

Industry Linkage Quality in Maritime Vocational Education: An Internship Ecosystem Perspective Through Placement Relevance, Organizational Support, and Learning Accessibility

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ABSTRACT	ARTICLE DETAILS
This study aims to analyze the implementation of internship/Merdeka Belajar-Kampus Merdeka (MBKM) programs in strengthening the link and match between maritime vocational education and industry, particularly by mapping the profile of internship placements, financial compensation, and supporting facilities received by cadets at Akademi Maritim Nusantara (AMNUS) Banjarmasin. This research employed a quantitative descriptive approach using a survey design. The study involved 34 active cadets who had participated in or were participating in internship/MBKM activities. Data were collected through an online questionnaire and analyzed using descriptive statistics, including frequency distribution, percentage analysis, and financial data mapping. The findings indicate that internship placements were generally aligned with the maritime sector, with most cadets placed in shipping companies (55.9%), followed by logistics/forwarding, shipping agencies, surveying services, and port management. The largest assignment category was agency, boarding, and clearance activities (38.2%), demonstrating exposure to real maritime operational processes. However, financial compensation and supporting facilities varied considerably among industry partners. The study highlights that internship quality is not determined solely by placement availability but also by task relevance, supervision, financial support, and operational facilities. The study concludes that AMNUS has established meaningful industry collaboration through diverse internship placements, but partnership management requires greater standardization and evaluation mechanisms. It is recommended that institutions develop an integrated industry partner database, establish minimum information standards before placement, and strengthen monitoring systems to ensure high-quality learning experiences for cadets KEYWORDS: Industry Collaboration, Internship, Maritime Education, Mbkm, Vocational Education	Published On: 18 September 2026 Available on: https://ijiissh.com/

1. INTRODUCTION

Maritime vocational education has an important strategic role in preparing human resources capable of meeting the competency demands of the shipping, port, and maritime logistics industries. Global maritime activities are increasingly influenced by technological development, digital transformation, safety standards, and efficiency requirements, resulting in a growing need for graduates who combine theoretical knowledge, technical competence, professional attitudes, and adaptability. In Indonesia, the strategic role of maritime transportation is reflected in the high dependence of national and international trade on sea transportation activities (UNCTAD, 2024; BPS, 2025). Therefore, strengthening maritime human resources through relevant vocational education has become an important agenda in improving industry competitiveness.

Vocational education emphasizes the principle that competency development cannot be achieved solely through classroom-based learning but requires direct exposure to real workplace environments. Experiential learning theory explains that meaningful learning occurs through concrete experience, reflection, conceptual understanding, and active experimentation (Kolb, 1984). In line with this

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perspective, internship programs provide students with opportunities to connect academic knowledge with industrial practices, develop professional identity, and understand workplace culture (Hora et al., 2024; Bawica, 2021).

The implementation of Merdeka Belajar-Kampus Merdeka (MBKM) strengthens this approach by providing opportunities for students to gain learning experiences outside higher education institutions. MBKM positions industry involvement as an essential component of competency development through structured collaboration between universities and external partners (Direktorat Pembelajaran dan Kemahasiswaan, 2024). Previous studies have demonstrated that internship and MBKM activities contribute to improving students' hard skills, soft skills, employability readiness, and professional competencies (Arisandi et al., 2022; Pratama et al., 2023).

However, previous research indicates that the success of internship programs is not determined only by the availability of industry placement opportunities. Effective internships require meaningful tasks, adequate supervision, organizational support, evaluation mechanisms, and appropriate learning environments (Fatah, 2021; Hora et al., 2023). In addition, financial compensation and supporting facilities may influence students' ability to participate optimally, particularly when internship locations require additional transportation, accommodation, and living costs (Rothschild & Rothschild, 2020; Grant-Smith & McDonald, 2018).

Despite extensive studies regarding internships and employability development, an important research gap remains. Most previous studies have focused on internship outcomes, student perceptions, or competency improvement, while limited research has examined the internship support ecosystem in maritime vocational education. Specifically, empirical evidence regarding how industry placement characteristics, financial compensation patterns, and non-financial facilities contribute to the quality of maritime internship experiences remains limited.

This research gap is particularly relevant in maritime education because maritime industries possess unique characteristics involving operational complexity, safety requirements, technical procedures, geographical challenges, and professional discipline. The quality of learning experiences may vary depending on the type of company, assigned position, location, compensation system, and facilities provided by industry partners. Therefore, understanding these factors is essential for developing sustainable industry-education partnerships.

The main problem of this study is the limited understanding of how industry support systems shape the quality of MBKM internship implementation in maritime vocational education, particularly in relation to internship placement profiles, financial compensation, and supporting facilities.

Previous studies have investigated MBKM implementation, vocational internships, and industry-based learning. Arisandi et al. (2022) found that MBKM internship activities improved student competencies, while Pratama et al. (2023) highlighted the contribution of MBKM experiences toward soft skills and employability readiness. Wulandari (2024) specifically showed that maritime internships strengthened technical competence, adaptability, teamwork, and professional readiness.

Although these studies provide important foundations, they mainly examine internship outcomes rather than the structural support factors surrounding internship implementation. The present study differs by mapping the internship ecosystem through three dimensions: industry placement characteristics, financial compensation, and non-financial facilities. This approach provides additional evidence regarding how maritime vocational institutions can manage industry partnerships more effectively.

This study aims to analyze the implementation of MBKM internship programs in maritime vocational education by describing industry placement characteristics, identifying financial compensation patterns received by cadets, analyzing supporting facilities provided by industry partners, and explaining the implications of these findings for strengthening collaboration between maritime education institutions and industry.

Theoretically, this study contributes to vocational education literature by expanding the understanding of internship quality beyond placement availability and emphasizing the importance of an integrated industry support ecosystem. Practically, the findings provide evidence for maritime higher education institutions, industry partners, and policymakers to improve internship planning, partner evaluation, monitoring systems, and student support mechanisms.

This research is based on the assumption that the effectiveness of maritime internship learning is influenced by the interaction between higher education institutions and industry partners. The framework follows:

Vocational-industry competency gap → MBKM internship implementation → Industry placement characteristics, compensation, and facilities → Internship quality mapping → Recommendations for strengthening maritime education-industry collaboration.

2. METHODOLOGY

This study employs a methodology designed to answer the research objective of mapping the implementation of internship/Merdeka Belajar-Kampus Merdeka (MBKM) programs in maritime vocational education. The methodological choice is not intended to examine causal relationships, but to provide an empirical description of internship placement characteristics, financial compensation, and non-financial supporting facilities. Therefore, a descriptive quantitative approach is appropriate because the

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research focuses on describing existing conditions within a defined population rather than testing causal hypotheses (Creswell & Creswell, 2023; Bougie & Sekaran, 2019).

Research Approach and Method

This research applies a quantitative descriptive approach using a survey method. The method was selected because the research problem requires systematic measurement and description of internship implementation conditions among maritime cadets. Survey methodology enables researchers to collect standardized information and summarize characteristics through frequencies, percentages, and numerical descriptions (Dillman et al., 2014).

The descriptive survey design is suitable because this study does not manipulate variables or establish cause-effect relationships. Instead, it identifies empirical patterns regarding industry placement, support systems, and internship experiences. This approach is consistent with experiential learning theory, which emphasizes the importance of understanding learning processes within authentic environments (Kolb, 1984; Moon, 2004).

Type and Source of Data

The study uses primary quantitative data obtained from cadets of Akademi Maritim Nusantara (AMNUS) Banjarmasin who participated in internship/MBKM programs. Primary data were selected because the research examines direct experiences related to internship placement, financial support, and facilities that cannot be adequately represented through secondary sources.

Data were collected through a structured online questionnaire containing respondent profiles, internship institution information, assignment positions, locations, compensation, and supporting facilities. Structured survey data enable systematic classification and descriptive analysis of research dimensions (Biemer, 2014; Crick, 2023).

Research Location and Time

The research was conducted at Akademi Maritim Nusantara (AMNUS) Banjarmasin within the context of maritime internship/MBKM implementation. Respondents were cadets placed in maritime-related organizations, including shipping companies, logistics companies, shipping agencies, survey services, and port-related institutions.

Data collection was conducted online using Google Form. Based on the research dataset, 34 responses were collected during 4–10 August 2026. Online questionnaires were considered appropriate because respondents were distributed across different internship locations and online methods provide efficiency in collecting geographically dispersed data (Dursun et al., 2022; Gottfried, 2024).

Population and Participants

The population consisted of active AMNUS Banjarmasin cadets who had participated in or were participating in MBKM internship activities. A census/saturated sampling technique was applied because all available members of the operational population were included in the analysis.

This approach was appropriate because the population size was limited and accessible, allowing the research to capture the complete condition of the observed population. However, findings are interpreted within the AMNUS context and are not intended for broad statistical generalization beyond the studied population (Statistics Canada, 2021; Creswell & Creswell, 2023).

Data Collection Technique

Data were collected using a structured questionnaire developed from the theoretical framework of experiential learning, vocational education, and internship quality. The instrument focused on three analytical dimensions: industry placement profile, financial compensation, and non-financial supporting facilities.

The instrument design followed the principle that theoretical concepts should be translated into measurable indicators. Therefore, questionnaire items were developed to represent observable conditions of internship implementation rather than causal variables (Creswell & Creswell, 2023; Dillman et al., 2014).

Data Analysis Technique

Data analysis was performed using descriptive statistical analysis, including frequency distribution, percentage analysis, categorization of internship characteristics, and mapping of compensation and facility patterns.

This technique was selected because the research objective is to provide an empirical overview of internship implementation rather than test relationships between variables. Descriptive analysis enables transparent presentation of actual internship support conditions experienced by cadets (Fink, 2002; CDC, 2024).

Methodological Relevance

The methodology directly corresponds with the research objective. The theoretical framework identifies internship quality as a multidimensional phenomenon, and these dimensions are operationalized into questionnaire indicators. The research process follows the sequence:

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Theoretical framework → Research dimensions → Questionnaire indicators → Data collection → Descriptive analysis → Interpretation of internship implementation.

This methodological structure ensures that the research provides a theoretically grounded empirical mapping of maritime internship implementation and contributes evidence for strengthening education-industry collaboration.

3. RESULTS AND DISCUSSION

Results

This study analyzed data from 34 cadets of Akademi Maritim Nusantara (AMNUS) Banjarmasin who had participated in or were participating in internship/Merdeka Belajar-Kampus Merdeka (MBKM) programs. The results are presented based on three main analytical dimensions: (1) industry placement profile, (2) financial compensation, and (3) non-financial supporting facilities.

Table 1. Distribution of Cadets Based on Study Program

Program	Frequency	Percentage
D3 Port Management	30	88.2%
D4 Marine Transportation	4	11.8%

The distribution shows that most respondents came from the D3 Port Management program, representing 88.2% of the total respondents, while D4 Maritime Transportation respondents accounted for 11.8%.

Table 2. Distribution of Internship Industry Categories

Industry Sector	Frequency	Percentage
Shipping company	19	55.9%
Logistics/forwarding/container	7	20.6%
Shipping agency	4	11.8%
Survey/service	3	8.8%
Port management	1	2.9%

The results indicate that the largest proportion of cadets were placed in shipping companies (55.9%). Other placements included logistics and forwarding companies (20.6%), shipping agencies (11.8%), survey and inspection services (8.8%), and port management institutions (2.9%).

Table 3. Distribution of Internship Positions

Position Group	Frequency	Percentage
Agency/boarding/clearance	13	38.2%
Operational/technical/field	7	20.6%
Administration/QHSE/logistics	4	11.8%
Survey/inspection	4	11.8%
Crewing	3	8.8%
General internship	3	8.8%

The largest assignment category was agency, boarding, and clearance activities with 38.2%, followed by operational, technical, and field activities with 20.6%. Other assignments covered administrative, QHSE, logistics, survey, inspection, crewing, and general internship activities.

Table 4. Financial Compensation Pattern

The analysis of financial support shows variation among internship participants. Across six recorded periods, the number of cadets reporting positive allowance values ranged from 12 to 14 participants. Reported monetary values varied from IDR 15,000 to IDR 1,500,000. In periods 1–5, 12 cadets reported complete monetary values with an average of approximately IDR 717,917, while period 6 involved 11 cadets with an average of approximately IDR 692,273.

Table 5. Non-Financial Supporting Facilities

Facility	Frequency	Percentage
Meals/consumption	19	55.9%
Accommodation/mess	13	38.2%
Transportation	3	8.8%

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Competency certificate	2	5.9%
No additional facility	8	23.5%

The results show that food support was the most frequently reported facility, followed by accommodation/mess support. Some respondents reported receiving more than one type of facility.

DISCUSSION

a. Industry Placement Profile and Experiential Learning

The findings demonstrate that maritime internship implementation at AMNUS has provided cadets with exposure to authentic maritime industry environments. The dominance of shipping companies and operational positions indicates that internship placement is generally aligned with maritime vocational competencies.

From the perspective of Experiential Learning Theory, direct participation in workplace activities represents concrete experience, which is the initial stage of professional learning development (Kolb, 1984). The findings support previous studies showing that industry exposure strengthens technical competence, adaptability, teamwork, and professional readiness among vocational students (Wulandari, 2024; Bawica, 2021).

However, the findings also suggest that internship quality should not be evaluated only based on placement availability. Experiential learning requires meaningful engagement, reflection, and opportunities to apply knowledge in authentic situations. Therefore, the relevance of assigned tasks and workplace supervision remain important aspects of internship effectiveness (Moon, 2004; Hora et al., 2024).

b. Financial Compensation as Part of Internship Support Ecosystem

The results indicate that financial compensation among cadets was not uniform. Some cadets received monetary support, while others reported limited or no direct financial assistance. This variation illustrates that internship experiences are influenced by different levels of organizational support.

Previous studies have highlighted that compensation and financial support may affect students' ability to participate effectively in internships, particularly when placement locations generate additional costs for transportation, accommodation, and daily living expenses (Grant-Smith & McDonald, 2018; Rothschild & Rothschild, 2020).

The current study expands previous internship research by positioning compensation not as employment payment, but as a learning support mechanism. This perspective is relevant in vocational education because financial support may determine whether students can fully engage in workplace learning.

c. Supporting Facilities and Quality of Workplace Learning

The findings show that non-financial facilities, particularly food support and accommodation, represent important components of internship implementation. These facilities provide practical support that enables cadets to remain engaged in industrial learning environments.

This finding is consistent with internship quality literature emphasizing that organizational support, supervision, and workplace conditions influence the quality of student internship experiences (Hora et al., 2023; Fatah, 2021). The present study contributes by showing that internship support systems in maritime education include not only pedagogical elements but also operational conditions that enable participation.

d. Contribution and Novelty of the Study

Previous studies on MBKM and internships have mainly focused on outcomes such as competency development, employability readiness, and student perceptions (Arisandi et al., 2022; Pratama et al., 2023). In contrast, this study provides an ecosystem perspective by mapping the structural conditions surrounding internship implementation, including placement characteristics, financial compensation, and facilities.

The novelty of this research lies in shifting the discussion of maritime internships from an outcome-oriented approach toward a support-system approach. The study argues that successful industry-based learning depends not only on the existence of industry partnerships but also on the quality of support mechanisms provided during the internship process.

This perspective provides implications for maritime vocational institutions to develop more comprehensive partner evaluation systems that consider industry relevance, learning opportunities, student protection, compensation transparency, and facility availability.

4. CONCLUSION

This study concludes that the implementation of the MBKM internship program at Akademi Maritim Nusantara (AMNUS) Banjarmasin has established a meaningful connection between maritime vocational education and industry learning environments. Based on the analysis of 34 cadets, internship placements were generally aligned with maritime industry sectors, with the majority

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of cadets placed in shipping companies (55.9%), followed by logistics/forwarding/container services (20.6%), shipping agencies (11.8%), survey/inspection services (8.8%), and port management (2.9%). The dominant internship assignments were agency, boarding, and clearance activities (38.2%), indicating exposure to relevant maritime operational processes.

The findings further show that internship support systems varied among industry partners. Financial compensation was not uniformly provided, with reported allowance values ranging from IDR 15,000 to IDR 1,500,000. Non-financial support was more frequently available, particularly food support (55.9%) and accommodation/mess facilities (38.2%). These results demonstrate that internship quality should not be assessed only from the existence of industry placement, but also from the supporting ecosystem that enables students to participate effectively in workplace learning.

Theoretically, this research contributes to maritime vocational education studies by shifting the discussion from internship outcomes toward internship enabling conditions. Through an experiential learning perspective, the study emphasizes that meaningful workplace learning is influenced by authentic industrial experience, organizational support, and accessibility of learning environments. Practically, the findings provide implications for vocational institutions and industry partners in developing more structured internship management systems, including partner evaluation, transparency of support mechanisms, and monitoring of student learning experiences.

This study has several limitations. The research involved only 34 cadets from one maritime vocational institution; therefore, findings represent the AMNUS Banjarmasin context and cannot be generalized to all maritime education institutions. In addition, the descriptive quantitative design limits the ability to explain causal relationships between internship support factors and competency development. The study also relied primarily on self-reported questionnaire data and did not include perspectives from industry supervisors or institutional managers.

Future research should expand the scope by involving multiple maritime vocational institutions and industry partners to develop comparative evidence regarding internship management models. Further studies may apply mixed-method approaches by combining surveys, interviews, and observations to examine supervision quality, competency development, student learning outcomes, and industry expectations more comprehensively.

Based on the findings, maritime education institutions are recommended to develop an integrated industry partner database containing information regarding placement type, assigned tasks, supervision mechanisms, compensation, and facilities. Institutions should also establish minimum information standards before student placement to improve transparency. Industry partners are encouraged to strengthen their educational role by providing relevant assignments, mentoring, and appropriate student support. These efforts will contribute to developing MBKM internships as a more structured and sustainable model of maritime education-industry collaboration.

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