

Institutional Pathways Shaping Wage Outcomes for Indonesian Migrant Women in Japan's Manufacturing Sector

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Abstract

Japan's manufacturing sector increasingly relies on migrant workers, yet available wage statistics do not directly compare Indonesian migrant women with Japanese women performing equivalent work. This article examines the institutional mechanisms that may shape the wage outcomes of Indonesian migrant women in Japan's manufacturing sector without estimating a nationality-specific wage penalty or treating aggregate differences as proof of discrimination. The study employed qualitative explanatory document analysis. Its corpus comprised 30 sources, including 25 scholarly articles and five institutional publications addressing Japanese wage structures, gender inequality, migrant-employment pathways, skill recognition, and Indonesian manufacturing. The evidence primarily covered 2016–2023, while earlier publications were retained for foundational theories and later publications were used only when they analyzed the study period or reported relevant official data. Two coding cycles identified five mechanisms: migration-status and occupational segmentation; constrained accumulation of recognized tenure and career rewards; unequal conversion of human capital into recognized value; information and bargaining asymmetries; and the intersection of gender, migrant status, and national origin. Official wage benchmarks reveal substantial variation across employment and residence categories but cannot establish a direct wage differential between Indonesian and Japanese women because the categories represent non-equivalent populations. The documentary evidence is strongest regarding residence-based segmentation, tenure, and establishment-level wage structures, while evidence concerning Indonesian women specifically remains limited and indirect. The article therefore offers a mechanism-based explanatory framework rather than a causal estimate of wage discrimination. Its governance implications include improved wage-data disaggregation, portable recognition of qualifications, practical job mobility, transparent wage classification, and accessible employment information.

Keywords: *Gender Wage Inequality; Indonesian Migrant Women; Japan; Labor-market Segmentation; Manufacturing Sector; Migration Governance*

A. Introduction

Japan's manufacturing sector is situated at the intersection of demographic contraction, persistent labor shortages, expanding reliance on migrant workers, and continuing gender inequality. Foreign workers have become increasingly important to industries facing recruitment difficulties, including food processing, machinery, electronics, and other manufacturing activities. Nevertheless, the incorporation of migrant labor has occurred through differentiated residence and employment pathways that do not necessarily provide equivalent opportunities for mobility, training, or long-term career development (Liu-Farrer et al., 2023; Mazumi, 2021; Organisation for Economic Co-operation and Development [OECD], 2024b). These conditions operate within a national labor market in which the gender pay gap remains substantial. The OECD reported that

Japan's gender pay gap was 21.3% in 2022, placing it among the widest in the organization (OECD, 2024a).

Research on Japan has demonstrated that gender wage inequality is produced both within and between establishments. Women are disproportionately represented in nonregular employment, experience different returns to tenure, and do not necessarily benefit equally from performance-based remuneration systems (Chiang & Ohtake, 2014; Greaney & Tanaka, 2021; Hara, 2018). These findings establish the institutional background against which migrant women enter the Japanese labor market. They do not, however, explain whether all migrant women encounter the same conditions. Residence status, occupation, employment arrangement, national origin, and length of stay may create substantially different labor-market positions.

Indonesian migrant women occupy a particularly complex position within this structure. Their employment experiences may be shaped simultaneously by gender, migrant status, nationality, residence category, language access, and their location within segmented manufacturing labor markets. An intersectional approach is therefore needed because these characteristics do not function as independent or merely additive sources of disadvantage (Crenshaw, 1989). Nagayoshi (2024), for example, shows that the relationship between gender and immigrant status in Japan varies across visa categories. Her findings caution against treating foreign workers as a homogeneous population and support closer attention to the institutional categories through which migrants enter employment.

Available statistics nevertheless impose an important limitation. Japan's national wage tables provide valuable information by sex, industry, employment status, and selected categories of foreign workers, but they do not provide a single nationally representative cross-tabulation that isolates Indonesian nationality, sex, manufacturing employment, residence status, occupation, hours, and tenure simultaneously. Consequently, the available aggregate figures cannot establish a causal wage penalty for Indonesian migrant women relative to otherwise comparable Japanese women. Such a conclusion would require matched worker- and establishment-level data and an appropriate decomposition or causal design (Blinder, 1973; Oaxaca, 1973). The present study therefore does not treat differences between aggregate wage categories as direct proof of discrimination.

Several theoretical perspectives help explain why wage disadvantage may emerge even when direct comparative estimates are unavailable. Human-capital theory associates wages with education, work experience, training, and productivity-related characteristics (Becker, 1985). Its explanatory capacity is limited, however, when equivalent qualifications or experience receive different institutional recognition. Comparative studies of immigrant employment show that foreign credentials and prior experience may be discounted or converted unevenly into occupational status and earnings (Laible & Brenzel, 2022; Reitz, 2007). These studies concern labor markets outside Japan and are used here to identify a possible mechanism rather than to establish the experience of Indonesian women directly.

Statistical-discrimination theory provides a second explanation. When employers consider individual assessment costly or uncertain, they may use group membership, nationality, language, or residence status as proxies for productivity, reliability, or expected tenure (Aigner & Cain, 1977). Such practices may affect recruitment, task assignment, training, promotion, and wage progression even in the absence of an explicitly discriminatory wage rule. Human-capital and discrimination explanations are therefore not mutually exclusive: observed qualifications may matter, while access to the positions in which those qualifications receive higher returns may remain institutionally unequal.

Studies of migrant employment in Japan identify several institutional conditions through which these processes can operate. Research on the Technical Intern Training Program has documented restrictions on mobility, unequal bargaining relationships, and the dependence of skill transfer on program design (Onuki, 2025; Siu & Koo, 2022). Other studies show how recruitment structures, irregularization, residence pathways, and local industrial dependence on migrant labor can reproduce precarious employment positions (Mazumi, 2021; Sigona et al., 2021). Because much of this literature concerns migrants generally or workers from Vietnam and China, it cannot be treated as direct evidence about Indonesian migrant women. It nevertheless identifies institutional mechanisms that may also be relevant when Indonesian workers enter comparable employment and residence arrangements.

Research from Indonesia provides a different but related point of comparison. Studies of Indonesian manufacturing have identified gender wage gaps, occupational segregation, and unequal returns to worker characteristics (Ekaningtyas, 2020; Laili & Damayanti, 2018). Organizational norms may also normalize unequal treatment of women in the workplace (Nurhakim et al., 2023). These studies concern employment within Indonesia rather than Indonesian migration to Japan. Their relevance lies in demonstrating that gendered occupational valuation may precede migration and may subsequently interact with the migration and employment institutions of the receiving country.

The existing literature is therefore divided among studies of Japan's gender wage structure, migrant employment programs, immigrant labor-market integration, and gender inequality in Indonesian manufacturing. Limited research has brought these bodies of scholarship together to examine the institutional pathways through which Indonesian migrant women may face wage disadvantage in Japan's manufacturing sector. The contribution of this study is not to present a previously unmeasured wage gap as an established fact. Instead, it develops an explanatory synthesis of the mechanisms through which migration status, employment segmentation, recognized tenure, credential recognition, language and information access, and bargaining power may influence wage outcomes.

Accordingly, this study asks: Through what institutional mechanisms might Indonesian migrant women encounter wage disadvantage relative to Japanese women in Japan's manufacturing sector? It employs qualitative explanatory document analysis to examine official wage statistics and relevant scholarship published during or addressing evidence from 2016–2023. Kaldor's (1955) theory of distribution is used cautiously as a

broader perspective on how institutions influence the allocation of economic value. Because it was developed as a macroeconomic theory of distribution, it is supplemented by human-capital theory, statistical-discrimination theory, and intersectionality. This combination allows the study to explain plausible institutional pathways while maintaining a clear distinction between mechanism-based interpretation and direct empirical measurement of a group-specific wage penalty.

B. Literature Review

The scholarship relevant to this study can be organized into four interconnected bodies: research on gendered wage formation in Japan, studies of migration regimes and labor-market segmentation, literature on skill recognition and unequal returns to human capital, and research on gender inequality in Indonesian employment. These bodies of literature provide different levels of evidence. Japan-specific wage studies establish the institutional context, migrant-employment studies identify possible mechanisms, and Indonesian research provides sending-country context. None, however, directly measures the wage position of Indonesian migrant women relative to comparable Japanese women in manufacturing.

Gendered Wage Formation in Japan

Japan's gender wage gap cannot be explained solely by individual differences in education or experience. Research has consistently connected the gap to employment form, establishment characteristics, occupational allocation, tenure, and access to internal career tracks. Hara (2018) demonstrates that gender wage inequality operates both within and between establishments. Women may therefore experience disadvantage because they are concentrated in lower-paying firms or employment categories and because they receive different returns within the same organizational setting.

The distinction between regular and nonregular employment is particularly relevant. Regular employment is more commonly associated with long-term attachment, internal training, seniority increments, bonuses, and promotion, whereas nonregular employment generally offers flatter wage profiles and more limited career progression. Because women are disproportionately represented in nonregular employment, employment form becomes an institutional channel through which gender inequality is reproduced.

Changes in wage-setting practices do not necessarily eliminate this inequality. Chiang and Ohtake (2014) find that the introduction of performance-based pay does not automatically close Japan's gender wage gap. Performance systems may reduce formal reliance on seniority, but managerial discretion remains important in determining assignments, evaluations, and promotion. Greaney and Tanaka (2021) similarly show that establishment characteristics, including foreign ownership and exporting activity, are associated with gender wage outcomes. These findings indicate that wage formation depends not only on worker characteristics but also on the organizational environments in which those characteristics are evaluated.

Research at the intersection of gender and immigrant status adds another dimension. Nagayoshi (2024), using the 2020 Basic Survey on Wage Structure, demonstrates that the relationship between gender and immigrant status varies by visa category. This finding challenges the treatment of foreign workers as a homogeneous group. It also suggests that residence status may interact with gender in structuring occupational access and wage returns. However, the available categories do not isolate Indonesian women working in manufacturing. The study therefore provides direct evidence of intersectional wage differentiation in Japan but not a nationality- and sector-specific estimate for the population examined here.

Migration Regimes and Labor-Market Segmentation

Japan's migrant-employment system is organized through differentiated residence categories that determine eligibility for particular occupations and employment arrangements. The Technical Intern Training Program, the Specified Skilled Worker Program, and pathways for professional or highly skilled workers are governed by different rules regarding occupation, duration, employer relations, and mobility (OECD, 2024b; Wakisaka & Cardwell, 2021). These categories are not interchangeable, and findings about one pathway cannot automatically be generalized to another.

Research on the Technical Intern Training Program identifies several mechanisms relevant to labor-market segmentation. Onuki (2025) argues that the involvement of intermediaries in sending and receiving countries can exacerbate unequal employer-worker power relations and contribute to precarious employment. The study directly concerns Japan's technical intern system but does not isolate Indonesian women or the manufacturing sector.

Siu and Koo (2022) examine Vietnamese and Chinese technical interns and find that migration experiences and skill-transfer outcomes vary according to the institutional arrangements of the sending country and the design of the training program. Their study demonstrates that participation in the same Japanese program does not necessarily produce uniform outcomes across national groups. It therefore cautions against transferring findings about Vietnamese or Chinese trainees directly to Indonesian workers.

Migration infrastructures may also shape workers' practical ability to enter, remain in, or leave particular employment arrangements. Sigona et al. (2021) examine how infrastructures of entry, settlement, and exit influence precarious and irregular migrants in Japan and the United Kingdom. Because their participants included irregular and precarious migrants, the findings cannot be generalized to all documented workers. The study nevertheless explains how legal status and migration infrastructure can affect access to employment, housing, remedies, and bargaining resources.

Industrial demand creates another layer of segmentation. Mazumi (2021) shows that seafood-processing industries outside Japan's major cities have developed substantial dependence on migrant labor. Although limited to seafood processing, Mazumi's findings demonstrate how industrial dependence on migrant labor can develop through geographically concentrated, comparatively low-wage employment that supports uninterrupted production. Liu-Farrer et al. (2023) similarly argue that migration policy

alone cannot resolve labor and skill shortages unless employment and training practices also change.

These studies suggest that labor shortages do not automatically improve migrant workers' bargaining positions. Employer demand can expand migrant recruitment while residence rules, occupational boundaries, and organizational practices continue to restrict mobility and career accumulation. This literature therefore supports analysis of migration status as an institutional mechanism, although it does not establish a wage penalty for Indonesian migrant women.

Human Capital, Skill Recognition, and Unequal Returns

Human-capital theory explains wage differences through education, training, experience, and other productivity-related characteristics (Becker, 1985). This perspective remains important because workers do not necessarily enter a labor market with equivalent education, occupational experience, language proficiency, or firm-specific knowledge. However, human-capital theory is insufficient when the same qualification receives different recognition depending on where it was acquired or who possesses it.

Comparative migration research distinguishes between possession of human capital and the institutional returns it generates. Reitz (2007) demonstrates that immigrants in Canada may experience difficulty converting foreign education and experience into equivalent employment outcomes. Laible and Brenzel (2022) similarly examine the relationship between noncognitive skills and the migrant wage gap among men in Germany. These studies do not provide evidence about Japan or Indonesian women, but they establish that observed skills and qualifications do not necessarily receive equivalent labor-market returns across migrant and nonmigrant groups.

Research in Japan also questions the assumption that skills can be assessed independently of institutional context. Lan (2022) describes migrant care work as governed by contested skill regimes in which states and employers influence which competencies are recognized and how those competencies affect mobility. Because the study concerns care work in Taiwan and Japan, its findings cannot be applied directly to manufacturing. Its conceptual contribution lies in explaining how work requiring experience and responsibility may remain institutionally classified as low-skilled.

Siu and Koo (2022) further demonstrate that the acquisition and transfer of skills under temporary labor migration depend on program design. The OTIT (2024) follow-up survey offers a partly contrasting perspective: 92.1% of surveyed former technical interns who had returned to their countries of origin reported that the knowledge acquired during training was useful after their return. The respondents included former trainees from Indonesia, Vietnam, China, the Philippines, and Thailand. The survey does not, however, show whether perceived usefulness produced higher wages, occupational promotion, or formal recognition of qualifications. The evidence therefore supports skill usefulness but cannot establish equivalent economic returns.

Statistical-discrimination theory provides a complementary explanation. Employers facing incomplete information may use group membership, nationality, language, or expected tenure as proxies for productivity and employment stability (Aigner

& Cain, 1977). Experimental research demonstrates that group-based evaluation can persist even when applicants have comparable observable qualifications (Bertrand & Mullainathan, 2004; Quillian et al., 2017). These studies concern hiring discrimination outside Japan and do not establish wage discrimination in Japanese manufacturing. Their relevance is theoretical: they demonstrate why possession of comparable characteristics does not guarantee equivalent evaluation.

Gender Inequality in the Indonesian Context

Research on Indonesia establishes that gender inequality is also present in the labor market from which Indonesian migrant women originate. Laili and Damayanti (2018) identify a gender wage gap in Indonesia's manufacturing sector and examine differences in worker characteristics and returns to those characteristics. Ekaningtyas (2020) similarly discusses gender-based wage competition and discrimination in Indonesian manufacturing. These studies show that gendered occupational and wage structures may precede migration.

Nurhakim et al. (2023) examine wage discrimination against working women through the perspective of gendered workplace relations. Their analysis draws attention to organizational norms and evaluations that may normalize unequal treatment. However, these studies concern employment within Indonesia. They cannot demonstrate that Indonesian women experience the same conditions after migrating to Japan.

The Indonesian literature is therefore relevant as sending-country context rather than direct evidence of receiving-country outcomes. Migration may interact with preexisting differences in occupational experience, certification, family responsibility, and access to information, but the available literature does not establish how these factors affect individual wage outcomes in Japan. Direct evidence from Indonesian migrant women and comparable Japanese workers remains necessary.

Integrated Analytical Framework and Research Gap

No single theory adequately explains the possible wage position of Indonesian migrant women. Human-capital theory identifies education, skill, and experience as potential wage determinants, but it does not fully explain how qualifications become recognized. Statistical-discrimination theory addresses group-based evaluation but cannot independently explain residence regulations or employment segmentation. Intersectionality explains why gender, migrant status, nationality, and employment form should not be treated as separate or merely additive categories (Crenshaw, 1989).

Kaldor's (1955) theory contributes a broader distributional perspective by directing attention to the institutional allocation of economic returns. Its original focus is macroeconomic distribution rather than individual wage discrimination. It cannot identify discriminatory intent or estimate the wage penalty experienced by a particular worker. In this article, the Kaldorian perspective is therefore used as a secondary heuristic to examine how institutional arrangements distribute access to wage progression, training, promotion, and bargaining power.

Empirical proof of a wage gap would require a different research design. Worker- and establishment-level microdata would be needed to compare equivalent workers and separate differences in observed characteristics from differences in the returns to those characteristics. Oaxaca–Blinder decomposition is one method commonly used for this purpose (Blinder, 1973; Oaxaca, 1973). The present document analysis does not perform such an estimation.

The literature reveals a specific analytical gap. Studies have separately examined gender wage inequality in Japan, migration and residence programs, skill recognition, migrant precarity, and gender inequality in Indonesian manufacturing. Limited research has integrated these bodies of evidence to identify the institutional mechanisms potentially affecting Indonesian migrant women in Japan’s manufacturing sector while explicitly distinguishing direct evidence from contextual and comparative evidence.

The analytical framework developed here therefore combines five mechanisms: migration-status and occupational segmentation; constrained accumulation of recognized tenure and career rewards; unequal conversion of human capital into recognized value; information and bargaining asymmetries in wage-setting processes; and the intersection of gender, migrant status, and national origin. These mechanisms guide the document selection, coding, and interpretation described in the following Methods section. They are treated as explanatory propositions to be assessed against the documentary corpus rather than as predetermined facts about Indonesian migrant women.

C. Methods

This study employed qualitative explanatory document analysis to identify institutional mechanisms that may shape the wage position of Indonesian migrant women in Japan’s manufacturing sector. The design was appropriate because the available materials do not permit a matched statistical comparison between Indonesian migrant women and Japanese women. Accordingly, the study did not estimate a nationality-specific wage penalty, determine discriminatory intent, or calculate the proportion of a wage difference attributable to discrimination. It instead examined how migration status, employment arrangements, recognized tenure, skill valuation, and bargaining conditions may produce unequal access to wage progression.

The unit of analysis was the institutional mechanism described across the documentary corpus rather than an individual worker or a directly observed wage differential. The principal empirical period was 2016–2023, corresponding to the period defined in the original research. Earlier publications were retained when they provided foundational theories or established methods of wage analysis. Publications issued after 2023 were included only when they analyzed data from the study period, reported the 2023 official wage statistics, or clarified institutional arrangements operating during that period.

The final analytical corpus comprised the 30 sources listed in the References, consisting of 25 scholarly articles and five institutional publications. Documents were selected purposively and iteratively. The study was therefore designed as a focused explanatory review rather than a systematic review claiming exhaustive database coverage. Eligible sources had to address at least one of the following subjects: Japan’s

wage structure; gender inequality in the Japanese labor market; migrant employment or residence pathways; the Technical Intern Training Program or Specified Skilled Worker Program; skill and qualification recognition; seniority, nonregular employment, or internal labor markets; gender inequality in Indonesian manufacturing; or the consequences and governance of temporary migrant employment.

Priority was given to peer-reviewed research and official publications from the Ministry of Health, Labour and Welfare (MHLW), the OECD, the International Labour Organization (ILO), and the Organization for Technical Intern Training (OTIT). The ILO publication was used only for international statistical and definitional context and not as evidence of a Japan-specific wage mechanism (ILO, 2021). Sources were excluded when they had no identifiable author or responsible institution, duplicated another publication, or could not be connected to the research question. Because database-specific search logs and exhaustive screening records were not part of the original study, no PRISMA-style coverage claim is made.

The sources were classified into four evidentiary categories. The first category contained official Japanese wage statistics that established descriptive benchmarks. The second contained Japan-specific studies of gender, migrant employment, residence pathways, or industrial labor arrangements. The third consisted of adjacent studies involving different migrant nationalities, sectors, or residence categories in Japan. The fourth contained comparative and theoretical studies from other national contexts. Evidence in the third and fourth categories was used to identify possible mechanisms but not to establish conditions experienced specifically by Indonesian women in Japanese manufacturing. For example, research on Vietnamese and Chinese technical interns was treated as evidence concerning program design rather than evidence about Indonesian workers (Siu & Koo, 2022). Research on migrant care work and highly skilled migration was similarly classified as adjacent evidence because its occupational or legal context differs from the population examined here (Lan, 2022; Wakisaka & Cardwell, 2021).

A structured matrix was used to extract the population, country, industry, observation period, wage concept, employment status, residence status, institutional mechanism, principal finding, and methodological limitation of each source. Official statistics were recorded as descriptive benchmarks. Figures referring to women in manufacturing, foreign workers, technical interns, specified skilled workers, and regular or nonregular employees were not subtracted from one another because these categories represent overlapping but non-equivalent populations.

The analysis proceeded in two coding cycles. The first cycle identified descriptive categories, including residence status, occupational placement, contract type, tenure, education, certification, language, training, job mobility, promotion, wage classification, performance evaluation, access to information, and worker representation. The second cycle organized these categories into five analytical mechanisms: migration-status and occupational segmentation; constrained accumulation of recognized tenure and career rewards; unequal conversion of human capital into institutionally recognized value; information and bargaining asymmetries in wage-setting processes; and the intersection of gender, migrant status, and national origin.

Potentially rival explanations were retained throughout the analysis. Differences in aggregate wage figures may reflect age, working hours, occupation, education, establishment size, tenure, employment form, or residence category rather than discriminatory treatment alone. At the same time, some of these characteristics—particularly tenure, occupation, and employment status—may themselves be influenced by migration rules and organizational practices. The analysis therefore distinguished compositional differences from institutional mechanisms without assuming that the two are independent.

Kaldor's (1955) theory was used as a secondary distributional perspective rather than as a micro-level theory of wage discrimination. Human-capital theory, statistical-discrimination theory, and intersectionality provided more direct explanations of skill valuation and group differentiation (Aigner & Cain, 1977; Becker, 1985; Crenshaw, 1989). Kaldor's framework was employed only to consider how institutional arrangements may influence the distribution of economic returns within a production system.

The study used publicly available secondary materials and did not involve interviews, identifiable personal information, clinical intervention, or direct human participation. Institutional ethical approval and informed consent were therefore not applicable. Research integrity was maintained through accurate attribution, explicit differentiation of evidence types, avoidance of unmatched statistical comparisons, and disclosure of the limits of the documentary corpus.

D. Results and Discussion

1. Results

Wage Benchmarks and the Limits of Direct Comparison

Official wage statistics provide a distributional context but do not supply a matched comparison between Indonesian migrant women and Japanese women in manufacturing. The 2023 Basic Survey on Wage Structure reported average scheduled monthly earnings of JPY 228,400 for female general workers in manufacturing. Across all industries, foreign general workers received an average of JPY 232,600. The corresponding averages were JPY 198,000 for specified skilled workers and JPY 181,700 for technical interns. Across all industries, female regular employees averaged JPY 281,800, compared with JPY 203,500 among female nonregular employees (MHLW, 2024).

These figures describe different statistical populations. The foreign-worker categories include different sexes, nationalities, industries, occupations, ages, and residence statuses, whereas the manufacturing figure includes women of all nationalities. The regular and nonregular employment figures cover all industries. None isolates Indonesian migrant women. The figures therefore demonstrate variation across residence and employment categories but do not measure a discriminatory wage differential between Indonesian and Japanese women.

Table 1. Selected 2023 Scheduled Monthly Wage Benchmarks in Japan

Population benchmark	Monthly earnings	Evidentiary boundary
Female general workers in manufacturing	JPY 228,400	All nationalities; not limited to Indonesian or Japanese workers
Foreign general workers	JPY 232,600	All industries, sexes, nationalities, and residence categories
Specified skilled workers	JPY 198,000	All industries, sexes, and nationalities
Technical interns	JPY 181,700	All industries, sexes, and nationalities
Female regular employees	JPY 281,800	All industries and nationalities
Female nonregular employees	JPY 203,500	All industries and nationalities

Source: Ministry of Health, Labour and Welfare. (2024). *2023 Basic Survey on Wage Structure: Summary of results*.

The figures in Table 1 are therefore used as benchmarks rather than counterfactual comparisons. A valid estimate of an Indonesian-specific wage penalty would require data that simultaneously identify sex, nationality, detailed industry, occupation, residence status, employment form, hours, education, tenure, and establishment characteristics.

Migration-Status Segmentation and Recognized Tenure

Japan-specific sources identify residence and employment pathways as an important form of labor-market segmentation. The Technical Intern Training Program and the Specified Skilled Worker Program channel workers into designated occupations and connect residence eligibility closely to employment. The extent of mobility differs across programs, but temporary and employer-dependent arrangements can limit workers' ability to change positions, accumulate firm-recognized tenure, or enter internal career tracks (OECD, 2024b; Onuki, 2025).

Onuki (2025) directly examines unequal capital-labor relations under the Technical Intern Training Program and the role of intermediaries in producing precarious employment. Drawing on evidence from Vietnamese and Chinese technical interns, Siu and Koo (2022) demonstrate that skill acquisition and transfer depend on the institutional arrangements of both sending and receiving countries. Neither study isolates Indonesian women, but both provide evidence that program design can influence mobility, skill utilization, and bargaining relationships.

The official wage survey reinforces the relevance of tenure while also showing why direct comparison is inappropriate. Technical interns had average tenure of 1.7 years, compared with 3.2 years among foreign workers as a whole (MHLW, 2024). These differences do not prove discriminatory treatment. They indicate that the categories occupy different positions in employment-duration structures. In a labor market where wages and promotion are associated with accumulated tenure, restricted or short-term employment pathways may limit access to wage progression.

Industrial location may intensify this mechanism in particular subsectors. Mazumi (2021) shows that Japanese seafood-processing industries outside large metropolitan areas have developed substantial dependence on migrant labor. The study does not represent all manufacturing industries, but it demonstrates that industrial dependence on migrants can develop alongside the recruitment of workers into comparatively low-wage and geographically concentrated positions. Liu-Farrer et al. (2023) likewise argue that immigration policy alone cannot resolve labor shortages without corresponding changes in employment and training practices.

The evidence consequently supports a bounded proposition: migration and employment pathways can structure access to tenure, mobility, and career accumulation. It does not establish the magnitude of this mechanism for Indonesian women or prove that every migrant worker experiences the same restrictions.

Skill Recognition and the Conversion of Human Capital

The corpus distinguishes the possession of human capital from its institutional recognition. Education, technical experience, certification, and language proficiency may support migration and employment, but their wage value depends on whether employers recognize them in job grading, task allocation, training, and promotion.

Evidence from other receiving countries shows that migrants may receive lower occupational or wage returns from foreign credentials and previous experience (Laible & Brenzel, 2022; Reitz, 2007). Because these studies concern male migrants in Germany and immigrants in Canada, respectively, they cannot establish the treatment of Indonesian women in Japan. They provide comparative support for a conceptual distinction between having a qualification and receiving an equivalent labor-market return from that qualification.

Japan-focused studies offer more relevant, although still population-limited, evidence. Siu and Koo (2022) find that international skill transfer under the Technical Intern Training Program varies with labor-export governance and program arrangements. Lan's (2022) analysis of migrant care work demonstrates that institutional definitions of skill can influence worker mobility and recognition. Although Lan's analysis concerns care workers rather than manufacturing employees, it clarifies how institutional arrangements shape the recognition and mobility value of migrant skills.

The OTIT follow-up survey provides evidence that complicates an exclusively negative interpretation. Among surveyed former technical interns who had returned to their countries of origin, 92.1% reported that what they had learned during training was useful after returning home (OTIT, 2024). The survey included respondents from Indonesia, Vietnam, China, the Philippines, and Thailand. However, it did not isolate Indonesian women in manufacturing or establish whether the reported usefulness produced higher wages, occupational advancement, or equivalent recognition of qualifications. The evidence supports perceived usefulness but not a general claim of post-return wage progression.

Language may also influence access to instructions, assessment, and organizational information. The present corpus, however, does not provide evidence specific to Indonesian women that shows the size of a language-related wage penalty.

Language is therefore treated as a potential pathway affecting skill recognition and access to information, not as an independently demonstrated cause of lower wages in the target population.

Wage-Setting Institutions and Unequal Returns

Studies of Japan's labor market show that wages are shaped by employment status, tenure, establishment characteristics, and managerial evaluation. Hara (2018) demonstrates that Japan's gender wage gap involves both within- and between-establishment components. Chiang and Ohtake (2014) find that performance-based pay does not automatically eliminate gender wage inequality, whereas Greaney and Tanaka (2021) show that foreign ownership and establishment-level characteristics affect gender wage outcomes. These studies concern gender inequality in Japan but do not isolate migrant women.

Nagayoshi (2024) provides the most directly relevant evidence concerning the intersection of gender and immigrant status. Using the 2020 Basic Survey on Wage Structure, the study examines how immigrant status intersects with gender in Japan's wage structure and demonstrates the importance of visa category. Nevertheless, its categories do not provide a separate estimate for Indonesian women in manufacturing. The study supports attention to intersecting legal and gender positions, not a nationality-specific wage estimate.

Human-capital differences and discriminatory valuation remain empirically distinct explanations. Human-capital theory predicts that education, experience, training, and productivity-related characteristics influence wages (Becker, 1985). Statistical-discrimination theory explains how employers may rely on group-level expectations when individual assessment is costly (Aigner & Cain, 1977). Evidence from hiring experiments demonstrates that group-based evaluation can persist despite formal equality rules (Bertrand & Mullainathan, 2004; Quillian et al., 2017). These experiments do not concern wages in Japanese manufacturing and are therefore used as general evidence of group-based evaluation rather than direct evidence about the article's target population.

The document corpus also identifies employer dependence and precarious legal status as possible constraints on workers' bargaining capacity. Onuki (2025) provides direct evidence of unequal employer–trainee power relations under the Technical Intern Training Program. Sigona et al. (2021) examine precarious and irregular migration pathways in Japan and the United Kingdom. Because their study includes irregular and precarious migrants, its conclusions cannot be generalized to all documented Indonesian manufacturing workers. It nevertheless shows how legal and migration infrastructures may shape practical access to labor rights.

Evidence concerning opaque wage components, Indonesian-language complaint channels, union access, deductions, and individual promotion decisions remains insufficient in the current corpus. These issues are therefore identified as priorities for future research rather than empirical findings concerning Indonesian migrant women.

Intersectional Position and the Limits of Case-Specific Evidence

The intersectional framework suggests that gender, nationality, residence status, and employment form may operate jointly rather than independently (Crenshaw, 1989). Indonesian studies provide evidence that gender wage inequality and occupational segregation are already present in the country's manufacturing sector (Ekaningtyas, 2020; Laili & Damayanti, 2018). Nurhakim et al. (2023) also discuss gendered discrimination within Indonesian workplaces. These studies concern employment in Indonesia and cannot demonstrate what happens after migration to Japan. Their relevance is limited to the sending-country context from which some workers depart.

Evidence concerning psychological and social consequences also requires caution. Uezato et al. (2024) examine associations between the work environment and psychological distress among Vietnamese workers in Japan. Their findings establish the relevance of investigating working conditions and psychological well-being among migrant workers but do not provide evidence of mental-health outcomes among Indonesian workers. Further population-specific research is therefore required.

The corpus does not provide sufficient evidence to determine whether Indonesian migrant women generally experience strained family relations, social isolation, particular remittance pressures, or reluctance to seek assistance. The available documents support only a more limited conclusion: Indonesian migrant women may occupy an intersectional institutional position, but the consequences of that position require direct empirical investigation.

2. Discussion**A Proposed Cumulative Institutional Mechanism**

The documentary synthesis suggests a cumulative mechanism through which wage disadvantage may develop. Residence and employment categories may first channel workers into particular occupations, firms, and contract arrangements. These arrangements may then limit mobility and recognized tenure. Limited tenure and mobility may restrict access to training, seniority increments, higher job grades, and promotion. Unequal recognition of prior qualifications may further constrain movement to more highly valued work. Employer dependence and limited access to understandable information may then reduce workers' capacity to contest classification and remuneration decisions.

This sequence is an analytical synthesis rather than a measured causal chain. The study has not demonstrated that every stage occurs among Indonesian migrant women or estimated the contribution of each mechanism to their wages. Its contribution lies in identifying testable institutional pathways and showing how those pathways connect literatures that are usually examined separately.

The distinction between compositional and institutional explanations is central. Aggregate wage differences may result from age, occupation, working hours, education, tenure, establishment size, residence status, and employment form. It would therefore be incorrect to label any difference between two aggregate means as direct discrimination. However, occupation, tenure, residence status, and employment form are not necessarily

neutral characteristics. They may themselves reflect migration rules, employer selection, and restricted access to internal labor markets.

A future wage-decomposition study could estimate how much of an observed gap is associated with differences in measured characteristics and how much reflects different returns to those characteristics (Blinder, 1973; Oaxaca, 1973). The present analysis cannot perform that decomposition. It instead explains why variables commonly treated as statistical controls may also be institutional outcomes.

Human Capital, Group-Based Evaluation, and Unequal Returns

The synthesis supports neither a purely human-capital explanation nor an unqualified discrimination explanation. Education, language, experience, and training may influence productivity and employability. The relevant question is whether comparable characteristics receive comparable recognition and returns across employment and residence categories.

Comparative evidence shows that foreign education and experience may not receive equivalent labor-market returns (Laible & Brenzel, 2022; Reitz, 2007). Studies of statistical discrimination explain how employers may use nationality, language, expected tenure, or legal category as proxies when evaluating workers (Aigner & Cain, 1977). The present corpus cannot determine whether such judgments occur in the target workplaces or whether they reflect prejudice, uncertainty, productivity considerations, or organizational routines.

The Indonesian evidence adds context rather than direct confirmation. Gendered wage valuation in Indonesian manufacturing may shape workers' pre-migration labor-market positions (Ekaningtyas, 2020; Laili & Damayanti, 2018). Japan's migration and employment institutions may add another layer of differentiation, but the relationship between the two settings must be tested through direct worker- and establishment-level evidence.

Seniority, Performance Evaluation, and Career Access

Japan's seniority and performance-based wage practices offer two different but potentially intersecting pathways. Seniority-oriented arrangements reward continuous attachment to the firm. Workers in temporary or status-bound employment may have less opportunity to accumulate the tenure associated with wage progression. Performance-oriented arrangements may reduce formal reliance on tenure, but managerial discretion remains relevant to task allocation, evaluation, training, and promotion (Chiang & Ohtake, 2014).

Hara (2018) and Greaney and Tanaka (2021) demonstrate that establishment-level processes are important to gender wage inequality in Japan. For migrant workers, employment and residence pathways may influence the establishments and career tracks they can enter before an individual wage is determined. The synthesis therefore directs attention to both between-segment sorting and within-establishment evaluation. It does not establish which mechanism is more important for Indonesian migrant women.

The analysis therefore maintains distinctions among migration categories. Research on highly skilled migration demonstrates that legal pathways can produce different employment trajectories, but these findings cannot be transferred directly to

technical interns or specified skilled workers (Wakisaka & Cardwell, 2021). Treating all foreign workers as a single category would obscure rather than explain wage differentiation.

Contribution and Limits of the Kaldorian Perspective

Kaldor's (1955) theory contributes a general distributional proposition: economic returns cannot always be inferred directly from individual marginal productivity because institutional arrangements influence how production gains are distributed. Applied cautiously, this perspective draws attention to the allocation of wage progression, training, mobility, and career rewards within a production system.

The application remains heuristic. Kaldor's framework was developed to explain macroeconomic distribution and cannot identify discriminatory intent, estimate an individual wage penalty, or determine whether particular workers have equivalent productivity. It is therefore insufficient as the principal micro-level explanation of wage inequality.

The article's theoretical contribution lies in combining this distributional perspective with human-capital theory, statistical discrimination, and intersectionality. Human-capital theory explains the potential wage relevance of education and experience; statistical-discrimination theory addresses group-based valuation; intersectionality explains why gender, nationality, and residence status cannot be analyzed as isolated characteristics; and the Kaldorian perspective situates these processes within the institutional distribution of economic rewards. The value of the framework is integrative rather than predictive.

Governance and Policy Implications

Because the study does not estimate a causal wage gap, the following policy implications are framed as risk-oriented governance priorities rather than remedies for a measured discriminatory effect.

First, public wage statistics should permit simultaneous disaggregation by sex, nationality, detailed industry, occupation, residence status, employment form, working hours, age, education, tenure, and establishment size. Existing statistics are valuable but cannot determine the wage position of Indonesian migrant women relative to comparable Japanese women.

Second, migrant-employment governance should reduce unnecessary dependence on a single employer and provide practical access to job mobility within the applicable residence framework. OECD (2024b) and Onuki (2025) show why program design and employer-centered migration arrangements matter for labor-market incorporation and bargaining relationships.

Third, skill recognition should be portable across employers and between Indonesia and Japan. Pre-departure qualifications and competencies acquired in Japan should be documented in forms that allow employers and workers to identify their occupational relevance. OTIT's (2024) finding that many former trainees considered their acquired knowledge useful is encouraging, but further evidence is needed to determine whether this perceived usefulness translates into higher occupational status or wages.

Fourth, wage governance should emphasize transparent job classification, understandable wage statements, traceable deductions, and accessible complaint procedures. The effectiveness of these measures remains an empirical question and cannot be assumed in advance. They would, however, improve the information available to determine whether workers performing comparable work receive comparable remuneration and career opportunities.

Limitations and Future Research

This study has four principal limitations. First, it relies on secondary documents and cannot capture workers' accounts of recruitment, task allocation, deductions, evaluation, promotion, or wage negotiation. Second, the official statistics do not isolate Indonesian migrant women in manufacturing and cannot be used as a matched counterfactual against Japanese women. Third, several relevant studies concern other nationalities, occupations, migration categories, or countries. Their findings identify possible mechanisms but do not establish case-specific effects. Fourth, purposive document selection may overrepresent technical interns, documented problems, and highly visible migration arrangements while underrepresenting Indonesian migrants in stable or higher-skilled employment.

Future quantitative research should use worker- and establishment-level microdata to estimate hourly wage differences after accounting for occupation, working hours, age, education, tenure, establishment size, employment form, and residence status. Oaxaca–Blinder or unconditional-quantile decomposition could then distinguish measured compositional differences from differences in returns.

Qualitative research should examine how job grades, wage components, training access, and promotion decisions are made through interviews with Indonesian migrant women, Japanese women in comparable jobs, employers, supervisors, unions, sending organizations, and labor regulators. Longitudinal research could further examine whether changes in employer, residence status, credential recognition, or return migration alter workers' wage trajectories. Future research may also examine psychological well-being among Indonesian workers, given that existing findings concerning Vietnamese workers cannot establish equivalent experiences across migrant nationalities (Uezato et al., 2024).

E. Conclusion

This study identifies a plausible set of institutional mechanisms through which Indonesian migrant women may encounter wage disadvantage in Japan's manufacturing sector. These mechanisms include placement within residence- and employment-based labor segments, limited accumulation of recognized tenure, uneven recognition of education and skills, restricted access to career progression, and information or bargaining asymmetries within wage-setting processes.

The evidence does not establish the size of a wage gap between Indonesian migrant women and comparable Japanese women. The official wage figures refer to different populations and cannot be treated as a matched comparison. The study also cannot determine whether an observed difference would result from productivity-related

characteristics, employment composition, institutional segmentation, discriminatory evaluation, or an interaction among these factors.

The documentary evidence is strongest in demonstrating that residence status, employment form, tenure, and establishment-level arrangements shape labor-market opportunities in Japan. Evidence concerning Indonesian women specifically is more limited and is derived from the intersection of Japan-focused migration research, Japanese gender-wage studies, and research on gender inequality in Indonesian manufacturing. The resulting explanation is therefore mechanism-based rather than a direct measurement of nationality-specific discrimination.

Kaldor's distributional perspective is useful only when treated as a secondary heuristic and combined with human-capital theory, statistical discrimination, and intersectionality. This integrated framework explains why worker characteristics and productivity cannot be separated entirely from the institutions that determine how qualifications, tenure, mobility, and occupational status are valued.

The governance priorities arising from the analysis include more disaggregated wage statistics, portable recognition of qualifications, practical mobility across eligible employers, transparent wage and job classifications, understandable employment information, and accessible complaint procedures. These measures respond to identifiable institutional risks, but their effects should be tested through direct empirical research.

Future studies should use matched worker- and establishment-level data to estimate wage differences and should collect qualitative evidence from Indonesian migrant women and Japanese women performing comparable work. Until such evidence becomes available, the relationship between these institutional mechanisms and wage outcomes remains plausible rather than conclusive evidence of wage discrimination.

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