

Curriculum Alignment Strategies for Polytechnic Kendal's Wood Study Programs

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Industrial partner : Swisscontact, Zürich

Indonesia's wood industry faces modernization challenges despite its economic importance. A skilled workforce is essential for global competitiveness. Therefore, it's important to better align and refine vocational training with the needs of export-driven industries.

Introduction

Polytechnic Kendal stands as Indonesia's first governmental polytechnic focused specifically on timber studies. Established with support from HIMKI, one of the two wood associations in Indonesia, and the Ministry of Industry, it aims to support a wood sector that ranked as the 10th largest exporter of wood products globally in 2022. However, the industry's evolving needs are not fully met by Polytechnic Kendal graduates' skills and know-how. Therefore, the curriculum and school structure require an examination to ensure graduates are better prepared to meet the challenges of an evolving and modernizing sector.

Methods

This research employs a mixed-methods approach to comprehensively assess the alignment of Polytechnic Kendal's curriculum with industry needs. Quantitative data was collected through structured surveys distributed to students and faculty. These surveys gathered insights into school dynamics and structure and their impact on student outcomes from both students' and teachers' viewpoints. Qualitative data was gathered through in-depth interviews and exchanges with industry representatives and site visits to the industry, class observations, document analysis, and teaching hours analysis. These insights and findings provided a rich, contextual understanding of the challenges and opportunities within the vocational training program and the industry.

Challenges

Several key challenges hinder alignment with the needs of Indonesia's wood industry. Limited practical training opportunities limit students' ability to develop essential hands-on skills. Insufficient teacher expertise, both in basic skills and also in emerging technologies and industry best practices, poses another obstacle. Weak collaboration with industry partners limits the curriculum's relevance and responsiveness to evolving industry demands. Moreover, internal organizational challenges within Polytechnic Kendal impact the effectiveness of curriculum implementation and overall program delivery.



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Results

The findings underscore the necessity for targeted improvements in curriculum design, teacher development, and strengthened partnerships with industry stakeholders to cultivate a skilled workforce. To address these issues, strategic recommendations focus on enhancing collaboration with organizations such as Swisscontact to introduce innovative training methodologies, fostering institutional partnerships to expand access to industry expertise and resources, and maintaining continuous curriculum refinement through regular consultations with industry professionals. Implementing these efforts will improve the alignment of vocational training with real industry needs and better prepare graduates to support growth and competitiveness in both domestic and global wood markets.