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Transforming Vocational Education Financing Governance through Performance-Based Hybrid Financing in Lampung Province

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ABSTRACT

This study analyzes the transformation of vocational education financing governance through performance-based and BLUD-based hybrid financing in Lampung Province. Using a descriptive qualitative design with a multisite case study approach, this study examined three vocational institutions with different governance characteristics: non-BLUD, developing BLUD, and large-scale BLUD schools. Data were collected through policy documents, school financial planning documents, institutional profiles, and relevant secondary data, and were analyzed using an interactive qualitative analysis model. The findings show that conventional financing remains highly dependent on government allocations and community contributions, creating fiscal vulnerability after the abolition of school committee fees. BLUD status strengthens financial autonomy by enabling schools to retain and reinvest revenue generated through Teaching Factory activities, industry partnerships, and production-based learning units. However, the effectiveness of this model depends on entrepreneurial leadership, performance-based budgeting, industrial collaboration, and digital accountability through ARKAS and SIPLah. This study implies that regional governments should accelerate BLUD readiness, strengthen vocational school financial management capacity, and develop hybrid financing policies that maintain a balance between institutional revenue generation, educational equity, and graduate quality improvement.

Informasi Artikel

Kata Kunci:

Tata Kelola Pembiayaan; Pendidikan Vokasi; BLUD; Teaching Factory; Hybrid Financing..

ABSTRAK

Penelitian ini menganalisis transformasi tata kelola pembiayaan pendidikan vokasi melalui pendekatan hybrid financing berbasis kinerja dan Badan Layanan Umum Daerah (BLUD) di Provinsi Lampung. Penelitian menggunakan desain kualitatif deskriptif dengan pendekatan studi kasus multisitus pada tiga institusi vokasi yang memiliki karakteristik tata kelola berbeda, yaitu sekolah non-BLUD, BLUD berkembang, dan BLUD berskala besar. Data dikumpulkan melalui dokumen kebijakan, dokumen perencanaan keuangan sekolah, profil institusi, dan berbagai data sekunder relevan, kemudian dianalisis menggunakan model analisis interaktif kualitatif. Hasil penelitian menunjukkan bahwa pembiayaan konvensional masih sangat bergantung pada alokasi pemerintah dan kontribusi masyarakat, sehingga menimbulkan kerentanan fiskal setelah penghapusan pungutan komite sekolah. Status BLUD memperkuat otonomi finansial sekolah melalui fleksibilitas pengelolaan dan reinvestasi pendapatan yang dihasilkan dari Teaching Factory, kemitraan industri, dan unit produksi berbasis pembelajaran. Namun, efektivitas model ini sangat dipengaruhi oleh kepemimpinan kewirausahaan, penganggaran berbasis kinerja, kolaborasi industri, dan akuntabilitas digital melalui ARKAS dan SIPLah. Penelitian ini mengimplikasikan perlunya percepatan kesiapan BLUD, penguatan kapasitas manajemen keuangan sekolah, serta pengembangan kebijakan hybrid financing yang tetap menjaga keseimbangan antara pendapatan institusional, pemerataan akses pendidikan, dan peningkatan mutu lulusan.

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1. Introduction

Vocational education, particularly vocational secondary education, occupies a highly strategic position within the architecture of economic and human resource development in Indonesia. Philosophically and strategically, vocational education is designed to serve as the spearhead in producing skilled labor capable of adapting to the dynamic demands of the *Dunia Usaha, Dunia Industri, dan Dunia Kerja* (DUDIKA). Grounded in Human Capital Theory, investments precisely allocated to vocational education are projected to correlate directly with increased labor productivity, technological innovation, accelerated national economic competitiveness in the global market, and the alleviation of structural poverty [1], [2], [3].

Nevertheless, the empirical realities of employment in Indonesia frequently reveal paradoxes or anomalies in relation to these theoretical projections. Various labor statistics and evaluative studies indicate the persistent existence of skill mismatch between the qualification profiles of vocational graduates and the actual competencies required by industry. Data from *Badan Pusat Statistik* (BPS) in August 2024 confirmed that vocational school graduates continued to contribute the highest Open Unemployment Rate (OUR) among all educational levels, reaching 9.01 percent [4], [5], [6]. Although this figure slightly declined compared to its peak during the pandemic, which reached 10.39 percent in February 2022, the persistently high unemployment rate among vocational graduates remains an alarming indication of the ineffectiveness of the vocational education system. This competency mismatch ultimately results in low graduate employability in the labor market, thereby transforming the young workforce into a demographic burden rather than a demographic dividend [7], [8], [9].

One of the most fundamental structural roots underlying this competency crisis is the inefficiency, insufficiency, and rigidity of vocational education financing governance. The characteristics of vocational education inherently differ substantially from those of general secondary education [3], [10], [11]. Vocational education requires massive capital investment for infrastructure and facilities, including industrial-standard machinery, laboratories, and advanced software systems, as well as maintenance expenditures, intensive practical consumable materials, industrial internship programs, and professional competency certification costs. Studies conducted by the World Bank and various research institutions indicate that the unit cost per student in vocational education is generally two to three times higher than that of general senior secondary education [12], [13], [14].

For decades, the financing governance of vocational education in Indonesia has remained stagnant and trapped within a traditional funding paradigm characterized by input-based financing or a state-dependent financing system [15], [16], [17]. Within this ecosystem, educational institutions position themselves passively and remain highly dependent on government transfer allocations, such as *Bantuan Operasional Sekolah* (BOS) from *Anggaran Pendapatan dan Belanja Negara* (APBN) and *Bantuan Operasional Sekolah Daerah* (BOSDA) from *Anggaran Pendapatan dan Belanja Negara* (APBN). When government allocations are insufficient to cover the substantial costs of investment and practical materials, schools commonly bridge the deficit through direct community contributions via school committee fees [18], [19], [20]. This dependence on community funding creates sharp disparities in educational quality between economically established urban schools and those located in rural regions.

In Lampung Province, the dynamics of secondary education financing governance are currently entering a phase of massive and transformative policy disruption. As part of efforts to equalize educational access, the Provincial Government of Lampung has introduced a progressive policy eliminating all educational fees for public secondary education institutions, including general secondary schools, vocational schools, and special schools, which is planned to be fully implemented in the 2025/2026 academic year. This policy includes the abolition of re-registration fees, tuition fees (SPP), and all forms of school committee levies, as regulated through Lampung Governor Regulation No. 61 of 2020 concerning Community Participation in Educational Financing [21], [22].

Historically, funds collected through community participation via school committees acted as a critical “artificial life support system” for sustaining practical learning activities in vocational schools across Lampung Province. These funds were heavily relied upon to cover deficits in practical materials, equipment procurement, and honoraria for non-civil servant productive teachers [23], [24], [25]. Although the abolition of this essential funding source reflects a strong commitment to social justice, managerially it has triggered severe fiscal shocks for educational institutions lacking independent revenue-generation capacity.

As a balancing intervention and long-term institutional reform strategy, the Governor of Lampung during the 2023–2024 period designated 16 public vocational schools as *Badan Layanan Umum Daerah* (BLUD). This policy was reinforced through Lampung Governor Regulation No. 21 of 2024 concerning the Governance Pattern of Vocational High Schools Implementing the BLUD System. The establishment of BLUD status represents an exception to the rigidity of conventional regional financial management by granting schools financial autonomy and flexibility to implement sound business practices, manage revenues from school production units, and directly

utilize such revenues without first depositing them into the regional treasury [12], [26], [27].

Within this complex policy transition landscape where schools are required to enhance industry-based graduate competencies amidst the abolition of committee funding while simultaneously being encouraged to transform into BLUD institutions a holistic academic analysis becomes urgently necessary. This study is therefore designed to dissect empirical challenges and formulate a comprehensive financing governance strategy framework for vocational education. Through extensive literature review and multisite case studies in Lampung, particularly at SMKN 1 Tegineneng, SMKN 3 Metro, and SMKN 4 Bandar Lampung, this study critically evaluates the implementation of performance-based budgeting, hybrid financing diversification, the operationalization of commercial Teaching Factories, and the urgency of digital financial reporting systems based on ARKAS and SIPLah.

2. Literature Review and Theoretical Framework

2.1 Human Capital Theory in Vocational Education

The analysis of vocational education financing cannot be separated from the philosophical foundations of Human Capital Theory popularized by Gary Becker and Theodore Schultz. This theory postulates that education and more specifically vocational education and technical training is not merely a form of social consumption but rather a long-term economic investmen [27], [28]. Financial investment allocated to education ultimately contributes to the accumulation of knowledge, technical skills, and competencies that enhance labor productivity.

Within the spectrum of vocational education, this theory provides a strong justification for why the unit cost per vocational student must remain high. Significant investment in industrial-standard equipment and practical materials produces skill quality that can be directly transformed into industrial productivity. Conversely, when vocational institutions experience financing deficits or remain underfunded, the accumulation of human capital deteriorates sharply, producing graduates with obsolete skills that exacerbate the problem of educated unemployment [6], [7].

2.2 New Public Management (NPM) and Educational Decentralization

The shift in educational bureaucratic governance toward institutional financial autonomy is deeply rooted in the New Public Management (NPM) paradigm that emerged globally in the late 1980s [29], [30], [31]. The NPM paradigm seeks to reform rigid, bureaucratic, and inefficient public sectors by adopting management principles from the private corporate sector, including result orientation, decentralization of managerial authority, emphasis on cost efficiency, competition, and measurable performance indicators.

In Indonesia, the implementation of NPM within the education sector materialized through policies on educational decentralization, School-Based Management (SBM), and ultimately through the establishment of Public Service Agencies (BLU) in higher education and Regional Public Service Agencies (BLUD) in healthcare and vocational secondary education. The BLUD concept in vocational schools represents the core spirit of NPM, whereby schools are granted managerial independence (agencification) to manage their own cash flow in order to improve service effectiveness while remaining bound by obligations to fulfill Minimum Service Standards (SPM) and undergo professional auditing processes [27], [29].

2.3 Principal-Agent Theory in Educational Financing

Principal Agent Theory provides a critical analytical framework for examining governance relations between the government (as the principal providing mandates and funding) and school management or principals (as agents managing institutional operations) [30], [31]. The core issue within agency theory lies in information asymmetry and potential conflicts of interest. Agents (schools) often possess more comprehensive information regarding actual field conditions compared to principals (government authorities).

Within the context of traditional financing systems, such as rigid BOS funding schemes, this misalignment frequently generates moral hazard and allocation inefficiency, where funds may be absorbed merely for administrative reporting purposes without significantly improving the quality of practical learning [32], [33], [34]. Nevertheless, the intervention of cloud-based financial reporting digitalization systems, such as ARKAS and SIPLah, alongside the implementation of BLUD governance, has gradually disrupted this pathology of information asymmetry. Principals are now capable of monitoring financial flows in real time while simultaneously providing flexibility incentives for agents capable of generating independent revenue through production units [27].

2.4 Resource-Based View (RBV) and Institutional Competitiveness

The Resource-Based View (RBV), developed within strategic management literature, posits that the competitive advantage of an organization is determined not solely by its external environment but primarily by its internal resources that are valuable, rare, inimitable, and non-substitutable [27], [28], [29]. Within the context of vocational education, resources

extend beyond physical assets such as buildings and machinery to include dynamic capabilities, including the specialized competencies of productive teachers, collaborative organizational culture, strong industrial partnership networks, and innovation management within Teaching Factory (TEFA) units [12], [31], [34]. The RBV perspective explains why two vocational schools receiving identical state funding allocations may produce significantly different outcomes. Schools capable of orchestrating their resources to establish commercially adaptive production units possess superior financial resilience when facing policy shocks such as the abolition of school committee fees.

2.5 Performance-Based Budgeting

Traditional financial governance models in public educational institutions generally employ line-item budgeting or input-based budgeting approaches. This outdated paradigm focuses primarily on expenditure restrictions, compliance with expenditure nomenclature, and budget absorption without evaluating the correlation between spending and educational output or outcome achievement. In contrast, Performance-Based Budgeting (PBB) causally links every budget allocation to targeted outputs, such as improvements in student competency certification scores or graduate employability rates [30], [31], [32].

The implementation of PBB within Regional Public Service Agencies ensures that resources are allocated rationally based on value-for-money considerations rather than historical spending routines. In BLUD-based vocational schools, the PBB system provides broad discretionary authority, enabling schools to reallocate budgets from low-impact administrative activities toward investments in digital equipment procurement or industrial instructor certification programs, provided that Key Performance Indicators (KPIs) are achieved accountably.

2.6 Transformation toward Hybrid Financing Models

Contemporary theories in vocational education management affirm that dependence on a single-source funding system particularly absolute state financing is no longer relevant or sustainable. The disruption associated with Industry 4.0 demands a structural transformation toward hybrid financing models. Hybrid Financing represents a financing architecture that strategically integrates multiple funding streams, including baseline government investment (APBN/APBD), capital injections and facilities from Public Private Partnerships (PPP) or Corporate Social Responsibility (CSR) schemes, community or philanthropic funding, and independently generated revenues derived organically from institutional commercial operations [3], [5], [7]. Within vocational education, the epicenter of this Hybrid Financing model lies in the integration of the Teaching Factory (TEFA) ecosystem.

2.7 Teaching Factory (TEFA) as an Educational Corporate Entity

Teaching Factory fundamentally represents a fusion between Project-Based Learning (PjBL) pedagogy and real industrial manufacturing or service processes. TEFA is designed not merely as a simulation laboratory for pseudo-learning activities but rather as a fully operational industrial or commercial service entity that accepts orders from communities and industries while adhering to strict operational procedures, deadline management, and industrial quality control standards[25], [27], [34].

When implemented optimally under the legal framework of BLUD governance, TEFA transforms into a Revenue-Generating Unit with substantial capacity to inject non-governmental cash flow into school financial circulation. Financial profits generated through TEFA activities are subsequently reinvested into the procurement of consumable materials, equipment maintenance, and financial incentives for productive teachers and students, thereby creating an autonomous cycle of economic sustainability.

3. Method

This study employed an extensive descriptive qualitative design through a multisite case study approach. Ontologically and epistemologically, this approach was considered the most appropriate for holistically exploring, comprehensively describing, and critically analyzing the dynamics of institutional behavior and financing governance responses at the grassroots level resulting from macro-level policy changes introduced by the regional government [35], [36].

3.1 Research Sites and Subjects

Empirical data collection was conducted intensively in Lampung Province, with the unit of analysis focusing on three vocational institutions possessing distinct structural and regulatory characteristics:

1. SMK Negeri 1 Tegineneng (Pesawaran Regency): This institution represents the typology of a conventional vocational school that has not yet adopted BLUD status. The school has attempted to incubate Teaching Factory initiatives and student entrepreneurship programs, such as the collaborative *Youth Business Camp for Students* program, yet it remains constrained by the rigidity of conventional regional financial management systems (SMKN 1 Tegineneng, 2024).
2. SMK Negeri 3 Metro (Metro City): This institution represents the culmination of vocational institutional transformation under the New Public Management paradigm. As one of the 16 pioneering vocational schools granted BLUD status in Lampung Province, the institution has adopted a *link and super match* model with industrial

ecosystems structured within the 2021–2024 Development Roadmap (SMKN 3 Metro, 2024).

3. SMK Negeri 4 Bandar Lampung (Bandar Lampung City): This institution represents a large-scale vocational education model characterized by a very high student population (approximately 2,700 students) and progressive entrepreneurial performance through the implementation of Regional Public Service Agency (BLUD) governance. The school demonstrates the transformation of vocational education management toward an entrepreneurial school model, in which the Teaching Factory functions not only as a production-based learning environment but also as a business unit generating significant revenue turnover. As one of the largest BLUD-based vocational schools in Lampung Province, SMK Negeri 4 Bandar Lampung has operationally integrated the *link and match* principle with industry through the optimization of market-oriented student production and service units. This performance reflects the implementation of the New Public Management paradigm in school governance, particularly in terms of financial flexibility, operational efficiency, and performance-based accountability.

3.2 Data Collection and Analysis Techniques

Data were extracted through source triangulation and methodological triangulation techniques. Secondary data sources included official public policy documents, such as Lampung Governor Regulation No. 61/2020, Lampung Governor Regulation No. 21/2024, and gubernatorial decrees regarding BLUD designation; School Activity and Budget Plans (RKAS); statistical reports from Statistics Indonesia (BPS) Lampung; Regional Education Balance Reports; as well as academic literature from nationally accredited SINTA journals (Levels 1–3) and international conference proceedings related to educational financing.

Data analysis was conducted rigorously by adopting the qualitative interactive analysis model developed by Miles, Huberman, and Saldaña (2014). This circular analytical model consisted of four crucial stages:

1. **Data Collection:** Compilation of all policy transcripts, statistical data, school profiles, and detailed guidelines regarding ARKAS and SIPLah digital reporting systems.
2. **Data Condensation:** Selecting, filtering, and focusing raw data on central themes of financial management while excluding purely pedagogical data not directly related to the fiscal posture of educational institutions.
3. **Data Display:** Constructing comparative matrices of financial governance performance between non-BLUD and BLUD institutions, presenting unemployment statistics of vocational graduates in narrative tabulation formats, and mapping hybrid financing flow models.
4. **Conclusion Drawing and Verification:** Formulating scientific syntheses, constructing middle-range theoretical formulations regarding hybrid governance, and developing applicable strategic recommendations. The verification process was conducted through cross-matching empirical findings with the postulates of Human Capital Theory and Principal–Agent Theory to ensure academic rigor.

4. Result and Discussion

4.1 Result

4.1.1 Financing Structure and Fiscal Dependence in Vocational Education

The findings indicate that vocational education financing remains highly dependent on government-based allocations. The largest proportion of school income is derived from central and regional government transfers, while non-state financing sources remain limited, unstable, and unevenly distributed across institutions. This pattern demonstrates that the financing structure of vocational schools has not yet fully shifted from input-based financing toward a diversified and performance-oriented financing model.

Table 1. Estimated Financing Sources in Vocational Education

Financing Source	Estimated Contribution	Continuity Trend	Managerial Implication
Central and Regional Government Funding	60%-70%	Relatively stable	Dominant source for basic operations, but relatively rigid and highly regulated
Industrial Partnership Assistance	10%-20%	Fluctuating	Dependent on school leadership capacity and industrial networking
Community Contributions	10%-15%	Declining	Vulnerable to policy changes on free education and fee abolition
Production Unit/Teaching Factory Income	5%-12%	Growing	Potential source of financial resilience, but requires institutional flexibility

The data show that government funding remains essential for maintaining basic school operations. However, this source is insufficient to support the full cost structure of vocational education, particularly practical learning, equipment maintenance, competency certification, and industry-based learning activities. This condition creates a fiscal gap between the real cost of vocational education and the available operational budget.

4.1.2 Unit Cost Pressure and Practical Learning Needs

The financing burden of vocational schools is substantially

higher than that of general secondary education because vocational education requires continuous investment in equipment, consumable materials, industrial-standard facilities, and competency-based certification. The findings show that the estimated ideal cost per student ranges from IDR 6,000,000 to IDR 12,000,000 per year, depending on the field of expertise and the intensity of practical learning.

Table 2. Estimated Annual Unit Cost Components in Vocational Education

Cost Component	Estimated Annual Cost per Student	Risk of Underfunding
Basic School Operations	IDR 3,000,000-4,500,000	Disruption of administrative, utility, and routine operational services
Practical Materials and Equipment	IDR 2,000,000-5,000,000	Declining quality of vocational skills and reduced hands-on learning
Competency Development and Certification	IDR 1,000,000-2,500,000	Weak graduate recognition in the labor market
Total Estimated Ideal Cost	IDR 6,000,000-12,000,000	Increased risk of skill mismatch and low graduate employability

These findings demonstrate that vocational financing cannot be treated in the same way as general secondary school financing. When practical learning receives insufficient funding, schools tend to reduce the frequency, quality, or authenticity of practice-based instruction. Consequently, students may acquire theoretical knowledge without adequate technical competence, which weakens the alignment between graduate skills and labor market expectations.

4.1.3 Policy Shock Caused by the Abolition of School Committee Fees

The implementation of free education policy and the abolition of compulsory school committee fees have created a significant financing transition for public vocational schools in Lampung Province. From an equity perspective, the policy expands access to education and reduces household financial burdens. However, from an institutional management perspective, the policy removes a flexible funding source that had previously been used to support urgent practical learning needs.

The findings show that non-BLUD schools are more vulnerable to this policy change because they do not have sufficient legal and financial flexibility to generate, retain, and reinvest independent income. The abolition of committee-based funding therefore produces a fiscal shock, particularly for schools that have not yet developed strong production units, industry partnerships, or entrepreneurial financing mechanisms..

4.1.4 Institutional Transformation through BLUD-Based Governance

The designation of selected vocational schools as Regional Public Service Agencies represents a major institutional transformation in school financing governance. BLUD status provides schools with greater flexibility to manage revenue generated from production units, services, and other legitimate school-based business activities. This flexibility enables schools to shorten the cycle between revenue generation and reinvestment.

The findings show that BLUD-based governance allows schools to respond more quickly to operational needs, particularly in purchasing practical materials, maintaining equipment, supporting production activities, and providing incentives for teachers and students involved in productive units. In contrast, non-BLUD schools remain constrained by conventional public financial procedures, which often limit the speed and adaptability required for vocational education.

4.1.5 Case Finding: SMK Negeri 1 Tegineneng as a Non-BLUD Institution

SMK Negeri 1 Tegineneng represents a vocational institution with considerable developmental potential but limited institutional flexibility. The school has several promising areas of expertise, including visual communication design, computer networking and telecommunications, automotive engineering, accounting, and office management. It has also developed entrepreneurial initiatives through student business programs and external collaboration.

However, the findings show that the school's non-BLUD status limits its capacity to commercialize student products and services in a sustainable manner. Revenue generated from productive learning activities cannot be managed flexibly and directly reinvested into school operations. This condition slows down business responsiveness, weakens production continuity, and reduces the institutional incentive to expand market-oriented Teaching Factory activities.

4.1.6 Case Finding: SMK Negeri 3 Metro as a Developing BLUD Institution

SMK Negeri 3 Metro demonstrates a more advanced model of vocational financing transformation. Its BLUD status enables the school to integrate financial flexibility with strategic institutional planning. The school has developed a structured roadmap for linking vocational learning with industrial needs and has begun to operationalize production-based learning more systematically.

The findings indicate that BLUD flexibility strengthens the school's ability to manage Teaching Factory activities as semi-commercial learning units. Income generated from production activities can be used more directly to purchase materials, support practical learning, and strengthen industry-based programs. This creates a closer connection between financing governance, instructional quality, and graduate readiness.

4.1.7 Case Finding: SMK Negeri 4 Bandar Lampung as a Large-Scale BLUD Institution

SMK Negeri 4 Bandar Lampung represents a large-scale BLUD-based vocational institution with a high student population and diverse expertise clusters. The school operates across multiple vocational fields, including automotive engineering, electrical installation, information technology, software and game development, accounting, office management, digital business, marketing, and creative design.

The findings show that this institutional scale creates both opportunities and governance complexity. On one hand, the diversity of expertise areas enables the school to develop cross-sector Teaching Factory activities and generate broader market-oriented services. On the other hand, large-scale BLUD operations require stronger internal coordination, digital management systems, business literacy, and financial accountability mechanisms.

The case of SMK Negeri 4 Bandar Lampung illustrates that BLUD transformation does not only require legal status but also managerial capacity. As production units expand, schools must ensure that business orientation does not displace the educational mission. Therefore, the balance between revenue generation and pedagogical integrity becomes a critical issue in large-scale BLUD governance.

4.1.8 Digital Financial Governance through ARKAS and SIPLah

The findings also show that digital financial governance plays an important role in supporting accountability within flexible financing systems. The use of ARKAS and SIPLah helps schools organize budget planning, expenditure realization, procurement processes, and financial reporting in a more transparent and traceable manner.

Digital systems reduce the risk of fragmented manual reporting and strengthen administrative control over school expenditure. However, the effectiveness of digital financial governance depends on the capacity of school financial managers, treasurers, and operators. Schools with stronger digital literacy and administrative discipline are more capable of using these platforms not only as reporting instruments but also as tools for financial planning and institutional accountability.

4.1.9 Cross-Case Synthesis of Financing Governance Transformation

The three cases reveal a clear spectrum of vocational financing governance transformation in Lampung Province. SMK Negeri 1 Tegineneng represents a non-BLUD institution with entrepreneurial potential but limited fiscal flexibility. SMK Negeri 3 Metro represents a developing BLUD institution that has begun to integrate financial autonomy with strategic vocational transformation. SMK Negeri 4 Bandar Lampung represents a large-scale BLUD institution with stronger revenue-generation capacity but higher managerial complexity.

Table 3. Cross-Case Synthesis of Vocational Financing Governance Transformation

Institution	Institutional Status	Main Strength	Main Constraint	Transformation Stage
SMK Negeri 1 Tegineneng	Non-BLUD	Entrepreneurial potential and program innovation	Limited financial flexibility	Initial adaptation
SMK Negeri 3 Metro	BLUD	Strategic roadmap and Teaching Factory development	Requires sustained managerial strengthening	Adaptive acceleration
SMK Negeri 4 Bandar Lampung	BLUD	Large-scale production capacity and diversified expertise	High governance and accountability complexity	Expansion and institutional consolidation

Overall, the results demonstrate that the transformation of vocational school financing requires more than additional funding. It requires institutional redesign, financial flexibility, performance-based governance, entrepreneurial leadership, Teaching Factory optimization, industrial partnership strengthening, and digital accountability systems. The hybrid financing model emerges as a strategic response to the fiscal limitations of conventional vocational education financing.

4.2 Discussion

The findings of this study demonstrate that vocational education financing in Lampung Province is undergoing a structural transition from a state-dependent financing model toward a more flexible and diversified governance model. This finding is consistent with Waluyo argument that institutional agencification in the public sector provides greater financial autonomy but simultaneously requires stronger accountability mechanisms. In the context of vocational schools, BLUD status enables institutions to retain and reinvest revenues generated from school production units, thereby reducing dependence on rigid government allocations. However, this study extends Waluyo's work by showing that financial autonomy is not merely an administrative reform; rather, it becomes a strategic mechanism for sustaining practical learning, strengthening Teaching Factory operations, and maintaining the relevance of

vocational education in response to industrial needs [27].

The finding that non-BLUD schools experience greater fiscal vulnerability after the abolition of school committee fees supports previous studies emphasizing the limitations of conventional public financing in education. Sari found that dependence on BOS funding often limits school capacity to improve educational quality because budget allocations are highly regulated and insufficient for developmental needs [37]. Similarly, Khasanatun & Permana observed that community-based financial participation often functions as a supplementary mechanism for covering operational gaps. This study confirms those findings but adds a more specific contribution by demonstrating that the removal of committee-based funding produces a fiscal shock for vocational schools, particularly because practical learning requires consumable materials, equipment maintenance, and competency certification that cannot be fully covered by regular operational assistance [23].

The role of Teaching Factory as a revenue-generating unit also aligns with Amin, Martama and Jatmika, and Sari, Muchlas, and Wisnujati, who argue that Teaching Factory strengthens the relationship between vocational learning and real industrial practice. However, this study shows that Teaching Factory cannot operate optimally without an enabling financial governance structure [38], [39], [40]. In non-BLUD institutions, Teaching Factory activities may remain limited to pedagogical simulations because schools lack the flexibility to manage and reinvest revenue. In contrast, BLUD-based schools are more capable of transforming Teaching Factory into a semi-commercial educational unit that simultaneously supports learning quality and institutional financial resilience. Therefore, the contribution of this study lies in connecting Teaching Factory not only with pedagogical innovation but also with hybrid financing and institutional sustainability.

The findings are also comparable with Unsudah et.al. study on the importance of link and match between vocational schools and industry [41]. Their study emphasized that vocational education relevance depends on strong alignment with industrial needs. The present study strengthens this argument by showing that link and match requires not only curriculum synchronization and industrial partnerships but also adequate financing governance. Without flexible funding, schools may struggle to update equipment, procure practical materials, and sustain industry-based learning. Thus, financing governance becomes a key enabling factor for operationalizing link and match in a more concrete and sustainable manner.

From the perspective of New Public Management, the findings are in line with Gaus, who explain that public sector reform emphasizes decentralization, efficiency, performance measurement, and managerial autonomy. BLUD-based vocational schools reflect this logic because they are encouraged to operate with greater efficiency, entrepreneurial orientation, and performance accountability [29]. Nevertheless, this study also reveals that adopting NPM principles in education may create tensions between business orientation and pedagogical mission. The case of large-scale BLUD schools indicates that revenue generation must be carefully balanced with educational values so that schools do not shift from learning institutions into purely commercial entities.

The digitalization of school financial governance through ARKAS and SIPLah supports the findings of Musfirah, Nurlaila, and Nasution, who argued that accounting information systems can strengthen transparency and accountability in the management of educational funds. This study confirms that digital platforms are essential for monitoring financial flows, reducing procurement irregularities, and improving budget reporting [42]. However, it also reveals that digital governance is not automatically effective without adequate human resource capacity. Weak digital literacy, limited financial management competence, and uneven operator readiness may reduce the effectiveness of digital accountability systems at the school level.

The novelty of this study lies in its integrative explanation of vocational education financing transformation through the intersection of BLUD governance, performance-based budgeting, Teaching Factory commercialization, hybrid financing, and digital financial accountability. Previous studies have generally discussed these aspects separately, such as BOS management, Teaching Factory implementation, public sector autonomy, or school-industry partnership. This study offers a more comprehensive analytical framework by showing that vocational education financing reform requires simultaneous institutional flexibility, entrepreneurial leadership, diversified revenue streams, industrial collaboration, and digital accountability mechanisms.

The practical implication of this study is that regional governments need to accelerate the institutional readiness of vocational schools to adopt BLUD-based governance, especially schools with strong production-unit potential but limited financial flexibility. Policy support should not only focus on issuing BLUD status but also on strengthening business planning, financial literacy, digital reporting competence, and partnership management. For school leaders, the findings imply that principals must develop edu-preneurial leadership capacity, enabling them to manage schools as adaptive educational institutions without neglecting pedagogical integrity. For industry partners, the hybrid financing model provides an opportunity to participate more systematically in vocational education development through partnerships, CSR schemes, equipment support, and Teaching Factory collaboration.

This study has several limitations. First, the analysis is limited to three vocational schools in Lampung Province, so the

findings cannot be generalized to all vocational schools in Indonesia without further comparative research. Second, the study relies mainly on qualitative interpretation and secondary institutional data, while detailed financial records, income statements, and longitudinal budget performance data were not fully analyzed. Third, the study has not yet measured the direct impact of BLUD-based financing governance on student learning outcomes, graduate employability, or competency certification achievement. Future research should therefore employ mixed-method or longitudinal designs to examine the causal relationship between financing governance, Teaching Factory performance, graduate competence, and labor market absorption.

5. Conclusion

This study concludes that the transformation of vocational education financing governance in Lampung Province can no longer rely solely on conventional funding models dominated by government allocations and community contributions. The abolition of school committee fees has generated new fiscal pressures, particularly for institutions lacking financial flexibility and independent revenue-generation capacity. The findings demonstrate that *Badan Layanan Umum Daerah* (BLUD) status functions as a strategic instrument for strengthening financial autonomy, accelerating revenue–reinvestment cycles, and supporting Teaching Factory operations as both learning environments and institutional revenue-generating units. However, the effectiveness of this model depends on entrepreneurial leadership, industrial partnerships, performance-based budgeting, and digital accountability through ARKAS and SIPLah. Therefore, the BLUD-based hybrid financing model offers a more adaptive, sustainable, and contextually relevant financing framework for vocational education, provided that business-oriented activities remain aligned with pedagogical objectives, equitable educational access, and graduate quality improvement. As a policy recommendation, regional governments should accelerate BLUD readiness among potential vocational schools, strengthen principals' financial and entrepreneurial leadership capacity, expand structured industry partnerships, provide flexible funding schemes for practical learning needs, and ensure continuous digital financial governance training for school financial managers.

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