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# From Formal Agreements to Educational Value: A Policy and Conceptual Analysis of School-Industry Partnership Governance in Vocational Education

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## ABSTRACT

School-industry partnerships are central to vocational education, but formal agreements do not automatically produce coherent curricula, high-quality workplace learning, or equitable transitions to employment. This study examined how partnership governance is framed in contemporary vocational education policy and translated the resulting principles into an operational model for institutions. A qualitative document analysis was conducted on eight authoritative Indonesian and international policy or guidance documents issued between 2021 and 2025. The primary corpus was analysed through directed content analysis using eight governance domains: purpose and shared value, actor representation, role accountability, curriculum and assessment co-design, coordination and intermediation, resources and incentives, learner protection and equity, and monitoring and renewal. Selected peer-reviewed studies were used for interpretive triangulation rather than treated as a systematic-review corpus. The analysis found strong policy convergence on multi-actor coordination, employer participation across curriculum design, delivery, and feedback, structured work-based learning, qualified workplace mentors, shared resources, inclusion, and outcome-oriented evaluation. The main implementation weakness was the distance between high-level mandates and verifiable school-level operating standards. The study proposes a three-level governance architecture and a six-stage partnership cycle. Partnership quality should be judged by educational value, reciprocal benefit, learner protection, equity, evidence, and sustainability, not by the number of signed agreements alone.
**Keywords:** educational management, policy analysis, school-industry partnership, vocational education, work-based learning

## *ABSTRAK*

*Kemitraan sekolah dan industri merupakan unsur penting pendidikan vokasi, tetapi perjanjian formal tidak secara otomatis menghasilkan kurikulum yang selaras, pembelajaran di tempat kerja yang bermutu, atau transisi kerja yang adil. Penelitian ini menganalisis bagaimana tata kelola kemitraan dirumuskan dalam kebijakan pendidikan vokasi kontemporer dan menerjemahkan prinsip-prinsip tersebut menjadi model operasional bagi satuan pendidikan. Analisis dokumen kualitatif dilakukan terhadap delapan dokumen kebijakan atau pedoman resmi Indonesia dan internasional yang diterbitkan pada 2021-2025. Korpus utama dianalisis menggunakan analisis isi terarah berdasarkan delapan ranah tata kelola: tujuan dan nilai bersama, representasi aktor, akuntabilitas peran, perancangan bersama kurikulum dan asesmen, koordinasi dan intermediasi, sumber daya dan insentif, perlindungan serta pemerataan peserta didik, dan pemantauan serta pembaruan. Artikel ilmiah terpilih digunakan sebagai triangulasi interpretatif, bukan sebagai korpus tinjauan sistematis. Hasil menunjukkan konvergensi kebijakan pada koordinasi multiaktor, keterlibatan industri dalam desain, pelaksanaan, dan umpan balik kurikulum, pembelajaran berbasis kerja yang terstruktur, pembimbing industri yang kompeten, pembagian sumber daya, inklusi, dan evaluasi berbasis hasil. Kelemahan utama terletak pada jarak antara mandat kebijakan tingkat tinggi dan standar operasional sekolah yang dapat diverifikasi. Penelitian menghasilkan arsitektur tata kelola tiga tingkat dan siklus kemitraan enam tahap. Mutu kemitraan perlu dinilai melalui nilai pendidikan, manfaat timbal balik, perlindungan peserta didik, pemerataan, bukti, dan keberlanjutan, bukan jumlah perjanjian yang ditandatangani.*
***Kata kunci:*** *analisis kebijakan, kemitraan sekolah-industri, manajemen pendidikan, pendidikan vokasi, pembelajaran berbasis kerja*

# 1. INTRODUCTION

Vocational education must remain responsive to changing occupations while protecting broad educational purposes, learner development, and progression opportunities. Employers hold current knowledge of technologies, production processes, occupational standards, and emerging skill needs, whereas schools provide structured pedagogy, assessment, certification, and learner safeguards. Contemporary policy therefore treats employer and social-partner engagement as a central feature of responsive vocational education and training (VET) [1], [2]. In Indonesia, Presidential Regulation No. 68 of 2022 places alignment with business, industry, and the world of work within a wider system of quality assurance, coordination, monitoring, and financing [3].

The curriculum architecture reinforces this expectation. The national curriculum regulation, as amended in 2025, positions workplace practice as a formal vocational subject and allows schools to develop vocational content with workplace partners according to occupational needs [4], [5]. These provisions create a strong policy mandate for cooperation. They do not, however, determine whether cooperation operates as an educational system or remains a collection of activities. A signed memorandum may coexist with weak communication, repetitive workplace tasks, inconsistent mentoring, or assessment that is detached from the curriculum.

Empirical research demonstrates this implementation problem. Cross-national analysis shows that the strength of education-employment linkage depends on employer participation across qualification standards, curriculum updating, workplace learning, and assessment rather than on consultation alone [6]. Even the German dual system has displayed limited school-company coordination at the organizational level [7]. Research on collective training systems similarly emphasizes that decentralised cooperation requires structured institutions, intermediary actors, and negotiated authority [8]. The policy question is therefore not simply whether industry participates, but how participation is governed, evidenced, and renewed.

Studies of school-workplace collaboration identify practical mechanisms including joint planning, named coordinators, workplace mentor preparation, supervision, feedback, and sustained professional learning [9]-[11]. International standards add learner protection, inclusion, recognized qualifications, social dialogue, and adequate financing to the definition of quality apprenticeship [12]. Monitoring guidance further distinguishes inputs, implementation processes, outputs, and longer-term outcomes, warning against using placement counts as a substitute for educational quality [13]. Sector-level intermediaries can reduce coordination costs and give employers, workers, and providers a stable forum for shaping skills systems [14].

Nevertheless, the literature and policy guidance are often organized around separate concerns: employer engagement, work-based learning, curriculum relevance, apprenticeship, quality assurance, or school management. Institutions need an integrated governance logic that converts broad policy expectations into minimum operating evidence. Such a logic must also manage tensions. Employers face costs and uncertain returns [15], [16], power asymmetries may narrow learning toward immediate firm needs [17], and reciprocal benefits depend on trust, responsiveness, and sustained communication [18].

This study addresses that need through a policy and conceptual analysis rather than a systematic literature review. It asks three questions: (1) Which governance requirements converge across Indonesian and international VET policy documents? (2) Where do policy mandates remain under-specified at the institutional level? and (3) How can the convergent requirements be translated into an operational governance framework and evidence set for school-industry partnerships? The contribution is a document-grounded model that links policy, partnership architecture, workplace learning, quality assurance, and renewal without claiming to measure partnership performance in a particular institution.

# 2. METHOD

## 2.1. Research Design

The study used qualitative document analysis with conceptual synthesis. Document analysis was selected because the research objective concerned the governance expectations embedded in authoritative policies and guidance, not the prevalence or causal effects of partnership practices. The approach combined directed qualitative content analysis with framework construction. Policy documents constituted the primary data, selected empirical and conceptual publications were used to examine whether the policy logic was consistent with implementation evidence.

## 2.2. Document Corpus and Selection

The primary corpus comprised eight documents retrieved from official repositories and verified on 23 July 2026. Documents were included when they: (a) were issued by a government or intergovernmental organization, (b) explicitly addressed VET governance, employer participation, apprenticeship, work-based learning, curriculum alignment, or quality assurance, (c) had direct relevance to school-industry partnership design, and (d) were current policy instruments or guidance published from 2021 through 2025. The Indonesian corpus captured the national revitalization and curriculum architecture, while the international corpus supplied comparative principles on responsive VET, apprenticeships, sector coordination, inclusion, and monitoring.

Table 1. Primary Policy and Guidance Document Corpus

| Scope | Document | Analytical role | Principal governance contribution |
|---|---|---|---|
| Indonesia | Presidential Regulation No. 68/2022 | National revitalization architecture | Alignment, quality assurance, national/regional coordination, monitoring, financing |
| Indonesia | Curriculum Regulation No. 12/2024, amended by No. 13/2025 | Curriculum and workplace learning | Workplace practice as a formal subject, curriculum adaptation with workplace partners |
| International | UNESCO TVET Strategy 2022-2029 | Transformative and inclusive TVET | Private-sector participation, work-based learning, governance, investment, digital and green transitions |
| International | OECD Building Future-Ready VET Systems (2023) | Responsive VET system design | Employer engagement in design, application, feedback, and governance at multiple levels |
| International | OECD Spotlight on VET (2023) | Participation and system comparison | Access to work-based components, transitions, and system-level responsiveness |
| International | ILO Quality Apprenticeships Recommendation No. 208 (2023) | Rights and quality standards | Regulation, agreements, qualifications, inclusion, protection, financing, and social dialogue |
| International | ILO Resource Guide for Sector Skills Bodies (2021) | Sector intermediation | Representative governance, mandate clarity, industry leadership, and institutional sustainability |
| International | ETF Monitoring and Evaluating Work-Based Learning (2021) | Monitoring and evaluation | Input-process-output-outcome indicators, cooperation of learning venues, costs, mentors, and outcomes |

### 2.3. Coding and Analytical Procedure

A structured matrix recorded the issuing body, jurisdiction, policy purpose, stakeholder architecture, implementation mechanism, evidence requirement, and stated quality or equity concern. Initial codes were derived from partnership-governance and VET literature, then refined during document reading. The final codebook contained eight domains: (1) purpose and shared value, (2) actor representation, (3) role and decision accountability, (4) curriculum, workplace-task, and assessment co-design, (5) coordination and intermediation, (6) resources, incentives, and capability, (7) learner protection, inclusion, and equity, and (8) monitoring, feedback, and renewal. Each document was read in full where a complete text was available, and relevant provisions were compared through a document-by-domain matrix. The synthesis focused on convergence, complementarities, tensions, and operational gaps, it did not use word frequency as evidence of policy importance.

### 2.4. Trustworthiness, Scope, and Ethics

Trustworthiness was strengthened through source authentication, retention of an audit matrix, comparison of Indonesian and international instruments, and negative-case checking against peer-reviewed evidence. Claims were limited to what the documents prescribed or reasonably implied. Empirical studies were selected purposively for direct relevance, methodological transparency, and coverage of both Indonesian and international settings, they were not presented as an exhaustive evidence base. Because all materials were public documents and publications, no human-participant ethics approval was required. The resulting framework is normative and analytical: it requires field validation before it can be used as a causal model or a validated measurement instrument.

## 3. RESULTS AND DISCUSSION

### 3.1. Results

#### 3.1.1. Policy Architecture of the Document Corpus

The document corpus formed a layered policy architecture. Indonesian regulations establish the legal mandate for alignment, curriculum adaptation, quality assurance, coordination, regional responsibility, and monitoring [3]-[5]. International documents extend this architecture by specifying the roles of employers and social partners, the characteristics of quality apprenticeship, the value of sector intermediaries, and the evidence needed to monitor workplace learning [1], [2], [12]-[14], [27]. The documents differ in jurisdiction and level of detail, but they converge on the principle that partnership is a governed relationship rather than an informal exchange.

#### 3.1.2. Convergent Governance Requirements

Table 2. Cross-Document Governance Convergence and Operational Translation

| Governance domain | Common policy expectation | Institutional translation | Risk when under-specified |
|---|---|---|---|
| Shared purpose and value | Partnerships should respond to learner, occupational, institutional, and regional needs. | Joint needs analysis and an explicit value proposition for learners, schools, employers, and the region. | Ceremonial agreements or one-sided adaptation to a single employer. |
| Representative actor architecture | Government, providers, employers, workers or professional bodies, and local actors should have structured participation. | A steering arrangement with named representation, decision rights, and escalation routes. | Dependence on personal networks and exclusion of weaker stakeholders. |
| Curriculum and assessment co-design | Employers should contribute to standards, curricula, authentic tasks, assessment, and feedback. | A curriculum-task-assessment map showing what is learned at school and in the workplace. | Placement activity that is disconnected from learning outcomes. |

| Governance domain | Common policy expectation | Institutional translation | Risk when under-specified |
|---|---|---|---|
| Quality workplace learning | Work-based learning requires structured tasks, qualified mentors, supervision, feedback, and recognized outcomes. | Placement standards, mentor preparation, learning plans, school follow-up, and evidence of competence. | Students used as peripheral labour or assigned repetitive tasks. |
| Resources, incentives, and capacity | Participation requires financing, facilities, staff time, trainer capacity, and support for smaller firms. | Cost and responsibility sharing, pooled facilities, mentor support, and intermediary services. | Cost shifting to schools, students, or a small number of committed firms. |
| Learner protection and equity | Quality arrangements should be inclusive, safe, non-discriminatory, and accessible. | Safeguards for safety, harassment, accessibility, transport, placement allocation, and complaints. | High-quality placements concentrated among already advantaged learners. |
| Monitoring and adaptive renewal | Evidence should cover inputs, implementation, outputs, outcomes, and feedback. | A dashboard combining process quality, competence evidence, transitions, reciprocal value, and equity. | Counting agreements or placements without testing educational value. |

Across the corpus, shared purpose was treated as the starting condition. Policy documents consistently linked VET to labour-market relevance, productive employment, inclusion, and longer-term social and economic transitions [1]-[3]. This does not support narrow employer control. OECD guidance explicitly cautions that employer input should be balanced with broader and longer-term needs [1]. The operational implication is that schools and firms must define a problem they are jointly solving, while preserving transferable competence, learner progression, citizenship, and safety.

A second convergence concerned actor architecture. The Indonesian revitalization regulation distributes responsibilities across national and regional coordination structures and includes chambers and industry bodies [3]. OECD and UNESCO guidance similarly promotes social-partner engagement at national, sectoral, regional, and provider levels [1], [2]. The ILO sector-skills guidance shows why intermediary bodies matter: individual schools and firms often lack the capacity to aggregate demand, maintain standards, or represent small enterprises consistently [14]. Partnership governance therefore requires a structure that survives staff turnover and does not depend solely on a principal, coordinator, or company champion.

The strongest pedagogical convergence concerned co-design. Employer participation was framed across three connected phases: curriculum and qualification design, workplace implementation, and feedback for revision [1]. Indonesian curriculum rules establish workplace practice as a formal learning component and allow vocational content to be strengthened with workplace partners [4], [5]. The key governance object is therefore not the placement itself, but the curriculum-task-assessment chain. Schools retain responsibility for educational coherence, while employers contribute occupational authenticity, equipment, expert judgement, and workplace standards.

Quality and protection were inseparable in the international guidance. The ILO recommendation positions apprenticeship within a regulated agreement, recognized qualifications, social dialogue, adequate financing, inclusion, and protection from discrimination, violence, harassment, and exploitation [12]. ETF monitoring guidance adds concrete questions about company participation, mentor qualifications, cooperation between learning venues, assessment, completion, costs, and labour-market outcomes [13]. These provisions imply that access to a placement is insufficient evidence of quality, institutions must verify what learners do, who supports them, how performance is assessed, and whether risks and benefits are distributed fairly.

Monitoring was the domain in which policy aspirations most clearly became measurable. The ETF input-process-output-outcome model distinguishes enabling resources from implementation quality, immediate results, and longer-term outcomes [13]. Presidential Regulation No. 68/2022 also requires periodic monitoring and feedback within national and regional coordination [3]. At the institutional level, however, policies rarely specify a minimum evidence package for deciding whether a partnership should be renewed, redesigned, scaled, or ended. This policy-to-practice gap motivated the governance cycle proposed below.

### 3.1.3. Policy-to-Practice Gaps

Three recurrent gaps emerged from comparing the documents with empirical implementation studies. First, formalization is often treated as the endpoint rather than the beginning of governance. Gessler found that formal dual-system structures did not guarantee active coordination between companies and vocational schools [7]. Indonesian case studies likewise report partnerships that depend heavily on local commitment, coordinator capability, and periodic follow-up [19], [22], [23]. An agreement is therefore useful only when it specifies operational responsibilities, learning standards, resource commitments, safeguards, data, and review dates.

Second, employer participation is constrained by heterogeneous capacity and incentives. Firms incur mentor time, production disruption, equipment, supervision, safety, and administrative costs. Evidence from apprenticeship and emerging-industry contexts shows that anticipated benefits encourage participation while cost and uncertainty can discourage it [15], [16]. Large firms may absorb these costs, whereas micro, small, and medium enterprises may require pooled training centres, shared mentors, simplified administration, or sector-level support. A partnership policy that assumes all firms can contribute in the same way will reproduce regional and institutional inequality.

Third, relevance can conflict with educational breadth and equity. Employer involvement can strengthen authenticity, but power asymmetry may allow short-term production needs to dominate the curriculum or exclude less immediately productive learners [17]. Reciprocal partnerships perform better when roles, value, communication, and responsiveness are explicit [18]. The governance challenge is to create occupational relevance without converting education into firm-specific task training, and to expand access without lowering learner protection or concentrating premium opportunities among selected groups.

### 3.1.4. Integrated Governance Framework

The synthesis produced a three-level governance architecture and a six-stage operating cycle (Figure 1). The architecture separates enabling policy and sector conditions, institutional partnership design, and workplace learning delivery. The cycle converts policy into recurrent management decisions: diagnose, co-design, formalize, implement, monitor, and renew or exit. Five quality tests apply across every stage: educational value, reciprocal value, learner protection, equity, and evidence of sustainability.

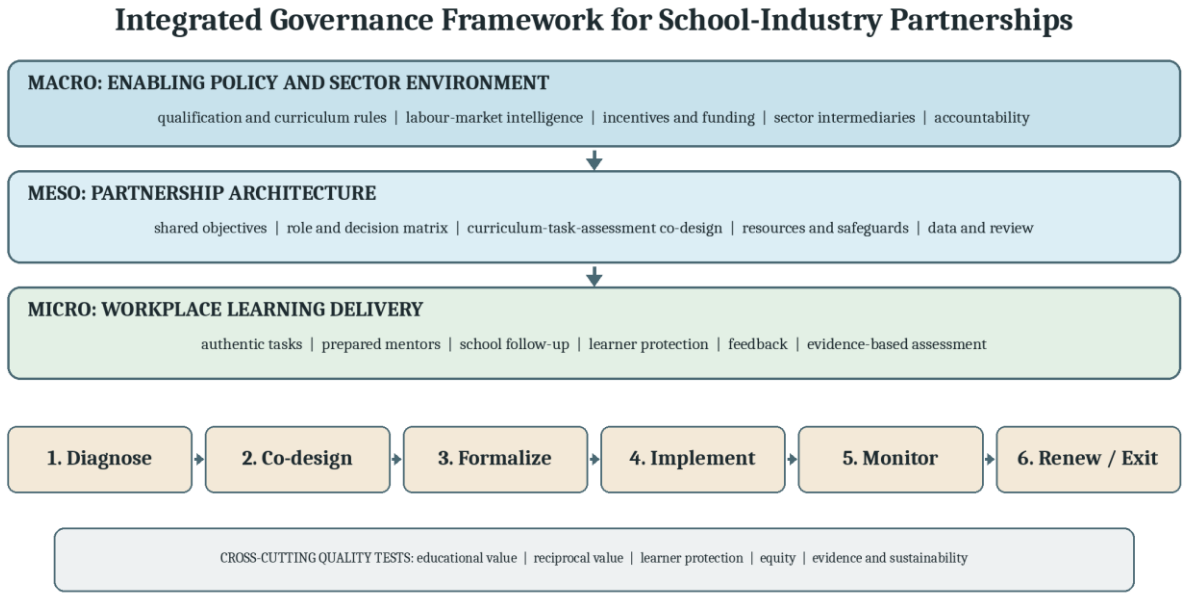



Figure 1. Integrated Governance Framework for School-Industry Partnerships

Table 3. Partnership Governance Cycle and Minimum Evidence

| Stage | Minimum governance evidence | Illustrative indicators | Decision rule |
|---|---|---|---|
| 1. Diagnose | Skills, learner, regional, and institutional needs analysis | Demand data, learner access barriers, partner capacity, baseline outcomes | Proceed only when a collaboration problem and potential mutual value are explicit. |
| 2. Co-design | Shared outcomes, curriculum map, workplace tasks, assessment, and safeguards | Learning-outcome map, task progression, mentor standard, equity and safety plan | Approve only when workplace activity can generate assessable learning. |
| 3. Formalize | Decision rights, responsibilities, resources, data, escalation, and review | Operational agreement, responsibility matrix, budget, data protocol, review date | Do not activate partnerships that assign obligations without resources or accountability. |
| 4. Implement | Learner matching, mentor preparation, school follow-up, feedback, and assessment | Learning plan, mentor log, supervision record, learner work evidence, incident record | Correct deviations early, suspend placements that breach safety or educational standards. |
| 5. Monitor | Input, process, output, outcome, and equity review | Dashboard, competence evidence, completion, complaints, employer and learner feedback | Interpret outcome data with process and contextual evidence, not as isolated targets. |
| 6. Renew or Exit | Continue, redesign, scale, pause, or end the arrangement | Corrective-action record, reciprocal-value review, unresolved risk, renewal decision | Renew only when educational value, protection, and reciprocal benefit are demonstrated. |

## 3.2. Discussion

### 3.2.1. From Collaboration Activity to Learning Governance

The principal interpretation is that school-industry partnership should be managed as a quality-assured learning system. This view differs from an activity model in which success is demonstrated by memoranda, guest lectures, equipment donations, or placement numbers. A governance model asks whether the partnership has a defensible purpose, distributes authority, connects two learning venues, protects learners, produces evidence, and adapts when conditions change. The empirical literature supports this interpretation: joint planning and workplace participation improve relevance when responsibilities and feedback are sustained [9], [10], while collaborative development can build mentor and institutional capability [11].

The framework also clarifies the roles of different levels. The macro level creates rules, incentives, qualification standards, labour-market information, and intermediary capacity. The meso level converts these conditions into a partnership portfolio, operational agreements, curriculum maps, resource arrangements, and data routines. The micro level is where educational value is produced through authentic tasks, mentoring, supervision, feedback, assessment, and reflection. Weakness at any level can block the others. A capable workplace mentor cannot compensate for an unsafe placement, and a detailed school agreement cannot create sufficient employer capacity without regional or sector support.

### 3.2.2. Operational Implications for Indonesian Vocational Education

For Indonesian vocational institutions, the immediate managerial implication is to move from partner counting to portfolio governance. Partnerships can be differentiated as strategic, programme-level, placement, project, or transactional relationships. Strategic partners may co-design curricula, assessment, teacher industry exposure, facilities, and recruitment, other partners may support specialized tasks or short placements. Differentiation makes expectations realistic and prevents every memorandum from being reported as equivalent. Existing Indonesian research on demand-driven programmes, partnership leadership, work-based learning conditions, teaching factories, and curriculum-industry alignment provides practical support for this portfolio approach [19]-[24], [28], [29].

Regional coordination is especially important where firms are small or industrial concentration is uneven. Sector or regional intermediaries can aggregate placements, prepare mentors, standardize minimum learning conditions, share facilities, and reduce transaction costs [14]. International experience shows that VET governance cannot simply be transplanted from established dual systems into different institutional environments [25]. The Indonesian regulatory architecture already provides national and regional coordination logic [3], the operational task is to connect that architecture to school-level evidence, industry associations, local economic priorities, and learner access.

Evaluation should combine process and outcome information. Process indicators include joint planning, task authenticity, mentor contact, school follow-up, assessment consistency, response time, and safety. Outputs include completed learning plans, assessed projects, competence evidence, teacher-industry exchanges, and resolved complaints. Outcomes include progression, work readiness, employment relevance, learner satisfaction, employer value, partnership renewal, and distribution of access. OECD comparisons show that access to substantial work-based components remains uneven across VET systems [27], reinforcing the need to monitor who receives which opportunities, not only average participation.

### 3.2.3. Limitations and Research Agenda

The framework should not be treated as a validated causal model. Its value is to make policy expectations observable and testable. Future studies can apply multiple-case designs to compare partnership portfolios, use social-network analysis to identify dependence on particular actors, conduct cost-benefit analysis for different firm sizes, and test whether improvements in role clarity, mentor preparation, or feedback precede changes in competence and transition outcomes. Quasi-experimental or longitudinal designs are needed before claims are made that a particular governance intervention causes better learner outcomes.

This study has four limitations. First, document analysis identifies policy expectations but cannot determine how consistently they are implemented. Second, the corpus was purposive rather than exhaustive and emphasized documents with direct governance relevance. Third, international guidance was interpreted for transferability to Indonesian vocational education, but institutional and labour-market conditions differ. Fourth, the supporting empirical studies used diverse designs and were not subjected to a systematic-review quality appraisal. The proposed framework should therefore be treated as an analytically grounded governance tool that requires institutional piloting, stakeholder review, and empirical validation.

## 4. CONCLUSION

School-industry partnership in vocational education should be governed as a learning and accountability system, not reported as a collection of agreements. Analysis of Indonesian and international policy documents identified seven convergent requirements: shared purpose and reciprocal value, representative actor architecture, curriculum and assessment co-design, structured workplace learning, resources and capability, learner protection and equity, and evidence-based renewal.

The main policy weakness is not the absence of partnership mandates, but the limited translation of those mandates into verifiable school-level operating standards. The proposed three-level architecture and six-stage cycle provide that translation by connecting enabling policy, partnership design, workplace delivery, monitoring, and renewal or exit. Institutions should judge partnerships through educational value, reciprocal benefit, learner protection, equity, evidence, and sustainability. A smaller portfolio of well-governed partnerships is more defensible than a large archive of inactive memoranda.

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