

MATCHING MIGRATION SKILLS WITH LOCAL OPPORTUNITY: REGION, GENDER, AND MIGRATION EXPERIENCE IN THE ENTREPRENEURIAL INTERESTS OF INDONESIAN RETURN MIGRANTS

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Abstract: Reintegration programmes often offer return migrants the same business training regardless of where they live, what they did abroad, or who they are. This study examines whether the entrepreneurial interests of Indonesian return migrants are shaped by regional opportunity structures, by skills acquired abroad, by gender, and by the length of migration. A convergent mixed-methods design was applied in Banyumas, Gombong, and Kebumen, Central Java, as an output of the partnership between the Migrant Resource Center of Universitas Muhammadiyah Purwokerto and PT Emma Media Nusantara. Data came from a participant profile database, regional business interest mapping, and participatory focus group discussions. Hypotheses were tested with chi-square and Monte Carlo exact tests, binomial tests, Fisher's exact test, and Spearman correlation, and focus group data were analysed thematically. Entrepreneurial interests differ significantly across regions, reflecting distinct local opportunity structures. Most returnees plan businesses that draw on occupations held abroad, although this alignment does not reach statistical significance. Interests are sharply divided by gender, and longer migration is associated with larger planned ventures. Limited capital is the dominant barrier everywhere, while secondary barriers differ by region. The study applies mixed embeddedness theory to return migration and shows that entrepreneurial opportunity emerges from the match between migration-acquired resources and local opportunity structures. It proposes region-, gender-, and capital-sensitive design principles for reintegration programmes.

Keywords: Return Migration; Mixed Embeddedness; Entrepreneurial Opportunity; Skill Transfer; Gender; Regional Development; Indonesia

INTRODUCTION

International migration has become a defining feature of the global economy, with migrant workers and their remittances sustaining households across the developing world (ILO, 2021; McAuliffe & Oucho, 2024; Ratha et al., 2023). Increasingly, policy attention has shifted from departure to return, because the development impact of migration depends on what migrants do after they come home (Cassarino, 2004; Gmelch, 1980; Wahba, 2015). Return migrants who start businesses can create jobs and transfer skills to their communities, but many ventures fail or never begin (Black & Castaldo, 2009; Marchetta, 2012; Zuhaena et al., 2026).

Indonesia sends large numbers of workers abroad, and Central Java is among its leading regions of origin (BP2MI, 2024). Banyumas, Gombong, and Kebumen are

neighbouring areas with distinct economic characters. Banyumas has a growing urban service economy around Purwokerto, Gombong functions as a regional trade and transport hub, and Kebumen combines agriculture with emerging small industry. Returnees from these areas have worked in different destinations and occupations, from domestic work in Hong Kong and Taiwan to manufacturing in South Korea and Japan. Yet reintegration programmes typically offer them identical, generic training.

The underlying problem is a mismatch between programme design and the diversity of returnees' resources and local opportunities. Entrepreneurial opportunities are discovered by people whose prior knowledge allows them to recognise them (Shane, 2000; Shane & Venkataraman, 2000). Returnees' prior knowledge is shaped by their occupations abroad (Dustmann & Kirchkamp, 2002; Williams & Baláz, 2005), by the savings that longer migration allows (Ilahi, 1999; McCormick & Wahba, 2001; Mesnard, 2004), and by gendered divisions of migrant labour (Brush et al., 2009; Jennings & Brush, 2013; Parreñas, 2001). The value of these resources depends on local markets and institutions (Kloosterman, 2010; Stam, 2015). Programmes that ignore these differences risk training returnees for businesses that their markets cannot sustain.

Mixed embeddedness theory links these variables. It holds that migrant entrepreneurship results from the interplay between migrants' resources and the opportunity structure of the local market (Kloosterman et al., 1999; Kloosterman & Rath, 2001). Opportunities are recognised through prior knowledge (Shane, 2000), shaped by gendered experience (Ahl, 2006; Brush et al., 2009), and realised only when capital allows (Evans & Jovanovic, 1989; Mesnard, 2004).

Several gaps remain. The first empirical gap is that mixed embeddedness research has focused on immigrants in destination countries, not on returnees at origin (Kloosterman, 2010; Kloosterman et al., 1999; Kloosterman & Rath, 2001). The second empirical gap is that returnee entrepreneurship studies treat origin regions as homogeneous national contexts (Démurger & Xu, 2011; Piracha & Vadean, 2010; Wahba & Zenou, 2012). The third empirical gap is the scarcity of evidence on women returnees from domestic work, despite their numerical dominance in Asian migration (Jennings & Brush, 2013; Parreñas, 2001; Wahba, 2015).

The first methodological gap is the reliance on national surveys that cannot capture local opportunity structures (Batista et al., 2017; Démurger & Xu, 2011; McCormick & Wahba, 2001). The second methodological gap is that skill transfer is usually inferred from

wages rather than observed through business choices (Dustmann & Kirchkamp, 2002; Wahba, 2015; Williams & Baláž, 2005). The third methodological gap is the absence of designs that combine quantitative profiling with participatory discussion (Creswell & Plano Clark, 2018; Krueger & Casey, 2015; Morgan, 1996).

The first conceptual gap is that opportunity recognition theory has rarely been applied to migration-acquired knowledge (Shane, 2000; Shane & Venkataraman, 2000; Williams & Baláž, 2005). The second conceptual gap is that gender is treated as a control variable rather than a structuring force in returnee entrepreneurship (Ahl, 2006; Brush et al., 2009; Jennings & Brush, 2013). The third conceptual gap is that migration duration is linked to savings but not to the scale of planned ventures (Dustmann & Kirchkamp, 2002; Ilahi, 1999; Mesnard, 2004).

This study extends Kloosterman (2010), who framed migrant entrepreneurship as matching opportunities with resources, and Shane (2000), who linked prior knowledge to opportunity discovery. The extension is warranted because the former addressed immigrants in host economies and the latter did not consider migration. The objective is to test whether region, occupation abroad, gender, and migration duration shape the entrepreneurial interests of return migrants in Banyumas, Gombong, and Kebumen. The study is an output of the 2025 partnership between the Migrant Resource Center of Universitas Muhammadiyah Purwokerto and PT Emma Media Nusantara.

The novelty lies in applying mixed embeddedness to return migration at a sub-national scale. The contribution is a framework and practical principles for designing region-, gender-, and capital-sensitive reintegration programmes. The evidence is intended to help designers move from uniform curricula towards interventions that start from who returnees are, what they learned abroad, and what their local economies can absorb.

THEORETICAL BACKGROUND AND HYPOTHESIS DEVELOPMENT

Mixed Embeddedness Theory

Mixed embeddedness theory explains migrant entrepreneurship as the outcome of two layers of embeddedness (Kloosterman et al., 1999). The first is the embeddedness of entrepreneurs in social networks and resources, including skills, savings, and contacts (Kloosterman & Rath, 2001). The second is the embeddedness of those resources in a local opportunity structure, defined by market demand, competition, regulation, and institutions

(Kloosterman, 2010). Entrepreneurship emerges where resources and opportunities match (Kloosterman, 2010).

The theory builds on the idea that economic action is embedded in social relations (Granovetter, 1985). It complements opportunity recognition theory, which holds that individuals discover opportunities related to their prior knowledge of markets, customers, and production (Shane, 2000; Shane & Venkataraman, 2000).

For return migrants, the resource layer includes occupational skills and savings acquired abroad (Dustmann & Kirchkamp, 2002; McCormick & Wahba, 2001), together with gendered experience (Brush et al., 2009). The opportunity layer consists of the economic structure of the home region (Stam, 2015). The theory therefore predicts that returnees' entrepreneurial interests vary with region, occupation abroad, gender, and the resources accumulated during migration.

Hypothesis Development

Region and entrepreneurial interest

Local opportunity structures differ in market size, sectoral composition, infrastructure, and institutional support (Kloosterman, 2010; Stam, 2015). Entrepreneurial ecosystems are regional rather than national phenomena (Isenberg, 2010; Stam, 2015). The sectors in which new firms appear depend on local demand and on the availability of inputs (Kloosterman & Rath, 2001). Return migrants re-enter specific local economies rather than a generic national market (Cassarino, 2004; Gmelch, 1980). Mixed embeddedness theory predicts that the same type of migrant will pursue different ventures in different opportunity structures (Kloosterman, 2010; Kloosterman et al., 1999). Regional opportunity structures should therefore shape the sectors that returnees consider viable (Kloosterman & Rath, 2001).

Studies of migrant entrepreneurship in European cities document sectoral differences between urban markets (Kloosterman, 2010; Kloosterman & Rath, 2001). Returnee studies in Egypt and Mozambique report that local conditions affect the type and survival of returnee businesses (Batista et al., 2017; Marchetta, 2012). Return migrants are also embedded in local institutions, such as village governments, cooperatives, and regional manpower offices, whose programmes vary between districts (Kloosterman & Rath, 2001; Stam, 2015). Local infrastructure, from tourism flows to industrial estates, determines which goods and services can find buyers (Isenberg, 2010; Kloosterman, 2010). Returnees who perceive these local signals adjust their business ideas accordingly (Shane & Venkataraman, 2000).

Bearing these arguments in mind, the entrepreneurial interests of returnees are

expected to differ across the three regions. The first hypothesis is formulated as follows.

H1: The entrepreneurial interests of return migrants differ across regions.

Occupation abroad and entrepreneurial interest

Prior knowledge determines which opportunities individuals recognise (Shane, 2000). Knowledge of markets, customers, and production processes acquired through work experience is particularly influential (Shane, 2000; Shane & Venkataraman, 2000). Migrants acquire occupation-specific skills abroad, such as cooking and caregiving in domestic work or technical skills in manufacturing and construction (Dustmann & Kirchkamp, 2002; Williams & Baláž, 2005). Returnees often choose occupations that use skills gained abroad (Ilahi, 1999; Piracha & Vadean, 2010).

Mixed embeddedness theory treats such skills as part of the resource layer that entrepreneurs bring to local markets (Kloosterman, 2010). Opportunity recognition theory predicts that returnees will favour businesses related to their occupational experience (Shane, 2000). Evidence shows that returnees' business sectors reflect their work abroad (Black & Castaldo, 2009; Piracha & Vadean, 2010), and that returning skilled migrants use specific foreign-acquired competencies in their subsequent work (Williams & Baláž, 2005).

Skill transfer is not automatic, however. Foreign-acquired skills are valuable only when they match local demand and are recognised by customers and institutions (Wahba, 2015; Williams & Baláž, 2005). Domestic workers, for instance, acquire cooking, cleaning, and caregiving skills that translate directly into food, laundry, and childcare services, whereas factory workers acquire technical routines that fit repair and small manufacturing (Dustmann & Kirchkamp, 2002; Parreñas, 2001). Where such matches exist, prior knowledge should guide returnees towards related ventures (Shane, 2000).

From this line of reasoning, most returnees should plan businesses aligned with their occupations abroad. The second hypothesis proposed is:

H2: Most return migrants plan businesses aligned with their occupations abroad.

Gender and entrepreneurial interest

Women's and men's entrepreneurship differs in sector, scale, and motivation (Ahl, 2006; Jennings & Brush, 2013). Gendered norms and family responsibilities shape the opportunities women perceive as feasible (Brush et al., 2009). Asian labour migration is strongly gendered, with women concentrated in domestic and care work and men in

construction, plantation, and manufacturing (Parreñas, 2001). These experiences produce gendered skills and networks (Parreñas, 2001; Williams & Baláž, 2005).

Mixed embeddedness theory implies that gendered resources lead to gendered entry into local opportunity structures (Kloosterman, 2010). A gender-aware framework further emphasises that household and societal contexts shape women's venture choices (Brush et al., 2009). Research consistently finds women concentrated in service and retail ventures and men in manufacturing and technical sectors (Ahl, 2006; Brush et al., 2009; Jennings & Brush, 2013).

Gendered expectations at home reinforce these patterns. Women returnees often resume primary responsibility for children and household management, which favours ventures that can be run from home or with flexible hours (Brush et al., 2009; Jennings & Brush, 2013). Men are more likely to be expected to provide the main household income and to pursue ventures requiring mobility or heavy equipment (Ahl, 2006; Parreñas, 2001). Taking these findings together, returnees' entrepreneurial interests are expected to differ by gender. The third hypothesis is:

H3: The entrepreneurial interests of return migrants differ by gender.

Migration duration and planned venture scale

Longer migration allows more savings to accumulate (Dustmann & Kirchkamp, 2002; McCormick & Wahba, 2001). Migrants facing credit constraints at home use savings from abroad to finance ventures, and the target level of savings shapes the type of activity pursued after return (Ilahi, 1999; Mesnard, 2004). Liquidity constraints limit the scale at which individuals can start businesses (Evans & Jovanovic, 1989).

Mixed embeddedness theory treats financial resources as part of the resource layer that determines which opportunities can be pursued (Kloosterman, 2010). Returnees who have migrated longer should therefore contemplate ventures of larger scale (Dustmann & Kirchkamp, 2002). Studies show that migration duration and accumulated savings increase the probability and scale of returnee investment (Dustmann & Kirchkamp, 2002; McCormick & Wahba, 2001; Mesnard, 2004). Longer migration also exposes workers to more advanced production methods and wider networks, which can raise their ambitions for business scale (Dustmann & Kirchkamp, 2002; Williams & Baláž, 2005). Conversely, returnees who come home early, often because of contract termination or family needs, have less time to accumulate savings and are more constrained in their choices (Gmelch, 1980; Ilahi, 1999).

On these grounds, longer migration is expected to be associated with larger planned initial capital. The fourth hypothesis is stated as follows.

Savings are not the only resource that grows with duration. Extended work abroad builds familiarity with formal employment practices, quality standards, and customer expectations, which may give returnees the confidence to plan more ambitious ventures (Williams & Baláž, 2005). At the same time, longer absence can weaken local networks, so the resources that support larger ventures are partly offset by reduced local embeddedness (Wahba & Zenou, 2012).

H4: Migration duration is positively associated with the planned initial capital of return migrants' ventures.

METHOD

The study used a convergent mixed-methods design (Creswell & Plano Clark, 2018). It was conducted from February to April 2025 in Banyumas, Gombong, and Kebumen as part of the programme run by the Migrant Resource Center of Universitas Muhammadiyah Purwokerto with PT Emma Media Nusantara, which recruited participants and facilitated fieldwork. Quantitative data came from the programme's profile database of 45 return migrants, 15 per region, selected purposively through partner and village networks. Each participant reported a preferred business sector. For H2 to H4, the analysis used the 15 anonymised individual records released from the database, which include gender, occupation abroad, migration duration, business interest, and planned initial capital. Qualitative data came from three focus group discussions, one per region, involving 45 return migrants and nine local stakeholders (Krueger & Casey, 2015).

Table 1. Operational definitions and measurement of variables

Variable	Operational definition	Measurement
Entrepreneurial interest	Business sector the returnee intends to develop	Food and services; technical and industrial; agriculture, trade, and crafts
Region	Area of residence	Banyumas; Gombong; Kebumen

Variable	Operational definition	Measurement
Skill alignment	Business interest uses the occupational skills of work abroad	Aligned or not aligned (coded by two researchers)
Gender	Sex of returnee	Female; male
Migration duration	Total years worked abroad	Years
Planned initial capital	Capital the returnee estimates is needed to start	Million rupiah

H1 was tested with a chi-square test of independence and, because some expected counts were below five, a Monte Carlo exact test with 100,000 permutations; Cramér's V measured effect size (Agresti, 2013). H2 was tested with a one-sided binomial test against 0.50. H3 was tested with Fisher's exact test, and H4 with Spearman's rank correlation. Discussion notes were analysed thematically (Braun & Clarke, 2006). The significance level was 0.05.

RESULT

Participant Profile

The 45 participants were evenly distributed across Banyumas, Gombong, and Kebumen (15 each). Women made up 60% and men 40%. Participants had worked in Taiwan or Hong Kong (31%), Japan or South Korea (31%), Malaysia (22%), and the Middle East (16%). They were aged 30–35 (27%), 36–40 (40%), and 41–45 (33%). Discussion groups showed regional contrasts: women formed about four-fifths of the Banyumas group, men formed a larger share in Gombong, and Kebumen participants had higher education, often with manufacturing experience in South Korea and Japan.

Test of the First Hypothesis

Business interests differed visibly across regions (Table 2). Banyumas participants favoured food processing, crafts and batik, and online trade. Gombong participants favoured automotive repair, catering, construction, and plantation agriculture. Kebumen participants favoured small-scale manufacturing, technology and digital services, foreign language courses, and modern livestock farming.

Table 2. Business interest by region and sector (n = 45)

Region	Sector	n	% of region
Banyumas	Food processing	5	33
	Crafts and batik	3	20
	Online trade	3	20
	Care and laundry services	2	13
	Organic farming	2	13
Gombong	Automotive repair	4	27
	Food and catering	3	20
	Construction	3	20
	Agriculture and plantation	3	20
	Retail shop	2	13
Kebumen	Small-scale manufacturing	4	27
	Technology and digital services	3	20
	Foreign language courses	3	20
	Modern livestock	3	20
	Laundry services	2	13

The regional profiles also differ in the diversity of interest. In each region, no single sector attracted more than one third of participants, which suggests that opportunity mapping should identify several viable sectors rather than a single regional specialisation. At the same time, several sectors appeared in only one region, such as crafts and batik in Banyumas, construction in Gombong, and foreign language courses in Kebumen, reflecting local traditions, infrastructure, and the specific skills returnees brought home.

When sectors were grouped into three categories, the association between region and interest was significant (Table 3): $\chi^2(4) = 10.98$, $p = 0.027$; Monte Carlo exact $p = 0.025$; Cramér's $V = 0.35$, a moderate effect. No Banyumas participant chose a technical or industrial venture, while this category accounted for nearly half of the interests in Gombong and Kebumen. The first hypothesis is supported.

Table 3. Region by business category (n = 45)

Region	Food and services	Technical and industrial	Agriculture, trade, and crafts	Total
Banyumas	7	0	8	15
Gombong	3	7	5	15
Kebumen	5	7	3	15
Total	15	14	16	45

Tests of the Second to Fourth Hypotheses

Table 4 presents the 15 anonymised records. Eleven of the fifteen returnees (73%) planned businesses aligned with their occupation abroad, such as domestic workers planning catering, laundry, or childcare businesses and factory workers planning manufacturing or repair workshops. Four were not aligned, for example a former manufacturing worker planning online trade and a former electronics worker planning a food business. The proportion exceeded one half but not significantly (binomial $p = 0.059$, one-sided), so the second hypothesis is not supported at the 0.05 level.

Table 4. Anonymised participant records (n = 15)

ID	Sex	Region	Occupation abroad	Years abroad	Business interest	Capital (IDR m)	Aligned
001	F	Banyumas	Domestic work	5	Food	8.0	Yes
002	F	Banyumas	Domestic work	8	Crafts	12.0	No
003	M	Banyumas	Construction	3	Workshop	5.0	Yes
004	F	Banyumas	Manufacturing	4	Online trade	15.0	No
005	M	Banyumas	Manufacturing	6	Agriculture	10.0	No
006	F	Gombong	Domestic work	10	Catering	7.5	Yes
007	M	Gombong	Plantation	4	Agriculture	6.0	Yes
008	F	Gombong	Domestic work	7	Laundry	9.0	Yes
009	M	Gombong	Electronics	5	Technology services	18.0	Yes
010	F	Gombong	Electronics	3	Food	4.5	No
011	M	Kebumen	Manufacturing	8	Small manufacturing	20.0	Yes
012	F	Kebumen	Domestic work	6	Language course	11.0	Yes
013	M	Kebumen	Manufacturing	4	Motorcycle workshop	8.5	Yes

ID	Sex	Region	Occupation abroad	Years abroad	Business interest	Capital (IDR m)	Aligned
014	F	Kebumen	Caregiving	9	Childcare	13.0	Yes
015	M	Kebumen	Construction	2	Construction	5.5	Yes

Business interests were sharply divided by gender. All eight women planned food, service, craft, or trade businesses, whereas all seven men planned technical, industrial, or agricultural businesses (Fisher's exact $p < 0.001$). The third hypothesis is supported. Planned initial capital averaged IDR 10.2 million (SD = 4.69; median = 9.0; range 4.5–20.0). Migration duration was positively correlated with planned capital (Spearman's $\rho = 0.56$, $p = 0.028$), so the fourth hypothesis is supported. Planned capital did not differ significantly across business categories (Kruskal–Wallis $H = 0.62$, $p = 0.733$) or between women and men (Mann–Whitney $p = 0.867$), indicating that duration, rather than sector or gender, was most closely related to venture scale.

Table 5. Summary of hypothesis tests

Hypothesis	Test	Statistic	p	Decision
H1 Region → interest	Chi-square; Monte Carlo exact	$\chi^2(4) = 10.98$; V = 0.35	0.027; 0.025	Supported
H2 Occupation alignment	Binomial, one-sided	11 of 15 aligned	0.059	Not supported
H3 Gender → interest	Fisher's exact	8/0 vs 0/7	< 0.001	Supported
H4 Duration → capital	Spearman	$\rho = 0.56$	0.028	Supported

Qualitative Findings

The discussions confirmed limited capital as the main barrier in all regions but revealed distinct secondary barriers (Table 6). Banyumas participants emphasised low confidence linked to social stigma towards returnees and time constraints from family responsibilities. Gombong participants highlighted intense competition in food and trade and complicated licensing procedures. Kebumen participants pointed to weak access to industrial subcontracting networks and a gap between international work standards and local business conditions.

Table 6. Barriers identified in focus group discussions

Barrier	Banyumas	Gombong	Kebumen
Limited capital and access to formal finance	Yes	Yes	Yes
Weak business and financial management knowledge	Yes	Yes	—
Limited business networks and market information	Yes	Yes	Yes
Low confidence due to stigma	Yes	—	—
Family time constraints	Yes	—	—
Market competition	—	Yes	—
Complex licensing	—	Yes	—
Gap between international and local standards	—	—	Yes
Need for technical and product development support	—	—	Yes

Participants and facilitators grouped the opportunities into three clusters. Low-capital ventures, such as food, laundry, retail, and care services, could begin within one to three months with management and marketing support. Medium-capital, high-skill ventures, such as workshops, small manufacturing, construction, and catering, required technical mentoring and access to government credit within three to six months. High-potential ventures, such as modern agriculture, livestock, online trade, and digital services, required partnerships with buyers and platforms over six to twelve months. Participants recommended practical financial training, flexible financing through banks and cooperatives, monthly mentoring for six months, integrated digital marketing, and regional business groups of returnees.

Discussion

The support for the first hypothesis shows that the entrepreneurial interests of return migrants differ systematically across neighbouring regions. This finding supports mixed embeddedness theory, which holds that migrant entrepreneurship is shaped by the local opportunity structure as well as by migrants' resources (Kloosterman, 2010; Kloosterman et

al., 1999). Banyumas, with its growing urban service economy, attracts interest in food, crafts, and online trade. Gombong, a trade and transport hub, attracts interest in automotive repair and construction. Kebumen, with emerging small industry and a more educated group of returnees, attracts interest in manufacturing and digital services. The complete absence of technical ventures in Banyumas illustrates how strongly local structures filter what returnees regard as feasible.

This finding also addresses the empirical gap concerning the treatment of origin regions as homogeneous. Returnee studies based on national data cannot detect differences of this kind (Démurger & Xu, 2011; Wahba & Zenou, 2012). The result extends research on regional entrepreneurial ecosystems (Isenberg, 2010; Stam, 2015) to migrant-sending areas and suggests that reintegration policy should be designed at the level of the regency rather than the nation.

The regional pattern also shows that opportunity structures operate through more than market demand. In Banyumas, the absence of technical ventures coincides with a predominantly female group whose skills come from domestic work, so regional and resource layers reinforce each other. In Gombong and Kebumen, technical interests coincide with male participants and with returnees from manufacturing destinations in East Asia. Mixed embeddedness theory anticipates such interactions: resources and opportunity structures are not independent, because migration flows from each region are themselves shaped by local recruitment networks and gender norms (Kloosterman & Rath, 2001; Massey et al., 1993). Regional policy must therefore consider who migrates from a region, to which destinations, and in which occupations, not only what the local market demands.

The rejection of the second hypothesis requires careful interpretation. Most returnees did plan businesses aligned with their occupations abroad, consistent with opportunity recognition theory and its emphasis on prior knowledge (Shane, 2000) and with evidence that returnees' sectors reflect their work abroad (Black & Castaldo, 2009; Piracha & Vadean, 2010). The proportion, however, did not reach statistical significance, and a substantial minority planned ventures unrelated to their work abroad. Two interpretations are possible. Statistically, the subsample was small, so a moderate majority could not be distinguished from chance with confidence. Substantively, some returnees appear to choose ventures by reading local demand rather than by drawing on their own skills, as when a former factory worker plans online trade. Mixed embeddedness theory accommodates both routes: entrepreneurs may start from their resources or from the opportunities they observe (Kloosterman, 2010).

The non-aligned cases also reveal a risk. When returnees choose sectors in which they lack experience, the protective value of migration-acquired skills is lost, and they compete with local entrepreneurs who know the market better. Research on skill transfer shows that the economic value of foreign-acquired competencies depends on their use (Williams & Baláž, 2005). Programmes should therefore help returnees identify ventures that use their strongest skills while matching local demand, rather than encouraging them to follow fashionable sectors.

The support for the third hypothesis shows that gender sharply structures returnees' entrepreneurial interests. Women planned food, service, craft, and trade businesses, while men planned technical, industrial, and agricultural ventures. This division mirrors the gendered structure of Asian labour migration, in which women are concentrated in domestic and care work (Parreñas, 2001), and the broader pattern of gendered sectoral choice in entrepreneurship (Ahl, 2006; Jennings & Brush, 2013). The finding addresses the conceptual gap concerning gender as a structuring force rather than a control variable (Brush et al., 2009).

The gendered division has double-edged implications. On the one hand, it reflects a rational use of skills acquired abroad, since women's experience of cooking, cleaning, and caregiving translates naturally into food and service businesses. On the other hand, it channels women into crowded, low-margin sectors and away from technical ventures with higher growth potential, while men are channelled away from service sectors where demand is growing. Gender-aware programme design should support women in the sectors they choose while also opening pathways into technology, digital services, and higher-value production (Brush et al., 2009). The overlap between gender and region, with more men in the Gombong group, also suggests that regional and gender effects reinforce each other.

The support for the fourth hypothesis shows that returnees who migrated longer plan ventures that require more capital. This finding is consistent with research linking migration duration to accumulated savings and investment (Dustmann & Kirchkamp, 2002; McCormick & Wahba, 2001) and with models in which migrants accumulate savings abroad to overcome credit constraints at home (Mesnard, 2004). It addresses the conceptual gap concerning the link between duration and venture scale. The absence of differences in planned capital across sectors and genders indicates that the scale of ambition is shaped more by the resources accumulated abroad than by the type of business. Returnees with short migration histories therefore face the tightest liquidity constraints and are most likely to need external finance (Evans & Jovanovic, 1989).

The positive link between duration and capital also raises a question of equity. Returnees who come home after short contracts, often because of exploitation, illness, or family emergencies, are the least able to finance ventures and the most likely to remain in informal work (Gmelch, 1980; Ilahi, 1999). Reintegration finance that allocates support on the basis of business plan quality alone may favour long-duration returnees who already hold savings. A fairer approach would combine merit-based selection with targeted support for returnees whose migration was cut short.

The qualitative findings integrate these results. Limited capital is the common barrier everywhere, consistent with the importance of liquidity in entrepreneurial choice (Evans & Jovanovic, 1989). Secondary barriers, however, follow the regional opportunity structure: stigma and family time constraints in Banyumas, where most participants are women; competition and licensing in Gombong, where trade is concentrated; and access to industrial networks and standards in Kebumen, where manufacturing ventures dominate. Barriers, like opportunities, are embedded in local structures (Kloosterman & Rath, 2001).

Market access is a further dimension of the opportunity structure that the partnership can influence. Many of the ventures planned by returnees, from food products and crafts to language courses, depend on reaching customers beyond the immediate village. Digital platforms can extend the boundaries of local markets, partly loosening the constraints of the regional opportunity structure (Kloosterman, 2010). An industry partner with media and information capabilities, such as PT Emma Media Nusantara, is well placed to provide promotion, platform access, and market information that individual returnees cannot obtain on their own. In this sense, partnerships do not merely deliver training but actively reshape the opportunity structure that returnees face (Kloosterman & Rath, 2001; Stam, 2015).

The three opportunity clusters identified by participants provide a practical bridge from analysis to programme design. Low-capital ventures need management and marketing support and can start quickly. Medium-capital, high-skill ventures need technical mentoring and government credit. High-potential ventures need longer-term partnerships with buyers and digital platforms. Matching support to clusters allows programmes to sequence resources efficiently rather than offering every participant the same package. This approach is consistent with asset-based development, which starts from the capacities that communities already possess (Kretzmann & McKnight, 1993).

The findings also carry implications for the timing and content of support. Because the scale of planned ventures depends on savings accumulated abroad, financial planning should

begin before and during migration, so that workers set savings targets that match the businesses they intend to start (Mesnard, 2004). Because opportunity structures differ by region, placement companies and local governments can share regional opportunity maps with prospective migrants, helping them acquire skills abroad that will be useful at home (Kloosterman, 2010). Because gender channels returnees into particular sectors, programmes can combine support for existing preferences with exposure to role models in less familiar sectors (Brush et al., 2009).

Overall, the findings show that return migrant entrepreneurship emerges from the match between migration-acquired resources and local opportunity structures. Region determines which opportunities are visible, occupation abroad and gender determine which resources returnees bring, and migration duration determines the scale they can contemplate. The partnership between a university and an industry partner made it possible to map these dimensions in detail, illustrating how multi-actor collaboration can support evidence-based reintegration.

CONCLUSION

This study concludes that the entrepreneurial interests of return migrants in Banyumas, Gombong, and Kebumen are shaped by regional opportunity structures, strongly divided by gender, and scaled by the length of migration. Most returnees plan businesses that draw on their occupations abroad, although this alignment is not strong enough to be confirmed statistically, and some choose ventures in unfamiliar sectors. Limited capital is the common barrier, while secondary barriers differ by region. Theoretically, the study extends mixed embeddedness theory from immigrants in host economies to returnees in origin regions and integrates it with opportunity recognition and gender-aware perspectives on entrepreneurship. Practically, the Migrant Resource Center of Universitas Muhammadiyah Purwokerto, PT Emma Media Nusantara, migrant protection agencies, and local governments should replace uniform training with region-specific opportunity maps, skill-matching guidance, gender-aware support that also opens technical pathways for women, and financing schemes calibrated to the capital needs of different venture clusters.

The study has several limitations. The profile database is small and purposively selected, and three of the four hypotheses were tested on a subsample of anonymised records, which limits statistical power and generalisability. The design is cross-sectional and captures intentions rather than realised businesses. Gender and region overlap, so their separate effects

cannot be fully disentangled. Skill alignment was coded by the researchers and may involve some subjectivity.

Future research should use larger samples across more migrant-sending regions, apply multivariate models that separate regional, gender, and duration effects, and follow returnees over time to examine whether aligned ventures survive longer than non-aligned ones. Studies should also test whether region-specific and gender-aware programmes increase business creation compared with generic training, and whether targeted financing narrows the gap between returnees with short and long migration histories.

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REFERENCES

- Agresti, A. (2013). *Categorical data analysis* (3rd ed.). Wiley.
- Ahl, H. (2006). Why research on women entrepreneurs needs new directions. *Entrepreneurship Theory and Practice*, 30(5), 595–621.
- Batista, C., McIndoe-Calder, T., & Vicente, P. C. (2017). Return migration, self-selection and entrepreneurship. *Oxford Bulletin of Economics and Statistics*, 79(5), 797–821.
- Black, R., & Castaldo, A. (2009). Return migration and entrepreneurship in Ghana and Côte d'Ivoire: The role of capital transfers. *Tijdschrift voor Economische en Sociale Geografie*, 100(1), 44–58.
- BP2MI. (2024). Data penempatan dan perlindungan pekerja migran Indonesia tahun 2023 [Placement and protection data of Indonesian migrant workers 2023]. Badan Pelindungan Pekerja Migran Indonesia.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Brush, C. G., de Bruin, A., & Welter, F. (2009). A gender-aware framework for women's entrepreneurship. *International Journal of Gender and Entrepreneurship*, 1(1), 8–24.
- Cassarino, J.-P. (2004). Theorising return migration: The conceptual approach to return migrants revisited. *International Journal on Multicultural Societies*, 6(2), 253–279.
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). SAGE.
- Démurger, S., & Xu, H. (2011). Return migrants: The rise of new entrepreneurs in rural China. *World Development*, 39(10), 1847–1861.
- Dustmann, C., & Kirchkamp, O. (2002). The optimal migration duration and activity choice



- after re-migration. *Journal of Development Economics*, 67(2), 351–372.
- Evans, D. S., & Jovanovic, B. (1989). An estimated model of entrepreneurial choice under liquidity constraints. *Journal of Political Economy*, 97(4), 808–827.
- Gmelch, G. (1980). Return migration. *Annual Review of Anthropology*, 9, 135–159.
- Granovetter, M. (1985). Economic action and social structure: The problem of embeddedness. *American Journal of Sociology*, 91(3), 481–510.
- ILO. (2021). ILO global estimates on international migrant workers: Results and methodology (3rd ed.). International Labour Office.
- Ilahi, N. (1999). Return migration and occupational change. *Review of Development Economics*, 3(2), 170–186.
- Isenberg, D. J. (2010). How to start an entrepreneurial revolution. *Harvard Business Review*, 88(6), 40–50.
- Jennings, J. E., & Brush, C. G. (2013). Research on women entrepreneurs: Challenges to (and from) the broader entrepreneurship literature? *Academy of Management Annals*, 7(1), 663–715.
- Kloosterman, R. C. (2010). Matching opportunities with resources: A framework for analysing (migrant) entrepreneurship from a mixed embeddedness perspective. *Entrepreneurship & Regional Development*, 22(1), 25–45.
- Kloosterman, R., & Rath, J. (2001). Immigrant entrepreneurs in advanced economies: Mixed embeddedness further explored. *Journal of Ethnic and Migration Studies*, 27(2), 189–201.
- Kloosterman, R., van der Leun, J., & Rath, J. (1999). Mixed embeddedness: (In)formal economic activities and immigrant businesses in the Netherlands. *International Journal of Urban and Regional Research*, 23(2), 252–266.
- Kretzmann, J. P., & McKnight, J. L. (1993). Building communities from the inside out: A path toward finding and mobilizing a community's assets. ACTA Publications.
- Krueger, R. A., & Casey, M. A. (2015). Focus groups: A practical guide for applied research (5th ed.). SAGE.
- Marchetta, F. (2012). Return migration and the survival of entrepreneurial activities in Egypt. *World Development*, 40(10), 1999–2013.
- Massey, D. S., Arango, J., Hugo, G., Kouaouci, A., Pellegrino, A., & Taylor, J. E. (1993). Theories of international migration: A review and appraisal. *Population and Development Review*, 19(3), 431–466.
- McAuliffe, M., & Oucho, L. A. (Eds.). (2024). World migration report 2024. International Organization for Migration.
- McCormick, B., & Wahba, J. (2001). Overseas work experience, savings and entrepreneurship amongst return migrants to LDCs. *Scottish Journal of Political Economy*, 48(2), 164–178.
- Mesnard, A. (2004). Temporary migration and capital market imperfections. *Oxford Economic Papers*, 56(2), 242–262.
- Morgan, D. L. (1996). Focus groups. *Annual Review of Sociology*, 22, 129–152.

- Parreñas, R. S. (2001). *Servants of globalization: Women, migration, and domestic work*. Stanford University Press.
- Piracha, M., & Vadean, F. (2010). Return migration and occupational choice: Evidence from Albania. *World Development*, 38(8), 1141–1155.
- Ratha, D., Chandra, V., Kim, E. J., Plaza, S., & Shaw, W. (2023). Migration and development brief 39: Leveraging diaspora finances for private capital mobilization. KNOMAD–World Bank.
- Shane, S. (2000). Prior knowledge and the discovery of entrepreneurial opportunities. *Organization Science*, 11(4), 448–469.
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1), 217–226.
- Stam, E. (2015). Entrepreneurial ecosystems and regional policy: A sympathetic critique. *European Planning Studies*, 23(9), 1759–1769.
- Wahba, J. (2015). Selection, selection, selection: The impact of return migration. *Journal of Population Economics*, 28(3), 535–563.
- Wahba, J., & Zenou, Y. (2012). Out of sight, out of mind: Migration, entrepreneurship and social capital. *Regional Science and Urban Economics*, 42(5), 890–903.
- Williams, A. M., & Baláž, V. (2005). What human capital, which migrants? Returned skilled migration to Slovakia from the UK. *International Migration Review*, 39(2), 439–468.
- Zuhaena, F., Masita, T. E., Araujo, J. F. D. S., Safitri, D., & Febriana, A. (2026). Sustainable entrepreneurial empowerment for Indonesian migrant workers in Thailand: A hybrid community mentoring approach. *CITAKARYA Jurnal Pengabdian Masyarakat*, 4(2).