



## Coupling social networks with space: The embeddedness of low-skilled returnee' entrepreneurship in rural China

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### ABSTRACT

Urban-to-rural return migration has become an increasingly important force reshaping rural livelihoods in China. Yet existing research on returnee entrepreneurship often assumes that migrants can transfer trans-local networks and resources accumulated during migration back to their hometowns and convert them directly into entrepreneurial advantage. This paper challenges this assumption by conceptualizing returnee entrepreneurship as a context-dependent process of network-space coupling, in which the effectiveness of network-based resources depends on their alignment with place-specific conditions. Drawing on qualitative fieldwork conducted in a county-level agricultural region in central China, this study combines participant observation, in-depth interviews, focus groups, and documentary analysis involving 19 participants. The findings show that low-skilled return migration is primarily driven by structural pressures in urban areas, including hukou-based exclusion, informal employment, unstable incomes, high living costs, and family obligations, which severely limit the accumulation of transferable financial, human, and social capital. Entrepreneurial formation after return is enabled through three interrelated local embeddedness: social embeddedness based on kinship and friendship ties, industrial embeddedness within county-level agricultural sectors, and institutional embeddedness shaped by rural governance and revitalization policies. At the same time, such embeddedness may generate path dependence and lock-in within low value-added activities. By advancing a network-space coupling perspective, this study deepens understanding of returnee entrepreneurship and rural transformation and offers policy-relevant insights into place-based rural development in peripheral regions.

### 1. Introduction

Return migration, defined as the movement of individuals back to their place of origin after extended residence elsewhere, has garnered increasing scholarly and policy attention due to its social and economic implications for both sending and receiving regions (Dustmann, 2001; Dustmann and Weiss, 2007; Hausmann and Nedelkoska, 2018; Nicolini and Roig, 2025). In rural China, while rural-to-urban migration dominates, return migration is reshaping rural labor structures, creating new regional development opportunities and challenges (Liu et al., 2022; Chen et al., 2023). By 2022, 11.2 million migrant workers had resettled in rural areas, marking a 43.6 % increase from 2018, and a growing

share of them have pursued entrepreneurship as a pathway to reintegration (Lu et al., 2023; Démurger and Xu, 2011; Piotrowski and Tong, 2010; Zhao, 2023).

Existing research on returnee entrepreneurship has primarily focused on international and highly skilled returnees, emphasizing the role of trans local networks in mobilizing capital, knowledge, and market access, and in overcoming institutional constraints such as limited formal finance (Massey et al., 1993; Qin and Estrin, 2015). This literature largely assumes that such resources can be transferred back to places of origin (Massey and Parrado, 1998; Mesnard, 2004). Yet internal return migration, particularly urban to rural return within developing countries, challenges this assumption, as the effectiveness of

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trans local resources is highly contingent on local institutional and spatial conditions.

In China, rapid industrialization combined with the urban-rural dual institutional system has generated persistent regional inequalities and large scale rural urban migration (Zhao, 2002). Under conditions of institutional exclusion, many low-skilled migrants are unable to secure stable urban integration and are pushed to return to rural areas (Chan and Buckingham, 2008; Colas and Ge, 2019). Lacking transferable economic and social capital, their entrepreneurial activities are less opportunity-driven and more closely tied to locally available resources and spatially bounded opportunity structures (Gindling and Newhouse, 2014). This challenges the assumption of frictionless interregional resource transfer and highlights the need to examine how social networks function differently across uneven regional and institutional contexts.

Drawing on qualitative evidence in Bo'ai County, rural China, this study examines how the coupling between social networks and rural place shapes low skilled returnee entrepreneurship in resource constrained regions. Rather than treating networks as mobile inputs, the analysis focuses on how network-based resources become effective or remain latent through their interaction with local institutions, social norms, and place-specific economic structures. By foregrounding network-space coupling, this study contributes to regional science and economic geography in three ways. First, it demonstrates that entrepreneurial participation among disadvantaged returnees is conditioned less by the possession of trans-local resources than by their alignment with local socio-spatial contexts. Second, it reframes returnee entrepreneurship as a context-dependent process of livelihood resilience and local adaptation rather than a linear outcome of resource return. Finally, it offers policy-relevant insights into how place-based institutional arrangements shape entrepreneurial possibilities in developing and peripheral rural regions.

In the coming sections, this study conceptualizes the framework that theorizes returnee entrepreneurship as a process of network-space coupling, explains the research methods and presents empirical findings on how low-skilled returnees mobilize network-based resources under locally specific spatial conditions in peripheral areas. In the discussion and conclusion, this research discusses the theoretical and policy implications of these findings for understanding entrepreneurship in peripheral and resource-constrained rural regions.

## 2. Literature review

### 2.1. Rethinking the relationship between social network and space

Return migration, entrepreneurship, and social networks are central concepts in economic geography, commonly used to explain opportunity generation across the migration-return-entrepreneurship nexus. In this study, return migration refers to the process through which individuals return to their place of origin or social community after extended interregional employment or urban migration, marking both the end of geographical mobility and the reconstitution of local identity (Cassarino, 2004). Entrepreneurship is understood as a process of value creation and livelihood reconstruction that involves opportunity recognition, resource mobilization, and social action (Shane and Venkataraman, 2000). Social networks are defined as sets of resources embedded in relational structures, whose functions depend on relational content, structural properties, and the socio spatial contexts in which they are embedded (Bourdieu, 1985; Granovetter, 1985; Amit and Riss, 2007; Haug, 2008; Hugo, 1982).

Existing studies on returnee entrepreneurship largely conceptualize social networks as transferable resources accumulated during migration and subsequently deployed upon return. Research suggests that trust and reciprocity reduce entrepreneurial entry risks, information flows facilitate opportunity recognition, and trans-regional ties provide access to finance and markets, thereby promoting entrepreneurial engagement

and performance (Granovetter, 1985; Aldrich et al., 1986; Massey et al., 1993; Portes, 1998; Jack and Anderson, 2002). This understanding is closely aligned with classic migration theories that conceptualize migration as a cumulative and networked social process. In particular, Massey et al. (1993) conceptualize migration networks as a central mechanism through which migration becomes self-reinforcing. By mobilizing interpersonal ties across space, such networks transmit information, lower migration costs and risks, and facilitate the cumulative circulation of resources, thereby sustaining ongoing mobility through processes of cumulative causation.

This assumption of network portability is rooted in the dominant spatial ontology of early migration research. Traditional geographical and demographic studies largely relied on an absolute view of space, treating space as a container composed of bounded territorial units and migration as flows between them (Graham, 2000; Bailey, 2009). Places were conceptualized as neutral stages on which migration unfolded, rather than as socio-spatial structures that actively shape migratory processes and outcomes (Silvey and Lawson, 1999). Although the cultural turn and the rise of transnational perspectives challenged this view by emphasizing multi-sited social relations and relational space (Basch et al., 2020; Schiller, 2004; Featherstone et al., 2007), an exclusive focus on relationality and mobility tends to underplay the constraining role of local institutions, social norms, and historical sedimentation (Jones, 2009; 2022).

Recent geographical scholarship has therefore re-emphasized place as a temporally layered and institutionally structured context characterized by historical depth and structural inertia (Massey, 1995; Dodgshon, 1998). From this perspective, social networks do not enter an institutional "blank slate" upon return; rather, their entrepreneurial value depends on whether they can be effectively coupled with existing institutional arrangements, social relations, and economic structures in the return context (Pauli and Osowska, 2019). Empirical evidence further shows that the entrepreneurial relevance of migration-based networks is contingent on institutional compatibility between origin and return locations; where such compatibility is low, trans-regional networks are often difficult to mobilize locally (Wang, 2020).

Social capital theory provides additional insight into the action conditions underpinning network-space coupling. Nahapiet and Ghoshal (1998) argue that the effectiveness of social capital depends on its structural (resource availability), relational (resource mobilization), and cognitive (resource absorption and conversion) dimensions. This implies that even where network structures exist, their translation into entrepreneurial action depends on individual capabilities and contextual alignment. Empirical research shows that economic status, language ability, and occupational experience significantly shape both network formation and absorptive capacity (Ryan, 2011), while high living costs and consumption norms in global cities constrain migrants' ability to accumulate entrepreneurial capital, further limiting the potential for returnee entrepreneurship (Banta and Pratt, 2021).

In sum, social networks are not spatially detached entrepreneurial resources but processual structures that are continuously reshaped within specific socio-spatial and temporal contexts. Whether network-based resources can be transformed into returnee entrepreneurial opportunities depends on their effective coupling with local institutions, social relations, economic structures, and historically shaped development paths in the place of return (Granovetter, 1985; Uzzi, 1997; Hess, 2004). Returnee entrepreneurship should therefore be understood not as the simple return of network resources, but as a contingent process of network-space coupling.

### 2.2. Rural areas and entrepreneurship

Much of the migration literature focuses on international mobility and cross border return, while paying insufficient attention to entrepreneurial processes in internal urban-to-rural return contexts. Rural areas are commonly positioned as non-core regions within national

economic systems, where entrepreneurial activities are constrained by low population density, aging society, distant markets, inadequate transport and logistics, limited financial services, exclusionary local social structures, and strong dependence on low value-added agricultural industries (Meccheri and Pelloni, 2006; Malecki, 2018; del Olmo-García et al., 2023; Loras-Gimeno et al., 2025). However, as Müller (2016) notes, large scale regional comparisons often portray rural areas as uniformly resource poor, overlooking the heterogeneous resources and relational foundations embedded in local spatial contexts. At smaller spatial scales, such as villages or rural settlements, diverse and locally specific entrepreneurial advantages may exist.

Local resources, ecological conditions, and cultural assets provide opportunities for entrepreneurship in agricultural processing, rural tourism, and place-based products (Wortman, 1990; Korsgaard et al., 2015; 49). Sustainable industries that effectively utilize natural and ecological resources can generate new economic potential and enhance rural economic resilience. Rural communities often exhibit strong collective action capacity, making them fertile ground for social entrepreneurship and community based economic development. Such potential is often rooted in locally embedded social networks formed through traditions of mutual aid and cooperation, which facilitate the embedding and diffusion of entrepreneurial activities in rural contexts (Muñoz et al., 2015). In addition, institutional support mechanisms function as critical network ties for rural entrepreneurship. Local governments, through industrial support policies, cooperative arrangements, and public services, can compensate for market failures and strengthen industrial linkages via institutional networks (Beer, 2014; McKitterick et al., 2016).

### 2.3. Returnees and entrepreneurship in rural China

Since the late 1970s, China's economic reforms and rapid industrialization have generated large-scale rural-to-urban migration, with approximately 500 million rural residents moving to cities (Ding et al., 2024). However, urban-rural segregation and the household registration (hukou) system have constrained migrants' settlement and long-term development in urban areas (Chan and Buckingham, 2008). Migrant workers are systematically excluded from urban welfare provisions, including education, healthcare, housing, and social security, and consequently occupy marginal positions in the urban labor market (Keung Wong et al., 2007). This institutional exclusion, reinforced by occupational segmentation and limited labor mobility, restricts migrants' ability to accumulate human capital and urban social networks, thereby reproducing their disadvantaged social and economic positions (Liu et al., 2021).

In recent years, rising urban living costs, shrinking employment and declining labor demand have continuously weakened the capacity of cities to absorb migrant workers (Colas and Ge, 2019; Hao, 2022). The COVID-19 pandemic further intensified employment instability among low skilled migrant laborers, many of whom experienced work suspension, income reduction and job insecurity (Ma et al., 2024; Tang and Hao, 2025). For this group, return migration and entrepreneurial engagement are not primarily opportunity-driven but constitute structural responses to urban exclusion combined with the relative accessibility of resources in rural areas (Ye, 2018).

In contrast to these constraints at the urban end, China's traditional rural society has long been characterized by relational communities, where social relations are deeply rooted in kinship, locality and long-term cohabitation, while formal market institutions, financial services, and public governance capacities remain comparatively weak (Cao and Liang, 2025). Existing research widely recognizes that locally embedded social networks play a crucial role in returnee entrepreneurship, including informal financing, labor and skills cooperation, access to industry information and early market entry (Démurger and Xu, 2011; Zhu et al., 2019; Liu et al., 2021; Liang et al., 2025). Families constitute the most fundamental source of support for returnee entrepreneurs,

providing start-up capital, shared cultural values, occupational experience, and emotional support, all of which significantly shape entrepreneurial intentions and action trajectories (Liu et al., 2021). Kinship and friends with higher social status further offer access to various forms of entrepreneurial information, particularly policy related knowledge, which effectively reduces the transaction costs of starting a business (Zhao et al., 2025).

By contrast with international cases of "reverse entrepreneurship" in high-technology sectors, return migration in China shows a pronounced local orientation. Most returnees operate in agriculture, processing and territorially embedded industries, relying heavily on county-level industrial structures and local resource endowments (Qi et al., 2025). Through re-embedding into family networks and local communities, returnees interact with local stakeholders and gain knowledge of local industrial conditions, which enables them to identify market gaps and locally grounded business opportunities (Gaddefors et al., 2020).

Alongside relational and industrial conditions, institutional support further shapes the spatial context of returnee entrepreneurship. With the advancement of the rural revitalization strategy, central and local governments have increasingly promoted industrial upgrading and returnee entrepreneurship through place-based policy interventions (Cao and Liang, 2025). Policy initiatives such as the Strategic Plan for Rural Revitalization (2018–2022) (Central Committee of the Communist Party of China & State, 2018) and the Opinions on Promoting the High-Quality Development of Returnee Entrepreneurship (2020) (National Development and Reform Commission of the People's Republic of China, 2020) emphasize fiscal subsidies, tax incentives, entrepreneurship training, and public service provision to improve the rural business environment and lower entry barriers for returnees (Zhu et al., 2019; Zhao et al., 2024).

Despite growing attention to returnee entrepreneurship, existing studies remain divided between macro level explanations that emphasize interregional resource flows and institutional constraints, and micro level analyses that frame entrepreneurship primarily as an individual choice. This analytical separation has limited understanding of low-skilled returnee entrepreneurship by neglecting how entrepreneurial action is shaped through the interaction between social networks and place-specific spatial conditions in concrete rural contexts. To address this gap, this study adopts a meso-level perspective centered on county- and village-level social structures and asks the following research question: how do rural social networks, when re embedded by returnees, interact with local spatial opportunity structures to facilitate or constrain low-skilled entrepreneurial participation?

## 3. Methodology

### 3.1. Study area

Henan is one of China's largest provinces in both population size and labor mobility. The province contributes about 10 % of China's migrant workers (National Bureau of Statistics of China, 2013), and is home to 98.6 million residents in 2023, including 43 million rural inhabitants (44 %). Recent statistics show that the share of workers employed outside the province declined from 47.4 % in 2012–43.6 % in 2014 (Xu et al., 2017), indicating a growing trend of return migration in recent years. Located on the fertile alluvial plains of the middle and lower Yellow River, Henan is also well known for its strong agricultural base. It has long served as a core region of national grain production and the country's leading producer of wheat, while diverse specialty crops have developed across different localities. Bo'ai County, in northern Henan Province, is one such locality and is well known for its large organic vegetable production area.

Bo'ai County is a representative agricultural area with a strong vegetable industry. With 200,000 mu (approximately 32,950 acres) of cultivation a complete production-processing-trading system, the county provides a mature industry environment for returnee

entrepreneurship. In 2020, Bo'ai was designated as a national pilot site under the "Supporting Migrant Workers to Return to Hometowns for Entrepreneurship" initiative (Deng and Lyu, 2024). By the end of 2020, nearly 3000 migrants had returned to start businesses, including around 500 engaged in vegetable brokerage and related entrepreneurial activities (China Daily, 2021; Henan Statistical Yearbook, 2021). This suggests that returnee entrepreneurs constitute a substantial and visible group within the local vegetable brokerage sector. The combination of a solid industrial base and strong policy support makes Bo'ai an ideal case for examining low-skilled returnee entrepreneurship in rural areas.

### 3.2. Research methods

This study adopts a qualitative research design combining participant observation, in depth interviews, focus groups, and documentary analysis. Fieldwork was conducted in Bo'ai County between March 2023 and January 2024 through over 20 site visits and approximately 60 days of field presence.

A purposive and theoretically informed sampling strategy was employed. Field access was facilitated through institutional gatekeepers (local government officials) who helped identify potential low-skilled returnee entrepreneurs in the vegetable brokerage sector, while final sample selection followed analytically informed purposive criteria. Four low-skilled returnee entrepreneurs were selected as typical cases, defined as individuals without high school education who had previously migrated to large cities for work and subsequently returned to their home villages to engage in entrepreneurship (Zhao, 2002). Embedded in everyday village life and local social networks, these cases represent common entrepreneurial trajectories under conditions of capital scarcity and institutional constraint.

To enable triangulation across perspectives, the sample also included 4 family members or close social ties, 3 local government officials, and 8 local villagers who participated in 2 focus groups (four participants each). In total, 19 participants were recruited (Tables 1 and 2).

Data collection proceeded in multiple stages. Initially, this study employed participant observation to contextualize how returnees establish and operate their vegetable brokerage businesses, as well as their interactions with diverse stakeholders. Building on these observational insights, the study conducted interviews with relevant actors, using a purposive sampling strategy to capture varied perspectives. The 4 core returnee entrepreneurs were interviewed in two rounds. The first round used narrative interviews to elicit life histories and migration trajectories, with interviews lasting approximately 2–3 h. The first round adopted a narrative approach, granting participants autonomy to explore life stories and migration trajectories—an approach selected for its ability to capture the complexity of migration processes and challenge homogenized discourses about rural return (Eastmond, 2007; Vandsemb, 1995). The second round used semi structured interviews focusing on demographic characteristics, motivations for return, and the role of social networks in entrepreneurial activity, lasting approximately 45 min to 1 h. All other participants were interviewed once, with interviews typically lasting 1–2 h. Both focus groups lasted approximately 2–3 h. All interviews were audio recorded with informed consent.

Interview and focus group data were triangulated with informal conversations, repeated site observations, local government documents,

**Table 1**  
Returnee Case Background of the Study.

ID	Gender	Age	Education	Years Migrated	Entrepreneurship Mode	Previous Work during Migration	Marital status
R1	Male	66	Primary School	12 years	Cooperative	Construction worker	Married
R2	Male	36	Middle School	6 years	Family-based	1. Porter 2. Driver	Married
R3	Male	29	Middle School	5 years	Self-employed	Worker in the production line at an electronic factory	Married
R4	Male	28	Middle School	6 years	Self-employed	1. Menial work in restaurants 2. Security guard	Engaged

**Table 2**  
Supplementary Interview Participants.

Group	Number of Participants	Roles / Departments	Purpose of Interview
Family Members / Friends	4	R2's father; R1's brother; R3's friend; R4's fiancée	To understand relational support, family decisions, and network embeddedness
Local Villagers (Focus Group 1)	4	Ordinary residents from A Village (belonging to the Bo'ai County), small-scale farmers; some engage in casual labor for vegetable brokers (e. g., sorting, packaging, loading)	To gather community perceptions of returnee entrepreneurship and local norms
Local Villagers (Focus Group 2)	4	Ordinary residents from B Village (belonging to the Bo'ai County), Small-scale farmers; some engage in casual labor for vegetable brokers (e. g., sorting, packaging, loading)	
County Government Officials	3 (G1, G2, G3)	G1 in The Bureau of Human Resources and Social Security; G2 in The People's Government of Xiaojing Town (one town belongs to Bo'ai County); G3 in The Bureau of Agriculture and Rural Affairs	To evaluate policy implementation and institutional support

media reports, and publicly available social media materials related to returnee entrepreneurship. Background information on the four focal entrepreneurs was cross-checked using local government records.

All interview transcripts, observation notes, and secondary materials were manually analyzed using an open coding strategy. Codes directly relevant to the research questions were retained and then categorized into broader themes through axial coding. These were subsequently aligned with the study's conceptual framework, enabling the construction of a coherent narrative in the empirical section. All personal identifiers have been anonymized.

### 4. Major findings

This section draws on interviews with four low-skilled returnee entrepreneurs, as well as family members and friends, local villagers, and government officials in Bo'ai County, China. The findings demonstrate that low-skilled returnee entrepreneurship in Bo'ai County emerges not from the transfer of trans-local resources but from locally embedded mechanisms that enable entrepreneurial action under structural constraint.

#### 4.1. Returning under structural constraints: limited accumulation of trans-local resources

Contrary to studies that interpret return migration is as a strategic move to convert acquired resources into entrepreneurship (Stark and Bloom, 1985; Mesnard, 2004), the low-skilled returnees in this study did not choose to return home proactively. Instead, all returnees in this study returned because of structural pressures rather than opportunity-driven motives. Their urban experiences reflect three interrelated constraints.

First, the household registration system (hukou), in combination with low educational attainment, pushed returnees into the informal urban labor market. All participants emphasized that their rural hukou status excluded them from formal occupations and restricted access to social services. With limited skills, they were confined to insecure, low-paid, and high-risk informal jobs in construction, factory work, cleaning, and security services. These positions provided neither career progression nor access to social insurance, making it almost impossible to accumulate savings, acquire transferable skills, or build stable social ties (Espinosa et al., 2025). Both R1 and R2 described urban employment as physically demanding, poorly paid and highly unstable. R1 highlighted the dangerous nature of informal work and the constant risk to personal safety, while R2 emphasized low wages, frequent job changes and the absence of basic labor protections such as compensation for dismissal.

Further, as most of the interviewees are young around 30 years old, many highlighted that the lack long-term career prospects in urban employment influenced their decision to return. For example, R4 explained: “When I was employed as a casual security guard in a government in Beijing, this work was more like a doorkeeper, I just needed to open the gate when I saw the car coming every day. I felt the work was boring and without any challenges. I saw no future in it.”

In addition to occupational segregation, the hukou-based dual medical insurance system further marginalized rural migrants, reflecting pronounced spatial inequalities in access to healthcare and public services. These institutional arrangements embody deep-seated urban–rural geographical inequalities in access to resources, welfare provision, and life opportunities, which are directly translated into unequal individual development (Bond-Smith et al., 2025). China has not yet fully unified its healthcare schemes, rural migrants are typically enrolled in the Urban and Rural Resident Basic Medical Insurance, which offers lower reimbursement rates and limited coverage compared with the Urban Employee Basic Medical Insurance (He, 2022). As a result, many migrants can only afford medical treatment in their hometowns rather than in the cities where they work. R3 explained that despite performing exhausting work, he “did not dare to fall ill,” because medical treatment in the city was unaffordable under rural insurance. This institutional divide reinforces migrants’ second-class status in urban areas and contributes to their decision to return home.

Second, the high cost of urban living and barriers to social integration accelerated their return. R2 described his arrival in Huizhou, Guangdong: “My wife gave me around RMB1000 (approximately \$140) when I prepared to migrate to Huizhou for work in 2017, but I spent about half the money on rail fare. The price of meals and accommodation in Huizhou City was high, and I could not afford them...I just ate a cheap meal and rented a cramped and damp room with others in the basement. The space was overcrowded, and infested with bugs and mice, which made me scared and stressed. If I had RMB1000 in my hometown in 2017, I could live well!” Faced with the continuous burden of urban living and reproduction costs, returning home emerged as the more economically rational and structurally feasible choice.

Although research suggests that granting equal citizenship rights can strengthen migrant cohesion and reduce return rates (Holtug, 2017), such rights remain elusive for low-skilled migrants without urban hukou. The interviewed returnees reported feeling like second-class citizens. Despite serving urban populations, they could not integrate into local communities and often experienced exclusion and social

marginalization.

Third, prolonged family separation and family obligations and expectations, such as caring for elderly parents, supporting spouses, and marrying at what is considered the appropriate age also exerted strong pressure on migrants to return (14). As R1 reflected: “When I worked outside, poor transportation made it hard to return home. My wife was pregnant, and my elderly parents needed care. They needed me—so I came back.”

R4’s fiancée recalled: “He was 25 at that time, and both of our families felt it was the right age for us to settle down in our hometown. We were influenced by traditional expectations that young people should marry early and stay close to their parents, so returning home felt like the natural choice for our future together.” In China, it is common for young adults to shoulder caregiving duties, particularly in rural areas, even as the country attempts to transition from informal family-based elder care to a formal, state-supported long-term care system (Liu and Sun, 2015). Such Confucian family values and filial obligations contribute to the temporary and unstable nature of migration: as soon as family needs arise, migrants are expected to return home.

These systemic disadvantages not only pushed return migration but also disrupted the resource accumulation critical for post-return entrepreneurship. Marginalized within labor markets, low-skilled migrants were often confined to informal, low-paid, high-risk, and unstable jobs lacking social protection. These positions offered limited chances for savings, skill enhancement, or knowledge acquisition—key components of financial and human capital. Moreover, the absence of social security and unstable living conditions intensified their “floating” existence. Frequent job and housing changes prevented the continuity needed to build long-term social capital. Consequently, they struggled to access entrepreneurial resources such as market insights, potential partners, or mentors through trans-local networks.

#### 4.2. Network-space coupling: how Social, economic, and institutional embeddedness enable entrepreneurial formation in rural China

This section demonstrates that entrepreneurial formation among low-skilled returnees is not an individual process but one fundamentally shaped by three layers of local embeddedness: the rural familiar-ties system, the local industrial structure, and the institutional network created through rural revitalization policies.

##### 4.2.1. Familiar ties solve coordination legitimacy and informal resources

Rural China is characterized by a familiar-ties system rooted in kinship, marriage, and locality. Within this relational environment, returnees rely extensively on local familiar-ties networks to compensate for weak formal market institutions and the absence of trans-local entrepreneurial resources. As Wickham (1997) argues, entrepreneurship requires the coordination of actors, opportunities, organizations, and resources. In rural contexts, these elements are overwhelmingly generated and mobilized through strong, localized, and informal social networks, which supply human capital, circulate tacit knowledge, and foster a shared sense of belonging, thereby sustaining collective participation and coordination within the cluster (Velez-Ospina et al., 2023). For low-skilled returnees, therefore, local familiar-ties networks are not merely supportive but constitute the foundational infrastructure that enables entrepreneurial entry, resource mobilization, and day-to-day business operation.

First, results showed “supported from local familiar-ties” to be a main attribute of entrepreneurship in vegetable broker industry. Four entrepreneurs; family members and friends were still in the villages, and strong ties motivated the entrepreneurs to return and launch a business. For example, R4 said: “When I worked outside, I could only stay in touch with my parents through phone calls. On ordinary days it felt ok, but during festivals or important family occasions, they would always say how nice it would be if I were home...As a family, we all hoped to stay together rather than being apart all the time.”

Friendship also offered family-like emotional support, forming an essential component of the personal ties. R3 and his childhood friend recalled that during R3’s period of migrant work, he frequently called to share feelings of loneliness and work-related stress. His friend explained that their long-standing bond, formed through growing up together, created a sense of mutual obligation and care. Such affective reassurance strengthened R3’s sense of belonging and reduced the emotional costs of returning, providing trust and emotional stability that supported his entrepreneurial engagement.

In addition to emotional support, local familiar-ties networks functioned as primary gateways into the vegetable brokerage industry by access to critical entry opportunities that would otherwise be unavailable. As R2’s father, a seasoned vegetable broker with over a decade of experience, observed: “entry into the vegetable brokerage industry in the village typically follows two pathways: intergenerational transmission from father to son and peer referral among close friends. Such opportunities are seldom extended beyond immediate social networks.” This pattern shows that the key entry threshold required for vegetable brokerage, including start-up capital, equipment, land access, experiential knowledge, and social legitimacy, are embedded in local familiar ties networks and can only be mobilized through them.

Local familiar-ties networks serve as a vital source of startup resources, particularly in the form of financial capital, human capital, and land. Four entrepreneurs in this study relied heavily on their family and friend networks to launch their businesses. For example, R1 reported that he had no savings from previous migrant work and borrowed approximately RMB 30,000 (around USD 4200) from R1’s older brother to initiate the business. His brother also provided the family house, located close to a provincial road with convenient transport access, to be used as the business office.

Friendship-based ties also offered essential material support during business formation. R3’s friend let him basic equipment and tools and later sublet part of his facility at a low cost when R3 began operating independently. Although this assistance resembled kin-like support in its generosity, it differed from family support in that it was grounded in mutual reciprocity and long-term trust. As R3’s friend explained: “the collaboration was emotionally reassuring while also aligning with his own need for a reliable partner as his business expanded, making the relationship mutually beneficial.”

Intergenerational transmission significantly lowered the entry barriers to entrepreneurship by providing tacit industry knowledge and a legitimate pathway into the local market. In term of R2 entrepreneurship process, R2 cited his father as the most important person to guide him in stating a business. R2 recalled growing up immersed in his father’s work as a vegetable broker. Through regular assistance during childhood, he gradually acquired key occupational skills, including produce assessment, price negotiation with farmers, and transaction practices. At the same time, R2’s wife and mother were actively involved in supporting the business, participating in all five core functions of vegetable brokerage, including price negotiation, weighing, packing and handling, logistics, and financial settlement (Fig. 1). In essence, these entrepreneurs’ family support generated both financial capital and human capital when establishing successful business. R2 described as “the backbone of my business.”

Third, marital relationships also facilitated returnee entrepreneurship by strengthening embeddedness in local familiar-ties networks. For unmarried returnees, returning home often accelerated marriage arrangements. In rural China, family-provided housing and kin-based support for weddings lower the economic threshold for marriage. As R4 noted, returning home enabled him to fulfill family expectations regarding marriage and proximity to parents. As a socially institutionalized arrangement, marriage provided emotional stability and enhanced social legitimacy within the local community, which in turn facilitated access to labor, financing, business partnerships, and policy-related information (Fan, 2003).

4.2.2. Industrial structures provide accessible opportunities and low threshold entry

The findings show that returnee entrepreneurship in Bo’ai County is strongly shaped by the presence of a mature local vegetable industry. Entrepreneurial activities are not randomly located but are enabled by an existing industrial structure that provides accessible entry for low-skilled returnees. Based on the Report of Bo’ai County Vegetable Industry Development and Rural Revitalization, the vegetable sector in Bo’ai County exhibits three salient structural features, 1) a long-established and stable industrial base; 2) extensive facility-based production; and 3) a complete local value chain (Fig. 2).

This industrial base provides returnees with a clear and accessible

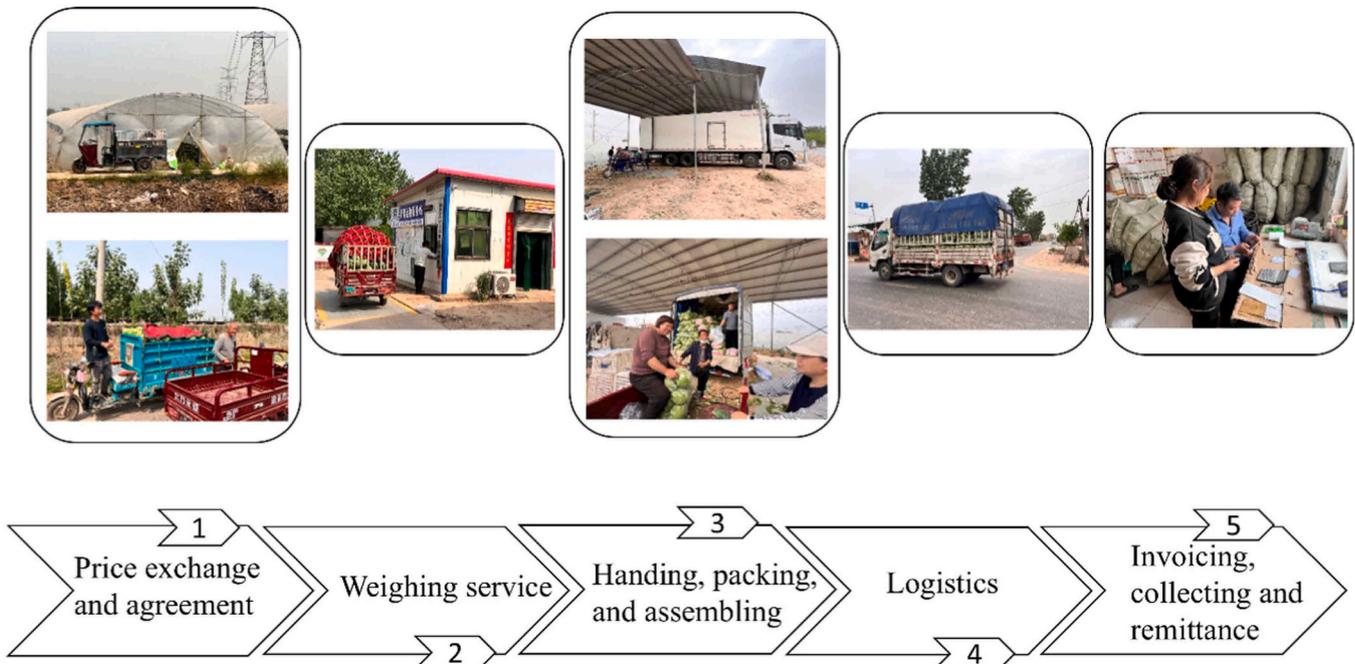


Fig. 1. Vegetable Brokers’ Five Main Tasks. Source: Author’s work.



Fig. 2. Features of the Vegetable Industry in Bo'ai County. Source: Authors' work.

market entry. Stable production scale reduces search costs for brokerage activities, while established trading systems and branding environments lessen dependence on external markets and large initial investments. For low-skilled returnees, vegetable brokerage thus represents a low-threshold, low-learning-cost, and relatively low-risk entrepreneurial activity. Hence, local industrial development not only creates entrepreneurial opportunities but also channels returnee entrepreneurship into forms deeply embedded in the local agricultural system.

In addition, four entrepreneurs had developed strong ties with the rural community. All had grown up in local villages and were familiar with their local communities. Familiarity further tied them to their local area. Four returnees in this study consistently emphasized that familiarity with the village's spatial layout, household structures, crop varieties, seasonal cycles, and trading practices constituted a key advantage that outsiders could not easily replicate. Such place-based knowledge significantly reduced search costs and operational uncertainty during business formation.

Being a returnee entrepreneur offers advantages beyond familiarity with local resources, particularly in mobilizing local labor. Four returnees recruited local residents, mainly for vegetable sorting and packaging. R2 noted: "We know each other well, so they are willing to help even for relatively low wages. Most are left-behind women who usually stay at home. When I call them, they come to the collection point on time to assist with sorting and packing. The average wage is about RMB 10 per hour (approximately USD 1.38)." This flexible labor arrangement enhances the operational viability of returnee businesses and reinforces their integration into local production and circulation networks. Rather than operating as isolated market actors, returnee entrepreneurs become deeply embedded within village-level economic cycles, linking agricultural production, labor allocation, and market exchange.

Insights from the focus group 1 further illustrate how such labor arrangements are socially normalized at the village level. Participants emphasized that working for returnee brokers was widely perceived as a mutually beneficial and socially appropriate form of engagement,

particularly for left-behind women. As one villager noted, "We prefer working for people we know. The pay is not high, but it is flexible and close to home, and there is no pressure." Others added that familiarity and trust reduced concerns about wage disputes and work intensity, making these arrangements more acceptable than factory or distant wage labor.

Interviews with villagers further indicated a clear gendered division of labor within returnee brokerage activities. Women were mainly involved in sorting and packing vegetables, which were widely described as "convenient" and "manageable" forms of work (Fig. 3). As participants in Focus Group 2 noted, such tasks could be completed within the village and adjusted around household schedules, making them particularly suitable for left-behind women. Several participants highlighted that this type of work allowed women to earn cash income without challenging prevailing expectations regarding women's primary responsibility for family care.

However, interviews with local government officials suggest that returnee entrepreneurship in Bo'ai County is strongly anchored in local agricultural resources and the existing county-level industrial structure. While this embeddedness lowers entry barriers, officials expressed concern that heavy reliance on localized resources has resulted in small-scale, homogeneous ventures with limited capacity for upgrading and market expansion. G1 and G3 noted: "without the introduction of external capital, organizational capabilities, and broader market connections, returnee entrepreneurship risks becoming locked into low value-added rural activities."

#### 4.2.3. Institutional networks deliver formalization visibility and linkage

Returnee entrepreneurs described local government support as largely indirect rather than financial. Village and county governments primarily provided symbolic and procedural support, including industry promotion and assistance with regulatory processes. As four entrepreneurs noted: "We did not receive direct financial support, but the government promoted the local vegetable industry. With more publicity, more buyers came, which made brokerage much easier."

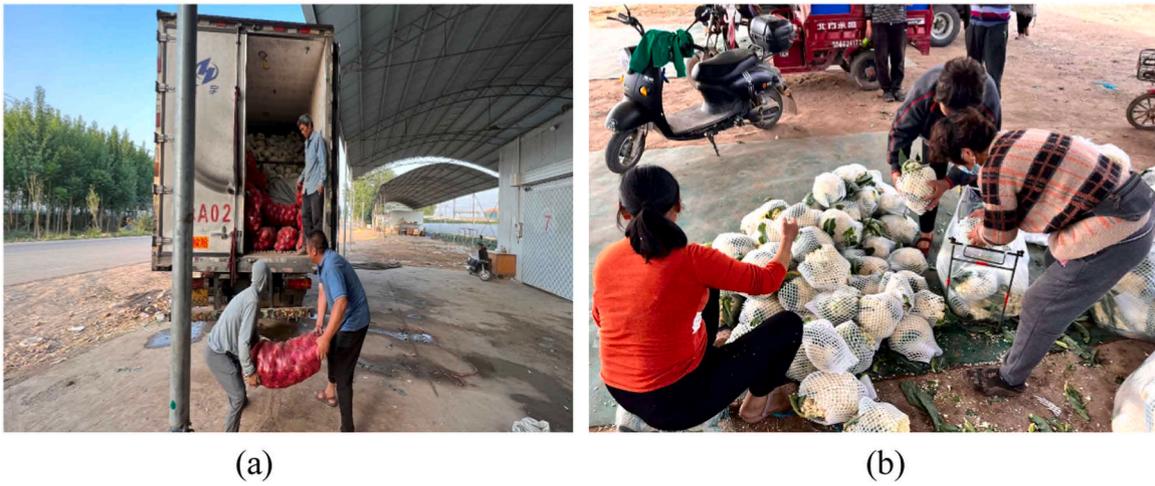


Fig. 3. Labor Division of Local Residents in Vegetable Brokerage Business. Source: Authors' work.

G1 and G3 acknowledged that government efforts were mainly directed toward agricultural production rather than individual entrepreneurs, for example through roadside signage and mobile ring-back tone campaigns (Fig. 4). For returnee entrepreneurs, such industry-level interventions indirectly expanded market access and reduced reliance on individual marketing capacity.

In addition, local governments played an important role in facilitating business formalization. R1 recalled, “When I decided to return home and start a vegetable brokerage business, I had no idea how to handle the registration process. local government helped me apply for lower taxes and shortened the application process.” G2 confirmed this point and noted that fiscal constraints at the local level limit the availability of policy-based financial support. Nevertheless, the local government provides the services it can, particularly by simplifying administrative procedures and assisting returnee entrepreneurs with registration and compliance processes.

Although direct financial assistance remained limited, institutional recognition became particularly important during periods of crisis. Four returnees recalled that during the COVID-19 lockdowns, Official Chinese media, such as China Daily, portray vegetable brokers as key actors during the COVID-19 period who stabilized agricultural supply chains by linking farmers with markets, ensuring the smooth circulation of vegetables, and safeguarding both rural livelihoods and urban food security.

### 5. Discussion and conclusion

Drawing on qualitative evidence from Bo'ai County, this study contributes to the migration and entrepreneurship literature by showing that low skilled returnee entrepreneurship in rural China is best explained through a network space coupling perspective. Unlike capital centric accounts that assume returnees strategically convert urban accumulated resources into entrepreneurial advantage (e.g., Stark and Bloom, 1985; Mesnard, 2004), this study demonstrates that low skilled return migration is a structurally constrained exit from cities, and that entrepreneurial formation depends on how returnees become re embedded in local social relations, local economic structures, and institutional environments.

Institutional barriers related to the hukou system, limited education, informal employment, and high urban living costs significantly constrained migrants' ability to accumulate transferable financial, human, and social capital. As a result, entrepreneurship among this group emerges less as an extension of urban success and more as a survival-oriented livelihood strategy following return. This finding delineates an important boundary condition in returnee entrepreneurship theory, suggesting that capital-centric explanations are insufficient for understanding internal, low-skilled return migration in developing-country contexts.

Rather than conceptualizing social networks as mobile resources



Fig. 4. Roadside Signage about the Vegetable Industry in Bo'ai County. Note: Roadside signboards highlighting (a) Xiaojing Town, Bo'ai County, designated as a National Strong Agricultural Industry Town and (b) nationally recognized vegetable-based specialty industry cluster, with an annual output value exceeding RMB 10 billion (approximately USD 1.4 billion). Source: Authors' work.

accumulated during migration and redeployed after return, the findings demonstrate that the network resources into entrepreneurial action is shaped by a threefold spatial mechanism: first, familiar ties provide emotional security, start-up resources, labor support, and social legitimacy that compensate for weak formal institutions; second, economic embeddedness in the local vegetable industry offers a low-threshold niche with predictable demand and reduced entry costs; third, institutional embeddedness through rural governance facilitates business formalization, industry visibility, and symbolic recognition. These three dimensions enable entrepreneurial entry while also implying that place-based policy must address social, industrial, and institutional conditions simultaneously rather than relying on financial support alone.

Embeddedness also entails structural limitations. The absence of external capital, organizational innovation, and broader market integration increases the risk of path dependence and lock-in within low value-added agricultural activities. This finding echo regional entrepreneurship research showing that while local networks can compensate for institutional gaps, they may simultaneously constrain long-term growth and innovation (Abdurakhmanova and Ahrorov, 2025; Malceki, 2018; Pato and Teixeira, 2018).

Although this study is based on a single case from Bo'ai County in Henan Province, its findings are not confined to this locality. Bo'ai County can be regarded as a representative case of agriculture-dominated, labor-exporting counties in central China. Existing studies indicate that such counties are widely distributed across central provinces (e.g., Henan, Anhui, and Jiangxi Provinces) and are typically characterized by a strong reliance on primary industries, large-scale rural out-migration, and limited access to stable formal employment for low-skilled workers in urban areas (Zhu, 2007; Démurger and Xu, 2011; Chan, 2018). Within the context of rural revitalization policies, these counties have increasingly become important spatial platforms for return migration and returnee entrepreneurship.

Related case-based studies further suggest that returnee entrepreneurship is shaped less by the direct transfer of resources accumulated during urban migration and more by the combined influence of local social networks, county-level industrial structures, and institutional environments (Marcouiller and Westeren, 2019; Wang et al., 2022). This pattern is consistent with the mechanisms identified in this study, namely familiar-ties embeddedness, industrial embeddedness, and institutional embeddedness, and indicates that entrepreneurial formation among returnees depends on the re-coupling of social networks with place-based spatial conditions.

This study situates return migration and entrepreneurship within a rural spatial context, extending the concept of trans-local ruralism by showing how rural places are actively reconstituted through mobility and entrepreneurial practices. With the rise of the global countryside, both international and internal migration increasingly flow toward rural areas, enabling the circulation of discourses, values, social relations, and material practices across urban-rural and interregional scales (Woods, 2007; McCarthy, 2008; Gkartzios et al., 2022; Qian et al., 2024). In this context, the expansion of returnee entrepreneurship in rural areas, has reactivated villages as more than passive repositories of resources. Rural settlements emerge as active arenas that provide cultural meaning, social norms, and material support for entrepreneurial formation and livelihood reconstruction, rather than merely absorbing urban spillovers.

This phenomenon is particularly evident in the Global South, where low-skilled workers face persistent urban exclusion and institutional marginalization. In response, rural communities mobilize familiar-ties social structures, place-based values, and shared ethics of responsibility to support returnees' livelihood reconstruction. Through these locally embedded relations, returnee entrepreneurship becomes not only an economic activity but also a means by which rural societies reposition themselves within global and domestic mobility regimes.

The limitations of this study lie in the fact that all samples were drawn from a single industry, which may affect the generalizability of

the findings. Additionally, focal returnee entrepreneurs interviewed in this study are men. The absence of female returnee entrepreneurs among the focal cases reflects the gendered structure of both migration and entrepreneurship in rural China. Previous studies consistently show that women are less likely to migrate independently, more likely to remain in rural areas as left-behind spouses, and face greater barriers to entrepreneurial entry, particularly in market-oriented and capital-intensive activities (Fan, 2003; Minniti and Nardone, 2007; Jennings and Brush, 2013). Nevertheless, the absence of female returnee entrepreneurs means that this study cannot capture gender-differentiated experiences of return migration and entrepreneurship. Future research should explicitly examine women's returnee entrepreneurship and the gendered division of labor within rural entrepreneurial ecosystems.

In sum, this study reconstructs the understanding of returnee entrepreneurship from a regional perspective by reframing it as a process of network space coupling, whereby entrepreneurial outcomes among low skilled returnees are conditioned by the alignment between social networks and local spatial opportunity structures. It further identifies three place-based mechanisms namely familiar ties embeddedness, industrial embeddedness, and institutional embeddedness through which such coupling enables entrepreneurial entry under conditions of structural constraint.

This finding carries important implications for regional and place-based policy design. First, local governments in origin areas should build on their existing development foundations and distinctive resource endowments to cultivate regional competitiveness in terms of economic development, living standards, and the overall entrepreneurial environment. Rather than pursuing absolute development goals in a homogeneous manner, policy efforts should prioritize the targeted cultivation of comparative advantages through differentiated and place-sensitive industrial policies (Ren and Wang, 2025). In addition, improving access to medical and educational resources, together with the provision of convenient living support for return migrant workers and their families, can help reduce the overall costs associated with return migration and entrepreneurial engagement.

Second, strengthening rural social capital through cooperatives, industry associations, and other collective organizations can enhance local coordination and collective action capacity, thereby improving the effectiveness of informal support mechanisms in peripheral regions. At the policy level, this can be achieved through targeted support for farmer cooperatives, capacity-building programs for local associations, and the establishment of trust-based collaboration platforms that facilitate interaction between returnees and local actors, enabling the institutionalization and effective utilization of social capital.

Finally, promoting returnee entrepreneurship requires not only the activation of locally embedded social capital but also institutional arrangements that facilitate the selective introduction of trans-local resources and organizational mechanisms. Specifically, policy tools such as returnee-oriented business incubators, intermediary organizations linking urban markets with rural producers, and flexible financing schemes tailored to small-scale and low-skilled entrepreneurs can help translate trans-local connections into locally viable entrepreneurial practices. Such place-sensitive policy arrangements can mitigate the risks of local path dependency, enhance regional absorptive capacity, and strengthen the long-term resilience of rural economies.

#### CRediT authorship contribution statement

**YUE ZHANG:** Writing – original draft, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **LANGJIE LIU:** Writing – original draft, Validation, Conceptualization. **XIAOFANG ZHA:** Validation, Resources, Data curation. **LI SUN:** Writing – review & editing, Supervision, Conceptualization. **SUZIANA MAT YASIN:** Writing – review & editing, Validation, Conceptualization.

## Ethics statement

This study received ethical approval from the Human Research Ethics Committee of Universiti Sains Malaysia (JEPeM-USM), under protocol number USM/JEPeM/PP/24080768. Informed consent was obtained from all participants in accordance with the procedures approved by the committee.

## Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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## Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at doi:10.1016/j.rssp.2026.100290.

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