



## **Strategies for Meeting Practical Laboratory Facility Needs in Private Vocational High Schools: Evidence from Ketapang Regency**

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**Abstract:** This study aims to analyze strategies for addressing the need for practicum facilities in private vocational high schools (SMKs) in Ketapang Regency, particularly in the Accounting and Institutional Finance (AKL) program. The study employed a qualitative approach with a descriptive design. Data were collected through in-depth interviews, observations, and documentation involving school principals, vice principals responsible for facilities and infrastructure, vocational subject teachers, and students as informants. The data were analyzed through data reduction, data display, and conclusion drawing, while data trustworthiness was established through triangulation. The findings indicate that practicum facilities in private SMKs in Ketapang Regency do not yet meet ideal requirements in terms of either quantity or quality. These limitations are reflected in the lack of adequately equipped accounting laboratories, limited numbers and specifications of computers, minimal use of accounting software, and a shortage of practice-oriented learning materials. As a result, practicum-based learning remains dominated by manual methods, with students demonstrating relatively strong conceptual understanding but limited technology-based practical skills. Furthermore, inadequate facilities constrain teachers' instructional strategies and may negatively affect students' learning motivation. The study further finds that addressing practicum facility needs requires a comprehensive strategy encompassing careful planning, effective facility management, optimized utilization of existing resources, and strengthened collaboration with the business and industrial sectors (DUDI). Therefore, improving practicum facilities represents a strategic step toward enhancing the quality of vocational learning and strengthening the work readiness of graduates, particularly in the field of accounting and institutional finance.

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## **Introduction**

The government, both at the central and regional levels, continues to strive to improve the quality of national education as part of a strategic agenda for human resource development. One of the key measures undertaken is the implementation of educational decentralization policies, which provide greater autonomy for local governments to manage and develop the education sector in accordance with local characteristics and needs (Junaidi, 2026; Mauliza & Sari, 2018). Normatively, this policy is grounded in Law Number 20 of 2003 on the National Education System and Law Number 23 of 2014 on Regional Government. Through this decentralization framework, the provision of education is expected to move away from a uniform approach and instead adapt to the social, economic, and cultural conditions of each region (Prasetyowati et al., 2021; Siregar & Safitri, 2025).



In this context, education is not merely understood as a process of knowledge transfer, but also as a primary instrument for shaping the overall quality of Indonesian human resources. As stated in Article 3 of Law Number 20 of 2003, national education functions to develop individual capabilities while also shaping the character and civilization of a dignified nation (Pritandhari & Sandi, 2025; Risyah & Seran, 2023). Its ultimate goal is to produce individuals who are not only intellectually competent but also possess moral integrity, independence, creativity, and a sense of responsibility as citizens. Therefore, education holds a highly strategic role in determining the future direction of national development (Haristian et al., 2025; Hidayanti et al., 2026).

The strategic importance of education becomes even more evident in the face of globalization and rapid technological advancement. Today, competition is no longer confined to the national level but has expanded globally. Countries that are able to survive and thrive are those with superior, adaptive, and innovative human resources (Irene & Ruswandi, 2013; Sartika & Timan, 2025; Sosianika et al., 2014). Consequently, the education system is required not only to produce graduates who master theoretical knowledge but also to equip them with practical skills relevant to labor market demands. In this regard, education must bridge the gap between the academic world and industry (Ma'shumah et al., 2020; Wardi et al., 2019).

One educational pathway that strongly emphasizes skill development is vocational education, which is implemented through Vocational High Schools (Sekolah Menengah Kejuruan/SMK). SMKs are designed to prepare students to enter the workforce with competencies aligned with their chosen fields of expertise. The main characteristic of vocational education lies in its greater emphasis on practical learning compared to theoretical instruction. Through this approach, students are expected not only to understand concepts but also to apply them directly in real or near-real workplace situations (Andini et al., 2025; Iswandari & Saputra, 2024; Rusdi, 2024).

However, the implementation of vocational education in practice does not always meet expectations, particularly due to the limited availability of learning facilities and infrastructure, especially practicum facilities such as laboratories, practice rooms, equipment, and other supporting learning media (Kaenong et al., 2023). Adequate practicum facilities are essential for developing students' competencies through practice-based learning and achieving the primary objective of vocational education, namely producing graduates who are ready to meet labor market demands (Fahrul et al., 2025; Iriyanto, 2023; Muhlis et al., 2025). This challenge is more prevalent in private vocational schools, particularly those located in regional areas, where limited financial resources often affect the availability of facilities, the quality of learning, and opportunities to establish partnerships with the business and industrial sectors (DUDI). Consequently, students have fewer opportunities to acquire practical competencies that reflect workplace requirements. The problem is particularly evident in the Accounting and Institutional Finance (Akuntansi dan Keuangan Lembaga/AKL) program, which requires accounting laboratories, computers equipped with accounting software, and financial transaction simulation media to develop competencies in financial reporting, accounting applications, and the accounting cycle (Ridlo et al., 2025; Uchendu et al., 2015; Zengele & Alemayehu, 2016).

Similar conditions are experienced by private vocational schools in Ketapang Regency, West Kalimantan, where the increasing demand for skilled workers has not been matched by adequate practicum facilities. Many schools continue to face shortages of practice equipment, representative accounting laboratories, computers supporting current



accounting applications, and practice-based learning materials. These limitations reduce the effectiveness of practical learning and hinder students' work readiness. This situation also contrasts with the National Education Standards (SNP), which require every educational institution to provide adequate facilities and infrastructure, including practice facilities relevant to each vocational program, as part of educational quality assurance (Handayani et al., 2025; Oda, 2016; Doncillo & Justo, 2025; Nurdiansyah, 2025).

Addressing these challenges requires comprehensive and sustainable strategies that extend beyond simply providing additional facilities. Effective fulfillment of practicum facility needs should incorporate strategic planning, resource management, optimal utilization, continuous development, and collaboration among schools, local governments, industry partners, and the community. Such partnerships are particularly important for the AKL program because they help ensure that practicum facilities and learning experiences remain aligned with current industry practices and workforce requirements (Chala & Walabu, 2019; Mohzana et al., 2023; Pareek, 2019).

Based on these issues, the fulfillment of practicum facility needs in private vocational schools, particularly in Ketapang Regency, requires a strategic and integrated approach involving educational management, policy support, and multi-stakeholder collaboration. Therefore, this study aims to analyze and describe the strategies used to fulfill practicum facility needs in private vocational schools in Ketapang Regency, with a particular focus on the Accounting and Institutional Finance (AKL) program. The findings are expected to contribute to vocational education policy and practice by providing a strategic framework for improving practicum facilities, strengthening school–industry collaboration, and enhancing the quality of practice-based learning to better prepare graduates for the workforce.

## **Research Method**

This study employed a qualitative approach with a descriptive research design to gain an in-depth understanding of strategies for fulfilling the needs of practical training facilities in private vocational high schools. Qualitative research emphasizes the interpretation of complex social phenomena within their natural context rather than numerical measurement or generalization (Weyant, 2022). Accordingly, this study explored how schools implement strategies to provide practical training facilities despite existing limitations.

The research focused on strategies for fulfilling practical training facility needs in private vocational high schools in Ketapang Regency, including planning, implementation, resource availability and utilization, challenges encountered, and the impact of facility availability on practical learning. This focus ensured that the study remained aligned with its research objectives.

The study was conducted in Ketapang Regency, West Kalimantan Province, where several private vocational high schools continue to face limitations in providing practical training facilities. The research involved selected schools and relevant educational stakeholders, including the local Department of Education.

The study utilized both primary and secondary data. Primary data were collected through interviews and field observations involving purposively selected informants, including school principals, vice principals responsible for facilities, vocational teachers, and other relevant stakeholders. Secondary data were obtained from school documents, educational policies, scientific journals, and related literature.

Data were collected through in-depth interviews, observations, and documentation. Interviews explored participants' experiences and strategies, observations examined the



condition and use of practical facilities, and documentation provided supporting evidence from reports, archives, and photographs. Data were analyzed using the interactive model consisting of data reduction, data display, and conclusion drawing. These stages were conducted continuously throughout the research to ensure systematic interpretation of the findings. The trustworthiness of the study was established through credibility, transferability, dependability, and confirmability. Credibility was enhanced through triangulation of interviews, observations, and documentation, while the remaining criteria were ensured by maintaining detailed reporting, consistency throughout the research process, and findings grounded in empirical field data.

## Results and Discussion

### Description of Research Data

This study was conducted in several private Vocational High Schools (SMKs) in Ketapang Regency offering the Accounting and Institutional Finance Engineering (AKL) program. The schools were selected because they represent private vocational schools that continue to face limitations in providing practicum facilities. The research involved school principals, vice principals for facilities and infrastructure, productive AKL teachers, and students. Data were collected through in-depth interviews, direct observations, and documentation. The findings indicate that practicum facilities remain inadequate to fully support the AKL program. Most schools do not have dedicated accounting laboratories, requiring practical activities to be conducted in regular classrooms. In addition, the number of computers is insufficient, with some devices shared by two to three students, and many have specifications that are inadequate for digital accounting applications. These findings are supported by the school inventory data presented in Table 1.

**Table 1. Condition of AKL Practicum Facilities in Private SMKs in Ketapang Regency**

| No | Type of Facility      | Ideal Quantity | Available Quantity | Usable Condition | Remarks                  |
|----|-----------------------|----------------|--------------------|------------------|--------------------------|
| 1) | Computers             | 30 units       | 12–15 units        | ± 60%            | Used alternately         |
| 2) | Accounting Laboratory | 1 room         | 0–1 room           | Limited          | Some still classrooms    |
| 3) | Accounting Software   | 30 licenses    | 5–10 licenses      | Uneven           | Some unlicensed          |
| 4) | Practicum Modules     | Complete       | Limited            | Less varied      | Still conventional       |
| 5) | Internet Network      | Stable         | Unstable           | Limited          | Hinders digital practice |

The data in the table indicate a significant gap between ideal needs and actual conditions in the field. These limitations are not only related to the quantity of facilities but also include aspects of quality and functionality in supporting practical learning. Interview results reveal that these limitations are largely caused by budget constraints. Private schools generally lack sufficient funding sources to optimally procure facilities. As expressed by one vice principal for facilities and infrastructure: *“We actually already have plans to develop a more complete accounting laboratory, but the implementation is still gradual due to limited funds.”*

On the other hand, productive AKL teachers stated that these limitations directly affect the teaching methods used. Due to the lack of supporting equipment, practicum learning is mostly conducted manually, such as recording transactions in journals and preparing financial reports in written form. *“For now, we still rely on manual practice.”*



*Students understand the concepts, but when faced with accounting applications, they still need a lot of adjustment."*

This statement indicates a gap between school learning and labor market demands, which increasingly require technological proficiency. This becomes a particular challenge, especially for the AKL program, which is closely related to financial information systems and the use of accounting software. Furthermore, observations also show that the utilization of existing facilities has not been optimal. Some available equipment is not fully utilized due to limited technical knowledge among both teachers and students. In addition, unstable internet connectivity further hinders the implementation of digital-based learning.

From the students' perspective, these limitations are directly experienced in the learning process. Some students reported that they are not accustomed to using accounting applications due to limited access during practicum sessions. *"We rarely use computers for practice; usually we record manually. So when asked to use applications, we get confused."* This statement reinforces the finding that students' learning experiences in practicum contexts do not yet fully reflect real working conditions, whereas in industry, the use of technology is an integral part of accounting and financial activities.

Overall, the research data description shows that the condition of practicum facilities in private SMKs in Ketapang Regency is still in a developmental stage and requires more serious attention. Although schools have made efforts to meet these needs, various limitations have prevented optimal fulfillment. Thus, the data not only describe factual conditions but also provide an important basis for formulating more effective strategies to improve the quality of practicum facilities, particularly in the AKL program.

### **Research Findings on Practicum Facility Needs**

The findings indicate that the practicum facility needs of private SMKs in Ketapang Regency, particularly in the AKL program, extend beyond the physical availability of facilities to include their quality, relevance to technological developments, and effectiveness in supporting competency-based learning. Based on interviews, observations, and documentation, these needs can be grouped into four main components: physical facilities, technological devices (hardware), software, and supporting instructional materials.

#### **a) Physical Facility Needs**

Physical facilities constitute the fundamental element in practicum implementation. However, the findings show that most private SMKs studied do not yet have adequate accounting laboratory spaces. Practicum activities are still conducted in multifunctional classrooms used alternately for theory and practice. This condition results in suboptimal practical learning. The absence of work-like environments, such as financial administration offices or accounting workplaces, limits students' contextual learning experiences. One AKL teacher stated: *"If we had a dedicated laboratory, students could focus more on practice. Currently, it is mixed with theory classes, so the environment is less supportive."* This highlights that representative practicum spaces are essential for improving learning quality.

#### **b) Technological Device (Hardware) Needs**

The availability of technological devices, particularly computers, is a primary requirement in AKL practicum learning. However, the number of computers available is still far below the ideal requirement. In some schools, the student-to-computer ratio reaches 2:1 or even 3:1, meaning that one computer is shared by multiple students. This condition reduces learning effectiveness due to limited individual practice time. Additionally, device quality is also problematic. Observations show that some computers have low specifications, such as



limited RAM and outdated operating systems, preventing optimal use of accounting applications.

**Table 2. Needs and Availability of AKL Practicum Technology Devices**

| No | Indicator                 | Ideal Condition         | Actual Condition | Impact                   |
|----|---------------------------|-------------------------|------------------|--------------------------|
| 1) | Computer-to-student ratio | 1 : 1                   | 1 : 2 – 1 : 3    | Practice not optimal     |
| 2) | Computer specifications   | Accounting app standard | Below standard   | Apps run poorly          |
| 3) | Device condition          | 100% functional         | ± 60% functional | Frequent disruptions     |
| 4) | Electricity & network     | Stable                  | Unstable         | Hinders digital practice |

The table shows that technological needs are not fully met in terms of both quantity and quality.

c) Accounting Software Needs

In addition to hardware, accounting software is a crucial requirement. Modern workplaces demand proficiency in applications such as MYOB, Accurate, and cloud-based systems. However, findings show that the use of accounting software in schools is still very limited. Most schools do not have official software licenses, and when available, they are insufficient for all students. As a result, practicum learning is mostly conducted manually. An AKL program head stated: *“We have tried using accounting software, but due to limited licenses and equipment, its use has not been optimal.”* This reflects a gap between expected competencies and available facilities.

d) Practicum Instructional Material Needs

Another important aspect is the availability of practicum instructional materials. The findings show that teaching materials are still dominated by conventional textbooks and worksheets. The use of case-based modules or real company transaction simulations is still limited. This condition makes learning more theoretical and less contextual. A teacher stated: *“We need more varied practicum modules, such as real company case studies, so that students are better prepared for the workplace.”*

e) Other Supporting Needs

Additional supporting needs include stable internet access, projectors, and laboratory management systems. Observations indicate that internet connectivity in several schools is still unstable, which hinders the implementation of online-based learning. Overall, the findings show that practicum facility needs in private SMKs in Ketapang Regency have not been optimally fulfilled. The gap between ideal and actual conditions is evident across all aspects, including physical facilities, technology, software, and instructional materials. These findings emphasize that fulfilling practicum facility needs must be carried out comprehensively and in an integrated manner. It is not sufficient to provide a single type of facility; alignment among all components is necessary to ensure effective and relevant practical learning aligned with industry demands.

**Research Findings on the Accounting and Institutional Finance Engineering Program (AKL)**

The findings indicate that the implementation of the Accounting and Institutional Finance Engineering (AKL) program in private vocational schools in Ketapang Regency generally follows the established curriculum. However, practical learning remains constrained by limited facilities, affecting the achievement of students' competencies. Although the AKL program is intended to develop practical skills in financial administration,



accounting, and technology-based applications, learning is still largely dominated by conventional methods, with greater emphasis on manual recording than the use of digital accounting technology.

The findings show that AKL practical learning is still predominantly conducted manually, with students preparing journals, ledgers, trial balances, and financial statements using handwritten methods or printed worksheets. Although this approach strengthens conceptual understanding, limited computers and accounting software have restricted the integration of digital technology into learning. Consequently, teachers continue to rely mainly on manual instruction. Teacher evaluations further indicate that while students generally demonstrate good mastery of basic accounting concepts and can prepare manual financial statements accurately, their ability to operate accounting software remains limited due to the lack of opportunities for hands-on computer-based practice.

**Table 3. Level of AKL Students' Competency Mastery**

| No | Competency Aspect                    | Mastery Level | Description                   |
|----|--------------------------------------|---------------|-------------------------------|
| 1) | Understanding of accounting concepts | High          | Able to explain theories      |
| 2) | Preparation of manual reports        | Fairly high   | Accurate but time-consuming   |
| 3) | Use of accounting software           | Low           | Limited direct practice       |
| 4) | Financial case analysis              | Moderate      | Dependent on teacher guidance |
| 5) | Digital-based work readiness         | Low           | Lack of practical experience  |

The findings reveal an imbalance between students' conceptual understanding and technology-based technical skills, indicating that the learning process has not fully met labor market demands. In addition, collaboration between schools and business and industry (DUDI) remains limited, with industrial work practice (PKL) not yet fully integrated into the curriculum. Teachers have made efforts to address facility limitations through manual simulations, case discussions, and project-based learning, but many still require training in the use of digital accounting applications. Students generally show strong interest in accounting, particularly during practical and technology-based activities, although opportunities to use digital tools remain limited. Overall, while the AKL program has been implemented in accordance with the curriculum, its effectiveness is constrained by inadequate facilities, limited technology integration, insufficient teacher competence in digital applications, and suboptimal industry partnerships, highlighting the need to improve facilities, teacher capacity, and collaboration with business and industry.

## **Discussion**

Based on the findings, the condition of practicum facilities in private vocational high schools in Ketapang Regency, particularly in the Accounting and Financial Institution Engineering (AKL) program, has not yet optimally supported the learning process. Although schools have provided basic practicum facilities, they remain insufficient to meet the growing competency demands of the accounting and finance sector, especially those related to digital technology. This is reflected in the limited number of computers, the absence of dedicated accounting laboratories, and the minimal use of accounting software, indicating that practicum activities remain largely conventional. Adequate learning facilities are essential for creating meaningful learning experiences and improving students' competencies, particularly in vocational education where practical activities constitute a major component of the curriculum (UNESCO, 2021).

The findings also show that students generally demonstrate adequate conceptual understanding of accounting, such as the accounting cycle and manual financial statement preparation, but have relatively weak skills in operating accounting applications. This gap is



closely associated with limited practicum facilities, which reduce opportunities for technology-based practice and create a mismatch between school competencies and industry expectations. According to the Organisation for Economic Co-operation and Development (2021), vocational education should integrate practical learning with digital competencies to ensure graduates are prepared for the changing labor market.

Practicum facilities play a strategic role in competency-based learning by enabling students to apply theoretical knowledge in authentic contexts. Experiential learning theory emphasizes that knowledge is developed through direct experience and active engagement in practical activities, making adequate facilities indispensable for effective vocational education (David A. Kolb, 2015). However, the predominance of manual practicum methods limits the relevance of learning to current workplace demands. In addition, inadequate facilities restrict teachers' ability to implement innovative, technology-supported instructional strategies, resulting in less varied and dynamic learning experiences. This finding is consistent with previous studies indicating that the availability of educational resources significantly influences teaching effectiveness and student achievement (Darling-Hammond et al., 2020).

The study further indicates that students are more motivated when learning involves computers and accounting applications. This finding aligns with previous research showing that technology-enhanced learning environments increase student engagement and motivation by providing interactive and authentic learning experiences (Bond et al., 2020). Nevertheless, limited access to these facilities reduces opportunities for students to develop digital competencies required in the accounting profession.

Although national education standards require schools to provide adequate facilities, private vocational schools often face financial constraints that hinder procurement. Consequently, stronger collaboration between schools, government, and industry is needed to support the provision of facilities, teacher training, and workplace learning opportunities. Such partnerships are widely recognized as a key factor in improving the quality and relevance of vocational education (UNESCO, 2021).

Overall, the findings confirm that practicum facilities significantly influence learning quality and students' competencies. Improving these facilities should focus not only on increasing their quantity but also on ensuring their quality, technological relevance, and alignment with industry needs. Strengthening practicum infrastructure and expanding industry collaboration are therefore essential to produce vocational graduates equipped with the competencies required in the digital era.

## **Conclusion**

Based on the research findings and discussion, it can be concluded that practicum facilities in private vocational high schools (SMKs) in Ketapang Regency, particularly in the Accounting and Financial Institution (AKL) program, remain inadequate to fully support competency-based learning. Limited computers, the absence of well-equipped accounting laboratories, and the minimal use of accounting software result in learning that is still dominated by manual methods, creating a gap between students' competencies and industry demands. These limitations also constrain teachers' ability to implement technology-based learning and reduce students' opportunities to develop practical digital skills. Therefore, improving practicum facilities requires a comprehensive approach through better infrastructure planning, continuous teacher development, and stronger collaboration with business and industry. Overall, adequate and industry-relevant practicum facilities are



essential for enhancing learning quality, strengthening students' competencies, and preparing vocational graduates who are ready to meet labor market demands.

### Recommendation

Based on the findings of this study, it is recommended that educational policy makers prioritize improving practicum facilities in private vocational high schools through increased funding and stronger collaboration with business and industry to support technology-based learning. Schools should gradually modernize their practicum infrastructure by providing adequate computers, accounting laboratories, and accounting software that reflect current industry practices. Teachers are encouraged to enhance their digital competencies and adopt technology-integrated instructional strategies to optimize students' practical learning experiences. Future researchers are recommended to expand this study by involving a larger number of vocational schools from different regions and employing mixed-methods or quantitative approaches to further examine the relationship between practicum facilities, digital competencies, and students' employability.

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