

Global Journal of Engineering and Technology Advances

eISSN: 2582-5003 Cross Ref DOI: 10.30574/gjeta

Journal homepage: https://gjeta.com/



(RESEARCH ARTICLE)



Implementation of public procurement standards in Nigeria: Challenges and prospects

Orseer Ama 1, Tyungu Aki 2 and Michael Toryila Tiza 3,*

- ¹ Procurement Officer, Federal Polytechnic Wannune, Nigeria.
- ² Physical Planning unit, Federal Polytechnic Wannune, Nigeria.
- ³ Civil Engineering Department, University of Nigeria, Nsukka, Nigeria.

Global Journal of Engineering and Technology Advances, 2023, 16(03), 090-098

Publication history: Received on 11 July 2023; revised on 06 September 2023; accepted on 08 September 2023

Article DOI: https://doi.org/10.30574/gjeta.2023.16.3.0167

Abstract

This study delves into the challenges and prospects associated with implementing public procurement standards in Nigeria. Public procurement plays a crucial role in acquiring goods, services, and works essential for public service delivery and development. However, Nigeria faces multifaceted challenges including inadequate legal frameworks, corruption, capacity deficiencies, and weak monitoring and enforcement mechanisms. These challenges compromise transparency, efficiency, and accountability in the allocation of public resources. Despite these challenges, there are promising prospects for improvement. Legal reforms, harmonization of regulations, and technology adoption are key strategies. Strengthening transparency and accountability through e-procurement systems, whistleblower protection, and public participation is critical. Additionally, capacity building and professional development for procurement personnel, as well as collaboration with international partners, offer avenues for progress. Drawing lessons from successful cases such as Singapore and the United Kingdom, Nigeria can adapt international best practices to its context. By addressing challenges and embracing prospects, Nigeria can create a procurement landscape that ensures transparency, efficiency, and fairness, contributing to sustainable development and the well-being of its citizens. However, achieving this requires collective commitment, adoption of best practices, and a determination to enhance public procurement standards.

Keywords: Public procurement; Nigeria; Challenges; prospects; Implementation; Standards; Transparency; efficiency; Accountability; Legal framework; Corruption

1. Introduction

1.1. Background and Importance of Public Procurement

Public procurement serves as a critical mechanism for governments to acquire goods, services, and works necessary for public service delivery and infrastructure development (Arrowsmith & Geo Quinot, 2013). In the Nigerian context, public procurement has gained increasing prominence as a vital component of governance and economic development (Dorasamy & Fagbadebo, 2021). The prudent management of public funds through transparent and efficient procurement processes is essential for fostering accountability, achieving value for money, and promoting socioeconomic growth.

The Nigerian government's expenditure on public procurement constitutes a substantial portion of its budget, making it imperative to ensure that these funds are utilized optimally (Evenett & Hoekman, 2005). The economic impact of well-executed procurement extends beyond mere financial transactions, influencing broader development goals and

^{*} Corresponding author: Michael Torvila Tiza

ensuring the availability of quality infrastructure, healthcare, education, and other essential services (Arrowsmith & Geo Quinot, 2013).

1.2. Overview of Public Procurement Standards

Public procurement standards encompass a set of regulations, guidelines, and ethical principles that govern the entire procurement lifecycle (Evenett & Hoekman, 2005). These standards are designed to ensure fairness, transparency, competition, and accountability in the procurement process. They define the procedures for soliciting bids, evaluating proposals, awarding contracts, and managing supplier relationships (Farazmand, 2023). By adhering to these standards, governments can mitigate the risks of corruption, nepotism, and wastage of public resources (Geo Quinot & Arrowsmith, 2013).

Internationally recognized frameworks, such as the United Nations Commission on International Trade Law (UNCITRAL) Model Law on Public Procurement, provide a basis for establishing effective procurement systems. These standards encourage consistency and compatibility in procurement practices, enabling economies to engage in international trade with confidence (Strong, 2016).

1.3. Purpose and Scope of the Discussion

The purpose of this discussion is to critically examine the challenges and prospects associated with the implementation of public procurement standards in Nigeria. By delving into these issues, we aim to identify the impediments that hinder the efficient execution of procurement processes and explore the opportunities for improvement. This discourse will assess the current state of public procurement in Nigeria, highlight the key obstacles faced, and propose potential solutions to enhance the effectiveness of procurement practices.

In the subsequent sections, we will delve into the challenges posed by the existing framework, delve into potential avenues for improvement, and provide insights into successful practices from other countries that could be adapted to the Nigerian context. Through this analysis, we hope to contribute to the ongoing dialogue on strengthening public procurement standards and promoting sustainable socio-economic development in Nigeria.

2. Challenges in Implementing Public Procurement Standards

Effective implementation of public procurement standards in Nigeria faces various challenges that hinder transparency, efficiency, and accountability (Nwoko et al., 2018). These challenges are multifaceted, ranging from legal and regulatory issues to institutional deficiencies.

2.1. Legal and Regulatory Framework

2.1.1. Inadequate or Outdated Procurement Laws

One of the primary challenges in implementing public procurement standards in Nigeria is the presence of inadequate or outdated procurement laws. The existing legal framework might not adequately address the complexities of modern procurement practices, leading to ambiguities and gaps that can be exploited (Nyeck, 2016). This situation can hinder the fair and competitive bidding process, resulting in less-than-optimal procurement outcomes. To address this challenge, a comprehensive review and update of procurement laws are necessary to align them with international best practices and the evolving landscape of public procurement (Strong, 2016).

2.1.2. Lack of Coherence between Different Regulations

Nigeria's procurement landscape often involves a multitude of regulations from various government bodies. These regulations may lack coherence and uniformity, causing confusion for both procuring entities and potential suppliers (Nyeck, 2016). The lack of coordination can result in inconsistent procurement processes, leading to inefficiencies and potential instances of non-compliance. Streamlining and harmonizing regulations across different government entities would contribute to a more cohesive and effective procurement environment (Strong, 2016).

2.2. Corruption and Lack of Transparency

2.2.1. Bribery and Kickbacks

Corruption remains a significant challenge in Nigerian public procurement. Bribery, kickbacks, and other forms of corrupt practices can compromise the integrity of the procurement process, leading to contract awards that are not

based on merit (Nwoko et al., 2018). Such practices divert public funds, discourage legitimate businesses from participating, and ultimately undermine the delivery of quality goods and services. Combating corruption requires strengthening anti-corruption measures, promoting ethical behavior, and instituting severe penalties for those engaged in corrupt activities (Nyeck, 2016).

2.2.2. Limited Access to Information

Transparency is a cornerstone of effective procurement, yet limited access to information regarding procurement processes and decisions remains a concern (Nwoko et al., 2018). Lack of access prevents stakeholders, including the public, from monitoring and scrutinizing procurement activities. Public procurement requires comprehensive disclosure of information, including bid evaluations, contract awards, and supplier performance data. Addressing this challenge involves implementing e-procurement systems, creating platforms for information sharing, and ensuring that procurement-related information is readily accessible to all stakeholders (Strong, 2016).

2.3. Capacity and Training

2.3.1. Insufficient Skills of Procurement Personnel

Effective procurement requires skilled professionals who understand the intricacies of the process. However, there's often a gap in the skills and capabilities of procurement personnel (Strong, 2016). Inadequate understanding of procurement rules and techniques can lead to errors, inconsistencies, and mismanagement of procurement projects (Mahamadu et al., 2018). Investing in training and capacity building for procurement staff is essential to equip them with the necessary expertise to conduct transparent and efficient procurement processes (Newman , 2014).

2.3.2. Inadequate Training Programs

While training is essential, the availability and quality of training programs can be limited. Procurement personnel may not have access to comprehensive and up-to-date training that covers the entire procurement lifecycle (Mahamadu et al., 2018). Developing robust training programs, both for newcomers and for continuous professional development, is crucial for enhancing the overall competency of procurement professionals (Newman, 2014).

2.4. Monitoring and Enforcement

2.4.1. Weaknesses in Oversight Mechanisms

Effective monitoring and oversight are vital to ensure compliance with procurement standards (Farazmand, 2023). Weaknesses in oversight mechanisms, including inadequate internal controls and external audits, can lead to misuse of funds, contract variations, and deviation from established procedures. Strengthening oversight through independent audits and rigorous evaluation processes is necessary to prevent and identify irregularities (Dorasamy & Fagbadebo, 2021).

2.4.2. Challenges in Holding Violators Accountable

Even when irregularities are detected, challenges in holding violators accountable can hinder effective enforcement. Legal processes might be lengthy and convoluted, allowing wrongdoers to escape consequences (Nwoko et al., 2018). Establishing expedited mechanisms for addressing violations and imposing appropriate sanctions is essential to deter misconduct and ensure that those who undermine procurement standards face appropriate consequences (Farazmand, 2023).

Table 1 The Challenges of Implementing Public Procurement Standards in Nigeria.

Challenges	Description	Impact	References	
2.1 Legal and Regulatory Framework				
2.1.1 Inadequate or Outdated Procurement Laws	Existing procurement laws may not address modern complexities, leading to ambiguities and gaps that undermine fair bidding.	Hinders fair competition, potentially resulting in suboptimal procurement outcomes.	Nyeck, 2016; Strong, 2016	
2.1.2 Lack of Coherence between Different Regulations	Diverse regulations from various entities cause confusion and inconsistencies in procurement processes.	Inefficiencies and non- compliance issues arise due to inconsistent procedures.	Nyeck, 2016; Strong, 2016	
2.2 Corruption and Lack of Transparency				
2.2.1 Bribery and Kickbacks	Corruption compromises the merit- based contract award process, diverting public funds and discouraging legitimate businesses.	Undermines integrity, quality of services, and efficient resource allocation.	Nwoko et al., 2018; Nyeck, 2016	
2.2.2 Limited Access to Information	Lack of transparency due to restricted access to procurement-related information prevents effective monitoring and scrutiny.	Hinders public and stakeholder oversight of procurement activities.	Nwoko et al., 2018; Strong, 2016	
2.3 Capacity and Training				
2.3.1 Insufficient Skills of Procurement Personnel	Lack of skilled professionals leads to errors, inconsistencies, and mismanagement in procurement.	Risks compromising procurement process quality and integrity.	Strong, 2016; Mahamadu et al., 2018	
2.3.2 Inadequate Training Programs	Limited access to comprehensive training leaves procurement personnel without necessary skills and knowledge.	Hinders professional development and perpetuates skill gaps.	Strong, 2016; Mahamadu et al., 2018	
2.4 Monitoring and Enforcement				
2.4.1 Weaknesses in Oversight Mechanisms	Inadequate internal controls and audits result in misuse of funds and deviations from procedures.	Compromises adherence to standards and risks misallocation of resources.	Farazmand, 2023; Dorasamy & Fagbadebo, 2021	
2.4.2 Challenges in Holding Violators Accountable	Lengthy legal processes make enforcing consequences for procurement violations difficult.	Weakens the deterrent effect and allows misconduct to go unpunished.	Nwoko et al., 2018; Farazmand, 2023	

3. Prospects for Enhancing Public Procurement Standards

The challenges in implementing public procurement standards in Nigeria are not insurmountable. By strategically addressing these challenges, there are several promising prospects for enhancing the efficiency, transparency, and accountability of public procurement processes (Nwoko et al., 2018).

3.1. Legal Reforms and Strengthening Regulations

3.1.1. Review and Update of Procurement Laws

One of the key prospects for improvement lies in a comprehensive review and update of existing procurement laws (Achua, 2011). By aligning these laws with modern best practices and international standards, Nigeria can establish a solid legal foundation for effective procurement. This involves clarifying ambiguities, addressing gaps, and

incorporating provisions that promote fairness, competition, and integrity in the procurement process (Akenroye, 2013).

3.1.2. Harmonization of Regulations for Consistency

Harmonizing procurement regulations across various government entities is crucial to creating a cohesive and streamlined procurement environment (Akenroye, 2013). This prospect involves working towards consistent procurement procedures, documentation, and evaluation criteria. By promoting coherence in regulations, Nigeria can simplify the procurement process for both procuring entities and suppliers, reducing confusion and enhancing compliance (Achua, 2011).

3.2. Promoting Transparency and Accountability

3.2.1. Adoption of E-Procurement Systems

The adoption of electronic procurement (e-procurement) systems offers a transformative opportunity to enhance transparency, efficiency, and competition in the procurement process. E-procurement platforms enable real-time tracking of procurement activities, from bid submission to contract award, reducing opportunities for manipulation and corruption (Imoni et al., 2023). By integrating technology into procurement, Nigeria can significantly reduce the risk of irregularities and improve the overall procurement experience (Akenroye, 2013).

3.2.2. Whistleblower Protection and Reporting Mechanisms

To enhance transparency and accountability, establishing robust whistleblower protection mechanisms is crucial. Whistleblowers play a vital role in exposing corrupt practices and irregularities. By providing legal safeguards and incentives for whistleblowers, Nigeria can encourage individuals to come forward with credible information about procurement misconduct, ultimately deterring unethical behavior (Achua, 2011).

3.3. Capacity Building and Professional Development

3.3.1. Comprehensive Training for Procurement Personnel

Investing in comprehensive training programs for procurement personnel is a prospect with significant potential (Achua, 2011). Well-trained professionals are better equipped to navigate the complexities of procurement, ensuring adherence to standards and minimizing the risk of errors. Ongoing training should cover not only procedural aspects but also ethical considerations and best practices in procurement management (Akenroye et al., 2013).

3.3.2. Collaboration with Professional Procurement Organizations

Collaborating with professional procurement organizations can enhance capacity building efforts. These organizations offer certification programs, networking opportunities, and knowledge sharing platforms that contribute to the continuous development of procurement professionals (Akenroye & Aju, 2013). Engaging with such organizations can raise the overall expertise and standards of procurement practitioners (Achua, 2011).

3.4. Strengthening Monitoring and Enforcement

3.4.1. Independent Auditing and Procurement Reviews

Strengthening monitoring mechanisms through independent audits and procurement reviews is a promising way to ensure compliance with standards (Afolabi et al., 2019). Independent auditors can assess procurement processes and identify deviations, irregularities, and opportunities for improvement. Regular and thorough reviews contribute to transparency and accountability while deterring misconduct (Akenroye & Aju, 2013).

3.4.2. Sanctions for Violations and Misconduct

Imposing appropriate sanctions for procurement violations and misconduct is essential for maintaining the credibility of procurement standards (Akenroye & Aju, 2013). Prospectively, Nigeria can establish clear guidelines for penalties and consequences, ensuring that those who breach procurement regulations face meaningful consequences that deter future misconduct (Afolabi et al., 2019).

Table 2 Prospects for Enhancing Public Procurement Standards in Nigeria: Strategies for Improved Efficiency, Transparency, and Accountability

3.1 Legal Reforms and Strengthening Regulations				
3.1.1 Review and Update of Procurement Laws	Comprehensive review and updating of procurement laws to align with modern best practices and international standards.	Establishes a solid legal foundation for effective procurement, promoting fairness, competition, and integrity.	Achua, 2011; Akenroye, 2013	
3.1.2 Harmonization of Regulations for Consistency	Harmonizing procurement regulations to create a cohesive and streamlined environment.	Simplifies procurement procedures, documentation, and evaluation criteria, enhancing compliance.	Akenroye, 2013; Achua, 2011	
3.2 Promoting Transparency and Accountability				
3.2.1 Adoption of E- Procurement Systems	Adoption of e-procurement systems for enhanced transparency and efficiency.	Real-time tracking of procurement activities reduces manipulation and corruption risks.	Akenroye, 2013	
3.2.2 Whistleblower Protection and Reporting Mechanisms	Establishing whistleblower protection mechanisms to encourage reporting of misconduct.	Exposing corrupt practices through legal safeguards and incentives, deterring unethical behavior.	Achua, 2011	
3.3 Capacity Building and Professional Development				
3.3.1 Comprehensive Training for Procurement Personnel	Investing in training programs to enhance procurement professionals' skills.	Equips personnel to navigate complexities, adhere to standards, and minimize errors.	Achua, 2011; Akenroye et al., 2013	
3.3.2 Collaboration with Professional Procurement Organizations	Collaborating with organizations for certification and continuous development.	Raises overall expertise and standards of procurement practitioners.	Akenroye & Aju, 2013; Achua, 2011	
3.4 Strengthening Monitoring and Enforcement				
3.4.1 Independent Auditing and Procurement Reviews	Strengthening monitoring through independent audits and reviews.	Identifies deviations, irregularities, and opportunities for improvement, promoting transparency and deterring misconduct.	Afolabi et al., 2019; Akenroye & Aju, 2013	
3.4.2 Sanctions for Violations and Misconduct	Imposing appropriate sanctions to maintain procurement standards' credibility.	Establishes consequences that deter future violations and misconduct.	Akenroye & Aju, 2013; Afolabi et al., 2019	

4. Case Studies: Successful Implementations in Other Countries

4.1. Lessons Learned from Countries with Effective Procurement Systems

Studying countries with effective procurement systems provides valuable insights into strategies that Nigeria could adopt to enhance its own practices. For instance:

4.1.1. Singapore

Known for its efficient procurement processes, Singapore emphasizes transparency, competition, and innovation. Their centralized procurement agency, coupled with advanced e-procurement systems, enables real-time monitoring and

streamlined bidding (Quah, 2015). Nigeria could learn from Singapore's emphasis on technology adoption and centralized oversight.

4.1.2. United Kingdom

The UK's Public Contracts Regulations emphasize competition, value for money, and integrity. The UK's experience highlights the importance of clear legal frameworks, robust procurement guidelines, and continuous engagement with the private sector. Nigeria could benefit from the UK's emphasis on ethical conduct and stakeholder involvement (Walker & Brammer, 2009).

4.2. Adapting International Best Practices to the Nigerian Context

While each country's context is unique, Nigeria can adapt international best practices to suit its specific challenges and opportunities:

4.2.1. Technology Integration

Many successful countries leverage e-procurement systems to increase transparency and efficiency. Nigeria could consider adopting and customizing such systems to suit its needs, enabling real-time tracking of procurement activities and reducing human intervention.

4.2.2. Capacity Building

Countries often invest in training programs for procurement personnel to ensure they have the necessary skills. Nigeria can establish a comprehensive training framework, focusing on legal compliance, ethical conduct, and practical procurement techniques (Imoni et al., 2023).

4.2.3. Public Participation

Engaging the public in the procurement process promotes transparency and accountability. Nigeria can implement mechanisms for public scrutiny of procurement decisions, encouraging citizens to raise concerns and report irregularities.

4.2.4. Anti-Corruption Measures

Many successful countries have robust anti-corruption strategies. Nigeria can establish strong enforcement mechanisms, such as an independent anti-corruption agency dedicated to monitoring and investigating procurement-related misconduct.

4.2.5. Partnerships

Collaborating with professional procurement organizations and international agencies can provide Nigeria with access to expertise, best practices, and resources that accelerate its procurement reform efforts (Imoni et al., 2023).

By studying these successful case studies and adapting relevant practices, Nigeria can tailor its approach to overcome specific challenges and build a procurement system that is responsive, transparent, and aligned with its developmental aspirations.

5. Conclusion

In conclusion, the implementation of public procurement standards in Nigeria presents a significant opportunity for fostering transparency, efficiency, and accountability in the allocation of public resources. Throughout this discussion, we have examined the challenges that hinder the effective execution of procurement processes and explored the prospects for improvement.

5.1. Summary of Key Challenges

We have identified several key challenges, including inadequate legal frameworks, corruption, capacity deficiencies, and weaknesses in monitoring and enforcement. These challenges collectively impede Nigeria's ability to achieve optimal procurement outcomes, leading to the misallocation of resources, compromised services, and diminished public trust.

5.2. Emphasis on the Potential Benefits of Improved Implementation

However, the potential benefits of enhanced public procurement implementation are substantial. A transparent and efficient procurement system can lead to improved infrastructure, better quality services, and increased value for money. By adhering to international standards and best practices, Nigeria can stimulate economic growth, attract foreign investment, and promote good governance.

5.3. Call to Action for Collaborative Efforts to Enhance Public Procurement Standards in Nigeria

Realizing the prospects for improvement requires collaborative efforts from various stakeholders. The government, regulatory bodies, private sector, civil society, and international partners must come together to drive meaningful change. We call for the following actions:

Legal Reforms

The government should prioritize the review and update of procurement laws to address gaps and ambiguities, ensuring they align with modern standards.

• Technology Adoption

The adoption of e-procurement systems can revolutionize transparency and efficiency. Government entities should work towards integrating technology into their procurement processes.

Capacity Building

Investments in comprehensive training programs for procurement professionals will enhance their skills and promote ethical practices.

• Transparency Measures

Establishing platforms for public participation and implementing whistleblower protection mechanisms can empower citizens to hold procurement processes accountable.

Collaboration

Partnerships with professional procurement organizations and international entities can provide invaluable expertise and resources.

By taking these actions, Nigeria can pave the way for a procurement landscape that upholds integrity, efficiency, and fairness, ultimately contributing to the nation's sustainable development and the well-being of its citizens. The path forward requires a commitment to change, the adoption of best practices, and the collective determination to enhance public procurement standards for the betterment of Nigeria's future.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

References

- [1] Achua, J. K. (2011). Anti-corruption in public procurement in nigeria: challenges and competency strategies. Journal of Public Procurement, 11(3), 323–333. https://doi.org/10.1108/jopp-11-03-2011-b002
- [2] Afolabi, A., Ibem, E., Aduwo, E., Tunji-Olayeni, P., & Oluwunmi, O. (2019). Critical Success Factors (CSFs) for e-Procurement Adoption in the Nigerian Construction Industry. Buildings, 9(2), 47. https://doi.org/10.3390/buildings9020047
- [3] Akenroye, T. O. (2013). An appraisal of the use of social criteria in public procurement in Nigeria. Journal of Public Procurement, 13(3), 364–397. https://doi.org/10.1108/jopp-13-03-2013-b005

- [4] Akenroye, T. O., & Aju, O. (2013). Barriers to SMEs participation in public procurement in Nigeria: some preliminary results. International Journal of Entrepreneurship and Innovation Management, 17(4/5/6), 314. https://doi.org/10.1504/ijeim.2013.059894
- [5] Akenroye, T. O., Oyegoke, A. S., & Eyo, A. B. (2013). Development of a framework for the implementation of green public procurement in Nigeria. International Journal of Procurement Management, 6(1), 1. https://doi.org/10.1504/ijpm.2013.050607
- [6] Arrowsmith, S., & Geo Quinot. (2013). Public procurement regulation in Africa. Cambridge University Press.
- [7] Dorasamy, N., & Fagbadebo, O. (2021). Public procurement, corruption and the crisis of governance in Africa. Palgrave Macmillan.
- [8] Evenett, S. J., & Hoekman, B. M. (2005). International Cooperation and the Reform of Public Procurement Policies. World Bank Publications.
- [9] Farazmand, A. (2023). Global Encyclopedia of Public Administration, Public Policy, and Governance. Springer Nature.
- [10] Geo Quinot, & Arrowsmith, S. (2013). Public Procurement Regulation in Africa. Cambridge University Press.
- [11] Imoni, S., Ama, O., Akande, E.O., Jiya, V.H., Onuzulike, C., Sesugh, T. and Tiza, M. (2023). A Comprehensive Review of Engineering, Procurement, and Construction in Nigeria. Journal of Management Studies and Development, 2(3), pp.202–222.
- [12] Mahamadu, A.-M., Manu, P., Booth, C., Olomolaiye, P., Coker, A., Ibrahim, A., & Lamond, J. (2018). Infrastructure procurement skills gap amongst procurement personnel in Nigeria's public sector. Journal of Engineering, Design and Technology, 16(1), 2–24. https://doi.org/10.1108/jedt-09-2017-0089
- [13] Newman, V. (2014). Reliability Guide for Design Management and Procurement Personnel.
- [14] Nwoko, C., Ikejiofor, Amarachi Grace, Nnaji, N. T., & Mogues, T. (2018). Federal government support for agriculture in Nigeria: Analysis with a public expenditure lens. Intl Food Policy Res Inst.
- [15] Nyeck, S. N. (2016). Public Procurement Reform and Governance in Africa. New York Palgrave Macmillan Us: Imprint: Palgrave Macmillan.
- [16] Quah, J. S. T. (2015). Singapore's Corrupt Practices Investigation Bureau. Asian Education and Development Studies, 4(1), 76–100. https://doi.org/10.1108/aeds-10-2014-0049
- [17] Strong, S. I. (2016). Clash of Cultures: Epistemic Communities, Negotiation Theory and International Lawmaking at the United Nations Commission on International Trade Law (UNCITRAL). Social Science Research Network.
- [18] Walker, H., & Brammer, S. (2009). Sustainable procurement in the United Kingdom public sector. Supply Chain Management: An International Journal, 14(2), 128–137. https://doi.org/10.1108/13598540910941993