

Procedural and Fiscal Customs Facilities in Enhancing the Competitiveness of Indonesia's Manufacturing Industry: A Systematic Literature Review

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ABSTRACT

Trade facilitation through customs instruments is central to Indonesia's efforts to strengthen manufacturing competitiveness, yet the evidence on how procedural facilities (Authorized Economic Operator/AEO, Mitra Utama Kepabeanan/MITA, the National Logistics Ecosystem/NLE, and the Indonesia National Single Window/INSW) and fiscal facilities (Bonded Zones, Kemudahan Impor Tujuan Ekspor/KITE, and Special Economic Zones) contribute to competitiveness remains fragmented across disciplines and rarely synthesized with methodological transparency. This study conducts a systematic literature review (SLR) guided by the PRISMA 2020 protocol to map, critically appraise, and synthesize the evidence base. Searches were carried out in Google Scholar, DOAJ, ResearchGate, IDEAS/RePEc, and Indonesian institutional repositories using a documented, database-specific search string, with the final search conducted on 15 July 2026. Methodological quality was appraised using the Mixed Methods Appraisal Tool (MMAT 2018). Of 215 records identified, 19 empirical or conceptual studies met the eligibility criteria through the database search, supplemented by 10 additional foundational theoretical and methodological references obtained through backward citation tracking, yielding 29 sources in the final synthesis. The review finds that procedural facilities primarily operate by reducing time, uncertainty, and inspection intensity, while fiscal facilities primarily operate by reducing production costs and improving cash flow; both influence competitiveness indirectly through intermediate variables such as logistics efficiency and supply continuity, moderated by firm size, sector, institutional quality, digital readiness, and regional infrastructure. Evidence on outcomes is mixed rather than uniformly positive, and access to procedural facilities such as AEO and MITA is disproportionately concentrated among large, highly compliant firms, raising equity concerns for SMEs. This review proposes an intermediate-variable conceptual framework (Customs Facilities → Customs and Logistics Efficiency → Firm-Level Outcomes → Manufacturing Competitiveness, moderated by institutional quality, digital readiness, firm size, and sector) and offers a transparent evidentiary basis for future firm-level and sector-specific empirical research.

ABSTRAK

Fasilitasi perdagangan melalui instrumen kepabeanan merupakan hal sentral dalam upaya Indonesia untuk memperkuat daya saing manufaktur, namun bukti tentang bagaimana fasilitas prosedural (Operator Ekonomi Resmi/AEO, Mitra Utama Kepabeanan/MITA, Ekosistem Logistik Nasional/NLE, dan Jendela Tunggal Nasional Indonesia/INSW) dan fasilitas fiskal (Zona Berikat, Kemudahan Impor Tujuan Ekspor/KITE, dan Zona Ekonomi Khusus) berkontribusi terhadap daya saing masih terfragmentasi di berbagai disiplin ilmu dan jarang disintesis dengan transparansi metodologis. Studi ini

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melakukan tinjauan literatur sistematis (SLR) yang dipandu oleh protokol PRISMA 2020 untuk memetakan, menilai secara kritis, dan mensintesis basis bukti. Pencarian dilakukan di Google Scholar, DOAJ, ResearchGate, IDEAS/RePEc, dan repositori institusional Indonesia menggunakan string pencarian spesifik basis data yang terdokumentasi, dengan pencarian terakhir dilakukan pada 15 Juli 2026. Kualitas metodologis dinilai menggunakan Mixed Methods Appraisal Tool (MMAT 2018). Dari 215 catatan yang diidentifikasi, 19 studi empiris atau konseptual memenuhi kriteria kelayakan melalui pencarian basis data, ditambah dengan 10 referensi teoritis dan metodologis dasar tambahan yang diperoleh melalui pelacakan kutipan mundur, menghasilkan 29 sumber dalam sintesis akhir. Tinjauan ini menemukan bahwa fasilitas prosedural terutama beroperasi dengan mengurangi waktu, ketidakpastian, dan intensitas inspeksi, sementara fasilitas fiskal terutama beroperasi dengan mengurangi biaya produksi dan meningkatkan arus kas; keduanya memengaruhi daya saing secara tidak langsung melalui variabel perantara seperti efisiensi logistik dan kontinuitas pasokan, yang dimoderasi oleh ukuran perusahaan, sektor, kualitas kelembagaan, kesiapan digital, dan infrastruktur regional. Bukti tentang hasil yang diperoleh beragam dan tidak selalu positif, dan akses ke fasilitas prosedural seperti AEO dan MITA terkonsentrasi secara tidak proporsional di antara perusahaan besar yang sangat patuh, sehingga menimbulkan kekhawatiran tentang kesetaraan bagi UKM. Tinjauan ini mengusulkan kerangka kerja konseptual variabel menengah (Fasilitas Kepabeanaan → Efisiensi Kepabeanaan dan Logistik → Hasil Tingkat Perusahaan → Daya Saing Manufaktur, dimoderasi oleh kualitas kelembagaan, kesiapan digital, ukuran perusahaan, dan sektor) dan menawarkan dasar bukti yang transparan untuk penelitian empiris tingkat perusahaan dan sektor tertentu di masa mendatang.

A. INTRODUCTION

The competitiveness of the manufacturing industry is one of the principal determinants of economic growth and employment absorption in Indonesia, and one policy instrument consistently used by the government to strengthen it is customs facilities. This instrument can be divided into two broad groups based on their operating mechanism. The first group is procedural facilities, which work by accelerating processes and reducing administrative uncertainty, comprising Authorized Economic Operator (AEO) status, Mitra Utama Kepabeanaan (MITA, or Customs Principal Partner), the National Logistics Ecosystem (NLE), and the Indonesia National Single Window (INSW). The second group is fiscal facilities, which work by lowering the burden of production costs through the suspension or exemption of import duties and taxes, comprising Bonded Zones, Kemudahan Impor Tujuan Ekspor (KITE, or Import Facility for Export Purposes), and Special Economic Zones (KEK).

The literature examining these seven instruments has tended to develop separately across different disciplines: studies of AEO and MITA generally appear in the customs compliance and risk management literature; studies of NLE and INSW have developed within the logistics and digital governance literature; while studies of Bonded Zones, KITE, and Special Economic Zones have developed within the fiscal economics and investment policy literature. As a result, few studies have synthesized these seven instruments within a single, coherent analytical framework to explain their overall contribution to manufacturing competitiveness.

This gap becomes more significant because the existing literature, when read critically, does not consistently show a uniformly positive relationship between the use of customs facilities and improved competitiveness. As an illustration, Wicaksono and

Mangunsong's (2023) study of firms receiving bonded zone facilities over the 1986–2005 period found a moderate impact on output per worker and product count, with a significant impact on export margins occurring only among firms connected to foreign investment networks. Similarly, a study of NLE implementation at Tanjung Priok Port found that after four years of operation, the program had not reached the government's targeted 60–80 percent improvement in time and cost efficiency (Arimbhi et al., 2021). These varied findings indicate that the generalization that “customs facilities improve manufacturing competitiveness” requires more careful testing and synthesis, rather than being assumed to hold universally.

The issue of equitable access also warrants attention. Yunardhani et al.'s (2026) study of the internationalization process of MSMEs in Balikpapan identified that the complexity of customs administration and limited adaptation to digital systems are structural barriers for small businesses, in contrast to large firms, which have greater compliance capacity and administrative resources to meet AEO and MITA status requirements. This pattern indicates a potential policy access gap between large firms and Micro, Small, and Medium Enterprises (MSMEs) that needs to be analyzed explicitly, rather than being treated merely as an implementation challenge.

Building on these gaps, this study aims to: (1) map the empirical and conceptual evidence on the contribution of procedural and fiscal customs facilities to the competitiveness of Indonesia's manufacturing industry through a transparent and replicable systematic literature review; (2) identify the mechanisms (pathways of influence) linking each type of facility to competitiveness, including intermediate variables and moderating factors; and (3) develop an integrated conceptual framework that explicitly distinguishes between procedural and fiscal facilities and maps variation in their impact according to firm size, sector, and region.

B. RESEARCH METHOD

This study uses a systematic literature review (SLR) approach that follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 protocol (Page et al., 2021). All of the following stages were designed to address the methodological critiques raised on the previous draft of the manuscript, guided by the principle that every reported figure must be traceable to a process that was actually carried out.

Search Date and Strategy

The final search was conducted on 15 July 2026. Searches were carried out across five sources: Google Scholar, DOAJ (Directory of Open Access Journals), ResearchGate, IDEAS/RePEc, and openly accessible Indonesian institutional repositories (UGM, UNS, PKN STAN, Universitas Brawijaya, and other national journal databases). The search did not extend to subscription databases (Scopus, Web of Science); this limitation is discussed in the Conclusion section. Search strings were constructed specifically for each database, using Boolean AND/OR operators and quotation marks for exact phrases, as presented in Table 1.

Table 1. Search Strings by Database

Database	Search String	Filters Applied
Google Scholar	("customs facilit*" OR "kepabeanan" OR "bonded zone" OR "kawasan berikat" OR "KITE" OR "AEO" OR "MITA" OR "National Logistics Ecosystem" OR "INSW") AND ("manufactur*" OR "daya saing" OR "competitiveness")	2010–2026; ID/EN; title & abstract; first 10 pages of results screened
DOAJ	"customs facilities" AND "manufacturing competitiveness"	Journal articles, open access, ID/EN
ResearchGate	"bonded zone" OR "special economic zone" AND "manufacturing" AND "Indonesia"	2010–2026; structured abstract available
IDEAS/RePEc	"bonded zone" Indonesia; "special economic zone" institutional	Working papers & economics journal articles
Institutional repositories (UGM, UNS, PKN STAN, UB, etc.)	"kawasan berikat" OR "KITE" OR "National Logistic Ecosystem" AND "daya saing" OR "ekspor"	Theses/dissertations with accessible full text

The search covered the title and abstract fields (title/abstract search); for Google Scholar, the first ten pages of results for each keyword combination were manually screened, given that the platform does not support precise field-based search filtering. The document types included were journal articles, working papers, theses/dissertations, and book chapters; press releases or marketing materials were excluded at the screening stage.

Inclusion and Exclusion Criteria

Table 2. Inclusion and Exclusion Criteria

Criterion	Inclusion	Exclusion
Topic	Addresses one of the seven instruments (AEO, MITA, NLE, INSW, Bonded Zones, KITE, KEK) or similar customs/FTZ facilities in other countries, linked to firm or manufacturing industry performance/competitiveness	Addresses customs matters without a performance/competitiveness dimension; purely administrative procedure without empirical or conceptual data or argument
Source type	Indexed journal articles, official institutional working papers (World Bank, WCO), theses/dissertations with full text, academic books/book chapters	News articles, press releases, corporate/commercial logistics service blogs without peer review
Language	Indonesian and English	Languages other than Indonesian and English
Time range	2010–July 2026 for empirical studies; no year limit for classical theoretical references (institutional theory, RBV, bounded rationality) and methodology (PRISMA, MMAT)	Empirical studies outside the time range without specific historical relevance
Accessibility	Structured abstract or full text openly accessible	Available only behind a paywall without an adequate abstract for extraction

Selection Procedure and PRISMA Flow Diagram

Selection was carried out in stages following the four phases of PRISMA 2020: identification, title/abstract screening, full-text eligibility assessment, and final inclusion. It should be stated honestly that the entire screening and extraction process in this study was carried out by a single author with the assistance of an artificial-intelligence research

assistant (a large language model) for searching, initial screening, and preparing extraction tables; this was not an independent two-rater process, and therefore this study does not report an inter-rater agreement coefficient (e.g., Cohen's kappa), as reporting such a coefficient without an actual two-rater process would mislead readers. To mitigate the risk of single-rater bias, all inclusion/exclusion decisions at the full-text stage are documented with explicit reasons as shown in Table 3, so that the process can be re-audited by readers or peer reviewers.

Table 3. PRISMA Flow Diagram (Tabular Summary)

PRISMA 2020 Stage	n	Notes
Identification all databases (Google Scholar, DOAJ, ResearchGate, IDEAS/RePEc, institutional repositories)	215	Google Scholar 142; DOAJ 21; ResearchGate 24; IDEAS/RePEc 16; institutional repositories 12
After duplicate removal	177	38 duplicate records manually removed
Title and abstract screening	45	132 excluded: did not address the seven instruments (61); not linked to performance/competitiveness (44); not an academic/official source (27)
Full-text eligibility assessment	19	26 excluded at this stage: full paywall access without adequate abstract (9); insufficient methodological detail for extraction (8); thematic duplication without added value compared to already-included studies (9)
Included from database search	19	Coded S1–S19 in Table 4
Added through backward citation tracking classical theory & methodology	10	North (1990); Peng et al. (2009); Barney (1991); Wernerfelt (1984); Cyert & March (1963); Simon (1997); Vargas-Hernández (2019); Ristyanan et al. (2023); Page et al. (2021); Hong et al. (2018)
Total included in final synthesis	29	19 database search + 10 backward citation

Methodological Quality Assessment

The methodological quality of the 19 studies identified through the database search was assessed using the Mixed Methods Appraisal Tool (MMAT) version 2018 (Hong et al., 2018), chosen because it accommodates the diversity of study designs (quantitative, qualitative, and mixed methods) found in this corpus. MMAT uses two initial screening questions and five design-specific criteria per category. A summary of the assessment results is presented in the “MMAT Score” column of Table 4; scores are reported as the number of criteria met out of five (e.g., 4/5), rather than as an unsubstantiated “high/low” category. Studies scoring below 3/5 were still included in the narrative synthesis, but their findings were given lower interpretive weight and explicitly flagged in the discussion.

Extraction and Synthesis Procedure

Data were extracted into a matrix containing: study code, author and year, customs instrument addressed, study type and method, unit of analysis, sector/region, competitiveness indicator used, key findings, MMAT score, and study limitations (Table 4). Given the heterogeneity of designs, synthesis was carried out narratively and thematically (narrative-thematic synthesis) using mixed coding (deductive-inductive): initial categories (procedural vs. fiscal; macro-level vs. firm-level) were established deductively based on the framework in Section C, while subthemes such as “MSME access

gap” and “risk of facility misuse” emerged inductively from repeated readings of the included studies.

C. RESULT ANDI DISCUSSION

As shown in Table 3, of the 215 records identified, 19 studies from the database search were included in the synthesis, together with 10 classical theory and methodology references obtained through backward citation tracking, for a total of 29 sources included. The full characteristics of the 19 studies from the database search not merely a small subset as in the previous draft of the manuscript are presented in full in Table 4 below, covering study code, instrument addressed, method, context, competitiveness indicator, key findings, and MMAT quality assessment score.

Table 4. Full Characteristics of Selected Studies (S1-S19)

Code	Author (Year)	Instrument	Study Type / Method	Context	Competitiveness Indicator	Key Findings	MMAT
S1	Adiyanti (2012)	Bonded Zone	Descriptive quantitative (undergraduate thesis)	Surakarta, ID	Export value	Bonded zone tax facilities are associated with increased exports, 2009–2011	3/5
S2	Ratiah, Hartanti, & Feranika (2020)	Bonded Zone	Descriptive qualitative	East Jakarta, ID	Flow of goods	DGCE applies bonded zone policy to facilitate the flow of import documents and goods	3/5
S3	Firmansyah & Pratiwi (2022)	Bonded Zone	Quantitative	National, ID	Fiscal incentive effectiveness	Effectiveness of bonded zone fiscal incentive policy varies across firms	3/5
S4	Faradila & Kakinaka (2020)	Industrial estate / bonded zone	Quantitative (firm-level panel)	National, ID	Productivity, international trade linkages	Location in an industrial estate is positively associated with productivity, but effects vary across sectors	4/5
S5	Wicaksono & Mangunsong (2023)	Bonded Zone	Quantitative (difference-in-differences)	National, ID (1986–2005)	Output per worker, product count, export margin	Moderate impact on output/product count; strong impact on export margin only for firms with foreign investment networks	5/5
S6	Wiyandari, Elgi, & Purnama (2025)	Bonded (fiscal) Zone	Quantitative	National, ID (2019–2024)	Manufacturing export performance	Fiscal incentives and macroeconomic conditions jointly affect export performance	4/5
S7	Guntara & Muchtar (2024)	KITE	Quantitative	National, ID	SME exports	Determinants of exports among KITE-recipient SMEs are influenced by firm characteristics and compliance	3/5
S8	Sulistiyawati, Sulistiyono, & Imanullah (2019)	Bonded Zone (regulation)	Legal-policy review	National, ID	Investment & exports (narrative)	New bonded zone regulation is aimed at increasing industrial investment and exports	2/5
S9	Arimbhi, Agustina, & Rahmi (2021)	NLE	Descriptive qualitative	National, ID	Logistics performance, investment climate	NLE implementation contributes to improved logistics performance, but impact evaluation is still at an early stage	3/5
S10	Haris, Saidin, Sirait, & Kaban (2022)	NLE	Conceptual-descriptive	National, ID	International trade competitiveness	Strengthening NLE is needed to improve Indonesia's international trade competitiveness	2/5

Code	Author (Year)	Instrument	Study Type / Method	Context	Competitiveness Indicator	Key Findings	MMAT
S11	Sitorus (2022)	NLE	Quantitative / descriptive	National, ID	National logistics competitiveness	Multimodal transportation and NLE contribute to improved national logistics competitiveness	3/5
S12	Yunardhani, Sudarmiatin, & Pratikto (2026)	General customs (MSME access)	Qualitative (institutional theory & Uppsala model)	Balikpapan, ID	MSME internationalization	Customs administrative complexity and limited digital adaptation are the main barriers for MSMEs	4/5
S13	Basri, Karimi, & Zulkifli (2020)	General export policy	Quantitative (Cobb-Douglas, panel data)	National, ID (2005–2015)	Manufacturing export orientation	FDI and labor drive growth in manufacturing export orientation	4/5
S14	Frick & Rodríguez-Pose (2023)	KEK/SEZ (international)	Cross-country quantitative	Africa, Asia, Latin America	Zone investment attractiveness	Infrastructure and strategic location matter more for investment decisions than fiscal incentives alone	5/5
S15	Hazakis (2014)	KEK/SEZ (international)	Conceptual	Cross-country	Institutional success of zones	Cognitive-regulative-organizational interaction determines the success of special economic zones	3/5
S16	Farole (2011)	KEK/SEZ (international)	Comparative policy study (World Bank)	Africa (global comparison)	Special economic zone performance	SEZ performance varies widely and depends on the institutional quality of zone management	4/5
S17	Ma, Zhang, Yang, & He (2021)	FTZ (fiscal + procedural, international)	Quantitative (difference-in-differences, quasi-experiment)	280 cities, China (2005–2017)	Green total factor productivity (GTFP)	FTZs contribute positively to GTFP, but the positive effect fades after three years and is unevenly distributed across regions	5/5
S18	Liu & Xie (2020)	Environmental regulation & FTZ (international)	Quantitative	China	Value-added export competitiveness	Environmental regulation affects export competitiveness through different compliance-cost and technological-innovation pathways	4/5
S19	Hu, Sun, & Dai (2021)	Environmental regulation & customs (international)	Quantitative (Chinese customs data)	China (2004–2010)	Export technology sophistication	Different types of environmental regulation have a U-shaped effect on export technology sophistication	4/5

In terms of instrument distribution, nine studies (S1, S2, S3, S5, S6, S8, and three international studies S14–S16) address zone-based fiscal facilities (Bonded Zone/KEK/SEZ/FTZ), one study (S7) focuses on KITE, three studies (S9–S11) address NLE, one study (S12) addresses barriers to customs facility access for MSMEs, one study (S13) addresses general manufacturing export policy, and three international studies (S17–S19) address the relationship between China's FTZs and environmental/sustainability dimensions. It should be explicitly noted that no indexed academic study was found that specifically examines the impact of AEO, MITA, or INSW on Indonesia's manufacturing competitiveness using a verifiable quantitative/qualitative design; the openly available literature on these three instruments generally consists of official regulatory documents (Minister of Finance Regulation No. 137 of 2023 on AEO; Minister of Finance Regulation No. 229/PMK.04/2015 on Customs MITA) and informative publications from tax/customs news portals (DDTC News, Pajak.com), which are used in this section only for definitional and policy-context purposes, not as evidence

of empirical impact on competitiveness. This academic evidence gap is explicitly reported as a finding of the literature mapping itself, rather than being disguised as evidence of positive impact.

Critical Synthesis: Mixed, Not Uniformly Positive Impacts

The synthesis of Table 4 shows that the impact of customs facilities on competitiveness is conditional, not automatic. The difference-in-differences study by Wicaksono and Mangunsong (2023/S5) found that bonded zones have a moderate impact on output per worker, with a strong impact on export margins occurring only among firms connected to foreign investment networks not across the entire population of facility recipients. Faradila and Kakinaka (2020/S4) likewise found variation in impact across sectors in the relationship between industrial estate location and productivity. At the digital level, the NLE implementation study (S9) noted that the program had not reached its targeted 60–80 percent efficiency improvement, indicating that customs digitalization does not automatically reduce transaction costs it depends on the extent to which manual processes are genuinely simplified, rather than merely digitized.

At the international level, evidence on special economic zones/FTZs is likewise not uniform. Frick and Rodríguez-Pose (2023/S14), based on a cross-country comparison across Africa, Asia, and Latin America, found that infrastructure and strategic location matter more for investment decisions than fiscal incentives alone challenging the assumption that fiscal incentives linearly increase investment attractiveness. Farole (2011/S16) confirms that SEZ performance depends heavily on the institutional quality of zone management, so cross-country generalizations should be made cautiously given differences in institutional capacity, economies of scale, and digital infrastructure between Indonesia and China.

Differences in Impact by Firm Size, Sector, and Region

Findings from S12 (Yunardhani et al., 2026) provide direct evidence that access to customs facilities is not neutral with respect to firm size. MSMEs seeking to internationalize in Balikpapan face barriers of export legal literacy, administrative complexity, and limited adaptation to digital systems factors that are structurally easier for large firms with dedicated compliance divisions to meet. Linked to the requirements for MITA (six months of compliance reputation, no tax arrears, specific business fields) and AEO (a standardized supply-chain security management system under the WCO SAFE Framework), the design of both procedural facilities is inherently more accessible to large firms than to export-oriented MSMEs a gap that should be viewed as a public policy equity issue, not merely a technical implementation challenge that will resolve itself.

On the sector dimension, the corpus of studies does not yet allow for strong sector-specific generalizations, since the majority of Indonesian quantitative studies (S1, S3, S6, S7) use cross-sector aggregate data without industry disaggregation an explicit research gap: future studies need to distinguish the relevance of KITE for pure export producers compared to Bonded Zones for industries with different production systems, as well as KEK, which also depends on zone infrastructure, connectivity, and governance (Farole, 2011). On the regional dimension, differences in digital infrastructure between Java and outside Java potentially make the benefits of digital customs reforms (NLE, INSW) uneven, although the corpus found does not yet provide direct quantitative evidence at the regional level another research gap that should be underscored, not simply assumed.

Customs Supervision and the Risk of Facility Misuse

A balanced discussion must also consider the supervisory side, given that fiscal facilities such as Bonded Zones and KITE are fundamentally instruments for suspending customs obligations, which creates potential moral hazard if supervision is inadequate including document manipulation, diversion of imported goods to the domestic market, transfer pricing, or mismatches between imported raw materials and realized exports. The corpus of studies found does not extensively discuss post-clearance audit in depth, indicating that Indonesian academic literature leans toward a trade facilitation perspective and gives comparatively less balanced attention to a customs enforcement perspective a gap that should be underscored, given that recommendations to expand facilities without adequate discussion of supervision risk appearing to be oriented solely toward user convenience.

Synthesis: Intermediate-Variable Conceptual Framework

Based on the synthesis above, this study proposes a conceptual framework that explicitly distinguishes the mechanisms of procedural and fiscal facilities and explicitly places intermediate variables and moderators, rather than assuming a direct relationship between customs facilities and competitiveness:

Customs Facilities (Procedural: AEO, MITA, NLE, INSW work by reducing time, uncertainty, and inspection intensity; Fiscal: Bonded Zones, KITE, KEK work by reducing production costs and improving cash flow) → Customs and Logistics Efficiency (clearance time, logistics cost, continuity of raw material supply) → Firm-Level Outcomes (productivity, export performance, investment feasibility) → Manufacturing Industry Competitiveness (four dimensions: efficiency, trade performance, investment attractiveness, long-term capability).

The relationship at each stage of this framework is moderated by four contextual factors that, based on the synthesis, are shown to consistently affect the strength and direction of the relationship: (1) the institutional quality of facility management (Hazakis, 2014; Farole, 2011); (2) digital readiness and the extent to which manual processes are genuinely simplified rather than merely digitized (finding from S9); (3) firm size and compliance capacity, which determine access to procedural facilities (S12); and (4) sector characteristics and firm investment networks (S4, S5). This framework differs from the direct-relationship assumption implicit in most of the descriptive quantitative studies in Table 4, and is intended as a basis for formulating hypotheses in future quantitative research or propositions in future qualitative research, including the author's ongoing research on the strategic decision-making of firms using bonded zones within the working area of KPPBC Tipe Madya Pabean C Pasuruan (Pasuruan Customs Office).

Toward More Operational Policy Directions

As a follow-up, several policy directions that are more operational than generic recommendations such as “regulatory harmonization” or “staff training” can be formulated: (1) cross-ministerial/cross-agency performance indicators that measure policy outcomes, not merely the number of facility users; (2) a tiered AEO/MITA scheme that opens a gradual pathway for exporting MSMEs without requiring them to meet all requirements at once; (3) dedicated technical assistance for MSMEs seeking to access KITE; and (4) an integrated customs-licensing database to support risk-based audits without adding administrative burden to compliant firms. These four directions are illustrative, based on patterns identified in the literature synthesis, and require separate feasibility studies before implementation.

D. CONCLUSION

This systematic literature review mapped 19 studies from the database search on the contribution of seven procedural and fiscal customs facility instruments to the competitiveness of Indonesia's manufacturing industry, synthesized together with 10 classical theory and methodology references. The findings show that the impact of customs facilities on competitiveness is conditional and mixed, not uniformly positive: procedural and fiscal facilities operate through different mechanisms and affect competitiveness indirectly through intermediate variables in the form of logistics efficiency and firm-level outcomes, moderated by institutional quality, digital readiness, firm size, and sector characteristics. Access to procedural facilities such as AEO and MITA was found to tend to be concentrated among large firms with high compliance capacity, raising policy access equity issues for MSMEs that require explicit attention in future policy design.

This study also identified a significant academic evidence gap: no indexed study was found that specifically examines the impact of AEO, MITA, or INSW on Indonesia's manufacturing competitiveness using a verifiable research design, so the discussion of these three instruments in this study relies largely on regulatory documents rather than empirical evidence a research gap that is explicitly recommended to be filled by future research.

This study has limitations that must be openly acknowledged. First, the literature search was limited to open academic databases without access to Scopus/Web of Science, so studies indexed exclusively there may not be covered. Second, the Indonesian-English language restriction potentially excludes relevant studies in other languages. Third, selection and extraction were carried out by a single author assisted by an AI assistant, rather than two independent reviewers, which may introduce single-rater selection bias, although this has been mitigated through documentation of explicit exclusion reasons. Fourth, this study is susceptible to publication bias, given that studies with significant positive findings are generally more easily published. Fifth, the methodological quality of the studies varies (MMAT scores of 2/5–5/5); this synthesis gives lower interpretive weight to lower-scoring studies without excluding them entirely.

Given these limitations, future research is recommended to: conduct firm-level research specifically testing the impact of AEO, MITA, and INSW on the export performance and productivity of Indonesian manufacturing; conduct sector-specific analyses (automotive, textiles, electronics, pharmaceuticals, food and beverage); test the intermediate-variable framework in Section D.5 quantitatively through mediation-moderation modeling; and conduct in-depth qualitative research on firms' strategic decision-making in utilizing customs facilities in specific contexts, as is currently being developed by the author in the working area of KPPBC Tipe Madya Pabean C Pasuruan (Pasuruan Customs Office).

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