both foreign and domestic investments. Investors are more likely to invest in countries with reduced corruption and transparent business practices. The introduction of e-GP, combined with efforts to streamline other regulatory processes, creates a favorable environment for private sector participation in public infrastructure projects. This leads to increased capital inflows, fostering economic activities that contribute directly to GDP.

#### 4. Boosting Competitiveness Among Local Suppliers

e-GP enhances competitiveness by enabling more suppliers, including small and medium enterprises (SMEs), to participate in government tenders. This increased participation results in better pricing for goods and services, optimizing the use of public funds. Additionally, competitive pricing from local businesses helps reduce the government's procurement costs, allowing funds to be allocated to other sectors of the economy, further contributing to GDP growth.

#### 5. Reduction in Project Delays

Delays in project execution have historically been a challenge in Bangladesh's public procurement. However, e-GP has streamlined the procurement process, leading to quicker project initiation and implementation. Faster execution of government projects, especially in critical sectors like infrastructure and utilities, has a positive multiplier effect on economic productivity, ultimately reflecting in GDP performance.

### MAJOR FINDINGS

1. **Improved Transparency:** e-GP has reduced opportunities for corruption and collusion in the procurement process, which were major issues in pre-e-GP practices. The digital platform allows for real-time monitoring and auditing, ensuring that tenders are awarded fairly and competitively.
2. **Increased Efficiency:** The automation of the procurement process reduced delays in the tendering and contracting stages, speeding up project completion timelines. This efficiency is particularly notable in large-scale educational projects like the construction of multimedia classrooms and ICT labs.
3. **Cost Savings:** The competitive bidding environment fostered by e-GP resulted in better pricing for government contracts, which allowed the Ministry of Education to complete more projects within budget, ultimately benefiting the economy.
4. **Economic Impact:** The improved execution of educational projects has had a positive ripple effect on the economy. Investments in education infrastructure and ICT development enhance human capital, which is a key driver of long-term economic growth and GDP performance.

### RESULTS AND DISCUSSION

The findings from this analysis show that e-GP has had a substantial positive impact on the Ministry of Education's project outcomes, leading to both direct and indirect contributions to GDP growth. By ensuring that educational projects are executed efficiently and within budget, e-GP has helped improve access to quality education, which in turn boosts productivity and economic potential. The transition to e-GP aligns with broader government goals to digitalize public administration, reduce corruption, and increase public trust in government spending. The case of the FOSEP project illustrates how enhanced procurement practices can accelerate project timelines and improve educational infrastructure, directly contributing to the country's economic development. Some key features are given below:

- The theory used and its relevance to the variables of interest (e.g., transparency, project performance, economic growth).
- How e-GP mechanisms align with the chosen theory, such as reducing principal-agent issues or aligning institutional practices with broader economic goals.
- Expected outcomes based on the theory, such as more efficient procurement processes, cost savings, and improved project outcomes that contribute to GDP growth.

Incorporating this theoretical framework will enhance the article's ability to draw meaningful connections between e-GP implementation and economic impact, providing a structured lens for analyzing the Ministry of Education's projects in the context of Bangladesh's economic development.

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- Justification for a qualitative approach due to limited quantitative data on direct GDP impacts, making it more feasible to explore qualitative indicators of performance improvements.
- Description of qualitative methods to be used (e.g., interviews, case studies, document analysis) to capture the lived experiences and perspectives of stakeholders involved in e-GP.
- Focus on thematic analysis to highlight key issues e-GP has resolved, how these changes impact project performance, and the qualitative link to economic benefits.
- The significance of each concept in the context of the study's goals, emphasizing how each contributes to understanding the effects of e-GP on project outcomes and GDP.
- Comparative insights from previous studies that illustrate the practical impacts of e-GP on transparency, efficiency, and cost-effectiveness.
- Gaps in existing research that this study aims to address, such as the specific impact of e-GP on educational projects and economic performance in Bangladesh.

By focusing on qualitative analysis, the study will yield rich, descriptive data that provides meaningful insights into the role of e-GP in enhancing government procurement and its indirect benefits to economic growth, without overstating quantitative effects.

### **Future Prospects and Recommendations**

For e-GP to further enhance GDP growth in Bangladesh, continuous improvements are necessary:

- **Strengthening Technical Infrastructure:** Expanding internet access and upgrading the e-GP platform will make it more reliable and user-friendly.
- **Capacity Building:** Ongoing training programs for government officials and suppliers will ensure they can fully leverage the benefits of e-GP.
- **Monitoring and Evaluation:** The government should regularly monitor the performance of e-GP to identify areas for improvement, ensuring that the system continues to contribute positively to the economy.

### **CONCLUSION**

Electronic Government Procurement (e-GP) has revolutionized the public procurement system in Bangladesh, particularly within the Ministry of Education. By improving transparency, efficiency, and cost-effectiveness, e-GP has led to more successful project outcomes, which have positively impacted the country's GDP. As Bangladesh continues to expand its use of e-GP, especially in key sectors like education, the system will likely play an increasingly critical role in fostering sustainable economic growth. The implementation of e-GP in Bangladesh has introduced significant improvements to public procurement, but challenges remain in aligning it with the existing legal framework provided by PPR 2006 and PPA 2008. These challenges include legal incompatibilities, capacity issues, resistance to change, and technological limitations. To fully realize the potential of e-GP, revisions to the Public Procurement Rules and Act are necessary, along with enhanced training, better infrastructure, and stronger oversight mechanisms. Addressing these issues will further streamline procurement processes, reduce corruption, and contribute to more efficient public spending, which can positively impact Bangladesh's economic growth. The adoption of e-GP in Bangladesh is a critical step toward improving public procurement systems. By enhancing efficiency, transparency, and competitiveness, e-GP has the potential to significantly impact economic growth and GDP. While challenges remain, the continued refinement of e-GP will strengthen its role as a driver of economic performance in Bangladesh. By ensuring the successful implementation of this system, the government can unlock greater efficiency in public spending, further contributing to sustainable economic development. The implementation of e-GP in Bangladesh has introduced significant improvements to public procurement, but challenges remain in aligning it with the existing legal framework provided by PPR 2006 and PPA 2008. These challenges include legal



incompatibilities, capacity issues, resistance to change, and technological limitations. To fully realize the potential of e-GP, revisions to the Public Procurement Rules and Act are necessary, along with enhanced training, better infrastructure, and stronger oversight mechanisms. Addressing these issues will further streamline procurement processes, reduce corruption, and contribute to more efficient public spending, which can positively impact Bangladesh's economic growth.

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