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# Comparative Analysis of Online Single Submission Policy Implementation in Improving MSME Business Legality: DKI Jakarta and Bali

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**Abstract**
Micro, small, and medium enterprises (MSMEs) contribute about 61 percent of Indonesia's gross domestic product, yet most lack formal business legality; of roughly 56 million micro enterprises, only about 15 million hold a Business Identification Number (NIB). The government provides Online Single Submission (OSS) as a single risk-based licensing channel, regulated under Government Regulation Number 28 of 2025. This study analyses OSS implementation in improving MSME legality, comparing DKI Jakarta and Bali, using a concurrent mixed-methods empirical legal design: a survey of 96 MSME actors (52 Jakarta, 44 Bali), interviews with 24 informants, and official documentation, analysed with chi-square, Welch's t-test, correlation, and regression, integrated through triangulation. NIB ownership is significantly higher in Jakarta than Bali (61.5% versus 34.1%; odds ratio 3.09). Digital literacy and government service effectiveness are both higher in Jakarta and correlate strongly with OSS use, while perceived NIB benefits do not differ among existing holders. Official records corroborate this: among thirteen urban villages with a 21.1 percent decline in NIB issuance in 2025, only the village running door-to-door assistance increased. The gap thus originates not from OSS's regulatory substance, uniform nationally, but from the intermediary layer connecting the system to its users, warranting stronger local assistance.

***Keywords:*** Business Legality; Digital Literacy; Licensing Digitalisation; MSMEs; Online Single Submission

## 1. Introduction

Micro, small, and medium enterprises (MSMEs) are the backbone of Indonesia's economy, contributing approximately 61 percent of gross domestic product and absorbing nearly 97 percent of the national workforce (Statistics Indonesia [BPS], 2024). Despite this strategic role, a large share of Indonesian MSMEs still operate without formal business legality. As of April 2023, the Ministry of Cooperatives and Small and Medium Enterprises recorded only 3,731,047 Business Identification Numbers (NIB) issued out of 64,197,050 MSME actors nationwide (Ministry of Cooperatives and SMEs, 2023), and by 2026 the Ministry of MSMEs still reported only about 15 million NIB holders among roughly 56 million micro enterprises, leaving approximately 40 million actors yet to be formalised (Ministry of MSMEs, 2026). The absence of legality carries serious consequences: unlicensed businesses cannot access formal financing, struggle to expand through partnerships or government procurement, and are excluded from empowerment programmes that require legality as a precondition (Yolanda & Hasanah, 2024).

The Indonesian government has pursued a series of licensing reforms to address this problem, beginning with Online Single Submission (OSS) under Presidential Regulation Number 24 of 2018, strengthened by Government Regulation Number 5 of 2021, and most recently refined through Government Regulation Number 28 of 2025, in force since June 2025. Through OSS, business actors can obtain an NIB online without visiting a service office in person, a simplification intended to reduce the bureaucratic complaints that have long dogged Indonesian licensing: convoluted procedures, lengthy processing, and opaque costs.

MSMEs are legally classified under Law Number 20 of 2008 by asset value and annual turnover into micro, small, and medium categories. Beyond this formal definition, a substantial body of Indonesian literature affirms MSMEs' centrality to inclusive growth: Kholifah and Andini (2024) and Aprieni, Meilantika, Sihotang, and Rachma S. (2024) both document MSMEs' outsized role in absorbing labour and distributing economic activity from urban centres to rural areas, while Kurniawan, Faisal, Ansori, and Pangaribuan (2024) link MSME growth directly to national economic resilience. This weight of evidence is precisely why the legality gap this study documents, concentrated among the actors these studies identify as most economically consequential, carries policy urgency beyond its immediate licensing context.

Nevertheless, field realities suggest that OSS success is uneven across regions. Rahayu, Paselle, and Khaerani (2021), studying Samarinda, found actors still constrained by limited technical understanding and unstable internet infrastructure. El Fajri and Woro Astuti (2024) similarly found that OSS Risk-Based Approach effectiveness in Gresik remained hampered by low digital literacy and infrastructural limitations, particularly among actors unfamiliar with digital systems. Duri, Hidayat, and Sinaga (2024) add that urban OSS accessibility depends jointly on digital literacy, internet-infrastructure availability, and local assistance, with business-community social capital acting as a mediator that lowers adoption barriers for informal actors. These conditions are compounded by the scarcity of assistance programmes reaching micro-scale actors directly, suggesting that a technically well-designed system does not automatically translate into equal benefit across all segments of MSMEs.

Existing studies on OSS implementation, however, are predominantly single-region and confined to administrative-technical aspects, without accounting for the socio-economic diversity across Indonesian regions. Jakarta, as the country's economic and governmental centre, has relatively advanced digital infrastructure and an MSME base dominated by services and the creative industry, whereas Bali, an international tourism destination, has MSMEs characteristically built on handicrafts, traditional culinary businesses, and accommodation services. Three prior studies illustrate this single-region limitation: Rahayu et al. (2021) examined only Samarinda under the pre-risk-based OSS regime; Suwanto (2023) examined OSS integration within Sleman's public-service mall without cross-regional comparison; and Gunawan, Purnamaningsih, and Winaya (2023), studying Badung Regency, did not consider inter-regional socio-economic differences in assessing OSS effectiveness. No study to date has systematically compared OSS

implementation between Jakarta and Bali while accounting for the multidimensional factors shaping it.

This gap motivates the present study, which offers three points of novelty. First, it is the first cross-regional comparative study to systematically examine OSS implementation in Jakarta and Bali within one integrated analytical framework, accounting for the two regions' distinct economic, social, and cultural characteristics. Second, it integrates administrative-law perspectives with public-policy analysis, evaluating not only procedural compliance but also the policy's substantive effectiveness in achieving its aims. Third, conducted under the newly enacted Government Regulation Number 28 of 2025 and its 2026 derivative policies, the study's findings are more current than earlier research based on superseded regulations; for Badung Regency specifically, it also serves as a cross-provincial re-examination of Gunawan et al.'s (2023) findings.

This study is anchored in Friedman's (2009) proposition that a legal system comprises three interacting components: legal substance, the content of laws and regulations themselves; legal structure, the institutions and apparatus that implement them; and legal culture, the values, attitudes, and behaviours of the community toward law. Friedman's framework is well suited here because the central puzzle, why one uniform regulation yields different outcomes in two regions, cannot be resolved by reading the regulation's text alone; it requires examining how the same substance is carried by different structures and received by different cultures.

The research accordingly asks how OSS implementation, and its outcomes in terms of accessibility, service effectiveness, and NIB attainment, compare between MSME actors in Jakarta and Bali under Government Regulation Number 28 of 2025, and what socio-economic and digital-infrastructure factors account for the differing patterns of implementation barriers between the two regions. Using an empirical legal approach within a concurrent mixed-methods design grounded in Friedman's legal system theory, this study aims to analyse OSS implementation, compare implementation patterns between the two regions across accessibility, service effectiveness, and NIB attainment, and identify the factors driving the differences observed. Findings are intended to inform the ongoing refinement of Indonesia's business licensing policy, particularly regarding the balance between system simplification and localised assistance capacity.

## 2. Research Method

This study combines a juridical (normative) approach with an empirical field approach within a single concurrent mixed-methods design, situating it as socio-legal research. The juridical dimension involved reviewing the coherence and consistency of OSS regulations, from Presidential Regulation Number 24 of 2018 through Government Regulation Number 28 of 2025, to assess their legal basis and alignment with the aim of easing business while protecting MSMEs. The empirical dimension involved collecting qualitative and quantitative field data on how these regulations are actually implemented and experienced by MSME actors and government officials

in DKI Jakarta and Bali Province. Friedman's (2009) legal system theory, comprising legal substance, legal structure, and legal culture, served as the primary analytical framework, complemented by Soekanto's (2008) theory of legal effectiveness, which measures a law's success by the fit between the rule itself, its enforcing apparatus and facilities, and the community's legal awareness. This combined framework was chosen because the central research question, why an identical regulation produces different outcomes across two regions, cannot be answered by textual analysis of the regulation alone.

Jakarta and Bali were purposively selected for their contrasting characteristics: Jakarta representing a metropolitan area with MSMEs dominated by services and the creative industry and advanced digital infrastructure, and Bali representing a tourism-based region with MSMEs dominated by handicrafts, culinary businesses, and accommodation services. Field data collection took place from May to August 2026.

For the qualitative component, 24 informants were purposively selected: 4 licensing officials and 20 MSME actors (12 in Jakarta, 8 in Bali). Because licensing authority is delegated differently in each region, to the district/city level in Bali (DPMPTSP Denpasar City and Badung Regency) and to the sub-district/urban-village level in Jakarta (UP PMPTSP Duren Sawit and Koja Sub-districts), officials were interviewed at the corresponding authoritative level in each region. For the quantitative component, 96 respondents were purposively recruited (52 in Jakarta, 44 in Bali) meeting criteria of at least one year in business, domicile in either region, awareness of OSS, and willingness to participate, exceeding the minimum target of 40 respondents per region.

Data were collected through four complementary techniques: semi-structured in-depth interviews, structured observation at licensing service offices, document review of regulations and official NIB issuance records, and an online survey using a five-point Likert questionnaire measuring digital literacy, OSS accessibility, government service effectiveness, and perceived NIB impact. Prior to each interview, the researcher explained the study's purpose and obtained the informant's consent for participation and audio recording; recordings were transcribed verbatim by an external transcription service and only readability-edited thereafter, without altering the substance of what informants said. The questionnaire's 22 Likert items were confirmed valid (corrected item-total correlations 0.585–0.838, exceeding the critical r-table values) and reliable (Cronbach's alpha 0.881–0.929 across the four constructs).

Qualitative data were analysed using the Miles, Huberman, and Saldaña (2014) interactive model (data collection, condensation, display, and conclusion drawing/verification). Quantitative data were analysed descriptively and inferentially: chi-square test of independence with Cramer's V and odds ratio for the categorical NIB-ownership comparison; Welch's t-test (following Levene's test) with Cohen's d (Cohen, 1988) for group-mean comparisons; and Pearson correlation, simple linear regression, and logistic regression for relationships among constructs, at $\alpha = 0.05$. Findings from both strands were integrated through concurrent triangulation, supplemented by source,

technique, and regional triangulation, member checking, and thick contextual description to safeguard data validity.

## 3. Results and Discussions

The analysis is organised around four hypotheses. H1 states that NIB ownership differs between MSME actors in Jakarta and Bali. H2 states that digital literacy is associated with successful use of the OSS system. H3 states that digital literacy differs between MSME actors in the two regions. H4 states that the intensity of government assistance is associated with the level of OSS system use. Findings are presented in that order and integrated throughout with qualitative evidence through triangulation.

Field data collection combined an online survey of 96 MSME actors (52 in Jakarta, 44 in Bali) with in-depth interviews of 24 informants (4 licensing officials and 20 MSME actors: 12 in Jakarta, 8 in Bali) and documentary review of official regulations and NIB issuance records. Respondents were predominantly micro-scale actors (46.9%), followed by small-scale (37.5%) and medium-scale (15.6%) actors, a composition similar across both regions, so that subsequent differences cannot be attributed to differences in business scale. Two contextual features of the survey warrant note. First, response tempo differed markedly between regions: 44 of Jakarta's 52 responses arrived within roughly fifteen hours (29–30 May 2026) through a paid online panel, whereas Bali's responses, gathered through direct messaging and organic community-network dissemination after the panel's reach proved limited there, accumulated gradually across May–August 2026. Second, the response ratio between regions was modest (1.18:1), which did not compromise between-region comparison given that appropriate tests were used and the minimum-sample threshold was met in both regions. All 22 Likert items demonstrated adequate validity and reliability (Cronbach's alpha 0.881–0.929 across the digital literacy, OSS accessibility, government service effectiveness, and NIB impact constructs), confirming the instrument's suitability for subsequent analysis.

**Table 1.** Reliability of the Questionnaire Constructs

| Construct | Items | n | Cronbach's α |
|---|---|---|---|
| Digital Literacy | 5 | 96 | 0.881 |
| OSS Accessibility | 6 | 96 | 0.924 |
| Government Service Effectiveness | 6 | 96 | 0.929 |
| Perceived NIB Impact | 5 | 47 | 0.913 |

Source: Primary data processing, 2026. The NIB Impact construct was assessed only among respondents who already hold an NIB.

Reliability analysis (Table 1) confirmed all four constructs exceeded the conventional 0.60 threshold, ranging from 0.881 for digital literacy to 0.929 for government service effectiveness, indicating strong internal consistency and supporting the instrument's use for subsequent comparative analysis.

The first hypothesis, that NIB ownership differs between Jakarta and Bali, was tested using a chi-square test of independence rather than the originally planned t-test, because NIB ownership is a binary rather than a continuous variable. As Table 2 shows, 61.5 percent of Jakarta respondents held an NIB compared with 34.1 percent in Bali.

**Table 2.** Distribution of Respondents by Region and NIB Ownership Status

| Region | Without NIB | With NIB | Total | Share with NIB |
|---|---|---|---|---|
| DKI Jakarta | 20 | 32 | 52 | 61.5% |
| Bali | 29 | 15 | 44 | 34.1% |
| Total | 49 | 47 | 96 | 49.0% |

Source: Primary data processing, 2026.

The chi-square test confirmed this gap is statistically significant ($\chi^2(1) = 7.185$, $p = 0.007$), with a small-to-moderate effect size (Cramer's V = 0.274) and an odds ratio of 3.09, meaning Jakarta MSME actors were roughly three times as likely to hold an NIB as their Bali counterparts; a supplementary proportion-comparison test yielded an identical conclusion, so the result does not depend on the specific test chosen. Hypothesis 1 is accepted. Beyond ownership status, the four Likert constructs also differed by region (Table 3).

**Table 3.** Mean Scores of Statement Groups by Region

| Construct | Jakarta (M ± SD) | Bali (M ± SD) | Difference |
|---|---|---|---|
| Digital Literacy | 4.28 ± 0.60 | 3.61 ± 0.81 | 0.66 |
| OSS Accessibility | 4.10 ± 0.61 | 3.59 ± 0.74 | 0.51 |
| Government Service Effectiveness | 3.91 ± 0.79 | 3.33 ± 0.79 | 0.58 |
| Perceived NIB Impact (NIB holders only, n = 47) | 4.31 ± 0.42 | 4.08 ± 0.89 | 0.23 |

Source: Primary data processing, 2026.

Because Levene's test indicated unequal variances for digital literacy ($p = 0.018$), Welch's t-test was used; digital literacy differed significantly with a large effect size ($t = 4.495$, $p < .001$, Cohen's $d = 0.944$). OSS accessibility and government service effectiveness also differed significantly with moderate effect sizes ($d = 0.760$ and 0.743 respectively, both $p < .001$), whereas perceived NIB impact, tested only among existing NIB holders, showed no significant regional difference ($t = 0.936$, $p = 0.362$, $d = 0.372$). Hypothesis 3 is therefore accepted for digital literacy,

accessibility, and effectiveness, while the markedly different pattern for perceived benefit is examined further below. Item-level analysis further showed that the widest regional gap concerned participation in digital-technology training (0.99 points) rather than everyday device use (0.35 points), indicating that the digital divide lies in access to training opportunities rather than basic digital competence. This corroborates Hidayat, Qurotulaini, Safitri, and Novitasari (2024), who found that Indonesian MSMEs' digital transformation is constrained less by basic device ownership than by limited exposure to structured digital-skills training, precisely the pattern observed here. At the item level, the gradient was consistent: routine device use for business purposes differed least between regions (0.35 points), whereas participation in digital-skills training differed most (0.99 points), with independent competencies such as completing online forms unassisted and comfort uploading required documents falling in between (0.48 and 0.74 points respectively). A parallel pattern appeared in the accessibility and effectiveness constructs: procedural-clarity items showed larger regional gaps (0.64 and 0.72 points) than basic platform accessibility (0.32 points), while active government socialisation recorded both the lowest overall mean (3.41) and the largest standard deviation (1.15) of all 22 items, indicating sharply uneven outreach even within regions. By contrast, the item measuring willingness to recommend NIB registration to peers was nearly identical across regions (4.32 in Jakarta versus 4.27 in Bali, a difference of only 0.08 points), the smallest gap of any item in the questionnaire, reinforcing that NIB holders in both regions are equally convinced advocates for formalisation once they have experienced it themselves.

Hypothesis 2 examined the relationship between digital literacy and successful OSS use, operationalised through the OSS accessibility construct. Digital literacy correlated strongly with accessibility ($r = 0.718$), with simple regression indicating that digital literacy explains 51.5 percent of the variance in accessibility ($R^2 = 0.515$, $b = 0.661$, $p < .001$) and predicts a roughly three-fold increase in the odds of NIB ownership per unit increase (OR = 3.17, $p = 0.001$); Hypothesis 2 is accepted. Hypothesis 4 examined the relationship between government service intensity, operationalised through the effectiveness construct, and OSS use: effectiveness correlated strongly with accessibility ($r = 0.695$, $R^2 = 0.483$, $b = 0.593$, $p < .001$) and predicted a comparable increase in NIB-ownership odds (OR = 2.97, $p < .001$); Hypothesis 4 is accepted. However, when digital literacy, accessibility, and effectiveness were entered jointly into a combined logistic model, none remained statistically significant ($p = 0.216$, 0.345, and 0.103 respectively), a multicollinearity effect consistent with the high inter-construct correlations observed ($r = 0.567$–$0.807$). This indicates the three constructs function as a single, jointly operating capacity rather than as independently separable determinants of NIB ownership.

These results extend the OSS literature in two ways relevant to policy and to the broader economic literature on MSME formalisation. First, whereas prior single-region studies (Rahayu et al., 2021; Suwanto, 2023; Gunawan et al., 2023) treated digital-access barriers and assistance gaps as separate, loosely connected complaints, this study's joint modelling shows they are empirically

inseparable, with direct implications for how limited government resources should be allocated: interventions bundling digital-skills training with in-person assistance are likely to outperform interventions addressing either alone. Second, the finding that NIB's perceived benefit is uniformly high once actors actually hold one reframes the policy problem away from proving OSS's value proposition and toward closing an information gap, aligning with Arjang, Ausat, and Prasetya's (2025) argument that digital literacy is a strategic lever for MSME competitiveness only when paired with an ecosystem that actively connects users to the platform, and with Sitorus, Ningsih, Andini, Rahmawati, and Alfarisi's (2025) finding that targeted, community-level assistance is what converts digital-transformation potential into realised adoption among urban MSMEs.

An important data-quality issue emerged in the perceived NIB impact construct: 40 of 49 respondents without an NIB nevertheless answered items phrased around lived experience (for example, 'since obtaining my NIB, my business has found it easier to access financing'), which they could only be answering speculatively. The primary analysis therefore restricted this construct to actual NIB holders (n = 47); a sensitivity analysis including all respondents who answered was conducted for comparison (Table 4).

**Table 4.** Sensitivity Check of the Perceived NIB Impact Construct by Calculation Basis

| Basis | Jakarta | Bali | Diff. | t | p | Conclusion |
|---|---|---|---|---|---|---|
| NIB holders only (n = 47) | 4.31 | 4.08 | 0.23 | 0.936 | .362 | Not significant |
| All respondents who answered (n = 87) | 4.15 | 3.69 | 0.47 | 2.985 | .004 | Significant |

Source: Primary data processing, 2026.

The two bases yield opposite conclusions, and this divergence is itself the key finding: among actors who genuinely hold an NIB, perceived benefit does not differ significantly between regions and is uniformly high (4.08–4.31 of 5); the regional gap that appears once non-holders are included originates entirely from non-holders in Bali rating expected NIB benefits considerably lower than their Jakarta counterparts. The gap, in other words, lies in access to information about NIB's benefits, not in the benefits themselves.

Interview and documentary findings were organised around Friedman's (2009) three components of a legal system: legal substance, legal structure, and legal culture. On legal substance, all interviewed officials in both regions considered Government Regulation Number 28 of 2025 sufficiently clear, with only a technical change reported (account registration now requires an e-mail address rather than a phone number). Only one substantive constraint emerged, from DPMPTSP Badung Regency, concerning misalignment between the OSS system's national business-classification codes and the regional spatial plan. Since OSS regulation is uniform and

centrally administered, this finding rules out regulatory substance as an explanation for the observed inter-regional gap.

The sharpest regional contrast emerged in legal structure. DPMPTSP Denpasar City operates under a formally codified standard operating procedure (Mayoral Decree of Denpasar Number 100.3.3.3/761/HK/2025) specifying legal basis, staff qualifications, quality standards, and accountability mechanisms, whereas UP PMPTSP Duren Sawit Sub-district reported no formal procedure governing coordination with MSME-related agencies. Data-recording capacity mirrored this gap: of the four offices interviewed, only Denpasar City could report NIB issuance figures directly during the interview (an average of 1,346 NIB per month over the preceding year, and roughly 100,000 since risk-based OSS took effect in 2021); Badung Regency could not report figures without first accessing its recapitulation account, and Duren Sawit Sub-district initially reported the data as unavailable, since issuance is centrally processed by the Investment Coordinating Board while the sub-district only assists applicants. Official recapitulations were subsequently obtained from both Jakarta sub-districts (Table 5).

**Table 5.** Official NIB Issuance Records, Koja and Duren Sawit Sub-districts, 2024–2025

| Area | 2024 | 2025 | Change |
|---|---|---|---|
| Koja Sub-district (6 urban villages, total) | 1,092 | 629 | −42.4% |
| — of which: Tugu Selatan urban village | 192 | 264 | +37.5% |
| Duren Sawit Sub-district (7 urban villages, total) | 8,806 | 7,182 | −18.4% |
| Combined (13 urban villages) | 9,898 | 7,811 | −21.1% |

Source: Letter of UP PMPTSP Koja Sub-district No. 276/TM.03.01, 27 August 2026; recapitulation of UP PMPTSP Duren Sawit Sub-district urban villages.

Across the thirteen urban villages, twelve recorded a decline in NIB issuance during 2025 and only one, Tugu Selatan, recorded an increase, of 37.5 percent, even as its own sub-district (Koja) declined by 42.4 percent overall. On legal culture, interviews revealed a stark information gap: most Bali MSME actors interviewed had never heard of OSS and did not know NIB registration is free, most commonly citing the belief that their business was ‘too small to need a permit’ rather than procedural or cost objections as their reason for not registering. In contrast, Jakarta MSME actors who held an NIB typically learned about it through personal networks rather than government outreach. This finding aligns with the questionnaire's lowest-rated and most variably rated item, active government socialisation ($M = 3.41$, $SD = 1.15$), and reinforces the earlier finding that the regional gap concentrates on information access rather than on NIB's substantive benefit.

A further structural dimension concerns facilities. Both DPMPTSP Denpasar City and UP PMPTSP Duren Sawit Sub-district reported that internet connectivity was not a binding constraint in their areas; difficulties encountered by applicants were procedural rather than infrastructural. Neither office, however, provided a public self-service terminal for MSME actors, relying instead

on an assisting officer to complete the process on the applicant's behalf when needed. Read against Soekanto's (2008) effectiveness framework, in which a law's success depends on the fit between the rule, its enforcing apparatus, its facilities, and the community's legal awareness, this indicates that physical facilities are adequate and roughly equivalent between regions, so the effectiveness gap concentrates in the apparatus and community-awareness components rather than in infrastructure, consistent with Hypothesis 3's finding that the largest regional gaps concern training exposure and service intensity rather than basic digital access.

Triangulating the quantitative and qualitative strands points to a single, consistent conclusion: the gap in MSME legality attainment between Jakarta and Bali does not originate in OSS or its regulatory substance, which is singular, centrally managed, and judged clear by every official interviewed. What differs is the capacity of the intermediary layer connecting the system to its users, namely MSME actors' digital literacy on one side and the intensity of official assistance on the other; in Friedman's (2009) terms, legal substance is equivalent across regions while legal structure and legal culture are not. This conclusion is corroborated by four converging lines of evidence: consistently higher digital literacy and service effectiveness in Jakarta alongside its higher NIB ownership; equally high perceived NIB benefit among actual holders in both regions; the sole increasing urban village, Tugu Selatan, being the only one running an active door-to-door assistance programme (‘Ajib’, Antar Jemput Izin Bermotor) that reaches micro-traders at the neighbourhood level; and Denpasar City's formally documented SOP corresponding with its comparatively well-managed record-keeping.

This produces an apparent irony: OSS was designed precisely to remove intermediaries from licensing, yet the region and urban village with the most active human intermediation achieved the best outcomes, suggesting digitalisation has not eliminated the need for human assistance but relocated it from service counters to outreach activities, consistent with Duri et al.'s (2024) observation that community social capital mediates legality adoption for informal actors. The policy implication is that simplifying procedures through technology does not automatically make a service accessible to all: for actors with low digital literacy, a system that its designers consider simple may not be simple for its users, and strengthening assistance capacity at the urban-village level, which legally holds authority over MSMEs in Jakarta, may yield greater impact than further interface refinement alone.

A second notable finding concerns short-term disruption during regulatory transitions: Denpasar City recorded a 19.4 percent dip in NIB issuance in June 2025, coinciding with Government Regulation Number 28 of 2025 taking effect, before recovering within one to two months. A directionally similar, though not precisely time-matched, decline appeared in both Jakarta sub-districts across 2025 (Koja: −42.4%; Duren Sawit: −18.4%); because the Koja and Duren Sawit datasets differ roughly eight-fold in issuance volume, the more stable Duren Sawit figure is the more reliable estimate of magnitude, while both share the same direction. While the datasets differ in temporal resolution and cannot establish simultaneity, their convergent direction

suggests that regulatory and system changes, even when intended to simplify licensing, can generate short-term transitional friction that warrants an accompanying assistance period.

Although this study focuses on Jakarta and Bali, its central finding, that legality gaps trace to intermediary capacity rather than regulatory design, plausibly generalises to other Indonesian regions where licensing authority is similarly delegated unevenly across administrative tiers. Regions combining low digital literacy with thin assistance infrastructure, whether other tourism-dependent provinces resembling Bali's MSME profile or peripheral urban districts resembling Jakarta's less-served sub-districts, would be expected to exhibit comparable gaps regardless of their specific economic-sector composition. This suggests the intermediary-capacity mechanism identified here, rather than being a Jakarta-Bali-specific artefact, may be a broader structural feature of how digitalised public services reach heterogeneous user populations across Indonesia's administrative geography.

This study's findings align with, and extend, other Indonesian assessments of OSS conducted outside Jakarta and Bali. Assegaf, Juliani, and Sa'adah (2019), examining DPMPTSP Central Java, similarly found that procedural acceleration under OSS did not by itself resolve implementation gaps rooted in institutional readiness. More recently, Nurfauziah, Mawar, Harmonis, and Nugraha (2025), evaluating OSS effectiveness at DPMPTSP South Tangerang, reported that policy effectiveness depended heavily on the intensity of institutional outreach rather than on the regulation's technical design. The convergence of these single-region findings with the present study's cross-regional comparison strengthens the inference that assistance intensity, not regulatory substance, is the binding constraint on OSS effectiveness nationally, and suggests the Jakarta-Bali pattern documented here is part of a recurring structural pattern across Indonesian licensing administration rather than an isolated case.

Several limitations qualify these findings. The cross-sectional design means the associations found for Hypotheses 2 and 4 indicate covariation rather than causation. Self-reported, single-timepoint measurement of all constructs may inflate observed associations through common-method variance, and the high inter-construct correlations prevented isolating each construct's independent effect. Official NIB issuance data were unevenly available (only one of four offices reported figures directly, and the two Jakarta recapitulations differ somewhat in documentation basis), and the qualitative sample was imbalanced in NIB-ownership composition between regions (1 of 8 informants in Bali versus 5 of 12 in Jakarta already held an NIB), alongside differing interview lengths between regions.

## 4. Conclusion

This study set out to analyse and compare OSS implementation between MSME actors in Jakarta and Bali and to identify the factors underlying differing outcomes. Four conclusions follow. First, OSS operates under a single, centrally managed regulatory substance that officials

in both regions judged clear and workable, so substantive regulation does not explain the inter-regional gap in MSME legality; the sole substantive constraint identified concerned misaligned business-classification references between the national system and a regional spatial plan. Second, a real and statistically significant gap in legality attainment exists: 61.5 percent of Jakarta MSME actors held an NIB compared with 34.1 percent in Bali, with Jakarta actors roughly three times as likely to hold one. Third, this gap traces to digital literacy and assistance intensity, which are higher in Jakarta with large and moderate effect sizes respectively and which jointly, rather than independently, predict OSS accessibility and NIB ownership. Fourth, and most consequential for policy, the gap concentrates in access to information rather than in NIB's actual benefit: among actors who already hold an NIB, perceived benefit is uniformly high and statistically indistinguishable between regions, while official issuance records show that the only urban village to increase NIB issuance amid a broader decline was the one running active door-to-door assistance.

These findings suggest that Indonesia's continuing programme of procedural simplification, valuable as it is, is not by itself sufficient to close the MSME legality gap, because the same uniform procedure yields different outcomes even between urban villages within a single sub-district. What differs is whether an intermediary actively reaches out to business actors. Central authorities, particularly the Investment Coordinating Board, would therefore benefit from allocating attention as deliberately to strengthening regional assistance capacity as to refining the OSS system itself, alongside establishing a direct communication channel between the central system administrator and sub-district/urban-village service units so that system updates reach the field in a timely manner. Local governments are encouraged to formalise standard operating procedures, following Denpasar City's example, and to expand door-to-door assistance modelled on Tugu Selatan's approach, targeted specifically at actors who have not yet registered, since this is where the information gap concentrates. MSME actors themselves are encouraged not to delay NIB registration on the assumption that their business is too small to require it, since actors in both regions who already hold an NIB rate its benefits highly and are willing to recommend it to peers; those who find the system difficult to navigate independently are best served by using the assistance channels their local licensing office already provides. Given the observed dip in issuance coinciding with regulatory transition, future policy changes would benefit from an accompanying transitional assistance period. Future research employing a longitudinal design, independent measurement sources, and a more balanced regional sample would help establish the causal and temporal dynamics that this cross-sectional study could only suggest.

Theoretically, this study demonstrates the practical value of reading a uniformly applied national regulation through Friedman's (2009) tripartite lens combined with Soekanto's (2008) effectiveness criteria: doing so reveals that legal substance and physical facilities can be functionally equivalent across two very different regions while legal structure, apparatus capacity, and community legal awareness diverge sharply, and that it is this latter divergence, not the former

equivalence, that drives real-world policy outcomes. For MSME-legality research more broadly, this implies that comparative studies confined to a single region, however methodologically rigorous, risk misattributing structural and cultural gaps to the regulation itself simply because no cross-regional benchmark is available against which to weigh them.

## References

El Fajri, M. R., & Woro Astuti, S. J. (2024). Efektivitas sistem perizinan online OSS RBA (Online Single Submission Risk-Based Approach) terhadap pengembangan UMKM di Kabupaten Gresik. *JISP (Jurnal Inovasi Sektor Publik), 4*(1), 60–71. https://doi.org/10.38156/jisp.v4i1.227

Friedman, L. M. (2009). *Sistem hukum: Perspektif ilmu sosial* (M. Khozim, Trans.). Nusa Media. (Original work published 1975)

Government Regulation Number 5 of 2021 on the Administration of Risk-Based Business Licensing. (2021).

Government Regulation Number 28 of 2025 on the Administration of Risk-Based Business Licensing. (2025).

Gunawan, C. Y. F., Purnamaningsih, P. E., & Winaya, I. K. (2023). Efektivitas penerapan pelayanan program perizinan berusaha berbasis Online Single Submission (OSS) di Dinas Penanaman Modal dan Pelayanan Terpadu Satu Pintu (DPMPTSP). *Business and Investment Review, 1*(4), 9–14. https://doi.org/10.61292/birev.v1i4.34

Hidayat, I., Qurotulaini, D. L., Safitri, N. A., & Novitasari, R. (2024). Transformasi digital pada UMKM di Indonesia dalam menghadapi tantangan dan peluang pada akses pembiayaan. *JIIC: Jurnal Intelek Insan Cendikia, 1*(10), 7415–7425.

Kholifah, A. N., & Andini, C. T. (2024). Peran UMKM terhadap perekonomian di Indonesia. *Mufakat: Jurnal Ekonomi, Manajemen dan Akuntansi, 3*(2), 112–125.

Kurniawan, V., Faisal, M., Ansori, R., & Pangaribuan, R. Y. (2024). Pengaruh UMKM (Usaha Mikro, Kecil, dan Menengah) terhadap peningkatan perekonomian Indonesia tahun 2024. *Musytari: Jurnal Manajemen, Akuntansi, dan Ekonomi, 9*(4), 111–120.

Mayoral Decree of Denpasar Number 100.3.3.3/761/HK/2025 on Amendments to the Standard Operating Procedure of the Denpasar City Investment and One-Stop Integrated Licensing Service Office. (2025).

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). SAGE Publications.

Ministry of Cooperatives and Small and Medium Enterprises. (2023, April 11). *Rapat koordinasi percepatan NIB, sertifikasi halal, dan SNI*. Kemenkop UKM RI.

Ministry of Micro, Small, and Medium Enterprises. (2026, February 25). *Kementerian UMKM mendukung BKPM untuk percepat legalitas usaha mikro* (Press Release No. 19/Press/SM.3.1.UMKM/2026). https://umkm.go.id/news/g7ylhyh3ngp80u8b35wxfm64

Nurfauziah, N., Mawar, M., Harmonis, F., & Nugraha, M. Q. (2025). Efektivitas kebijakan Online Single Submission pada Dinas Penanaman Modal Pelayanan Terpadu Satu Pintu Tangerang Selatan. *Jurnal Administrasi Publik dan Kebijakan, 7*(1), 45–58.

Presidential Regulation Number 24 of 2018 on Electronically Integrated Business Licensing Services. (2018).

Rahayu, F. P., Paselle, E., & Khaerani, T. R. (2021). Pelaksanaan pelayanan perizinan berusaha Online Single Submission (OSS) di Dinas Penanaman Modal dan Pelayanan Terpadu Satu Pintu (DPMPTSP) Kota Samarinda. *eJournal Administrasi Publik, 9*(2), 5018–5032.

Sitorus, O. F., Ningsih, R. A., Andini, A., Rahmawati, N. A., & Alfarisi, M. Y. (2025). Mengatasi tantangan transformasi digital UMKM: Tantangan dan solusi melalui kegiatan pendampingan di Jakarta dan Bekasi. *Jurnal Pengabdian Masyarakat Indonesia, 4*(6), 939–948.

Soekanto, S. (2008). *Faktor-faktor yang memengaruhi penegakan hukum*. PT RajaGrafindo Persada.

Statistics Indonesia (BPS). (2024). *Statistik Indonesia 2024*. BPS RI.

Suwanto, S. (2023). Implementasi pelayanan Online Single Submission (OSS) di Mal Pelayanan Publik Kabupaten Sleman. *ULIL ALBAB: Jurnal Ilmiah Multidisiplin, 2*(9), 4475–4483. https://doi.org/10.56799/jim.v2i9.2183

Yolanda, C., & Hasanah, U. (2024). Peran usaha mikro, kecil, dan menengah (UMKM) dalam pengembangan ekonomi Indonesia. *Jurnal Manajemen dan Bisnis, 2*(3), 170–186.