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Analysis of Facility and Infrastructure Management Based on Practicum Needs at SMK Negeri 1 Pontianak

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A B S T R A C T

The management of practical facilities and infrastructure is a crucial component of vocational education because it directly affects the quality of learning and students' readiness to meet industry demands. Many vocational schools still face challenges in planning, maintaining, and optimizing facility use, resulting in practicum activities that do not fully support competency achievement. Strengthening facility management practices that align with industrial standards is therefore essential. This study aims to analyze the management of facilities and infrastructure at SMK Negeri 1 Pontianak based on practicum needs using the POSDCORB theoretical framework. A descriptive qualitative method was employed through in-depth interviews, participatory observations, and documentation studies, supported by source triangulation to ensure data credibility. The findings show that the planning of facility and infrastructure procurement is conducted collaboratively among productive teachers, workshop heads, and industry partners; the organizational structure is clearly implemented through official decrees and SOPs; technical training for teachers and technicians enhances equipment utilization; coordination with internal and external stakeholders is consistently maintained; damage reporting procedures are systematic and well-documented; and budgeting prioritizes essential practicum needs. In conclusion, facility and infrastructure management at SMK Negeri 1 Pontianak demonstrates an adaptive, collaborative, and accountable governance model that effectively supports industry-oriented learning.

1. Introduction

In the era of the Industrial Revolution 4.0 and Society 5.0, vocational education plays a strategic role in preparing human resources that are adaptive and technically competent. One of the key elements determining the success of vocational education is the availability of facilities and infrastructure relevant to practical needs (Abdurohman et al., 2022; Adriani et al., 2022). In Vocational High Schools (SMK), learning is not only theoretical but also practical; therefore, the presence of

laboratories, workshops, equipment, and supporting facilities becomes an essential requirement for achieving effective contextual learning processes (Fachrezzy et al., 2020; Pratiwi & Winaryo, 2022). However, various studies indicate that many SMKs still face serious challenges in managing their facilities and infrastructure, whether in terms of planning, financing, or asset utilization (Gunawan et al., 2022; Mahbub & Anggraini, 2021). At SMK Negeri 1 Pontianak, field realities show that practical facilities have not fully met the increasingly complex and industry-oriented needs of the expertise programs. This condition affects learning effectiveness, students' readiness to enter the workforce, and public trust in the quality of graduates (Effendi et al., 2022).

From a managerial perspective, Luther Gulick's POSDCORB framework serves as a comprehensive theoretical reference for evaluating and improving the management of educational facilities and infrastructure. POSDCORB is an acronym for Planning, Organizing, Staffing, Directing, Coordinating, Reporting, and Budgeting. This theory is relevant in the SMK context as it emphasizes systematic and efficient organizational management in public institutions, including vocational education settings (Aloyzius & Kindiki, 2020; Cheon, 2022). In terms of Planning, schools need to map out practical needs based on industrial trends and technological developments (Dedeh et al., 2022). However, gaps are often found between long-term planning and the realization of annual school programs (Wardhani et al., 2022). During the Organizing stage, the asset management structure often fails to optimize the distribution of responsibilities among workshop heads, vocational teachers, and laboratory operators (Rohmadi, 2020).

The Staffing aspect is crucial since the successful utilization of facilities and infrastructure largely depends on the competence of educators and workshop/lab managers (Fatmariyanti et al., 2024; Pahira & Rinaldy, 2023). The lack of technical training often leads to underutilization or damage to equipment due to improper operation (Fathurrahman & Dewi, 2019). Regarding Directing, the leadership of the school principal plays a pivotal role in determining the direction of facility management. Transformational principals can initiate collaborations between schools, industries, and communities (Meilani & Lubis, 2022; Siregar & Lubis, 2022). The Coordinating function requires synergy among various school units. When coordination fails, planning and implementation often become misaligned, causing facilities to be underused (Aziz, 2021; Kholiq & Syamsudin, 2021). For Reporting, the asset inventory and reporting system should be based on accurate, well-documented data, yet many schools have not implemented a digital asset management system (Patriansyah et al., 2023).

In the final function, Budgeting, allocations for maintenance and procurement of practical equipment are often not prioritized, particularly when BOS (School Operational Assistance) and regional budgets must also cover other operational needs. In fact, transparent and accountable financial management can facilitate partnerships between schools and industries (Lestari & Pardimin, 2019). Previous studies (Suranto et al., 2022) emphasize that infrastructure management that is not grounded in practical needs contributes to the low quality of vocational learning.

This condition indicates a gap between the actual demands in the field and the facility management practices implemented in vocational schools. In this context, a deeper analysis of facility management becomes essential to ensure that every infrastructure component truly supports the learning process and enhances students' work readiness.

Scientifically, this study contributes to strengthening public management theory in vocational education while offering practical foundations for school principals, workshop managers, and policymakers in designing facility management systems that are responsive to ongoing industrial developments (Chasi & De Wet, 2008; Tanjung et al., 2022). The findings are expected to improve the effectiveness of learning processes and reinforce the position of vocational schools as institutions capable of meeting future workforce needs. Based on this background, the purpose of this study is to systematically analyze the management of facilities and infrastructure at SMK Negeri 1 Pontianak using the POSDCORB approach as a basis for formulating relevant and sustainable management improvement recommendations.

2. Methodology

This study examines facilities and infrastructure management based on practical needs at SMKN 1 Pontianak using an exploratory–descriptive qualitative approach to capture the complexity of processes, actors, and organizational dynamics (Bhandari, 2020a; Vikkelsø, 2016). As an intrinsic case study conducted at a single site, its focus is on in-depth exploration without claims of generalization, emphasizing a context characterized by strong partnerships with industry (DUDI) and a well-documented procurement record. Data were collected through in-depth interviews, participatory observations, and documentation, with validity strengthened via source–method triangulation. The researcher's role as a participant observer maintained the depth of findings while preserving critical distance (Bhandari, 2020b).

Participants included the principal, facilities and infrastructure coordinator, workshop/RPS heads, vocational teachers, treasurer, students, and industry partners (Asiah, 2021). Semi-structured instruments, observation sheets, and document checklists were developed based on the POSDCORB framework (Gunawan et al., 2022). Thematic analysis comprising data reduction, coding, categorization, and interpretation was conducted based on the POSDCORB framework and verified through member checking, triangulation, prolonged engagement, and audit trail to ensure the trustworthiness and accountability of the research process (Badrudin, 2019; Chasi & De Wet, 2008).

3. Results and Discussion

This study was conducted after obtaining institutional approval from SMK Negeri 1 Pontianak and adhering to the principles of informed consent, data confidentiality,

and risk minimization. Field access, interviews, and observations were arranged through official school channels, while all participants (school leaders, vice principal for facilities, workshop/RPS heads, productive teachers, industry partners, and students) were informed about their rights and data governance procedures. Documents such as the RKAS (School Activity and Budget Plan), logbooks, BOS reports, and industry partnership MoUs were accessed on a limited, need-to-know basis and anonymized during reporting. All activities were designed not to disrupt the learning process and to maintain the school's reputation as an A-accredited vocational education institution. The combination of interview, participatory observation, and document analysis allowed the researcher to capture the natural managerial dynamics. Validity and accountability were ensured through member checks and audit trails, guaranteeing that the findings are both valid and traceable, as shown in the following Table 1.

Table 1. Research Authorization & Ethics

No	Aspect	Key Practice	Evidence/Trace	Security Control
1	Authorization	Approval from Principal via official channels	Approval letter, minutes	Verified administrative record
2	Informed Consent	Explanation of purpose and participant rights	Consent form	Right to refuse/withdraw guaranteed
3	Privacy	Identity coding and aggregate reporting	Pseudonym protocol	Restricted/multi-layered data access
4	Interviews & Observations	Semi-structured and participatory	Guidelines, schedule	Recorded with permission; no disruption to learning
5	Document Access	RKAS, logbooks, BOS, DUDI MoUs	Endorsement letter	Need-to-know principle; sensitive data protected
6	Data Security	Encrypted storage and audit trail	SOPs and access logs	Traceable and auditable
7	Risk Minimization	Flexible scheduling and adherence to workshop/lab safety	Practice calendar	Prioritizes safety

The research followed legitimate ethical and administrative procedures, ensuring the confidentiality of all participant identities, the smooth continuity of learning activities, and the secure management of documents and data. The combination of interviews, direct observations, and document analysis enabled the researcher to gain a comprehensive understanding not only of the school's formal organizational structure but also of the daily operational patterns occurring in workshops and laboratories. This methodological triangulation allowed the study to capture authentic interactions, leadership practices, and routine workflows that might not be visible through documents alone. Consequently, the findings presented in this research accurately represent real-world practices and uphold strong scientific accountability.

Field Orientation and Initial Observation

The researcher began the field orientation by developing an initial understanding of the school's overall context and establishing communication with the Principal, the

Vice Principal for Facilities, and the Heads of Workshops to obtain information about work patterns, facility readiness, and coordination mechanisms within the school. Preliminary observations were then carried out in classrooms, workshops, laboratories, and teachers' workspaces to assess how the existing facilities support the implementation of the Merdeka Curriculum. These early observations provided valuable insights into how learning activities are organized, how resources are utilized, and how the school prepares its environment to meet curriculum demands, forming a strong foundation for the subsequent stages of data collection, as shown in the following Table 2.

Table 2. Field Orientation & Initial Observations

No	Focus	Key Findings	Implications
1	Environment	Strategic, organized, and clean location	Supports learning and industry partnerships
2	Facilities	31 classrooms, 5 workshops, labs, library, prayer room, adequate sanitation	Ready for PBL and fieldwork practice
3	Expertise Programs	5 vocational competencies	Requires integrated facility management
4	Human Resources	84 staff (Bachelor's–Master's degrees)	Supports maintenance and facility optimization
5	Digital Infrastructure	33,000-watt power; 300 Mbps internet	Enables technology-based learning
6	Unit Coordination	Synergy among teachers, technicians, workshop heads, vice principal	Effective facility management
7	Industry Partnerships	59 industry partners	Ensures relevance of competencies and internship placement

The orientation results indicate that SMKN 1 Pontianak has well-managed facilities, competent human resources, and adequate digital infrastructure, all supported by strong coordination among school units and extensive partnerships with industry. These elements collectively demonstrate the school's readiness to function as a leading vocational education institution. The integration of practicum-based facility management, combined with collaborative and adaptive work systems, reflects the school's commitment to maintaining high-quality standards in both learning and operational processes. Such conditions position the school to effectively implement vocational programs that align with industry needs and contemporary educational demands.

Interview Design

Semi-structured interviews based on the POSDCORB framework were conducted with the Principal, the Vice Principal for Facilities, productive teachers, Workshop/RPS Heads, the Treasurer, and students to explore facility management practices aligned with practicum needs, governance effectiveness, and industry readiness. Through this approach, the study examined how planning, organizing, staffing, directing, coordinating, reporting, and budgeting are implemented to support the operational demands of vocational education. The key areas of focus

included strategic planning of practicum facilities, coordination mechanisms across units, accountability in resource utilization, and budgeting processes directed toward sustaining and enhancing vocational quality. These interviews provided a comprehensive understanding of how facility management contributes to creating a learning environment that is efficient, industry-responsive, and aligned with the competencies required in the Merdeka Curriculum.

Interview Results

A semi-structured interview based on the POSDCORB framework was conducted with the Principal, Vice Principal for Facilities and Infrastructure (Waka Sarpras), productive teachers, Head of Workshop/Laboratory, Treasurer, and students. The findings reveal a systematic, participatory, and adaptive management of facilities and infrastructure. The School Activity and Budget Plan (RKAS) is developed based on practical needs; organizational structures, SOPs, and technical training are implemented consistently; regular guidance and coordination ensure safety and smoothness in practice sessions; digital reporting/logbooks strengthen accountability; and budgeting prioritizes core competencies although students still note a shortage of certain tools. These findings align with literature on vocational management and school–industry collaboration, as shown in the following Table 3.

Table 3. POSDCORB Interviews Across Stakeholders

POSDCORB	Principal	Vice Principal for Facilities	Productive Teachers	Workshop Head
Planning	Develops RKAS (School Budget Plan) based on practical needs through participatory planning	Verifies program proposals before integrating them into RKAS	Proposes tools based on Competency Standards (KD) and industry trends	Participates in identifying equipment needs
Organizing	Establishes team decrees (SK) and clear SOPs	Manages technical structure and request flow	Schedules practice sessions and organizes tools	Arranges workshop spaces and ensures equipment availability
Staffing	Encourages training and certification	Facilitates technical workshops	Participates in industrial/vendor training	Receives maintenance training
Directing	Sets strategic direction and promotes safety culture (K3)	Assigns schedules for inspection and briefings	Conducts routine briefings before practice	Enforces daily safety discipline
Coordinating	Builds cross-functional and industry (DUDI) forums	Holds workshop meetings and manages internal groups	Aligns tool standards with industry requirements	Prepares tools and borrowing procedures
Reporting	Conducts regular monitoring	Maintains digital logbooks and inventories	Reports tool damage through hierarchy	Records repairs and maintenance

Budgeting	Prioritizes core competencies	Sets priorities based on tool evaluation	Accommodates urgent tool requests	Focuses on essential and safety-related needs

Infrastructure management at SMKN 1 Pontianak demonstrates a solid and mutually reinforcing POSDCORB cycle. At the planning stage, the RKAS is prepared in a participatory manner: equipment proposals from the expertise program are verified by the Deputy Head of Infrastructure and aligned with the BOS, while the workshop head participates in mapping needs; students assess relevance but some units are still lacking. Organizing is carried out through team decrees, clear SOPs, orderly request flows, neat practice scheduling, and equipment access is regulated in rotation, resulting in efficiency. Staffing is supported by ongoing training/certification for teachers and workshop heads, with funding support according to regulations. Directing emphasizes strategic direction and OHS culture through daily briefings and discipline, supported by safety budget priorities. Active coordination through cross-functional forums and DUDI partnerships ensures equipment standards and loan flows are ready. Reporting is documented via logbook, digital inventory, and BOS system. Budgeting prioritizes core competencies and urgent needs–benefits through BOS–committee meetings.

Participatory Observation Results

Participatory observation involved direct engagement in practical activities, interaction with productive teachers, the Head of Workshop/Laboratory, and students, as well as review of documents and physical facilities. This observation provided a real depiction of how planning, organization, utilization, and maintenance of practical facilities operate in vocational learning routines. The findings indicate that most managerial processes follow a structured mechanism, particularly in needs planning, tool arrangement, coordination during practice, and damage reporting. However, the intensity of tool usage and high student density during certain hours highlight the need to add more equipment to reduce queues and maintain practice quality, as shown in the following Table 4.

Table 4. Participatory Observation Results

No	Managerial Aspect	Observation Focus	Field Findings	Recorded Data
1	Planning	RKAS documents for facility needs	RKAS includes tool lists for each expertise program; proposals for updating certain tools exist.	Photos of RKAS pages, copies of tool lists
2	Organizing	Layout and distribution of tools	Tools are arranged according to workflow; storage zones are labeled and organized.	Visual documentation, zoning sketches
3	Staffing	Role of teachers and Head of Workshop/Lab	Teachers direct practice sessions; the Head of Workshop prepares and checks tool conditions.	Interaction notes, daily task lists

4	Directing	Technical briefing before practice	Briefings emphasize safety procedures understood by students.	Photos of SOPs, teacher briefing notes
5	Coordinating	Collaborative tool usage	Coordination occurs through group division and peer assistance.	Group interaction recordings, collaboration notes
6	Reporting	Tool damage reporting	Logbooks document damage reports from students → teachers → Head of Workshop.	Logbook photos, maintenance reports
7	Budgeting	Need-based tool procurement	New tools funded by RKAS/BOS; older tools maintained regularly.	Photos of new tools, purchase documents

Observation results show that facility planning is well-documented in the RKAS and procurement proposals, reflecting actual workshop needs. Tool arrangement follows workflow and ergonomic principles, allowing students to easily access and return equipment. The involvement of productive teachers and the Head of Workshop/Lab is evident: teachers focus on instructional guidance, while the Head ensures tool availability and condition. Pre-practice briefings reinforce safety awareness and procedure compliance. Student collaboration and teacher coordination function effectively, indicating a strong culture of teamwork. The damage reporting system operates through logbooks, though repair response depends on budget priorities. Tool renewal is done gradually based on available funds, prioritizing essential practice equipment.

Documentation Study Results

The documentation study was conducted to examine the completeness, consistency, and relevance of documents related to the planning, organization, utilization, maintenance, and financing of practical facilities and infrastructure at SMKN 1 Pontianak. Documents reviewed included the School Budget and Activity Plan (RKAS), assignment decrees (SK), standard operating procedures (SOP) for tool usage, practicum modules, meeting minutes, inventory logbooks, financial accountability reports (SPJ), and memorandums of understanding (MoUs) with industry partners (DUDI). The review results indicate that the school has established a structured and well-documented system that adheres to the principles of vocational education accountability. However, the continuity of updates especially in equipment-based SOPs and digital inventory systems still requires strengthening to ensure sustainable improvement of facilities and infrastructure, as shown in the following Table 5.

Table 5. Results of Documentation Study Review

No	Managerial Aspect	Type of Document	Key Findings	Recorded Data
1	Planning	RKAS, Procurement Proposal	The RKAS includes a list of practical equipment needs for each expertise program; procurement proposals are prepared based on internal vocational meetings.	RKAS copies, equipment needs table

2	Organizing	Organizational Structure of Facilities	The structure includes the Head of Workshop/Lab (RPS), technician, Vice Principal for Facilities, and lines of responsibility.	Organizational chart photo
3	Staffing	Assignment Letters (SK) for Teachers & Workshop Heads	SKs are updated annually; there is a clear division of technical and administrative facility management duties.	Signed SK documents
4	Directing	SOPs & Practical Modules	Safety and tool usage SOPs are posted in workshops; practicum modules support student work steps.	SOP documents, instruction board photos
5	Coordinating	Facilities Meeting Minutes	Regular facilities meetings are held; minutes show discussions about equipment availability, maintenance, and scheduling.	Meeting minutes, attendance list
6	Reporting	Inventory & Maintenance Logs	Records include inventories, regular inspections, and damage reports followed up by the Workshop Head.	Logbook photos, inventory summary
7	Budgeting	RKAS, Purchase Receipts, SPJ	Receipts and SPJ match the items listed in the RKAS; verified by signatures from the verifier and school committee.	Original receipts, invoices, BOS SPJ
8	Collaborating	MoUs with Industry (DUDI)	MoUs show DUDI contributions in internships, training, and equipment updates.	MoU documents, collaboration protocols

The documentation of the RKAS and procurement proposals shows that facilities and infrastructure planning is bottom-up, beginning with technical workshop needs and formalized in financial documents. The official organizational structure confirms a clear division of roles between the Vice Principal for Facilities, Workshop Heads, technicians, and productive teachers. Annual assignment decrees demonstrate legitimacy and continuity of technical duties. SOPs and practicum modules serve as foundations for safety control and learning consistency. Meeting documentation indicates that internal coordination runs routinely and is based on periodic evaluation. Inventory logbooks and damage reports reflect a documented maintenance system. SPJ, receipts, and RKAS documents demonstrate transparent budgeting aligned with learning priorities. Finally, MoUs with industry partners reveal that the school not only relies on internal resources but also builds external synergy to strengthen student competency relevance.

Data Analysis Results

Data analysis followed stages of reduction, thematic coding, categorization, and interpretation based on the POSDCORB framework to identify managerial patterns in managing practical facilities at SMKN 1 Pontianak. Data reduction filtered relevant information about planning, role division, usage, reporting, and budgeting to maintain focus on real vocational practices in workshops and laboratories. Thematic coding labeled data segments according to management functions

planning, organizing, staffing, directing, coordinating, reporting, and budgeting which were then grouped into main themes through categorization. Interpretation was carried out by comparing field patterns with POSDCORB theory and prior vocational studies. Thus, the findings are not merely descriptive but demonstrate how facilities management is conducted participatively, adaptively, and industry-oriented. Consequently, the analysis results show consistency between the school's managerial practices and vocational quality standards, as shown in the following Table 6.

Table 6. Data Analysis (Reduction–Coding–Categorization–Interpretation)

No	POSDCORB	Focus of Findings	Core Meaning
1	Planning	RKAS based on practical & industry needs	Adaptive and contextual planning
2	Organizing	SK & SOP define clear structure	Accountability and operational effectiveness
3	Staffing	Industrial training & certification	HR development as a key to practice quality
4	Directing	Safety briefings & practice supervision	Operational leadership focused on safety
5	Coordinating	Collaboration among teachers, Workshop Heads, and DUDI	Synergy ensuring learning relevance
6	Reporting	Routine logbooks & inventories	Transparency and traceability of assets
7	Budgeting	Priority on core practical budgets	Strategic allocation for student competence

The integration of findings through the POSDCORB framework demonstrates that the management of facilities and infrastructure at SMKN 1 Pontianak has evolved into a sustainable, collaborative, and responsive model that aligns closely with industrial competency demands. This transformation is evident in the school's coordinated planning processes, structured implementation systems, and continuous evaluation mechanisms that ensure facilities remain relevant to current vocational standards. As a result, the facilities function not merely as physical assets, but as strategic instruments that actively support and enhance the quality of vocational learning, strengthen industry linkages, and improve students' readiness for the professional world.

Data Validation Results

Data validity was ensured through source and method triangulation, member checking, prolonged engagement, and the use of an audit trail, all of which were applied to confirm that the research findings accurately reflect the real practices of facilities and infrastructure (sarpras) management at SMKN 1 Pontianak. These strategies enhanced the credibility, transferability, and dependability of the study by cross-verifying information from multiple participants, comparing results across different data collection techniques, and maintaining detailed documentation of research procedures. Through this rigorous validation process, the study ensured that the conclusions drawn are grounded in authentic field conditions and supported by consistent evidence, as shown in the following Table 7.

Table 7. Data Validation

Validation Technique	Verification Focus	Main Field Evidence	Validity Result
Triangulation (Sources & Methods)	Consistency among interviews, observations, and documents	RKAS ↔ workshop practices, SK ↔ role distribution, logbook ↔ maintenance	Consistent → Practices align with documents
Member Check	Alignment between researcher interpretation and informant meaning	Confirmation from the principal, vice principal of facilities, teachers, technicians, students	Findings reinforced and contextual understanding deepened
Prolonged Engagement	Understanding of work culture & real coordination	4–6 weeks of field presence, observation of practices, sarpras meetings	In-depth and contextual analysis
Audit Trail	Transparency of data processing flow	Transcripts, reduction notes, code matrix, interpretive revisions	Process traceable and verifiable

Triangulation demonstrated strong consistency among interviews, observations, and documentation. Member checking ensured that the researcher's interpretations aligned with participant experiences and enriched the context through clarifications from the principal, productive teachers, and students. Prolonged engagement allowed the researcher to understand collaboration dynamics and everyday work patterns that were not captured in formal interviews. Meanwhile, the audit trail maintained transparency in the analytical process through systematic documentation of records, analytic logs, and interpretive revision notes. Thus, the study's findings possess strong methodological credibility, are traceable, and reflect the school's operational reality. These four validation techniques confirm that the findings are credible, consistent across sources, and represent actual facilities management practices rather than merely administrative routines. This reinforces the conclusion that the facilities management at SMKN 1 Pontianak is mature, collaborative, and supports sustainable vocational learning.

Findings and Discussion

This study shows that facilities and infrastructure management based on practicum needs at SMK Negeri 1 Pontianak operates through the POSDCORB cycle in a systematic, participatory, and adaptive manner. Each stage ranging from planning and organizing to reporting and budgeting is implemented with clear coordination among school leaders, teachers, and workshop units. This approach ensures that practicum facilities remain aligned with curriculum requirements, responsive to industry standards, and continuously improved through collaborative decision-making and ongoing evaluation, as shown in the following Table 8.

Table 8. Research Findings and Discussion

No	POSDCORB	Core Findings	Meaning/Analysis
1	Planning	RKAS based on practical and industrial needs	Participatory and relevant planning

2	Organizing	Clear task structure (SK & SOP)	Accountability and task effectiveness
3	Staffing	Industrial training & certification	HR competence enhances practice quality
4	Directing	Briefings & safety SOPs	Operational leadership rooted in work culture
5	Coordinating	Active collaboration with industry (DUDI)	Ensures learning relevance
6	Reporting	Routine logbooks & inventories	Enhanced accountability and asset control
7	Budgeting	Budget prioritized for core practical needs	Student competency-oriented funding

In the planning stage, the RKAS is formulated collaboratively with productive teachers, workshop/RPS heads, and industry partners, ensuring that practical equipment needs align with industrial competency standards. A clear task structure defined by decrees (SK) and SOPs strengthens organizing and prevents role overlap. Teacher and technician competencies are enhanced through industrial training during the staffing stage, which positively impacts practice quality. Directing and coordinating are implemented through safety briefings and active collaboration with industry. Systematic reporting and budgeting ensure accountability and prioritize allocations for core learning needs. Therefore, facilities and infrastructure serve not merely as physical assets but as strategic instruments for enhancing the quality of vocational education.

4. Conclusion

Based on the research findings, the management of facilities and infrastructure based on practical needs at SMK Negeri 1 Pontianak operates through the integrated stages of POSDCORB (Planning, Organizing, Staffing, Directing, Coordinating, Reporting, and Budgeting), all oriented toward the relevance of vocational competencies. The planning stage is carried out through the preparation of the RKAS (School Activity and Budget Plan) based on the actual needs in the workshop, involving productive teachers, workshop heads or RPS, and industry partners, ensuring that the equipment requirements truly align with the demands of the workforce. In the organizing stage, the management structure is clarified through decrees (SK) and technical SOPs so that coordination and lines of responsibility run effectively. The staffing stage is reflected in strengthening the capacity of teachers and technicians through industrial training and skill upgrading.

The leadership of the principal plays a vital role in directing the vision, safety culture, and quality of practice. Coordination is carried out through facility meetings and active partnerships with industry (DUDI), while reporting is implemented through damage logbooks and periodic inventories to ensure accountability. In the budgeting stage, the budget is prioritized for core competency needs. Overall, the integration of collaboration, visionary leadership, and needs-based budgeting becomes the key to the successful management of facilities and infrastructure at the school.

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