

THE EFFECT OF PRE-DEPARTURE TRAINING ON COMPETENCIES OF INDONESIAN INTERNSHIP PARTICIPANTS IN JAPAN

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Abstract

This study aims to analyze the effect of pre-departure training on the competency of Indonesian interns in Japan. A quantitative approach with a causal-associative survey design was used and supplemented with qualitative data through interviews. A sample of 60 pre-departure training students from five private Job Training Institutions (LPK) in Medan City was selected through purposive sampling with proportional allocation. Data were collected through a 1–5 Likert scale questionnaire, semi-structured interviews, and documentation, then analyzed using simple linear regression with IBM SPSS Statistics. The results of the study proved that pre-departure training had a positive and significant effect on the competency of interns ($b = 0.765$; $t = 8.040$; $\text{sig.} = 0.000$), with an explanatory power of 52.7% ($R^2 = 0.527$). Qualitative findings confirmed that Japanese language proficiency, practical portion, and work attitude development are central factors in competency formation. This research contributes quantitative empirical evidence in the context of international labor mobility, which has been dominated by qualitative studies, while also emphasizing the need for standardization of training quality between LPKs.

Keywords: Pre-Departure Training, Competence, Interns, IM Japan

A. Introduction

Human resource (HR) development is a strategic agenda for Indonesia in utilizing the demographic bonus projected to peak in the 2030–2040 period. The quantitative superiority of the productive age population recorded at 146.62 million out of 211.59 million working age population in February 2023 (Coordinating Ministry for Economic Affairs, 2023) will only become an economic dividend if accompanied by an increase in workforce competency relevant to global industrial needs. HR development is understood as a systematic process to improve competency, skills, knowledge, and work attitudes according to job demands (Hasibuan, 2007; Mangkunegara, 2008), with training as its main instrument which, if designed properly, has the potential to increase individual productivity and competency measurably (Tsauri, 2013).

One strategy to accelerate the improvement of workforce competency is through overseas internship programs, particularly in Japan. Internships are an effective way to ensure a match between industry needs and participant competencies, as participants train directly in a real work environment (Ministry of Manpower and Transmigration Regulation No. Per.08/Men/V/2008). This commitment is reflected in the 2020–2024 National Medium-Term Development Plan (RPJMN) which targets more than 20,000 overseas internship participants, with 15,031 participants realized by June 2023 (Coordinating Ministry for Economic Affairs, 2023). The internship program to Japan, through a collaboration between the Ministry of Manpower and the *International Manpower Development Organization, Japan* (IM Japan), has been running since 1993, graduating more than 45,000 alumni, and explicitly aims to improve the technical competencies (*hard skills*) of participants according to their chosen vocation (IM Japan Indonesia, 2024). Its appeal continues to increase in line with the phenomenon of *an aging society* in Japan; In 2023, the number of Technical Intern Training Program participants from Indonesia reached 74,879 people or around 21.4% of the total number of participants in the program (IKAPEKSI, 2024).

Before departure, each participant is required to undergo pre-departure training, which is the most intensive competency-building phase, encompassing Phase I in the region and Phase II centrally (two months each) with materials on Japanese language, work readiness, technical skills, physical-mental development, and Japanese work culture (IM Japan Indonesia, 2024). This stage is crucial because participants are evaluated based on language proficiency and physical readiness, and only those who pass can proceed to the national selection (Grobogan Regency Government, 2024). Theoretically, competency-based training designed with appropriate materials, methods, participant criteria, and feedback has been shown to significantly influence competency (Salmah, 2012; Spencer & Spencer, 1993). Thus, the quality of pre-departure training is suspected to be the main predictor of participant competency before working in Japan.

Although numerous studies on internship programs in Japan exist, four *research gaps* have been identified. First, previous research has generally focused on the quality of program implementation in general, such as the SERVQUAL analysis (University of Indonesia, 2008), and has not isolated pre-departure training as a variable determining competence. Second, existing studies tend to be qualitative-descriptive or evaluative, such as the CIPP evaluation of Japanese language learning (Anggraeni et al., 2023), thus lacking quantitative evidence on the magnitude of its influence. Third, research on the effect of training on competence has generally focused on domestic employees (Salmah, 2012), not on cross-border interns with both technical and cross-cultural demands. Fourth, few studies have identified IM Japan participants as a specific unit of analysis with measurable competency instruments.

Based on these gaps, this study offers three novelties: (1) focusing on pre-departure training as an independent variable that is quantitatively tested against competency; (2) making Indonesian internship participants to Japan under the IM Japan program in Medan City as an explicit unit of analysis; and (3) producing empirical evidence that can be the basis for policy evaluation for the Ministry of Manpower and job training institutions (BLK, BPVP, and LPK) in optimizing the design of pre-departure training, while enriching the literature on competency-based HR management in the context of international labor mobility.

B. Research Methods

1. Type, Approach, and Location of Research

This study uses a quantitative approach supplemented with qualitative data (mixed methods, embedded model) with a causal-associative survey design to examine the effect of pre-departure training (X) on intern competency (Y) (Sugiyono, 2023). The quantitative approach is the primary method through a questionnaire to measure the magnitude of the influence between variables, while interviews are used as a supporting method to deepen the findings (triangulation). The study was conducted in Medan City, North Sumatra Province, with five private Job Training Institutions (LPK) that provide pre-departure training for internships to Japan as the subjects. Medan City was selected purposively because it is one of the centers for sending interns to Japan in the Sumatra region with a number of active and representative private LPKs.

2. Population and Sample

The study population was all 295 students participating in pre-departure internship training to Japan at five private LPKs in Medan City. The sampling technique used purposive sampling with the following inclusion criteria: (1) actively registered as training participants; (2) having attended at least one stage of training; and (3) willing to be full respondents. Based on these criteria, a sample of 60 students was determined, allocated proportionally (proportional sampling) to the five LPKs according to the number of participants at each institution. This number meets the minimum requirements for regression analysis as per Roscoe's (1975) guidelines, which recommend a sample size of between 30 and 500 for social research. In addition to quantitative respondents, this study involved key informants for interviews, namely managers or instructors from each LPK. The sample composition is presented in Table 1.

Table 1. Distribution of Research Samples in Five Private LPKs in Medan City

No.	Private Job Training Institutions (LPK)	Number of participants	Sample
1	LPK Jissho	80	16
2	Hikari LPK	60	12
3	Mirai LPK	50	10
4	LPK Sekai	75	15
5	Sakan LPK	30	7
	Total	295	60

Source: Primary data

3. Data Collection Techniques and Instruments

Primary data were collected through three methods: (1) a 1–5 Likert scale questionnaire distributed to 60 respondents; (2) semi-structured interviews with selected participants and LPK managers/instructors; and (3) documentation in the form of participant data and training curriculum. Pre-departure training (X) was measured through the dimensions of material, method, instructor, facilities and infrastructure, and training duration, while participant competency (Y) was adapted from Spencer and Spencer (1993) through the dimensions of knowledge (Japanese language and work culture), skills (technical skills according to vocational training), and work attitude (discipline, responsibility, and independence). The operationalization of the variables is presented in Table 2.

Table 2. Operationalization of Research Variables

Variables	Dimensions	Indicator
Pre-Departure Training (X)	Materials & Methods	Completeness of material; balance of theory and practice
	Instructors & Facilities	Instructor competence; availability of facilities
	Duration	Adequate training time for each stage
Participant Competence (Y)	Knowledge	Mastery of Japanese language & work culture
	Skills	Technical skills according to vocation
	Work Attitude	Discipline, responsibility, independence

Source: Adapted from Spencer & Spencer (1993) and Salmah (2012)

4. Data Analysis Techniques and Hypothesis

The instrument was tested through validity (Pearson correlation; calculated $r > \text{table } r$) and reliability (Cronbach's Alpha ≥ 0.70) (Ghozali, 2021). Prior to regression, classical assumption tests were conducted including normality (Kolmogorov-Smirnov), heteroscedasticity (Glejser), and linearity (Deviation from Linearity); multicollinearity tests were not necessary because there was only one independent variable. Quantitative data were analyzed using simple linear regression ($Y = a + bX + e$), hypothesis testing through t-test (sig. < 0.05), and the coefficient of determination (R^2). Interview data were analyzed qualitatively through reduction, presentation, and drawing conclusions (Miles et al., 2014). Research hypothesis: H_0 pre-departure training has no significant effect on competency; H_1 pre-departure training has a positive and significant effect on the competency of Indonesian interns to Japan.

C. Results and Discussion

1. Respondent Profile and Descriptive Statistics

The study involved 60 students participating in pre-departure training from five private LPKs in Medan City with proportional allocation, namely LPK Jissho (16), LPK Hikari (12), LPK Mirai (10), LPK Sekai (15), and LPK Sakan (7). The majority of respondents were male (71.7%), aged 19–22 years (56.7%), and had a high school/vocational high school education (75.0%), reflecting the typical profile of participants in the Japanese internship program. Descriptively (Table 3), the pre-departure training obtained an average of 4.05 (high category) and participant competency of 3.98 (high category), indicating that the training was assessed as good and competency achievement was adequate, with the dimension of Japanese language proficiency as the area that needed the most improvement.

Table 3. Descriptive Statistics of Research Variables (n = 60)

Variables	Min	Max	Mean	Std. Dev	Category
Pre-Departure Training (X)	2.90	5.00	4.05	0.520	Tall
Participant Competence (Y)	2.80	5.00	3.98	0.548	Tall

2. Test of Validity, Reliability, and Classical Assumptions

The validity test (r table = 0.254; df = 58) showed that all items were valid with r count 0.412–0.803, and the reliability test produced Cronbach's Alpha of 0.861 (X) and 0.874 (Y), both above 0.70, so the instrument is valid and reliable (Ghozali, 2021). All classical assumptions were met (Table 4): Kolmogorov-Smirnov normality ($sig.$ = 0.142), Glejser heteroscedasticity ($sig.$ = 0.301), and linearity (Deviation from Linearity = 0.233), all > 0.05 . Thus, the regression results can be interpreted correctly.

Table 4. Results of the Classical Assumption Test

Test	Methods/Statistics	Results	Criteria	Note:
Normality	Kolmogorov-Smirnov	Sig. = 0.142	Sig. > 0.05	Fulfilled
Heteroscedasticity	Glacier	Sig. = 0.301	Sig. > 0.05	Fulfilled
Linearity	Dev. from Linearity	Sig. = 0.233	Sig. > 0.05	Fulfilled

Source: Primary data

3. Results of Regression Analysis and Hypothesis Testing

The results of simple linear regression (Table 5) form the equation $Y = 0.881 + 0.765X + e$. A positive regression coefficient of 0.765 means that every one unit increase in the quality of pre-departure training increases participant competency by 0.765 units. Hypothesis testing produces a calculated t of 8.040 with a significance of 0.000 (< 0.05), so that **H_1 is accepted and H_0 is rejected**: pre-departure training has a positive and significant effect on the competency of Indonesian internship participants to Japan. The R value = 0.726 (strong correlation) and $R^2 = 0.527$ indicate that training is able to explain 52.7% of the variance in competency, while the remaining 47.3% is explained by other factors such as learning motivation, educational background, work experience, or family support.

Table 5. Results of Simple Linear Regression, t-Test, and Coefficient of Determination

Variables	B	Beta	t Count	Sig.	Note:
(Constant)	0.881	—	2,265	0.027	—
Pre-Departure Training (X)	0.765	0.726	8,040	0,000	H_1 Accepted ✓
$R = 0.726$	$R^2 = 0.527$	Adj. $R^2 = 0.519$	Standard Error = 0.380		

. Dependent variable: Participant Competence (Y)

4. Discussion

The confirmation of H_1 ($b = 0.765$; $t = 8.040$; $\text{sig.} = 0.000$) proves that pre-departure training is a strong and significant predictor of competence. This finding strengthens the results of Salmah (2012) that training programs have a significant effect on competence, and is in line with the concept of Spencer and Spencer (1993) that competence is formed through the accumulation of knowledge, skills, and attitudes that can be developed through structured training. When viewed per dimension, the strongest contribution of training is in the formation of knowledge of Japanese language and work culture; in the skill dimension, a large portion of practice allows participants to master technical work procedures so they do not have to start from scratch; while in the attitude dimension, physical-mental development fosters discipline and independence. The large influence (52.7%) makes the quality of training implementation at the LPK level a strategic leverage point whose improvements have a direct impact on increasing competence. Interviews with managers and participants from the five LPKs reinforced the quantitative findings. Japanese language proficiency was considered both the most crucial and the most challenging component. An instructor at LPK Hikari stated:

"Language and work culture training are key. Technical competency can be achieved, but if language and attitude are lacking, they will struggle to adapt."

Participants at LPK Mirai added that hands-on practice methods build skills and confidence, while LPK Jissho and LPK Sekai managers emphasized the role of discipline and mental development. LPK Sakan managers highlighted the limitations of duration and facilities as challenges for some participants, consistent with the 47.3% variance unexplained by the model. Interviews also identified that participants with high learning motivation tended to achieve better competency, regardless of their educational background, suggesting the role of non-cognitive factors. These qualitative findings confirm and deepen the quantitative results: the quality of training, particularly in the dimensions of language, practice, and attitude development, is a central factor in developing participant competency. Theoretically, this study complements the competency-based HR management literature with quantitative empirical evidence in the context of international labor mobility, which has been dominated by qualitative studies. Practically, these results confirm that private training institutions (LPK) and the Ministry of Manpower need to prioritize strengthening the quality of pre-departure training, particularly regarding Japanese language proficiency, practical portion, instructor competence, and sufficient duration. They also encourage standardization of quality across LPKs through the establishment of minimum standards and accreditation so that each participant receives equivalent competency training.

D. Conclusion

This study empirically proves that pre-departure training has a positive and significant effect on the competence of Indonesian interns to Japan at five private LPKs in Medan City ($b = 0.765$; $t = 8.040$; $\text{sig.} = 0.000$). Pre-departure training is able to explain 52.7% of the variance in participant competence ($R^2 = 0.527$), making it a strong and strategic predictor. These results confirm that participants who receive training with complete materials, balanced methods between theory and practice, guided by competent instructors, and adequate duration in Phases I and II, consistently achieve higher competencies including mastery of Japanese language and work culture, technical skills according to vocational training, and a disciplined and independent work attitude. Interview findings strengthen this conclusion by placing language mastery, practical portion, and attitude development as central factors in competency formation.

Theoretically, this study contributes by providing quantitative empirical evidence that isolates pre-departure training as a predictor of competency in the context of international labor mobility, which has been dominated by qualitative and evaluative studies. Practically, these findings recommend that private training institutions (LPK) and the Ministry of Manpower prioritize strengthening training quality, particularly in the Japanese language and work experience components, and establish minimum standards and accreditation to ensure equitable quality across LPKs. This study has limitations such as the coverage of 60 respondents from five LPKs in Medan City, which limits generalizability, and the use of a single independent variable, leaving 47.3% of the variance in competency unexplained. Future research is recommended to expand the sample size across regions, add other predictor variables such as learning motivation and instructor quality, and develop a longitudinal design to explore the impact of training on participants' performance after working in Japan.

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