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FULL ARTICLE

Internal migration and earnings: Do migrant entrepreneurs and migrant employees differ?

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Abstract

People move from one region of a country to another not only for employment but also for business opportunities. Their earnings, relative to those of comparable local employees and local entrepreneurs, reflect the efficiency of internal migration policies. Investigating a large number of migrants and non-migrants in Vietnam, we find that while migrant entrepreneurs earn more than local entrepreneurs, migrant employees earn less than their local counterparts. Moreover, regions with unalloyed socialist norms (North Vietnam) enhance migrants' advantages, leading to higher earnings, whereas migrants in regions with pro-entrepreneurship norms (South Vietnam) find it difficult to compete with the locals.

KEYWORDS
internal migration, migrant employees, migrant entrepreneurs, regional informal institutions, Vietnam

JEL CLASSIFICATION
J14, N35

1 | INTRODUCTION

In emerging countries, rapid industrialisation and urbanisation are associated with sizeable flows of movements of citizens across regions (Arouri et al., 2017; Li & Xiong, 2019). Thus, examinations of the living standards, earnings, and employment of migrants have become central to the extant literature on inclusiveness and the equality-related

issues associated with migration (Fesselmeyer & Le, 2010; Le & Booth, 2014; Vandercasteelen et al., 2018). Despite the progress made towards understanding the living and working conditions of migrants, prior research has not systematically distinguished migrant employees from migrant entrepreneurs, and there is no deliberate investigation into the importance of regional informal institutions on migrants' earnings. This study fills these gaps.

Some initial evidence shows that migrant employees face substantial discrimination in big cities because of their 'outsider' identity, leading to their earning less than the locals (Haughton et al., 2018; Liu, 2019). However, other commentators suggest that the unique backgrounds and mindsets of migrant employees give them a different perspective (Bauer et al., 2002) that may increase their earning power relative to local employees (Deepika, 2020). Since the evidence is mixed and fragmented, and there is no single theory that could safely drive our expectations about the association between migration status and migrants' earnings, we position this paper as an exploratory study. Specifically, we ask: do migrant employees earn more or less than local comparable employees?

While we agree that rural–urban migrant employees account for a large number of internal migrants, we also see that a non-trivial number of migrants move to new locations for business opportunities (Cheng & Smyth, 2021). Migrant entrepreneurs, despite being widely investigated in the international business literature (Sinkovics & Reuber, 2021), are not systematically studied at the sub-national level. Although the design of local entrepreneurship policies requires an understanding of migrant entrepreneurs' performance, it remains unclear if migrant entrepreneurs suffer from difficulties similar to those encountered by migrant employees, and how these might affect their earnings. To shed some light on this issue, we aim to answer the question do migrant entrepreneurs earn more or less than local comparable entrepreneurs?

Migration is an institutionalised process (Di Berardino et al., 2019; Falck et al., 2018). As such, migrants' earnings are influenced not only by economic factors but also by institutional forces. Within a country, formal institutions (rules of laws) are identical across regions; however, each region may have its own informal institutions (values and norms) (Nguyen, 2021). Building on these premises, we propose that regional informal institutions are an important determinant of migrants' earnings. We examine the issue in the context of Vietnam, which, during World War II, was divided into two states that have distinct institutional settings. While the north of Vietnam followed the socialist blueprint from the outset, the south of Vietnam was exposed to capitalism during the period 1954–1975. As such, individualism and pro-entrepreneurship are the main values of people in the south, whereas collectivism and socialism are valued by people in the north (Nguyen, Hoai Nguyen, et al., 2018). This difference in regional informal institutions is sticky, holding true even after the states were reunited (Dell et al., 2018; Nguyen, 2021), and enables us to explore how the differences in informal institutions between the north and south of Vietnam influence migrants' earnings and, more importantly, if the impact of these differs for migrant employees and migrant entrepreneurs. It is noteworthy that the main research aim is to examine how informal institutions in the host regions (north vs south) affect migrants' earnings regardless of their origins. A migrant may move across the north–south regions, within the north, or within the south; we argue that no matter where they come from, it is the values and norms at the destinations that influence their earnings.[1]

To answer these questions, we examine the Vietnam National Internal Migration (VNIM) data set, which comprises 6,675 non-migrants and 8,102 migrants in Vietnam in 2004 and 2015. To the best of our knowledge, this is the most comprehensive and representative data on internal migration in Vietnam. To test the robustness of our findings, we supplement regression analysis with matching and multi-modelling techniques. The findings show that in Vietnam, migrant entrepreneurs earn more than their comparable local counterparts; however, migrant employees earn less than local employees. Moreover, we find that the purely socialist informal institutions in the north (in contrast to the pro-entrepreneurship informal institutions in the south) strengthen the association between migration status and earnings. Specifically, in the north, the higher earnings associated with migrant entrepreneurs are further enhanced and the lower earnings associated with migrant employees are also compounded. These findings suggest that socialism and collectivism institutions provide migrants with favourable conditions that help them

[1]We also conduct a robustness check to examine a sub-sample of migrants that move across the north–south regions only.

reduce adaptation costs and improve earnings. Nevertheless, it is noteworthy that as the data in use are cross-sectional, these findings stop short at illustrating a set of correlation relationships. Any causal inference should be done with care.

This paper makes the following contributions. *First*, the framework proposed in this paper distinguishes migrant entrepreneurs from migrant employees. This setting helps us shed some light on the differences between the two groups. This contribution is important because previous studies of internal migration largely focus on only rural–urban migrant employees (see Selod and Shilpi (2021) for a review), with migrant entrepreneurs being overlooked. *Second*, this study shows that regional informal institutions matter. Within a country with identical formal institutions across regions, migrants are sensitive to local norms, customs, and values. These informal 'rules of the game' could significantly strengthen or weaken migrants' advantages in the local markets. *Third*, findings in this paper indicate that policymakers should understand that migrants in some regions may suffer more than migrants in other regions, and that these difficulties may not stem from economic factors but rather from (unobservable) local norms and values. Since migration is an institutionalised process, institutional forces should be factored into policies to facilitate efficient national labour movements.

2 | LITERATURE AND RESEARCH QUESTIONS

2.1 | Migration and earnings

2.1.1 | Migration theories

Migration as an economic activity was first theorised by Ravenstein (1885, 1889). In his 'laws of migration', both pull and push factors are essential. The pull factors are the (usually good) socio-economic and political environments at the destinations that attract people from other regions to in-migrate (Royuela & Ordonez, 2018). The push factors are the (usually bad) living and working conditions at the places of origin that force people to out-migrate (Piras, 2017). Ravensteinism migrants make their movement decisions according to purely economic factors, such as the development of industry and commerce, the transportation infrastructure, and labour force surpluses and deficits.

Another strand of migration theory is the New Economics of Labour Migration (NELM) (Stark & Bloom, 1985). In this line of theorising, the migration decision is not one that is made by an individual but is rather made by a household. Migration is a costly strategy and directly influences the outputs (incomes) of the entire household (Rindfuss et al., 2012); as such, it requires the involvement of all family members, including the non-migrant members (Pardede et al., 2020). Since it is a joint decision, migration is thus a strategy that helps households minimise risks, such as agricultural and economic shocks (Nguyen et al., 2015), and maximise incomes by optimising households' labour forces (Arouri et al., 2017).

Finally, a strand of literature employs the optimistic–pessimistic viewpoints to examine the effects of migration at the regional/national levels (Beauchemin & Bocquier, 2004; De Haas, 2010; Snarr et al., 2011). Specifically, the optimistic viewpoint is driven by a belief in the market mechanism, in which migration is seen as a form of optimal allocation of production factors that is beneficial to both the sending and receiving regions (De Haas, 2010; Francis, 2009). The pessimistic viewpoint is concerned with 'brain drain', in which migrants are typically their originating region's most skilful and talented individuals (Chen et al., 2020; Devillanova, 2004). As such, out-migration would create a shortage of productive labour forces in some regions and exacerbate the competition for jobs in others (Rodriguez-Vignoli & Rowe, 2018).

In this study, we extend the Ravensteinism conventional model to explore the impacts of institutional factors (e.g., regional informal institutions) on migration. This analytical setting helps identify the benefits/losses associated with regions in accordance with the optimistic–pessimistic viewpoints. Moreover, we consider the implication of

NELM by clustering individuals by households in the empirics. Before doing so, we will briefly summarise the empirical literature on Vietnam.

2.1.2 | Empirical literature in Vietnam

Vietnam is an emerging country characterised by both industrialisation and urbanisation, which are deemed to be the economy's two main driving forces (Amare & Hohfeld, 2016). Because of the *Hokhau (Hukou)* – the resident registration system – citizens are not free to out-migrate from their home towns (Vu & Jytte, 2012). Several studies have documented the negative effects of such a system on migrants' earnings and living standards (Haughton et al., 2018; Nguyen, 2018a; Zhai & Wang, 2002). Interestingly, Vu and Jytte (2012) evidently show that Vietnamese wishing to move out of their hometowns actively develop their (informal) migration networks over time; these help them circumvent the (formal) state control over population mobility and thus allow them to relocate. As such, the Vietnam Internal Migration Report (2016) has documented that despite the *Hokhau (Hukou)* restrictions, one in five people living in urban areas are in-migrants.

A strand of empirical research has focused on examining the earnings differences between rural–urban migrants and urban locals (see Le & Booth, 2014: for a summary). For example, Haughton et al. (2018) show that migrant workers in the two major cities of Vietnam, Hanoi and Ho Chi Minh City, earn 42% less per hour than the resident workers and that half of the wage gap is explained by endowments. In terms of living standards, Nguyen (2018b) finds that migrant households exhibit significantly lower consumption levels than comparable urban households. While the gap could be attributed to migrants' inferior backgrounds (Le & Booth, 2014; Li & Zahniser, 2002), Fesselmeyer and Le (2010) suggest that the Vietnamese government, under intense political pressure from the urban population, directs resources from rural to urban areas with scant regard for efficiency or equity. These policies thus create benefits for urban dwellers at the expense of rural inhabitants and migrants.

Meanwhile, another strand of literature suggests that migration is associated with advances for migrants. For example, Nguyen et al. (2015), using a data set of 2,200 Vietnamese migrants and non-migrants, show that migration has positive income growth effects. In addition, Tacoli and Mabala (2010) suggest that migration helps liberalise rural women and improves their domestic power, with young women tending to move further and longer than young men and also remitting a higher proportion of their earnings back home. Finally, Phan (2012) investigates 930 Vietnamese households and finds that for households with high demands for agricultural investment, migration is used as a means of financing capital investments.

Despite significant signs of progress in the extant literature investigating internal migration in Vietnam, previous studies do not consider migrants' distinct motivations (employment vs entrepreneurship) when examining their earnings. The intense focus on rural–urban low-skilled migrant workers hampers us from establishing a full understanding of the nature of internal migration in general. This paper thus extends the literature by thoroughly investigating migrant entrepreneurs' and migrant employees' earnings, and comparing these to the earnings of their local counterparts.

2.1.3 | Do migrants earn more or less than locals?

In this section, we adopt a set of theoretical perspectives to investigate the advantages and disadvantages associated with migrants vs locals. We first discuss entrepreneurs and then look at employees. Conventional literature suggests that migrant entrepreneurs (both internal and international) are usually talented people who are confident about their business ideas (Wei et al., 2019). They make decisions to migrate to new locations to fully develop their business ventures because of the pull factors in the host regions, such as effective institutional settings (Fawcett James & Gardner Robert, 1994), access to financial capital (Sahin et al., 2011), and well-established entrepreneurial networks

(Rath & Swagerman, 2016). In this strand of literature, migrant entrepreneurs are opportunity-seeking individuals who are well prepared for their venturing activities. Meanwhile, in the context of developing countries, a strand of literature evidently shows that, sometimes, migrant entrepreneurs move because of the push factors. Some of the most examined push factors include a low level of education (Andrejuk, 2018), social vulnerability (Lintner, 2019), and unemployment (Samaratunge et al., 2015). For these reasons, necessity migrant entrepreneurs are less capable than local entrepreneurs in terms of realising opportunities and executing business ventures.

Despite the different viewpoints, the literature seems to reach a consensus that migrants generally, and migrant entrepreneurs, in particular, possess unique sets of perceptions, skills, and knowledge that are quite different from those of local inhabitants (see Sinkovics and Reuber (2021) for a review). This allows migrant entrepreneurs to see and interpret events in the host regions differently, leading to a situation in which they can connect 'seemingly uncorrelated dots' (Baron, 2006) to come up with feasible and profitable business ideas (Nguyen, 2018a). By this line of argument, migrant entrepreneurs are likely to outperform their local competitors, thanks to their migrant advantages (i.e., their ability to think and do things differently), leading to higher earnings. This is particularly the case when migrant entrepreneurs come to the host region to exploit the pull factors. Liu et al. (2019) empirically examine more than 20,000 entrepreneurs in China and find that internal migrants' entrepreneurial entry rates surpass those of their resident counterparts. More importantly, migrants' business performances are on par with other businesses, suggesting their positive economic contributions. Moreover, Mediha et al. (2011), in the context of the Netherlands, document that internal migrant entrepreneurs not only have a substantial impact on the economy, but also act as role models for socio-economic integration. They often operate in interesting market niches and provide a positive stimulus for creative business-making.

That being said, migrant status comes with non-trivial disadvantages that may subsequently reduce the earnings migrant entrepreneurs can capitalise from their business venturing. Recent literature highlights some particularly prevalent difficulties, including the lack of network ties with local business partners, supply chains, banks, and government officials. For example, Brown et al. (2021) examine 132 entrepreneurs in four countries (Colombia, Poland, Nigeria, and Romania) and find that the relationship between political capital and firm performance is stronger for home-grown entrepreneurs. In addition, Lassalle et al. (2020) conduct in-depth interviews with 28 Polish migrant entrepreneurs and show that migrant entrepreneurs' embeddedness is dynamic and evolves across three types of networks: the origin region networks, the host region migrant networks, and the host region indigenous networks, with the indigenous networks being least developed and taking more time to build. These findings suggest that inadequate connections with local stakeholders may restrict the development of migrant entrepreneurs' businesses, resulting in lower earnings compared to their local counterparts.

The lack of local connections may not be the sole problem; discrimination could be another explanation. For instance, the taste-based theory (Becker, 1971) suggests that economic agents are keen to seek transaction partners who are similar to them, with the aim of reducing uncertainties and improving perceived trust. When the transaction partners (e.g., migrant entrepreneurs) are from other tribes (i.e., out of the local region), business partners (e.g., local suppliers) may be exposed to uncertainties, leading to discrimination. In addition, information-based theory (Edmund, 1972) argues that local business partners are inclined to believe that migrant entrepreneurs coming from the outside are less trustable because of informational asymmetries (Ibarra, 1992).

In sum, the extant literature draws on various theoretical viewpoints and provides mixed arguments regarding the performance of migrants' businesses relative to locals' businesses. Thus, the question of whether migrant entrepreneurs make more or less money than local entrepreneurs from their business ventures is an empirical one. Therefore, we propose the following research question:

RQ1: In Vietnam, do migrant entrepreneurs earn more than local entrepreneurs?

Turning to migrant employees, similar sets of arguments apply. On the one hand, migrant employees possess some unique skills, knowledge, and perceptions that local enterprises may find useful and valuable for their

operations and management (Yaduma et al., 2015). As such, firms may be willing to pay migrant employees more than the market rate to attract them. In addition, migrant employees with their migrant advantages (i.e., ability to think and do things differently) may contribute more to the performance of their companies, leading to increased payments (salary and bonus). Empirically, Deepika (2020) examines a data set of 432 Indian manufacturing, construction, and hospitality firms and finds that in all three sectors, there is unanimous evidence that internal migrant workers perform better in the workplace and are therefore to be preferred for employment. Moreover, Bauer et al. (2002) use a large panel data set (1975–1990) to compare the labour market performance of Portuguese workers in Germany against the local Germans and find that Portuguese migrants earn more than comparable Germans, indicating that they have higher unobservable skills.

On the other hand, however, as per the taste-based theory presented above, migrant employees may suffer from discrimination in the host regions. They may therefore find it difficult to equalise their earnings relative to local employees even though their education, skills, and experience are at a level equivalent to that of the locals. Haughton et al. (2018), in a study of in-migrant employees in Vietnam, suggest that migrants earn less than locals and that about half of the wage gap may be explained by discrimination-related factors. Their analysis, however, covers only the two largest cities in Vietnam (Hanoi and Ho Chi Minh City), and their sample is small.

Given that the extant literature is mixed and there is insufficient evidence in the context of Vietnam, we propose the following research question:

RQ2: In Vietnam, do migrant employees earn more than local employees?

2.2 | Regional informal institutions

2.2.1 | Institutional theory

Institutions (rules and norms) impose boundaries against which individuals' perceptions and behaviours are regarded as appropriate or not in a particular community (Carpenter et al., 2006; Tolbert & Zucker, 1996). Specifically, North (1990) argues that institutions play a key role in shaping the incentive structures that underlie many social and economic decisions. He proposes a two-pillar framework of formal and informal institutions, in which formal institutions are the explicit (usually written) rules, such as national legislation systems, policies, and regulations, whereas informal institutions are the implicit rules, such as the social norms, traditions, and customs that a society accepts as its standards of behaviour. These drive individuals' decision making, including migration.

Delving more deeply into the structure of institutions, Williamson (2000) proposes a hierarchical framework, placing informal institutions – social embeddedness – at the most profound position in the institutional structure because these implicit institutional forces are the deepest rooted and slowest to change (Fritsch & Mueller, 2007; Fritsch & Mueller, 2008). Formal institutions are located at the second level, indicating that they can be adjusted in the short to medium term to alter individuals' behaviours. For example, in the context of Vietnam and China, the *Hokhau (Hukou)* system of resident registration is the formal institutional force that has been most investigated in relation to internal migration (Nguyen, 2018b; Zhai & Wang, 2002). Recent evidence shows that when this form of government control relaxes, a huge wave of internal migration is the immediate result (Ebenstein & Zhao, 2015).

2.2.2 | Institutions in Vietnam

Within a country such as Vietnam, formal institutions (rules of laws) are identical across regions. However, in terms of informal institutions, the north and south of Vietnam have quite distinct sets of values and norms, which are the result of a historical trajectory. During World War II, Vietnam was divided into two states that followed distinct

institutional settings. Under the 1954 Geneva Accords, Vietnam was demarcated at the 17th parallel into two states: North Vietnam and South Vietnam. The former followed the socialist blueprint from the outset, whereas South Vietnam was exposed to capitalism over the period 1954–1975. During partition, the authorities in North Vietnam spread socialist values by, inter alia, nationalising enterprises and illegalising private properties and private businesses. Meanwhile, they propagandised values such as collectivism by legitimising and promoting collective action norms, such as *Hoptacxa*, which is a form of cooperative farming that is given legal standing as a business (Dell et al., 2018; Lei & Chen, 2011).

During the same period, pro-Western authorities in South Vietnam were building up capitalist values and governance systems, encouraging international trades, private businesses, and entrepreneurship (Nguyen, Mickiewicz, & Du, 2018). They also promoted their own set of values, such as individualism and innovation-driven, performance-driven business norms (Dell et al., 2018). The pro-entrepreneurship norms that originated from South Vietnam's exposure to capitalism, and which contrast with the collectivist norms of North Vietnam, were retained after the two states reunified (Nguyen, 2021; Nguyen, Hoai Nguyen, et al., 2018), in which respect Vietnam is similar to East and West Germany (Fritsch & Mueller, 2008; Fritsch & Wyrwich, 2014). While the distinctions in informal institutions between the north and south of Vietnam have been found to influence local entrepreneurship (Nguyen, 2021) and economic development (Dell et al., 2018), research has not yet examined whether they exert an impact on migrants' earnings.

On top of the north–south differences, it is noteworthy that there is also substantial heterogeneity within the north and within the south regions in terms of economic development and local norms and practices. These differences are presented in opportunities to access information and knowledge, local norms of doing businesses, and the levels of generalised trust (trust in strangers) in the local community. For example, within the north, people in the northwest and mountain areas have little opportunity to gain access to knowledge and information due to the less developed infrastructure and education systems (Vu, 2021), but they have a very high level of generalised trust, thanks to the closed community (Nguyen-Anh et al., 2021). These institutional characteristics inevitably lead to a distinct way of doing business for entrepreneurs and the ability to think and approach issues for employees. Meanwhile, in the Red River Delta area, with more advanced infrastructure, developed public systems, and open community, local citizens, including employees and entrepreneurs (Nguyen & Diez, 2017), have a quite modern way of thinking and conducting social and economic transactions (Dell et al., 2018).

Interestingly, a similar pattern also exists in the south of Vietnam, in which the central highland area is quite isolated with less developed infrastructure and is comprised of diverse minor ethnic people (Baulch et al., 2007); meanwhile, the Southeast and Mekong River Delta are the most developed areas of Vietnam with industrialised and urbanised lifestyle being the dominant (Huynh Truong & Nonneman, 2016; Nguyen & Diez, 2017). The substantial heterogeneity in local communities across areas in Vietnam allows migrants to gain from their unique mindsets and abilities when changing their locations. We thus propose that migrants, regardless of their moving within the north, within the south, or across the north–south regions, can bring about novel viewpoints to their new locations. However, this migration advantage is inevitably moderated by the higher-level and more distinct north–south informal institutions. Bélanger (2000) examines the cultures and norms of seven geographic regions of Vietnam and concludes that although there are significant differences across these regions, more prominent distinctions are found between the north and south. The next section examines this issue in detail.

2.2.3 | How do regional informal institutions moderate earnings?

In this section, we argue that the unalloyed socialist norms in the north of Vietnam strengthen the advantages of migrant entrepreneurs and migrant employees, while at the same time reducing the obstacles they face when relocating to the region. It is noteworthy that our arguments applied to migrants moving from the south as well as those moving within the north. We first examine migrant entrepreneurs and then discuss migrant employees.

Since the entrepreneurship environment in the north of Vietnam is, by reason of the region's pure socialist values and norms, not as active as it is in the south (Nguyen, 2021), entrepreneurs who migrate into this region from the south or even from a different province in the north may find that there are still plenty of unexplored business opportunities that worth pursuing. This is because the indigenous locals are keen on pursuing stable and risk-free jobs that are congruent with the socialist norms, such as becoming government officials or working for state-owned enterprises (Truong & Schuler, 2021), leaving entrepreneurship a less desired career pathway. For this reason, migrant entrepreneurs, regardless of their origins, face less competition pressure starting up in the north (Cohen, 2001). Moreover, the north of Vietnam hosts most of the nation's state-owned firms (Minor et al., 2018). This concentration of state ownership combines with the less vigorous and somewhat tokenistic business norms to reduce the innovativeness and efficiency of the local entrepreneurial sector (Nguyen, Hoai Nguyen, et al., 2018). As such, a migrant entrepreneur with different knowledge and thinking can identify and realise profitable business opportunities without facing much competition from local entrepreneurs.

Moreover, the collectivist norms in the north help reduce the adaptation costs for migrants, regardless of where they come from. Specifically, collectivism fosters family-like communities that connect people in weak-tie networks in a more bonded manner (Dell et al., 2018). For example, Cooke (1994) documents that in the north of Vietnam, villages are perceived as the foundational unit and people living in the same neighbourhood are expected to know and help each other. It is these collectivist norms that can amass the resources for migrant entrepreneurs (e.g., informational and social capital) (Nguyen, 2021) that allow them to quickly understand local markets, which ultimately leads to improved earnings.

In contrast, in the south of Vietnam, the local entrepreneurial sector is quite active, thanks to the pro-entrepreneurship norms (Nguyen, Hoai Nguyen, et al., 2018). For this reason, migrant entrepreneurs, regardless of their origins, may find it more difficult to identify new and profitable business ideas when they wish to start up a venture in the region. In addition, strong competition in the local markets presents non-trivial difficulties for migrant entrepreneurs. Moreover, the individualism values in the south imply higher adaptation costs for migrant entrepreneurs, even for those who move within the south region (but from a different province), since it takes them more time to establish connections with local stakeholders (Truong & Schuler, 2021).

In sum, socialist norms in the north of Vietnam, on the one hand, enhance the advantages of migrant entrepreneurs (i.e., the abilities to see and think differently from local people), no matter whether they come from the north (from a different province) or the south; on the other hand, the norms reduce migrants' adaptation costs. In contrast, entrepreneurs who migrate to or within the south (from a different province) may find that their migration advantages are not significantly useful for competing with local businesses. For these reasons, we expect that the socialist informal institutions in the north strengthen the relationship between migration status and entrepreneurs' earnings. To be more specific, if the answer to RQ1 is 'yes' (migrant entrepreneurs earn more than local entrepreneurs), this earning gap is enlarged in regions where socialist values are more prevalent (the north). Meanwhile, if the answer to RQ1 is 'no' (migrant entrepreneurs earn less than local entrepreneurs), the earning gap is mitigated by socialism. Since we did not establish a direction for the direct effect between migration status and entrepreneurs' earnings (RQ1), we propose the following research question instead of a hypothesis:

RQ3: How do pure socialist informal institutions in the north of Vietnam (in contrast to pro-entrepreneurship informal institutions in the south of Vietnam) moderate the association between migration status and entrepreneurs' earnings?

The argument that regions with stronger socialist norms and values enhance the advantages of the migrant entrepreneurs therein can be applied to migrant employees. With the ability to see and think differently (Yaduma et al., 2015), migrant employees, regardless of their origins, could be preferred by local employers in the north, where the socialist and tokenist norms largely discourage local employees from experimenting with novelty and risk. Moreover, collectivism may mean that migrant employees, despite being 'outsiders', face less discrimination

(Truong & Schuler, 2021), resulting in more opportunities for promotions and higher earnings. We understand that, compared to migrant employees from the south, migrant employees moving within the north region may have smaller (but still significant) migrant advantages in terms of unique mindset and thinking since they share some socialist values and norms with the locals. However, they may enjoy a higher adaptation opportunity (lower adaptation cost), thanks to these similarities. Meanwhile, migrant employees coming from the south, while having more advantages associated with their ability to see and think differently, may suffer from higher adaptation costs. However, *on average*, migrant employees, regardless of their origins, may find it easier to relocate in the north (relative to the south), thanks to the collectivism norms; moreover, they may find their unique mindsets and thinking useful to their organisations due to the less active working culture in the north (Ralston et al., 1999). These region-specific advantages thus allow migrant employees in the north to earn more than those in the south. Again, since we did not establish a direction for the direct effect between migration status and employees' earnings (RQ2), we propose the following research question instead of a hypothesis:

RQ4: How do purely socialist informal institutions in the north of Vietnam (in contrast to pro-entrepreneurship informal institutions in the south of Vietnam) moderate the association between migration status and employees' earnings?

3 | DATA AND METHODOLOGY

3.1 | Data

This study uses the VNIM data set, which is a product of the Vietnam General Statistics Office. The data set is comprised of two survey periods conducted in 2004 and 2015. Both migrants and non-migrants were randomly selected to participate in the surveys. In all provinces under investigation, the sample was selected using a stratified random sampling technique. Three levels of stratification were used: provincial population size, urban/rural areas, and local migration population size. The surveys were conducted via face-to-face interviews. Migrants, by the definition of the survey, are individuals who have moved from one region to another (a district being the minimum unit) within the last 5 years *and* who satisfy at least one of the following conditions: (i) they have been living in the current region for more than a month; or (ii) they have been living in the current region less than a month but intend to stay more than a month; or (iii) they have been living in the current region less than a month but within the last year they moved to another region for more than a month to work.

In 2004, the survey covered 5,009 non-migrants and 4,998 migrants; the numbers for 2015 were 2,979 non-migrants and 4,969 migrants. The total observations were thus 17,927. The questionnaires covered a broad set of questions regarding individuals' socio-demographic backgrounds, current living and working conditions, and health conditions. For migrants, there was an additional section asking about their migration motivations, decision-making processes, difficulties in new places, and remittances. This is thus the most comprehensive and representative data set of the migrant community in Vietnam. Despite its richness, the data set is currently underexplored.

In our analysis of the impacts of migration on individuals' earnings, we excluded migration for the purpose of studying. Moreover, migrants moving within a province may not find their mindsets and behaviours significantly different from the locals due to subtle distinctions in values and norms. As such, we also excluded migrants moving within a province out of the analysis. The final sample thus includes migrants who move across provinces. Since not all the participants were willing to report their earnings, debts, and savings, the number of non-missing value observations available for investigation is 12,438, of which 6,077 are entrepreneurs (3,369 migrants and 2,708 locals), and the remaining 6,361 are employees (2,394 migrants and 3,967 locals). Table 1 presents the number of observations of migrants and non-migrants by the north–south regions and by their employment status. After removing within-province migrants for jobs in the north (from a total of 1,004 migrant employees in the north), there are

TABLE 1 Summary statistics

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		North				South			
		Migrant		Local		Migrant		Local	
		Emp.	Entre.	Emp.	Entre.	Emp.	Entre.	Emp.	Entre.
Observations	12,438	765	1326	1393	1247	1629	2043	2574	1461
Dependent variable									
Earnings (million VND per month in 2010 price)	3.45 (2.69)	3.37 (2.22)	4.47 (2.39)	3.36 (2.68)	3.74 (2.34)	2.45 (2.25)	3.59 (2.24)	3.48 (3.16)	3.86 (2.47)
Independent variable									
Migrant entrepreneurs	0.55 (0.49)								
Migrant employees	0.38 (0.48)								
North	0.38 (0.49)								
Individual control variables									
Gender	0.46 (0.50)	0.47 (0.50)	0.58 (0.49)	0.45 (0.50)	0.51 (0.50)	0.49 (0.50)	0.57 (0.50)	0.50 (0.50)	0.57 (0.50)
Children	0.59 (0.49)	0.45 (0.50)	0.58 (0.49)	0.61 (0.49)	0.69 (0.46)	0.68 (0.47)	0.45 (0.50)	0.70 (0.46)	0.65 (0.48)
Single	0.10 (0.29)	0.12 (0.32)	0.03 (0.16)	0.10 (0.30)	0.06 (0.24)	0.08 (0.28)	0.10 (0.30)	0.10 (0.30)	0.08 (0.28)
Divorced	0.03 (0.17)	0.03 (0.17)	0.02 (0.15)	0.02 (0.14)	0.02 (0.14)	0.01 (0.09)	0.05 (0.21)	0.03 (0.16)	0.04 (0.20)
Married	0.87 (0.33)	0.86 (0.35)	0.95 (0.22)	0.88 (0.32)	0.92 (0.28)	0.91 (0.29)	0.86 (0.35)	0.87 (0.34)	0.87 (0.33)
Age	33.72 (10.770	31.65 (8.96)	28.00 (7.98)	40.29 (9.02)	37.46 (9.36)	32.62 (9.45)	27.64 (7.71)	38.34 (9.44)	34.18 (9.32)
Education	2.35 (1.20)	2.35 (0.87)	3.57 (1.30)	2.37 (0.83)	3.41 (1.25)	1.87 (0.96)	2.02 (1.29)	1.92 (0.92)	2.62 (1.41)
Ethnicity	0.92 (0.28)	0.99 (0.10)	0.97 (0.17)	0.97 (0.17)	0.99 (0.12)	0.79 (0.41)	0.95 (0.22)	0.83 (0.37)	0.95 (0.22)
Urban	0.63 (0.48)	0.77 (0.42)	0.70 (0.46)	0.71 (0.45)	0.82 (0.38)	0.33 (0.47)	0.66 (0.47)	0.44 (0.50)	0.72 (0.45)
State sector		0.45 (0.01)		0.74 (0.01)		0.16 (0.01)		0.34 (0.01)	
Private sector		0.33 (0.01)		0.20 (0.01)		0.36 (0.01)		0.33 (0.01)	
Foreign sector		0.22 (0.01)		0.06 (0.01)		0.48 (0.01)		0.33 (0.01)	

TABLE 1 (Continued)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
		North				South			
		Migrant		Local		Migrant		Local	
		Emp.	Entre.	Emp.	Entre.	Emp.	Entre.	Emp.	Entre.
Provincial control variables									
Firm investment	1.23 (1.760	1.27 (1.50)	1.99 (1.78)	1.19 (1.72)	1.37 (1.72)	0.65 (1.39)	1.44 (1.93)	0.81 (1.47)	1.31 (1.80)
Firm revenues	0.82 (1.02)	0.83 (0.81)	1.22 (0.87)	0.76 (0.87)	0.87 (0.88)	0.46 (0.90)	1.02 (1.23)	0.59 (0.94)	0.93 (1.14)
Average incomes	2.64 (1.24)	2.19 (0.86)	2.58 (1.14)	2.45 (1.11)	2.46 (1.11)	2.04 (1.20)	3.62 (1.16)	2.41 (1.17)	3.20 (1.22)
Cost of living index	93.86 (4.82)	96.18 (3.55)	97.60 (3.67)	94.67 (4.42)	95.23 (4.68)	91.67 (4.17)	93.79 (4.55)	91.99 (4.56)	93.30 (4.95)
Additional covariates in migration equations									
Want to increase incomes	0.08 (0.28)	0.13 (0.34)	0.06 (0.23)	0.09 (0.28)	0.06 (0.23)	0.15 (0.36)	0.14 (0.35)	0.08 (0.28)	0.11 (0.31)
Savings	0.35 (0.48)	0.53 (9.50)	0.50 (0.50)	0.43 (0.50)	0.52 (0.50)	0.22 (0.42)	0.35 (0.48)	0.28 (0.45)	0.37 (0.48)
Debts	15.21 (88.52)	25.66 (8.31)	26.41 (7.69)	32.37 (5.83)	21.49 (3.84)	16.95 (1.79)	13.91 (3.68)	28.85 (3.26)	20.22 (3.05)
Engage in local community	0.37 (0.48)	0.15 (0.36)	0.30 (0.46)	0.43 (0.50)	0.50 (0.50)	0.31 (0.46)	0.14 (0.35)	0.44 (0.50)	0.44 (0.50)

Note: The total number of observations is 12,438 migrants and non-migrants in Vietnam in 2 years: 2004 and 2015. Variable definitions are presented in Appendix 1.
***Significant at 1%.
**Significant at 5%.
*Significant at 10%.

TABLE 1 (Continued)

	(10) *(2)-(4)*	(11) *(3)-(5)*	(12) (6)-(8)	(13) (7)-(9)
	North		South	
	Emp.	Entre.	Emp.	Entre.
Observations				
Dependent variable				
Earnings (million VND per month in 2010 price)	0.01 (0.19)	0.73*** (0.18)	−1.02*** (0.01)	−0.27 (0.17)
Independent variable				
Migrant entrepreneurs				
Migrant employees				
North				
Individual control variables				
Gender	0.02 (0.04)	0.08* (0.04)	−0.01 (0.02)	−0.00 (0.04)
Children	−0.17*** (0.03)	−0.12*** (0.04)	−0.02 (0.02)	−0.19*** (0.03)
Single	0.02 (0.04)	−0.03** (0.02)	−0.02 (0.01)	0.01 (0.02)
Divorced	0.01 (0.01)	0.00 (0.01)	−0.02*** (0.01)	0.00 (0.01)
Married	−0.03 (0.02)	0.03* (0.02)	0.04** (0.02)	−0.02 (0.02)
Age	−8.64*** (0.41)	−9.46*** (0.33)	−5.72*** (0.29)	−6.53*** (0.29)
Education	−0.02 (0.06)	0.15 (0.09)	−0.06 (0.04)	−0.06*** (0.01)
Ethnicity	0.02 (0.01)	−0.02 (0.01)	−0.05** (0.02)	−0.00 (0.02)
Urban	−0.06 (0.03)	0.12*** (0.03)	0.10*** (0.02)	0.06* (0.03)
State sector	−0.29*** (0.02)		−0.18*** (0.02)	
Private sector	0.13*** (0.02)		0.03* (0.02)	
Foreign sector	0.16*** (0.01)		0.15*** (0.02)	

TABLE 1 (Continued)

	(10) *(2)-(4)*	(11) *(3)-(5)*	(12) (6)-(8)	(13) (7)-(9)
	North		South	
	Emp.	Entre.	Emp.	Entre.
Provincial control variables				
Firm investment	0.08 (0.12)	0.62*** (0.13)	−0.16** (0.07)	0.13 (0.13)
Firm revenues	0.07 (0.06)	0.35*** (0.06)	−0.12*** (0.04)	0.08 (0.08)
Average incomes	−0.26*** (.08)	0.12 (0.09)	−0.37*** (0.06)	0.41*** (0.09)
Cost of living index	1.50*** (0.32)	2.37*** (0.34)	−0.32 (0.21)	0.49 (0.35)
Additional covariates in migration equations				
Want to increase incomes	0.05** (0.02)	−0.00 (0.02)	0.07*** (0.06)	0.03 (0.02)
Savings	0.10*** (0.04)	−0.02 (0.04)	−0.06*** (0.02)	−0.02 (0.03)
Debts	−6.71 (12.97)	4.91 (7.98)	−11.90** (5.27)	−6.31 (5.14)
Engage in local community	−0.28*** (0.04)	−0.20*** (0.07)	−0.12*** (0.02)	−0.30*** (0.03)

Note: The total number of observations is 12,438 migrants and non-migrants in Vietnam in 2 years: 2004 and 2015. Variable definitions are presented in Appendix 1.
***Significant at 1%.
**Significant at 5%.
*Significant at 10%.

765 observations left, indicating that 76.19% of migrant employees in the north move across provinces. The corresponding percentage for migrant employees in the south is 76.98% (1,629 of 2,116), which is insignificantly different from that of the north. However, in terms of migrant entrepreneurs in the north, only 60% of them move across provinces (1,326 of 2,236); meanwhile, the corresponding percentage in the south is 74.40% (2,043 of 2,746). These statistics initially indicate that entrepreneurs in the south seem to be more active to get out of their 'comfort zone' to seek business opportunities compared to their counterparts in the north.

Finally, to obtain control variables at the provincial level, we also use the provincial statistics published in the Yearbook of the Vietnam General Statistics Office. The provincial characteristics will be merged with the migration observations to create a multi-level data set. It is noteworthy that the merged data set is cross-sectional, comprising two survey points: 2004 and 2015. We employ some econometric techniques, which are introduced in the next sections, to deal with potential estimation issues resulting from non-repeated observations. However, due to the cross-sectional nature of the data set, we acknowledge that the relationships obtained from the analysis stop short at correlations.

3.2 | Methodology and summary statistics

3.2.1 | Models and estimation

To answer the proposed research questions, we estimate the following regression equations:

$$Earnings_{it} = \beta_0 + \beta_1(\textbf{\textit{Migrant entrepreneurs}}_{it}) + \beta_2(North_i) + \beta_3(North_i \times Migrant\ entrepreneurs_{it}) + \beta_4(Individual\ controls_{it}) + \beta_5(Provincial\ controls_{it}) + v_t + \mu_i \quad (1a)$$

$$\textbf{\textit{Migrant entrepreneurs}}_{it} = \beta_0 + \beta_1(Want\ to\ increase\ incomes_{it}) + \beta_2(Savings_{it}) + \beta_3(Debts_{it}) + \beta_4(Engage\ in\ local\ community_{it}) + \beta_5(Individual\ controls_{it}) + \beta_6(Provincial\ controls_{it}) + v_t + \mu_i \quad (1b)$$

$$Earnings_{it} = \beta_0 + \beta_1(\textbf{\textit{Migrant employees}}_{it}) + \beta_2(North_i) + \beta_3(North_i \times Migrant\ employees_{it}) + \beta_4(Individual\ controls_{it}) + \beta_5(Provincial\ controls_{it}) + v_t + \mu_i \quad (2a)$$

$$\textbf{\textit{Migrant employees}}_{it} = \beta_0 + \beta_1(Want\ to\ increase\ incomes_{it}) + \beta_2(Savings_{it}) + \beta_3(Debts_{it}) + \beta_4(Engage\ in\ local\ community_{it}) + \beta_5(Individual\ controls_{it}) + \beta_6(Provincial\ controls_{it}) + v_t + \mu_i \quad (2b)$$

Equations (1a) and (2a) contain the main outcomes of interest: earnings of migrants and locals. However, migration decisions of both employees and entrepreneurs are also outcomes of choices/circumstances; that is, the moving decisions may be endogenous. Equations (1b) and (2b) thus model the determinants of migration decisions. The two sets of Equations (1a)–(1b) and (2a)–(2b) will be estimated simultaneously to obtain robust results. It is noteworthy that the first equation system will be estimated using a sub-sample of entrepreneurs only; and the second equation system will be estimated using a sub-sample of employees only. This setting allows us to compare migrant entrepreneurs with their local counterparts and migrant employees with their local counterparts, respectively.[2]

In Equations (1a) and (2a), the dependent variable is *Earnings*, which is the (natural log of) monthly earnings of an individual *i* in year *t*, deflated to 2010 value. The independent variables of interest are *Migrant entrepreneurs* and *Migrant employees*, which take value 1 for migrant entrepreneurs/employees and value 0 for local

[2]We also test a lump-sum model of both entrepreneurs and employees in Section 4.2.5.

entrepreneurs/employees. This setting allows us to compare earnings of migrant entrepreneurs with those of local employees, and the earnings of migrant employees with those of local employees. The variable *North* takes value 1 for individuals living in the north of Vietnam (pure socialism) and value 0 for individuals living in the south of Vietnam (pro-entrepreneurship). North is divided from south along the 17th parallel. To examine the moderating effect of regional informal institutions on migrant earnings, we include two interaction terms between migration status and region in the two equations accordingly.

The term *Individual control variables* is a vector of covariates containing information on an individual's characteristics, as presented in Table 1. These characteristics are gender, age, education, marital status, having children, ethnicity, and living in rural/urban areas, and they are likely to influence an individual's earnings (Bernard et al., 2014; Boman, 2011; Li & Zahniser, 2002; Nguyen, Hoai Nguyen, et al., 2018). In addition, business sectors may influence earnings of both migrants and non-migrants (Ma, 2018). As such, we include three sector dummies as control variables as well; they are state-owned, private, and foreign sectors. Meanwhile, *Provincial controls* is a vector of covariates containing information about economic performance of the business sector in a province, including firms' total investment values and revenues. Higher investment values could be translated to higher demands for labours, leading to increased payments (Hoi & Pomfret, 2010) and more business opportunities (Belghitar & Khan, 2013). In addition, we include provincial average incomes as a proxy of local economic development, and costs of living index (taking Hanoi – the capital as the benchmark) to consider the relative living standards of all provinces in Vietnam. These provincial characteristics – according to the pull factor hypothesis (Ravenstein, 1889) – may significantly affect migrants' (as well as the locals') earnings (Gagnon et al., 2014; Haughton et al., 2018; Piras, 2017). In addition, the model controls for a year dummy v_t. Finally, the term μ_i is the estimation residuals.

In Equations (1b) and (2b), the dependent variables are migration-employment status. To model reasons why people move for jobs and for business opportunities, we employ the same set of control variables presented above. Moreover, we include four additional variables that help explain moving motivations, which are *Want to increase incomes*, *Savings*, *Debts*, and *Engage in local community*. People who want to increase incomes are more likely to seek both job and business opportunities outside their local locations, thereby being more likely to move (Nguyen et al., 2015). Meanwhile, saving and debt values associated with a person's financial balance may influence their moving incentives, for example, to earn for debt paying. Finally, the level of engagement in local community indicates the informal connections of a person to their neighbourhood, which may reduce their moving incentives (Coxhead et al., 2019). Together with the full set of control variables presented above, the addition of these four variables helps explain which circumstances make entrepreneurs and employees more likely to move, respectively.

We estimate the two sets of Equations (1a)–(1b) and (2a)–(2b) using a simultaneous equations system (SES) technique, in which the outcome of each equation in a system is estimated jointly with the outcome of the other equation in the system. This method thus helps us to control for the endogeneity of the choices/circumstances associated with the migration-employment status of both entrepreneurs and employees. We follow the NELM with our acknowledgement that migration is less an individual decision than a household arrangement. As such, we cluster individuals using household IDs in all specifications.

3.2.2 | Summary statistics

Appendix 1 presents variable definitions. Table 1 presents the summary statistics of migrants and non-migrants by the north–south regions and by their employment status (entrepreneurs vs employees). It could be seen that earnings of migrant entrepreneurs in the north are significantly higher than their local counterparts (column: 11, row: earnings). This statistic initially indicates that migrant entrepreneurs in the north gain from the less active entrepreneurship environment associated with socialism. Meanwhile, earnings of migrant employees in the south are significantly lower than their local counterparts (column: 12, row: earnings). This statistic thus may suggest that the lack of collectivism and family-like norms and culture in the south (Ralston et al., 1999) induce difficulties for migrant

employees (e.g., discrimination) in their relocation process, leading to reduced earnings. The summary statistics reveal no significant differences in earnings of migrant employees vs local employees in the north as well as between migrant entrepreneurs and local entrepreneurs in the south. In general, these statistics initially suggest that migrant entrepreneurs earn more than local entrepreneurs; meanwhile, migrant employees earn less than local employees; and that these patterns may be different between the north and the south.

In addition, the summary statistics reveal that people with children and older people are less likely to move, either for jobs or for business opportunities. Migrant employees are more likely to work in the private or foreign sectors, in comparison to local employees, who are more likely to work for the state sector, especially in the north. Moreover, people who want to increase incomes are more likely to move for jobs; and finally, people who are more engaged in the local community are less likely to move.

4 | RESULTS

4.1 | Main results

Regression results are presented in Table 2. The variance inflation factor (VIF) statistics of the independent variables are 1.241 in the entrepreneur equation and 1.224 in the employee equation, indicating no serious multicollinearity-related issues in our models. Pairwise correlations are presented in Appendix 2. The coefficient associated with migrant entrepreneurs in column 1 is positive and statistically significant. This finding indicates that migrant entrepreneurs, on average, earn more than local entrepreneurs, holding all else constant. Since the dependent variable (monthly incomes) is in logarithm form, the finding can be interpreted in terms of percentages: migrant entrepreneurs earn 4.1% more than local entrepreneurs, *ceteris paribus*. Therefore, the answer to RQ1 is 'yes'. This finding supports the theoretical viewpoints that highlight the advantages of migrant entrepreneurs in identifying and executing novel business ideas.

Turning to migrant employees' earnings in column 4, the associated coefficient is negative and statistically significant. This finding indicates that migrant employees, on average, earn less than local employees, holding all else constant. The earning gap is 10.3%, as per the economic effect shown in column 4. This finding is consistent with a body of literature that emphasises the discrimination faced by migrant employees when they move to new locations (Haughton et al., 2018; Liu, 2019). Thus, the answer to RQ2 is 'no'. The distinction in earnings between migrant and local entrepreneurs, and between migrant and local employees, implies that migrants can best utilise their advantages when they are free to explore business venturing activities. Having an employer requires migrants to adapt to local workplace norms and standards, which may substantially constrain their advantages of thinking and executing tasks differently.

Regarding the moderating effects of regional informal institutions (i.e., the north vs the south), the results are presented in columns 2 and 5, Table 2. The coefficients associated with the interaction terms between migrant entrepreneurs (migrant employees) and the north dummy are positive and statistically significant. This finding indicates that norms of pure socialism enhance the advantages of migrants. To examine this moderating effect in more detail, Figures 1 and 2 present the marginal graphs. In Figure 1, it could be seen that the difference in terms of earnings between local and migrant entrepreneurs is not significantly large in the south of Vietnam (this explains why the coefficient associated with migrant entrepreneurs becomes insignificant with the inclusion of the interaction term in column 2, Table 2). However, in the north, migrant entrepreneurs' earnings are significantly higher than those of local entrepreneurs. As such, the answer to RQ3 is that purely socialist informal institutions (in contrast to pro-entrepreneurship informal institutions) strengthen the positive association between migration status and entrepreneurs' earnings.

Meanwhile, Figure 2 shows that in the south of Vietnam, migrant employees earn significantly less than local employees. Interestingly, this pattern reverses in the north: migrant employees earn slightly more than local

employees. The positive effect obtained in the north is relatively subtle; as such, the direct (average) association between migration status and employees' earnings remains negative and is statistically significant in column 4, Table 2. In general, the result observed in the figure indicates that the north's purely socialist norms mitigate the difficulties faced by migrant employees in their new home, which helps boost their earnings. As such, the answer to RQ4 is that purely socialist informal institutions (in contrast to pro-entrepreneurship informal institutions) weaken the negative association between migration status and employees' earnings.

In short, the findings presented above are consistent with the summary statistics in which the average earning value of local entrepreneurs in the north (3.74 million VND per month) is smaller (p-value <5%) than that of local entrepreneurs in the south (3.86 million VND per month). Meanwhile, the average earning value of migrant

TABLE 2 Regression results

	(1) Earnings	(2) Earnings	(3) Odds ratio Migrant entrepreneurs
Migrant entrepreneurs	0.041** (0.018)	0.008 (0.022)	
Migrant entrepreneurs × North		0.084** (0.037)	
Migrant employees			
Migrant employees × North			
North	−0.046** (0.019)	−0.060*** (0.021)	
Gender	0.158*** (0.015)	0.157*** (0.015)	0.962 (0.052)
Children	0.058*** (0.018)	0.058*** (0.018)	0.694*** (0.048)
Married	−0.113** (0.052)	−0.114** (0.052)	1.227 (0.234)
Divorced	−0.065 (0.048)	−0.065 (0.048)	1.334 (0.238)
Age	0.003*** (0.001)	0.003*** (0.001)	0.969*** (0.004)
Education	0.107*** (0.008)	0.107*** (0.008)	0.936*** (0.022)
Ethnicity	0.049 (0.040)	0.049 (0.040)	0.958 (0.134)
Urban	0.031 (0.020)	0.032* (0.020)	0.983 (0.070)
Firm investment (province)	−0.058** (0.027)	−0.053* (0.027)	0.784** (0.080)
Firm revenues (province)	0.132*** (0.051)	0.123** (0.051)	1.337 (0.250)
Average incomes (province)	0.012 (0.015)	0.013 (0.015)	0.979 (0.053)
Cost of living index (province)	0.003 (0.002)	0.003 (0.003)	1.037*** (0.009)
Want to increase incomes			1.025 (0.095)
Savings			1.007 (0.059)
Debts			0.959* (0.022)
Engage in local community			0.712*** (0.044)
Private sector			
Foreign sector			
Log pseudolikelihood	−1,343	−2,754	−1,343
Observations	6,077	6,077	6,077

Note: The dependent variable is natural log of monthly incomes, in million VND, 2010 price. The estimator is simultaneous equations modelling, in which earning equation and migration equation are estimated simultaneously. Standard errors and test statistics are asymptotically robust to heteroscedasticity and are clustered to the household level. All specifications include a year dummy.

***Significant at 1%.

**Significant at 5%.

*Significant at 10%.

TABLE 2 (Continued)

	(4) Earnings	(5) Earnings	(6) Odds ratios Migrant employees
Migrant entrepreneurs			
Migrant entrepreneurs × North			
Migrant employees	−0.103*** (0.019)	−0.136*** (0.019)	
Migrant employees × North		0.099*** (0.034)	
North	−0.045** (0.019)	−0.046** (0.020)	
Gender	0.151*** (0.016)	0.149*** (0.015)	0.878*** (0.044)
Children	0.052*** (0.017)	0.062*** (0.016)	0.761*** (0.041)
Married	−0.111*** (0.040)	−0.098** (0.038)	1.201 (0.181)
Divorced	0.040 (0.031)	0.036 (0.030)	1.375** (0.171)
Age	−0.002* (0.001)	−0.001 (0.001)	0.972*** (0.003)
Education	0.085*** (0.010)	0.083*** (0.009)	0.984 (0.031)
Ethnicity	0.380*** (0.022)	0.359*** (0.021)	1.370*** (0.110)
Urban	0.154*** (0.019)	0.156*** (0.018)	0.797*** (0.047)
Firm investment (province)	−0.082** (0.035)	−0.082** (0.034)	0.827 (0.143)
Firm revenues (province)	0.080 (0.065)	0.076 (0.064)	1.522 (0.474)
Average incomes (province)	0.171*** (0.018)	0.178*** (0.018)	0.615*** (0.043)
Cost of living index (province)	0.005 (0.003)	0.004 (0.003)	1.019* (0.011)
Want to increase incomes			1.047 (0.078)
Savings			0.921 (0.053)
Debts			0.991 (0.015)
Engage in local community			0.742*** (0.041)
Private sector	0.075*** (0.021)	0.074*** (0.021)	
Foreign sector	0.108*** (0.024)	0.108*** (0.024)	
Log pseudolikelihood	−5,165	−6,134	−5,165
Observations	6,361	6,361	6,361

Note: The dependent variable is natural log of monthly incomes, in million VND, 2010 price. The estimator is simultaneous equations modelling, in which earning equation and migration equation are estimated simultaneously. Standard errors and test statistics are asymptotically robust to heteroscedasticity and are clustered to the household level. All specifications include a year dummy.

***Significant at 1%.

**Significant at 5%.

*Significant at 10%.

entrepreneurs in the north is 4.47 million VND per month, significantly (p-value <1%) higher than that of migrant entrepreneurs in the south, which is 3.59 million VND per month. Since the regression results suggest that non-migrant workers make more money in the north than migrants (the gap is smaller but still there) and because there are more unexploited opportunities, these statistics imply that entrepreneurs in the north would make more than their non-migrant counterparts; otherwise, they would not migrate to the north due to its lower levels of earnings in general.

Turning to migration decisions, the results in columns 3 and 6, Table 2, show that there are some common patterns between migrant entrepreneurs and employees. For example, both of them are more likely to move when they have no children, are younger, and are less engaged in the local community. In addition, both are likely to migrate

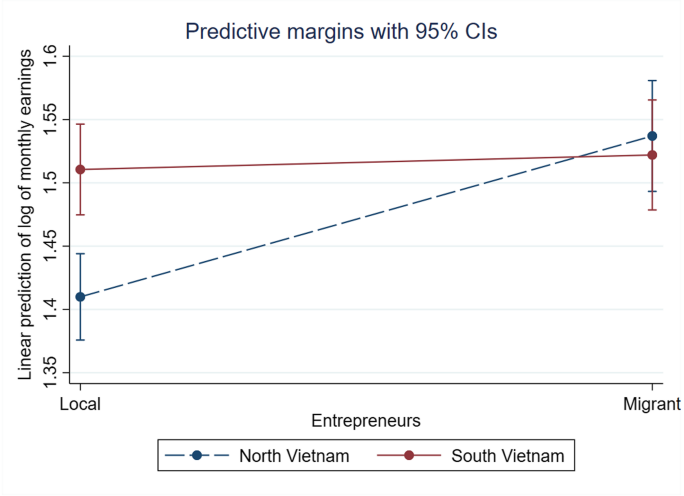

FIGURE 1 Regional informal institutions moderating effects (entrepreneur specification)

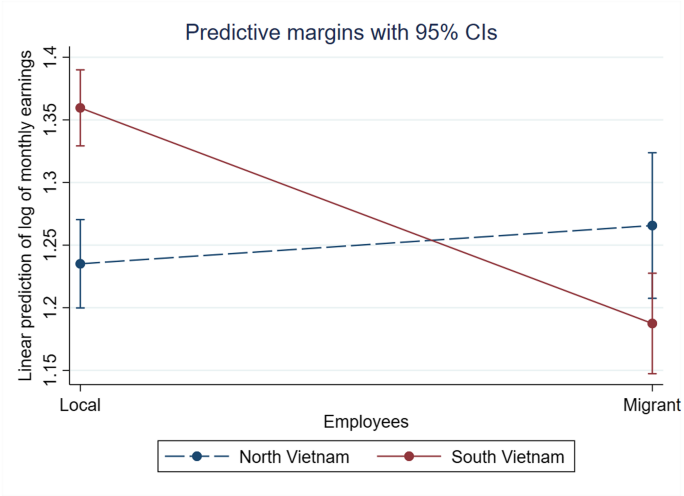

FIGURE 2 Regional informal institutions moderating effects (employee specification)

into provinces with higher living standards. However, there are some distinct patterns between them as well. For example, women and minor ethnic people are less likely to move for jobs; meanwhile, educated people and those with higher values of debts are less likely to move for business opportunities.

4.2 | Robustness checks and extensions

4.2.1 | Ordinary least squares results

A simultaneous equation system (SES) may produce biased results if the instrumental variables employed are weak (Wooldridge, 2010). As such, for the sake of robustness, we also treat Equations (1a) and (2a) as a reduced-form and

use robust ordinary least squares (OLS) to estimate them. The results are presented in Appendix 3 and are consistent with the main findings using SES.

4.2.2 | Multi-modelling results

Unlike previous studies, in which only a set of preferred models are reported, we employ a method proposed by Young and Holsteen (2015) to test whether our findings hold regardless of model specifications and estimation techniques. Young and Holsteen (2015: 6) document that 'most of the differences between studies are not due to having different samples but rather having different models'. As such, they come up with a concept of modelling distribution obtained from repeated modelling; this is a mirror of the well-known concept of sampling distribution obtained from repeated sampling.

Following this line of argument, we draw a distribution of the coefficients associated with the independent variables of interest estimated from a set of specifications built from all plausible combinations of the control variables and estimators. Specifically, in both models, we have 13 control variables in the entrepreneur equations and 14 control variables in employee equations,[3] and one appropriate estimator (OLS); thus, there are 8,192 (2^{13}) plausible specifications for entrepreneurs and 16,384 (2^{14}) plausible specifications for employees. We estimate all these specifications to obtain the mean coefficients of the variables of interest, as well as the model standard deviations (SDs). Together with the sampling SDs, we can construct robustness ratios (analogous to the t-statistic) to show how the variables of interest perform (Young & Holsteen, 2015). Moreover, we can see the sign stability of the variables of interest (the percentage of estimates that have the same sign) and the significance rate (the percentage of models that report a statistically significant coefficient). In this way, we can avoid building our studies on a knife-edge specification.

Appendix 4 presents the results using a multi-modelling approach as a robustness check of the sensitivity of our findings to the control variables. The first variable of interest is migrant entrepreneurs (column 1). In the 8,192 plausible specifications, 100% of the time, the coefficients are positive, and 89% of them are statistically significant. Young and Holsteen (2015) propose that a model is considered stable when more than 50% of the coefficients associated with the variable of interest hold the same sign and are statistically significant. The rest of the table presents the results for the other variables of interest, namely migrant employees and the interaction terms. It can be seen that our findings are strongly stable regardless of model specifications. The robustness ratios (analogous to the t-statistics) in all other columns are greater than 2, indicating the reliability of the findings.

4.2.3 | Moderating effects of sectors (employees only)

Business sectors may moderate the relationship between migration status and earnings. The main results reveal that, on average, migrant employees earn less than their local peers. However, this gap may be different across business sectors. To explore this issue, we examine the interaction terms between migrant employees variable and the categorical sector variable (state sector serves as the benchmark). The results are presented in Appendix 5.

The coefficients associated with the private and foreign sectors are positive and statistically significant, indicating that people (both migrants and locals) in the two sectors earn more than those working in the state sector. This finding is consistent with the literature showing that, in Vietnam, the private and foreign sectors are more productive than the state sector (Nguyen, 2019; Van Thang & Freeman, 2009). As such, they are able to pay employees higher

[3]The 13 control terms in all migrant entrepreneurs specifications include nine individual terms: gender, age, marital status, child, education, ethnicity, urban, north, year, and the four provincial terms: firm investment, firm revenues, consumption index, and average incomes. In migrant employee specifications, there is another category variable: sector.

salaries. We conduct a t-test of the difference in earnings in the private sector (β_1) vs the foreign sector (β_2); the results show that there is no significant difference between the two.

Turning to the moderating effects of sectors, it is interesting to see that the coefficients associated with both interaction terms between migrant employees and private/foreign sectors are negative and statistically significant. These findings indicate that the earning gap between migrants and locals becomes smaller when migrant employees work in the state sector, in comparison to the private and the foreign sectors. This result reveals that migrants are less discriminated by state-owned businesses in comparison to the other two sectors. One explanation could be that the state sector has a standardised pay scale (Nguyen & van Dijk, 2012) that would be less discriminatory than could be the case in private and foreign sectors' employment.

4.2.4 | Matching

In addition to the regression technique, we employ the matching approach to explicitly deal with selection bias issues in our data. The observations in the control group (local people) may be different from the observations in the treatment groups (migrant people) not only in terms of the treatment effect (migration status) but also in terms of unobserved factors (e.g., their individual characteristics, choices, and circumstances). If individuals' earnings depend on their characteristics, then a pairwise comparison of the average earnings of migrants against those of locals reflects the combination of the average causal effect and the effect of selection bias (Abadie & Imbens, 2011).

To reduce the influence of selection bias, we first employ propensity score matching (PSM). This technique is motivated by the conditional independence assumption (CIA). This, if it holds its validity, is able to eliminate the selection bias after conditioning earnings on a set of covariates (Abadie & Imbens, 2012). Specifically, the propensity score approach first estimates the scalar function of covariates using a logistic model. In our case, the propensity score of migration status (i.e., being migrant entrepreneurs and migrant employees, respectively) is a scalar function of a set of individual variables comprising of information about a person's motivations to move.

To increase the validity of matching between migrants and locals, besides the control variables included in the main specifications, we add in this first step four additional covariates that may influence individuals' migration decisions. As presented in Section 3.2.1, they are *Want to increase incomes*, *Value of debts*, *Engage in local community*, and *Have savings*. The definitions of these variables are shown in Appendix 1; their summary statistics are reported in Table 1. People are more likely to move if they want to increase their incomes, to pay off debts/to avoid paying debts, or if they are less engaged in their local communities (Chen & Coulson, 2002; Li & Zahniser, 2002). We then estimate the effect of migration status on individuals' earnings by matching the fitted values from the first step. Specifically, we employ *nearest neighbour matching* where an individual in the control groups (local entrepreneurs and local employees, respectively) is chosen as a match for an individual in the treatment groups (migrant entrepreneurs and migrant employees, respectively) in terms of the closest propensity score as regards the observed characteristics. By doing this paring exercise, we could compare the earnings of the two most similar individuals in terms of their individual characteristics and backgrounds, with the only difference being in their migration status (i.e., a person is local, and the other is migrant). The average difference between all pairs of local-migrant people thus gives us the average treatment effects on earnings of being a migrant.

The validity of the PSM estimation depends on the balancing test, which is a test for balancing property under the null hypothesis that the covariates are balanced between groups. In empirical studies, the balancing test is usually not satisfied because the number of observations is not large enough to ensure that the treatment group and the control group are identical on each and every dimension of the covariates. As such, we also employ coarsened exact matching (CEM), which does not require a balancing test. This technique is slightly different from the PSM in its first step. Instead of estimating a scalar function of covariates, CEM assigns each observation a bin signature according to the covariates. Thus, observation is represented by properties coarsened to discrete values through a coarsening or binning strategy, and each member is given a bin signature that can be used to exactly match other members with

the same bin signature (Iacus et al., 2012). In the context of our study, each and every migrant is assigned a bin signature depending on their particular characteristics and backgrounds. The same process is employed to assign bin signatures to each and every non-migrant. Then the CEM weights obtained from matching will be used to correct for selection bias.

Results obtained from the PSM and CEM matching techniques are presented in Appendix 6. The validity of PSM relies on a set of balancing tests. Figures 3 and 4 show that there are substantial systematic differences in terms of individual characteristics (i.e., the covariates) between the control (locals) and treatment (migrants) groups. The propensity scores obtained in the first step of estimation help balance these characteristics to some extent. However, the statistics associated with a formal test reveal that there are still differences between the groups (the p-values of the balancing tests are statistically significant). For this reason, we also use CEM to obtain reliable results. From Appendix 6, it could be seen that both methods provide consistent results, in which migrant entrepreneurs earn more than their local counterparts; meanwhile, migrant employees earn less than local employees. We also report the matching results of the north variable in all specifications. It could be seen that people in the north (both migrants and non-migrants) consistently earn less than people in the south. Finally, the treatment effects of the interaction terms between migrant entrepreneurs, migrant employees, and the North dummy, respectively, are all

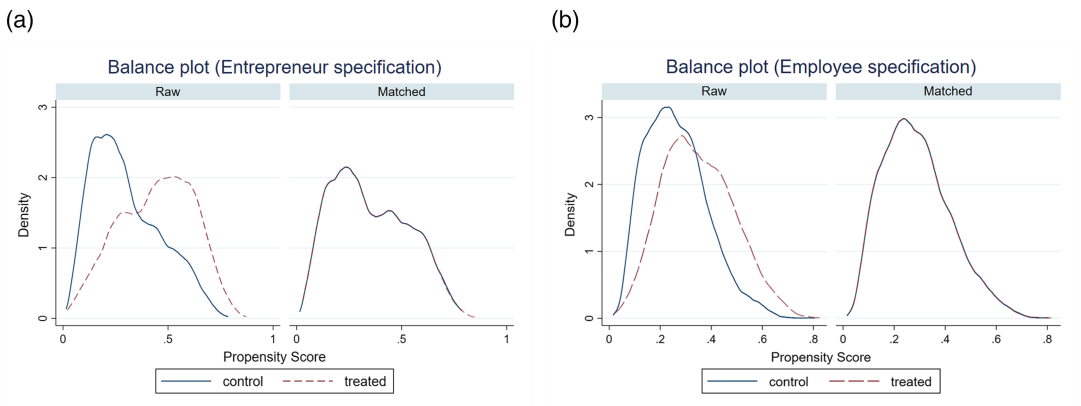

FIGURE 3 Kernel density plots for raw and balanced data

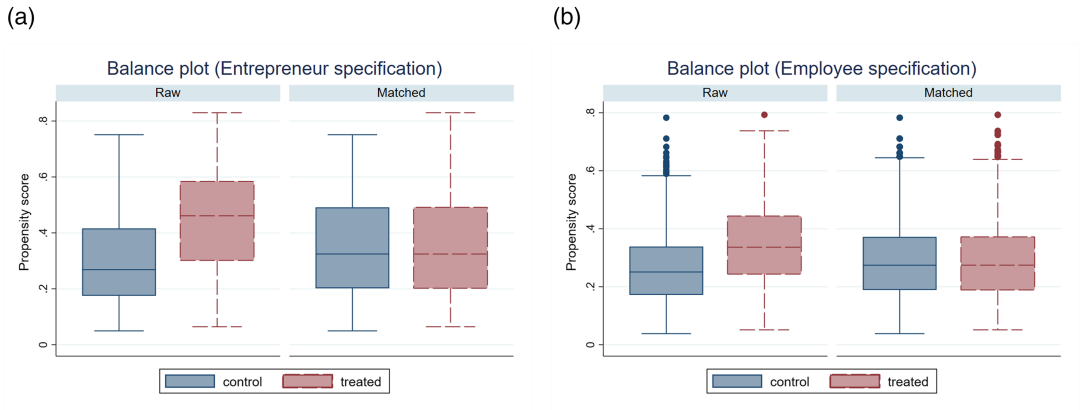

FIGURE 4 Box plots for each treatment level for balanced data

positive, consistent with the regression results. In short, the matching results largely support our main findings obtained from the SES and OLS techniques.

4.2.5 | A lump-sum specification test

In the above investigations, we separate entrepreneurs and employees into two sub-samples. This setting allows us to make comparisons of earnings in pairs, i.e., migrant entrepreneurs vs local entrepreneurs, and migrant employees vs local employees. However, separating the data set into two sub-samples reduces the number of observations; moreover, it cannot control for the unobservables that motivate people to migrate for either entrepreneurship or business opportunities. As such, in this section, we run a lump-sum model for the sake of robustness check, in which our independent variable of interest is a category variable, which takes value 0 for non-migrants (both entrepreneurs and employees), value 1 for migrant entrepreneurs, and value 2 for migrant employees. This setting allows us to compare earnings of migrant entrepreneurs and migrant employees relative to those of non-migrants in a lump-sum model.

The regression results using OLS and SES are reported in Appendix 7. It could be seen that earnings of migrant entrepreneurs, according to the OLS results, are not significantly different from those of non-migrants (including both local entrepreneurs and employees). However, the SES results indicate that their earnings are significantly higher than those of non-migrants. These findings thus signal that migrant entrepreneurs earn at least as much as non-migrants. Meanwhile, the results show that earnings of migrant employees are consistently lower than those of non-migrants. These findings thus point to a conclusion that migrant employees are the most inferior group in terms of earnings, among the three.

Turning to the moderating effect of informal institutions, the interaction terms between migrant employees/entrepreneurs and the north variable are positive and statistically significant. These findings indicate that socialism and collectivism could improve earnings of both migrant entrepreneurs and employees in the north. It is noteworthy that the results obtained from this section cannot be directly compared to those obtained from analysing the two sub-samples due to different variable operationalisations and the numbers of observations. However, in general, the two results are consistent and support the proposed hypotheses (in different ways).

4.2.6 | Cross north–south regions migrations

In the main models, we examine the effects of informal institutions on earnings of migrants moving within the north, within the south, and across the north–south regions, as long as they move out of their home provinces. However, it would be interesting to investigate the sub-sample of migrants who move across the north–south regions only. The reason is that they are more likely to suffer from higher adaptation costs; also, they are more distinguished from the locals in terms of mindsets and thinking. As such, in this section, we exclude all migrants moving within the north and within the south regions. As a result, the *migrant entrepreneurs* variable is now categorical, which takes value 0 for non-migrant entrepreneurs, value 1 for entrepreneurs moving from the north to the south, and value 2 for entrepreneurs moving from the south to the north. Similarly, the *migrant employees* variable is re-constructed in the sample way.

A look at the distribution statistics in Appendix 8a reveals that most migrants move within the north or within the south regions. Specifically, only 36.80% entrepreneurs and 26.15% employees move across the north–south regions. Interestingly, within the groups of cross-region migrants, a large number of them move from the north to the south, and only a small number move from the south to the north. This pattern may reflect the attractiveness of the economic hubs in the south, including Ho Chi Minh City (the largest economic centre of Vietnam) and its surrounding industrial zones.

Appendix 8b reports the regression results. It could be seen that, compared to non-migrant entrepreneurs, those moving from the south to the north gain significantly higher earnings, while those moving from the north to the south do not earn more than their non-migrant counterparts. This finding thus supports our argument that informal institutions in the north are conducive to migrant entrepreneurship. Meanwhile, in terms of employees, those who move from the north to the south find their earnings substantially lower than local employees; however, those who move from the south to the north do not earn significantly less than their non-migrant counterparts. These findings are, in general, consistent with our proposed hypotheses.

4.2.7 | Migration decisions

Since the overall earnings are higher in the south (for both entrepreneurs and employees), people may migrate to the region hoping to enhance their incomes (in any types of employment). As such, migration decisions may not be correlated with employment status. In fact, some (low-skilled) employees may be hoping for a job but then forced to start businesses out of necessity (Sinkovics & Reuber, 2021) when moving to the south. Even if they find a job, due to competition with other migrants and locals, they may be forced to earn less. To examine this possibility, we add a new variable into the model – *Formally registered business* – which takes value 1 if a business is formally registered, and value 0 if it is an informal (non-registered) business. We then interact the variable with the North dummy to explore the moderating effect of the two regions on the likelihood of migrants working in the informal sector (either as employees or entrepreneurs). If the majority of migrants work in the informal sector, this indicates that they may be forced to start businesses out of necessity or that they fail to secure a job in the formal sector.

The regression results are presented in Appendix 9a. Since the variable *Formally registered business* is available only in 2015, we do not include the 2004 sample in this analysis. Moreover, since we assume that employment types do not affect migration decisions, we do not separate employees from entrepreneurs as in the main analysis but focus on distinguishing migrants from non-migrants (regardless of their employment types). As such, the dependent variable in columns 2 and 4 of the SES systems is *Migrants*, which takes value 1 for migrants and value 0 for non-migrants. Columns 1 and 2 report the results of earnings with *Formally registered business* variable added to the Migrants equation; columns 3 and 4 report the results of earnings with the interaction term of *Formally registered business* variable and North dummy added to the Migrants equation. The results are consistent with our main findings, showing that migrants earn less than non-migrants and this effect is stronger in the south of Vietnam.

The odds ratios associated with *Formally registered business* variable are smaller than 1 and statistically significant, indicating that migrants are more likely to work in non-registered businesses (the informal sector), either as entrepreneurs or as employees. To examine the interaction term between *Formally registered business* variable and the North dummy intuitively, we run a logit regression of Migrants equation in column 5 and provide the marginal graph in Appendix 9b. It could be seen that, in *the south compared to the north*, if a person works in the informal sector (the dashed line), the person is more likely a migrant. This finding confirms that some (low-skilled) employees may be hoping for a job when moving to the south but then forced to start businesses out of necessity. These businesses are thus more likely informal (non-registered). Even if they find a job, due to the competition with other migrants and locals, they may be forced to work in the informal sector.

An interesting question arises from this finding. These suffering migrants could earn more if they moved to the north; why they did not do so is thus a puzzle. Using the available data set, we are unable to provide a complete answer to the question. However, we can examine, to some extent, the determinants of migration decisions to understand why some migrants want to move to the south while some others decide to go to the north. To do this, we create a *Migration decision* variable, which takes value 1 for migrants living in the north and value 0 for migrants living in the south (of the migrant sub-sample only). In addition, we introduce three additional explanatory variables: *Anticipate difficulties* – which takes value 1 if a migrant foresees the difficulties they currently face in the destination, takes value 0 if they did not foresee the difficulties they currently face in the destination; *Decision person* takes value

1 if a migration decision is made by non-family people (e.g., friends and relatives), take value 0 if a migration decision is made by the migrant themselves or their spouses; *Information source* takes value 1 if migrants obtain information about the destination mainly via formal sources (e.g., government agents, job fairs, public media), takes value 0 if migrants obtain information about the destination mainly via informal sources (e.g., friends and relatives).

Appendix 9c reports the results of migration decisions using logit regressions. It could be seen that the odds ratios associated with *Anticipate difficulties* are smaller than 1 and statistically significant, indicating that migrants to the south are more likely to foresee the difficulties they face before moving. Next, the odds ratios associated with *Decision person* are greater than 1 and statistically significant, showing that migrants to the south are more likely to make the moving decision by themselves or their spouses. Finally, the odds ratios associated with *Information source* are greater than 1 and statistically significant, indicating that migrants to the south are more likely to use informal sources of information to make their moving decisions.

These findings point to a possibility that migrants to the south understand the difficulties they face in the destination. However, they still decide to go with a hope to earn more in the largest economic hub of the country – Ho Chi Minh City and the surrounding regions. Another possibility is that they follow their spouses and do not obtain full information about the destination using formal information sources. These situations could explain why some migrants earn less in the south but they do not move to the north. Specifically, our preliminary findings suggest two possibility (i) a high-risk-high-return decision with a *hope* that when choosing the more competitive region (the south), they could trade-off more difficulties with higher earnings; and (ii) they have family commitments and a lack of understanding of the destination. Future research should explore this issue more in detail to fully understand the nature of migration decisions of people moving to the north and south of Vietnam.

5 | DISCUSSION AND CONCLUSION

This study examines the association between internal migration and migrants' earnings. Its primary purpose is to compare earnings of migrant entrepreneurs and migrant employees with those of their respective local counterparts. We examine a large and representative data set of migrants and non-migrants in Vietnam in 2004 and 2015. Our findings suggest that while migrant entrepreneurs earn more than local entrepreneurs, migrant employees earn less than their local counterparts. In addition, we investigate the moderating role played by regional informal institutions by contrasting migrants' earnings in the north (pure socialism) vs those in the south (pro-entrepreneurship). Findings show that the pure socialism in the north improves migrants' earnings, unlike the south's pro-entrepreneurship norms, which do not.

Even though this paper is an explanatory study, it makes some important contributions to the literature. First, the proposed framework in this paper allows us to appreciate the differences between migrants moving for employment purposes and those migrating to seek out business opportunities. A large body of the extant literature focuses solely on understanding rural-urban migrant employees who seek low-skilled jobs in big cities (Haughton et al., 2018; Lanjouw & Marra, 2018; Mai et al., 2014). While we agree that this flow of in-migration accounts for a large number of migrants, especially in developing countries like Vietnam that are undergoing substantial urbanisation and industrialisation, we also see that a non-trivial number of migrants move to new locations for business opportunities. This group of entrepreneurs, despite being widely investigated in the international business literature (Sinkovics & Reuber, 2021), has not been systematically studied at the sub-national level. More importantly, they are not being examined vis-à-vis migrant employees, which makes it hard to discern the bigger picture about the heterogeneity of internal migration. We make contributions by showing that there are substantial differences between migrant entrepreneurs and migrant employees, even in a within-country study setting.

Second, this study shows that regional informal institutions matter. Within a country with formal institutions that are identical across regions, migrants are sensitive to local norms, values, and customs. These informal 'rules of the game' could significantly strengthen or weaken migrants' advantages in local markets (Vu & Jytte, 2012). While

previous studies have shown that formal institutions in the host regions/countries are a key determinant of migrants' earnings, well-being, and living standards (Chen & Coulson, 2002; Lanjouw & Marra, 2018), we propose that this tells us only half of the story. Informal institutions, even though they are not directly observable, can influence migrants' earnings to a remarkable degree. For example, in our study context, the socialist and collectivist norms in the north of Vietnam help migrants make connections with local communities more quickly, thereby reducing their costs of adaptation. Moreover, in purely socialist regions characterised by a lower level of entrepreneurial spirit, a migrant's ability to see and think differently is more appreciated, leading to higher earnings. Our study thus highlights that migration is not just an economic activity; it is also an institutionalised process.

Findings in this study contribute to the wider regional research that highlights the importance of values and norms in shaping migrants' decisions and their living standards in new locations. For example, in big countries with multiple races, values and norms related to multiculturalism may influence migrants' adaptation costs and their living standards remarkably. These countries include Australia (Lawrence, 2014; Mason, 2014), Canada (Mensah & Williams, 2014; Wu, 2021), Brazil (Garcia et al., 2017; Macdonald & Winklerprins, 2014), Russia (Bandey & Rather, 2013; Egorov et al., 2021) and the USA (Alexander et al., 2017; Wu, 2020). Meanwhile, in Mexico, religiosity-related values appear to be the key determinant of migration decisions (Hoffman et al., 2015; Wilson, 2010). On the contrary, in China, the norms of judgements (discriminations) towards a person's social positions, originating from the long-lasting Confucianism, strongly influence migrants' living standards and their access to welfares (Luo, 2016; Zhong et al., 2017).

Most related to our study is, however, the case of Germany. Having the East following socialism and the West following capitalism before its unification, the country provides a 'natural experiment' for scholars to study the impacts of different cultures, values, and norms between the two regions. In a relevant research vein, Boenisch and Schneider (2013) argue that the communist regime induced a specific social capital mix that discouraged geographic mobility even after its demise. Specifically, they show that formal social capital was more or less completely destroyed in the communist era; as such, people living in a communist police state tended to invest in informal types of social capital. Moreover, people in the communist regime are used to rely on strong-tie social networks to exchange goods due to shortages. These informal-strong social networks (such as family, kinship members, and close friends) – labelled as closed social capital by the authors – discourage people from moving out of their home regions. Meanwhile, people living in the west of Germany, thanks to their open type of social capital (as a product of capitalism), are more willing to accept mobility.

Findings obtained from this study offer several useful implications for migrants and policymakers. For migrants, it is important they consider not only the economic conditions prevailing at their proposed destination, but also its culture, values, and norms; only then will they be able to make well-informed movement decisions. Within-country (internal) migrations are typically seen as being unburdened by the difficulties of cross-border migration, such as language and legislation gaps; as such, in-migrants can easily overlook the importance of having to acquire a sufficient understanding of the non-economic conditions at their destination regions. We show that this should not be the case. A full appreciation of the cultural and behavioural differences between the original and destination regions will help migrants to properly arm themselves with an understanding of how the informal 'game' is played locally, which in turn could reduce adaptation costs and improve earnings.

For policymakers, it is essential to appreciate that migrants with different reasons for moving will face dissimilar difficulties. For example, compared to migrant entrepreneurs, migrant employees may face more discrimination, which will restrict them from optimally improving their earnings by fully utilising their abilities. As such, policies and subsidies should be specific to particular groups of migrants to address their dissimilar difficulties effectively. A general and lump-sum migration policy may not help. Moreover, policymakers should understand that migrants in some regions may suffer more than migrants in other regions, and these difficulties may stem from (unobservable) local norms and values rather than from (observable) economic factors. For example, our study shows that migrants' advantages largely disappear in regions with pro-entrepreneurship norms. In general, we urge policymakers to take institutional forces into account when they are designing internal migration policies.

This study is not without limitations that should be acknowledged but which also provide potential avenues for future research. First, the data set used in this study is country-specific (Vietnam is the sole context of analysis). One of the main weaknesses of a country-specific research design is that we only observe within-country effects, and it may not be appropriate to generalise these to other contexts. Future research should, therefore, re-test the validity of our findings using a multi-country data set. Second, the effects found in this study stop short at correlations; without a set of panel data and/or appropriate experiment-like research settings, we are unable to refer to causal effects. Specifically, due to data limitations, we are restricted to two specific study time periods (2004 and 2015). This cross-sectional nature of the data set, despite having its long-time span (11 years between the two survey periods), cannot effectively control for endogeneity in the empirical estimations. Future studies thus may explore the research questions raised in this study using panel data or experiments. Third, due to unavailable information in the data, this paper cannot control for a possibility that migrants in the survey move in their new locations but commute to work in neighbour provinces. Even though we expect the number of migrants doing this is relatively insignificant in the sample given resources spent to commute across provinces are relatively substantial, we acknowledge that failing to control for the commutation effects across regions might affect the estimation results. Future studies need to address this issue with care.

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APPENDIX 1

VARIABLE DEFINITIONS

Variable	Definitions
Dependent variable	
Earnings	Natural log of monthly earnings in 2010 price (reported in Table 1 the value of monthly earnings, in million VND)
Independent variables	
Migrant entrepreneurs	Take value 1 for migrant entrepreneurs, and value 0 for local entrepreneurs.
Migrant employees	Take value 1 for migrant employees, and value 0 for local employees.
North	Take value 1 for individuals living in the north of Vietnam, take value 0 for individuals living in the south of Vietnam. The north vs south is identified using the 17th parallel.
Individual control variables	
Gender	Take value 1 for males, and value 0 for females
Children	Take value 1 if an individual has at least a child, 0 if no child
Divorced	Take value 1 if divorced, 0 otherwise
Single	Take value 1 if single, 0 otherwise
Married	Take value 1 if married, 0 otherwise
Age	Individual age, in years
Education	A categorical variable: take value 0 – illiteracy, 1 – primary school graduate, 2 – junior high school graduate, 3 – high school graduate, 4 – college graduate, 5 – postgraduate
Ethnicity	Take value 1 for Kinh ethnicity (the major), 0 for other minor ethnicities
Urban	Take value 1 if an individual lives in an urban region, 0 if rural
State sector	Take value 1 if an individual work for state-owned firms or government bodies, 0 otherwise
Private sector	Take value 1 if an individual work for private firms, 0 otherwise
Foreign sector	Take value 1 if an individual work for foreign firms, 0 otherwise
Year	Take value 1 for 2015, value 0 for 2004
Provincial control variables	
Firm investment	The sum of business organisations' investments in a province (in million/billion VND)
Firm revenues	The sum of business organisations' revenues in a province (in million/billion VND)
Average incomes	The average incomes of residents in a province (in million VND)
Cost of living index	The level of cost of living of a province relative to Hanoi – the capital (Hanoi=100)
Additional covariates in migration equations	
Want to increase incomes	Take value 1 if an individual wants to take more jobs to increase incomes, 0 if the individual does not want to
Have savings	Take value 1 if yes, and 0 if no
Value of debts	Log of the value of individual debts (reported here as the value of debts in 2010 price, in million VND)
Engage in local community	Take value 1 if an individual engages in activities organised by local communities and government in the last 3 months, and 0 if the individual does not do so

Note: Only migrants across provinces are counted in this study. Migrants moving within provinces are excluded.

APPENDIX 2

PAIRWISE CORRELATION

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Earnings (1)																			
Migrt. entre. (2)	0.02																		
Migrt. emp. (3)	−0.13																		
North (4)	0.09	−0.08	−0.11																
Gender (5)	0.12	0.04	0.01[a]	−0.04															
Children (6)	0.03	−0.15	−0.04	−0.07	0.06														
Marital status (7)	0.07	0.00[a]	0.03	0.03	0.21	0.16													
Age (8)	−0.06	−0.04	−0.10	0.09	−0.03	−0.44	−0.13												
Education (9)	0.31	−0.16	−0.06	0.32	0.10	0.05	0.11	0.00[a]											
Ethnicity (10)	0.28	0.01	−0.07	0.19	−0.07	−0.07	0.01[a]	0.03	0.21										
Urban (11)	−0.26	0.09	0.10	−0.26	0.08	0.10	0.04	−0.07	−0.27	−0.29									
Firm inv. (12)	0.18	0.05	−0.05	0.11	−0.05	−0.06	−0.01[a]	0.05	0.10	0.14	−0.24								
Firm rev. (13)	0.20	0.07	−0.05	0.07	−0.06	−0.07	−0.02	0.04	0.08	0.15	−0.25	0.68							
Avg. incomes (14)	0.24	0.08	−0.17	−0.10	−0.09	−0.18	−0.05[a]	0.13	0.03	0.24	−0.22	0.53	0.55						
Cost of living (15)	0.18	0.10	−0.01	0.30	−0.05	−0.08	0.00[a]	0.04	0.17	0.10	−0.30	0.53	0.63	0.35					
Want. incr. inc. (16)	−0.13	0.02	0.09	−0.05	0.05	0.05	0.00[a]	−0.09	−0.03	−0.05	0.07	−0.06	−0.07	−0.03[a]	−0.08				
Savings (17)	0.29	−0.01	−0.04	0.17	0.02	0.02	0.06	−0.02	0.22[a]	0.14	−0.18	0.05	0.06	−0.02[a]	0.10	−0.07			
Debts (18)	−0.03	−0.07	−0.03	−0.13	0.02	0.11	0.04	−0.05	−0.01[a]	−0.03	0.18	−0.14	−0.15	−0.09	−0.15	0.10	−0.19		
Eng. loc. com. (19)	−0.05	−0.23	−0.12	0.04	−0.02[a]	0.05	0.04	0.09	0.16	−0.03	0.07	−0.12	−0.13	−0.11	−0.07	0.03	0.04	0.12	

Note: [a] indicates insignificant at 10%.

APPENDIX 3

OLS REGRESSION RESULTS

	(1) Earnings	(2) Earnings	(3) Earnings	(4) Earnings
Migrant entrepreneurs	**0.071*** (0.042)	−**0.014** (0.040)		
Migrant entrepreneurs × North		**0.118**** (0.055)		
Migrant employees			−**0.122***** (0.021)	−**0.163***** (0.025)
Migrant employees × North				**0.133***** (0.042)
North	−0.096** (0.040)	−0.113*** (0.031)	−0.048** (0.023)	−0.074*** (0.026)
Gender	0.143*** (0.029)	0.132*** (0.023)	0.142*** (0.020)	0.141*** (0.020)
Children	0.043 (0.033)	0.037 (0.025)	0.038* (0.022)	0.044** (0.022)
Married	−0.076 (0.097)	−0.067 (0.069)	0.034 (0.068)	0.029 (0.068)
Divorced	−0.049 (0.067)	0.006 (0.050)	0.037 (0.031)	0.038 (0.031)
Age	−0.009** (0.003)	−0.002 (0.002)	−0.008*** (0.002)	−0.008*** (0.002)
Education	0.141*** (0.013)	0.119*** (0.010)	0.086*** (0.012)	0.088*** (0.012)
Ethnicity	0.087 (0.076)	0.153** (0.063)	0.328*** (0.028)	0.327*** (0.028)
Urban	0.050 (0.037)	0.039 (0.031)	0.143*** (0.023)	0.140*** (0.023)
Firm investment (province)	0.023 (0.055)	−0.008 (0.039)	−0.122*** (0.040)	−0.117*** (0.039)
Firm revenues (province)	0.002 (0.103)	0.070 (0.074)	0.124* (0.074)	0.122* (0.074)
Average incomes (province)	−0.014 (0.028)	−0.034 (0.022)	0.190*** (0.021)	0.187*** (0.021)
Cost of living index (province)	0.005 (0.005)	0.005 (0.004)	0.008** (0.003)	0.007** (0.003)
Private sector			0.062 (0.041)	0.042 (0.030)
Foreign sector			0.164** (0.067)	0.143*** (0.044)
R squared	0.216	0.195	0.216	0.218
Observations	6077	6077	6361	6361

Note: The dependent variable is natural log of monthly incomes, in million VND, 2010 price. The estimator is robust OLS. Standard errors and test statistics are asymptotically robust to heteroscedasticity and are clustered to the household level. All specifications include a year dummy.

*** Significant at 1%.

** Significant at 5%.

* Significant at 10%.

APPENDIX 4

MULTI-MODELLING RESULTS

Variable of interest	(1) Migrant entrepreneurs	(2) Migrant employees	(3) Migrant entrepreneurs × North	(4) Migrant employees × North
Possible control terms	13	14	13	14
Number of specifications	8192	16,384	8192	16,384
Number of observations	6077	6361	6077	6361
Positive	100%	0%	100%	100%
Positive and significance at 10%	89%	0%	100%	100%
Negative	0%	100%	0%	0%
Negative and significance at 10%	0%	100%	0%	0%
Mean coefficient	0.128	−0.138	0.156	0.182
Sampling standard deviation	0.058	0.022	0.056	0.044
Modelling standard deviation	0.023	0.019	0.037	0.030
Total standard deviation	0.062	0.029	0.067	0.054
Robustness ratio	2.053	4.760	2.334	3.397

Note: The dependent variable is natural log of monthly incomes, in million VND, 2010 price. The STATA command *mrobust* was used to conduct the specification robustness tests. Specification robustness tests try all possible combinations of the control variables and the estimator (OLS). The 13 control terms in all migrant entrepreneurs specifications include 9 individual terms: gender, age, marital status, child, education, ethnicity, urban, south, year, and the 4 provincial terms: firm investment, firm revenues, cost of living index, and average incomes. In migrant employee specifications, there is another category variable: sector.

APPENDIX 5

MODERATING EFFECTS OF SECTOR (EMPLOYEES ONLY)

	(1) OLS Earnings	(2) Simultaneous equations system Earnings
Migrant employees	−**0.103***** (0.019)	−**0.637***** (0.049)
Private sector (β_1)	**0.102***** (0.022)	**0.100***** (0.022)
Foreign sector (β_2)	**0.124***** (0.024)	**0.127***** (0.025)
Migrant employees × Private (β_3)	−**0.111***** (0.028)	−**0.124***** (0.036)
Migrant employees × Foreign (β_4)	−**0.104***** (0.027)	−**0.111***** (0.035)
North	−0.045** (0.019)	−0.046** (0.023)
Gender	0.151*** (0.016)	0.139*** (0.021)
Children	0.052*** (0.017)	−0.045* (0.026)
Married	−0.111*** (0.040)	0.007 (0.073)
Divorced	0.040 (0.031)	0.056* (0.034)
Age	−0.002* (0.001)	−0.012*** (0.002)

(Continues)

	(1) OLS Earnings	(2) Simultaneous equations system Earnings
Education	0.085*** (0.010)	0.072*** (0.013)
Ethnicity	0.380*** (0.022)	0.337*** (0.031)
Urban	0.154*** (0.019)	0.117*** (0.025)
Firm investment (province)	−0.082** (0.035)	−0.134*** (0.042)
Firm revenues (province)	0.080 (0.066)	0.152* (0.079)
Average incomes (province)	0.171*** (0.018)	0.159*** (0.021)
Cost of living index (province)	0.005 (0.003)	0.011*** (0.004)
R squared	0.244	NA
Log pseudolikelihood	NA	−3920
Observations	6361	6361
t-test $\beta_1 = \beta_2$ p-value	0.347	0.243
t-test $\beta_3 = \beta_4$ p-value	0.781	0.687

Note: The dependent variable is natural log of monthly incomes, in million VND, 2010 price. The estimator in column 1 is robust OLS. The estimator in column 2 is simultaneous equations modelling, in which earning equation and migration equation are estimated simultaneously. The results of the migrant employee are identical to those reported in column 6, Table 2. Standard errors and test statistics are asymptotically robust to heteroscedasticity and are clustered to the household level. All specifications include a year dummy.

*** Significant at 1%.

** Significant at 5%.

* Significant at 10%.

APPENDIX 6

MATCHING RESULTS

	Propensity score matching		Coarsened exact matching	
Migrant entrepreneurs	0.046** (0.020)		0.034* (0.018)	
Migrant employees		−0.077*** (0.019)		−0.084** (0.034)
North	−0.058*** (0.021)	−0.014 (0.053)	−0.041*** (0.012)	−0.039** (0.017)
Migrant entrepreneurs × North	0.071** (0.029)		0.069** (0.034)	
Migrant employees × North		0.094* (0.054)		0.064** (0.031)
Balancing p-value	0.039	0.000	NA	NA
Observations	6077	6361	6077	6361

Note: The dependent variable is natural log of monthly incomes, in million VND, 2010 price. The covariates in all specifications remain identical to the benchmark equations. Moreover, when identifying the treatment effects, we include four additional covariates: want to increase incomes, value of debts, engage in local community, and have savings. The results without these additional covariates remain consistent. The propensity score matching approach is the simple nearest-neighbour approach. Each treated firm is matched with at least a specified number of individuals from the control group. The balancing test is the test for balancing property under the null hypothesis that covariates are balanced. The figures reported in parentheses are heteroscedasticity robust standard errors.

*** Significant at 1%.

** Significant at 5%.

* Significant at 10%.

APPENDIX 7

A LUMP-SUM SPECIFICATION TEST

	(1)	(2)	(3)	(4)	(5) Odds ratio	(6) Odds ratio
	OLS		Simultaneous equations system			
	Earnings	Earnings	Earnings	Earnings	Migrant entrepreneur	Migrant employees
Migrant entrepreneurs	**0.011** (0.015)	−**0.019** (0.018)	**0.761***** (0.051)	**0.671***** (0.058)		
Migrant employees	−**0.083***** (0.017)	−**0.112***** (0.020)	−**0.287***** (0.083)	−**0.347***** (0.084)		
Migrant employees × North		**0.102***** (0.037)		**0.166***** (0.047)		
Migrant entrepreneurs × North		**0.074**** (0.030)		**0.186***** (0.049)		
North	−0.027** (0.013)	−0.043*** (0.014)	−0.061*** (0.020)	−0.112*** (0.023)		
Gender	0.152*** (0.011)	0.151*** (0.011)	0.122*** (0.019)	0.122*** (0.019)	1.186** (0.090)	1.798* (0.575)
Children	0.055*** (0.012)	0.056*** (0.012)	0.058*** (0.022)	0.061*** (0.022)	0.761*** (0.064)	0.689 (0.157)
Married	−0.085*** (0.028)	−0.084*** (0.028)	−0.015 (0.062)	−0.018 (0.062)	0.740 (0.199)	0.853 (0.323)
Divorced	0.012 (0.024)	0.013 (0.024)	0.027 (0.030)	0.028 (0.030)	1.033 (0.122)	0.990 (0.193)
Age	0.000 (0.001)	0.000 (0.001)	−0.006** (0.002)	−0.006** (0.002)	0.963*** (0.008)	0.918** (0.040)
Education	0.093*** (0.005)	0.094*** (0.005)	0.095*** (0.009)	0.093*** (0.009)	0.842*** (0.032)	1.219 (0.169)
Ethnicity	0.339*** (0.019)	0.341*** (0.019)	0.270*** (0.031)	0.273*** (0.031)	1.062 (0.145)	0.845 (0.221)
Urban	0.105*** (0.013)	0.105*** (0.013)	0.114*** (0.022)	0.116*** (0.022)	0.626*** (0.050)	0.660** (0.133)
Firm investment (province)	−0.085*** (0.020)	−0.083*** (0.020)	−0.079** (0.032)	−0.081** (0.033)	1.006 (0.143)	0.917 (0.157)
Firm revenues (province)	0.127*** (0.037)	0.126*** (0.037)	0.103* (0.059)	0.107* (0.059)	1.010 (0.275)	1.161 (0.360)
Average incomes (province)	0.112*** (0.011)	0.111*** (0.011)	0.076*** (0.017)	0.075*** (0.017)	0.737*** (0.055)	0.924 (0.097)
Cost of living index (province)	0.004** (0.002)	0.003* (0.002)	0.004 (0.003)	0.004 (0.003)	1.019 (0.012)	1.104* (0.062)
Want to increase incomes					1.870*** (0.245)	1.267 (0.236)

(Continues)

	(1)	(2)	(3)	(4)	(5) Odds ratio	(6) Odds ratio
	OLS		Simultaneous equations system			
	Earnings	Earnings	Earnings	Earnings	Migrant entrepreneur	Migrant employees
Savings					0.851 (0.099)	1.677* (0.521)
Debts					1.007 (0.023)	0.929 (0.047)
Engage in local community					0.442*** (0.037)	0.354** (0.177)
R squared	0.228	0.229	NA	NA	NA	NA
Log pseudolikelihood	NA	NA	−5388	−5377	−5388	−5388
Observations	12,438	12,438	12,438	12,438	12,438	12,438

Note: The dependent variable is natural log of monthly incomes, in million VND, 2010 price. The benchmark is the lump-sum of non-migrant entrepreneurs and non-migrant employees. The estimator in columns 1 and 2 is robust OLS. The estimator in columns 3–6 is simultaneous equations modelling, in which earning equation and migration equation are estimated simultaneously. Standard errors and test statistics are asymptotically robust to heteroscedasticity and are clustered to the household level. All specifications include a year dummy.

*** Significant at 1%.

** Significant at 5%.

* Significant at 10%.

APPENDIX 8A

DISTRIBUTION OF CROSS NORTH–SOUTH REGIONS MIGRATION

	Entrepreneurs		Employees	
	No. of observations	Percentage	No. of observations	Percentage
Migrant	2394	100%	3369	100%
Across north–south regions	881	36.80%	876	26.15%
North to south	791	33.04%	818	23.48%
South to north	90	3.76%	58	1.72%

APPENDIX 8B

RESULTS OF CROSS NORTH–SOUTH REGIONS MIGRATION

	(1)	(2)	(3) Odds ratio	(4) Odds ratio	(5)	(6)	(7) Odds ratio	(8) Odds ratio
	OLS	Simultaneous equations system			OLS	Simultaneous equations system		
	Earnings	Earnings	North to south	South to north	Earnings	Earnings	North to south	South to north
North to south entrepreneurs	**0.023** (0.094)	**−0.003** (0.055)						
South to north entrepreneurs	**0.228***** (0.072)	**0.698***** (0.056)						
North to south employees					**−0.182***** (0.018)	**−0.350***** (0.046)		
South to north employees					**−0.130** (0.085)	**−0.095** (0.207)		
Gender	0.180*** (0.029)	0.148*** (0.022)	1.266 (0.198)	1.519 (0.431)	0.137*** (0.015)	0.121*** (0.019)	0.926 (0.094)	0.921 (0.095)
Children	0.015 (0.033)	0.033 (0.022)	0.510*** (0.081)	0.474*** (0.110)	0.060*** (0.016)	0.030 (0.022)	0.681*** (0.081)	0.675*** (0.084)
Married	−0.097 (0.097)	−0.028 (0.071)	1.603 (0.700)	1.290 (1.031)	−0.085** (0.040)	−0.043 (0.063)	0.093 (0.181)	0.721 (0.268)
Divorced	−0.063 (0.063)	−0.023 (0.046)	0.999 (0.316)	0.791 (0.388)	0.047 (0.030)	0.053 (0.032)	0.133 (0.254)	
Age	−0.010*** (0.004)	−0.001 (0.002)	0.952*** (0.015)	0.959*** (0.015)	−0.001 (0.001)	−0.005*** (0.001)	0.968*** (0.009)	0.965*** (0.010)
Education	0.140*** (0.012)	0.127*** (0.009)	0.858** (0.061)	0.979 (0.070)	0.077*** (0.010)	0.087*** (0.012)	1.081 (0.064)	1.065 (0.069)
Ethnicity	−0.009 (0.084)	0.138** (0.068)	0.539 (1.448)		0.341*** (0.020)	0.332*** (0.027)	1.366 (0.000)	
Urban	0.034 (0.037)	0.059* (0.030)	0.711 (0.168)	0.891 (0.310)	0.159*** (0.019)	0.143*** (0.023)	0.429*** (0.051)	0.465*** (0.062)

(Continues)

	(1)	(2)	(3) Odds ratio	(4) Odds ratio	(5)	(6)	(7) Odds ratio	(8) Odds ratio
	OLS	Simultaneous equations system			OLS	Simultaneous equations system		
	Earnings	Earnings	North to south	South to north	Earnings	Earnings	North to south	South to north
Firm investment (province)	0.004 (0.054)	−0.035 (0.037)	1.156 (0.226)	0.121*** (0.076)	−0.101*** (0.036)	−0.104*** (0.038)	0.257*** (0.109)	0.202*** (0.121)
Firm revenues (province)	0.021 (0.099)	0.103 (0.066)	0.643 (0.295)	28.839*** (32.972)	0.122* (0.066)	0.117 (0.072)	26.392*** (19.892)	34.241*** (30.798)
Average incomes (province)	0.046* (0.025)	0.030 (0.021)	1.397 (0.332)	0.629* (0.171)	0.185*** (0.018)	0.166*** (0.021)	0.295*** (0.051)	0.286*** (0.052)
Cost of living index (province)	0.001 (0.004)	0.004 (0.003)	1.016 (0.032)	1.076** (0.031)	0.002 (0.003)	0.005 (0.003)	0.944*** (0.019)	0.967 (0.040)
Want to increase incomes			1.342 (0.533)	0.874 (0.444)			1.534** (0.255)	1.514** (0.256)
Savings			1.113 (0.208)	1.393* (0.274)			0.701*** (0.086)	0.756 (0.135)
Debts			0.996 (0.047)	0.911 (0.090)			1.030 (0.028)	1.047 (0.042)
Engage in local community			0.626*** (0.102)	0.819 (0.220)			0.682*** (0.074)	0.697*** (0.075)
R^2	0.221	NA	NA	NA	0.227	NA	NA	NA
Log pseudolikelihood	NA				NA			
Observations	3589	3589	3589	3589	4843	4843	4843	4843

Note: The dependent variable is natural log of monthly incomes, in million VND, 2010 price. The estimator in columns 1 and 5 is robust OLS. The estimator in columns 2–4 and 6–8 is simultaneous equations modelling, in which earning equation and migration equation are estimated simultaneously. Standard errors and test statistics are asymptotically robust to heteroscedasticity and are clustered to the household level. All specifications include a year dummy.

*** Significant at 1%.

** Significant at 5%.

* Significant at 10%.

APPENDIX 9A

MIGRANT WORKING CONDITIONS (2015 ONLY)

	(1)	(2)	(3)	(4)	(5)
	Simultaneous equations system		Simultaneous equations system		Logit
	Earnings	Odds ratio Migrants	Earnings	Odds ratio Migrants	Odds ratio Migrants
Migrants	−0.231*** (0.030)		−0.231*** (0.030)		
Migrants × North	0.242*** (0.035)		0.243*** (0.035)		
North × formally registered business				**1.399**** (0.205)	**1.647***** (0.224)
Formally registered business		**0.797**** (0.075)		**0.701***** (0.076)	**0.717***** (0.078)
North	−0.139*** (0.024)	0.764*** (0.065)	−0.139*** (0.024)	0.650*** (0.072)	0.616*** (0.069)
Gender	0.155*** (0.017)	1.150** (0.080)	0.155*** (0.017)	1.153** (0.081)	1.227*** (0.078)
Children	0.033* (0.019)	0.777*** (0.061)	0.033* (0.019)	0.773*** (0.061)	0.414*** (0.028)
Married	−0.028 (0.056)	1.002 (0.204)	−0.028 (0.056)	0.990 (0.200)	1.367* (0.231)
Divorced	0.030 (0.028)	1.087 (0.121)	0.030 (0.028)	1.077 (0.120)	1.066 (0.150)
Age	−0.011*** (0.002)	0.987* (0.007)	−0.011*** (0.002)	0.987* (0.007)	0.919*** (0.004)
Education	0.111*** (0.008)	0.952 (0.032)	0.111*** (0.008)	0.950 (0.032)	1.003 (0.027)
Ethnicity	0.293*** (0.030)	1.121 (0.175)	0.293*** (0.030)	1.132 (0.178)	1.072 (0.135)
Urban	0.108*** (0.020)	0.995 (0.078)	0.108*** (0.020)	0.996 (0.079)	0.870* (0.064)
Firm investment (province)	−0.090*** (0.028)	0.981 (0.085)	−0.090*** (0.028)	0.982 (0.086)	1.080 (0.088)
Firm revenues (province)	0.145*** (0.050)	1.062 (0.171)	0.145*** (0.050)	1.056 (0.170)	0.878 (0.135)
Average incomes (province)	0.069*** (0.009)	0.904* (0.047)	0.069*** (0.009)	0.917* (0.048)	0.867*** (0.042)
Cost of living index (province)	0.007*** (0.003)	1.035*** (0.013)	0.007*** (0.003)	1.034*** (0.013)	1.036*** (0.012)
Job	0.022 (0.019)	2.003*** (0.170)	0.022 (0.019)	2.039*** (0.174)	2.105*** (0.182)

(Continues)

	(1)	(2)	(3)	(4)	(5)
	Simultaneous equations system		Simultaneous equations system		Logit
	Earnings	Odds ratio Migrants	Earnings	Odds ratio Migrants	Odds ratio Migrants
Want to increase incomes		1.264** (0.138)		1.274** (0.140)	1.175 (0.116)
Savings		0.919 (0.073)		0.921 (0.073)	0.914 (0.065)
Debts		0.992 (0.021)		0.992 (0.021)	0.995 (0.021)
Engage in local community		0.533*** (0.042)		0.534*** (0.043)	0.442*** (0.032)
Log pseudolikelihood	−3572	−3572	−3569	−3569	−3067
Observations	4624	4624	4624	4624	4624

Note: The dependent variable in equations 1 and 3 is natural log of monthly incomes, in million VND, 2010 price. The dependent variable in equations 2, 4, and 5 is migration status, taking value 0 for non-migrants and value 1 for migrants. The independent variable of interest is *Formally registered businesses*, which takes value 0 for informal (non-registered businesses), and value 1 for formal (registered) businesses. The estimator in columns 1–2 and 3–4 is simultaneous equations modelling, in which earning equation and migration equation are estimated simultaneously. The estimator in column 5 is logit regression. Standard errors and test statistics are asymptotically robust to heteroscedasticity and are clustered to the household level. All specifications include a year dummy.

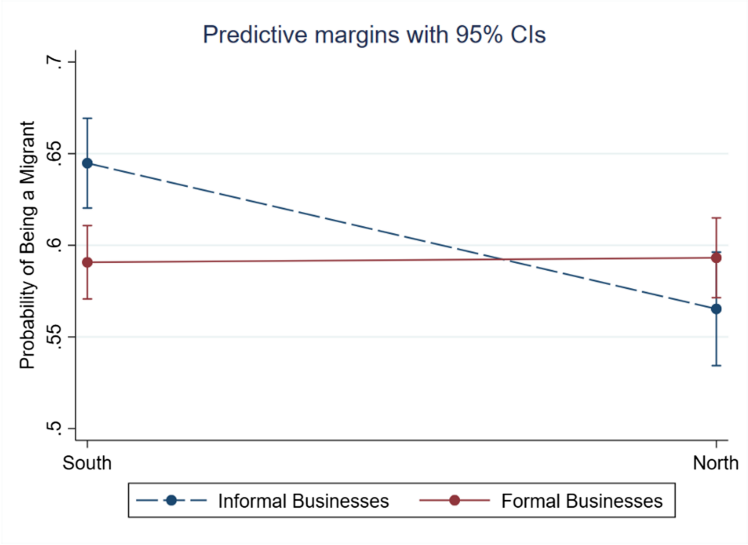
*** Significant at 1%.

** Significant at 5%.

* Significant at 10%.

APPENDIX 9B

MIGRANT WORKING CONDITIONS (2015 ONLY): MARGINAL GRAPH



APPENDIX 9C

MIGRATION DECISIONS (MIGRANT SAMPLE IN 2015 ONLY)

	(1) Migration decision Logit	(2) Migration decision Logit	(3) Migration decision Logit	(4) Migration decision Logit
Anticipate difficulties	**0.573***** (0.057)			**0.574***** (0.057)
Decision person		**1.260**** (0.113)		**1.232**** (0.111)
Information source			**1.527***** (0.146)	**1.510***** (0.145)
Gender	1.076 (0.081)	1.091 (0.083)	1.086 (0.083)	1.085 (0.083)
Children	0.801** (0.085)	0.808** (0.086)	0.802** (0.085)	0.808** (0.086)
Married	1.294 (0.315)	1.275 (0.311)	1.330 (0.325)	1.238 (0.306)
Divorced	1.455* (0.331)	1.463* (0.333)	1.455 (0.334)	1.439 (0.331)
Age	0.982*** (0.005)	0.983*** (0.006)	0.983*** (0.006)	0.983*** (0.006)
Education	1.414*** (0.046)	1.428*** (0.046)	1.421*** (0.046)	1.408*** (0.046)
Ethnicity	0.722** (0.100)	0.746** (0.104)	0.760** (0.105)	0.738** (0.102)
Urban	0.795** (0.076)	0.800** (0.076)	0.770*** (0.073)	0.767*** (0.073)
Firm investment (province)	1.258** (0.125)	1.277** (0.128)	1.267** (0.127)	1.262** (0.127)
Firm revenues (province)	0.924 (0.165)	0.927 (0.166)	0.935 (0.168)	0.916 (0.165)
Average incomes (province)	0.431*** (0.023)	0.448*** (0.024)	0.440*** (0.024)	0.434*** (0.024)
Cost of living index (province)	1.164*** (0.016)	1.152*** (0.016)	1.156*** (0.016)	1.166*** (0.017)
Job	2.072*** (0.214)	2.118*** (0.219)	2.056*** (0.212)	2.044*** (0.212)
Want to increase incomes	0.837 (0.095)	0.792** (0.089)	0.800** (0.090)	0.819* (0.093)
Savings	1.299*** (0.114)	1.327*** (0.117)	1.302*** (0.114)	1.285*** (0.114)
Debts	0.991 (0.030)	0.985 (0.030)	0.981 (0.030)	0.993 (0.030)
Engage in local community	0.955 (0.100)	0.943 (0.098)	0.951 (0.100)	0.961 (0.101)
Log pseudolikelihood	−2053	−2059	−2058	−2029
Observations	2192	2192	2192	2192

Note: The dependent variable *Migration decision* takes value 1 if a migrant is in the north of Vietnam, takes value 0 if a migrant is in the south of Vietnam. The independent variables of interest are *Anticipate difficulties*, which takes value 1 if a migrant foresee the difficulties they currently face in the destination, takes value 0 if they did not foresee the difficulties they currently face in the destination; *Decision person* takes value 1 if a migration decision is made by non-family people (e.g., friends and relatives), takes value 0 if a migration decision is made by the migrant themselves or their spouses; *Information source* takes value 1 if migrants obtain information about the destination mainly via formal sources (e.g., government agents, job fairs, and public media), takes value 0 if migrants obtain information about the destination mainly via informal sources (e.g., friends and relatives). The estimator is logit regression. Standard errors and test statistics are asymptotically robust to heteroscedasticity and are clustered to the household level. All specifications include a year dummy.

*** Significant at 1%.

** Significant at 5%.

* Significant at 10%.

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Resumen. Las personas se desplazan de una región a otra de un país no sólo por el empleo, sino también por las oportunidades de negocio. Sus ingresos, en relación con los ingresos comparables de los empleados y empresarios locales, reflejan la eficacia de las políticas de migración interna. Mediante la investigación de un gran número de migrantes y no migrantes en Vietnam, se encontró que mientras que los empresarios migrantes ganan más que los empresarios locales, los empleados migrantes ganan menos que sus homólogos locales. Además, las regiones con normas socialistas puras (Vietnam del Norte) potencian las ventajas de los migrantes, lo que les permite obtener mayores ingresos, mientras que los migrantes de las regiones con normas favorables a la iniciativa empresarial (Vietnam del Sur) tienen dificultades para competir con los locales.

抄録: 人々は国のある地域から別の地域へと移動するが、それは雇用のために限らず、ビジネスチャンスのために移動することもある。移住者の所得は、同等の現地の従業員や現地の起業家と比較して、国内移住政策の効率性を反映している。ベトナムにおける多数の移住者と非移住者の調査から、移住する起業家は現地の起業家よりも収入が多いが、移住する従業員は現地の従業員よりも収入が少ないことが分かった。さらに、純粋な社会主義的規範の地域(北ベトナム)では、移住者に有利で、より高い所得をもたらすが、起業家精神的規範の地域(南ベトナム)では、移住者が現地人と対等になるのは難しいことが示された。