

Digital-Based Business Licensing Reform in Indonesia: An Analysis of the Online Single Submission (OSS) Policy

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ARTICLE INFO	ABSTRACT
Keywords: Business Licensing; Public Policy; Online Single Submission.	The Online Single Submission (OSS) policy represents a key reform in Indonesia's business licensing system, as part of a broader digital transformation in public governance. Introduced to reduce bureaucratic complexity, accelerate service delivery, and improve transparency, OSS aims to enhance legal certainty for businesses. This study examines the OSS policy through the lens of public administration reform by analyzing its regulatory design, implementation mechanisms, outcomes, and challenges. A narrative policy review approach served as the primary methodological framework, including systematic literature analysis of regulations, scholarly articles, policy reports, and government documents, followed by descriptive-qualitative thematic analysis. Findings show that OSS aligns with e-government and good governance principles, contributing to faster licensing, integration of business data via the <i>Nomor Induk Berusaha</i> (NIB), and improved service transparency. The risk-based licensing approach marks a shift from administrative control to a more adaptive and proportional regulatory model. However, challenges remain, including regulatory disharmony between central and local governments, limited bureaucratic capacity, unequal digital infrastructure, and low digital literacy among MSMEs. Data governance and cybersecurity issues also remain significant concerns. In conclusion, while OSS is a strategic policy tool for reforming business licensing, its full potential is not yet realized. Strengthening institutional capacity, improving regulatory coherence, enhancing digital literacy, and expanding technological infrastructure are vital for the sustainability and effectiveness of Indonesia's digital governance reform.

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INTRODUCTION

2018 marked a significant milestone in the history of licensing in Indonesia. In that year, President Joko Widodo enacted Government Regulation (PP) Number 24 of 2018 concerning Electronically Integrated Business Licensing Services. Through the Online Single Submission (OSS) system, the government committed to providing fast, easy, and integrated licensing services (E. Setyawan et al., 2024; Susanty, 2022; Tomo et al., 2021; Zahara et al., 2023). The existence of OSS is also part of the implementation of e-government, or the use of information and communication technology by the government to improve the quality of

services for citizens, including business actors. Feng (2002) stated that e-government is a complex change initiative involving the adoption of technology to support operational transformation and the effectiveness of government institutions. Meanwhile, Layne and Lee (2001) divided the evolution of government digital services into four stages: cataloging, transactions, vertical integration, and horizontal integration. In the first stage, the government provides information online; the second stage enables transactional interactions; the third stage integrates services between central and regional governments; and the fourth stage unifies cross-sector services in a single integrated platform. They noted that the transition to the full integration stage is not just a matter of technology—integration here also includes governance, regulations, and organizational culture (Bozkus, 2024).

The OSS system represents a significant advancement in Indonesia's digital governance landscape, particularly when examined within the broader context of global e-government development (Abdurrahman, 2025; Bwalya, 2018; R. Setyawan et al., 2024; Widodo & Kusnan, 2023). International experiences demonstrate that successful digital licensing reforms require not only technological infrastructure but also comprehensive institutional readiness (Moon, 2002; West, 2004). Studies from South Korea's e-government initiatives (Kim & Grant, 2010) and Singapore's single-window systems (Lau, 2003) indicate that digital transformation in public services must address regulatory harmonization, organizational capacity, and user accessibility simultaneously. Building upon these insights, the Indonesian OSS system can be understood as an attempt to leapfrog traditional bureaucratic structures through integrated digital platforms (Bernot et al., 2024; Hafel, 2023; Maulana & Firmansyah, 2023; Prasodjo, 2025).

Similarly, research on e-government adoption in developing countries highlights the critical importance of bridging the digital divide and ensuring equitable access to online services (Ali & Faroque, 2023; Atobishi & Mansur, 2025; Mahlangu & Ruhode, 2021; Masadeh et al., 2023). The work of Rokhman et al. (2022) on OSS implementation aligns with these international findings, demonstrating that bureaucratic reform requires more than system deployment. Recent studies on digital licensing in ASEAN countries (Kassen, 2022) further emphasize that regulatory complexity and inter-governmental coordination remain persistent challenges across different national contexts. This study builds upon this existing literature by examining how Indonesia's specific socio-political and administrative context shapes OSS implementation, while also considering the unique characteristics of risk-based licensing frameworks that differentiate OSS-RBA from conventional e-licensing systems studied elsewhere.

Referring to this typology, OSS occupies the third and fourth stages because it allows users to access cross-sector services without switching systems or experiencing repeated procedures. Over time, in line with the issuance of Law Number 11 of 2020 concerning Job Creation, the OSS system was updated to a risk-based system through Government Regulation Number 5 of 2021 concerning the Implementation of Risk-Based Business Licensing (OSS-RBA). This approach classifies business types based on scale and risk level, allowing permits to be granted more proportionally and according to the characteristics of business activities (Wulandari, Patawari, Esa, & Mery, 2022). Thus, OSS is not merely an administrative change but rather part of a structural transformation toward more modern governance, namely e-government and ease of doing business (Wulandari et al., 2022). Before OSS, business actors

in Indonesia faced a complex and time-consuming licensing process. Each related permit—such as a business permit, environmental permit, location permit, or operational permit—generally required processing through a different agency, each with its own requirements and procedures. This not only increased administrative burdens and costs but also created legal uncertainty and distorted competition, particularly for small businesses (Ahmad Hafidz et al., 2021). Furthermore, the fragmentation of licensing authority across multiple government levels created opportunities for rent-seeking behavior and informal payments, which disproportionately affected micro, small, and medium enterprises (MSMEs) that lacked the resources to navigate complex bureaucratic processes (World Bank, 2020).

This situation significantly hampered investment growth and business development in both the formal and informal sectors. Reform of the licensing system through OSS emerged in response to the need to accelerate services, reduce bureaucratic burdens, and strengthen legal certainty. With an integrated online licensing system, the licensing process is expected to be faster, more transparent, and more efficient (Rokhman, Tobirin, Ali, & Kurniasih, 2022). In this context, it is important to evaluate the extent to which the OSS policy as a reform instrument has truly achieved its objectives: accelerating services, increasing transparency, simplifying licensing access, and supporting the ease of doing business in Indonesia. However, regulatory changes and the adoption of digital technology also present challenges in implementation, both in terms of technical aspects, regulations, institutional capacity, and the readiness of business actors (especially MSMEs). Therefore, this article aims to critically examine the OSS/OSS-RBA regulatory framework, potential benefits, and implementation challenges based on national literature and regulations, and then evaluate the effectiveness of the OSS policy in actual implementation.

Specifically, through a narrative policy review approach, this study will discuss (1) the evolution of OSS regulations in Indonesia; (2) the contribution of OSS to licensing bureaucratic reform; (3) obstacles and challenges to implementation at the regional and business actor levels; and (4) policy implications for future improvements. This study has strategic significance: it provides a critical and systematic understanding of the implementation of digital business licensing policies, which are a key pillar in efforts to create ease of doing business and increase national economic competitiveness. By understanding the benefits and constraints of OSS in detail, it is hoped that it will assist policymakers, academics, business actors, and relevant stakeholders in formulating recommendations for system improvements, both in terms of regulations, technical aspects, and human resource capacity. Furthermore, with the introduction of risk-based classification through OSS-RBA, analysis of how this system is implemented across various regions and business scales is crucial to determine whether OSS has successfully bridged disparities between regions or whether it has deepened inequality in licensing access for small business owners in certain areas.

METHOD

This study uses a qualitative approach with a narrative policy review design to analyze the Online Single Submission (OSS) policy as an instrument for business licensing reform in Indonesia. This approach allows for in-depth policy analysis through a review of regulatory

documents and academic literature to understand the dynamics of OSS formulation, regulatory changes, and implementation challenges within the context of modern public policy.

Narrative policy review was chosen because this method is relevant for examining policies undergoing ongoing regulatory transformation, such as the OSS (Online Financial System) evolving from an integrated to a risk-based licensing system. This approach emphasizes critical interpretation of policy documents, rather than solely numerical measurements, making it suitable for examining regulatory and institutional-based public policies (Greenhalgh, Thorne, & Malterud, 2018).

Data Sources and Study Materials

The data used is secondary data sourced from:

1. **National regulations**, including:
 - a. Law Number 11 of 2020 concerning Job Creation;
 - b. Government Regulation Number 24 of 2018 concerning Electronically Integrated Business Licensing Services;
 - c. Government Regulation Number 5 of 2021 concerning the Implementation of Risk-Based Business Licensing;
 - d. Implementing regulations and technical guidelines related to OSS and OSS-RBA.
2. **National journal articles** discussing OSS, e-government, bureaucratic reform, and ease of doing business.
3. **Government policy documents**, including ministerial reports, publications of the Ministry of Investment/BKPM, and national bureaucratic reform reports.

Sources were selected selectively with criteria of relevance to the research theme, publication time (last five to seven years), and credibility as an academic publication or official government document. In total, this study systematically analyzed 3 primary national regulations, 15 peer-reviewed journal articles (both national and international), 8 government policy reports and ministerial documents, and 4 technical guidelines related to OSS implementation, resulting in a comprehensive corpus of 30 documents that provided triangulated perspectives on the policy's design, implementation, and outcomes.

Data collection technique

Data collection was conducted using document analysis techniques, by systematically examining the contents of regulations, journals, and policy reports (Bowen, 2009). The data collection stages include:

1. Identify relevant documents based on keywords such as “OSS”, “business licensing”, and “risk-based licensing”;
2. Classification by document type (regulations, scientific articles, policy reports);
3. Extraction of key information related to policy objectives, licensing mechanisms, implementing actors, and problematic implementation issues;
4. Sorting information into initial thematic categories.

Data Analysis Techniques

Data analysis was conducted using a thematic analysis approach, which allows researchers to identify policy patterns and key issues within policy texts (Braun & Clarke, 2006). The analysis process includes:

1. In-depth reading of the entire document;
2. Initial coding of themes such as “procedural simplification”, “digitalization of services”, “regulatory barriers”, and “business actor readiness”;
3. Grouping codes into major themes;
4. Interpretation of findings by linking public policy theory and previous research results.

The four main themes analyzed in this study include:

1. Evolution of OSS regulations;
2. Objectives and rationale of policy;
3. Implementation challenges;
4. Future policy implications.

Validity and Reliability of Analysis

To ensure the reliability of the study results, this research employed source triangulation by comparing findings from various types of documents, such as regulations and scientific journals. Consistency of interpretation was maintained by comparing documents to ensure the consistency of concepts and conclusions drawn.

Research Limitations

This research did not involve primary data collection such as interviews or surveys, so the results are primarily normative and conceptual in nature. However, the use of official regulatory sources and current academic literature is expected to provide a representative and up-to-date picture of policy.

RESULT AND DISCUSSION

The Evolution of OSS in Licensing Bureaucracy Reform

The Online Single Submission (OSS) policy is an integral part of the national bureaucratic reform agenda, aiming to improve the business climate, increase the efficiency of public services, and reduce the regulatory burden on businesses. Prior to the OSS, Indonesia's licensing system was characterized by fragmented authority, multi-layered procedures, and overlapping regulations between sectors, resulting in high transaction costs and low legal certainty (Hafidz et al., 2021). Within a public policy framework, these conditions create implementation bottlenecks that hinder the goal of economic development through investment.

The issuance of Government Regulation (PP) Number 24 of 2018 marked the consolidation of licensing through an integrated electronic system. The initial OSS (Online Business Access) system prioritized the integration of cross-agency administrative processes within a single national platform. However, this approach remained compliance-based, focusing on meeting formal requirements without differentiating business activity risk levels. This approach was deemed insufficiently adaptive to diverse business characteristics, leading

to the emergence of a risk-based licensing approach through PP Number 5 of 2021. The transition to OSS-RBA reflects a paradigm shift from universal administrative control to proportional risk-based regulation. In practice, this policy classifies business activities into low-, medium-, and high-risk categories, which determine the type and intensity of licensing. Wulandari et al. (2022) assess this approach as a step toward modernizing regulatory governance because it simplifies permits for low-risk sectors while strengthening oversight in sectors with higher environmental, social, and safety impacts.

The evolution of the OSS also demonstrates the practice of policy learning. The government adapted the policy design based on feedback from the first-generation OSS implementation: technical complaints, data inconsistencies, and procedural uncertainty. Policy updates were implemented not only through system changes but also through adjustments to derivative regulations, service standards, and cross-ministerial supervision mechanisms (Rokhman et al., 2022). Theoretically, this confirms the OSS as an evolving policy (adaptive policy), not a static system.

OSS as the Embodiment of Digital Governance

The digitalization of licensing through the OSS (Online System for Government) represents the application of e-government in the economic and investment domains. This change transforms the relationship between the state and citizens (business actors) from physical to platform-based interactions. The OSS provides a digital audit trail, from registration and verification to permit issuance, increasing process transparency while minimizing the potential for maladministration (Rokhman et al., 2022). Standardization of procedures is another key benefit. Through the OSS, a single national reference is established, minimizing service variations between regions. Wulandari et al. (2022) show that this standardization reduces disparities in the quality of licensing services, especially for regions with previously limited administrative capacity. From a governance perspective, standardization functions as rule alignment, strengthening legal certainty and administrative justice.

However, digital governance is not just about technology. OSS implementation also faces resistance to change at the bureaucratic level. Hafidz et al. (2021) noted the persistence of dual-track practices—OSS running alongside manual mechanisms, which hinders service consistency. This demonstrates that digital transformation requires a change in organizational culture, not simply the procurement of systems.

On the other hand, cross-agency data integration strengthens OSS's function as a policy platform. The Business Identification Number (NIB) serves as a single identity linked to the taxation, population, and employment systems. This integration improves the quality of sectoral data, which can be utilized for evidence-based policy planning (Rokhman et al., 2022).

Benefits of OSS Implementation in Practice

a. Time and Cost Efficiency

The OSS reduces the need for physical visits to many service offices. The online process expedites permit issuance, especially for low-risk businesses that require a Business Identification Number (NIB) and self-declaration. Rokhman et al. (2022) show that reducing administrative steps directly reduces transaction costs, including informal fees that often arise in manual systems.

b. Legal Certainty

With a single integrated system, business actors obtain a clear procedural map. The OSS reduces regulatory ambiguity because requirements are presented in a single, relatively uniform interface (Wulandari et al., 2022). Legal certainty is increased because application status can be tracked, and permit documents have verifiable electronic legitimacy.

c. Strengthening the National Database

The NIB, as a single identity, improves the accuracy of the national database. This facilitates the government's mapping of business distribution, analysis of sector performance, and design of data-driven industrial policies. Policy-wise, the OSS contributes to the consolidation of administrative data as a policy asset (Rokhman et al., 2022).

d. Encouraging the Formalization of MSMEs

Simplifying licensing processes encourages micro-enterprises to enter the formal sector. Hafidz et al. (2021) demonstrated that the OSS reduces initial administrative barriers that have historically hindered MSME legalization. The implications are far-reaching: increased access to financing, opportunities for participation in government procurement, and strengthened connectivity with the formal supply chain.

Implementation Challenges

a. Harmonization of Central-Regional Regulations

Sectoral regulations and regional regulations (Perda) continue to be inconsistent with the OSS scheme. Wulandari et al. (2022) assessed that some regions still require additional permits outside the OSS framework, citing local specificities. This situation weakens the single window principle.

b. Readiness of Human Resources of Civil Servants

The technical capacity of regional officials varies. In practice, the learning curve for OSS use and system updates requires ongoing training. Rokhman et al. (2022) emphasize the need for a change management approach so that adaptation goes beyond technical aspects to encompass bureaucratic behavior.

c. Digital Infrastructure Inequality

Unequal internet access hinders businesses in the 3T (frontier and outermost) regions. Without strengthening infrastructure, digitalization risks widening the service gap (Wulandari et al., 2022).

d. Digital Literacy of MSMEs

Some MSMEs face difficulties uploading documents, understanding electronic regulations, and interacting with systems. Hafidz et al. (2021) recommend community-based mentoring for inclusive digital transformation.

e. Data Security and Integration

OSS manages sensitive data at scale. The risk of system disruptions and data leaks demands a robust cybersecurity architecture. Rokhman et al. (2022) emphasize the importance of data governance as a prerequisite for platform sustainability.

Impact on Investment Climate

OSS implementation correlates with improved perceptions of ease of doing business, particularly in procedural aspects. Simplified permits signal structural reform to investors. However, the initial phase of OSS-RBA was marred by technical challenges that triggered short-term uncertainty (Wulandari et al., 2022). This suggests that major digital policies require a stabilization phase before achieving full impact. On the other hand, integrating OSS with investment services accelerates investment onboarding. Business actors gain more predictable service timelines. Rokhman et al. (2022) assess that cross-sector policy consistency is key to truly optimizing the macro impact of OSS.

Policy Implications

Based on the study findings, there are several strategic implications:

1. **Synchronization of regional regulations:** Alignment of regional regulations and sectoral policies with OSS needs to be accelerated (Wulandari et al., 2022).
2. **Strengthening the capacity of the apparatus:** Tiered training and a coaching system are needed for sustainable adaptation (Rokhman et al., 2022).
3. **Digital inclusion of MSMEs:** Community-based mentoring and campus-MSME partnerships are recommended (Hafidz et al., 2021).
4. **Data security:** Cybersecurity standards and system audits need to be strengthened (Rokhman et al., 2022).
5. **Utilization of policy data:** OSS must be developed as a policy intelligence system for economic planning (Rokhman et al., 2022).

Theoretical Discourse: OSS in Policy Implementation

From a policy implementation perspective, OSS demonstrates an implementation gap, a gap between normative design and field reality. Classic barriers such as institutional capacity, inter-agency coordination, and resistance to change re-emerge in the digital context (Hafidz et al., 2021). However, the relatively rapid policy learning, marked by the shift from OSS to OSS-RBA, is a positive indicator of policy adaptability. From an e-government perspective, OSS emphasizes the importance of integrating technology, regulations, and organizational capacity. Digitalization is not a single solution; it requires synergy between people, processes, and technology to be sustainable (Greenhalgh et al., 2018).

Synthesis of Discussion

In summary, the OSS acts as a catalyst for licensing reform: accelerating services, standardizing procedures, and strengthening the policy database. However, its effectiveness is determined by regulatory consistency, apparatus readiness, service inclusiveness, and data security. The sustainability of the OSS depends on the state's ability to maintain policy adaptability and ensure that digital transformation does not leave vulnerable groups behind.

CONCLUSION

Indonesia's Online Single Submission (OSS) policy marks a pivotal reform in business licensing, establishing a risk-based digital governance framework grounded in e-government principles to deliver integrated, transparent, and efficient services that bolster ease of doing business and national competitiveness. Although conceptually sound and aligned with good governance, its implementation faces hurdles like regulatory disharmony, inadequate civil servant capacity, deficient digital infrastructure, and MSMEs' low technological literacy, underscoring that success hinges on more than technology—it demands organizational readiness, cultural shifts in bureaucracy, and policy coherence across sectors. Sustaining OSS thus calls for ongoing enhancements in regulatory alignment, competency building for officials, MSME digital literacy programs, and robust data governance to foster an inclusive digital business ecosystem. For future research, longitudinal studies could assess OSS-RBA's long-term impact on MSME growth and regional disparities using mixed-methods approaches, incorporating stakeholder surveys and econometric analysis to identify scalable best practices.

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