Evaluation of Internship Implementation in the Agricultural Product Processing in Agribusiness Expertise Program: CIPP Study at Vocational High School in Merauke

Emanuel Cahyo Nugroho*., Putu Sudira

Department of Technology and Vocational Education, Yogyakarta State University, Yogyakarta, Indonesia

Corresponding author

DOI: https://dx.doi.org/10.47772/IJRISS.2025.91100523

Received: 28 June 2025; Accepted: 04 July 2025; Published: 28 December 2025

ABSTRACT

Internship programs are critical components of vocational education, especially in agricultural-based regions like Merauke, Indonesia, where vocational high schools (VHS) aim to prepare students for careers in the agro-industry. However, many internships remain unevaluated in terms of relevance and effectiveness. This study aimed to evaluate the implementation of the internship program in the Agricultural Product Processing Agribusiness (APHP) Expertise Program using the CIPP (Context, Input, Process, Product) evaluation model. Employing a quantitative approach, this research involved 116 participants, including students, teachers, school leaders, and industry partners, from four vocational high schools (VHS) and four agro-industry companies in Merauke. Data were collected through a validated Likert-scale questionnaire and analyzed using descriptive statistics. The findings revealed moderate contextual alignment and institutional readiness, but significant weaknesses in process execution and internship outcomes. Students' engagement, technical and soft skills development, work-readiness, and confidence were found to be low, with minimal industry feedback and reflective learning. The discussion highlights the misalignment between school preparation and agro-industrial demands, as well as the lack of pedagogical innovation in internship management. This study concludes that internship programs must move beyond compliance to competency-driven models. Practical recommendations include enhancing school-industry collaboration and teacher capacity. Theoretically, the study reinforces the applicability of the CIPP model for evaluating complex vocational programs.

Keywords: Internship program; vocational high school; agricultural and agribusiness; CIPP study

INTRODUCTION

Internship programs in the workplace are an important component of vocational education designed to connect learning in schools with the needs of the workplace. Internships provide opportunities for students to face real challenges in industries relevant to their majors, so that the theory learned in class can be integrated with practice in the field (Akomaning et al., 2011; Amin et al., 2020; Ramadhani & Rahayu, 2020). In Indonesia, internships are regulated as a mandatory part of the vocational high school (VHS) curriculum to strengthen the link-and-match concept between educational institutions and the industrial world, so that VHS graduates are expected to be ready to enter the workforce after graduation (Gunadi et al., 2020). For example, the Merdeka Belajar policy encourages close collaboration between VHS and industry to prepare skilled workers (Saavedra et al., 2024). Various vocational policies emphasize that internships produce skilled graduates who are adaptive to technological developments and market needs. Sutiman et al. (2022), for example, found that although internship programs are routine activities to synergize higher education and industry, their implementation has not been thoroughly evaluated, emphasizing the need for a comprehensive evaluation study. In this context, Cui et al. (2024) and Gagnon et al. (2024) emphasized that the evaluation of internship programs is crucial to assess their effectiveness and ensure that graduate competencies are in line with the needs of the industrial workforce. Without adequate evaluation, the fit between curriculum objectives and real

job market needs is difficult to measure empirically. The government even emphasized that vocational graduates must be ready to work since graduation, so feedback from internship evaluations is very necessary to close the competency gap.

However, the implementation of internship programs often encounters serious operational obstacles. Wan et al. (2013); and Ying et al. (2018) found that many vocational high school students were placed in work units that were not in accordance with their expertise programs. As a result, 65% of students did tasks that were not relevant to their expertise due to inappropriate placement. This was due to minimal consideration of the suitability between the internship location and student competencies, and the lack of initial supervision by the school (Yi, 2018). In addition, Kapareliotis et al. (2019) revealed a large gap between the vocational system and industry needs; the design and implementation of internships were often not adjusted to field competency standards. McHugh (2017); and Merz et al. (2021) also reported other problems such as inadequate internship planning, unclear job descriptions, weak coordination between parties, and an ineffective internship evaluation system. Mahfud et al. (2022) even reported that only around 2.5% of interns were eventually recruited by the companies where they did their internships, indicating that the link-and-match goal had not been achieved. These problems are not unique to Indonesia; international studies emphasize that improving the quality of internship programs requires systematic evaluation to strengthen school-industry partnerships. The Covid-19 pandemic has also disrupted the implementation of internships, with many programs being moved online or postponed, so that the adaptation of internship methods needs to be evaluated so that educational goals are still achieved (Agarwal et al., 2021; Sutiman et al., 2022). Overall, various literature shows that without comprehensive evaluation, many internship issues are neglected and efforts to improve the quality of vocational education are delayed.

The context of Agribusiness Processing of Agricultural Products adds urgency to the evaluation of internship programs. The Indonesian government is encouraging the development of new agricultural areas in Merauke of up to 1-2 million hectares (food estate), which requires the provision of a large number of skilled agribusiness workers (Chrisendo et al., 2021; Ngadi et al., 2023). Vocational schools in Merauke with expertise in agribusiness and agrotechnology have integrated internships as a mandatory part of the curriculum. For example, in early 2024, the Merauke Agricultural Instrument Standards Implementation Center accepted students from the Merauke Agribusiness Vocational School for a three-month internship. The school and industry partners emphasized that students take advantage of this opportunity to gain practical experience and skills according to agricultural standards (Lamalewa et al., 2018; Ramadhani & Rahayu, 2020). This situation emphasizes the need for an in-depth evaluation of the implementation of internships in the Agribusiness Processing of Agricultural Products program, so that the goals of vocational education and regional development are optimally achieved. Infrastructure and technological support at Merauke agricultural vocational schools also need to be considered; for example, food processing laboratories may not be equipped with the latest equipment (Raof & Musta'amal, 2022). Because Merauke is rich in agricultural commodities (rice, horticulture, plantations), appropriate internships must include local processing practices. Adapting the content of the internship to the regional context is crucial so that graduates have skills that are relevant to the field conditions.

Therefore, this study uses the CIPP evaluation model as a theoretical framework. The CIPP model evaluates four program dimensions: context, input, process, and product, with an orientation towards continuous improvement. This approach is expected to identify the strengths and weaknesses of internship implementation as a whole. As shown by Guo (2025), the application of the CIPP model can optimize internship management and align it with the needs of students and industry. This study aims to evaluate the implementation of the Agricultural Processing Agribusiness internship program at Merauke Regency VHS based on the CIPP model. Scientifically, this study will provide a comprehensive overview of the effectiveness of the internship program as well as recommendations for improving practices and policies. The contribution of this study is both practical and theoretical: locally, the results can help VHS and policymakers improve the quality of internships; scientifically, this study fills the gap in the literature on internship evaluation in the field of agricultural agribusiness, especially in eastern Indonesia. The empirical evidence produced is expected to be a reference for the development of more effective internship modules and to strengthen the link-and-match relationship in agribusiness vocational education.

METHOD

Research Approach and Evaluation Model

This study adopts an evaluation research approach with a specific emphasis on program evaluation, as it seeks to assess the implementation and effectiveness of the internship program within the Agricultural Product Processing Agribusiness (APPA) Expertise Program. The evaluation model employed is the CIPP model (Context, Input, Process, Product) developed by Stufflebeam & Zhang (2017). The CIPP model is a well-established framework in program evaluation that enables comprehensive assessment across four key dimensions: (1) Context Evaluation (examining goals and needs), (2) Input Evaluation (evaluating resources and strategies), (3) Process Evaluation (monitoring implementation actions), and (4) Product Evaluation (measuring results and outcomes). These four dimensions interact dynamically to support continuous program improvement, as depicted in the CIPP model diagram (see Figure 1), in which all phases are guided by core values and aligned through goals, plans, actions, and outcomes. The rationale for employing the CIPP model in this study is threefold. First, the nature of the program under evaluation, the implementation of the internship in APPA, requires a holistic and systemic perspective that focuses on outcomes and critically analyzes the supporting contexts and processes (Kibrit et al., 2022). Second, vocational schools and their industry partners operate in complex environments, where decisions about curriculum design, resource allocation, and instructional methods are closely interrelated; thus, a multi-dimensional framework such as CIPP is essential (Yuwono et al., 2020). Third, implementing the internship program in VHS, especially in the APPA expertise program, has yet to be evaluated comprehensively using a structured and evidence-based model (Yunus et al., 2020). The CIPP model provides an analytical lens through which stakeholders can reflect on the program's relevance, effectiveness, and areas for improvement.

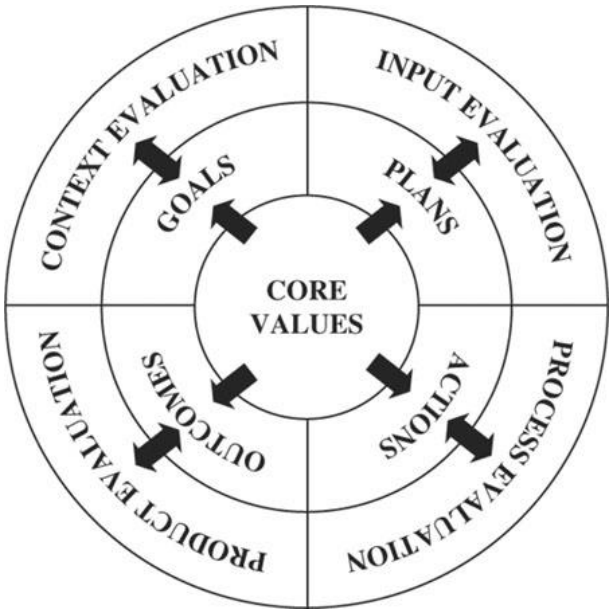

Fig. 1 CIPP Design in Research

In this study, the CIPP model is operationalized as follows, aligned with the CIPP diagram:

a) Context Evaluation focuses on identifying the environmental and institutional needs that justify the implementation of green skills in vocational automotive education. It investigates whether the current goals are aligned with the demands of sustainable industry practices.

b) Input Evaluation assesses the planning, resources, infrastructure, curriculum, and institutional readiness for implementing green skills education.

c) Process Evaluation examines the extent to which the planned activities and strategies are being implemented effectively and consistently within schools and industries.

d) Product Evaluation measures the actual outcomes in terms of students' competencies, behaviors, and readiness to apply green skills in the workplace.

This study exclusively adopts a quantitative approach for data collection and analysis. The urgency for measurable, comparable, and generalizable results in educational policy and industry partnership justifies using a structured survey method. This quantitative orientation is critical to produce statistically reliable data that can guide decision-making processes in both educational institutions and industry sectors.

Research Participants

The participants involved in this study were carefully selected from a combination of educational and industrial settings, with a specific focus on individuals directly involved in implementing, developing, or evaluating the internship program within the domain of the Agricultural Product Processing Agribusiness (APPA) Expertise Program. The educational participants were drawn from four vocational high schools (SMK) located in in Merauke Regency. These schools were selected because of their formal involvement in the internship program for a minimum of four months each term, indicating the intensity of the effective program (Mutohhari et al., 2025). From the educational setting, the study included various stakeholders: school principals who provide leadership and policy direction, APPA expertise program coordinators responsible for managing the internship within the schools, APPA subject teachers who directly engage students in technical and vocational learning, and Grade 12 students enrolled in the APPA expertise program, who are done in completing the internship program. Complementing this, participants from the industrial sector were selected from four APPA companies that maintain active partnerships with the aforementioned vocational schools. These industry partners are involved in collaborative activities such as internship programs, curriculum co-design, and joint technical training schemes. The respondents from industry included heads of human resource development (HRD) divisions, who are responsible for assessing and fostering workforce competencies, and managers of production units, who oversee daily operations and are directly impacted by implementing internship program practices in the workplace.

A two-tiered sampling strategy was employed to ensure both the relevance and representativeness of the participant sample. First, cluster sampling was used to identify groups of schools and their respective industry partners with established collaborative frameworks. This was followed by purposive sampling to deliberately select respondents within these clusters who held key roles in the internship implementation or monitoring. This methodological approach ensured that the data gathered reflected a broad spectrum of experiences, perspectives, and insights across both educational and industrial domains, thereby enriching the validity and applicability of the research findings (Campbell et al., 2020). Based on the results of systematic sample calculations, as many as 116 participants were involved as respondents in this evaluation study. Furthermore, we detailed that 92 (79.31%) were students, 12 (10.34%) were teachers, four of whom were principals and APPA expertise program coordinators (3.45%), and the rest were APPA industry practitioners.

Data Collection

The data collection technique employed in this study was a quantitative survey using a structured five-point Likert scale questionnaire ranging from 1 = Very Low to 5 = Very High. This approach was chosen due to its effectiveness in capturing perceptions and evaluations from a large and diverse group of respondents, spanning four vocational schools with the expertise program of the Agricultural Product Processing Agribusiness (APPA) Expertise Program, and four partnered APPA industries. As the study aimed to evaluate the implementation of the internship based on the CIPP (Context, Input, Process, Product) model, a quantitative method was considered most appropriate for systematically measuring multiple variables across stakeholder groups such as school principals, APPA expertise program coordinators, vocational teachers, students, and industrial partners. The uniform structure of the Likert scale provided clarity for respondents and enabled comparative analysis across the CIPP dimensions, supporting objective interpretations of strengths and weaknesses in the internship implementation.

The development of the questionnaire items was grounded in the four research objectives, which were directly aligned with each component of the CIPP model. To ensure content validity, all indicators were formulated

through a rigorous review of relevant literature on the internship in vocational education, human resource development, and vocational education policies in Indonesia. An expert panel consisting of education researchers, TVET development specialists, and psychometricians was involved to assess the clarity, representativeness, and relevance of the items. The instrument was refined through expert judgment and a pilot test involving 30 respondents to assess construct validity. Exploratory factor analysis (EFA) was performed to confirm that each item loaded significantly onto the intended CIPP components. Reliability was then tested using Cronbach's Alpha for each domain of the questionnaire, and all components exceeded the acceptable threshold of 0.70, indicating strong internal consistency and reliability of the instrument. Table 1 explains the blueprint of the questionnaire instrument, which outlines the evaluation aspects, references, operational indicators, and number of items per aspect:

Table 1 Blueprint of Questionaire Instrument

Evaluation Aspect	Reference	Indicators	N of Items
Context Evaluation	Stufflebeam & Zhang (2017), Pavlova (2009)	Alignment with national green education policy, alignment with vocational school vision, relevance to green industry demands, stakeholder commitment, environmental orientation in school policies, curriculum policy alignment.	8 items
Input Evaluation	Stufflebeam & Zhang (2017), Yang & Li (2023)	Availability of eco-friendly facilities, teacher competence in green practices, integration of green materials in curriculum, training support for green skills, industry involvement in curriculum development, budget allocation for green initiatives, strength of industry-school partnerships	7 items
Process Evaluation	Stufflebeam & Zhang (2017), Pavlova (2009)	Implementation of project-based green learning, student engagement in green activities, use of discovery-based methods, teacher facilitation of critical thinking, environmental behavior modeling, practice of mindful and meaningful learning, collaboration in green-themed tasks, monitoring and feedback on green competencies	8 items
Product Evaluation	Stufflebeam & Zhang (2017), Mohd Zubir et al. (2021)	Development of green work behavior, eco-innovation among students, environmental attitude change, application of green practices in internships, graduates' readiness in green industry, portfolio of sustainable project outputs, contribution to school's green culture	12 items

Data Analysis

In line with the nature of the research, descriptive quantitative analysis was chosen as the most appropriate data analysis technique. The goal of descriptive analysis is to summarize and interpret patterns, tendencies, and levels of implementation across the four CIPP dimensions. This approach allows researchers to identify strengths and weaknesses in implementing green skills, without requiring causal inference, which aligns with the objectives of a formative and summative evaluation study (Mardapi, 2012; Taib et al., 2020). Using descriptive statistics such as mean scores, standard deviation, frequency counts, and percentages enables a clear and structured presentation of how each indicator was perceived across different stakeholder groups (Yuwono et al., 2020). Descriptive analysis is particularly relevant when the evaluation seeks to inform program improvement, policy refinement, or capacity development, rather than testing a specific hypothesis. It

also supports meaningful comparison between different respondent categories (e.g., schools vs. industries, teachers vs. students) to highlight potential perceptual gaps (Sankaran & Saad, 2022).

A five-level categorization system was used to interpret the mean scores of each item and dimension to facilitate the interpretation of findings, as shown in the table 2. This classification follows the equal-interval approach and helps describe the level of implementation from "Very Low" to "Very High." The score intervals were calculated using the following formula:

$$Interval\ Width = \frac{Maximum\ Score - Minimum\ Score}{Number\ of\ Categories} = \frac{5-1}{5} = 0.8$$

This approach, grounded in the Sturges rule and commonly applied in educational and psychometric evaluations, enables a systematic and transparent categorization of the level of implementation, allowing policymakers and practitioners to easily recognize areas that need strengthening (Mardapi, 2012).

Table 2 Categorization and Evaluation Results

Category	Score Range (Likert Scale)	Interpretation
Very High	4.21 – 5.00	Fully implemented / Optimal
High	3.41 – 4.20	Largely implemented / Above average
Moderate	2.61 – 3.40	Moderately implemented / Sufficient
Low	1.81 – 2.60	Poorly implemented / Below average
Very Low	1.00 – 1.80	Not implemented / Critically lacking

RESULT

Context Evaluation

The results of the context evaluation indicate that the implementation of the internship program in the Agricultural Product Processing Agribusiness (APHP) Expertise Program is based on a reasonably strong contextual foundation. However, there remains a significant need to enhance the alignment between the internship objectives and the dynamic needs of the agro-industry sector. While vocational schools offering APHP have developed visions and missions that broadly promote industry collaboration and student competency development, their alignment with specific agro-industrial trends and labor market expectations is not yet fully optimized. Several schools have demonstrated initial commitments to institutional-industry partnerships, but the level of strategic synchronization remains inconsistent. Although formal internship programs exist, the depth of alignment with the needs of modern agribusiness, particularly in areas such as food safety standards, post-harvest technology, sustainable production methods, and digital traceability, requires further refinement. The relevance of internship placements to local and national agro-industrial development goals varies, with some schools demonstrating strong linkages, while others still rely on generalized or less-contextualized partnerships.

Stakeholder involvement from agro-industry partners, local governments, and community-based agricultural groups is evident in many cases, yet their engagement is often limited to administrative support rather than active collaboration in shaping the internship content and structure. This passive involvement affects the real-world applicability and contextual relevance of students' internship experiences. Furthermore, institutional policies and curriculum frameworks have not been fully harmonized to accommodate a responsive and adaptive internship mechanism. There are gaps in how schools incorporate internship feedback into their curriculum revisions, and the absence of clear guidelines on aligning internship goals with agro-industrial demands results in variability across different schools. For instance, schools located in agriculturally rich

regions tend to have stronger and more meaningful internship programs due to proximity to industry partners, whereas schools in remote or underdeveloped areas struggle to secure placements that provide relevant experiential learning.

This context evaluation underscores the urgency for vocational schools to reorient their strategic policies and foster deeper partnerships with the agro-industry sector. A more deliberate integration of local agro-industrial characteristics into internship planning, strengthened institutional frameworks, and a robust commitment from all stakeholders are crucial to ensure that internship programs truly enhance students' professional readiness, align with labor market needs, and support the long-term development of the agricultural product processing sector. Table 3 describes in detail the results of the context evaluation analysis.

Table 3 Context Evaluation Result

Evaluation Aspect	Indicator	Min	Max	Mean	Category
Context	Alignment of internship program objectives with school vision and the APHP curriculum	2.4	4.1	3.28	Moderate
	Relevance to the needs of the agricultural product processing industry	2.2	3.9	3.32	Moderate
	Stakeholder support and commitment (school leaders, industry partners, community)	2.0	4.4	3.35	Moderate
	National and regional policy support on vocational internships	2.0	4.0	3.16	Moderate
	Availability of local agro-industry as internship placement venues	2.0	4.4	3.60	Moderate

Input Evaluation

The input evaluation reveals a moderate level of institutional readiness in supporting the implementation of the internship program within the Agricultural Product Processing Agribusiness (APHP) Expertise Program. While the majority of vocational schools possess basic infrastructures, such as processing laboratories, storage rooms, agricultural equipment, and digital learning facilities, these are often limited in terms of technological advancement and alignment with modern agro-industry standards. This condition restricts the optimal preparation of students before their internship placement. In terms of human resources, many vocational teachers have strong pedagogical foundations and are technically competent in agricultural product processing. However, there is a lack of systematic training and professional development programs that are tailored to current agro-industrial demands, especially concerning food technology innovation, packaging and labeling regulations, hazard analysis and critical control points (HACCP), and digital traceability systems. This inadequacy hinders the schools' capacity to fully contextualize and prepare students for the realities of the agro-industrial workplace.

Curricular documents often mention the importance of industry collaboration, but actual integration of industry-based materials and practices into the internship preparation phase remains inconsistent. Although some schools have begun involving agro-industry actors in co-developing learning modules and assessment standards, these practices are not yet widespread. Training programs aimed at strengthening students' work readiness, such as simulation-based activities, portfolio development, or product packaging trials, are frequently underdeveloped due to limited budgets or insufficient institutional focus. Budget allocation for internship-related activities is generally moderate, with some schools able to facilitate student readiness through structured guidance programs and initial exposure to real tools and workflows. Nevertheless, such support is not uniformly provided across institutions. Moreover, the strength of partnerships between schools

and agro-industrial enterprises remains relatively weak in several cases. Existing collaborations are often limited to internship placement without strategic planning, joint supervision, or post-internship evaluation. As a result, the potential of industry-school partnerships to provide a transformative internship experience remains largely untapped.

To address these gaps, there is a need for targeted investments in teacher capacity-building programs, curriculum enrichment with industry-aligned content, and stronger institutional mechanisms to develop long-term, sustainable partnerships with agro-industrial actors. Doing so will ensure that the APHP internship program not only prepares students with technical competence but also enables them to internalize the professional work culture and meet the competency standards of the modern agricultural product processing sector. Table 4 describes in detail the results of the input evaluation analysis.

Table 4 Input Evaluation Result

Evaluation Aspect	Indicator	Min	Max	Mean	Category
Input	Availability of MoU/MoA with agro-industrial partners	2.1	4.6	3.20	Moderate
	Readiness and competence of teachers and supervisors in mentoring internships	2.3	4.8	3.26	Moderate
	Availability of equipment and learning resources at internship locations	2.2	4.5	3.18	Moderate
	Student preparation and briefing before internship	2.1	4.2	3.34	Moderate
	Support and training provided by the industry	1.9	4.0	3.38	Low
	Budget and institutional support for internship implementation	2.0	4.1	2.58	Moderate
	Quality of school-industry collaboration design	2.0	4.0	2.52	Low

Process Evaluation

The process evaluation highlights that the implementation of internship programs in the Agricultural Product Processing Agribusiness (APHP) Expertise Program exhibits several weaknesses in instructional coherence, learning management, and student engagement during internship preparation and execution. Despite the stated curriculum intent, the integration of industry-relevant, project-based, and contextual learning strategies remains limited and inconsistent across schools. Most internship preparation activities still revolve around conventional methods: lectures, observation tasks, and reporting, without adequate scaffolding through active learning approaches that develop students' analytical, reflective, and innovation capacities. Project-based learning, a pedagogical method well-suited for internship preparation, is rarely employed in a structured and iterative manner to help students internalize the stages of product processing from raw material to post-harvest packaging. Teachers and internship supervisors often lack the training or confidence to facilitate meaningful learning experiences that simulate real agro-industry production lines, packaging trials, HACCP standards, or product quality evaluation. Consequently, the delivery of pre-internship activities tends to be fragmented, focusing more on procedural compliance than on strengthening students' competencies in food safety,

production efficiency, and value-added product innovation.

Furthermore, student engagement in hands-on, discovery-based, or inquiry-driven tasks, such as formulation experiments, labeling simulation, or process documentation, is generally low. Feedback mechanisms are underutilized, with most assessments focused on attendance and task completion rather than formative assessment of skill mastery. Collaboration between students, as well as with supervisors and industry mentors, remains superficial and task-oriented, rather than being guided toward developing teamwork, accountability, and professional ethics in agro-product handling. Another significant gap lies in the modeling of professional behavior. Teachers and mentors seldom exemplify environmentally and professionally responsible conduct in processing activities, which reduces the opportunity for students to observe and emulate such behaviors. Additionally, reflective practices, such as guided journaling, learning portfolios, or structured debriefings, are infrequently integrated into the internship cycle, further limiting students' ability to internalize learning from field experiences.

These findings underline the urgent need for capacity-building initiatives that equip educators and internship coordinators with the pedagogical tools to design and manage impactful internship learning experiences. Strengthening feedback loops, improving student autonomy in project planning, and embedding environmental values in the internship process are essential steps to ensure that the APHP internship program evolves from a procedural requirement into a powerful engine for vocational competence development. Table 5 describes in detail the results of the process evaluation analysis.

Table 5 Process Evaluation Result

Evaluation Aspect	Indicator	Min	Max	Mean	Category
Process	Quality of student learning activities during internship	1.8	4.0	2.50	Low
	Supervision process by teachers and industry mentors	1.9	3.8	2.58	Low
	Student engagement in production and processing tasks	1.7	3.6	2.21	Low
	Implementation of reflective learning (journaling, discussion, portfolio)	1.6	3.9	2.30	Low
	Monitoring and evaluation system during internship	1.8	4.0	2.47	Low
	Integration of internship experiences into classroom learning	1.9	4.2	2.54	Low
	Feedback mechanisms between industry, school, and students	1.7	4.1	2.44	Low
	Consistency between internship activities and planned outcomes	1.6	3.8	2.31	Low

Product Evaluation

The product evaluation of the internship implementation in the Agricultural Product Processing Agribusiness (APHP) Expertise Program reveals that the internship outcomes remain below the expected standard in both scope and impact. Although the internship program provides opportunities for real-world experience, its effectiveness in significantly improving students' technical and soft skills remains limited. Students generally

demonstrate only basic levels of competence in agricultural product processing technologies, such as operating post-harvest equipment, ensuring hygiene standards, and understanding production flow. Soft skills, including communication, initiative-taking, and problem-solving, are inconsistently observed, often due to insufficient coaching and feedback mechanisms during internship placements. Work-readiness in the context of agro-industry also scored low, as most students are not yet accustomed to industrial work rhythms, documentation procedures, and quality assurance practices applied in agro-based production. Despite formal participation in the internship, many students continue to rely on teacher direction or passive observation, indicating a gap between curricular expectations and actual preparedness to operate independently in industrial environments. This issue is compounded by limited exposure to industry-specific work cultures, such as Good Manufacturing Practices (GMP), HACCP standards, or team-based workflow.

Furthermore, the evaluation identifies that shifts in students' attitudes toward agro-industry professions are marginal. While some express increased interest in pursuing careers in food technology or agro-processing, many others remain hesitant or unmotivated, citing the routine nature of tasks or lack of clarity regarding long-term professional opportunities. This points to the need for more structured reflection and career guidance integrated into the internship framework to build a stronger professional identity. Students' ability to complete internship project tasks, such as product formulation, labeling, documentation, or process improvement trials, also remains low. In several cases, students act more as assistants rather than as active contributors to the process outcomes. As a result, they miss critical opportunities to consolidate their knowledge through practical, task-based learning aligned with curriculum standards. The internship's impact on students' confidence and independence is similarly weak. Many students are reluctant to take initiative, struggle to adapt to new environments, and lack confidence in decision-making when working independently. These findings emphasize the need for better pre-internship preparation and mentoring systems during placement to foster autonomy and a stronger sense of responsibility. Lastly, feedback from industry stakeholders on student performance has generally been modest. While students are considered polite and eager to learn, industry partners often comment on the lack of proactive engagement, technical proficiency, and workplace readiness. This feedback reinforces the importance of strengthening coordination between schools and industry, aligning expectations, and establishing continuous feedback loops to monitor and improve student development throughout the internship period.

Overall, the product evaluation demonstrates that while the internship program is functional, it has yet to produce transformative outcomes in student competence and readiness for agro-industrial work. Strategic redesign and reinforcement of the internship process are necessary to ensure students not only participate but also thrive in real-world contexts, equipped with the skills, mindset, and motivation required in the agro-product processing sector. Table 6 describes in detail the results of the product evaluation analysis.

Table 6 Product Evaluation Result

Evaluation Aspect	Indicator	Min	Max	Mean	Category
Products	Improvement of students' technical and soft skills	1.8	4.1	2.24	Low
	Students' work-readiness in agro-industry context	1.7	4.0	2.19	Low
	Attitude change toward agro-industry professions	1.9	4.2	2.27	Low
	Students' ability to complete project tasks during internship	1.8	4.0	2.20	Low
	Internship impact on students' confidence and independence	1.6	3.9	2.15	Low
	Feedback from industry on student performance	1.7	4.0	2.18	Low

DISCUSSION

The findings of this study underscore that the contextual foundation for implementing internships in the Agricultural Product Processing Agribusiness (APHP) Expertise Program in Merauke is relatively solid but lacks strategic alignment with the agro-industry's evolving needs. The moderate category scores in aligning internship objectives with school visions and the relevance to labor market demands suggest that while formal partnerships exist, they often fail to translate into meaningful co-design of internship content. This phenomenon reflects what Stufflebeam and Zhang (2017) refer to as a "symbolic alignment," wherein schools adopt the language of industry collaboration without embedding its principles into operational practices. Moreover, Billett (2011) and Clark & Winch (2007) argues that vocational learning becomes authentic only when industry and education engage in mutual co-construction of learning environments. In the context of APHP, the absence of such a dynamic relationship, especially in remote regions like Merauke, results in generic internship assignments that are not tailored to the specificities of local agricultural economies. Thus, although Merauke holds high agribusiness potential, the lack of targeted stakeholder synergy restricts the strategic impact of internship programs in fostering work-ready graduates.

The input evaluation reveals a similar pattern. Schools demonstrate moderate readiness in terms of facilities and human resources, yet there is a deficiency in professional development programs that enable teachers to deliver contextualized learning and mentorship. These findings support the concerns of Kurnia et al. (2022); Nicolas et al. (2022), who observed that ineffective internship outcomes often stem from inadequate pre-internship preparation and lack of alignment between teaching capabilities and industrial expectations. In particular, the minimal involvement of industry partners in curriculum development and student training sessions reflects what Henneberry & Radmehr (2020) call a "static partnership" model, where collaboration is formalized but not functionally active. Moreover, the low quality of industry-school collaboration design confirms Parrella et al. (2023)'s claim that the success of internships is not merely about placement, but about the quality of coordination, supervision, and shared ownership of learning goals. Without strategic collaboration mechanisms, internship programs risk becoming procedural rather than developmental, resulting in missed opportunities for experiential learning that bridges school and work (Dockry et al., 2022; Mott et al., 2021).

The process evaluation further affirms these structural weaknesses by revealing low levels of instructional quality, student engagement, and professional behavior modelling throughout the internship lifecycle. This aligns with Dockry et al. (2022) findings that internships often suffer from a lack of supervision, unclear job expectations, and poor pedagogical integration, particularly when educators are not adequately trained in workplace learning models. In this study, reflective learning, such as journals, portfolios, or discussions, is rarely implemented, which severely limits students' ability to internalize their field experiences. This is problematic given that vocational pedagogy, as emphasized by Billett (2011), thrives on guided reflection and task authenticity. Furthermore, the fragmentation in internship delivery shows that the curriculum has not been redesigned to accommodate experiential learning cycles, an aspect that Yusuf et al. (2019) identify as essential in aligning TVET programs with sustainability competencies. Interestingly, while project-based and inquiry learning are globally recognized as best practices in vocational training, their absence in this case mirrors the criticisms voiced by (Shoulders et al. (2011) regarding the lack of innovation in field-based vocational instruction.

Product evaluation reveals the most critical concern. Students' technical and soft skills, work-readiness, and confidence remain at a low level, despite the formal completion of internships. These findings resonate with those of Perteet-Jackson et al. (2022), who argue that employability cannot be assumed simply by participation in internships, but must be evidenced by competence acquisition, attitude shifts, and autonomous performance. The fact that students are unable to complete tasks independently, show low confidence, and receive minimal positive feedback from industry indicates that the internship program, as currently implemented, has not functioned as a transformative experience. This suggests a misalignment between internship structure and learner developmental outcomes. Supporting this, the theory of situated learning Nicolas et al. (2022) emphasizes the need for active participation in communities of practice for real learning to occur. Unfortunately, this condition is not fulfilled in the APHP program, where students are more observers than

contributors. Theoretically, this reflects a deficiency in the scaffolding mechanisms that should help learners move from peripheral participation to full engagement (Parrella et al., 2023; Yusuf et al., 2019). Practically, it reveals that current internship practices fall short of preparing students for agro-industrial demands, particularly in regions that aim to become national food centers such as Merauke.

In light of these findings, several theoretical and practical implications emerge. Theoretically, this study supports the relevance of the CIPP model in systematically diagnosing implementation gaps in vocational internship programs, especially within agriculture-based contexts. It also contributes to the literature by highlighting the importance of aligning context, input, process, and product not only structurally, but pedagogically and culturally. Practically, vocational schools should strengthen their engagement with agro-industrial partners through co-design of internship tasks, mutual evaluation frameworks, and structured mentoring programs. Policymakers must allocate targeted funding for training teachers in work-based learning facilitation and reflective instruction. Industry partners should be empowered not only as placement providers but also as instructional collaborators. Furthermore, internship frameworks must shift from compliance-based models to competence-based systems, supported by clear performance indicators and post-internship follow-ups. Future research should explore hybrid internship models that integrate digital tracking, reflective learning tools, and industry assessment mechanisms to ensure that students develop not only technical skills but also adaptive, reflective, and entrepreneurial mindsets that are essential in the evolving agro-industrial landscape.

CONCLUSION

This study evaluated the implementation of the internship program in the Agricultural Product Processing Agribusiness (APHP) Expertise Program using the CIPP model. The findings revealed that while the contextual support and institutional readiness were moderately established, there were critical deficiencies in process and product implementation. The internship program lacked strategic alignment with industry needs, suffered from weak collaboration between schools and agro-industry partners, and demonstrated low effectiveness in developing students' technical skills, work-readiness, and professional attitudes. Students were largely unprepared to work independently in agro-industrial settings and received limited feedback and mentoring during internships. These shortcomings suggest that the internship program remains procedural rather than developmental. The study’s limitation lies in its quantitative-only approach, which may not capture the depth of experiences or contextual nuances perceived by students and industry mentors. Future research should consider a mixed-method design for richer insights. Practically, it is recommended that vocational schools enhance teacher training, integrate reflective and project-based learning strategies, and establish more dynamic partnerships with industry. Theoretically, this study affirms the CIPP model’s utility in identifying multidimensional gaps in vocational program implementation and highlights the need to align pedagogical frameworks with authentic workplace demands to improve student outcomes in agricultural vocational education.

ACKNOWLEDGMENT

The heading of the Acknowledgment section and the References section must not be numbered.

REFERENCES

1. Agarwal, A., Leisegang, K., Panner Selvam, M. K., Durairajanayagam, D., Barbarosie, C., Finelli, R., Sengupta, P., Dutta, S., Majzoub, A., Pushparaj, P. N., Elbardisi, H., Sharma, R., Gupta, S., Arafa, M., Roychoudhury, S., Alves, M. G., Oliveira, P. F., & Henkel, R. (2021). An online educational model in andrology for student training in the art of scientific writing in the COVID-19 pandemic. Andrologia, 53(3), 1–14. https://doi.org/10.1111/and.13961
2. Akomaning, E., Voogt, J. M., & Pieters, J. M. (2011). Internship in vocational education and training: Stakeholders’ perceptions of its organisation. Journal of Vocational Education and Training, 63(4), 575–592. https://doi.org/10.1080/13636820.2011.590222
3. Amin, N. F., Latif, A. A., Arsat, M., Suhairom, N., Jumaat, N. F., & Ismail, M. E. (2020). The implementation of the internship as a coursework in teaching and learning vocational education.

Journal of Technical Education and Training, 12(1 Special Issue), 82–90. https://doi.org/10.30880/jtet.2020.12.01.009
4. Billett, S. (2011). Vocational Education: Purposes, Traditions and Prospects. Springer. https://doi.org/10.1007/978-94-007-1954-5
5. Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2020). Purposive sampling: complex or simple? Research case examples. Journal of Research in Nursing, 25(8), 652–661. https://doi.org/10.1177/1744987120927206
6. Chrisendo, D., Siregar, H., & Qaim, M. (2021). Oil palm and structural transformation of agriculture in Indonesia. Agricultural Economics (United Kingdom), 52(5), 849–862. https://doi.org/10.1111/agec.12658
7. Clark, L., & Winch, C. (2007). Vocational Education : International Approaches, Developments and Systems. Routledge.
8. Cui, Y., Huang, F., Zhao, Z., & Gao, F. (2024). Does fit matter? The impact of person-environment fit and internship quality on professional competence of TVET students: evidence from a large-scale competence assessment in China. Education and Training, 66(1), 89–106. https://doi.org/10.1108/ET-01-2023-0026
9. Dockry, M. J., Sachdeva, S. S., Fisher, C. L., Kenefic, L. S., Locke, D. H., & Westphal, L. M. (2022). Student trainee and paid internship programs have positive results but do little to influence long-term employee diversity in the USDA forest service. PLoS ONE, 17(11), 1–15. https://doi.org/10.1371/journal.pone.0277423
10. Gagnon, N., Gagné, A., & Courcy, J. (2024). Supporting vocational education interns: what motivates associate teachers and what are the perceived benefits? Mentoring and Tutoring: Partnership in Learning, 32(1), 49–71. https://doi.org/10.1080/13611267.2023.2290728
11. Gunadi, Alias, M., Herminarto, S., & Mochammad, B. T. (2020). Designing industrial internship model to improve the skills of prospective vocational teachers. Journal of Technical Education and Training, 12(1 Special Issue), 140–148. https://doi.org/10.30880/jtet.2020.12.01.015
12. Henneberry, S. R., & Radmehr, R. (2020). Quantifying impacts of internships in an international agriculture degree program. PLoS ONE, 15(8), 1–15. https://doi.org/10.1371/journal.pone.0237437
13. Kapareliotis, I., Voutsina, K., & Patsiotis, A. (2019). Internship and employability prospects: assessing student's work readiness. Higher Education, Skills and Work-Based Learning, 9(4), 538–549. https://doi.org/10.1108/HESWBL-08-2018-0086
14. Kibrit, G., Altinay, F., Dagli, G., Altinay, Z., Sharma, R., Shadiev, R., Tlili, A., Celebi, M., Jemni, M., & Bastas, M. (2022). Evaluation of sustainability and accessibility strategies in vocational education training. Sustainability (Switzerland), 14(19), 1–14. https://doi.org/10.3390/su141912061
15. Kurnia, G., Setiawan, I., Tridakusumah, A. C., Jaelani, G., Heryanto, M. A., & Nugraha, A. (2022). Local wisdom for ensuring agriculture sustainability: A case from Indonesia. Sustainability (Switzerland), 14(14), 1–17. https://doi.org/10.3390/su14148823
16. Lamalewa, F., Kore, E. L. R., & Kalalo, C. N. (2018). The influence of practices of human resources management, compensation, work satisfaction and motivation on performance of bank employees in Merauke City. International Journal of Mechanical Engineering and Technology, 9(10), 64–71.
17. Mahfud, T., Mulyani, Y., Setyawati, R., & Kholifah, N. (2022). The influence of teaching quality, social support, and career self-efficacy on the career adaptability skills: Evidence from a polytechnic in Indonesia. Integration of Education, 26(1), 27–41. https://doi.org/10.15507/1991-9468.106.026.202201.027-041
18. Mardapi, D. (2012). Pengukuran, Penilaian, dan Evaluasi Pendidikan. Mitra Cendekia Press.
19. McHugh, P. P. (2017). The impact of compensation, supervision and work design on internship efficacy: implications for educators, employers and prospective interns. Journal of Education and Work, 30(04), 367–382. https://doi.org/10.1080/13639080.2016.1181729
20. Merz, G. R., Ward, J., Qrunfleh, S., & Gibson, B. (2021). Building a digital marketing internship program for technology-based start-ups: an exploratory study of student experiences. Higher Education, Skills and Work-Based Learning, 8(1), 1–17. https://doi.org/10.1108/HESWBL-04-2021-0072
21. Mott, R., Lorenz, T., & Britt-Rankin, J. (2021). Preparing undergraduates for agriculture and food research careers: An internship paradigm. Journal of Extension, 59(2), 1–7. https://doi.org/10.34068/joe.59.02.07

22. Mutohhari, F., Sudira, P., Pardjono, Suyitno, Warju, Isnantyo, F. D., & Majid, N. W. A. (2025). Generic green skills: maturity level of vocational education teachers and students in Indonesia. International Journal of Evaluation and Research in Education, 14(1), 179–187. https://doi.org/10.11591/ijere.v14i1.29191
23. Ngadi, N., Zaelany, A. A., Latifa, A., Harfina, D., Asiati, D., Setiawan, B., Ibnu, F., Triyono, T., & Rajagukguk, Z. (2023). Challenge of agriculture development in Indonesia: Rural youth mobility and aging workers in agriculture sector. Sustainability (Switzerland), 15(2), 1–16. https://doi.org/10.3390/su15020922
24. Nicolas, H. J., Manalastas, H. G., & Capalad, R. A. (2022). Feedback of students on internship program in an agricultural course. International Journal of Evaluation and Research in Education, 11(2), 573–579. https://doi.org/10.11591/ijere.v11i2.21936
25. Parrella, J. A., Leggette, H. R., Murphrey, T. P., Esquivel, C., & Bates, A. (2023). Investigating students' career-readiness in the agricultural sciences: A phenomenological case study. Journal of Research in Technical Careers, 7(1), 1–20. https://doi.org/10.9741/2578-2118.1115
26. Perteet-Jackson, A., Jansma, M., Marquart, L., & Wibbens, K. (2022). Preparing the future nutrition professional: A summer internship case study examining food systems. Current Developments in Nutrition, 6(1), 1–13. https://doi.org/10.1093/cdn/nzac056.013
27. Ramadhani, M. A., & Rahayu, E. (2020). Competency improvement through internship: An evaluation of corporate social responsibility program in vocational school. International Journal of Evaluation and Research in Education, 9(3), 625–634. https://doi.org/10.11591/ijere.v9i3.20571
28. Raof, S. A., & Musta'amal, A. H. (2022). Competency framework of agriculture educators vocational college: Measurement model using partial least square-structural equation Modeling. European Journal of Educational Research, 11(3), 1523–1534. https://doi.org/10.12973/eu-jer.11.3.1523
29. Saavedra, J., González, S., Murvartian, L., & Arias-Sánchez, S. (2024). Psychosocial and vocational impact of an internship program for people diagnosed with severe mental illnesses. Disability and Rehabilitation, 12(1), 1–15. https://doi.org/10.1080/09638288.2024.2319725
30. Sankaran, S., & Saad, N. (2022). Evaluating the Bachelor of Education Program Based on the Context, Input, Process, and Product Model. Frontiers in Education, 7. https://doi.org/10.3389/feduc.2022.924374
31. Shoulders, C. W., Barrick, R. K., & Myers, B. E. (2011). An assessment of the impact of internship programs in the agricultural technical schools of Egypt as perceived by participant groups. Journal of International Agricultural and Extension Education, 18(2), 18–29. https://doi.org/10.5191/jiaee.2011.18202
32. Stufflebeam, D. L., & Zhang, G. (2017). The CIPP Evaluation Model: How to Evaluate for Improvement and Accountability (1st ed.). Guilford Press.
33. Sutiman, S., Sofyan, H., Arifin, Z., Nurtanto, M., & Mutohhari, F. (2022). Industry and education practitioners' perceptions regarding the implementation of work-based learning through industrial internship (WBL-II). International Journal of Information and Education Technology, 12(10), 1090–1097. https://doi.org/10.18178/ijiet.2022.12.10.1725
34. Taib, M. T. M., Mustapha, R., & Yasin, A. A. (2020). Innovation in the assessment of technical subjects in Malaysian secondary schools. International Journal of Innovation, Creativity and Change, 11(11), 67–84. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85083063291&partnerID=40&md5=e2ea291b49f65fce0f55c20e6ecb30d8
35. Wan, C. S., Yang, J. Te, Cheng, S. Y., & Su, C. (2013). A longitudinal study on internship effectiveness in vocational higher education. Educational Review, 65(1), 36–55. https://doi.org/10.1080/00131911.2011.634969
36. Yi, G. (2018). Impact of internship quality on entrepreneurial intentions among graduating engineering students of research universities in China. International Entrepreneurship and Management Journal, 14(4), 1071–1087. https://doi.org/10.1007/s11365-017-0491-2
37. Ying, Y., Rusman, & Ali, M. (2018). Evaluation of curriculum impact to students internship: A case study in Chinese Department of Bina Nusantara University, Indonesia. International Conference on Distance Education and Learning, 84–87. https://doi.org/10.1145/3231848.3231872
38. Yunus, M., Mukhneri Mukhtar, & Ma'aruf Akbar. (2020). Evaluation of the implementation of the

adiwiyata program in Riau Islands Province. Technium Social Sciences Journal, 9(1), 133–143. https://doi.org/10.47577/tssj.v9i1.1106

39. Yusuf, S. F. G., Popoola, O. O., & Olutegbe, N. S. (2019). Perceptions of undergraduate students to practical agriculture experience at the university of fort hare, South Africa. Journal of Agricultural Extension, 23(1), 210–222. https://doi.org/10.4314/jae.v23i1.18
40. Yuwono, I., Najeri, M., Syahrin, A., Rachman, D., Budhi, S., & Hairini, S. M. (2020). The evaluation of inclusive education program through cippo approach. Journal of Critical Reviews, 7(04), 2307–2313.