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Effects of Internal Migrants' Social Networks on Job Access and Initial Earnings in East Ungaran District

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Abstract

Internal migration contributes to regional labor-market development, although migrants differ in their access to employment opportunities and initial earnings. This study examines the effects of social networks on job access and initial earnings among internal migrants in East Ungaran District, Semarang Regency, and investigates the mediating role of job access. A quantitative explanatory design supported by qualitative interviews was employed. Data were collected through questionnaires administered to 66 internal migrants selected using purposive sampling supported by a snowball approach. Additional interviews involved four migrants and two institutional representatives. Data were analyzed using descriptive statistics, simple and multiple linear regression, and the Sobel mediation test. The findings indicate that 84.85% of respondents had pre-existing destination connections. Social networks were positively associated with job access ($\beta = 0.493$; $p < 0.001$; $R^2 = 0.244$), while job access was positively associated with initial earnings ($\beta = 0.548$; $p < 0.001$; $R^2 = 0.300$). The combined model explained 48.7% of earnings variation. The Sobel test confirmed significant partial statistical mediation ($z = 2.455$; $p = 0.014$). These findings establish job access as an intermediate mechanism linking interpersonal resources and initial earnings, supporting more accessible recruitment information and inclusive regional employment planning.

Keywords: *Employment Access, Initial Earnings, Internal Migration, Mediation, Social Networks.*

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INTRODUCTION

Internal migration constitutes a significant component of labor-market adjustment, particularly in regions where industrial expansion and service-sector development generate employment opportunities that attract workers from surrounding areas. The socioeconomic consequences of migration extend beyond geographical mobility because migrants must navigate unfamiliar recruitment systems, establish relationships with potential employers, and secure adequate earnings during their initial participation in destination labor markets. Evidence from Indonesia indicates that migration networks influence mobility decisions, suggesting that interpersonal relationships constitute an important resource in shaping access to opportunities beyond migrants' places of origin (Novriawati & Nasrudin, 2023). The labor-market relevance of these relationships becomes particularly pronounced when information about vacancies, recruitment requirements, and employment opportunities is unevenly distributed among prospective workers. Research examining job-search behavior demonstrates that interpersonal connections can influence how individuals search for employment, indicating that employment acquisition involves social interaction rather than exclusively individual decision-making (Caria et al., 2023). Social networks may consequently function as informal mechanisms connecting labor supply with employment opportunities, although the benefits obtained through these mechanisms can differ according to the structure and accessibility of interpersonal relationships. East Ungaran District, Semarang Regency, provides a relevant setting for investigating these processes because its industrial, trade, and service activities attract internal migrants seeking employment and improved economic conditions. The concentration of employment opportunities in such an area raises questions about whether migrants possessing established social connections experience advantages in accessing their first jobs and obtaining initial earnings compared with migrants whose relationships at the destination are more limited. Understanding these relationships is particularly relevant to urban and regional development because the economic opportunities associated with regional growth cannot be evaluated solely through employment

availability without considering the mechanisms through which incoming workers gain access to those opportunities.

Contemporary scholarship increasingly conceptualizes migrant social networks as multidimensional resources whose economic consequences depend on their composition, functional characteristics, and relationship with labor-market institutions. Research on migrant workers' interpersonal connections has extended beyond individual relationships to examine network structures and collective behavioral processes, indicating that social connections operate through broader patterns of interaction rather than isolated exchanges between individuals (Cai, 2024). Studies of migrant employment integration similarly suggest that the economic usefulness of social capital cannot be inferred merely from the existence of interpersonal relationships, since the characteristics and resources embedded within networks influence their potential contribution to labor-market participation. Rüdel and Steinmann (2024) emphasize the relevance of educational resources within social connections to immigrants' labor-market integration, directing attention toward differences in the quality and potential usefulness of network contacts. This interpretation complements evidence from migrant job-search experiences in Australia, where social capital and interpersonal relationships are examined as resources involved in navigating employment opportunities and institutional environments (Olliff & Baak, 2022). Another strand of research identifies labor-market intermediaries as relevant actors in connecting migrant workers with employers, particularly within transnational production systems characterized by specialized recruitment arrangements (Chen & Schiller, 2025). These perspectives indicate that migrant employment outcomes emerge from interactions among personal relationships, information channels, and institutional recruitment mechanisms. The existing literature therefore provides a basis for distinguishing social-network resources from the actual accessibility of employment opportunities, while recognizing that the economic value of interpersonal relationships may depend on whether information and referrals can be translated into successful labor-market entry.

Despite these developments, the relationship between migrant social networks and employment outcomes remains insufficiently integrated across the interconnected dimensions of network resources, job access, and initial earnings. Research examining rural–urban migrants in China explicitly connects the size of individual social networks with wages, demonstrating the relevance of network characteristics to the analysis of labor-market remuneration (Yang et al., 2023). Related scholarship investigates how job referrals originating from different social connections relate to initial wages, identifying the characteristics of employment-related relationships as an important consideration in understanding remuneration at labor-market entry (Zhu, 2024). These contributions advance knowledge of the association between interpersonal networks and earnings but do not, by themselves, establish how job access mediates the relationship between network resources and initial remuneration among internal migrants in Indonesian district-level labor markets. A conceptual distinction is necessary because obtaining information about employment, gaining access to a job, and receiving earnings from that employment represent related but analytically different processes. The first concerns the circulation of information and social resources, the second concerns the accessibility of employment opportunities, and the third concerns the economic returns associated with the employment obtained. Existing studies also differ substantially in geographical coverage, migrant populations, and institutional settings, making the transferability of their findings to industrializing districts in Indonesia an empirical question rather than an established conclusion. The research gap consequently lies in the limited evidence from the reviewed literature regarding the mediating function of job access in the relationship between social networks and initial earnings among internal migrants at the subregional level. Addressing this gap requires an analytical framework that examines the three variables simultaneously instead of treating social networks, employment acquisition, and earnings as separate outcomes.

The unresolved relationship between social networks, job access, and initial earnings has implications for both labor-market scholarship and the design of employment-related interventions. Studies assessing policies for refugee labor-market integration demonstrate that institutional arrangements and policy approaches are relevant to migrants' employment trajectories, although evidence obtained from refugee populations cannot be transferred directly to domestic labor mobility without accounting for differences in legal status, recruitment conditions, and labor-market characteristics (Foged et al., 2024). Research on highly skilled refugee integration likewise highlights

governance-related challenges involving multiple institutional actors, reinforcing the analytical importance of distinguishing individual resources from the organizational conditions governing employment access (van Riemsdijk, 2024). These contributions expose a broader issue in migration research: employment outcomes cannot be adequately explained by either interpersonal networks or institutional arrangements in isolation. In local labor markets where job information circulates through personal contacts, migrants possessing relatively few destination-based relationships may encounter information constraints even when employment opportunities exist. Such conditions could contribute to unequal access to recruitment channels, differences in the duration of job searches, and variation in the employment opportunities available to newcomers. The scientific consequence of leaving the identified gap unresolved is an incomplete explanation of how network-related advantages are translated into measurable economic outcomes during migrants' initial employment experiences. The practical consequence concerns the limited analytical basis for determining whether improved dissemination of vacancy information could complement existing informal networks and broaden access to opportunities. For East Ungaran District, investigating these mechanisms can provide evidence relevant to employment-information services, coordination between employers and local institutions, and regional planning strategies concerned with the socioeconomic integration of incoming workers.

The present study is positioned at the intersection of migration research, social-network analysis, labor-market access, and regional economic development, with its proposed novelty located in the integrated examination of relationships that have frequently been investigated through different analytical perspectives. Whereas research on Indonesian internal migration networks has primarily contributed to explaining migration-related decisions (Novriawati & Nasrudin, 2023), studies of collaborative job searching have examined the social organization of employment-seeking activities (Caria et al., 2023). Research concerning network resources, network size, and employment referrals has further expanded the analysis toward labor-market integration and wage outcomes, but these contributions employ different populations and analytical emphases (Rüdel & Steinmann, 2024; Yang et al., 2023; Zhu, 2024). The present investigation connects these perspectives through a mediation framework in which social networks constitute the explanatory variable, job access represents the mediating variable, and initial earnings constitute the economic outcome. The distinction between initial earnings and broader measures of wages is substantively relevant because remuneration from the first job after migration captures a specific stage of labor-market entry rather than cumulative earnings arising from subsequent employment experience. The geographical concentration on East Ungaran District also permits the analysis to address a local industrial labor market where access to opportunities may be shaped by existing relationships with friends, family members, and other social contacts. The study employs questionnaire data from 66 internal migrants, supplemented by interviews with migrants and relevant institutional representatives, to examine the proposed relationships through regression and mediation analysis. Its contribution is therefore not the introduction of social networks as a previously unrecognized determinant of labor-market outcomes, but the empirical examination of job access as a potential transmission mechanism between network resources and initial remuneration in a specific Indonesian internal-migration setting. This approach offers a more differentiated explanation of network-related economic advantages while retaining the distinction between statistical associations and causal relationships that cannot be established conclusively through an observational research design.

This study aims to examine the effects of social networks on job access and initial earnings among internal migrants residing and working in East Ungaran District, Semarang Regency, with particular attention to the mediating role of job access. Specifically, the research investigates whether stronger social networks are associated with greater accessibility of employment opportunities, whether improved job access is associated with higher earnings from migrants' first jobs after relocation, and whether job access statistically mediates the relationship between social networks and initial earnings. Social networks are operationalized through the availability and characteristics of interpersonal connections, including relationship closeness, communication frequency, and assistance received during employment searches, while job access is examined through access to vacancy information, support in obtaining employment, and the time required to secure the first job. The investigation applies quantitative explanatory analysis supported by qualitative interview evidence to evaluate these relationships and clarify the employment-search processes experienced by migrants. Its

theoretical contribution lies in integrating network-based explanations of labor-market participation with an explicit mediating mechanism linking interpersonal resources to economic outcomes at the beginning of destination employment. Its methodological contribution consists of examining direct and indirect statistical relationships within a common analytical framework while using qualitative evidence to contextualize the observed associations. Its practical contribution is to provide locally grounded evidence for understanding disparities in employment-information accessibility and informing more inclusive recruitment-information strategies involving local government, employers, and employment-related institutions. The study ultimately seeks to explain how social relationships are associated with migrants' initial labor-market integration and to strengthen the empirical basis for assessing the relationship between regional employment opportunities and the socioeconomic inclusion of internal migrant workers.

RESEARCH METHODS

This study employed a quantitative explanatory research design supported by qualitative interview data to examine the relationships among social networks, job access, and initial earnings among internal migrants in East Ungaran District, Semarang Regency, Indonesia. The quantitative component assessed the direct relationships between social networks and job access, between job access and initial earnings, and the mediating role of job access in the relationship between social networks and initial earnings. The study involved 66 internal migrants selected through purposive sampling, supported by a snowball approach to identify respondents meeting the research criteria. Eligible participants originated from outside East Ungaran District, resided and worked in the district at the time of data collection, had obtained their first employment after migration, and agreed to participate. Primary quantitative data were collected using questionnaires administered to the selected respondents. Supporting qualitative data were obtained through interviews with four internal migrants, one representative of the East Ungaran District government, and one representative of the Semarang Regency Manpower Office. Social networks were operationalized as the independent variable (X), measured through the number of interpersonal connections, their contribution to obtaining employment, relationship closeness, communication and interaction frequency, and the number of contacts providing employment assistance. Job access was specified as the mediating variable (Z), measured through the ease of obtaining employment information, the contribution of social networks to securing employment, and the time required to obtain the first job. Initial earnings constituted the dependent variable (Y), defined as the income received from the first employment obtained after migration to East Ungaran District. The individual migrant served as the unit of analysis, while interviews with institutional representatives provided contextual information concerning local employment opportunities and recruitment conditions.

Data analysis combined descriptive statistics, regression analysis, mediation testing, and qualitative interpretation. Descriptive statistics were used to summarize respondents' employment backgrounds, social-network characteristics, occupational distributions, employment assistance, and initial earnings. Simple linear regression was applied separately to estimate the relationship between social networks and job access and the relationship between job access and initial earnings. Multiple linear regression was subsequently employed to examine the simultaneous associations of social networks and job access with initial earnings, allowing their respective regression coefficients to be evaluated within a common statistical model. The mediating role of job access was assessed using the Sobel test, which examined the statistical significance of the indirect relationship between social networks and initial earnings through job access. Regression coefficients, standardized coefficients, coefficients of determination, and statistical significance values were used to evaluate the estimated relationships and explanatory capacity of the models. Interview information was incorporated to contextualize the quantitative analysis, particularly regarding employment-information channels, assistance from interpersonal connections, and local labor-market conditions. The qualitative component was therefore supplementary rather than an independently analyzed qualitative research phase, and the study did not employ a separately specified mixed-methods integration procedure. Analytical interpretation distinguished observed statistical associations from causal effects because the observational research design did not establish experimental control over the investigated variables. The documented research procedures did not specify questionnaire validity coefficients, reliability statistics, detailed regression diagnostic tests, or formal ethical approval information;

consequently, no unreported verification procedures or ethical authorization were assumed. This analytical structure maintained consistency between the research objectives, operationalized variables, available empirical data, and statistical procedures used to examine the proposed mediation relationship.

RESULTS AND DISCUSSION

Characteristics of Internal Migrants and the Role of Social Networks in Employment Access

Internal migration in East Ungaran District reflects the interaction between regional employment opportunities and the social resources available to workers entering the destination labor market. The study involved 66 internal migrants residing and working in the district, providing empirical evidence of employment characteristics, pre-existing interpersonal connections, and the channels through which migrants obtained their first jobs. The relevance of these characteristics extends beyond individual migration decisions because employment opportunities are not necessarily accessible to all migrants under equivalent informational and social conditions. Novriawati and Nasrudin (2023) identify migration networks as a relevant dimension of internal migration in Indonesia, supporting the interpretation that mobility decisions and subsequent labor-market experiences are embedded within broader interpersonal relationships. The characteristics observed in East Ungaran consequently provide a basis for examining how destination-based social connections may shape the initial stages of migrants' economic integration. The spatial distribution of the 66 respondents across urban villages in East Ungaran District is presented in Figure 1, illustrating the geographical coverage of the study population.

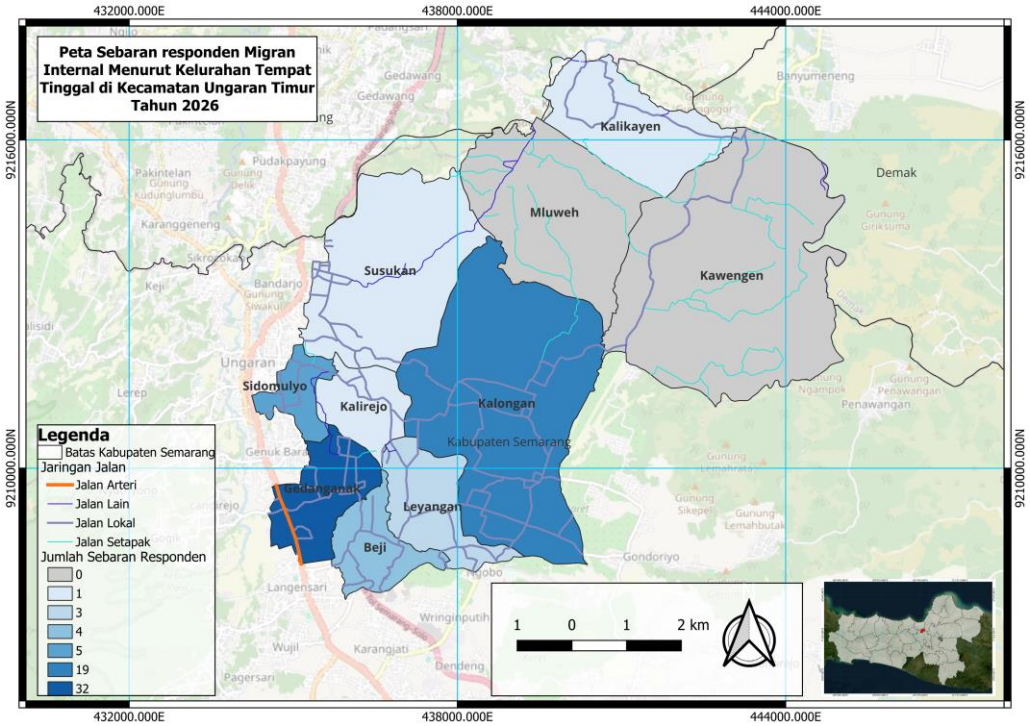


Figure 1. Distribution of Internal Migrant Respondents by Urban Village in East Ungaran District

Source: Author's analysis (2026).

The employment backgrounds of respondents indicate that migration to East Ungaran was frequently associated with entry into the labor market at an early stage of occupational development. Among the 66 respondents, 38 individuals (57.58%) had no employment experience before migration, while 15 respondents (22.73%) reported between one and three years of experience, 10 respondents (15.15%) had less than one year, and three respondents (4.55%) had more than three years. The predominance of migrants without previous employment experience suggests that access to

information concerning recruitment procedures, occupational requirements, and available vacancies may be particularly relevant during their initial adjustment to the destination labor market. Olliff and Baak (2022) emphasize the importance of social relationships in migrant job-search experiences, providing a comparative basis for interpreting interpersonal assistance as a potential resource when individuals encounter unfamiliar employment environments. Limited prior employment experience does not establish that respondents lacked occupational skills, but it indicates that many entered the local labor market without an extensive history of formal employment.

The occupational distribution reveals a substantial concentration of respondents within industrial employment, indicating the importance of manufacturing-related opportunities in attracting and absorbing internal migrants in East Ungaran District. Industrial or factory employment accounted for 57 respondents (86.36%), whereas six respondents (9.09%) worked as private-sector employees and three respondents (4.55%) were involved in trading or self-employment. This concentration suggests that employment access among the surveyed migrants was closely associated with the recruitment characteristics of the local industrial sector rather than being distributed evenly across occupational categories. Chen and Schiller (2025) examine the role of labor-market intermediaries in connecting migrant workers with employment opportunities in global production networks, illustrating the broader significance of recruitment arrangements for migrant labor allocation. Although the present study did not directly measure employer recruitment strategies or formal intermediary activities, the occupational concentration indicates that the relationship between personal networks and employment opportunities should be interpreted alongside the local structure of labor demand.

Pre-existing social relationships constituted a prominent characteristic of the surveyed migrant population, indicating that many respondents entered East Ungaran with interpersonal resources already available at the destination. Among the respondents, 56 individuals (84.85%) reported having social connections in the district before migration, whereas 10 individuals (15.15%) reported no previous connections. The substantial difference between these groups indicates that migration frequently occurred within an established relational environment, potentially facilitating access to local information and assistance during employment searches. Cai (2024) examines migrant workers' social networks through a network-analytic approach, reinforcing the importance of considering interpersonal structures and interaction patterns when interpreting migrant behavior. The descriptive evidence does not establish that pre-existing relationships caused the decision to migrate, but it demonstrates that destination-based connections were common among migrants participating in the local labor market.

The distribution of respondents' employment experience, occupational characteristics, and destination-based relationships is presented in Table 1. These descriptive indicators provide an empirical foundation for distinguishing individual labor-market characteristics from social resources potentially available during employment searches. The figures also reveal that limited prior employment experience coexisted with a high prevalence of pre-existing social connections, although the available descriptive statistics do not establish whether these characteristics occurred together among particular respondents. Rüdel and Steinmann (2024) highlight the relevance of resources embedded within social relationships to migrants' labor-market integration, suggesting that the usefulness of interpersonal connections depends on more than their numerical presence.

Table 1. Selected Characteristics of Internal Migrants in East Ungaran District

Characteristics	Frequency (n)	Percentage (%)
No employment experience before migration	38	57.58
Employment experience of less than one year	10	15.15
Employment experience of 1–3 years	15	22.73
Employment experience exceeding three years	3	4.55
First employment in industrial/factory work	57	86.36
First employment as private-sector employees	6	9.09
First employment in trading/self-employment	3	4.55
Had social connections before migration	56	84.85
Had no social connections before migration	10	15.15

Source: Author's analysis (2026)

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The descriptive distribution in Table 1 indicates that employment experience, occupational allocation, and pre-existing social relationships represent distinct dimensions of migrants' labor-market entry. The high proportion of respondents entering industrial employment suggests that the local economic structure provided a relatively concentrated set of occupational opportunities, while the prevalence of destination-based connections indicates the potential availability of informal information channels. Nevertheless, the figures cannot establish whether migrants with social connections obtained jobs more rapidly or received higher initial earnings than those without such connections, since these comparisons require additional statistical analysis. Yang et al. (2023) investigate the relationship between individual social-network size and rural–urban migrants' wages in China, providing an empirical rationale for distinguishing network characteristics from their possible economic consequences. The descriptive results consequently establish the characteristics of the surveyed population without prematurely attributing employment outcomes to specific interpersonal relationships.

The sources of employment assistance further illustrate the differentiated roles of interpersonal relationships in migrants' initial job searches. Friends were reported as sources of employment assistance by 28 respondents (42.42%), followed by family members for 23 respondents (34.85%), neighbors or communities from migrants' places of origin for seven respondents (10.61%), and relatives and coworkers for four respondents each (6.06%). The prominence of friendship and family relationships indicates that employment information and referrals frequently circulated through familiar social contacts, potentially reducing difficulties associated with identifying vacancies and understanding recruitment procedures. Caria et al. (2023) examine employment searching through social relationships, offering a relevant analytical foundation for understanding why interpersonal interactions may influence how individuals acquire and use job-related information. The distribution also suggests that the employment-related relevance of social networks cannot be adequately represented by a simple distinction between having and not having connections, because different relational categories may provide different forms of assistance.

Qualitative interviews provided contextual support for the descriptive findings by identifying instances in which existing interpersonal relationships facilitated access to vacancy information. One migrant described learning about an employment opportunity through a friend who was already employed, while another reported obtaining recruitment information from an older sibling working at a company seeking additional employees. These accounts illustrate how established social contacts may connect prospective workers with information that would otherwise require independent searching, although the interviews do not establish how frequently such mechanisms operated across the entire migrant population. Zhu (2024) examines the relationship between job referrals from different social connections and initial wages, demonstrating the relevance of distinguishing referral sources when investigating the economic consequences of employment-related relationships. The interview evidence supports the interpretation of social networks as information and referral channels but does not independently demonstrate that particular relationship types produced higher earnings or more favorable employment conditions.

Variation in interpersonal assistance also raises questions about the distribution of employment opportunities among migrants possessing different levels of access to social resources. Migrants arriving with established contacts may have opportunities to obtain vacancy information through informal communication, whereas individuals without such relationships may depend more heavily on independently accessible recruitment channels. The present descriptive data do not provide a direct comparison of job-search outcomes between these groups, making it necessary to distinguish plausible mechanisms from empirically demonstrated differences in labor-market access. Foged et al. (2024) examine policies designed to improve refugees' labor-market integration, underscoring the significance of institutional arrangements in shaping employment opportunities, although their findings concern a population and policy environment distinct from Indonesian internal migrants. The distinction between informal relationships and publicly accessible recruitment mechanisms is relevant to regional employment planning because a concentration of information within personal networks may influence who learns about available opportunities.

The observed characteristics establish that social networks constitute a salient component of the employment-search environment experienced by internal migrants in East Ungaran District. The

concentration of respondents in industrial employment, the prevalence of pre-existing destination connections, and the substantial contribution of friends and family to employment assistance indicate that labor-market entry involves the interaction of regional employment demand and interpersonal resources. Van Riemsdijk (2024) emphasizes governance-related dimensions of migrant labor-market integration, suggesting the need to consider institutional conditions alongside individual and social resources when examining access to employment. The East Ungaran evidence extends this analytical concern to a district-level internal-migration setting, while the absence of a direct institutional-effect measurement limits conclusions regarding the relative influence of formal and informal recruitment mechanisms. These descriptive findings provide the empirical foundation for subsequent regression analysis examining whether variation in social-network characteristics is statistically associated with job access and whether employment accessibility contributes to differences in migrants' initial earnings.

Effects of Social Networks on Employment Access among Internal Migrants

Social networks constitute an important mechanism through which internal migrants acquire employment information and navigate recruitment opportunities in destination labor markets. The regression analysis involving 66 internal migrants in East Ungaran District identified a positive and statistically significant association between social networks and job access, indicating that respondents with stronger social-network characteristics tended to report more favorable employment accessibility. This relationship is particularly relevant because migrants entering unfamiliar labor markets may depend on interpersonal connections to identify vacancies, understand recruitment requirements, and establish contact with potential employers. Caria et al. (2023) demonstrate the analytical relevance of social interactions in employment-search processes, supporting an interpretation of job searching as an activity influenced by information exchange and interpersonal coordination rather than exclusively individual effort.

The estimated relationship between social networks and job access was characterized by an unstandardized regression coefficient of 0.600, a standardized coefficient of 0.493, and a statistical significance level below 0.001. The positive unstandardized coefficient indicates that a one-unit increase in the social-network score was associated with a 0.600-unit increase in the job-access score under the measurement framework used in the study. The standardized coefficient further indicates a positive relationship between the variables, although its magnitude should be interpreted as an association rather than evidence of a controlled causal effect. Rüdel and Steinmann (2024) emphasize the relevance of resources embedded within interpersonal relationships for migrants' labor-market integration, providing a theoretical basis for interpreting the observed relationship as potentially reflecting access to employment-related information and assistance.

The coefficient of determination provides additional information concerning the explanatory contribution of social networks to differences in employment accessibility. The analysis produced an R^2 value of 0.244, indicating that the social-network variable accounted for 24.4% of the observed variation in job-access scores, while 75.6% remained outside the explanatory capacity of the estimated simple regression model. This result indicates that interpersonal relationships represent a statistically relevant component of job access without constituting a comprehensive explanation of migrants' employment opportunities. Yang et al. (2023) examine social-network characteristics in relation to migrant labor-market outcomes, reinforcing the importance of distinguishing the measurable contribution of interpersonal resources from other determinants operating within employment systems.

The statistical findings should also be interpreted in relation to the characteristics of the respondents and the employment structure of East Ungaran District. The concentration of migrants in industrial employment suggests that the relationship between social networks and job access was observed within a labor market strongly represented by factory-related occupations, although the regression did not separately estimate effects across occupational categories. The high prevalence of destination-based connections before migration provides descriptive support for the availability of interpersonal resources, but it cannot establish that these connections independently determined employment outcomes. Cai (2024) examines migrant workers' network structures and associated behavioral processes, indicating that interpersonal connections should be understood through their functional relationships rather than merely through their existence.

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The regression estimates are presented in Table 2 to clarify the direction, magnitude, and explanatory capacity of the relationship between social networks and job access. These indicators provide the quantitative foundation for evaluating the first analytical relationship established in the research framework. The estimated coefficients support a positive statistical association, while the coefficient of determination establishes the limited proportion of variation explained by social networks alone. Research by Olliff and Baak (2022) similarly positions interpersonal relationships as relevant resources in migrants' employment searches, although differences in migrant populations and labor-market environments restrict direct comparisons of effect sizes.

Table 2. Simple Linear Regression Results for the Effect of Social Networks on Job Access

Statistical indicator	Result
Independent variable	Social networks (X)
Dependent variable	Job access (Z)
Number of respondents	66
Unstandardized coefficient (B)	0.600
Standardized coefficient (Beta)	0.493
t-statistic	4.539
Coefficient of determination (R^2)	0.244
Explained variation	24.4%
Unexplained variation	75.6%
Significance	$p < 0.001$

Source: Author's analysis (2026).

The results in Table 2 indicate that social networks were positively associated with employment accessibility, with the estimated relationship statistically significant at the reported probability level. The magnitude of the standardized coefficient suggests a meaningful positive association within the sample, although its substantive interpretation depends on the operationalization and distribution of the measured variables. The unexplained proportion of variation indicates that other characteristics, potentially including qualifications, employment experience, recruitment requirements, and labor demand, warrant consideration in subsequent research rather than being treated as established determinants within the present model. Foged et al. (2024) examine labor-market integration policies and provide a comparative foundation for recognizing that employment outcomes may also depend on institutional conditions beyond individual social resources.

Qualitative interview evidence offers a more concrete explanation of how interpersonal relationships may facilitate access to employment opportunities in East Ungaran District. Interviews documented instances in which migrants obtained information about vacancies through friends already employed at the destination and through family members familiar with ongoing recruitment activities. These accounts support an information-transmission mechanism through which established contacts connect prospective workers with employment opportunities, although the interviews were not designed to estimate the independent effectiveness of different relationship categories. Chen and Schiller (2025) examine recruitment intermediaries within migrant labor markets, providing a relevant comparison for understanding how employment-related information and connections may facilitate interactions between prospective workers and employers.

The distribution of employment assistance illustrated by the original Figure 2 complements the regression evidence by identifying the interpersonal relationships through which migrants obtained information and support. Friends accounted for 42.42% of reported employment assistance, followed by family members at 34.85%, indicating that familiar interpersonal relationships represented the most frequently reported channels of assistance within the sample. These descriptive proportions should not be interpreted as demonstrating that friendship relationships were statistically more effective than family relationships, because the regression model evaluated the composite social-network variable rather than separate effects for each relationship category. Zhu (2024) examines employment referrals associated with different social connections, highlighting the analytical importance of distinguishing referral sources when investigating the relationship between interpersonal assistance and labor-market outcomes. The distribution of interpersonal relationships

assisting migrants in obtaining employment is illustrated in Figure 2, providing descriptive evidence of the relative prominence of different social connections.

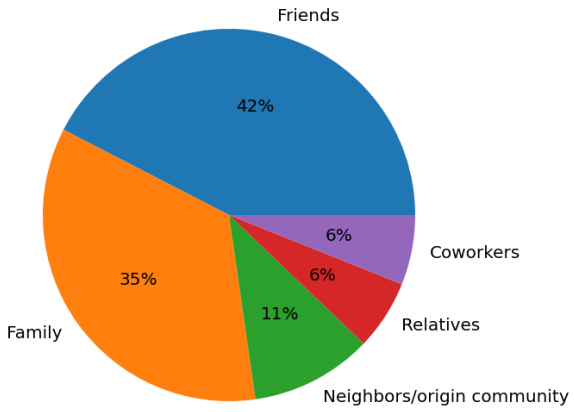


Figure 2. Types of Relationships Helping Migrants Obtain Employment

Source: Author's analysis (2026*)*.

The observed relationship also raises questions concerning employment-information accessibility for migrants who enter the destination labor market without established interpersonal connections. The study recorded 10 respondents who lacked social connections in East Ungaran before migration, but the available results do not provide a separate regression comparison between this group and respondents possessing destination-based relationships. Claims concerning systematic employment disadvantages among migrants without connections would therefore extend beyond the evidence, although differences in access to informal vacancy information remain a relevant consideration for employment-service planning. Van Riemsdijk (2024) emphasizes institutional and governance-related dimensions of migrant labor-market integration, providing a basis for considering how publicly accessible recruitment systems may complement information distributed through personal relationships.

The positive association between social networks and job access provides empirical support for treating interpersonal resources as one component of migrants' initial labor-market integration in East Ungaran District. The statistically significant coefficient and explanatory contribution demonstrate that social-network characteristics were related to reported employment accessibility, while the remaining unexplained variation cautions against treating social connections as the sole mechanism governing recruitment outcomes. Novriawati and Nasrudin (2023) identify the relevance of migration networks to internal mobility in Indonesia, and the present findings extend that analytical concern toward employment accessibility after relocation rather than migration decisions alone. These results establish the first relationship required by the proposed mediation framework and provide the empirical basis for examining whether job access is subsequently associated with initial earnings among internal migrants.

Effects of Job Access on Initial Earnings and the Mediating Role of Social Networks

Initial earnings represent an important indicator of internal migrants' early economic integration because they reflect the remuneration obtained from the first employment secured after relocation. The empirical analysis of 66 internal migrants in East Ungaran District examined whether differences in job access were associated with initial earnings and whether employment accessibility functioned as a mediating mechanism linking social networks to economic outcomes. The regression results indicated a positive and statistically significant relationship between job access and initial earnings, suggesting that migrants reporting greater employment accessibility also tended to obtain higher remuneration from their first jobs. Yang et al. (2023) examine the relationship between social-network characteristics and migrant wages, providing a relevant comparative foundation for investigating how social resources and labor-market opportunities are associated with economic returns.

Simple linear regression produced an unstandardized coefficient of 429,772.521 for the relationship between job access and initial earnings, accompanied by a standardized coefficient of 0.548 and a significance level below 0.001. The unstandardized coefficient indicates that a one-unit increase in the measured job-access score was associated with an estimated IDR 429,772.521 increase in initial earnings under the specified regression model. The standardized coefficient demonstrates a positive association, although the observational research design does not establish that improved job access independently caused an equivalent increase in remuneration. Zhu (2024) investigates the relationship between employment referrals and initial wages, supporting the analytical relevance of examining how employment-related connections and access mechanisms correspond with earnings at labor-market entry.

The explanatory capacity of job access was reflected in an R^2 value of 0.300, indicating that employment accessibility accounted for 30.0% of the observed variation in initial earnings. The remaining 70.0% was not explained by the simple regression model, suggesting that remuneration differences cannot be attributed exclusively to the measured accessibility of employment opportunities. Educational qualifications, occupational characteristics, prior employment experience, and employer remuneration structures represent potentially relevant considerations, although their individual statistical contributions were not estimated in the reported model. Rüdel and Steinmann (2024) emphasize the relevance of resources embedded within migrants' interpersonal relationships for labor-market integration, indicating that economic outcomes may reflect interactions between social resources and other employment-related characteristics.

The descriptive distribution of initial earnings provides additional context for interpreting the statistical relationship between job access and remuneration. Twenty respondents were classified within the lowest reported earnings category of IDR 1,500,000 or less, while another 20 respondents earned between IDR 2,000,001 and IDR 2,500,000; the remaining respondents were distributed across intermediate and higher earnings categories. This distribution indicates variation in the economic outcomes associated with first employment, but the available descriptive figures do not identify which income categories were associated with particular social-network characteristics or levels of job accessibility. Caria et al. (2023) examine the role of social interaction in employment searching, providing an analytical basis for recognizing job-search mechanisms as relevant to labor-market outcomes without assuming that information access alone determines remuneration. Figure 3 presents the distribution of initial earnings among the surveyed migrants, illustrating differences in remuneration obtained from their first employment after relocation.

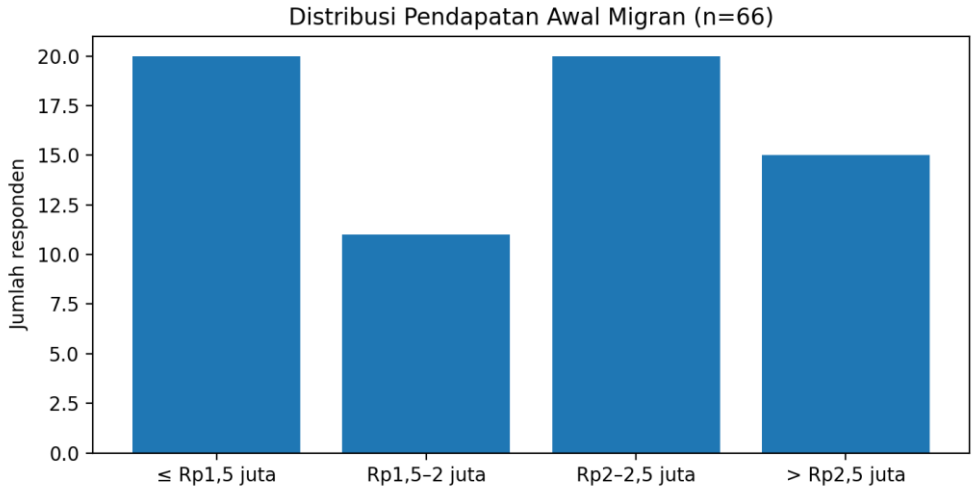


Figure 3. Distribution of Initial Earnings among Internal Migrants

Source: Author's analysis (2026).

The principal regression estimates are presented in Table 3, combining the relationship between job access and initial earnings with the multiple-regression model incorporating social networks and job access simultaneously. The estimates permit comparison between the bivariate association and the coefficients obtained when both explanatory variables are included in a common

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model. The multiple-regression results are particularly relevant because they establish whether the association between social networks and initial earnings remains statistically observable after accounting for job access. Research by Olliff and Baak (2022) identifies interpersonal relationships as resources involved in migrant job searches, supporting the examination of employment accessibility as a potential mechanism through which such resources are associated with economic outcomes.

Table 3. Simple Linear Regression Results

Tested relationship	B	Beta	R^2	Significance
Social networks → job access	0.600	0.493	0.244	$p < 0.001$
Job access → initial earnings	429,772.521	0.548	0.300	$p < 0.001$

The mediation evidence presented in Figure 4 supports a differentiated interpretation of the relationship between social networks and economic outcomes among internal migrants. Interpersonal connections may facilitate access to employment information and referrals, while the accessibility of employment opportunities constitutes an intermediate process statistically associated with remuneration from the first job. The remaining direct association suggests that the measured job-access variable does not exhaust the relationship between social-network characteristics and initial earnings, although the available data cannot identify additional pathways with statistical certainty. Chen and Schiller (2025) examine migrant labor-market intermediaries, illustrating the broader relevance of recruitment connections and institutional arrangements to the processes through which workers obtain employment opportunities.

The findings also have implications for regional labor-market governance because employment opportunities generated by industrial development do not necessarily translate into equally accessible economic benefits for incoming workers. Socially mediated recruitment information may facilitate employment among migrants possessing established relationships, whereas migrants with fewer connections may need more accessible institutional channels for identifying vacancies and understanding recruitment requirements. Van Riemsdijk (2024) examines governance gaps in migrant labor-market integration, while Foged et al. (2024) investigate the implications of labor-market integration policies, providing comparative perspectives on the institutional conditions influencing migrants' employment opportunities. The results from East Ungaran support consideration of more accessible employment-information systems and coordination between employers and local institutions, although the effectiveness of such interventions was not directly evaluated. The explanatory findings remain limited to the surveyed migrants and the specified statistical models, particularly because unmeasured individual and occupational characteristics may contribute to variations in initial remuneration. The Sobel mediation test is presented in Figure 4, illustrating the indirect relationship between social networks and initial earnings through job access.

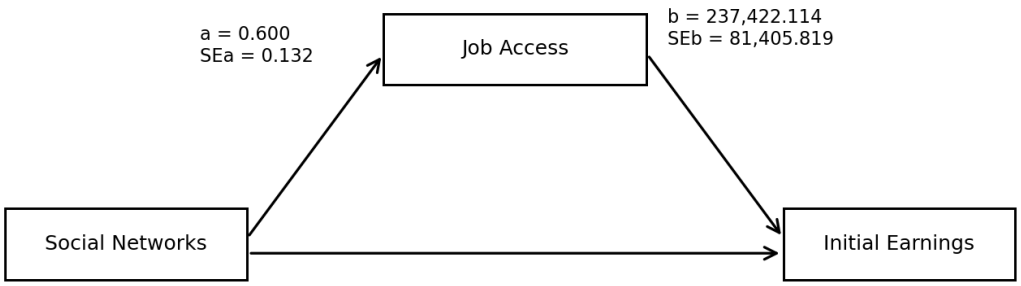


Figure 4. Sobel Mediation Test Diagram
Sobel test statistic = 2.455; two-tailed p = 0.014.
Source: Author's analysis (2026).

The empirical relationships identified in East Ungaran District contribute to understanding how social-network resources and employment accessibility are associated with migrants' economic integration during their initial participation in destination labor markets. The positive association between job access and initial earnings, together with the significant Sobel test result, indicates that employment accessibility constitutes a statistically supported intermediate mechanism without eliminating the remaining association between social networks and remuneration. Zhu (2024) and Yang et al. (2023) investigate the economic relevance of employment referrals and social-network characteristics, while the present study connects these dimensions through an explicit mediation model applied to internal migrants in a district-level Indonesian labor market. The findings provide evidence for integrating employment-information accessibility into regional labor-market planning while recognizing that social connections, recruitment mechanisms, and initial earnings are related but analytically distinct dimensions of migrant economic participation. Their interpretation requires recognition of the observational design, purposive and snowball-supported sampling, and the absence of statistical controls for several potentially relevant characteristics, which constrain causal inference and generalization beyond the surveyed population.

CONCLUSION

This study demonstrates that social networks are positively and significantly associated with job access and initial earnings among internal migrants in East Ungaran District, Semarang Regency. Social networks exhibited a significant positive relationship with job access ($\beta = 0.493$; $p < 0.001$), explaining 24.4% of its observed variation. Job access was also positively associated with initial earnings ($\beta = 0.548$; $p < 0.001$), accounting for 30.0% of the variation in remuneration received from migrants' first employment after relocation. The multiple-regression model showed that social networks and job access jointly explained 48.7% of the variation in initial earnings, with both variables retaining statistically significant positive coefficients. The Sobel test confirmed a significant indirect relationship through job access ($z = 2.455$; $p = 0.014$), while the remaining significant association between social networks and initial earnings indicated partial statistical mediation. Descriptive evidence further revealed that 84.85% of respondents had established connections at the destination before migration, with friends (42.42%) and family members (34.85%) representing the principal sources of employment assistance. These findings establish job access as an important intermediate mechanism connecting interpersonal resources with migrants' initial economic outcomes, although the observational design does not establish causal relationships.

The study contributes to migration and labor-market research by integrating social networks, job access, and initial earnings within a mediation framework applied to a district-level internal migrant population in Indonesia. Its findings extend the understanding of migrant labor-market integration beyond the availability of interpersonal connections by demonstrating the statistical relevance of employment accessibility in explaining initial remuneration. From an urban and regional planning standpoint, the results support improving public access to vacancy information, strengthening coordination between local government and employers, and developing recruitment-information channels accessible to migrants without established destination-based connections. These recommendations represent practical implications derived from the observed relationships rather than interventions evaluated directly in the study. Interpretation should also consider the relatively small sample of 66 respondents, purposive sampling supported by a snowball approach, and the absence of statistical controls for several individual and occupational characteristics that may influence earnings. Future research should employ larger and more diverse samples, incorporate educational qualifications, work experience, occupational characteristics, and recruitment mechanisms, and examine whether similar relationships emerge across areas with different economic structures.

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