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Ethnic gap, household businesses and social networks in Vietnam

Phuong Nguyen

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**UNIVERSITÉ PARIS DAUPHINE
ÉCOLE DOCTORALE DE DAUPHINE**

THESE

Pour l'obtention du titre de Docteur en Sciences Économiques

**ETHNIC GAP, HOUSEHOLD BUSINESSES, AND SOCIAL NETWORKS
IN VIETNAM**

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Paris, 29 Nov 2018

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*Vì có những tình yêu và tình bạn bên cạnh!
Nếu không, tôi đã không thể hoàn thành được công việc này!
Không có lời nào diễn tả sự cảm tạ chân thành tới thầy cô, gia đình và bạn bè!
Xin dành tặng bố mẹ, gia đình, và các con!*

Thu Phương

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LIST OF ABBREVIATIONS

EUR	Euro
GDP	Gross Domestic Product
GSO	Government Statistics Office
HBIS	Household businesses and Informal Sector
IRD-DIAL	Institut de Recherche pour le Développement- Developpement Institutions and Mondialisation
IV	Instrumental Variable
MOLISA	Ministry of Labour - Invalids and Social Affairs
MPI	Ministry of Planning and Investment
NFIDBE	Non-farm Individual Business Establishments
OLS	Ordinary least squares
Q-squared	Quantitative and qualitative
2SLS	Two-stage least-squares
VASS	Vietnam Academy of Social Sciences
VHLSS	Vietnam Household Living Standards Survey
VND	Vietnam Dong
UNDP	United Nations Development Programme
USD	US Dollar
WB	World Bank

Exchange rate on 29 November 2018

23,275 VND = 1 USD

26,425 VND = 1 EUR

ABSTRACT

Over the past two decades, the two vulnerable groups of ethnic minorities and household businesses have participated in the economic growth but could not benefit from the growth process as much as the other groups in Vietnam. The inadequate inclusiveness of these two groups in the economic growth calls for an investigation of the ethnic welfare gap and household businesses' performance through the lens of social networks. This study aims to examine the role of social networks, using a Q-squared method to analyze an original dataset, which combined both the quantitative and qualitative datasets on social networks of household businesses. In doing so, the study employs an innovative instrument of being the first son in the family. Chapter 1 measures and analyses the main drivers of the ethnic welfare gap over the last ten years. Chapter 2 identifies the causal effects of social networks on household businesses' performance. Chapter 3 presents a qualitative analysis of the impact of social networks on business performance by the content and the strength of social relationships, and the business phase.

Keyword: Ethnic welfare gap, decomposition, social network, production function, the strength of ties, household businesses, informal sector, Q-squared, name generator, causal effect, Vietnam.

GENERAL INTRODUCTION

This work results from long experience and research that started in 2009 when I coordinated a program on Rapid Impact Assessment of the Global Crisis in Vietnam. For that work, together with 40 researchers in Vietnam, I visited ten industrial parks, five informal labour markets along the streets in the two largest cities, six craft villages, and more than 20 villages all over the country including the mountainous areas. The objective of the survey was to collect information on risks, losses and coping strategies. At that time, two groups of people particularly caught my attention: those from ethnic minorities and those working in the household businesses. Although the crisis mostly affected the sectors exposed to international trade and supposedly had short-term effects, these people had been adversely affected as well and continued to experience an increasing vulnerability in the aftermath of the crisis. Our work found that they also acted as a buffer for the economy's resilience, to absorb the wage earners in the most exposed sectors, who had turned to their social networks as a coping strategy to unemployment. At the same time, they were reported to be further left behind on the development progress. It was manifested that these groups had not benefited as the others from the strong economic growth of the past two decades. While the society benefited from their contribution to resilience in the time of crisis, in time of economic growth, they appeared to be left behind in time of economic growth. This contrast raised my interest in learning more on these two vulnerable groups, on the mechanisms behind the trend of them being left behind, on what factors drove this trend, and what policy intervention could remedy it.

From that project, we realized that there are shortcomings of policy intervention design, due to a lack of comprehensive information on the vulnerable groups and the channels of impact transmission. There was a gap of information between the national statistics systems on workers and households, being conducted on every one or two years, on the one hand, and the qualitative dataset being restricted to a small number of locations, on the other hand. A problem in assessment would come from a lack of a sound methodology on how to combine inputs from quantitative and qualitative datasets.

Luckily, the project brought me to Dr. Francois Roubaud, Dr. Mireille Razafindrakoto and their team of researchers from IRD-DIAL in Paris, who presented the results of an original study on household businesses in the aftermath of the crisis in the regions of Hanoi and Ho Chi Minh City in Vietnam in 2009. We shared the same concern on how this vulnerable segment of the labour market was hit by the crisis, on which channels transmitted the adverse impacts and how they responded. He introduced me to the first survey of household businesses and the informal sector in the two biggest cities in Vietnam, which employed a combined quantitative and qualitative approach. We still remember the freezing cold in Tam Dao, where for the first time a national workshop on how to monitor the impacts of the crisis on workers and households in Vietnam was held in 2010. This event opened my mind to a new look on the development issue through the lens of social networks, presenting influence transmission

mechanism, and encouraged me to pursue the research as part of a doctoral program. Even after he left Vietnam, Dr. Roubaud discussed how to approach the issues of household businesses and the informal sector. He brought me friendships, and connections to many of his valuable colleagues who have continued to work in Vietnam, Dr. Laure Pasquier-Doumer and Dr. Xavier Oudin, who are experts on social networks and household businesses in developing countries.

Since then, throughout my research career, I have more and more realized that there is a considerable knowledge gap in studies on the participation of the ethnic minorities and household businesses in the growth process, through the lens of social networks, and most importantly, on the combined quantitative and qualitative approach for an in-depth and comprehensive understanding of the issue. The Vietnam Poverty Assessment and Vietnam Human Development Report for many years since the early 2000s, among many others, advocated for all to participate in and benefit from the country's growth process. However, in these studies, the role of social networks was not adequately analyzed because of the lack of nationally representative dataset. Mentioning the inclusive growth, regarding these two vulnerable groups, I consider their participation in and benefit from the economic growth of the country. Notably, the inclusiveness of ethnic minorities would be improved if they could benefit from their endowments to catch up with the Kinh and Hoa regarding their development. The study looks at the ethnic welfare gap¹ (or the ethnic gap for short) between the Kinh and Hoa and other ethnic minorities and examines what challenges exist in narrowing it down. Besides, regarding the household businesses, the inclusiveness would be enhanced if they would benefit from their resources to improve their business performance. That was the starting point of this Ph.D. study in 2012.

The essential contribution of this study is a methodological choice of a combined quantitative and qualitative approach, namely, the Q-squared approach, to study the role of social networks of the vulnerable groups in improving their inclusiveness in the development. Quantitatively, the thesis uses an original dataset of social networks to conduct an in-depth analysis of the causal effects of social networks on the outcome, based on an original instrument to address the endogeneity problem. Qualitatively, the thesis conducts an original analysis of the influence mechanism of social networks on the performance of household businesses. Qualitative techniques are applied to collect detail data on the influence mechanism of social networks on the business performance. Some research strategies are designed to effectively combine these two components, in order to draw a comprehensive conclusion. The Q-squared approach aims to explain how the quantitative findings can inform the design of the qualitative block, and vice versa, the qualitative block can further explain the quantitative results.

¹ In this thesis, the ethnic welfare gap means the gap between the ethnic majority and minorities

Overall, this thesis investigates the two vulnerable groups of ethnic minorities and household businesses in Vietnam, with an attention to the role of social networks on their inclusiveness in the development, and is based on the Q-squared approach. The remainder of the general introduction is structured as follows. Section 1 presents the contextualization of ethnic minorities, household businesses and social networks in Vietnam. It gives rise to the importance of the topic and the dataset used in this Ph.D. study. Section 2 introduces datasets used in the study. Section 3 presents the research domain and its limitation. Finally, Section 4 introduces the three chapters of this Ph.D. study.

1. Contextualization of Vietnam - A focus on ethnic minorities, household businesses and social networks in Vietnam

1.1. Vulnerable ethnic minorities and household businesses

There is a broad consensus that Vietnam has made some impressive achievements in recent decades, both in human development and economic performance. Poverty measured at national poverty line declined almost by half from 19.5 percent in 2004 to 9.8 percent in 2016². Rapid job creation and ongoing transition to wage employment are driving gains in poverty reduction and shared prosperity. However, Vietnam faces new social and economic policy challenges to achieve more inclusive growth for all. Ethnic minorities and household businesses are claimed as being left behind in every development debate on Vietnam.

Vietnam has 54 ethnic groups, each with its language, lifestyle, cultural heritage and diverse levels of development. The largest groups, the Kinh and Hoa, live in deltas and coastal areas. The Hoa are usually grouped with the Kinh due to similar living standards and an insufficient number of observations in household surveys. The rest of the 52 ethnic groups are referred to as ethnic minorities, and they are concentrated in upland and mountainous areas. As far as household businesses are concerned, they are largely made up of informal non-farm businesses, with no business registration, and to a lesser extent of formal ones. Household businesses are defined by unincorporated businesses owned by individuals or families, performing non-agricultural production and services for the market, either being self-employed workers or family-run businesses, may or may not be registered. This sector has a peculiar history closely linked to the Renovation (*Doi Moi*, in Vietnamese) starting in 1986, when the restructuring of the economy led to most workers being released from cooperatives and state-owned enterprises to set up their businesses, either as self-employed workers or family-run businesses. A boom of this sector resulted in cities full of street vendors, who have been easily observed throughout the country.

Generally speaking, ethnic minorities and household businesses have been mentioned as the most vulnerable groups in the population because a large share of them is noticed with many disadvantages in participating in and benefiting from the economic growth. It has often been said that ethnic minorities stay in

² Author's calculation based on Vietnam Household Living Standard Surveys.

remote mountainous areas and have disadvantages in accessing markets and public facilities, in comparison to the majority ethnic Kinh and Hoa group. Additionally, the informal household businesses have been often mostly mentioned to be low paid, less productive and uncovered by social protection.

The attention to ethnic minorities and household businesses comes from the dilemma that they have contributed to the economic growth but still been left behind in the development progress. Making up only 15 percent of the population, the ethnic minorities are considered to be the active group in forestry and tourism activities, thanks to living in mountainous areas and their colorful culture. Ethnic minorities in the mountainous areas grow valuable plants, producing costly medical treatments, or materials for construction and paper production sectors (Hoang, 2018; Nguyen T. and Phung, 2018). Concerning household businesses, they contribute to one third of the non-farm GDP and 23 percent of the total GDP in 2014 (Pasquier-Doumer et al., 2017). Household businesses provide the main share of employment, just behind agriculture. They constitute nearly one-third of total employment and half of non-farm employment. An upper tier of household businesses also comprises of innovative entrepreneurs with high value-added performance.

However, there is a question on how ethnic minorities and household businesses benefit from the country's growth. All national poverty assessments report a large difference in the welfare among ethnic groups in every dimension, e.g., income poverty, education, and health (UNDP and VASS, 2016). The national poverty rate³ is 7.4 percent for the Kinh and Hoa group, but it is significantly higher at 34.6 percent for the rest of ethnic minorities. It illustrates clearly that ethnic minorities have been left behind in the development, and benefited less from economic growth, in comparison to the Kinh and Hoa. Similarly, household businesses are reported with the lowest income among those non-agricultural sectors (Pasquier-Doumer et al., 2017). The report says half of informal household businesses has profit below the minimum wage. Health insurance covers only about half of them. Almost one-third of household business heads had suffered at least one shock, mostly severe disease, loss of stock and occupational injury. Even household businesses are the main job providers of employment after the agriculture sector, this sector includes extremely vulnerable workers to shocks.

Although ethnic minorities and household businesses contribute to the society, they appear to be left behind in the economic growth process. This raises a question on the trend behind their inadequate inclusiveness in the economic growth, on what are the factors driving this trend and on what policy interventions could remedy it. Many policy interventions are questioned on their beneficiary targeting, on their quantity versus quality, and on how to effectively bring these interventions to the ethnic minorities and household businesses, in order to achieve inclusive growth which works for all.

³As noted by UNDP and VASS (2016), the Government's poverty lines for 2011 to 2015 were updated for inflation and were 530,000 VND per capita per month for rural areas and 660,000 VND per capita per month for urban areas.

1.2. Role of social networks in driving the gap

As in a recent ethnic poverty assessment, Le (my colleague) and I found some qualitative evidence for the impacts of social networks on ethnic minorities' poverty in Vietnam (Nguyen P. and Le, 2018).⁴ Language barrier faced by different ethnic groups remains as an obstacle in accessing the market, and therefore ethnic minorities often tend to interact among people that have the same ethnicity, in order to help each other to improve the living conditions, and to provide information on economic opportunities, labour supports for big family events, and borrowings among each other. Social networks in villages with ethnic minorities are reported to be essential in building up a high consensus in addressing conflicts in the community and create a favorable environment for development. The well-being of ethnic minority households is improved with the extension of their social relationships to people having the same ethnicity in more developed towns. However, there are also signs of negative impacts, when social networks transmit more and more risk information, and raise the risk aversion of ethnic minorities' households, preventing them from taking new economic opportunities.

Similarly, a growing strand of the literature has demonstrated the importance of social network in accessing labour and capital for entrepreneurship. Most of these studies are based on small-scale qualitative survey. Nguyen D.T. (2003) focuses on the role of being the first son creating favorable conditions for networking and managing the household business with support from family members. Turner and Nguyen P.A. (2005) illustrate the operation of strong social capital networks amongst immediate family and friends to help with the establishment and expansion of an enterprise. Digregorio (2006) and Fanchette and Stedman (2009) shed light on the dynamics of craft villages in the suburb of Hanoi which are organized in clusters specialized in one activity based on the guarantees of long-term and ongoing relationships. Turner (2009) shows how traders of the ancient quarters of Hanoi have managed to remain in place and to offset adverse trends caused by many upheavals (i.e., during the war and socialist periods, as well as the impact of trade liberalization). Tran and Santarelli (2013), among some others, focus on social network, as a channel to provide financial resources in the country. They argue that informal credit supply is to a greater extent proceeded through the social network in developing countries such as Vietnam.

Very few quantitative analyses are found on the topic of social networks and household businesses in Vietnam. Nguyen H.C. and Nordman (2012) find a negative impact of a greater share of employed family workers as for formal businesses in Vietnam. In addition, Le et al. (2018) indicate a modest impact of social networks on firm sale. Recently, Dr. Pasquier-Doumer (my colleague) and I presented a descriptive picture of the usage of social networks among household businesses, based on a nationally representative dataset (Pasquier-Doumer and Nguyen P., 2017). It finds that 60 percent of household businesses rely on social

⁴ The qualitative survey on ethnic minorities' social network is to provide inputs on the ethnic poverty assessment and the role of social networks, to the drafting team of the 2018 National Poverty Report with support from UNDP.

networks, mainly to access financial resources. However, it does not provide information on the costs of the usage of social networks, and detail analysis of the contribution of social networks to the performance of household businesses.

Therefore, there is a gap in the literature on the role of social network on the unequal development in Vietnam. How the social network brings an aggregate impact to widening or narrowing down the outcome gap, is the question that remains to be answered. Specifically, what is the role of social networks in widening or narrowing down the ethnic welfare gap among households, and the performance gap of businesses? Acknowledging both potential benefits and costs of the usage of social networks, the study questions whether the benefits of social networks exceed their costs.

2. Dataset on ethnic minorities, household businesses, and social networks

Regarding the ethnic minorities, the most updated Vietnam Living Standard Surveys (VHLSSs) in 2016 is considered as the best representative dataset on households and ethnicities at the national level. The VHLSSs include both commune and household questionnaires, so the data covers a rich set of household members' variables, as well as local infrastructure and commune characteristics. However, there remains a lack of social network indicators of households. A new proxy for social networks is added to this analysis thanks to the latest dataset of the 2016 VHLSS. Due to time constraints, the study only focuses on a quantitative analysis of the ethnic welfare gap, in order to see how social networks, among other factors, affect the gap in living standards between the Kinh and Hoa group and the ethnic minorities.

Regarding the household businesses, the Vietnamese national statistical system has some datasets on them, which are collected by the General Statistics Office (GSO). First, the Non-farm Individual Business Establishments (NFIDBE) surveys are conducted every year and have a sample size of more than 200,000 individuals or family businesses. The NFIDBE sample is based on the census of establishments, which is conducted every five years. However, this dataset excludes some important segments of household businesses, including those having mobile operations and not having a fixed business location, and those that are run as a second job. Secondly, the VHLSS is also used to investigate household businesses. Nevertheless, it was not designed to capture the household business sector. Notably, there is no data on the businesses' workers as well as social networks in VHLSSs.

When I started this Ph.D. study, I was fortunate to have the excellent opportunity to coordinate the Household Business and Informal Sector (HBIS) survey in Vietnam in 2014. This first nationally representative dataset on household businesses builds on the previous IRD-DIAL and GSO project on the informal sector, which was implemented from 2006 to 2011. The design of the 2014 HBIS survey, which relies on the 1-2-3 survey methodology, was conceived by IRD-DIAL (Roubaud, 1994) and is the result of extensive international experience. Dr. Pasquier-Doumer (my colleague) and I designed a new module to measure social networks in this quantitative survey and the following fieldwork to collect a qualitative dataset on

the influence mechanism of social networks on household businesses' performance. Thus, the analysis on household businesses is based on the 2014 HBIS dataset.

3. Research domain and limitation

As mentioned above, this thesis investigates the two vulnerable groups of ethnic minorities and household businesses in Vietnam, with an attention to the role of social networks in improving their inclusiveness in the development process, using the Q-squared approach. Specifically, the overall research addresses the question: "How is the relationship between social networks and the growth inclusiveness of the most two vulnerable groups of ethnic minorities and household businesses?" In other words, does the social network significantly affects the inclusiveness of these groups in Vietnam?

Specific main research questions are identified as follows:

- Regarding the ethnic minorities, who are being left behind in the economic growth process, the study provides an update picture on the welfare gap between the Kinh and Hoa, and the ethnic minorities, with an attention to social networks, among other factors. The study will investigate factors, including social networks that drive the ethnic welfare gap (or the ethnic gap for short thereafter), by addressing the following questions: "Does the ethnic gap continue to widen as happened in the previous period? Do social networks, among other factors, play a significant role in narrowing down the ethnic gap, or widening it?"
- Regarding the household businesses, which are said to have low efficiency and weak performance, the study pays attention to the contribution of social networks to improving their performance. The study will investigate social networks by their different channels to bring resources to household businesses, asking the following question: "Do social networks have an overall positive causal impact on the performance of household businesses, or, they have an overall negative impact, resulting from dominant social costs of the usage of social networks exceeding their benefits?"

Significant contributions of this Ph.D. study come from its choice of methodologies. First, the study constructs a better measurement of social networks. It relies on a new proxy of social networks of ethnic minorities' households derived from data of the 2016 VHLSS. Besides, it designs a module to collect data on social networks of household businesses, in different dimensions of the content and the strength of relationships, as well as the development phase of the business. Based on the name-generator approach, Dr. Pasquier-Doumer (my colleague) and I designed and coordinated the original module collection of social networks of household businesses under the framework of the 2014 HBIS survey.

Secondly, this study tests an original instrument to address the endogeneity problem in the relationship between social networks and the business performance. On the one hand, more connections to other people can generate better performance by lowering transaction cost or by providing more information on market opportunities. On the other hand, better performance may improve the owner's reputation, and thus foster business interactions with other people. The simultaneity of effects of social networks on the performance and vice versa is the first source of endogeneity bias. Omitted variables are another source of endogeneity bias. Ability of the business owner is the most obvious one. By proposing an original instrument for social networks, the study can conclude on the causal effect of social networks on the performance of household businesses.

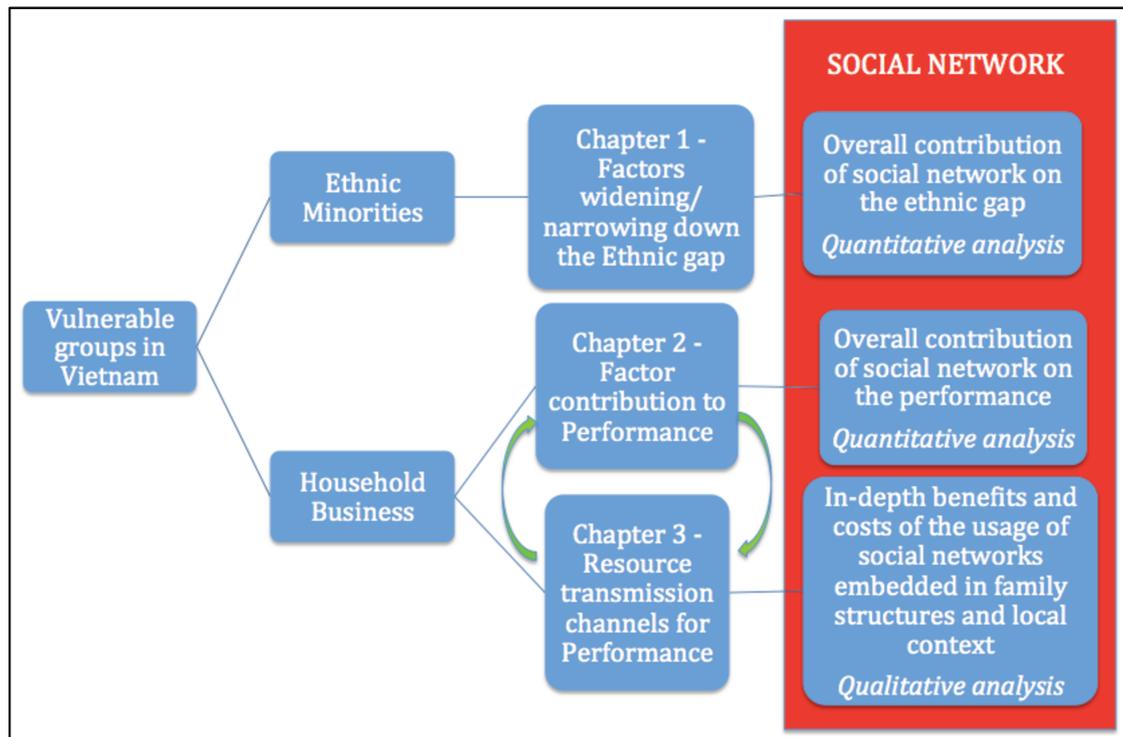
Thirdly, this study employs a combined quantitative and qualitative approach to study the role of social networks. As mentioned above, the study collects both quantitative and qualitative data collection on the role of social networks, regarding the household businesses. Firstly, the representative quantitative dataset of the 2014 HBIS survey informs the design of the original qualitative survey. In turn, the qualitative study sheds light on the influence mechanism to better interpret the results of the quantitative analysis of the impact of social networks. Secondly, the quantitative analysis focuses on the overall impact of social networks, drawing on the large-scale representative dataset. It can show the final result of the dominant impact, i.e., whether the social network brings about positive or negative changes to the outcome. Quantitative techniques are helpful to identify the final causal effect of social networks alone; i.e., controlling for many other factors, and addressing the endogeneity problem and omitted variable bias. Meanwhile, qualitative findings cannot do such a thing, but give attention to nuances and specific contexts in addressing different channels of social networks. This block can show a wide range of impacts, both positive and negative, depending on varying contexts.

Having mentioned the contributions to the literature, this Ph.D. study has some limitations. Firstly, due to time constraints, the study can only collect original data on social networks of household businesses. Analysis of ethnic minorities, thus, is limited to the available secondary dataset of the VHLSSs. This limitation prevents the study from upgrading the analysis based on the qualitative approach, except for the update of the quantitative ethnic gap. Secondly, the study still faces a limitation on the social network measurement. It stops at the social network size, as an indicator of social networks, and accepts a lack of structural network measures. Thirdly, the study is assumed to address endogeneity by the instrumental regressions. It ignores any other omitted variables of household businesses, e.g., their talents in business operations. Lastly, the study uses only a cross-sectional dataset, not a panel dataset, and hence fixed effect regressions and the decomposition of the change in the ethnic gap over time are not possible, which are among other limitations of this study.

4. Thesis development

This Ph.D. study consists of three chapters to address its research questions, including Chapter 1 on the ethnic gap, and Chapter 2 and 3 on the performance of household businesses (as in Figure 0.1). Through the lens of social network, the Chapter 1 and 2 quantitatively explore the overall impact of social network, among other important factors on the ethnic gap and business performance, respectively. Chapter 3, qualitatively explores more in-depth by each channels of impacts to complement with nuances of family structure and local contexts. Below is the summary of each chapter.

Figure 0. 1. Outline of the thesis



Source: by Author

4.1. Chapter 1 - Factors of the ethnic gap

Economic growth over the past three decades has benefited all ethnic groups in Vietnam but, disappointingly, the gap between ethnic minorities and Kinh and Hoa groups did not narrow down. Public policies have, however, targeted ethnic minorities areas with special programs. Among them, policy efforts in education and infrastructure have been observed to be the right strategies to address the main factors driving the ethnic gap, i.e., to strengthen the human capital of ethnic minorities and to increase the accessibility to the market. It is still questionable whether those interventions effectively reduced the gap, or whether social discrimination towards ethnic minorities resulted in a persistent widening of the ethnic gap in Vietnam. This chapter, therefore, investigates what factors lead to differences in how people of ethnic minority groups and people of the main ethnic groups in Vietnam have or can seize economic and social opportunities. Using the Vietnam Household Living Standard Surveys from 2004 to 2016 (the

most recent one), and tackling the role of social networks in regards to ethnic inequality, Chapter 1 updated the ethnic gap decomposition to determine the main driving factors of the widening gap. The decomposition at the mean of the ethnic gap into differences in endowments and differences in returns is computed based on the results of Ordinary Least Squares regressions and, in order to measure the relative importance of intra-groups inequalities, on the results of quantile regressions. The findings showed that even if ethnic minorities had infrastructure similar to that of the Kinh and Hoa, they would tend to be poorer than the latter. The adjustments made due to policy intervention would benefit the richest of the ethnic minorities more than the rest of them. Differences in social network contributed modestly to the widening of the ethnic gap. The study did not provide clear evidence of discrimination in the labour market against ethnic minorities. However, it raised the issue of the lower quality of endowments of ethnic minorities, more than their lower quantities in comparison to those of the Kinh and Hoa people. This implied prioritization of improving the policy targeting, the intervention quality and effective access to infrastructure and social services by all ethnic minority people, especially those services on education, family planning, and economic diversification.

4.2. Chapter 2 - Quantitative analysis of social networks on household business performance

The utmost importance of household businesses in developing economies calls for a better understanding of the determinants of their performance. As shown by nascent literature, household businesses rely heavily on their social connections to deal with market imperfections. However, the influence of personal social networks on their performance remains debated. Chapter 2 contributes to the debate by providing new evidence on the relationship between social networks and household business performance based on a representative survey at the national level in Vietnam. It faces two challenges: (1) addressing the endogeneity issue in the identification of the relationship, and (2) having a good measurement of the social network. In particular, the Chapter distinguishes the effect of social networks according to the resources conveyed by the ties, the strength of the ties, and the phase of the business cycle. The Chapter demonstrated that the use of the social network to get financial and information resources for the business results in strong and positive impact on the business performance. Another interesting finding is that the benefit of the enforcement mechanisms, mutual trust and reciprocal exchange embedded in the strong ties dominates the cost of social obligation, and the one of accessing false or redundant information. Finally, the results suggest that social networks play an important role at the start of the business.

4.3. Chapter 3 - Qualitative analysis of influence mechanisms of social networks on household business performance

Household business owners mainly rely on their social networks of strong ties to acquire resources in Vietnam. However, no consensus is found in the literature on the influence of strong ties on the performance of small firms in developing countries. Using an original set of qualitative data collected based on the representative 2014 HBIS survey, Chapter 3 provides new evidence on the influence of social networks on household businesses by employing a relational approach of the networks. It contributes to the literature by distinguishing the effects of social networks at different phases of the business cycle. It shows that, in the business creation process, strong ties are by far the preferred source of the initial capital as well as information supports. They shape the business at a small size and make it less adaptable to rapid changes in the market demand and the technologies in the latter phase of business development. Weak ties are much less mobilized at the start of the business, but they provide a source of valuable information to create innovative businesses. The more the business grows, the higher is the strength of the weak ties. The study illustrates that the use of social networks, including the weak ties, should be understood to be embedded in family structures and local community contexts, with a set of duties and rights embedded in reciprocal relationships beyond the business interactions.

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CHAPTER 1

Factors of the ethnic gap and challenges in closing the gap in Vietnam⁵

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Abstract

Economic growth over the past three decades has benefited all ethnic groups in Vietnam but, disappointingly, the gap between ethnic minorities and Kinh and Hoa groups did not narrow down. Public policies have, however, targeted ethnic minorities areas with special programs. Among them, policy efforts in education and infrastructure have been observed to be the right strategies to address the main factors driving the ethnic gap, i.e., to strengthen the human capital of ethnic minorities and to increase the accessibility to the market. It is still questionable whether those interventions effectively reduced the gap, or whether social discrimination towards ethnic minorities resulted in a persistent widening of the ethnic gap in Vietnam. This chapter, therefore, investigates what factors lead to differences in how people of ethnic minority groups and people of the main ethnic groups in Vietnam have or can seize economic and social opportunities. Using the Vietnam Household Living Standard Surveys from 2004 to 2016 (the most recent one), and tackling the role of social networks in regards to ethnic inequality, Chapter 1 updated the ethnic gap decomposition to determine the main driving factors of the widening gap. The decomposition at the mean of the ethnic gap into differences in endowments and differences in returns is computed based on the results of Ordinary Least Squares regressions and, in order to measure the relative importance of intra-groups inequalities, on the results of quantile regressions. The findings showed that even if ethnic minorities had infrastructure similar to that of the Kinh and Hoa, they would tend to be poorer than the latter. The adjustments made due to policy intervention would benefit the richest of the ethnic minorities more than the rest of them. Differences in social network contributed modestly to the widening of the ethnic gap. The study did not provide clear evidence of discrimination in the labour market against ethnic minorities. However, it raised the issue of the lower quality of endowments of ethnic minorities, more than their lower quantities in comparison to those of the Kinh and Hoa people. This implied prioritization of improving the policy targeting, the intervention quality and effective access to infrastructure and social services by all ethnic minority people, especially those services on education, family planning, and economic diversification.

Keywords: ethnic gap, social network, decomposition, and Vietnam.

⁵ Chapter 1, as a background paper, contributes inputs on the ethnic poverty assessment and the role of social networks, to the drafting team of the 2018 National Poverty Report with support from UNDP.

1. Introduction

The issue of disparities in living standards between the different ethnic groups, hereafter referred to as "the ethnic gap" throughout this thesis for short, is becoming increasingly important for Vietnam, a developing multi-ethnic country with 54 ethnic groups, each with their own unique culture, and diverse levels of development. There is a large difference in the welfare between the Kinh and Hoa, and the rest of ethnic groups, namely the ethnic minorities⁶, in every dimension, e.g., income poverty, education, and health (UNDP and VASS, 2016). The national poverty rate⁷ is 7.4 percent for the Kinh and Hoa, and it is 34.6 percent for the ethnic minorities, which is significantly higher. The ethnic minorities account for half of the poor, but they make up only 15 percent of the population according to the 2009 Population and Housing Census. The ethnic gap receives a lot of attention, especially in developing countries, which are prone to social conflict and where there are more barriers to growth (Baldwin and Huber, 2010; Alesina, Michalopoulos, and Papaioannou, 2016).

In such a context, there are several top priorities for policy intervention regarding development and the ethnic minorities. "*Closing the ethnic development gap*" has been a policy slogan for ethnic minorities for years in Vietnam. The top policy goal is to improve infrastructure and education, which are believed to be the main factors causing the ethnic gap in this country. This policy is in line with findings by Gardin (2007), Baldwin and Huber (2010) and Alesina, Michalopoulos, and Papaioannou (2016): Unequal geographical factors, education, and labour force participation are the essential factors that contribute to the ethnic gap in developing countries. Therefore, a large investment in electricity, transportation and social services (e.g., education and healthcare) has been made in order to increase endowments for ethnic minorities and thereby reduce barriers to development for ethnic minorities in Vietnam that are due to geographical segregation. However, regarding the ethnic gap, there is no evidence of any convergence toward equality among ethnic groups, and it has been the focus of much development work in Vietnam for years (WB, 2009; WB and MPI, 2016; UNDP and VASS, 2016; and Oxfam, 2018). A lot of research has focused on understanding how various factors contribute to a widening gap or help to reduce it (Van de Walle and Gunewardena, 2001; Baulch et al., 2004 and 2007; Ima and Gaiha, 2007; Hoang et al., 2007; Baulch et al., 2008; Dang, 2010; Baulch et al., 2012; Tran et al., 2014; Pham et al., 2015; Singhal and Beck, 2015; and Fujii, 2017).

⁶ The majority group, the Kinh and Hoa, live in deltas and coastal areas. The Hoa are an ethnic minority, but they are usually grouped together with the Kinh due to similar living standards. All of the other ethnic groups are referred to as ethnic minorities, and they are concentrated in upland and mountainous areas.

⁷ As noted by UNDP and VASS (2016), the Government's poverty lines for 2011 to 2015 have been updated for inflation and are 530,000 VND per capita per month for rural areas and 660,000 VND per capita per month for urban areas.

First, these studies on the ethnic gap in Vietnam point to the mainstream discussion about differences in endowments and returns to endowments. On the one hand, an increase in the quantity of roads to remote areas where ethnic minorities live has helped the ethnic minorities to cope with the remoteness of their location and to access markets, new information and new technology, which helps them to increase their capacity of income generation. In other words, that intervention in terms of the number of roads, defined as endowment improvement, may reduce the gap between the Kinh and Hoa and the ethnic minorities. On the other hand, the poor quality of these roads may severely limit the ability of ethnic minorities to access markets during the rainy season and when it floods, when their vehicles have poor quality. This may increase the gap in the ability to utilize roads for economic improvement between ethnic groups, i.e., the returns to infrastructure. This example shows that quantities of endowments explain only a part of the ethnic gap, and the other part is due to the unexplained effects of returns to those endowments. Unexplained effects from the different returns to endowments may explain why large investment policies in ethnic minority areas have not helped to narrow the ethnic gap.

Second, such unexplained effects in the decomposition exercise can be furthermore interpreted as evidence of discrimination in the labour market, which results in income difference between ethnic groups. Discrimination in the labour market is expected when ethnic minorities have lower returns on the same level of human capital, e.g., education achievement, vocational training, than the Kinh and Hoa. There is an argument that discrimination does not necessarily be at play when the gap is not controlled for many unobservable factors like talents, work attitude. Longhi and Brynin (2017) illustrate a reason that having the same qualification and the same jobs, but ethnic minorities work less hard than others, that can explain their lower returns than others. However, when ethnic minorities are believed to work less hard and face a risk of lower wages than others who are not ethnic minorities but have the same qualification and the same jobs, that truly reflect discrimination.

These two interesting findings from a quantitative decomposition exercise on the ethnic gap still illustrate a weakness of the omission of factors that may potentially drive the ethnic gap in Vietnam. None of this research takes into account the social network, in spite of a debate about the impact of social networks on the poverty gap. Collier (1998), among others, discusses the positive impacts of social networks on narrowing the poverty gap. According to him, social networks, through a copying mechanism, tend to be progressive in terms of distributional consequences. Quillian and Redd (2009) provide evidence that co-ethnic people in a neighborhood offer a lot of support to control crime and resolve social disputes, and they also support each other's businesses. Meanwhile, many others have demonstrated the negative impacts of social networks and how they can widen the gap (Tilly, 2001; Saegert et al., 2001; Afridi, 2011; Kadushin, 2012). Social networks tend to trap poor people in a group that has a low capacity for development. Le (my colleague) and I show qualitative evidence that social networks negatively transfer information about risk and increase risk aversion, which puts pressure on ethnic minorities to not start a non-farm business (Nguyen P. and Le, 2018). This raises the question of

how social networks, among other factors, contribute to the gap between the Kinh and Hoa and the ethnic minorities in Vietnam.

Therefore, Chapter 1 reinvestigates the ethnic gap in Vietnam and the contribution of factors to the gap from 2004 to 2016. The most recent study by Baulch and Vu (2012), using data from the Vietnam Living Standards Surveys (VLSSs) in 2004 and 2010 Vietnam, shows a persistent pattern regarding a widening ethnic gap. This study aims to make two contributions. First, the study updates the decomposition exercise on the ethnic gap by my colleagues and I (Baulch et al., 2010), and later, Baulch and Vu (2012) for a longer period of time, using the latest household survey in 2016. Second, the study provides evidence of the role of social networks, among other factors, on the ethnic gap in Vietnam. However, due to the design of VHLSSs, Chapter 1 can use only a cross-sectional dataset, not a panel dataset, and hence fixed effect regressions and the decomposition of the change in the ethnic gap over time are not possible, which are among other limitations of this exercise.

Chapter 1 is structured as follows. Section 1 provides an introduction to the research. Section 2 presents a literature review of the ethnic gap, and the social network analyses, in general, and in the specific context of Vietnam. Section 3 contains an introduction to the dataset and a descriptive analysis of the ethnic gap in Vietnam. The methodology used to decompose the ethnic gap and the empirical results are detailed in Section 4. Section 5 is the conclusion.

2. Literature review

2.1. Factors contributing to the ethnic gap

Patrinos (1994) introduces a standard approach, which was first proposed by Oaxaca (1973) and Blinder (1973), to investigate the roots of the poverty gap, measured as the difference in expenditure or income between ethnic groups. Less commonly, instead of focusing on the gap in expenditure or income, some researchers measure the ethnic gap index of multiple welfare variables.⁸ However, Demombynes and Vu (2015) confirm that expenditure is favored over other welfare indicators to measure the ethnic gap in developing countries. They argue that it is a better measure of long-term wellbeing, given consumption smoothing over time. They claim that expenditure is less likely to be misreported and is, therefore, a better measure of the actual living standard. In addition, Baulch et al. (2004 to 2012) argue that other commonly used measures of wellbeing, including income and non-monetary indicators, are highly correlated with expenditure in a developing country like Vietnam.

Patrinos (1994) decomposes the ethnic gap into observable differences in endowments between ethnic groups, and differences in returns to the given observable endowments. Endowments include any factor that influences the ability of a household to make wealth for itself. Underlying the quantitative exercise, Patrinos emphasizes theories that contribute to the understanding of the main factors that result in more or fewer opportunities for higher welfare for ethnic minorities. According to him, the human capital theory suggests that in general ethnic minorities have less education and experience, and they are also less healthy than members of the ethnic majority, and therefore, they earn less. The institutional hypothesis focuses on returns to schooling and informal employment, in order to test the exclusion of ethnic minorities from the high-productivity and high-wage sector. The screening theory proposes that the lower level of education among ethnic minorities is a sign of lower productivity, so employers pay lower wages to ethnic minorities than to ethnic majorities. Last but not least, the target theory states that ethnic minorities set a target income, and when it is reached, they start to consume leisure. These theories have provided a quite comprehensive foundation for other studies that have further investigated explanations for the ethnic gap in many developing countries⁹ (Psacharopoulos and Patrinos, 1994; Gustafsson and Li, 2003; Gardin, 2007; Navarrete, 2013; Alesina, Michalopoulos and Papaioannou, 2016; and Gardin,

⁸ Alesina, Michalopoulos and Papaioannou (2016) aggregate the five Gini indexes of ethnic inequality in geographic endowments via principal components, including geographic endowments in distance to the coast, elevation, precipitation, temperature and land quality for agriculture. Gardin (2016) examines the ethnic gap in a wealth index of housing, assets and living conditions. The wealth index is measured by a multiple correspondence analysis on 17 variables that account for the conditions of dwellings (materials used in the roof, floor and walls; and the number of people per room used for sleeping), basic assets owned by the household (such as vehicles and domestic appliances), cooking fuel, and type of access to water and sanitation.

⁹ Bolivia, Guatemala, Mexico, Peru, Brazil, China, India, Nepal, the Philippines, Pakistan, and several African countries.

2015 and 2016). In these studies, endowments are often grouped into the broad categories of geographical, demographic¹⁰ and socio-economic factors.¹¹

2.2. Location segregation and market discrimination as essential drivers of the ethnic gap

The studies mentioned above focus on finding evidence of whether ethnic minorities tend to be left behind in economic development mainly due to their difficult living location, i.e., in less developed and mountainous areas, or because they do not have the capacity to earn as high an income as those in the majority groups. Geographical factors, e.g., a dummy for being in a mountainous area, or a dummy for being in a remote village that has no electricity, can have more influence on the ethnic gap than other factors. Gardin (2015) shows that the ethnic gap in China is mainly attributed to the high concentration of ethnic minorities in the less-developed western region.¹² Unequal geographical endowments are also found to be the main driving force for the ethnic gaps in 18 sub-Saharan African countries (Alesina, Michalopoulos and Papaioannou, 2016).¹³ These findings provide evidence that policies that improve infrastructure should be favored in order to narrow the accessibility distance.

However, a location that is difficult to live in may not always be the only factor driving the ethnic gap. In developing countries, having too many children and older adults in an ethnic minority household often leads to increased pressure on income disparities between ethnic groups. Also, ethnic minorities often have a large amount of very low-quality land that is not suitable for high-yield production. Ethnic minorities receive lower returns on the same quantity of endowments as the ethnic majority, and this is due to their endowments being of low quality, or due to stereotyping and discrimination. In the context of the labour market in developing countries, discrimination in the labour market toward ethnic minorities is often discussed when the human capital of ethnic minorities, e.g., a lower level of education and fewer non-agricultural skills than the ethnic majority, results in not only weaker attachment to high-income jobs, but also lower wages for the same job. Lang and Lehmann (2012) call this discrimination in the labour market as unequal treatment of ethnic minorities because of negative social attitudes towards them. Longhi and Brynin (2017) share the same view that discrimination comes from a widespread belief that people from certain ethnic backgrounds work less hard than others. Such stereotypes, which are based on the perceived average quality of a worker with a particular ethnic background, can prejudice an employer's assessment of the quality of an ethnic minority worker, which might lead to a decision to pay that

¹⁰ Demographic factors include marital status (currently versus formerly married), teenage marriage (if age of first marriage was below 18), household type (two related adults, three or more related adults, rest of the household), the number of household members, the number of children below 5 years old in the household, and the total number of living children. Age is collected for each individual and the householder (also its squared value). The sex of the latter is also included.

¹¹ Socioeconomic factors include education and occupation/migration for work.

¹² Regional indicators include a dummy for the region, a dummy for being a mountainous area, village population size and whether or not they had electricity before 1990.

¹³ For Alesina, Michalopoulos and Papaioannou (2016), geographical endowments include distance to the seacoast, elevation, precipitation, temperature and quality of agricultural land.

worker less than he would pay someone who is not an ethnic minority to do the same job.

Psacharopoulos and Patrinos (1994), Gardin (2007), and Navarrete (2013) empirically detect evidence of discrimination in the labour market against ethnic minorities in developing countries. Psacharopoulos and Patrinos (1994) find a contribution of discrimination for 28 percent of the earnings differential between indigenous and non-indigenous workers in the urban Bolivian labour market. Gardin (2007) shows that half of the poverty gap between two Brazilian racial groups, whites and Afro-Brazilians in Brazil, is attributed to education and labour activities.¹⁴ Navarrete (2013) provides evidence of lower returns to ethnic minorities in Mexico who work the same quantity of hours as non-ethnic minorities.

2.3. Effect of social networks on the ethnic gap

Much research shows the importance of social relationships in improving welfare. In such studies, social networks are defined as relationships between a household and others that can shape household welfare by providing or not resources for better welfare generation. Collier (1998) points out that through social relationships, the poor tend to copy knowledge from those with higher incomes. Social networks can bring people together to share information and facilitate the poor to learn from others in their networks by mentoring and raising aspirations, and they provide other forms of support such as financial resources, access to employment, and risk-sharing collective action, which help the poor to increase their income and catch up to those who are better off (Afridi, 2011; Kadushin, 2012; and Kerr and Mandorff, 2016).

All of the above studies show that ethnic minorities face barriers to the flow of resources due to language and ethnic perceptions, and this results in income disparities among ethnic groups. McPherson, Smith-Lovin and Cook (2001), Krebs and Holley (2006), Habyarimana et al. (2009), Yavas and Yucel (2014), and Eubank (2017) show evidence of segmentation of information due to ethnicity. People from the same ethnic group have a common language, cultural values, and beliefs, and they often communicate with each other more efficiently and more frequently, than with others not having the same ethnicity. Coethnics may be more likely to prefer working together and copying each other's ways to generate welfare. This pooling, described by Collier (1998), and similarly opportunity hoarding within groups, introduced by Tilly (2001), illustrate mechanisms through which co-ethnic social networks may over-rely on strong ties among them, and that can lead to social exclusion. This exclusion of the poor is found to be due to a language barrier, ethnicity, a lack of knowledge to share reciprocally and discrimination (Kadushin, 2012). People who are discriminated against are often from an ethnic minority group and have a low level of prestige and low socio-economic status, which results in their being more disadvantaged when trying to generate income.

¹⁴ Labour activity of the household head and other members are measured as the dummy of being inactive, unemployed or employed, and the average number of weekly working hours.

Despite all the literature, social networks as a factor that contributes to the ethnic gap appear not to have been thoroughly addressed in decomposition exercises. Possible reasons for this are the unavailability of collected data and that the topic itself is subject to a lot of debate surrounding the definition and measurement of social networks. Due to a few weaknesses in the individual network approach, some researchers prefer to measure a whole community network rather than an individual network. Bell and Newby (1976) describe how local social groups and local institutions and a strong sense of duty and obligation and belonging among its members combine to create a sense of community. Households within a community often participate in common social activities, and to a great extent they know and support each other. Clark (2007) calls the whole network approach a "traditional community as locality" approach and uses it to study connections bound to a particular geographic location. Even though, he admits a limitation that just because people might be from the same geographic area does not mean that they have a social connection.

This above literature explains the measure of network characteristics of the population having the same ethnicity in geographic space, as a proxy for a social network. Nguyen H.C. and Normand (2017) investigate the share of the same ethnic group in the population in the district in which an ethnic household resides as the first important proxy of a social network. Fischer et al. (2010) provide quantitative evidence that social networks among poor households in ethnic minority groups are relatively restricted to their low capacity for mutual support, so they are unable to do much to mitigate shocks in Vietnam. They measure a social network by the whole network size and structure (centrality). Kerr and Mandorff (2016) show empirical evidence in the US that a strong relationship between the size of an ethnic community and its social isolation are both key factors that contribute to the effect of a social network on occupational differences, which leads to earning gaps.

2.4. Ethnic gap decomposition studies in Vietnam

As mentioned above, the ethnic gap in Vietnam has been investigated in several studies (Van de Walle and Gunewardena, 2001; and Baulch et al., 2004, 2007, 2008 and 2012, among others). Based on representative household surveys from 1993 to 2010, the poverty gap is measured in expenditure differences between the Kinh and Hoa and all of the other ethnic groups. The ethnic gap is further decomposed into differences between the Kinh and Hoa and other ethnic groups, which are composite categories of some of the smaller ethnic minority groups, in order to ensure that sufficiently large cell sizes are available for the analysis (Baulch et al., 2007¹⁵ and 2008¹⁶). However, concerned about the small sample sizes of some categories, Baulch and Vu (2012) suggest considering only the Kinh and Hoa versus all the other ethnic groups in a decomposition exercise.

In these studies on Vietnam, factors contributing to widening the ethnic gap are often categorized into three main groups: human capital, physical capital and environmental settings (see Appendix 1.1). Among environmental settings, location is likely to be tested as the main causal factor of the ethnic gap. Results show that the ethnic minorities in Vietnam tend to be poorly endowed in every area, e.g., they have poorer-quality land,¹⁷ less access to credit,¹⁸ a low level of education and they are negatively affected by geographical remoteness. If the ethnic minorities had the same endowment levels as the Kinh and Hoa, the ethnic gap would be narrowed by no more than a third to a half.¹⁹ The Kinh and Hoa have been much more successful in converting their endowments into their welfare than the ethnic minorities, i.e. getting higher returns on their endowments, at the same quantities as the ethnic minorities. Such higher returns of the Kinh and Hoa show evidence of discrimination against ethnic minorities in the labour market. Baulch et al. (2008) discuss further drivers for such differences in returns: language and cultural issues, land quality and ability to use land efficiently, quality of education, remoteness and high elevation, and misconceptions about and the stereotyping of ethnic minorities.

These results from decomposition studies seem to be in line with other qualitative and quantitative research on the ethnic gap in Vietnam. Even after controlling for education, experience and other relevant characteristics, based on the 2002 VHLSS, Pham and Reilly (2009) find that Kinh and Hoa workers earn

¹⁵ The 7 ethnic categories are (1) Kinh; (2) Hoa; (3) Chăm and Khmer; (4) Tày, Thái, Mường, Nùng; (5) other minorities in the North; (6) minorities in the Central Highlands; (7) and “other,” which is comprised of the remaining smaller ethnic groups, which are mostly located along the North and South Central Coasts.

¹⁶ The 6 ethnic categories are (1) Kinh and Hoa; (2) Chăm and Khmer; (3) Tày, Thái, Mường, Nùng; (4) other minorities in the North; (5) minorities in the Central Highlands; (6) and “other,” which is comprised of the remaining smaller ethnic groups, which are mostly located along the North and South Central Coasts.

¹⁷ Proxy by a low holding of irrigated land.

¹⁸ Reflected by a lower receipt of remittances.

¹⁹ Different from other researchers in the past, Fujii (2017) investigates the changes in the ethnic gap by using panel data sets from 1993 to 2014. He shows a break after 2006, when the changes in returns to endowments still contribute to increasing the changes in the ethnic gap. However, since 2010, the changes in returns to endowments have helped to narrow the changes in the ethnic gap. However, the study does not discuss the statistical significance of the results.

nearly 11 percent more on average than their ethnic minority counterparts. About two-thirds of this wage gap is attributed to differences in returns, which is evidence of discrimination in the labour market against ethnic minorities. Poor returns on available endowments of the ethnic minorities are explained in other studies by less efficiency in economic activities due to a language barrier and living in a remote area. Despite all the efforts in teaching the ethnic minorities to speak and read Vietnamese,²⁰ language difficulty is still reported to be a big challenge for ethnic minorities of accessing to information, employment opportunities, social services and market engagement (Oxfam and Action Aid Vietnam, 2008; VASS, 2009; World Bank, 2009; and Helvetas, 2013). Some reports argue that having limited participation and voices in local activities, due to the language barrier, slow down the pace of economic growth for ethnic minorities, especially when this creates barriers to their participation in social services, local job creation and training programmes (Oxfam, 2018).

Clearly, these decomposition studies on the ethnic gap in Vietnam so far have not considered the role of social networks on the gap. Given that the literature was last updated in 2010, there is a need to repeat the decomposition exercise using the latest household survey in 2016. This study takes into account the role of social networks, measured as the co-ethnic population in a geographical area, as a potential factor that contributes to the ethnic gap in expenditure in Vietnam.

3. Descriptive analysis of the ethnic gap in Vietnam

3.1. Data

In this study, the ethnic gap is investigated based on data from the Vietnam Household Living Standard Surveys (VHLSSs). The VHLSSs include both commune and household questionnaires, so the data covers a rich set of household members' variables on demographics, education, jobs, income, and expenditures, as well as local infrastructure and commune characteristics.

The General Statistics Office (GSO) first conducted the Vietnam Living Standards Surveys (VLSSs) in 1992 and 1998, and they are representative at the national level. These surveys were improved in 2002 by expanding the sample extensively for it to be representative at the provincial level. This ongoing longitudinal survey has been conducted every two years since 2002, and it covers over 3,000 communes (about one-fourth of the total number of communes in the country) in all 63 provinces in Vietnam. The sampling frame is based on the Population and Housing Census to represent the entire country, including both rural and urban areas. The VHLSS is the best source of data for nationally representative estimates of poverty and inequality because it is randomly sampled from a large-scale sampling frame. The VHLSSs from 2002 to 2010 relied on the sampling frame from the 1999 Population and Housing

²⁰ After from the universal literacy movement, the most important target that has been set is early intervention for pre-primary school children (age 5). An increasing number of ethnic minority children have been attending pre-primary school, where the focus is on learning Vietnamese. In addition, ethnic minority parents are encouraged to learn and speak Vietnamese with their children.

Census. Then, the VHLSSs from 2012 to 2016 relied on the new Population and Housing Census in 2009. From 1999 to 2009, Vietnam significantly changed the way of conducting the Population and Housing Census. There were 61 provinces and 10,475 communes in 1999, and there were 63 provinces and 11,112 communes in 2009. The sampling frame used for the VHLSSs from 2002 to 2010, i.e., the 1999 Census, has been criticized for not including all the new enumeration areas created in 2009, especially many densely-populated new areas, due to rapid urbanization. The old sampling frame used for the VHLSSs in the 2000s had a limitation that it only included small households in urban areas and migrants.

Baulch et al. (2007) raise concern about non-sampling errors in the first VHLSS in 2002, and then they use the 2004 VHLSS to estimate the ethnic gap. Baulch et al. (2012) and Demombynes and Vu (2015) point out differences between the pre-2010 VHLSSs and the ones that were conducted later (i.e., changes made to the survey methodology), which make it difficult to make comparisons and to explain the large increase in poverty rates in 2010. Changes introduced in the 2010 VHLSS include an updated sampling frame, revisions in the expenditure module, and a more comprehensive consumption aggregate. Comparing the VHLSSs in 2000s and the Census in 1999 and 2009, Hansen and Le (2013) confirm that households in VHLSS communes were on average better off than those in other communes in both years. In spite of these limitations, the VHLSSs are still considered to be the best source of information for investigating welfare and poverty.

The study considers only the rural data from the VHLSSs. The urban sample is excluded for three reasons. First, there is the geographical concentration of ethnic minorities in the rural parts of Vietnam. According to the 2009 Population and Housing Census, the vast majority of the ethnic minorities (84.3 percent) live in rural areas. Second, the VHLSS includes a household questionnaire on household characteristics in both rural and urban areas, but it consists of a commune questionnaire only in the rural areas. Third, as mentioned above, migrant households in urban areas were under-sampled in the VHLSSs in the 2000s, and many of the people in these households were ethnic minorities (Baulch et al., 2007).

Following Baulch et al. (2012), the study uses the real household expenditure per capita as the metric for examining the gap between ethnic groups. The ethnic majority group, the Kinh and Hoa, are used as a reference group. They account for 84.3 percent of the population, and they are more likely to be better off than the ethnic minorities, i.e., the 54 other ethnic groups. The ethnic minorities are less integrated into the modern economy and lag behind in poverty reduction and economic development. Real household per capita expenditure is computed as the comparable total household food and non-food consumption over the previous 12 months. In order to determine the real welfare indicators, the real January prices in 2004 are calculated with the GSO monthly CPI price deflator. The poverty line in this study is the General Statistics Office and the World Bank's (GSO-WB) expenditure poverty line. The poverty line is based on a standard "cost of basic needs" methodology, and it is estimated using data from

the VHLSSs. It is based on an estimated daily food intake (2,100 kilocalories per person per day) plus an additional allocation for essential non-food needs based on general consumption patterns of the poor.²¹ As previously mentioned, the poverty line in 2010 was different than those used before, due to design changes in the expenditure module in the household questionnaire and the methodology used to aggregate the total expenditure. Therefore, the study uses the total of the best aggregate expenditures from the VHLSSs for the comparison. Expenditure aggregates are assumed to accept revision in the expenditure module design and differences in sampling frames among years in VHLSSs.

The latest work on the ethnic gap in Vietnam is based on data from the 2004 and 2010 VHLSSs (Baulch and Vu, 2012). This study updates this decomposition exercise using data from the 2004, 2010 and 2016 (the latest one) VHLSSs and covers twelve continuous years. As mentioned, in order to capture detailed commune characteristics, the rural sample size of VHLSSs of 6,591, 6,162, and 4,162 households are used in decomposition exercises. 2,266, 2,199, and 1,507 communes are surveyed in 2004, 2010, and 2016 respectively.

A limitation is found that it can only construct a cross-sectional dataset, not a panel dataset based on the VHLSSs in these years, and hence fixed effect regressions and the decomposition of the change in the ethnic gap over time are not possible.

Notably, thanks to the availability of data about the social network, the 2016 VHLSS is used to investigate the potential contribution of social networks to reducing the ethnic gap. Following Fischer et al. (2010) and Kadushin (2012), a social network is measured by the whole network' size, including all people having the same ethnicity in an area. In line with Nguyen H.C. and Normand (2017), this measure of network size is calculated at the district level. In other words, the social network indicator is defined as a population in a district that is comprised of people from the same ethnic group, i.e., the co-ethnic population at the district level. In addition, another measure, the population of a group of people of the same ethnicity in a commune, i.e., the co-ethnic population at the commune level, can be used to test the robustness of the potential contribution of a social network to reducing the ethnic gap.

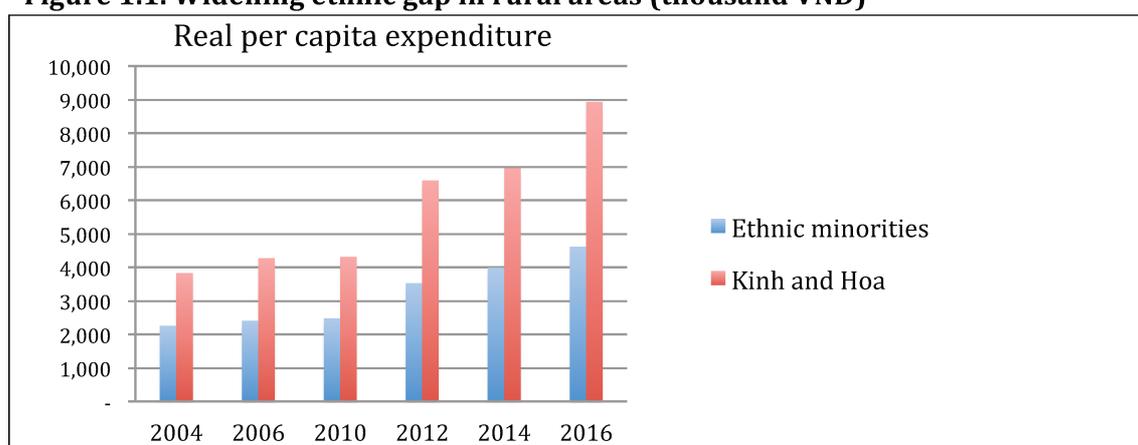
²¹ The GSO-WB expenditure poverty lines in 2004, 2010 and 2016 are 2,077, 7,836 and 11,630 thousand VND/person/year, respectively. They are different from the 1.25 USD-a-day and 2 USD-a-day international poverty lines but similar in purchasing power parity terms to that of other countries with similar levels of development (Demombynes and Vu, 2015).

3.2. Evolution of the ethnic gap in rural Vietnam

3.2.1. Ethnic gap in terms of expenditure

Significantly, a widening ethnic gap in terms of expenditure has been observed in the last decade (see Figure 1.1). Both the Kinh and Hoa and the ethnic minorities have experienced expenditure improvement. However, the per capita expenditure of the Kinh and Hoa increased substantially, much more than that of the ethnic minorities. The gap almost doubled from 2004 to 2016. The ethnic minorities seem to have benefited less from economic growth. It raises a question about the inclusiveness of economic growth in the country.

Figure 1.1. Widening ethnic gap in rural areas (thousand VND)

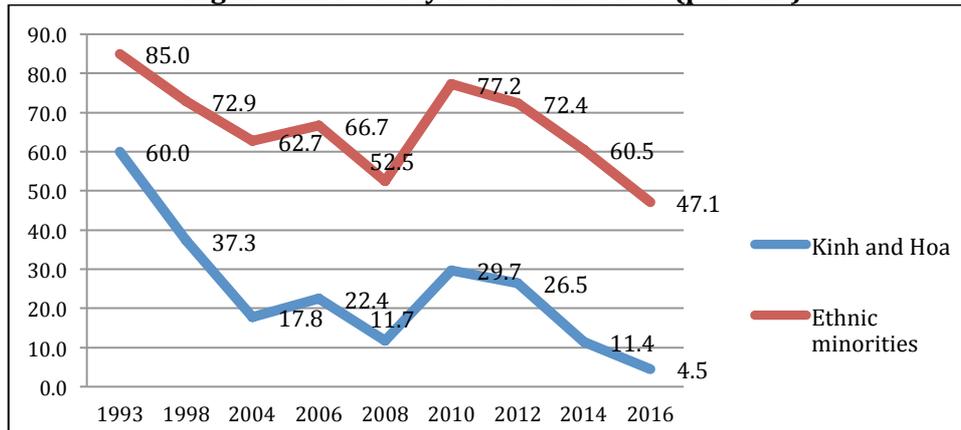


Source: VHLSSs, Author's calculations

This widening ethnic gap raises another question about whether it leads to an increase in other poverty gap indicators. As expected, there was a substantial decrease in the poverty headcount and the poverty gap ratios among the Kinh and Hoa. These figures declined at a much greater rate than those for the ethnic minorities (see Figure 1.2 and Figure 1.3). Figure 1.2 shows that the poverty headcount rate for the Kinh and Hoa fell by nearly three-fourths, from 18 to 5 percent, between 2004 and 2016. Over the same period, the rate for the ethnic minorities fell only by about a third, from 63 to 47 percent. As a result, the gap closed a little bit, from 45 percentage points in 2004 to 42 percentage points in 2016. The difference in the poverty gap rates (see Figure 1.3) for the Kinh and Hoa and those for the ethnic minorities narrowed a little bit, from 16 percentage points in 2004 to 14 percentage points in 2016. However, looking at a longer period of time, the ethnic gap in poverty headcount rates nearly doubled. It went from 25 percentage points in 1993 to 42 percentage points in 2016.²² Over this extended period, the gap between the poverty headcount rates for the Kinh and Hoa and those for the ethnic minorities widened, but the poverty gap rates did not widen.

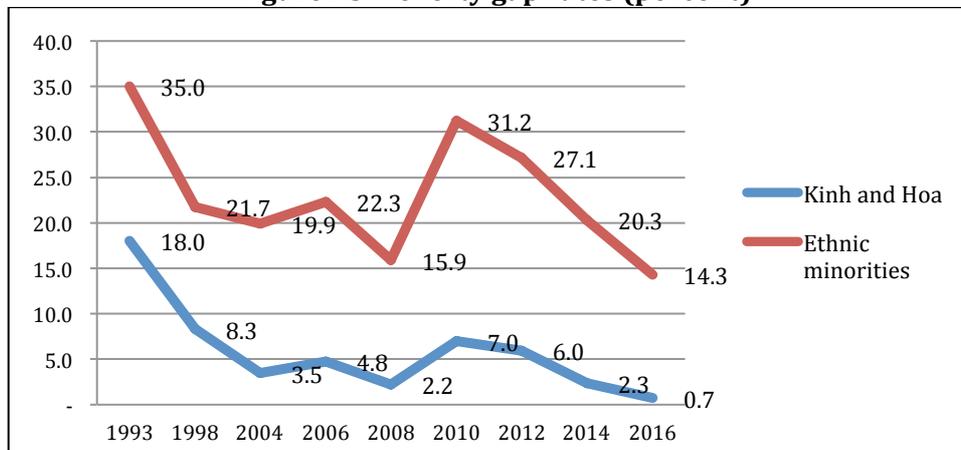
²² This study only investigates the 2004, 2010, and 2016 VHLSSs. However, other VLSSs and VHLSSs are used to investigate a longer trend. The rural sample sizes of the 1992 and 1998 VLSSs are 3,727 and 4,269, respectively. The rural sample sizes of the 2004, 2006, 2008, 2010, 2012, 2014, and 2016 VHLSSs are 6,938, 6,882, 6,837, 6,750, 6,696, 6,618, and 6,570 households, respectively. All are representative at the national level.

Figure 1.2. Poverty headcount rates (percent)



Source: VHLSSs, Author's calculations

Figure 1.3. Poverty gap rates (percent)



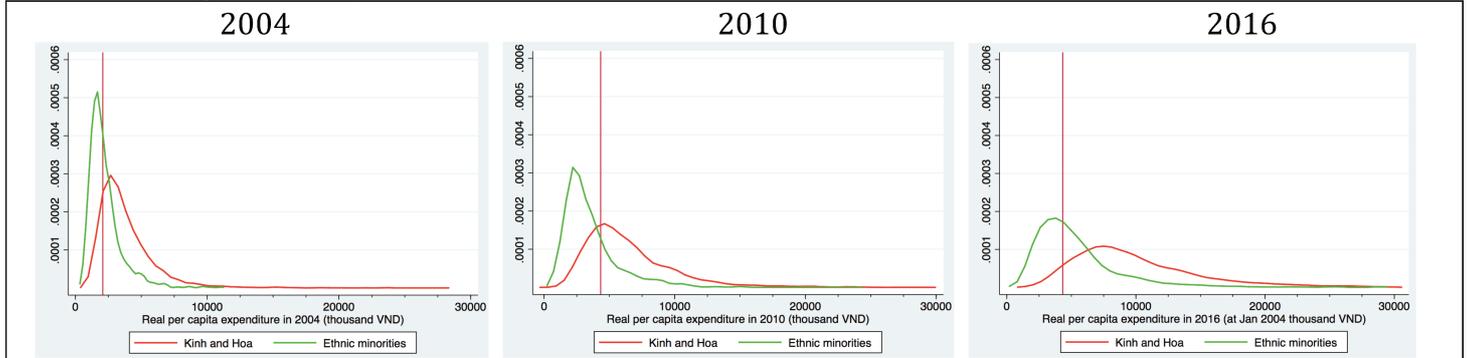
Source: VHLSSs, Author's calculations

The ethnic poverty gap had fallen slightly by the end of 2016, after a large increase in 2010. 2010 was a hard year for the ethnic minorities. They experienced the largest gap for both the poverty headcount and poverty gap rates in 2010. That year, the difference in the poverty headcount rate reaches the peak at 47 percentage points, and that peak of the difference in the poverty gap rate was 24 percentage points. This might be linked to the global economic crisis in early 2009 and the increased cost of agricultural inputs and the sharp increase in the cost of electricity and fuel in 2010, which put an increasing amount of pressure on household welfare (WB, 2012). However, Baulch et al. (2012) point out that these changes might be due to the sampling frame update and the expenditure module revision.

A widening gap in poverty ratios over the years from 2004 to 2016 was not observed, and that may be due to the changes in expenditure distribution and the poverty line. Therefore, expenditure distributions for the two groups are further examined in Figure 1.4. It shows a general shift of expenditure distributions to the right for both groups, becoming less peaked and more dispersed. This is in line with the finding by Baulch et al. (2008) that a moderate rise in inequality occurred over the period. Expenditure distribution for the Kinh and Hoa was above the poverty line by 2016. However, expenditure distribution

for most of the ethnic minorities remained just below the poverty line in 2004, and it was still well below the poverty line in 2016. This further confirms that inequality between the Kinh and Hoa and the ethnic minorities has been a bigger challenge for Vietnam.

Figure 1.4. Expenditure distributions for the Kinh and Hoa and the ethnic minorities



Source: VHLSSs, Author's calculations

Even expenditure is the most favored measure among other welfare indicators in an inequality study in a developing country, the following section looks at the ethnic gap in terms of different indicators, including income as well as three non-monetary ones: education, public facility access, and social networks. It aims to draw a more comprehensive picture of the ethnic gap and to find any underlying drivers for the gap changes over the years.

3.2.2. Ethnic gap in terms of income

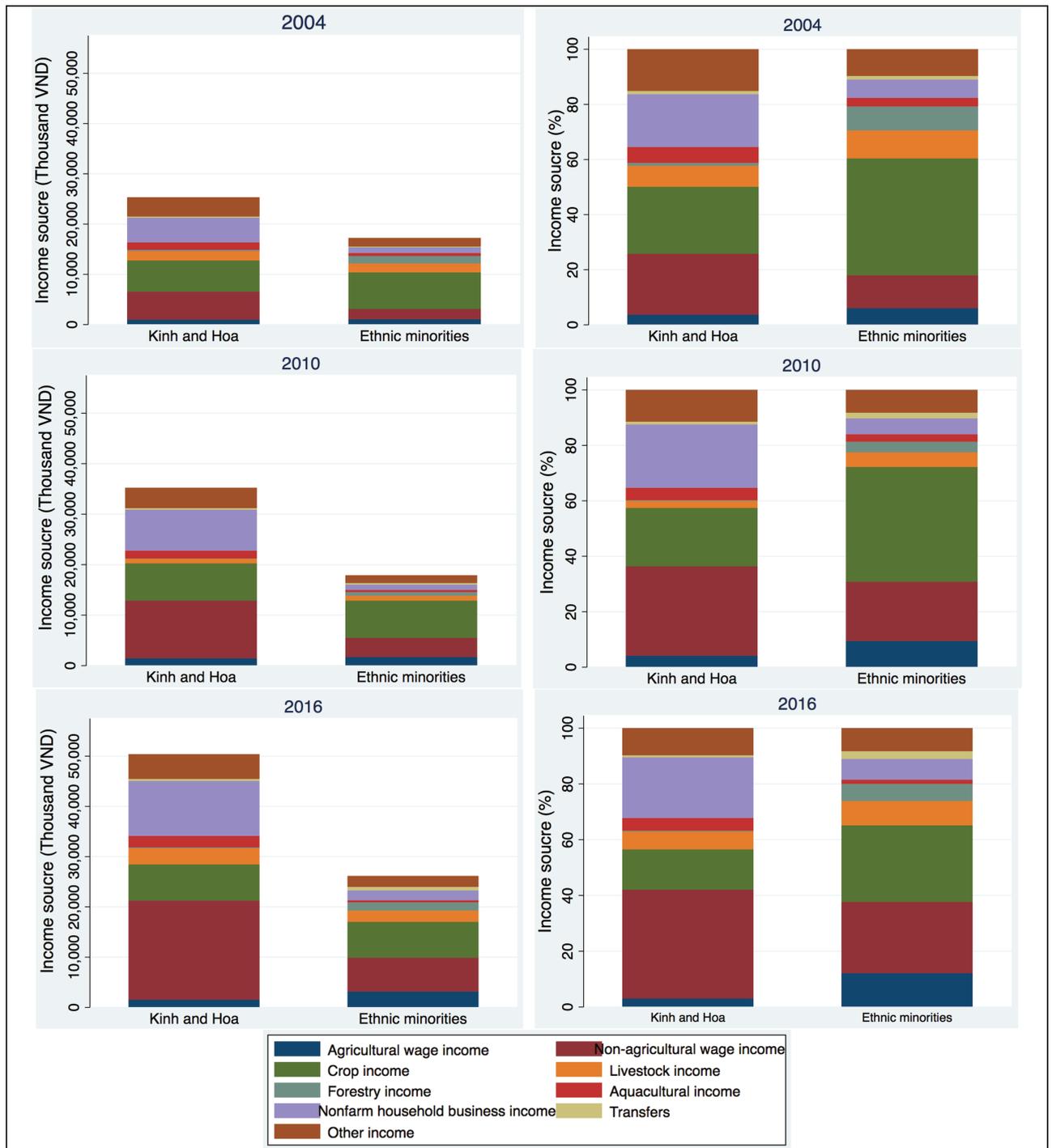
Regarding the total income, Figure 1.5 shows a similar widening gap between the Kinh and Hoa and the ethnic minorities. The gap was 32 percent in 2004, and 48 percent in 2016. This widening in the ethnic gap is primarily due to the high-speed growth of non-agricultural wage activities, and secondarily from the doubling of the income of non-farm household businesses owned by the Kinh and Hoa, which are not observed for the ethnic minorities.²³ A further look at the income structure across these years shows that the Kinh and Hoa have had a much easier time making the transition from agricultural crop activities to non-agricultural wage activities, in comparison to ethnic minorities. The share of non-agricultural wages in the total income of the Kinh and Hoa increased by 17 percentage points from 2004 to 2016, making it the greatest increase across different income sources themselves. As a result, non-agricultural wages made up the largest share at 39 percent of income for the Kinh and Hoa in 2016. Meanwhile, that share of non-agricultural wages of the ethnic minorities rose by only 14 percentage points from 2004 to 2016, resulting in a share of this income at only 26 percent of the total income in 2016. The largest share of the ethnic minorities' total income still comes from agricultural crops, accounting for about 40 and 30 percent of the total income in 2004 and 2016, respectively.

The second highest source of income for the Kinh and Hoa are non-farm household businesses, and they accounted for 19.2 and 21.7 percent of the total income in 2004 and 2016, respectively. However, the numbers are much smaller for the ethnic minorities. The share of non-farm household businesses in the total income of the ethnic minorities was only 6.7 and 7.6 percent in 2004 and 2016, respectively. These figures are even lower than those for agricultural activities, i.e., crop and livestock production, and agricultural wage jobs.

In short, economic diversification into non-agricultural income plays an important role in driving the gap between the Kinh and Hoa and the ethnic minorities. Even moving up in the expenditure distribution, it shows much greater increases in these two income sources of the Kinh and Hoa more than those in their other income sources, and more than those of their corresponding ethnic minorities in each quintile group (see Figure 1.6). The richer the group is, the more expansion is in the gap of the non-agricultural wages and non-farm household business income between the Kinh and Hoa and the corresponding ethnic minorities.

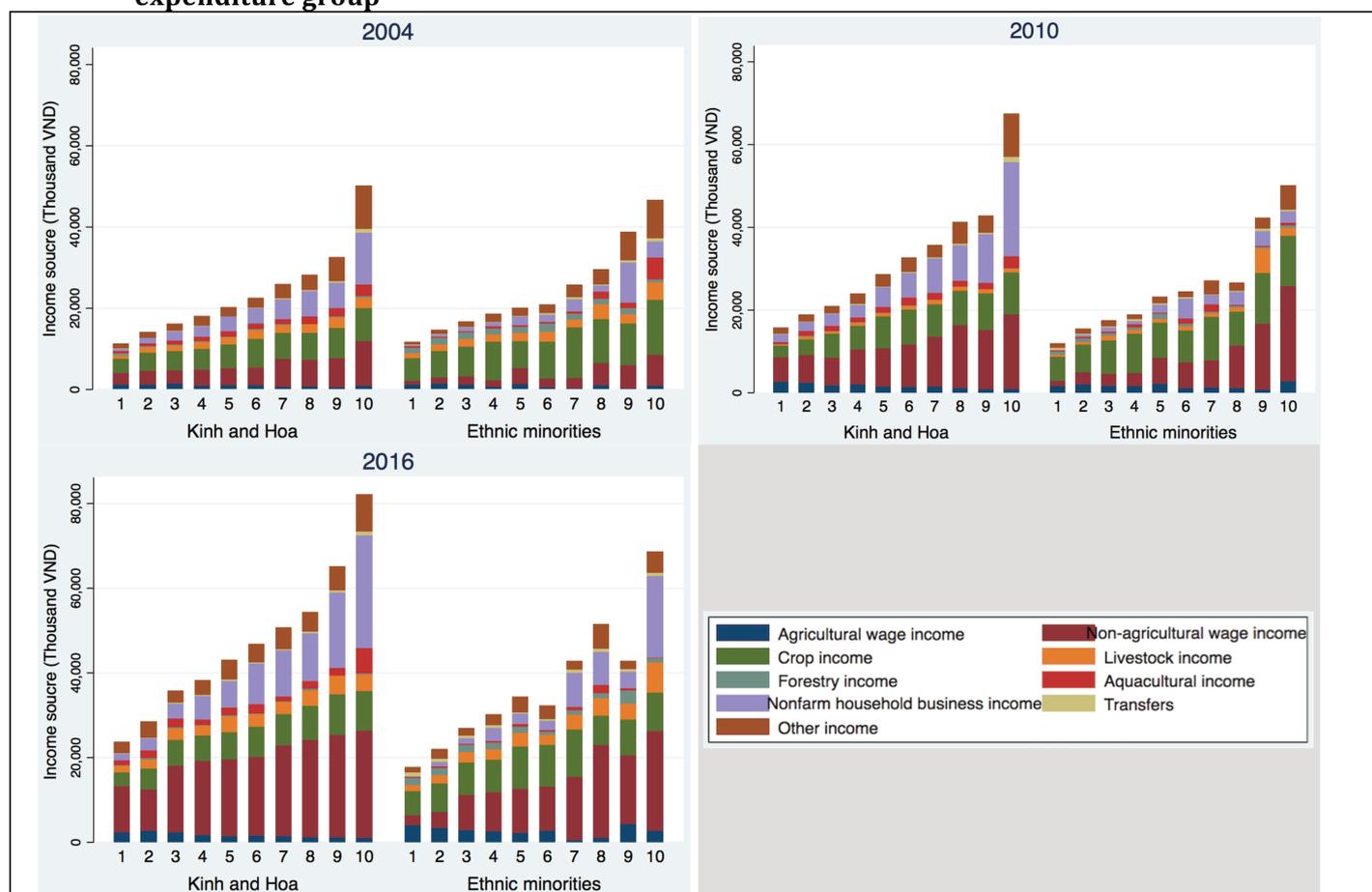
²³ As shown in Figure 1.5, a person in a rural area has several options apart from working his/her own land. The first option is agricultural wage activities, i.e., working for others on their farms as a paid labour. The second option is non-agricultural wage activities, i.e., working for others in their factories or for their non-farm household businesses. Working in a factory requires some qualifications. The third option is to start his/her own non-farm household business, invest some capital and make a profit.

Figure 1.5. Income structure of the Kinh and Hoa and the ethnic minorities



Source: VHLSSs, Author's calculations

Figure 1.6. Income structure of the Kinh the Hoa and the ethnic minorities by expenditure group



Source: VHLSSs, Author's calculations

3.2.3. Ethnic gap in terms of educational achievement

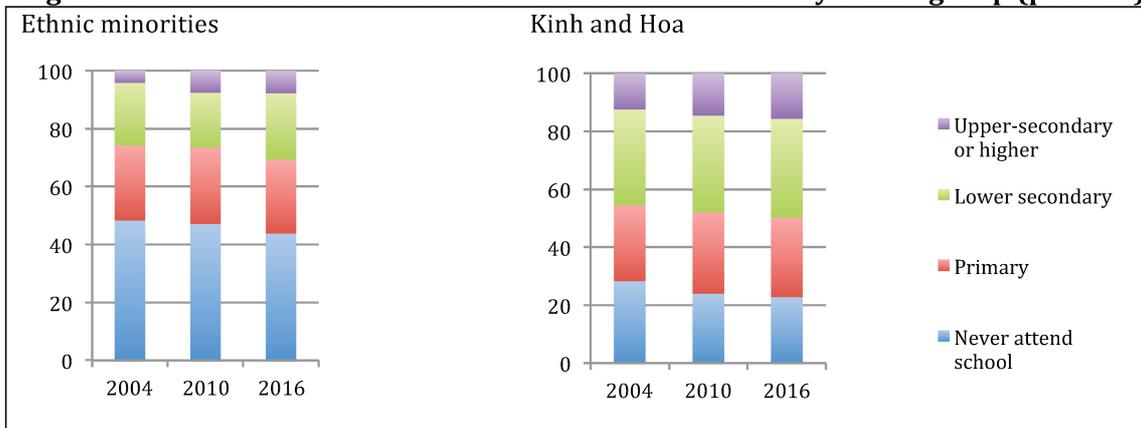
Figure 1.7 clearly shows an ethnic gap in education over the years. The share of those who did not have an educational certificate among ethnic minorities was double that of the Kinh and Hoa. The percentage of those having a secondary school degree among ethnic minorities was only half that number of the Kinh and Hoa.

In Figure 1.8, along with the expenditure distribution in each year, the higher educational level went together with the lower line presenting the ethnic expenditure gaps among those having the same educational achievement. This shows the role of education in narrowing down the ethnic gap in each year. Besides, the ethnic gaps of those having the same educational achievement were shifted up in 2016, in comparison to the corresponding one in 2004, which informs a widening ethnic gap after controlling for the education level over the period from 2004 to 2016.

Notably, the role of education seems to be not the same along the expenditure distribution. The ethnic gaps for those having the highest education were not stable across the distribution in all years. Similarly, the ethnic gaps for those having lower secondary were not stable in 2016. Having such high educational

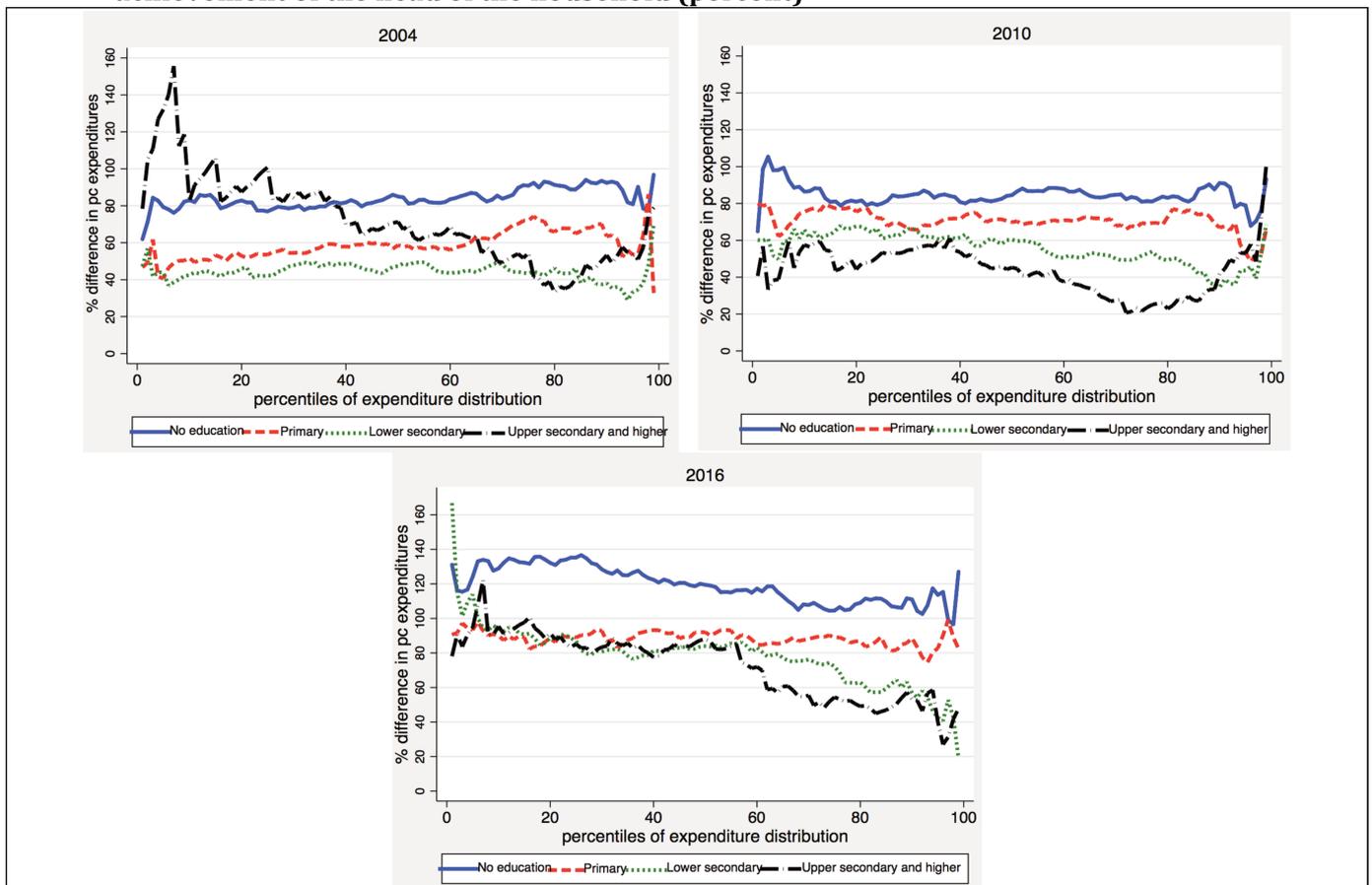
achievement, the poorer the quintile group, the more widening the ethnic gap is between the Kinh and Hoa and others. It shows that the ethnic minorities face a higher challenge in converting their high educational achievement into wealth improvement, in comparison to their corresponding Kinh and Hoa, and this challenge is higher as for the poorer quintile group, in a comparison across the distribution.

Figure 1.7. Head of household's educational achievement by ethnic group (percent)



Source: VHLSSs, Author's calculations

Figure 1.8. Ethnic gap across the expenditure distribution by educational achievement of the head of the household (percent)

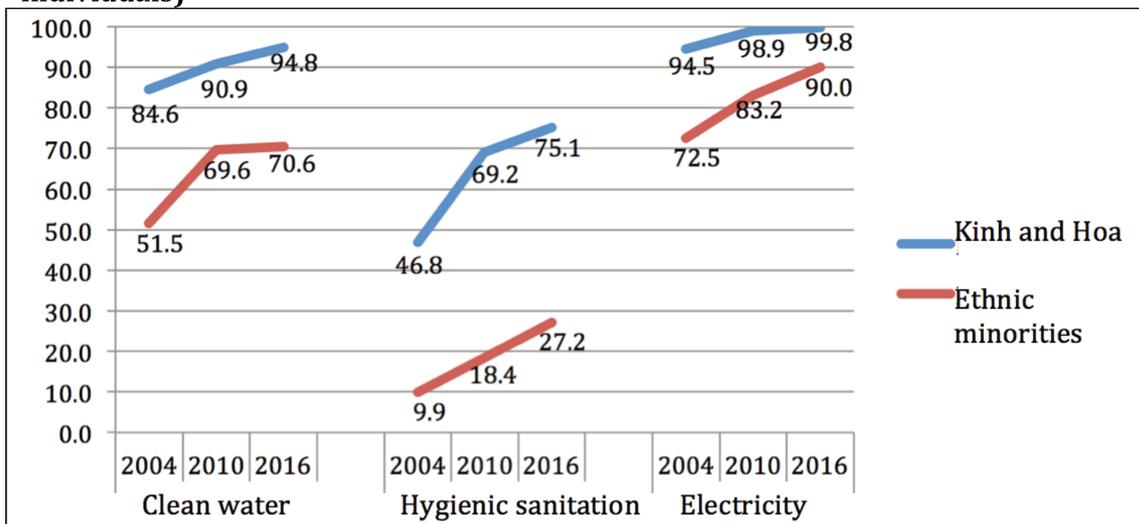


Source: VHLSSs, Author's calculations

3.2.4. Ethnic gap in terms of access to public utilities

Despite a lot of policy intervention in infrastructure availability, there is still a question of accessibility to public utilities for ethnic minority households. Those main utilities, which are given attention, include clean water, hygienic sanitation, and electricity.²⁴ The ethnic minorities had less access to all the public utilities than the Kinh and Hoa (see Figure 1.9). Access to clean water was particularly low for the ethnic minorities (70 percent) compared to the Kinh and Hoa (almost 95 percent). Almost all of the Kinh and Hoa (99.8 percent) had electricity, but only 90 percent of the ethnic minorities did. From 2004 to 2016, the ethnic gap with regard to access to clean water and electricity narrowed a bit, but the ethnic gap with regard to access to hygienic sanitation widened. Access to hygienic sanitation increased dramatically for the Kinh and Hoa by 28 percentage points from 2004 to 2010 while that figure for the ethnic minorities was only 17 percentage points.

Figure 1.9. Access to clean water, hygienic sanitation, and electricity (percent of individuals)



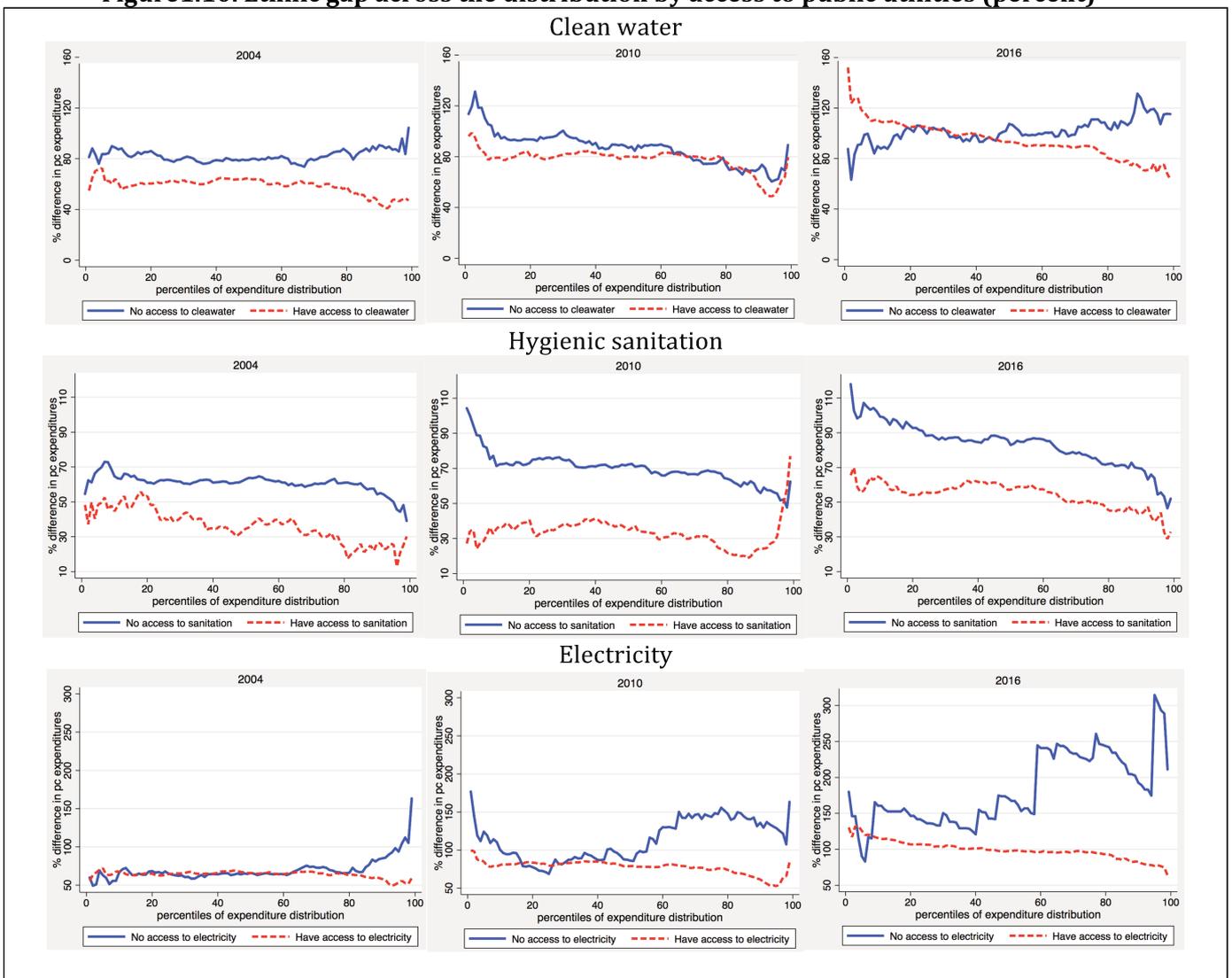
Source: VHLSSs, Author's calculations

²⁴ Access to clean water is defined as having the main source of drinking water be either water that is piped into the dwelling, a public standpipe, a protected dug well, protected spring water, bought water (in bottles, jars or small vessels) or rainwater. Access to hygienic sanitation includes the usage of a flush toilet with a septic tank, a ventilated improved pit latrine, a pit latrine with slab, a composting toilet, a double-vault compost latrine and a suilabh (a kind of flush toilet). Access to electricity is counted by the main source for lighting in the house from the national electricity grid.

Furthermore, Figure 1.10 shows two similar patterns on the ethnic gaps across the distribution, regards the access to public utilities. First, across the expenditure distribution in each year, those having no access to public utilities often had higher ethnic gaps in expenditure, in comparison to those having access to these. Second, that the lines of these ethnic gaps were mostly moving up from 2004 to 2016, shows widening gaps in expenditure over the period.

However, giving attention to those having no access to public utilities, these gaps were widening differently across the distribution, especially in 2016. For those having no access to clean water, ethnic gaps were quite stable at almost all the non-extreme percentiles of the distribution. For those having no access to sanitation, the ethnic gaps were increasing as moving down in the distribution. The poorer quintile had higher widening ethnic gaps than the richer one. On the contrary, for those having no access to electricity in that year, the richer quintile had higher widening ethnic gaps than the poorer one.

Figure 1.10. Ethnic gap across the distribution by access to public utilities (percent)

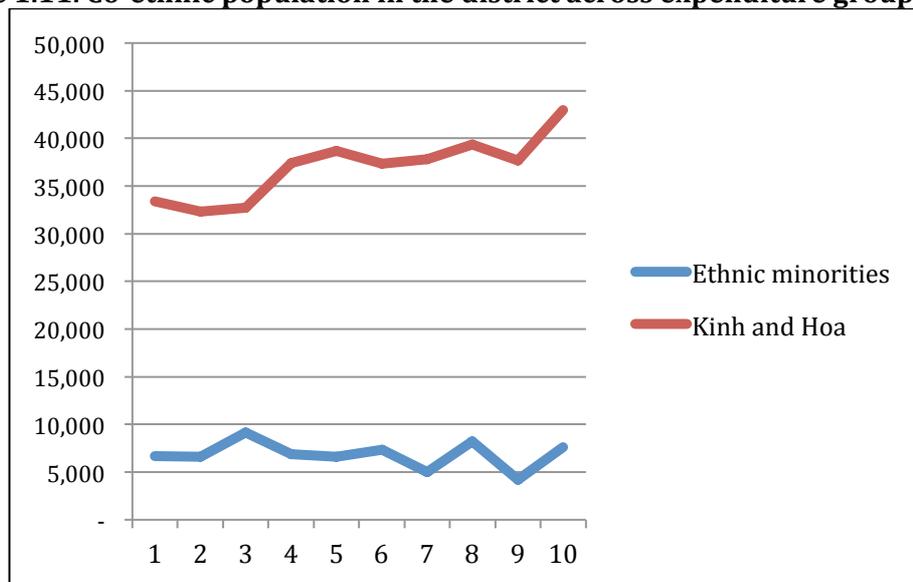


Source: VHLSS, Author's calculations

3.2.5. Ethnic gap in terms of social networks

As expected, the ethnic gap in the size of a social network increased as moving up in the expenditure distribution for the Kinh and Hoa (see Figure 1.11). The wealthier a Kinh or Hoa person was, the larger his social network was. For the ethnic minorities, it did not show evidence of different social networks across the expenditure distribution. It shows that the Kinh and Hoa are likely to live in a more densely populated place of the co-ethnic people than the ethnic minorities do. The richer the Kinh and Hoa, the higher their ability to live in or to migrate to more crowded areas, which potentially have more economic opportunities.

Figure 1.11. Co-ethnic population in the district across expenditure groups (persons)



Source: The 2016 VHLSS, Author's calculations

In conclusion, the above descriptive analysis showed a widening ethnic gap in expenditure over the period from 2004 to 2016. This widening pattern had no conflict with other welfare indicators. The ethnic gap in income or non-monetary welfare indicators increased over years as well. The ethnic gap found in terms of non-agricultural income, education, access to public utilities and social network were often different along the expenditure distribution. This informed that the ethnic gap would be potentially affected differently by its driving factors across the distribution. A decomposition exercise in the next part aims to shed light on this issue.

4. Decomposition of the ethnic gap in Vietnam

4.1. Model

Following a study by my colleagues and me (Baulch et al., 2010), this chapter employs the Blinder-Oaxaca decomposition approach to examine the relative contributions of endowments, and the returns to those endowments, to the ethnic gap in Vietnam. This model is useful to show to what degree the lower quantity of endowments, and the lower returns on these endowments, results in lower living standard levels for the ethnic minorities in terms of expenditure. As mentioned earlier, this study considers the disparities between the Kinh and Hoa and all of the other ethnic minorities in Vietnam.

The per capita expenditure²⁵ is used to measure the welfare of each ethnic group. The per capita household expenditure, expressed in natural logarithms, for the Kinh and Hoa, and all of the other ethnic minorities are defined as Y_m and Y_e , respectively.

$$Y_m = X_m' \beta_m + u_m \quad (\text{Equation 1.1})$$

$$Y_e = X_e' \beta_e + u_e \quad (\text{Equation 1.2})$$

Y_j denotes the per capita household expenditure measured in natural logarithms for the j^{th} ethnic group, where $j = m$ or e , denoting the Kinh and Hoa, and the ethnic minorities, respectively. X_j is a $(k \times n)$ matrix of the observable household endowments and commune characteristics. β_j is a $(k \times 1)$ vector of unknown parameters capturing the effect of the relevant covariates on log per capita expenditure. u_j is a $(n \times 1)$ vector of random error terms for which the standard assumptions apply for estimation by the Ordinary Least Squares (OLS) regression.

The ethnic gap is defined as the estimated mean ethnic difference in log per capita household expenditure, as follows.

$$\begin{aligned} \overline{Y_m} - \overline{Y_e} &= (\overline{X_m} - \overline{X_e})' \hat{\beta}_m + \overline{X_e}' (\hat{\beta}_m - \hat{\beta}_e) \quad (\text{Equation 1.3}) \\ \{Gap\} &= \{Explained\ gap\} + \{Unexplained\ gap\} \end{aligned}$$

where the "bar" denotes mean values and the "hat" denotes OLS coefficient estimates. The overall average gap in household expenditure between the two groups is decomposed into two components. The first one corresponds to the gap explained by differences in endowments, while the second reflects the gap in returns to endowments that is driven by unexplained effects. The explained gap measures the change in the mean of the level of welfare of the minority if they had the same observable quantities of endowments as the majority. In short, it is called the explained effect due to different endowment quantities, i.e., the effects of differences in endowments. The unexplained gap provides an estimation of

²⁵ Real household per capita expenditure computed as the best estimate of total household food and non-food consumption over the past 12 months. It accepts revision in the expenditure module and sampling frame among years in the VHLSSs.

the change in the welfare of the minority group when applying the majority group's coefficients to the minority group's endowments. It is called the unexplained effect due to the returns to endowments, i.e., the unexplained effects of different returns to endowments.

The Blinder-Oaxaca decomposition is an additive one, so it is possible to further sub-divide both the explained and unexplained gaps into small categories of interest.

$$\bar{Y}_m - \bar{Y}_e = \sum_{k=1}^N (\bar{X}_m - \bar{X}_e)' \hat{\beta}_m + \sum_{k=1}^N \bar{X}_e' (\hat{\beta}_m - \hat{\beta}_e) \quad (\text{Equation 1.4})$$

where there are $k = 1$ to N sub-categories of variables.

The decomposition exercise considers six categories of variables: (1) household demographics (including household size; household structure²⁶; the age of the household head²⁷; and the gender of the household head); (2) human capital (including the educational achievement of the household head, e.g., primary, lower secondary, upper secondary, or higher education level, and his or her participation in vocational trainings); (3) economic resources, namely land holdings, (the area of productive land used for agriculture, aquaculture and forestry); (4) diversification into non-agricultural wages and household businesses; (5) social network (co-ethnic population size in the same district); and (6) commune characteristics (including the availability of commune infrastructure²⁸ and the commune remoteness²⁹). The first two categories are the household's human endowments. The third category is the physical endowment of the household. The fourth category is the ability of income diversification, and the fifth one presents the ability of the social network to boost income. The last category is the local infrastructure and remoteness, which is defined by an available detailed set of commune characteristics, reflecting the commune's challenges for economic development. Descriptive statistics of these variables are in Appendix 1.2.

Baulch et al (2007) argue the introduction of district dummies as a richer specification of the unobservable factors, capturing more effectively the geographic differences, but leading to decreases in the overall ethnic gap. Therefore, following them, provincial or districts fixed effects are not considered.

²⁶ The category of household structure is comprised of the ratio of dependent members; and dummies for being single, a couple with one, two or three kids, the extended family or other types of household structures. The ratio of dependent members considers the share of those under age 6, or age 6 to 16, or above 60 in the household.

²⁷ The age and the age squared.

²⁸ Commune infrastructure is the category of following dummy variables, showing the availability of a paved road to the commune, passenger transportation, a daily market, local employment opportunities thanks to local enterprises, factories and nearby trading villages, agricultural extension services, and a dummy for being identified as an extremely disadvantaged commune and being eligible for public development programs. A commune in the Socio-economic Development Programme for the Most Vulnerable Communes in Ethnic Minority and Mountainous Areas, also known as Program 135.

²⁹ Commune remoteness is the category of dummy variables for being a remote commune, and in a coastal, delta, midland, low or high mountain region. The remote commune is defined by the GSO.

That limitation does not concern much thanks to an available detailed set of commune characteristics. As following Baulch et al (2012), the first note is that Kinh and Hoa group is treated as the reference group, because they account for 86 percent of the population and therefore be unlikely to be impacted by positive discrimination.

Furthermore, the decomposition exercise also pays attention to 11 sub-categories of the above factors, i.e., household size, household structure, the age of the household head, the gender of the household head, the educational achievement of the household head, the vocational training participation by the household head, the economic resources, income diversification, social network, commune infrastructures, and the commune remoteness.

There are two differences in this set of variables in comparison to the model used by Baulch et al. (2010) and Baulch and Vu (2012). First, instead of the maximum education level in the household, this analysis only considers the education level of the household head like some other researches on the ethnic gap in Vietnam (Minot et al., 2006; Hoang et al., 2007; Tran et al., 2014; and Fujii, 2017). Otherwise, there could be some bias in the influence of the educational achievement when that of the children may not yet affect the income generation of the household. The educational achievement of the household head, presenting the human capital of the household, plays a role in affecting market participation and the household's income.

Second, the model includes a variable of the social network, reflecting the effect of social relationships on mutual assistance and resource sharing. Following Fischer et al. (2010) and Kadushin (2012), on the whole network approach, the social network size variable is proxied by the co-ethnic population in the district. A test on model misspecification presents a problem of the latest model by Baulch and Vu (2012) (see Appendix 1.4). However, revision with these two different variables (i.e., the education of the household head and the social network) do not indicate such a problem.

It is noted that endowments are different throughout the distribution of expenditure, and more importantly, they may contribute differently to the gap across the distribution of expenditure. The ethnic gap among those having high expenditures may be driven differently under the effects of endowments in comparison to that gap among those having low expenditures. Then, the quantile regression is applied to see how the effects vary across the distribution of expenditure, i.e., at particular quintiles. Therefore, following the study by my colleagues and I (Baulch et al., 2010), in addition to the standard OLS regression, the quantile regression is applied.

$$Y_m = X_m' \beta_{mq} + u_{mq} \quad (\text{Equation 1.5})$$

$$Y_e = X_e' \beta_{eq} + u_{eq} \quad (\text{Equation 1.6})$$

with the q^{th} quintile in the distribution of expenditure Y_j .

Then, the quantile regression-based decomposition of the ethnic gap is as follows.

$$\begin{aligned} \overline{Y}_m - \overline{Y}_e &= (\overline{X}_m - \overline{X}_e)' \hat{\beta}_{mq} + \overline{X}_e' (\hat{\beta}_{mq} - \hat{\beta}_{eq}) \quad (\text{Equation 1.7}) \\ \{Gap\} &= \{Explained\ gap\} + \{Unexplained\ gap\} \end{aligned}$$

Therefore, Chapter 1 investigates the different contribution of endowment quantities and the returns to these quantities to the ethnic gap in 2004, 2010 and 2016. As mentioned earlier, in order to capture detailed commune characteristics, the rural sample of the 2004, 2010 and 2016 VHLSSs (6,591, 6,162 and 4,162 households, respectively) are used in the decomposition exercises.³⁰ A test on heteroskedasticity confirms the significance of the quantile regressions along the expenditure distribution as well.

4.2. Mean decomposition results

The mean decomposition analysis of the ethnic gap, using the 2004, 2010 and 2016 VHLSSs, is presented in Table 1.1, and Appendix 1.3 shows details of the underlying expenditure regressions. Part A in Table 1.1 indicates that the mean of log expenditures increased from 8.1 to 9.1 for the Kinh and Hoa, and from 7.6 to 8.4 for the ethnic minorities from 2004 to 2016. As a result, the log expenditure gap of 50 percent in 2004 widened to 73 percent in 2016, statistically significant. Most of this increase occurred in the period from 2004 to 2010. The later period experienced only about a third of this increase. It informs the gap continued to increase but at a slower pace.

In Table 1.1, Part B shows the change in the welfare of the ethnic minorities if the minority's endowments were at the levels of the Kinh and Hoa, while Part C (and Figure 1.12) shows the total contribution of factors as percentages of the total ethnic gap³¹. In line with previous studies, the explained and unexplained effects each comprise more or less half of the ethnic gap. The differences in endowments accounted for 50.2 percent, slightly higher than the influence of the differences in returns to endowments, which was 49.8 percent of the ethnic gap in 2004 (see Part C, columns 1 and 2). There were less explained effects in later years. In 2016, they accounted for only 47 percent of the ethnic gap. The number of unexplained effects, i.e., the different returns to endowments, increased a little in 2016. However, the unexplained effects cover the influence of the constant term as well. Baulch and Vu (2012) mention that it is hard to explain the total unexplained effects when the constant term accounts for a quarter of the gap in 2010. Not counting the constant effect, the contribution of the explained effects

³⁰ 2,266, 2,199, and 1,507 communes were surveyed in 2004, 2010 and 2016, respectively.

³¹ In the Table, the columns (1), (3), (5) and (7) present the size of the ethnic gap due to the differences in the average level of endowments, given the level of return achieved by the majority's. The columns (2), (4), (6), and (8) present the size of the ethnic gap due to the differences in returns, given the average level of endowment achieved by ethnic minorities. The last two columns (7) and (8) present the analysis based on a model that also takes into account households' social networks in 2016. The upper section of part B presents the estimations by six categories of endowment as mentioned in the model specification. The lower section of part B presents the same results regrouped by more detailed categories.

increased in later years, more than their corresponding unexplained ones. In that sense, the results are in line with the findings of Baulch and Vu (2012), that ethnic minorities are not as well endowed with human and physical capital, commune infrastructure is less available to them as than it is to the Kinh and Hoa, and their welfare status is lower than that of the Kinh and Hoa.

Table 1.1. Mean decomposition results

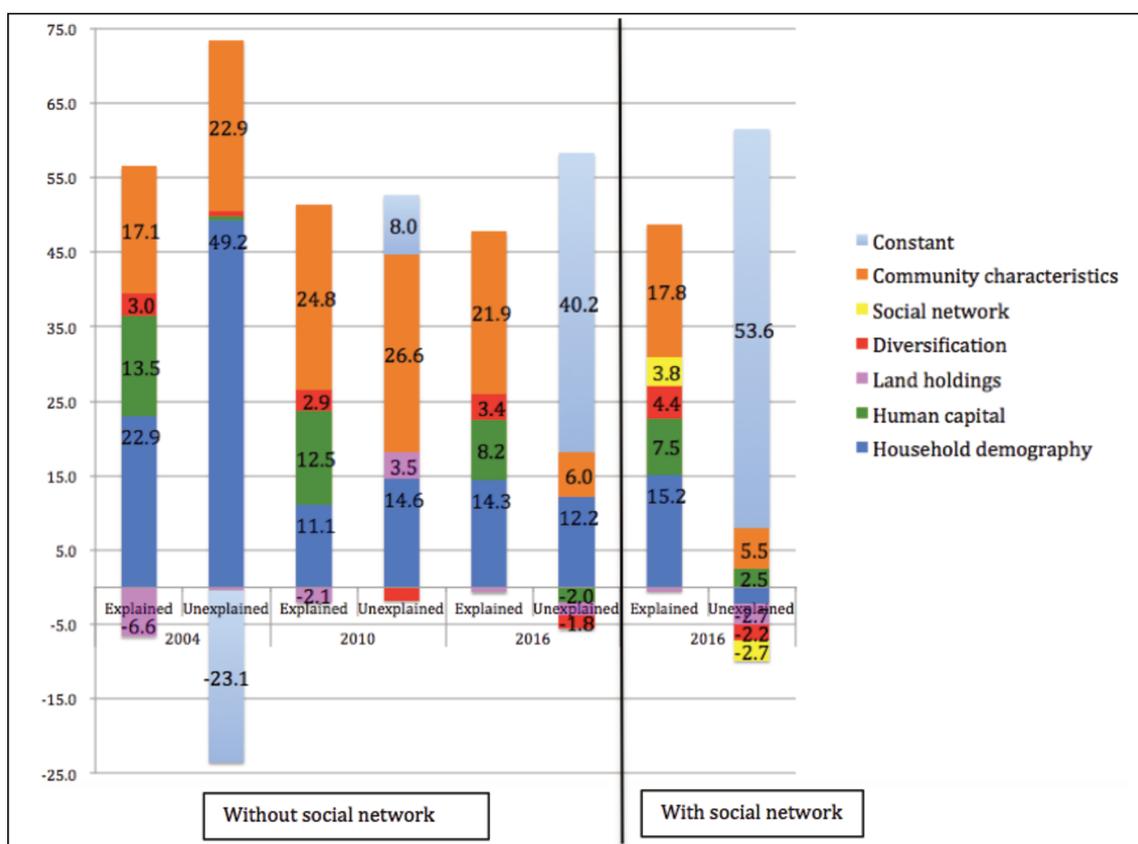
	2004		2010		2016			
	(1)	(2)	Without social network		(5)	(6)	With social network	
			(3)	(4)			(7)	(8)
A. Differentials								
Majority	8.103*** (0.006)		8.792*** (0.008)				9.091*** (0.010)	
Minority	7.601*** (0.015)		8.127*** (0.016)				8.359*** (0.021)	
Difference	0.502*** (0.016)		0.665*** (0.018)				0.732*** (0.023)	
B. Effect on welfare								
VARIABLES	Explained	Unexplained	Explained	Unexplained	Explained	Unexplained	Explained	Unexplained
Household demography	0.115*** (0.009)	0.247*** (0.081)	0.074*** (0.009)	0.097 (0.091)	0.105*** (0.013)	0.089 (0.108)	0.111*** (0.013)	-0.016 (0.111)
Human capital	0.068*** (0.006)	0.003 (0.008)	0.083*** (0.007)	-0.001 (0.008)	0.060*** (0.007)	-0.015 (0.015)	0.055*** (0.008)	0.018 (0.017)
Land holdings	-0.033*** (0.006)	-0.002 (0.015)	-0.014 (0.010)	0.023 (0.019)	-0.005 (0.006)	-0.013 (0.017)	-0.004 (0.005)	-0.020 (0.017)
Diversification	0.015*** (0.003)	0.003 (0.004)	0.019*** (0.004)	-0.011* (0.006)	0.025*** (0.006)	-0.013 (0.009)	0.032*** (0.006)	-0.016* (0.009)
Social network							0.028** (0.012)	-0.020 (0.016)
Community characteristics	0.086*** (0.017)	0.115*** (0.041)	0.165*** (0.021)	0.177*** (0.062)	0.160*** (0.025)	0.044 (0.138)	0.130*** (0.026)	0.040 (0.140)
Constant		-0.116 (0.087)		0.053 (0.108)		0.294 (0.181)		0.392** (0.184)
Total	0.251*** (0.020)	0.250*** (0.022)	0.327*** (0.024)	0.337*** (0.026)	0.345*** (0.029)	0.387*** (0.033)	0.352*** (0.029)	0.378*** (0.033)
Household size	0.058*** (0.009)	0.036 (0.074)	0.040*** (0.007)	0.144** (0.070)	0.076*** (0.011)	0.084 (0.079)	0.064*** (0.011)	0.005 (0.083)
Household structure	0.049*** (0.005)	0.068** (0.032)	0.039*** (0.006)	0.059* (0.032)	0.034*** (0.008)	0.046 (0.043)	0.035*** (0.008)	0.026 (0.040)
Age	0.004 (0.002)	0.141** (0.066)	-0.006 (0.006)	-0.104 (0.069)	-0.003 (0.008)	-0.041 (0.084)	0.013 (0.008)	-0.045 (0.087)
Gender	0.004** (0.002)	0.001 (0.004)	0.002 (0.002)	-0.002 (0.005)	-0.001 (0.002)	0.001 (0.007)	0.000 (0.002)	-0.002 (0.007)
Education	0.058*** (0.006)	-0.003 (0.006)	0.066*** (0.007)	0.006 (0.007)	0.047*** (0.007)	-0.005 (0.015)	0.049*** (0.007)	0.022 (0.015)
Vocational training	0.009*** (0.002)	0.006 (0.004)	0.017*** (0.003)	-0.008* (0.004)	0.013*** (0.003)	-0.010** (0.004)	0.006*** (0.002)	-0.004 (0.003)
Land holdings	-0.033*** (0.006)	-0.002 (0.015)	-0.014 (0.010)	0.023 (0.019)	-0.005 (0.006)	-0.013 (0.017)	-0.004 (0.005)	-0.020 (0.017)
Diversification	0.015*** (0.003)	0.003 (0.004)	0.019*** (0.004)	-0.011* (0.006)	0.025*** (0.006)	-0.013 (0.009)	0.032*** (0.006)	-0.016* (0.009)
Social network							0.028** (0.012)	-0.020 (0.016)
Remoteness	0.016 (0.017)	0.113*** (0.032)	0.054*** (0.020)	0.090* (0.050)	0.113*** (0.029)	0.095 (0.068)	0.094*** (0.029)	0.133** (0.066)
Infrastructure	0.070*** (0.013)	0.002 (0.030)	0.112*** (0.018)	0.086** (0.039)	0.047* (0.027)	-0.051 (0.099)	0.036 (0.029)	-0.093 (0.103)
C. Contribution into the total ethnic gap (%)								
Total	50.2	49.8	49.2	50.8	47.1	52.9	48.3	51.7
Observations	6,591	6,591	6,162	6,162	4,162	4,162	4,162	4,162

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1; Source: VHLSSs, Author's calculation

4.2.1. Mean decomposition of the ethnic gap into six categories of factors

Statistically significant, as expected, household demographics, human capital, and community characteristics are the three factors that have persistently made the highest contributions to widening the ethnic gaps over the years (see Figure 1.12). On a contrary direction, at a small impact, land holdings contribute their explained effects to narrowing down the ethnic gap, when the decomposition informs its explained contribution of 6.6 percent of the gap negatively in 2004. The explained effects of these factors were statistically significant most of the years, but their unexplained effects were not in 2010 and 2016.

Figure 1.12. Mean decomposition of the ethnic gap into six categories of factors - Share of expenditure gap (percent)



Source: VHLSSs, Author's calculation

Two of these factors, household demographics, and human capital, experience a decrease in their explained contribution to the gap. The explained contribution of household demographics decreased by about half, from 23 percent of the ethnic gap in 2004 to 14 percent in 2016, without the social network inclusion in the model. The social network inclusion in the model did not change much this contribution in 2016. This decrease shifted household demographics from the largest explained contribution in 2004 to the second largest one in 2016. The explained contribution of human capital fell by a third, from 14 percent in 2004 to 8 percent of the gap in 2016. Differences in return are not statistically significant except in relation to community characteristics, whose influence

decreases from 22.9 percent of the ethnic gap in 2004 to 6 percent in 2016, regardless of the inclusion of the social network in the model.

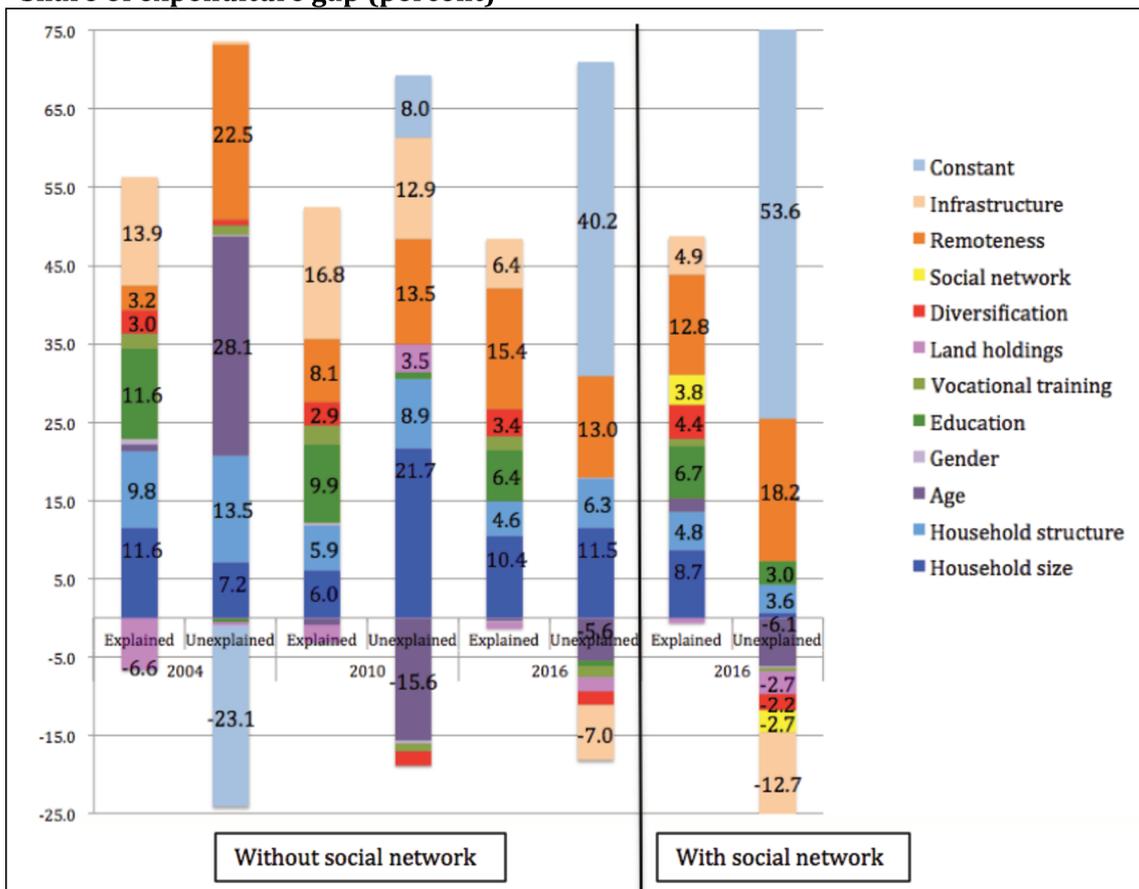
Both the explained and unexplained effects of household demographics had a shift from being the largest contribution in 2004 to the second largest one in 2016. In 2004, the returns to household demographics amounted to 49 percent of the ethnic gap. This unexplained contribution fell to only 14 percent in 2010 and 12 percent of the gap in 2016, without the social network inclusion in the model. In addition, another decrease was also observed in the largest contribution of explained effects of land holdings to reducing the ethnic gap, statistically significant in 2004. However, this contribution of land holdings to the gap seemed to vanish later, statistically insignificantly in 2010 and 2016.

The decreases mentioned above went together with the increases in the explained effects of community characteristics, and they were statistically significant. After the importance of household demographics, community characteristics play the second most important role in driving the gap. The explained effects of community characteristics contributed 17 percent to the ethnic gap in 2004, and increased to 22 percent in 2016 without the social network inclusion in the model. Even with the social network inclusion in the model, this increase did not happen in 2016, and the contribution seemed to stay nearly the same at 17 percent. The unexplained effects of community characteristics also experienced a small increase in their contribution, from 23 percent of the ethnic gap in 2004 to 27 percent in 2010. However, the unexplained effects of community characteristics fell by a fourth to only about 6 percent in 2016, regardless of whether the social network is included or not. All the effects of community characteristics were statistically significant in every year, except for their unexplained ones in 2016. Increases in the unexplained effects of commune characteristics confirm policy intervention in commune characteristics in terms of their quantities seem not enough for the minority to catch up with the majority. The ethnic minority is challenged by the lower returns to the same commune characteristics than the majority. In other words, the Kinh and Hoa benefited more than the ethnic minorities from quantity improvements in community characteristics in 2010 and 2016.

4.2.2. Mean decomposition of the ethnic gap into 11 categories of factors, a closer look

Not taking the constant effects into account, a further look by each individual factor's contribution reveals that (1) remoteness as a community characteristic, (2) household size, household structure and age as household demographics, and (3) education as a human capital factor are the most important drivers of the widening of the ethnic gap (see Figure 1.13). As expected, remoteness is the biggest barrier for the ethnic minorities' welfare improvement, in order to catch up with the Kinh and Hoa. The quantity effects of remoteness increased from 3.2 percent in 2004 to 15 percent in 2016 (or 13 percent with the social network inclusion in 2016). Statistically significant, different returns to the remoteness factor comprised the largest share of the ethnic gap, i.e., 22.5 percent in 2004. That percentage was less in 2016, but still the largest contribution of 18 percent of the ethnic gap (or 13 percent with the social network inclusion). Remoteness was found to have statistically significant impacts on the ethnic gap in 2016, both in terms of the explained and unexplained effects, with the social network inclusion in the model.

Figure 1.13. Mean decomposition of the ethnic gap into 11 categories of factors - Share of expenditure gap (percent)



Source: VHLSSs, Author's calculation

Being another community characteristics, infrastructure experiences some decrease in its explained effects to widening the gap, statistically significant in all years. The explained effects of infrastructure fell from 14 percent in 2004 to 6.4 percent in 2016 (or a bit less 5 percent with the social network inclusion in 2016). So, efforts to adjust the quantities of the community infrastructure are helpful for the ethnic minorities to catch up with the Kinh and Hoa. In addition, in 2016, returns to infrastructure helped to narrow the ethnic gap when it contributed 13 percent of the gap negatively (or 7 percent with the social network inclusion). The decreasing explained contribution of infrastructure together with this increasing negative contribution of returns to this factor, revealed good impacts of infrastructure enhancement on the ethnic gap. However, the contribution of remoteness, much more than that of infrastructure, still drove a big gap in the welfare difference between the majority and the minority. In such a context, even if the minorities had similar infrastructure as the majority, they would tend to be poorer than the majority. In other words, the remoteness factor would result in more challenging barrier to narrowing down the ethnic gap in the near future.

About the other two factors having the highest explained contribution to the ethnic gap, household size and educational achievement amounted equally the same share of 12 percent of the ethnic gap in 2004, statistically significant. Both of these two factors experienced decreases in their explained effects over the period. From 2004 to 2016, the explained effects of education on the gap went down by half, and that of household size reduced about one-fourth, regardless of the social network in the model. Surprisingly, different returns to educational achievements were negligible and insignificant in all years, regardless of the social network in the model. If controlling for the social network in the model, different returns to education contributed only three percent of the ethnic gap in 2016. It reveals that these two factors, household size, and educational achievement, have their explained roles decreasing persistently. The household structure showed a similar decrease by half in its explained effects, from 10 percent in 2004 to about five percent in 2016, and another larger reduction in its unexplained effect, from 14 percent in 2004 to about four percent in 2016.

In contrast, ignoring the social network, the contribution of returns to household size increased from seven percent of the ethnic gap in 2004 to 12 percent in 2016. The returns to household size become the largest unexplained impacts on the ethnic gap in 2010, statistically significant, and also the second one in other years, statistically insignificant. However, the inclusion of social network in the model made this role negligible in 2016.

The negligible contribution of education to the ethnic gap calls for interest on the issue of the possibility of labour market discrimination, i.e., whether the human factors all contribute low unexplained effects on the gap as well. The concern is given to the factors of vocational training, and household head's age, presenting the experience of the household head. The age factor had nearly no explained effect, but its unexplained effects drove mostly the ethnic gap in 2004. This factor provided the highest contribution of 28 percent of the gap in 2004. Interestingly, results seemed to show no discrimination against factors of age, education,

vocational training and land holdings in 2010 and 2016. First, returns to these factors contribute to narrowing down the ethnic gap. The unexplained effects of age closed down the gap by 17 percent in 2010 and six percent in 2016. Vocational training also contributes to narrowing down the ethnic gap, even it amounts only a small-unexplained impact of less than three percent to the gap. Second, land holdings and education show their unexplained effects to widen the ethnic gap, but all small contribution of less than three percent. It is hard to provide any strong conclusion regarding discrimination when most of the unexplained impacts do not come from these factors.

4.2.3. Effect of social networks on the ethnic gap in 2016

Last but not least, paying attention to the inclusion of social network in the model, this network factor amounted to 3.8 percent of the ethnic gap, statistically significantly in 2016. Adjusting the minority's social network to the level of the majority would increase the minority's welfare by 2.8 percent. Returns to social network contributed to narrowing down the ethnic gap, when the unexplained effects of the social network had a negative contribution of 2.7 percent of the gap, but statistically insignificantly. The social network brought both positive and negative impacts on the ethnic gap, leading to a modest total effect, amounting to the gap of 1.1 percent.

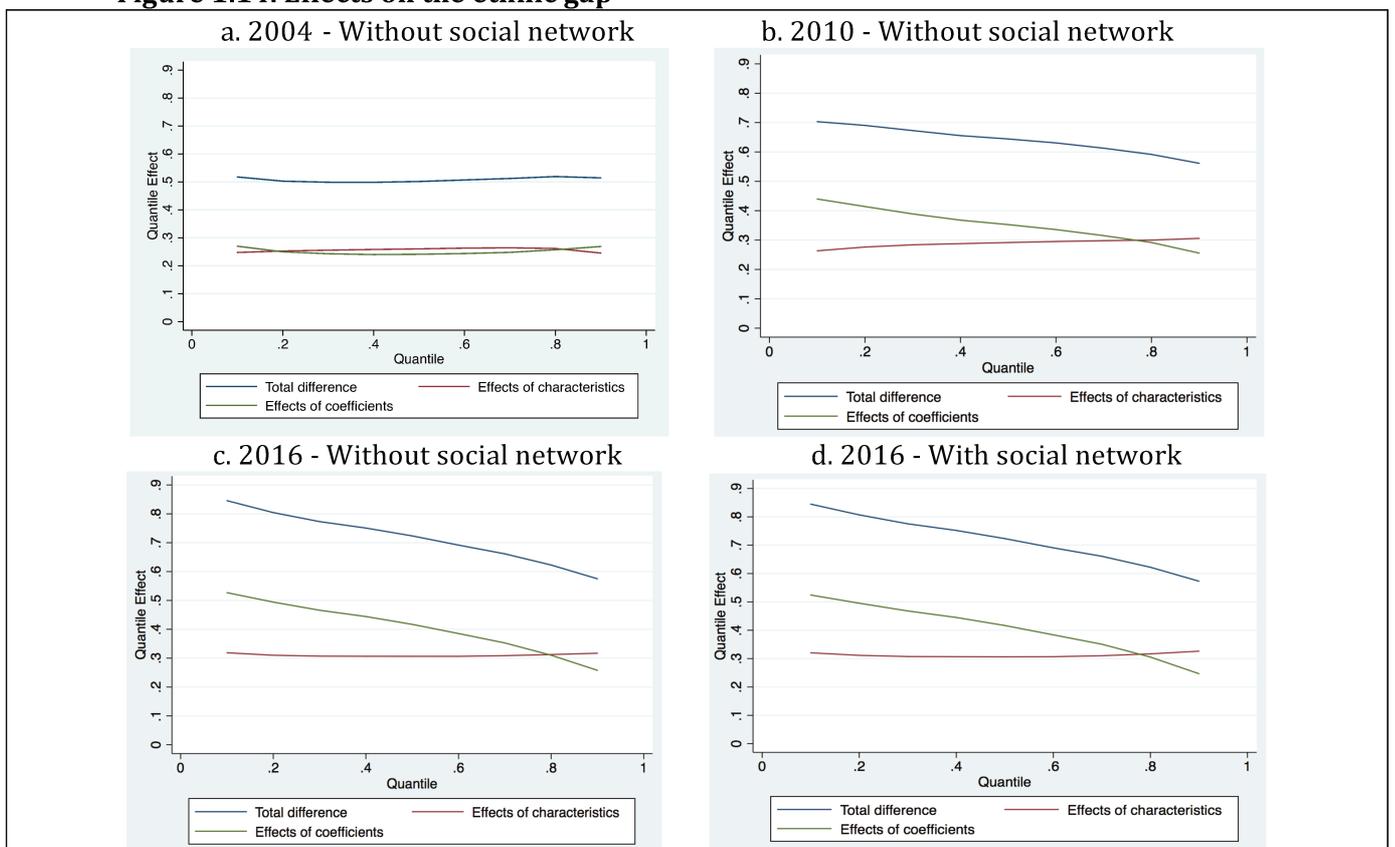
As mentioned above, the inclusion of the social network does not change the contributions of many factors to the ethnic gap at much on the one hand. For example, due to the social network inclusion, non-agricultural income diversification had a slight increase in its explained effect by one percentage point, and another increase in its unexplained one by almost three percentage points, statistically significant, in 2016. These modest effects of income diversification explain that the large gap in the growths of non-agricultural wages and non-farm household business income among the ethnic groups, which is shown in the descriptive analysis above, may occur mainly due to differences in other factors as well. On the other hand, the social network inclusion seems to make large changes in the unexplained effects of some factors. First, it induced a large decrease in the unexplained effect of household size, which resulted in a turn in the role of returns to household demographics, from being a positive contribution of 12.2 percent of the gap to a negative contribution of 2.2 percent in 2016. Second, it shows evidence of discrimination, which returns to education contributed to widening the ethnic gap. Even the contribution of this unexplained effect was very modest, i.e., only three percent of the gap in 2016. It may suggest that lower returns to the same education are due to the lower quality of educational achievement of ethnic minorities or discrimination against ethnic minorities. This evidence was not seen in other model specifications in any year. Third, it also reveals a stronger unexplained effect of remoteness and infrastructure, which means a further challenge to narrow down the ethnic gap. Besides, the social network inclusion makes it harder to explain the unexplained effects when the constant term accounts for half of the gap, 53 percent statistically significant in 2016.

The robustness of the above results of the social network inclusion is tested by repeating the exercise with the social network measured at the commune level, which is the co-ethnic population in the commune. The results presented in Appendix 1.5 were much similar whether the social network measured at the district or commune levels.

4.3. Quantile decomposition results

In order to test the possibility that the impact of various factors varies depending on the welfare level, decomposition by quantile regressions at the 10th to 90th percentile of the expenditure distribution uses the same set of explanatory variables. The quantile regression can show the explained and unexplained effects on the gap, only in the total effects of all factors (see Appendix 1.6). Figure 1.15 indicates different effects of factors on the ethnic gap across the distribution in 2010 and 2016, but quite stable effects in 2004. Explained and unexplained effects of factors almost did not vary at all across quantiles, and resulted in the ethnic gaps similarly at about 51 percent of differences in log expenditure across quantiles in 2004. With the data of 2010 and 2016, the impacts of endowments are still very similar across quintiles. However, the unexplained effects on the ethnic gaps for the better off were smaller than those for the poorer groups in these two years. As a result, the ethnic gap was at the highest difference for the poorest group of the distribution, i.e., at the 10th percentiles, (70 percent of differences in log expenditure in 2010 and 84 percent in 2016). This ethnic gap was diminishing down to 56 percent of differences in log expenditure among the richest group of the distribution, i.e., the 90th percentiles, in both years of 2010 and 2016. This implies the richer minority groups do better in term of catching up with the corresponding majority groups, in comparison to the poorer minority groups.

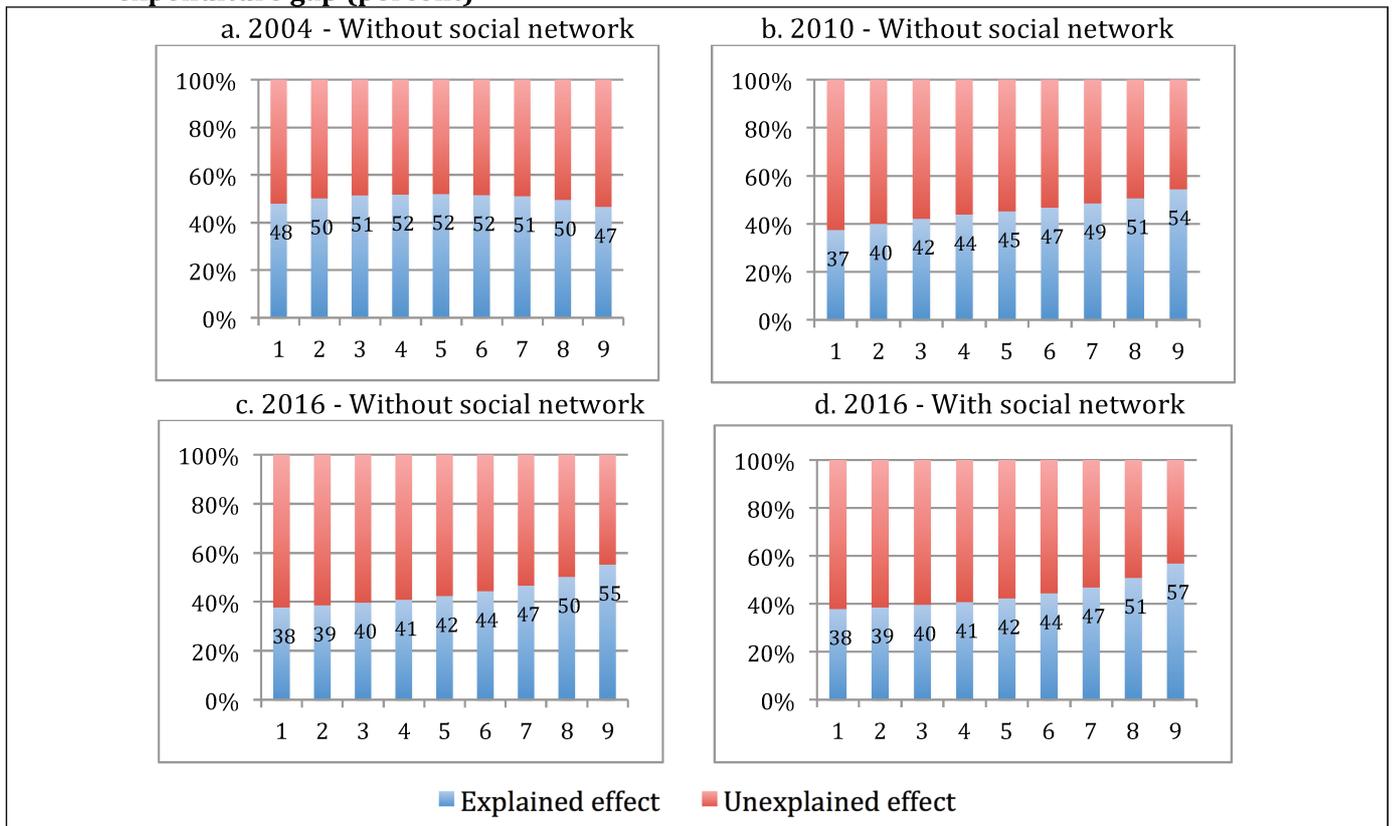
Figure 1.14. Effects on the ethnic gap



Source: VHLSSs, Author's calculation

Figure 1.16 presents this message in terms of contributions as percentage shares of the ethnic gap in years. It shows how the importance of endowments has been diminishing in relation to the level of returns associated with them. Moving up in the distribution, endowments contributed more and more to the ethnic gap while returns to them amounted to the gap less and less in 2010 and 2016. The poorer the group was, the higher share of the returns to endowments was on the ethnic gap. For the poorest group, the unexplained effects accounted for 62 percent of the ethnic gap in both 2010 and 2016. In other words, adjusting the minority's endowment level to the level of the majority, the effect on the minority welfare would not play much in narrowing down the ethnic gap because it accounts for less than a half of the gap. Meanwhile, that adjustment would bring more effect on the minority welfare for the two richest groups, which means the richest minority groups would benefit more from quantity increases in endowments. The endowment adjustments from policy intervention would benefit most the richest minority, but not the poor ones. In the previous section, the three most important factors contributing to these explained effects of increases in endowments were remoteness, education, and household size. This finding implies that policy in addressing the remoteness problem, improving the education coverage, and household planning would benefit most the richest minority group and less for the poorer ones in the same area.

Figure 1.15. Decomposition of the ethnic gap at 10th to 90th quantiles - Share of expenditure gap (percent)



Source: VHLSSs, Author's calculation

Again, the robustness of the above results is tested by repeating the exercise with the social network measured at the commune level, i.e., the co-ethnic population in the commune. The results in Appendix 1.6 were much similar whether the social network measured at the district or commune levels. The inclusion of social network in the model made almost no difference in the quantile regressions.

5. Conclusion

Tackling the ethnic gap is a national challenge as Chapter 1 shows a greatly widening gap in terms of expenditure, as well as other different welfare indicators, based on the household surveys collected by GSO over two periods of six years from 2004 to 2016 in Vietnam. Recent government's efforts in developing infrastructure and increasing access to education have effectively curbed the trend but could not stop it. The remaining large gap in welfare, as measured by the differences in expenditure per capita, between the Kinh and Hoa and other ethnic minorities doubled over the period. Regarding the increase in the raw mean expenditure gap between the Kinh and Hoa and the ethnic minorities from 2004 to 2016, two-thirds of this increase occurred in the first period, from 2004 to 2010, and only a third during the second period, from 2010 to 2016. This showed a slowdown in the increase of the ethnic gap. Taking into account the role of social networks on ethnic inequality, the decomposition of the ethnic gap into the contribution of endowments and the returns on those endowments informed essential drivers of the gap that have persisted for a long time.

First, attention is given to the explained effects of factors that contribute to the ethnic gap in order to see what quantities of which endowments mainly drive inequality. Statistically significant, infrastructure, household size, educational achievement, and household structure were the four factors that made the largest explained effects to the widening of the ethnic gap in 2004. In addition, remoteness produced the largest explained effects on widening the ethnic gap in 2016. The explained effects of infrastructure, education, household size and non-agricultural income diversification were higher than their corresponding unexplained ones, as shown in the decomposition in all years. This means that not being well endowed with such human capital and having less access to commune infrastructure results in a much lower welfare status of the ethnic minorities than that of the Kinh and Hoa. Therefore, policy interventions in infrastructure, education, household size, household structure and non-agricultural income diversification for the ethnic minorities to achieve these endowments at the same quantities as those of the Kinh and Hoa, would help to narrow down the ethnic gap in these years.

However, those policy adjustments on such endowments' quantities of the ethnic minorities to the levels of the Kinh and Hoa would effectively support only the richest ethnic minorities, i.e., the 90th quantile in the sorted expenditure distribution. Those policy adjustments are not sufficiently strong enough for the richest ethnic minorities to catch up with the corresponding Kinh and Hoa, but to have no further increase in the gap between them over the period. The quantile

regression informed a reason for it, that over half of the ethnic gap in the richest group was driven by the differences in endowments between the two groups, and still above 40 percent of the gap was made up by the unexplained effects. Quantity adjustments would be insufficient to prevent ethnic minorities from a further increase in the ethnic gap over time, because their lower returns on endowments still contributed to increasing the ethnic gap.

Secondly, that quantile regression also illustrated that the richer ethnic minorities did relatively better than poor ethnic minorities did, regarding catching up with the Kinh and Hoa. As mentioned above, moving down in the expenditure distribution, the poorer a group was, the larger the total gap and the unexplained effects were between ethnic groups. This means endowment adjustments made as a result of policy intervention benefit the wealthier ethnic minorities more than the poorer ethnic minorities. Currently, ethnic minority policies target to both (1) the whole population in an ethnic minority area (e.g., the vocational training component of Program 135³² in extremely disadvantaged areas), and (2) the poor ethnic minorities only (e.g., loans to the poor ethnic minorities or support for some particular ethnic minority groups that have a very low population and a very low living standard). The targeting of those policies for ethnic minority development does not explicitly weight supports to the poor versus non-poor beneficiaries. In a review of policies for the ethnic minority development, Baulch and I (2007) show that policy supports seem to favor the whole population in the difficult areas, i.e., the geographical targeting approach. On this context, this finding implies that the targeting prioritization in poverty reduction programs for the ethnic minority development should be tailored toward the poor ethnic minorities in difficult areas, rather than the whole population in the area itself. Otherwise, the rich ethnic minorities would benefit more than the poor ethnic minorities, and only the richest ethnic minorities would enjoy no further increase in the ethnic gap between them and the richest Kinh and Hoa.

This conclusion would face a debate that most of the policy interventions targeting the whole population in difficult ethnic areas have the right focus on infrastructure investments. Infrastructure is believed as the primary factor potentially leading to the ethnic gap in Vietnam because ethnic minority people concentrate in upland and mountainous areas. The decomposition exercise also revealed a good policy outcome of infrastructure intervention on the ethnic gap when it turns from widening the increase in the ethnic gap in 2004 and 2010 to narrowing it down partially in 2016. The returns to infrastructure helped to narrow the ethnic gap but were insufficient to erase the larger role of remoteness in widening the gap. Remoteness has the largest explained effects not only on the welfare difference between the Kinh and Hoa and other ethnic minorities, statistically significant in each year. In such a context, even if the minorities had similar infrastructure as the majority, they would tend to be poorer than the majority due to the ethnic minorities' remoteness. In other words, the remoteness factor would remain as a challenging barrier to narrowing

³² The Program for the Socio-economic Development of Extremely Disadvantaged Communes in Ethnic, Mountainous, Boundary and Remote Areas was established by Decision 135/1998/QĐ-TTg in 1998.

down the ethnic gap. That explains why investing in infrastructure was insufficient for convergence toward the ethnic equality. The limit of geographically targeted programs is further confirmed when the richer is in a better place to take advantage and to capture the benefits on the private efficiency of public policies, in comparison to the poor.

Thirdly, the analysis shows evidence of different returns to the same level of endowments between the Kinh and Hoa and others, i.e., unexplained effects driving the ethnic gap, which is a signal of the lower quality of the ethnic minorities' endowments or social discrimination towards them. The explained and unexplained effects each comprise more or less half of the ethnic gap persistently through the period. In 2016, the unexplained effects accounted for 53 percent of the ethnic gap. As mentioned, quantile regressions confirmed that moving down in the expenditure distribution, the poorer the group was, the higher share the unexplained effects accounted for, not only on the ethnic gap in each year but also on the increase in the raw expenditure gap over the period. The highest unequal treatment is found among the poorest group, i.e., the 10th quantile in the sorted expenditure distribution.

Unexplained effects may reveal the low quality of these endowments of the ethnic minorities driving the ethnic gap. In any year, the widening gap was driven by much greater unexplained effects of household structure rather than its explained effects. In 2004, the main driver of the ethnic gap is the greater unexplained effects of the household head's age rather than its explained effects. And, in 2010 and 2016, household size, household structure, and remoteness provided dominant unexplained effects over other explained ones on the increase in the ethnic gap. Later, in 2016, unexplained effects of education was also caught the attention. About the rise in the raw mean expenditure gap between the Kinh and Hoa and other ethnic minorities from 2004 to 2016, two-thirds of this increase occurs in the first period from 2004 to 2010. Then, it shows the more policy attention should be given to the unexplained effects of age, household size, household structure, and remoteness.

It suggests that the focus should be given not only on the quantity of the ethnic minorities' resources, but much more on their quality, especially as for those policies on family planning, infrastructure. One solution is suggested on their participation in the policy intervention process. When the ethnic minorities attend the family planning programs, their participation should not be limited due to the language barrier, and social and cultural obstacles. Good participation in family planning programs may bring the ethnic minorities good returns to age, household size, and household structure. Specifically, propaganda activities about family planning can help to prevent the ethnic minorities from early marriage, which results in lower ages of household heads. Early marriage is often observed in ethnic minority communities. This problem would lead to their lower capacity for vocational training and income generation. Additionally, early marriage would lead to more children in the household, right in the early time of the household head's participation in the labour market, and then, more pressure and constraint in his working duration as well. Those reasons explain the lower returns to the age of ethnic minorities, which calls for more policy

attention to address early marriage problem. Propaganda activities in ethnic minority languages and more educational and vocational training supports are recommended to encourage boys and girls continuing their schooling and gaining experiences before marriage.

Similarly, the infrastructure intervention should not focus only on the quantities of public facilities, but also the accessibility and affordability for the utilization of these available facilities. Due to some disadvantages of the vehicle, the weather, and the remoteness, the poor ethnic minorities may do not utilize the available infrastructure built up by the policy intervention in their central areas.

Notably, it is hard to explain how the structural differences between the ethnic groups widen the gap between them so persistently in these years. No firm evidence illustrated that this ethnic discrimination came from the labour market, when most of the unexplained effects on widening the ethnic gap, do not come from the factors of education, vocational training, age or household size. First, different returns to educational achievements and vocational training were almost negligible. Education statistically significantly contributed to widening the ethnic gap, but different returns to education amounted to only three percent of the ethnic gap in 2016. Second, the unexplained effects of household head's age, presenting the experience of the household head, and income diversification did not drive to widening the gap, but they helped to close it down in 2010 and 2016. Overall, participation in the labour market of the ethnic minorities would suffer from differences in their endowments in education, vocational training, income diversification, and household size, rather than differences in their returns to these endowments, in comparison to those of the Kinh and Hoa. When most of the unexplained impacts on the same endowments came from the constant term, it is hard to explain the source of this social discrimination.

Thus, the persistent gap that exists due to structural differences among the ethnic groups raises questions on why the quality of policy interventions and unobservable impacts would matter differently among them. It could be explained by the lags between the interventions in improving access to social services and their effective influences on different groups. Informal barriers faced by lower welfare groups, e.g., expenditure pressure or procedure troubles, might be the reasons that cause the lags not to be the same for the ethnic minorities as for the Kinh and Hoa. Staffing issues and higher operating costs related to remoteness could be an additional driver to differences in the quality of social services. Le (my colleague) and I suggest in another qualitative research that parental experience, the language barrier in a mixed-ethnicity community and the centrality and structural holes in the personal networks may be reasons for this social discrimination (Nguyen P. and Le, 2018). Additional explanations for the larger benefit of the wealthier group compared to others relating to the private efficiency of public policies could be connected with easier access to capital, financial instruments or different resources from their social networks which the Chapter could not capture enough by the current measurement of social networks.

Therefore, last but not least, further research is required to fill this knowledge gap on the role of social networks on private efficiency. Chapter 1 showed that different quantities in network sizes of the Kinh and Hoa and those of ethnic minorities contributed to widening the ethnic gap, statistically significant in 2016. However, its role was very modest and may be limited by the measurement of a social network and dataset availability. Thus, the following two chapters will be based on the individual social network approach.

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Appendix

Appendix 1.1. Factors of decomposition studies on the ethnic gap in Vietnam

Factors	Van de Walle and Gunewardena (2001)	Baulch et al., 2004, 2007, 2008, and 2012	Hoang et al., 2007	Imai and Gaiha, 2007	Dang, 2010,	Tran et al., 2014	Pham, Nguyen, and Bui, 2015
Demographic factors	Household size (log); Proportion of members 7–16, male adults, female adults; Single-member household, Couple and child, two children, three or more children; Three-generation household, Other; Age of head; Age of head squared; Male household head	Household Size; Proportion of young children, older children, male/female adults, elderly; Parent(s) and one child, two children, three children; Three generation household; Other household type; Female household head; Age of head; Age of head squared;	Household size; Proportion of household that is Ages 0 to 6, Ages 7 to 16, Male over age 16, Female over age 16; Proportion of household consisting of One or two adults, Parent(s) and one child, two children, three or more children; Three-generation household, Other; Age of head of household, years	Age of household head; Share of female members; Dependency burden; Married;	Female; Married	Household size; Dependency ratio; Age of household head (years); Age squared; Whether or not the household head is male;	Age of household head; Head is male; Household size; Proportion of children, of elderly, of female members
Education, Experience	The level of the most educated member	The highest level of education in the household; The maximum years of education of adults	Education of head of household (by level); Proportion of members that completed primary school and above	Maximum attainment of members by education levels;	Years of schooling; Years of experience ; Experience-squared	Whether or not the household head completed the primary school, the lower secondary school, the upper secondary school or higher level	Schooling years of household head
Employment		Non-agricultural wage; non-farm household business	Proportion of members working for Non farm self employment		Working hours; Work for households, private sector; State-owned, collective sector; Foreign-invested sector	Whether or not the household engaged in paid jobs; Whether or not the household took up nonfarm self-employment	
Land	The size of annual, perennial crop land, water surface for aquaculture, other land; The	The size of annual, perennial crop land, water surface for aquaculture, other land	Land area per household (square meters) by land type	Production land by type;		The size of annual, perennial crop land, water surface for aquaculture	Per capita living area (m ²), annual crop land (ha), perennial crop land

Factors	Van de Walle and Gunewardena (2001)	Baulch et al., 2004, 2007, 2008, and 2012	Hoang et al., 2007	Imai and Gaiha, 2007	Dang, 2010,	Tran et al., 2014	Pham, Nguyen, and Bui, 2015
	size of annual, perennial crop land, water surface for aquaculture, other land, squared; Proportion of good quality irrigated, and non-irrigated land					, resident land per capita (100 m2 per person)	(ha)
Financial assets	Income from relatives abroad (yes/no).		Proportion of households receiving remittances			Total value of all fixed per capita; Total value of loans borrowed; participation of households into targeted programs	Receiving remittances, Receiving allowances, Borrowing from social bank
Location		Geographic regions: coastal, midland, low mountain, high mountain		Geographic regions		Whether or not the household lived in high mountain areas	North, Central, South
Commune characteristics		Paved road to commune, public transport to commune, daily market, post office, electricity, wage labour opportunities, remote area, extension center, Program 135				Road to commune; transportation means; irrigational work; post office; production or trade village; population per kilometer square	
Shock						Natural calamity; Disease in commune	
Religion				Religion;			

Appendix 1.2. Descriptive statistics of variables

		Kinh and Hoa					Ethnic minorities				
		Obs	Mean	Std. Dev.	Min	Max	Obs	Mean	Std. Dev.	Min	Max
2004											
pceXPb	Per capita expenditure (thousand dong)	5,695	3,775.7	2,094.1	769	34,116	1,243	2,241.8	1,194.2	584	12,731
hhsizE	Household size (person)	5,695	4.9	1.7	1	13	1,243	6.0	2.3	1	20
dep6	Under 6 aged dependent ratio (%)	5,695	0.1	0.1	0	1	1,243	0.1	0.1	0	1
dep16	6-16 aged dependent ratio (%)	5,695	0.2	0.2	0	1	1,243	0.3	0.2	0	1
depu60	Above 60 aged dependent ratio (%)	5,695	0.6	0.2	0	1	1,243	0.5	0.2	0	1
dep60	16-60 aged dependent ratio (%)	5,695	0.1	0.2	0	1	1,243	0.1	0.1	0	1
hhType1	Single or couple without kids	5,695	0.0	0.2	0	1	1,243	0.0	0.1	0	1
hhType2	Couple family with 1 kid	5,695	0.1	0.3	0	1	1,243	0.0	0.2	0	1
hhType3	Couple family with 2 kids	5,695	0.2	0.4	0	1	1,243	0.2	0.4	0	1
hhType4	Couple family with 3 kids	5,695	0.2	0.4	0	1	1,243	0.2	0.4	0	1
hhType5	Extended family	5,695	0.2	0.4	0	1	1,243	0.3	0.4	0	1
hhType6	Other-structure family	5,695	0.3	0.4	0	1	1,243	0.4	0.5	0	1
agehe	Household head age (year)	5,695	49.0	13.6	15	98	1,243	45.0	12.7	15	94
agehe2c	Household head age squared	5,695	184.1	258.0	0	2,405	1,243	162.6	237.8	0	2,390
genderhe	Male head (%)	5,695	0.2	0.4	0	1	1,243	0.1	0.3	0	1
edule1	Under primary education	5,695	0.3	0.4	0	1	1,243	0.5	0.5	0	1
edule2	Primary education	5,695	0.3	0.4	0	1	1,243	0.3	0.4	0	1
edule3	Lower secondary education	5,695	0.3	0.5	0	1	1,243	0.2	0.4	0	1
edule4	Upper secondary education	5,695	0.1	0.3	0	1	1,243	0.0	0.2	0	1
shovotrainhe	Short-term vocational training	5,695	0.0	0.2	0	1	1,243	0.0	0.1	0	1
lonvotrainhe	Long-term vocational training	5,695	0.0	0.1	0	1	1,243	0.0	0.1	0	1
protrainhe	Professional vocational training	5,695	0.0	0.2	0	1	1,243	0.0	0.2	0	1
cropland	Annual crops land area ('000 ha)	5,695	0.2	0.4	0	8	1,243	0.5	0.7	0	9
pereland	Perennial tree land area ('000 ha)	5,695	0.0	0.3	0	13	1,243	0.1	0.5	0	11
foreland	Forestry land area ('000 ha)	5,695	0.0	0.2	0	13	1,243	0.1	0.6	0	12
aqualand	Water surface area ('000 ha)	5,695	0.0	0.2	0	6	1,243	0.0	0.0	0	1
otherland	Other land area ('000 ha)	5,695	0.0	0.2	0	4	1,243	0.1	0.2	0	4
nonagrwa	Having non-agricultural wage activities	5,695	0.5	0.5	0	1	1,243	0.4	0.5	0	1
hholdbusi	Having non-farm household business activities	5,695	0.4	0.5	0	1	1,243	0.2	0.4	0	1
geotype1	Costal	5,695	0.1	0.3	0	1	1,243	0.0	0.1	0	1
geotype2	Delta	5,695	0.7	0.5	0	1	1,243	0.1	0.3	0	1
geotype3	Hill	5,695	0.1	0.3	0	1	1,243	0.0	0.1	0	1
geotype4	Low mountain	5,695	0.1	0.3	0	1	1,243	0.3	0.4	0	1
geotype5	High mountain	5,695	0.1	0.2	0	1	1,243	0.6	0.5	0	1

		Kinh and Hoa					Ethnic minorities				
		Obs	Mean	Std. Dev.	Min	Max	Obs	Mean	Std. Dev.	Min	Max
remote_area	Remote commune	5,695	0.2	0.4	0	1	1,243	0.5	0.5	0	1
pavedroad	Paved car road to the commune	5,695	0.6	0.5	0	1	1,243	0.4	0.5	0	1
passtrans	Passenger transportation	5,695	0.5	0.5	0	1	1,243	0.3	0.5	0	1
mar	Daily market	5,695	0.2	0.4	0	1	1,243	0.2	0.4	0	1
enterp	Local employment opportunities	5,695	0.7	0.5	0	1	1,243	0.4	0.5	0	1
extcentre	Extension service centre	5,695	0.0	0.2	0	1	1,243	0.1	0.3	0	1
poor_com	Poor commune	5,695	0.1	0.3	0	1	1,243	0.6	0.5	0	1
2010											
pcepb	Per capita expenditure (thousand dong)	5,310	8,073.4	5,933.0	893	162,117	1,440	3,977.0	2,429.4	667	23,597
hhsiz	Household size (person)	5,310	4.4	1.5	1	15	1,440	5.2	1.9	1	15
dep6	Under 6 aged dependent ratio (%)	5,310	0.1	0.1	0	1	1,440	0.1	0.2	0	1
dep16	6-16 aged dependent ratio (%)	5,310	0.2	0.2	0	1	1,440	0.2	0.2	0	1
depu60	Above 60 aged dependent ratio (%)	5,310	0.6	0.2	0	1	1,440	0.6	0.2	0	1
dep60	16-60 aged dependent ratio (%)	5,310	0.1	0.2	0	1	1,440	0.1	0.1	0	1
hh1	Single or couple without kids	5,310	0.1	0.2	0	1	1,440	0.0	0.1	0	1
hh2	Couple family with 1 kid	5,310	0.1	0.3	0	1	1,440	0.1	0.3	0	1
hh3	Couple family with 2 kids	5,310	0.3	0.4	0	1	1,440	0.2	0.4	0	1
hh4	Couple family with 3 kids	5,310	0.1	0.3	0	1	1,440	0.1	0.3	0	1
hh5	Extended family	5,310	0.2	0.4	0	1	1,440	0.2	0.4	0	1
hh6	Other-structure family	5,310	0.2	0.4	0	1	1,440	0.3	0.5	0	1
agehe	Household head age (year)	5,310	48.5	13.2	11	98	1,440	43.0	12.8	18	99
agehe2c	Household head age squared (year)	5,310	174.9	253.7	0	2,450	1,440	164.2	243.7	0	3,122
genderhe	Male head (%)	5,310	0.2	0.4	0	1	1,440	0.1	0.3	0	1
edule1	Under primary education	5,310	0.2	0.4	0	1	1,440	0.5	0.5	0	1
edule2	Primary education	5,310	0.3	0.4	0	1	1,440	0.3	0.4	0	1
edule3	Lower secondary education	5,310	0.4	0.5	0	1	1,440	0.2	0.4	0	1
edule4	Upper secondary education	5,310	0.2	0.4	0	1	1,440	0.1	0.2	0	1
shovotrainhe	Short-term vocational training	5,310	0.0	0.2	0	1	1,440	0.0	0.1	0	1
lonvotrainhe	Long-term vocational training	5,310	0.0	0.1	0	1	1,440	0.0	0.1	0	1
protrainhe	Professional vocational training	5,310	0.0	0.2	0	1	1,440	0.0	0.1	0	1
cropland	Annual crops land area ('000 ha)	5,310	0.2	0.5	0	7	1,440	0.4	0.5	0	5
pereland	Perennial trees land area ('000 ha)	5,310	0.1	0.6	0	25	1,440	0.1	0.3	0	4
foreland	Forestry land area ('000 ha)	5,310	0.0	0.2	0	7	1,440	0.3	3.6	0	141
aqualand	Water surface area ('000 ha)	5,310	0.0	0.3	0	12	1,440	0.0	0.1	0	2
otherland	Other land area ('000 ha)	5,310	0.0	0.1	0	6	1,440	0.0	0.1	0	1
nonagrwa	Having non-agricultural wage activities	5,310	0.6	0.5	0	1	1,440	0.4	0.5	0	1
hhholdbusi	Having non-farm household business activities	5,310	0.4	0.5	0	1	1,440	0.2	0.4	0	1

		Kinh and Hoa					Ethnic minorities				
		Obs	Mean	Std. Dev.	Min	Max	Obs	Mean	Std. Dev.	Min	Max
geotype1	Costal	5,310	0.1	0.3	0	1	1,440	0.0	0.1	0	1
geotype2	Delta	5,310	0.6	0.5	0	1	1,440	0.1	0.3	0	1
geotype3	Hill	5,310	0.1	0.3	0	1	1,440	0.0	0.2	0	1
geotype4	Low mountain	5,310	0.2	0.4	0	1	1,440	0.3	0.4	0	1
geotype5	High moutain	5,310	0.1	0.2	0	1	1,440	0.6	0.5	0	1
remote_area	Remote commune	5,310	0.2	0.4	0	1	1,440	0.7	0.5	0	1
pavedroad	Paved car road to the commune	5,310	0.9	0.3	0	1	1,440	0.7	0.5	0	1
passtrans	Passenger transportation	5,310	0.5	0.5	0	1	1,440	0.3	0.4	0	1
mar	Daily market	5,310	0.4	0.5	0	1	1,440	0.2	0.4	0	1
enterp	Local employment opportunities	5,310	0.8	0.4	0	1	1,440	0.5	0.5	0	1
extcentre	Extension service centre	5,310	0.1	0.2	0	1	1,440	0.1	0.2	0	1
poor_com	Poor commune	5,310	0.1	0.3	0	1	1,440	0.6	0.5	0	1
2016											
pcepb	Per capita expenditure (thousand dong)	5,122	10,851.1	7,151.7	1,669	176,142	1,448	5,506.9	4,350.2	671	83,170
hhsiz	Household size (person)	5,122	4.3	1.5	1	12	1,448	5.1	1.9	1	12
dep6	Under 6 aged dependent ratio (%)	5,122	0.1	0.1	0	1	1,448	0.1	0.1	0	1
dep16	6-16 aged dependent ratio (%)	5,122	0.2	0.2	0	1	1,448	0.2	0.2	0	1
depu60	Above 60 aged dependent ratio (%)	5,122	0.6	0.3	0	1	1,448	0.6	0.2	0	1
dep60	16-60 aged dependent ratio (%)	5,122	0.1	0.3	0	1	1,448	0.1	0.2	0	1
hhtype1	Single or couple without kids	5,122	0.1	0.3	0	1	1,448	0.0	0.2	0	1
hhtype2	Couple family with 1 kid	5,122	0.1	0.3	0	1	1,448	0.1	0.3	0	1
hhtype3	Couple family with 2 kids	5,122	0.2	0.4	0	1	1,448	0.2	0.4	0	1
hhtype4	Couple family with 3 kids	5,122	0.1	0.3	0	1	1,448	0.1	0.3	0	1
hhtype5	Extended family	5,122	0.3	0.5	0	1	1,448	0.3	0.5	0	1
hhtype6	Other-structure family	5,122	0.1	0.4	0	1	1,448	0.3	0.4	0	1
agehe	Household head age (year)	5,122	51.7	13.4	14	104	1,448	45.3	12.6	17	91
agehe2c	Household head age squared (year)	5,122	179.6	263.3	0	2,733	1,448	159.6	215.2	0	2,092
genderhe	Male head (%)	5,122	0.2	0.4	0	1	1,448	0.1	0.3	0	1
edule1	Under primary education	5,122	0.2	0.4	0	1	1,448	0.5	0.5	0	1
edule2	Primary education	5,122	0.3	0.4	0	1	1,448	0.3	0.4	0	1
edule3	Lower secondary education	5,122	0.4	0.5	0	1	1,448	0.2	0.4	0	1
edule4	Upper secondary education	5,122	0.2	0.4	0	1	1,448	0.1	0.3	0	1
shovotrainhe	Short-term vocational training	5,122	0.0	0.2	0	1	1,448	0.0	0.1	0	1
lonvotrainhe	Long-term vocational training	5,122	0.0	0.1	0	1	1,448	0.0	0.1	0	1
protrainhe	Professional vaocational training	5,122	0.0	0.2	0	1	1,448	0.0	0.1	0	1
cropland	Annual crops land area ('000 ha)	5,122	0.3	0.7	0	18	1,448	0.3	0.5	0	12
pereland	Perennial trees land area ('000 ha)	5,122	0.1	0.6	0	20	1,448	0.1	0.3	0	5
foreland	Forestry land area ('000 ha)	5,122	0.0	0.3	0	14	1,448	0.2	0.8	0	20

		Kinh and Hoa					Ethnic minorities				
		Obs	Mean	Std. Dev.	Min	Max	Obs	Mean	Std. Dev.	Min	Max
aqualand	Water surface area ('000 ha)	5,122	0.0	0.2	0	5	1,448	0.0	0.1	0	2
otherland	Other land area ('000 ha)	5,122	0.0	0.1	0	2	1,448	0.0	0.0	0	1
nonagrwa	Having non-agricultural wage activities	5,122	0.7	0.5	0	1	1,448	0.4	0.5	0	1
hholdbusi	Having non-farm household business activities	5,122	0.4	0.5	0	1	1,448	0.2	0.4	0	1
geotype1	Costal	5,122	0.1	0.2	0	1	1,448	0.0	0.0	0	1
geotype2	Delta	5,122	0.8	0.4	0	1	1,448	0.4	0.5	0	1
geotype3	Hill	5,122	0.0	0.2	0	1	1,448	-	0.0	0	1
geotype4	Low mountain	5,122	0.1	0.3	0	1	1,448	0.1	0.4	0	1
geotype5	High moutain	5,122	0.0	0.2	0	1	1,448	0.4	0.5	0	1
remote_area	Remote commune	5,122	0.1	0.3	0	1	1,448	0.4	0.5	0	1
pavedroad	Paved car road to the commune	5,122	0.7	0.5	0	1	1,448	0.6	0.5	0	1
passtrans	Passenger transportation	5,122	0.3	0.5	0	1	1,448	0.2	0.4	0	1
mar	Daily market	5,122	0.3	0.5	0	1	1,448	0.1	0.3	0	1
enterp	Local employment opportunities	5,122	0.6	0.5	0	1	1,448	0.3	0.5	0	1
extcentre	Extension service centre	5,122	0.0	0.2	0	1	1,448	0.0	0.2	0	1
poor_com	Poor commune	5,122	1.3	0.9	0	2	1,448	0.8	0.8	0	2
cometh	Co-ethnic population in the commune ('0000 persons)	5,122	0.6	0.6	0	4	1,448	0.2	0.3	0	3
diseth	Co-ethnic population in the district ('0000 persons)	5,122	2.6	2.8	0	13	1,448	0.4	0.6	0	3

Source: VHLSSs, Author's calculation

Appendix 1.3. Mean regressions for best per capita expenditure

	Ignoring social network						Social network inclusion	
	2004		2010		2016		2016	
	Majority	Minority	Majority	Minority	Majority	Minority	Majority	Minority
Household size	-0.039*** (0.007)	-0.046*** (0.011)	-0.032*** (0.009)	-0.059*** (0.012)	-0.080*** (0.010)	-0.081*** (0.013)	-0.081*** (0.010)	-0.081*** (0.013)
Dependent under 6 years old	-0.844*** (0.057)	-0.825*** (0.116)	-0.705*** (0.071)	-0.770*** (0.103)	-0.515*** (0.084)	-0.444*** (0.136)	-0.502*** (0.084)	-0.429*** (0.136)
Dependent 6 to 16 years old	-0.499*** (0.036)	-0.226*** (0.077)	-0.495*** (0.052)	-0.361*** (0.080)	-0.329*** (0.059)	-0.261** (0.101)	-0.322*** (0.059)	-0.258** (0.101)
Dependent above 60 years old	-0.209*** (0.044)	0.136 (0.122)	-0.188*** (0.051)	0.061 (0.112)	-0.175*** (0.042)	-0.250* (0.131)	-0.176*** (0.042)	-0.265** (0.132)
Couple family with 1 kid	-0.011 (0.032)	0.027 (0.105)	0.028 (0.035)	-0.077 (0.080)	-0.076** (0.032)	-0.131 (0.087)	-0.080** (0.032)	-0.146* (0.088)
Couple family with 2 kids	-0.016 (0.032)	-0.036 (0.102)	-0.034 (0.037)	-0.054 (0.082)	-0.076** (0.036)	-0.225*** (0.087)	-0.079** (0.036)	-0.239*** (0.088)
Couple family with 3 kids	-0.087** (0.036)	-0.073 (0.105)	-0.095** (0.044)	-0.217** (0.090)	-0.079 (0.051)	-0.277*** (0.106)	-0.083* (0.050)	-0.285*** (0.106)
Extended family	-0.100*** (0.035)	-0.090 (0.100)	-0.084* (0.043)	-0.200** (0.086)	-0.059 (0.039)	-0.214** (0.089)	-0.062 (0.039)	-0.227** (0.090)
Other household structure	-0.145*** (0.037)	-0.131 (0.106)	-0.104** (0.042)	-0.200** (0.092)	-0.129*** (0.042)	-0.287*** (0.099)	-0.131*** (0.042)	-0.300*** (0.100)
Head age	0.003*** (0.001)	-0.000 (0.001)	0.001 (0.001)	0.004*** (0.001)	0.002* (0.001)	0.003* (0.002)	0.002* (0.001)	0.003* (0.002)
Head age squared (centered)	-0.000 (0.000)	0.000 (0.000)	-0.000 (0.000)	-0.000** (0.000)	-0.000** (0.000)	-0.000*** (0.000)	-0.000** (0.000)	-0.000*** (0.000)
Female head	0.083*** (0.020)	0.047 (0.051)	0.052** (0.024)	0.072 (0.052)	0.000 (0.026)	0.013 (0.070)	0.000 (0.026)	0.016 (0.070)
Primary education and lower	0.091*** (0.017)	0.131*** (0.029)	0.084*** (0.022)	0.169*** (0.029)	0.095*** (0.029)	0.137*** (0.038)	0.096*** (0.028)	0.140*** (0.038)
Lower secondary education	0.134*** (0.017)	0.245*** (0.035)	0.164*** (0.023)	0.258*** (0.039)	0.148*** (0.026)	0.229*** (0.040)	0.152*** (0.025)	0.230*** (0.040)
Higher secondary education	0.264*** (0.023)	0.212*** (0.080)	0.290*** (0.030)	0.445*** (0.066)	0.264*** (0.033)	0.378*** (0.075)	0.269*** (0.033)	0.383*** (0.075)
Short term vocational training	0.183*** (0.033)	0.081 (0.064)	0.169*** (0.040)	0.131 (0.087)	0.185*** (0.043)	0.054 (0.114)	0.184*** (0.042)	0.037 (0.111)
Long term vocational training	0.162*** (0.051)	0.166 (0.121)	0.113* (0.061)	0.184 (0.135)	0.141** (0.056)	0.506*** (0.110)	0.142** (0.056)	0.516*** (0.110)
Professional training	0.124*** (0.030)	0.037 (0.082)	0.108** (0.048)	0.236*** (0.090)	0.063 (0.046)	0.260** (0.103)	0.066 (0.047)	0.268** (0.104)
Annual crops land	0.095*** (0.014)	0.111*** (0.018)	0.093*** (0.017)	0.040 (0.038)	0.063*** (0.012)	0.024 (0.031)	0.064*** (0.012)	0.024 (0.032)
Perennial trees land	0.178*** (0.041)	0.152*** (0.025)	0.156*** (0.022)	0.270*** (0.054)	0.206*** (0.022)	0.353*** (0.049)	0.204*** (0.021)	0.359*** (0.049)
Forestry land	0.044*** (0.015)	0.017** (0.008)	0.048 (0.035)	0.002 (0.003)	0.034 (0.023)	0.083*** (0.024)	0.035 (0.023)	0.090*** (0.024)
Water surface	0.153*** (0.034)	0.893*** (0.287)	0.119*** (0.025)	0.297*** (0.097)	0.111*** (0.034)	3.484 (2.140)	0.113*** (0.034)	3.524* (2.132)
Other land	0.251*** (0.059)	0.040 (0.117)	0.246*** (0.058)	0.356*** (0.138)	0.239** (0.100)	0.534 (0.575)	0.254*** (0.098)	0.572 (0.576)
Non-agricultural wage activities	0.015 (0.012)	0.066** (0.026)	0.005 (0.016)	0.092*** (0.027)	0.036* (0.021)	0.114*** (0.034)	0.038* (0.021)	0.110*** (0.034)
Non-farm household business	0.120*** (0.012)	0.136*** (0.027)	0.163*** (0.016)	0.110*** (0.029)	0.172*** (0.020)	0.109** (0.042)	0.171*** (0.020)	0.108*** (0.042)

	Ignoring social network						Social network inclusion	
	2004		2010		2016		2016	
	Majority	Minority	Majority	Minority	Majority	Minority	Majority	Minority
Costal	-0.007 (0.023)	0.043 (0.100)	-0.027 (0.029)	0.159 (0.165)	-0.016 (0.032)	0.457*** (0.089)	-0.011 (0.032)	0.491*** (0.095)
Hill	0.020 (0.021)	-0.035 (0.109)	0.012 (0.031)	-0.039 (0.113)	-0.040 (0.040)	-0.658** (0.268)	-0.026 (0.040)	-0.645** (0.268)
Low mountain	-0.038** (0.017)	-0.173*** (0.062)	-0.114*** (0.019)	-0.184*** (0.063)	-0.071*** (0.023)	-0.235*** (0.078)	-0.055** (0.024)	-0.215*** (0.083)
High mountain	-0.046 (0.028)	-0.218*** (0.058)	-0.071** (0.029)	-0.217*** (0.060)	-0.102*** (0.036)	-0.285*** (0.074)	-0.081** (0.036)	-0.273*** (0.079)
Remote commune	0.048** (0.019)	-0.033 (0.030)	0.007 (0.022)	0.006 (0.038)	-0.073** (0.033)	-0.164*** (0.052)	-0.076** (0.033)	-0.152*** (0.052)
Paved car road to the commune	0.047*** (0.012)	0.037 (0.025)	0.072*** (0.024)	0.003 (0.028)	0.058 (0.049)	0.136** (0.060)	0.053 (0.048)	0.151** (0.063)
Passenger transportation	0.041*** (0.012)	0.086*** (0.025)	-0.006 (0.016)	0.067** (0.031)	-0.006 (0.017)	-0.109*** (0.039)	-0.009 (0.017)	-0.106*** (0.039)
Daily market	0.032** (0.013)	0.029 (0.033)	0.022 (0.017)	0.030 (0.039)	0.049*** (0.019)	0.061 (0.044)	0.046** (0.019)	0.060 (0.044)
Local employment opportunities	0.045*** (0.013)	0.043* (0.025)	0.112*** (0.018)	0.018 (0.028)	0.044 (0.029)	0.084** (0.035)	0.038 (0.028)	0.080** (0.035)
the commune has agricultural extension centre	0.050* (0.028)	-0.014 (0.044)	0.135*** (0.049)	-0.007 (0.048)	0.140** (0.066)	0.117** (0.059)	0.135** (0.064)	0.105* (0.059)
Poor commune	-0.085*** (0.022)	-0.074** (0.030)	-0.117*** (0.029)	-0.104*** (0.032)	0.028 (0.053)	0.029 (0.046)	0.024 (0.053)	0.032 (0.046)
Social network in district							0.010** (0.005)	0.038 (0.023)
Constant	8.117*** (0.050)	8.071*** (0.125)	8.733*** (0.068)	8.605*** (0.124)	9.155*** (0.119)	8.944*** (0.172)	9.135*** (0.116)	8.890*** (0.176)
Observations	5,301	1,173	4,060	1,327	2,912	800	2,912	800
R-squared	0.281	0.426	0.244	0.468	0.278	0.478	0.280	0.479

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Source: VHLSSs, Author's calculation

Appendix 1.4. OLS tests using VHLSS in 2016

The general rule of thumb is that variance inflation factors (VIFs) exceeding 4 warrant further investigation, while VIFs exceeding 10 are signs of serious multicollinearity requiring correction. There is no multicollinearity based on this rule, on both the model by Baulch and Vu (2012) and the revision.

Baulch and Vu (2012)						Revision of education and social network					
As for the majority			As for the minority			As for the majority			As for the minority		
Variable	VIF	1/VIF	Variable	VIF	1/VIF	Variabl	VIF	1/VIF	Variabl	VIF	1/VIF
edumax4	9.61	0.104	hhstype6	11.95	0.083	hhstype	6.15	0.162	hhstype	11.84	0.084
edumax3	8.43	0.118	hhstype5	11.36	0.088	hhstype	4.69	0.213	hhstype	11.22	0.089
hhstype5	6.32	0.158	hhstype3	10.18	0.098	hhstype	3.91	0.255	hhstype	9.98	0.100
hhstype3	4.87	0.205	geotype5	6.87	0.145	hhstype	3.08	0.324	geotype	6.91	0.144
edumax2	4.5	0.222	geotype4	6.16	0.162	hhszize	2.59	0.385	geotype	6.3	0.158
hhstype6	4	0.249	hhstype4	5.55	0.180	hhstype	2.48	0.403	hhstype	5.46	0.183
hhstype4	3.15	0.317	edumax4	4.4	0.227	agehe	2.44	0.410	hhstype	3.93	0.254
hhszize	2.63	0.380	edumax3	4.25	0.235	edule3	2.31	0.433	hhszize	2.56	0.390
hhstype2	2.52	0.396	hhstype2	3.98	0.251	dep60	2.18	0.458	remote_	2.32	0.430
agehe	2.37	0.422	edumax2	3.27	0.305	edule4	1.97	0.507	agehe	2.21	0.452
dep60	2.22	0.449	hhszize	2.59	0.385	edule2	1.96	0.510	poor_co	2.02	0.495
dep16	1.76	0.569	remote_a	2.26	0.442	agehe2c	1.62	0.616	dep60	2	0.500
agehe2c	1.58	0.630	agehe	2.13	0.469	dep16	1.61	0.621	dep6	1.94	0.515
dep6	1.58	0.634	dep6	2.06	0.485	dep6	1.54	0.648	dep16	1.83	0.546
poor_com	1.44	0.692	poor_com	2.02	0.495	poor_co	1.45	0.689	agehe2c	1.62	0.617
remote_a	1.36	0.737	dep60	1.98	0.506	geotype	1.39	0.718	edule4	1.55	0.646
geotype5	1.32	0.755	dep16	1.96	0.509	remote_	1.36	0.732	edule3	1.38	0.724
genderhe	1.27	0.788	agehe2c	1.62	0.618	gender	1.3	0.767	gender	1.3	0.771
nonagrwa	1.26	0.795	genderhe	1.29	0.775	geotype	1.26	0.796	nonagr	1.29	0.774
geotype4	1.18	0.849	nonagrwa	1.26	0.793	nonagr	1.22	0.818	edule2	1.29	0.777
protrain	1.13	0.881	mar	1.24	0.804	diseth	1.21	0.825	enterp	1.25	0.798
enterp	1.11	0.900	enterp	1.24	0.806	protrai	1.13	0.887	mar	1.24	0.806
hholdbusi	1.11	0.901	cropland	1.22	0.818	enterp	1.12	0.894	protrai	1.24	0.808
pereland	1.1	0.906	passtrans	1.21	0.828	perelan	1.11	0.899	passtra	1.22	0.822
pavedroa	1.08	0.921	protrain	1.2	0.831	hholdb	1.11	0.904	diseth	1.21	0.827
cropland	1.07	0.932	pereland	1.2	0.833	pavedr	1.09	0.919	perelan	1.21	0.828
geotype1	1.07	0.933	geotype3	1.13	0.883	geotype	1.08	0.929	croplan	1.2	0.830
lonvotrai	1.07	0.935	hholdbusi	1.12	0.894	croplan	1.07	0.931	hholdb	1.15	0.868
otherland	1.07	0.938	foreland	1.11	0.897	lonvotr	1.07	0.937	forelan	1.14	0.880
aqualand	1.06	0.939	aqualand	1.1	0.909	otherla	1.07	0.938	geotype	1.13	0.885
passtrans	1.06	0.946	pavedroa	1.09	0.919	aqualan	1.06	0.940	pavedr	1.12	0.889
mar	1.05	0.948	lonvotrai	1.08	0.924	passtra	1.06	0.942	lonvotr	1.12	0.892
shovotrai	1.05	0.950	extcentre	1.07	0.930	geotype	1.06	0.942	shovotr	1.11	0.899
foreland	1.05	0.952	otherland	1.06	0.940	mar	1.06	0.947	aqualan	1.1	0.908
geotype3	1.05	0.955	shovotrai	1.05	0.953	forelan	1.05	0.951	extcent	1.08	0.923
extcentre	1.04	0.962	geotype1	1.04	0.961	extcent	1.05	0.955	otherla	1.07	0.938
						shovotr	1.05	0.956	geotype	1.04	0.959
Mean VIF	2.24		Mean VIF	2.93		Mean	1.76		Mean	2.66	

Source: VHLSSs, Author's calculation

Ramsey RESET tests using powers of the fitted values of log of total value added show a rejection the null hypothesis in the model by Baulch and Vu (2012). This model has misspecification problem. However, with the revision of education and social network, the test shows no misspecification.

Ho: model has no misspecification

Baulch and Vu (2012)		Revision of education and social network	
As for the majority	As for the minority	As for the majority	As for the minority
F(3, 2872) = 4.04	F(3, 760) = 3.81	F(3, 2871) = 3.78	F(3, 759) = 1.40
Prob > F = 0.0070	Prob > F = 0.0099	Prob > F = 0.0101	Prob > F = 0.2415

Breusch-Pagan/Cook-Weisberg tests for heteroskedasticity do not show rejection the null hypothesis. The variance of the error term is constant, in all models. Heteroskedasticity is probably not a problem.

Ho: Constant variance

Variables: fitted values of $\ln p_{cexpb}$

Baulch and Vu (2012)		Revision of education and social network	
As for the majority	As for the minority	As for the majority	As for the minority
chi2(1) = 0.42	chi2(1) = 0.23	chi2(1) = 0.04	chi2(1) = 0.58
Prob > chi2 = 0.5145	Prob > chi2 = 0.6281	Prob > chi2 = 0.8444	Prob > chi2 = 0.4470

Appendix 1.5. Decomposition result with social network inclusion, VHLSS in 2016

	Co-ethnic population in the district		Co-ethnic population in the commune	
Prediction_1	9.091***		9.091***	
	(0.010)		(0.010)	
Prediction_2	8.359***		8.359***	
	(0.021)		(0.021)	
Difference	0.732***		0.732***	
	(0.023)		(0.023)	
VARIABLES	Explained	Unexplained	Explained	Unexplained
Household_demography	0.111***	-0.016	0.111***	-0.011
	(0.013)	(0.111)	(0.013)	(0.110)
Human_capital	0.055***	0.018	0.056***	0.016
	(0.008)	(0.017)	(0.008)	(0.017)
Economic_resource	-0.004	-0.020	-0.004	-0.022
	(0.005)	(0.017)	(0.005)	(0.017)
Diversification	0.032***	-0.016*	0.031***	-0.015
	(0.006)	(0.009)	(0.006)	(0.009)
Social_network	0.028**	-0.020	0.024*	-0.018
	(0.012)	(0.016)	(0.013)	(0.020)
Community_characteristics	0.130***	0.040	0.133***	0.047
	(0.026)	(0.140)	(0.025)	(0.140)
Constant		0.392**		0.380**
		(0.184)		(0.185)
Total	0.352***	0.378***	0.351***	0.379***
	(0.029)	(0.033)	(0.031)	(0.035)
Household_size	0.064***	0.005	0.064***	0.011
	(0.011)	(0.083)	(0.011)	(0.082)
Household_structure	0.035***	0.026	0.035***	0.018
	(0.008)	(0.040)	(0.008)	(0.040)
Age	0.013	-0.045	0.013	-0.038
	(0.008)	(0.087)	(0.008)	(0.087)
Gender	0.000	-0.002	0.000	-0.001
	(0.002)	(0.007)	(0.002)	(0.007)
Education	0.049***	0.022	0.051***	0.020
	(0.007)	(0.015)	(0.008)	(0.015)
Vocational_training	0.006***	-0.004	0.006***	-0.004
	(0.002)	(0.003)	(0.002)	(0.003)
Land_holdings	-0.004	-0.020	-0.004	-0.022
	(0.005)	(0.017)	(0.005)	(0.017)
Social_network	0.028**	-0.020	0.024*	-0.018
	(0.012)	(0.016)	(0.013)	(0.020)
Remoteness	0.094***	0.133**	0.098***	0.133**
	(0.029)	(0.066)	(0.032)	(0.067)
Infrastructure	0.036	-0.093	0.035	-0.086
	(0.029)	(0.103)	(0.028)	(0.101)
Observations	4,162	4,162	4,162	4,162

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Source: VHLSSs, Author's calculation

Appendix 1.6 - Decomposition of the ethnic gaps in per capita expenditure at quantiles

<i>2004</i>	<i>10th</i>	<i>20th</i>	<i>30th</i>	<i>40th</i>	<i>50th</i>	<i>60th</i>	<i>70th</i>	<i>80th</i>	<i>90th</i>
Total differential	0.517*** (0.019)	0.503*** (0.017)	0.499*** (0.017)	0.500*** (0.016)	0.500*** (0.016)	0.507*** (0.016)	0.513*** (0.018)	0.521*** (0.021)	0.516*** (0.028)
Explained effect	0.248*** (0.024)	0.252*** (0.020)	0.257*** (0.019)	0.259*** (0.019)	0.260*** (0.019)	0.262*** (0.020)	0.262*** (0.021)	0.258*** (0.022)	0.240*** (0.026)
Unexplained effect	0.269*** (0.027)	0.251*** (0.024)	0.242*** (0.024)	0.241*** (0.023)	0.240*** (0.023)	0.246*** (0.023)	0.251*** (0.023)	0.263*** (0.024)	0.275*** (0.031)
<i>2010</i>									
Total differential	0.703*** (0.022)	0.690*** (0.020)	0.673*** (0.019)	0.656*** (0.019)	0.644*** (0.019)	0.631*** (0.020)	0.613*** (0.020)	0.592*** (0.023)	0.561*** (0.027)
Explained effect	0.263*** (0.029)	0.276*** (0.025)	0.284*** (0.023)	0.288*** (0.022)	0.292*** (0.021)	0.295*** (0.022)	0.298*** (0.023)	0.300*** (0.025)	0.306*** (0.029)
Unexplained effect	0.440*** (0.035)	0.414*** (0.029)	0.389*** (0.026)	0.368*** (0.025)	0.353*** (0.024)	0.336*** (0.025)	0.315*** (0.026)	0.292*** (0.029)	0.256*** (0.034)
<i>2016 - without social network</i>									
Total differential	0.845*** (0.029)	0.804*** (0.025)	0.773*** (0.025)	0.750*** (0.024)	0.723*** (0.025)	0.691*** (0.027)	0.661*** (0.029)	0.622*** (0.032)	0.569*** (0.037)
Explained effect	0.319*** (0.040)	0.310*** (0.032)	0.307*** (0.029)	0.307*** (0.027)	0.306*** (0.027)	0.306*** (0.026)	0.309*** (0.026)	0.313*** (0.027)	0.317*** (0.031)
Unexplained effect	0.526*** (0.049)	0.494*** (0.039)	0.466*** (0.036)	0.443*** (0.033)	0.417*** (0.032)	0.385*** (0.031)	0.352*** (0.031)	0.310*** (0.032)	0.252*** (0.038)
<i>2016 - with social network (co-ethnic population in the same district)</i>									
Total differential	0.846*** (0.029)	0.807*** (0.026)	0.777*** (0.024)	0.752*** (0.024)	0.724*** (0.025)	0.692*** (0.026)	0.662*** (0.029)	0.624*** (0.032)	0.574*** (0.037)
Explained effect	0.320*** (0.040)	0.311*** (0.032)	0.307*** (0.029)	0.307*** (0.027)	0.306*** (0.027)	0.307*** (0.027)	0.310*** (0.026)	0.317*** (0.027)	0.326*** (0.031)
Unexplained effect	0.525*** (0.049)	0.496*** (0.039)	0.469*** (0.036)	0.445*** (0.033)	0.418*** (0.032)	0.385*** (0.031)	0.352*** (0.031)	0.307*** (0.033)	0.248*** (0.040)
<i>2016 - with social network (co-ethnic population in the same commune)</i>									
Total differential	0.844*** (0.029)	0.805*** (0.025)	0.775*** (0.024)	0.754*** (0.024)	0.725*** (0.025)	0.694*** (0.026)	0.665*** (0.029)	0.625*** (0.033)	0.575*** (0.038)
Explained effect	0.334*** (0.041)	0.327*** (0.033)	0.324*** (0.030)	0.322*** (0.028)	0.321*** (0.027)	0.320*** (0.027)	0.322*** (0.027)	0.323*** (0.027)	0.323*** (0.031)
Unexplained effect	0.510*** (0.049)	0.478*** (0.040)	0.451*** (0.037)	0.431*** (0.034)	0.404*** (0.033)	0.373*** (0.032)	0.344*** (0.032)	0.303*** (0.033)	0.252*** (0.040)

Standard errors in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Source: VHLSSs, Author's calculation

CHAPTER 2

Role of Social Network in the Performance of Household Businesses in Vietnam

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Abstract

The utmost importance of household businesses in developing economies calls for a better understanding of the determinants of their performance. As shown by nascent literature, household businesses rely heavily on their social connections to deal with market imperfections. However, the influence of personal social networks on their performance remains debated. Chapter 2 contributes to the debate by providing new evidence on the relationship between social networks and household business performance based on a representative survey at the national level in Vietnam. It faces two challenges: (1) addressing the endogeneity issue in the identification of the relationship, and (2) having a good measurement of the social network. In particular, the Chapter distinguishes the effect of social networks according to the resources conveyed by the ties, the strength of the ties, and the phase of the business cycle. The Chapter demonstrated that the use of the social network to get financial and information resources for the business results in strong and positive impact on the business performance. Another interesting finding is that the benefit of the enforcement mechanisms, mutual trust and reciprocal exchange embedded in the strong ties dominates the cost of social obligation, and the one of accessing false or redundant information. Finally, the results suggest that social networks play an important role at the start of the business.

Keyword: social network, production function, household businesses, informal sector, name generator, and Vietnam.

1. Introduction

Household businesses and the informal sector have attracted considerable attention in pursuing inclusive growth in developing countries. As highlighted in the Viet Nam National Human Development Report in 2015 (UNDP and VASS, 2016), inclusive growth refers to rapid economic growth and equitable distribution of benefits to provide opportunities for all, especially those who are left behind. In a developing country like Vietnam, household businesses are the main job providers of employment after the agriculture sector, contributing to a third of total employment and more than half of non-farm employment. In addition, this sector includes highly vulnerable workers to shocks, who generally attain a tenuous level of income security and are not included in the social protection schemes (Pasquier-Doumer et al., 2017). Given the importance of household businesses to inclusive growth, the determinants of their performance are of foremost concern for improving performance and addressing the vulnerability of their workers.

Due to market imperfections and lack of formal institutions, typically in developing countries like Vietnam, household businesses are facing many constraints in their operation. Eight out of ten household businesses report having problems in their businesses. Difficulties in reaching market outlets are the most common obstacles. In addition to the challenging of selling their products, household businesses are confronted with cash difficulties and access to credit: Nearly half of them complain about poor access to obtain loans (Pasquier-Doumer et al., 2017). In response to these difficulties, household businesses rely heavily on their social connections to deal with these market imperfections (Pasquier-Doumer and Nguyen P., 2017). This raises an important question whether the social network is truly effective in addressing market imperfections and improving the performance of these household businesses.

A growing strand of the literature has demonstrated the importance of social network in the field of entrepreneurship (see Hoang and Antoncic, 2003 for a review). In the last two decades, entrepreneurs have not been considered as isolated actors anymore because of their intimately ties in social relationships with a broader network of actors. Their embeddedness is expected to have positive impacts on their performance as far as interpersonal relationships create channels through which entrepreneurs can gain access to a variety of resources. These resources can be either production factors or intangible resources including information, reputation or emotional support. Thus, social connections can help remove barriers to access to labour and capital. They are engaged in environments with better enforcement, lower moral hazard, and adverse selection problems, and therefore they reduce transaction costs. In return, the quality of resource flows depends on the network's attributes, making the relationship between social network and performance more complex. The relationship between social networks and business performance depends on the relations within the network, specifically the strength of the ties, the resources embedded in the network, and the structure of the network.

In addition, recent literature emphasizes the adverse effects of embeddedness on the small entrepreneurs (Meagher, 2006; Whitehouse, 2011; Fafchamps et al., 2011; Grimm et al., 2013). The social obligations of using the strong ties, in particular, family ties, may be an obstacle in the development of a business. It can lead to pressure to redistribute the profits of the household businesses to benefit family expenditures instead of investing or to hired family members at a higher cost than their productivity.

After decades of research, the debate on the effect of social networks on small firm performance has not been conclusively clarified with mixed empirical findings. In a meta-analysis of 59 studies, Stam et al. (2014) find a positive overall relationship between social networks and small firm performance. They conclude on a strong effect of social networks that is substantially greater than the impact of human capital on performance. However, this analysis suffers some limitations. First, the causal relationship between social network and performance is not identified. The existence of reverse causality and omitted variables in explaining the positive correlation between the two variables cannot be ruled out. Secondly, most of the data sets refer to developed countries.³³ Yet, the rapid economic growth, market liberalization, and the underdevelopment of formal institutions, which are characteristics of developing economies, may modify the influence of social network on small firm performance. Unlike in developed countries, where reliable information is plentiful and publicly available through impersonal channels, entrepreneurs in developing economies depend on their network for obtaining private information. The lack of formal institutions to govern market transactions increases the need for informal sanctioning mechanisms (Li et al., 2008). This favors the use of strong ties with high social obligations rather than relying on weak ties (Uzzi, 1997). Reversely, rapid changes in the environment increase the need for new and un-replicated information that is often provided by weak ties.

Studies related to developing countries that test the overall effect of social network on small firm performance are still scarce and have conflicting results. Barr (2002) demonstrates the negative impact of strong and bonding ties on business performance of Ghanaian manufacturing enterprises, while interactions with enterprises that are likely to help access information on technology and markets, increasing performance. Similarly, Fafchamps and Minten (2001) find that the number of professional ties in agriculture traders' network raises the productivity of these traders in Madagascar, but interactions with strong family ties reduce the effectiveness. Nguyen H.C. and Nordman (2018) highlight the positive effect of having a friend in the same activity on the technical efficiency of businesses in the context of Vietnam, and the detrimental effect of business inheritance from the family, but for formal and large businesses only. In Rooks et al. (2012) study on Uganda small entrepreneurs, the more the personal network and the professional network overlap, the less innovative the business is. In contrast, Berrou and Combarnous (2011) show a positive impact of the average strength of the ties inside one network on micro-entrepreneurs' performance in

³³ Only five developing countries out of 18 are included in the meta-analysis.

Burkina Faso. Le et al. (2018) find no effect of the number of business contacts on business performance for small businesses in Vietnam.

Besides contradictory results, the difficulty in concluding these empirical studies lies in three main reasons. First, they are all based on the small and non-representative sample of enterprises, casting doubts about the representativeness and external validity of the results. The only exception is the study by Nguyen H.C. and Nordman (2018), which use representative data from Vietnam. Second, they meet differently the challenge of addressing the endogeneity bias while using rich information on the social networks. Either they use the fixed-effect enterprise variable or an instrumental variable to address the endogeneity issue, but they have poor proxies of social networks, especially regarding the strength of the ties and the resources exchanged inside the network; or they describe many features of on the social network but fail to take into account the simultaneity and omitted variables biases. Finally, they do not differentiate the effects of social networks at different phases of the business cycle. Yet, predictions from a strand of theoretical literature suggest that the effect of relying on social networks should differ in the starting phase and the later phase of the business development (see Chapter 3 for a review).

Chapter 2 makes three main contributions. The chapter addresses the relationship between the use of social networks and the performance of household businesses in the context of Vietnam by relying on an original dataset representing the household businesses and the informal sector at the national level, which includes extensive information on social networks collected using name-generator methodology. Secondly, it analyses the aggregate effect of reliance on social networks but distinguishes the effect according to the resources conveyed by the ties, the strength of the ties, and the phase of the business cycle. More precisely, it questions the transmission channels through which social networks affect business performance by comparing the corresponding effects of receiving financial and information resources through the network. It analyses whether strong ties defined as family ties have the same impact as non-family ties. And it looks at whether social networks are more important at the start of a business or in its growing phase later. Finally, Chapter 2 relies on an original instrument to address the endogeneity issue.

Chapter 2 demonstrates that the use of the social network to get financial and information resources for the business has a strong and positive impact on the business performance. Another interesting result is that the benefit of enforcement mechanisms, mutual trust and reciprocal exchange embedded in the strong ties dominates the cost of social obligations and the one of accessing false or redundant information. Finally, the results suggest that social networks play an important role at the start of the business.

Chapter 2 is organized as follow. Section 2 describes the data and the measurement of the main indicators used in this research. Section 3 includes a descriptive analysis. Section 4 presents the empirical strategy and the results. Section 5 concludes.

2. Data and main definitions

2.1. Data

Chapter 2 relies on an original dataset, the Household Business and Informal Sector (HBIS) survey in Vietnam (HBIS) collected in 2014.³⁴ The survey follows the 1-2-3 approach, which is a multi-layer survey specifically designed for the informal sector study (Roubaud, 1994). Phase 1 is the national representative Labour Force Survey (LFS) providing detailed information about individual socio-demographic characteristics and employment. Phase 2, the 2014 HBIS survey, is sampled on household businesses identified in Phase 1. Phase 2 collects full sets of information about characteristics of the entrepreneurs, their businesses production and performance, including the characteristics of workers and the social network of the entrepreneurs.

There were two others HBIS surveys in 2007 and 2009, covering only the two provinces concentrating most household businesses in Vietnam, i.e., Hanoi and Ho Chi Minh City (Cling et al., 2010). However, the 2014 HBIS survey is the first one to be representative of the informal sector and household businesses at the national level, including urban and rural areas. The survey covers 3,375 household businesses.³⁵

One innovation of this survey is the introduction of a specific module on the social network providing support for household businesses. A social network is defined according to the ego-centered (or “personal”) network approach, as a set of ties between *Ego*, who is the business owner, and the *Alters*, those with whom *Ego* interacts for his/her business activity. This approach is different from that of the complete network approach, which studies a specific and restricted population, and which considers the links uniting all of its members. Compared to the complete approach of a social network, the ego-centered network approach is the best suited to understand the support conveyed by the social network and thus the channels through which social network influences the functioning of the business (Berrou and Combarous, 2011).

The module on the social network is designed based on the name-generator method, the most common tool used to map the ego-centered networks (McCallister and Fisher, 1978; Burt, 1984; Berrou and Combarous, 2011). Name-generators methodology consists in asking a set of questions to produce lists containing the names of the persons forming an individual’s network. In a second step, information on the persons named (the *Alters*) and on the relationships that link those to *Ego* are collected by using so-called name interpreter questions. Although it is time and money consuming, this methodology is recognized as yielding data of high quality. However, it has some

³⁴ That dataset has been collected by the Centre for Analysis and Forecasting of the Vietnam Academy of Social Sciences (VASS) and the French National Research Institute for Sustainable Development (IRD). The Authors take the leading role in survey design, supervision of data collection, and data cleaning.

³⁵ The total sample of the survey is 3,411 observations, in which some are dropped for outliers on the value added and social network.

drawbacks as well. First, the measure of social networks may be biased toward strong ties because the interviewee is likely to recall first relationships with close persons (Lin, 2001), when being asked to cite a short list of three names only in order to limit the duration of the interview. Second, the interviewee can call for only identifiable contacts. For example, within a rural village, where people are tightly embedded, the respondent has difficulty in reporting any specific name when he or she benefits from a multitude of support. This is particularly true for information support when information is conveyed through daily discussion with many neighbours. In that case, the support received from social networks is underestimated.

Multiple name generators have been defined in order to capture entrepreneurs' social relations conveying important resources for the start and the current exploitation of their business. Keeping in mind that the search for an exhaustive network is illusory, a qualitative survey among 15 household business owners has been conducted before designing the questionnaire in order to identify the most important social exchanges for creating and running a household business in Vietnam. By doing so, we mostly focused on the supportive social network.

Seven name generators have been defined to recall contacts providing either financial or information supports. Regarding the financial supports, the three most important contacts have been asked for (1) getting money (loan or gift) at the business start, (2) getting loans above five million VND³⁶ in the last three years of the business operation, and (3) getting potential financial supports at no or low interest rate.³⁷ Names of people conveying information supports cover those (4) being in the same sector of activity and having provided advice at the start of the business, (5) providing innovative information on products, (6) providing innovative information on technology, and (7) providing potential support to find customers and suppliers.³⁸ While the name generators (1), (2), (4), (5), and (6) refer to effective support, the name generators (3) and (7) relate to potential support, in order get information on the availability of resources. While the name generators (1) and (4) aim at obtaining information on the support at the start of the business, the rest refers to the support for the current

³⁶ Five million VND represents the double of the median monthly profit made by informal businesses. It is a non-negligible amount as more than half of the informal ones stated that they are not able to borrow this amount within a week.

³⁷ The contacts providing financial supports are determined by asking the owners (1) "*Who lent/gave you money at the start of your activity?*" (2) "*During the last 3 years, how many loans greater than 5 million VND have you obtained from informal lenders for your activity and from whom?*" (3) "*Who could give you financial support for your business (i.e. lend you a loan at no or low interest rate)?*"

³⁸ The contacts providing information supports are determined by asking the owners (4) "*When you started managing your business, did you know someone who had this kind of activity and provide you advice? If so, who is that person?*"; (5) "*Have you introduced new product or improved existing product within the last 12 months? Who inspired you to introduce this new product?*"; (6) "*Have you introduced new production processes/new technology within the last 12 months such as new equipment for instance or new way to sell products or services? Who inspired you to introduce this new production process/technology?*" (7) "*If you need to find new suppliers or customers who would be the person that you ask for help to find them?*" In the name generator (4), we include family members who have transferred the business to the business owner and those having trained the business owner.

business operation. With these seven name-generators, 3,650 names have been generated in the survey.

Name interpreter questions collect information on the type of link regarding the social role (family, neighbour, etc.), the length and the intimacy of the relationship, the frequency of the meetings, and characteristics of the *Alters* like their activity, their education and their economic status according to *Ego's* perception. In Chapter 2, only the strength of the ties defined as the family relationship³⁹ is considered because of the following two reasons: (1) it is the most discriminant relationship as shown by Pasquier-Doumer and Nguyen P. (2017)⁴⁰, and (2) it addresses the endogeneity of the social network variable imposing one dimension consideration only⁴¹.

2.2. Measurements of key indicators

2.2.1. Social network variables

The supportive social network is investigated across three dimensions. The first dimension is about the content of resources being conveyed through ties, i.e., the network for financial or information supports. This allows shedding light on the transmission channels through which social networks affect business performance, by considering the two main types of resources identified in the literature (see Hoang and Antoncic, 2003). The second dimension is about the relational characteristics of the ties, in order to test whether strong and weak ties affect the performance of the business differently, as suggested by a large strand of literature relying on the seminal work of Granovetter (1973, 1983). The third dimension is about the temporality of the use of the ties, by distinguishing the reliance on networks in the starting phase or the current phase of the business cycle. These different dimensions of the social networks are measured by the number of each category of ties cited by the business owner.

More precisely, seven social network variables are investigated. First, the total number of ties cited with the seven name generators (named as Net 1) is measured, to test the aggregate impact of the supportive network on the business performance. Secondly, regarding the content of ties, two network variables to test two different channels of resource transmission are the number of ties cited with the three name generators related to financial support (Net 2), and the number of ties cited with the four name generators related to information support (Net 3). Thirdly, regarding the second dimension, in order

³⁹ Granovetter (1973)'s definition of the strength of the ties is more complex as it combines four dimensions consisting of the amount of time shared, the emotional intimacy (or friendship), the mutual trust (confiding), and the reciprocity.

⁴⁰ Family network is the main provider of supports when family contacts account for 89 percent of ties providing finance supports and 60.5 percent of those as for information. Those providing credit at the start of the business are very close relatives: 79 per cent are parent, sibling, child or spouse.

⁴¹ The instrument is strong as shown in the test.

to investigate how the strength of the ties affects the relationship between social networks and the business performance, two network variables include the number of family ties (Net 4), and the number non-family ties (Net 5), both cited with the seven name generators. Finally, regarding the third dimension, two network variables are the number of ties cited with the two name generators related to the business starting phase (Net 6), and the number of ties cited with the other name generators, related to the business current phase (Net 7).

2.2.2. Business performance variable

Business performance is defined as the physical output of a process, which results from a combination of inputs into the business. Following the most common practice in the literature on small businesses in developing countries (see for example Nguyen H.C. and Nordman, 2018), we defined the business performance by the value added. We measure annual value added as the sum of the business turnovers for the past 12 months, and subtract it from the value of raw materials, intermediate goods, salary and wages, equipment depreciation and charges (e.g., electricity, water). The 2014 HBIS survey, based on the 1-2-3 survey methodology, was designed to offer reliable estimates of turnover and value added by reconstructing the household business missing financial records⁴² and by taking into account seasonality,⁴³ which is strongly associated with the informal sector.

⁴² Production and the purchase of raw materials or merchandise are asked item by item except when it is not relevant. The period of reference is chosen by the respondent to fit better with the rhythm of his or her activity.

⁴³ Once the previous month's accounts have been carefully set up, a recall table establishes the level of turnover month by month (see Cling et al. (2010) for more details)

3. Descriptive analysis

According to the 2014 HBIS survey, the majority of the household businesses (60.5 percent) rely on their social network to get access to financial and information resources, which are referred to as the content of ties in Table 2.1. On average, the size of business networks is small when a household business has 1.1 ties. Less than 13 percent of them have three or more ties in their network. Table 2.1 below shows the breakdown of each content of ties by the tie relation and by the business phase. As mentioned, the tie relation refers to family and non-family relationship, while the business phase considers its start and the current time of business.

Table 2.1. Distribution of household businesses by the usage of ties and by distinguishing the content, the relation of the ties and the business phase (percent of businesses)

Content of ties	Percent	Breakdown of ties	Percent
Financial support	48.0	<i>By relation</i>	
		Family ties	39.2
		Non-family ties	12.1
		<i>By business phase</i>	
		In the starting phase	25.5
		In the current phase	37.2
Information support	30.8	<i>By relation</i>	
		Family ties	22
		Non-family ties	10.3
		<i>By business phase</i>	
		In the starting phase	28.4
		In the current phase	6.2

Note: As for each dimension of social networks, i.e., the content, the relation or ties, and the business phase, the total of the percentage shares of household businesses in categories is higher than the share of businesses using such social network in general. The reason is due to the simultaneity of using different networks as for one household business.

Source: The 2014 HBIS survey, Authors' calculations.

Regarding the content of ties, the key role of social networks is to bring financial resources to the business: 48 percent of household businesses rely on their networks to get financial capital, while only 31 percent received information supports. In addition, up to three ties, the larger the social network is, the more important the proportion of ties conveying financial resource is (See Table 2.2). Then this proportion declines. Thus the relationship between the two variables exhibits an inverted U-shape curve.

74% of ties provide financial support (see Figure 2.1). Ties used for funding the business in the starting phase account for 27 percent of total relationships. But the main financial relationships are found in the current phase when the potential financial relationships for loans at no or low-interest rate, make up 40 percent of all ties. Ties for loans greater than five million VND constitute only seven percent of all ties. According to Pasquier-Doumer et al. (2017), borrowing money through personal connections is a preferable option, especially when 14 percent of businesses have no access to formal credit greater than five million

VND. They show evidence that household businesses do not obtain any formal loans because either that (1) they applied for loans but without success, or (2) they did not apply for a loan because of self-rejection.

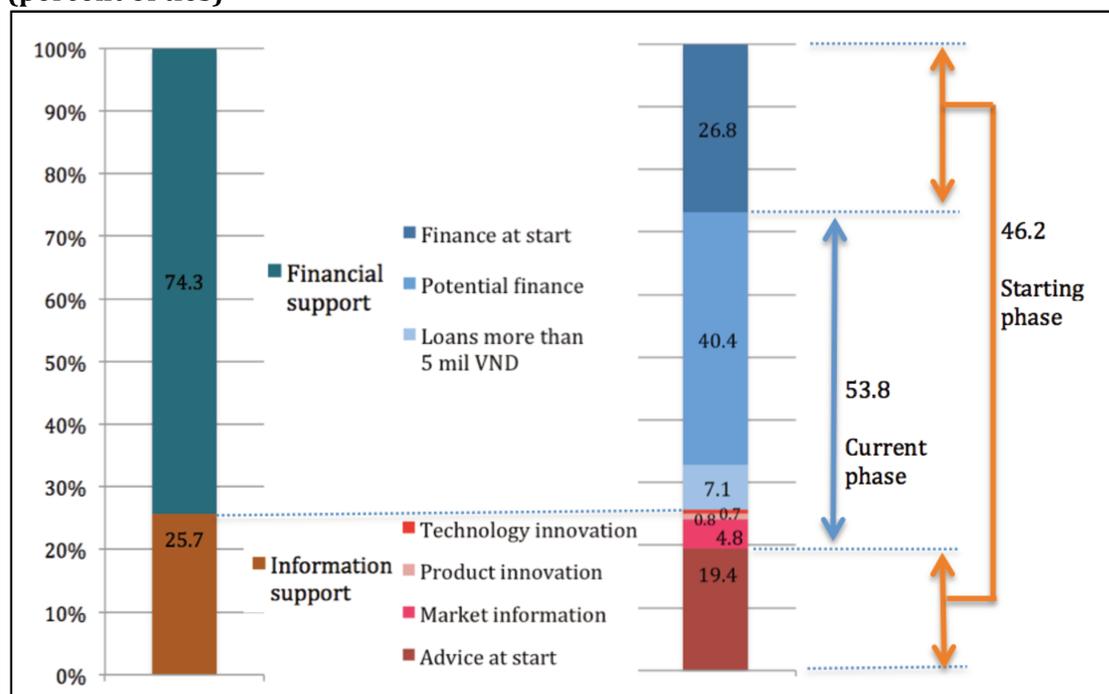
Table 2.2. Distribution of tie content, tie relation, and tie temporality by the whole network size (percent of ties)

	By network size (number of ties)				All
	1	2	3	4 and more	
Financial support	70.0	73.4	80.6	74.5	74.3
Information support	30.0	26.6	19.4	25.5	25.7
<i>Total</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>
Family ties	67.4	75.0	75.3	76.0	73.5
Non-family ties	32.6	25.0	24.7	24.0	26.5
<i>Total</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>
At the business start	51.5	51.4	38.3	40.0	46.2
At the current business phase	48.5	48.6	61.7	60.0	53.8
<i>Total</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>

Source: The 2014 HBIS survey, Authors' calculations.

Regarding information supports, most of the ties provide advice in the business starting phase (19 percent of all ties). And, another five percent of ties disseminate information to drive business innovation. Market information is rarely transferred through personal networks.

Figure 2.1. Distribution of ties by the detailed content and the business phase (percent of ties)



Source: The 2014 HBIS survey, Authors' calculations.

Supports for household businesses mostly come from family members. The share of businesses relying on family members for financial support is almost three times the share of those relying on non-family members (See Table 2.1). Weak ties are expected to be more important to transfer information but, as shown in Table 2.1, the proportion of those businesses relying on family members to get information is twice that as for non-family relationships. One should expect that the bigger the network, the lower the proportion of family ties within the network, as far as people are more likely to cite names of close relationships first in name-generator approach (Lin, 2001). However, we observe that the relative importance of family ties does not significantly change as the network size increases (as in Table 2.2). These results showing the preponderance of strong ties in the business owner's network is in line with other studies on the same topic in the context of developing countries (Berrou and Combarous, 2011; and Stam et al., 2014).

According to the literature, more businesses may be expected to rely on social network supports in the business starting phase, rather than in the later phase. It is what we observe when looking at the distribution of ties by the network size (as in Table 2.2): the proportion of ties in the starting phase is higher than those related to the current phase as for those networks having one or two ties. The ratio is inversed for networks including three or more ties, which account for only a small share of the sample, i.e., 13 percent of businesses. It means that as for small networks, the priority is given at the start of the business. However, looking across the business phases and resources from the network, the predominance of network supports at the business start is true for information supports only, but not for financial ones (as in Table 2.1). 28 percent of businesses access to information supports at their start, i.e., five times that in the later phase of development. Reversely, 37 percent of businesses can benefit from financial support from their network in the current phase, while 26 percent of businesses only have asked informal loans for their business creation (as in Table 2.1). The increasing importance of financial support from the social network in the later phase of the business cycle may be explained by the lower uncertainty about the business owner's ability to deal with the risks and the building of trust with weak ties after some years of business operation. But this could be explained by the construction of our social network variables as well, as far as financial support in the current phase includes both potential and effective support while only effective support is taken into account at the start of business.

Moving to the emphasis of this chapter, we examine the relationship between the networks size and the business performance measured by the value added. Table 2.3 indicates statistically significant and positive correlation between the network and the performance variables, although the Pearson coefficients are low.⁴⁴ The correlation coefficient gets the highest value as for the information network and the lowest value for the financial network. Performance is slightly more correlated with the network in the current phase of the business than that at its start, and with the family network compared to non-family ones.

⁴⁴ Correlation coefficients are lower than 0.5.

Table 2.3. Correlation between social networks and business performance - the pairwise correlation coefficients

	Annual value added
The whole network	0.0687* (0.0001)
Network for financial support	0.0312* (0.0702)
Network for information support	0.0928* (0.0000)
Network of family ties	0.0546* (0.0015)
Network of non-family ties	0.0416* (0.0156)
Network in the starting phase	0.0505* (0.0033)
Network in the current phase	0.0576* (0.0008)

*Note: * significant at the level of 10% level, P-values in the brackets*
Source: The 2014 HBIS survey, Authors' calculations

4. Effect of the social network on business performance

4.1. Estimation strategy

To estimate the effect of the social network on performance, we rely on a classical Cobb-Douglas production function:

$$Y_i = f(K_i, L_i, H_i, S_i) \quad (\text{Equation 2.1})$$

where Y_i is the performance of the i^{th} household business measured by the value added, K is the physical capital, L is the labour, H is the human capital, and S is the social network.

Following Fafchamps and Minten (2001), we introduce the social network in this functional form as a Hicksian neutral multiplicative term which potentially raises the efficiency of the production factors by reducing the transaction costs, facilitating the enforcement of contracts or bringing information on market opportunities. The functional form to estimate is as follows:

$$Y_i = (g(S_i)K_i)^\alpha (h(S_i)L_i)^\beta (q(S_i)H_i)^\gamma \quad (\text{Equation 2.2})$$

$$Y_i = f(S_i)K_i^\alpha L_i^\beta H_i^\gamma \quad (\text{Equation 2.3})$$

where α , β , and γ are the output elasticities with respect to physical capital, labour, and human capital, respectively.

We estimate the equation (3) in log form as follows:

$$\ln(Y_i) = A_i + \alpha \ln(K_i) + \beta \ln(L_i) + \gamma \ln(H_i) + \delta \ln(S_i) + \varepsilon \quad (\text{Equation 2.4})$$

As regards to production inputs of the business, physical capital (K) is measured by the current value of equipment and investment. Here, capital does not include the value of land (due to the land price bias) (Tran and Santarelli, 2013).⁴⁵ To measure the business's labour quantity (L), the total number of workers in the business is considered. Labour seasonal fluctuation is ignored.⁴⁶ Human capital (H), reflecting the labour quality, is proxied by indicators of education and skill of the business owner. Education is measured as a categorical variable of the educational attainment (no education, primary, lower secondary, upper secondary, and a higher level of educational achievement). Skill is proxied by the number of years of experience in the business activity and its squared term. In

⁴⁵ Land evaluation system is very complex and problematic in Vietnam. Since the state owns and manages land, in legal theory, it has no market value. Instead, the state has enacted statutory pricing formula for calculating land values.

⁴⁶ The data reveals that only 268 businesses, accounting for eight percent of the whole survey sample, have temporary labour due to seasonality. In the lowest season, only 13 percent of those household businesses having temporary labour hire one or two workers, and that number in the highest season is 37 percent, which hire one worker. Therefore, it assumes not much fluctuation in labour through out the year. That validates the labour data collection, even it is interviewed as for only the previous month of the survey.

addition, we control for the location of the business (a dummy of being in a rural or urban area), its formality status (a dummy of being a registered business or not), and the geographic region. Ethnicity is not included due to the very small number of respondents who stated an ethnicity other than Kinh.

Naïve estimation of the Equation (4) with the OLS regression leads to a biased value of the coefficient under interest, δ , measuring the effect of the social network variable on business performance. The simultaneity of effects of social networks on the performance and vice versa is the first source of endogeneity bias. On the one hand, more connections to other people can generate higher performance by lowering transaction cost or by bringing information on market opportunities. On the other hand, better performance may improve the owner's reputation, and thus foster business interactions with other people. Omitted variables are another source of endogeneity bias. Ability is the most obvious one. As an illustration, being ambitious or determined in business planning may affect the business performance positively. At the same time, it makes the owner being less scrupulous in asking support from the network. In such case, the social network variable is correlated with the regression residuals.

Ideally, we would like to rely on a panel data estimation to correct for these biases. Unfortunately, the data at our disposal are cross-sectional. But we collect an original instrument in prevision of the endogeneity issue. We thus rely on the instrumental regression by using the dummy that the business owner being the eldest son in the family as an instrument for the social network. We use that dummy as an instrument, called D_i , which takes the value one if the household business owner is the eldest son of his family, or zero otherwise.

This variable is supposed to fulfill the two conditions of a relevant instrument for the following reasons. In the patrilineal and patrilocal context of Vietnam,⁴⁷ the first son is assigned to represent the whole family to take care of parents in their old age, to implement the family worship to ancestors and the funeral if parents pass away. Traditionally, this provides him with authority among family members (Condominas, 1983) and the inheritance of lands of the family, including the residential land of his parents to allow him to fulfill his obligations and to defray the costs of ancestor worship (Nguyen T.A., 2009). As an illustration, a study by a sociologist Nguyen D.T. (2003) shows how a household business is given as an inheritance to the first son in a typical household in rural Vietnam at the early stage of the market economy. Although it is not clear whether this traditional counterpart of ritual obligations has been maintained with the modernization of the country and the rapid fertility decline (Bryant, 2002), these obligations are likely to provide the first son with more opportunities to interact with family members and relatives, and consequently to receive their support. In addition, parents often invest into the first son as insurance for their old age.⁴⁸ In other words, the first son is expected to inherit a

⁴⁷ The 85 percent or so of the Vietnamese population who belong to the Kinh ethnic group have a patrilineal and patrilocal family system.

⁴⁸ Intergenerational transfers are still today the most prevalent source of support for Vietnamese elderly. According to the 1999 Census, 77 percent of persons aged sixty and older co-reside with

larger family network from his parents than other siblings. The dummy of being the first son is supposed to be positively and significantly correlated with the family network size.

The exclusion condition is satisfied as far as the dummy of being the eldest son is not correlated with the error term ε in Equation (4). Being the eldest son is exogenous, but it can affect some other characteristics of the business owner that influence the performance of the business. Parents potentially raise their eldest son differently by knowing that he will have more responsibility than his siblings. Consequently, his non-cognitive skills like self-esteem or self-efficacy may be more developed than for other siblings, and these skills could impact his entrepreneurship skills. We limit this possibility by introducing a proxy of owner's entrepreneurship skills. It is built on the answer to the following question in the survey: *"In case you earn unusual extra money from your business activity, what do you think would be the most appropriate use of the extra money?"* If the answer is to invest this money in the business, we will consider the owner having higher entrepreneurship ability than when the answer is to increase the standard of living for his family. Another limitation to the exclusion condition is that the dummy of being the eldest son may capture a wealth effect because owners of household businesses who are the eldest sons are more likely to come from small size family than those who are younger children. According to Becker and Lewis (1973), this should affect positively parental investment and thus child endowment. However, we assume that this effect is controlled by the introduction of the educational attainment variable in the model. Although the omitted variable bias cannot be ruled out completely, we suppose that controlling for entrepreneurship skills and education makes the exclusion condition acceptable.

The effect simultaneity and omitted variables are also problematic in the estimation of capital and labour coefficients, as widely acknowledged in the literature. When no panel data is available, a common strategy is to instrument the capital and the labour by their lagged values. Unfortunately, we did not succeed in collecting reliable information on the initial capital, because of the difficulty for the owner in recalling all investment in details sometimes made a decade ago. However, we instrument the labour variable by the number of workers at the start of the business (L_{0i}), which is easier for the business owner to remember.

at least one adult child and this proportion has been stable compared to the 1989 census. Among them, 80 percent are leaving with their son (Barbieri, 2009).

4.2. Instrumental regression results

We estimate the effect of social network variables on the log of value added by using the two-stage least squares (2SLS) estimation with two instruments, i.e., the dummy of being the eldest son and the number of workers at the business start. Results from the first-stage equation are shown in Appendix 2.2. Standard errors and statistics are robust to the presence of arbitrary heteroscedasticity. We conduct the weak instrument tests via the Cragg-Donald Wald F-statistic and the Stock and Yogo (2005) relative bias thresholds. These tests reject the null hypothesis of weak instruments (see Appendix 2.2).

We first estimate the aggregate effect of the social network, measured as the total number of ties collected with the seven name-generators, on the performance. Results are presented in Table 2.4.⁴⁹ We find a positive and significant effect of the supportive network on the household business performance. The magnitude of the effect is important as having an additional contact in the network multiplies the annual value added by 1.619.⁵⁰ As an illustration, this effect is much more important than the registration of the business to become formal.⁵¹ The magnitude of the effect is almost unchanged when we instrument for the social network only (Model 2), or we use two instruments jointly for the network variable and the labour variable (Model 3). Then, it is very likely to have no serious problem of endogeneity of the production factors.⁵² However, the magnitude of the effect is much lower with the OLS specification, i.e., when the endogeneity issue is not addressed (Model 1).

To check the robustness of the above result, we test whether our results remain valid when a social network is measured as a categorical variable of different network sizes (which takes the value of 0, 1, 2 equal to the number of ties, or 3 if there is three ties or more), instead of being a continuous variable. The first stage equation is estimated with an ordered probit model. Results are presented in Appendix 2.4. They show that the strong impact of the whole supportive network remains true with this other specification.

This result is in line with the meta-analysis by Stam et al. (2014), which finds a strong and positive relationship between social networks and small firm performance but mostly in the context of developed countries and without addressing the endogeneity issue. But it contrasts with results in Burkina Faso by Berrou and Combarous (2011), and those in Vietnam by Le et al. (2018).

⁴⁹ The complete estimation is in Appendix 2.3.

⁵⁰ $1.619 = \exp(0.482)$

⁵¹ Registering the business multiplies the value added by 1.42.

⁵² For each measure of social networks, we found no big difference between the impact estimation with only one instrument for the social network, and that with two instruments for the social network and labour jointly. Therefore, we do not present the results of the estimation with only one instrument thereafter. We present the estimation with two instruments for the social network and labour jointly thereafter.

Table 2.4. Estimation of the effect of the whole supportive network on performance with the OLS and 2SLS regressions

	Log of value added		
	OLS (Model 1)	2SLS (Model 2)	2SLS (Model 3)
Size of the whole network (all ties)	0.0712*** (0.0236)	0.478** (0.238)	0.482** (0.238)
Log of labour	0.791*** (0.0612)	0.855*** (0.0797)	0.836*** (0.110)
Log of capital	0.0376*** (0.00638)	0.0296*** (0.00840)	0.0297*** (0.00841)
Education (ref. no education)			
Primary	0.404*** (0.0978)	0.337*** (0.116)	0.336*** (0.116)
Lower secondary	0.356*** (0.108)	0.313*** (0.116)	0.314*** (0.117)
Uppper secondary	0.476*** (0.114)	0.415*** (0.124)	0.414*** (0.124)
Higher education	0.556*** (0.206)	0.559*** (0.193)	0.558*** (0.192)
Years of experience	0.0166 (0.0133)	0.0174 (0.0118)	0.0176 (0.0117)
Years of experience squared	-0.000316 (0.000304)	-0.000328 (0.000265)	-0.000330 (0.000264)
Controls	Yes	Yes	Yes
Obervations	3,211	3,211	3,211
R-squared	0.270	0.101	0.098

*Note: Standard errors in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.*

Source: The 2014 HBIS survey; Authors' calculations

We then turn to the next question about the channels through which social network increases the performance (see Table 2.5). We thus compare the models on the effect of the social network for financial resources, and the effect of the social network for information resource. The comparison is made with the OLS regression in Model 4 and Model 5, and with the 2SLS regression in Model 6 and Model 7. We find that only financial support conveyed by the network, but not those as for information, has a significant impact on performance, regardless of the model specification. However, the 2SLS estimation coefficient of the information network is much higher than the one of the financial network. We conduct a Wald test to test the significance of the difference between the coefficients of the social network variables δ across Model 6 and Model 7⁵³. And, it shows that we cannot reject the null hypothesis of zero difference: the effect of receiving financial support and the one of getting information through the network are not significantly different, although only financial support has a significant effect. We conclude that both channels are important to increase the performance, but it is difficult to assert which channel is the most important.

⁵³ To conduct this test, we reestimate the 2SLS models with the Generalized method of moments estimation.

Table 2.5. Estimation of the effect of the financial and information networks on performance with the OLS and 2SLS regressions

	Log of value added			
	OLS (Model 4)	OLS (Model 5)	2SLS (Model 6)	2SLS (Model 7)
Size of the financial network	0.0807*** (0.0254)		0.681* (0.349)	
Size of the information network		0.0741 (0.0582)		1.653 (1.008)
Log of labour	0.798*** (0.0617)	0.774*** (0.0631)	0.973*** (0.155)	0.504*** (0.194)
Log of capital	0.0376*** (0.00639)	0.0389*** (0.00644)	0.0266*** (0.00964)	0.0372*** (0.00845)
Education (ref. no education)				
Primary	0.409*** (0.0979)	0.410*** (0.0976)	0.360*** (0.115)	0.279* (0.164)
Lower secondary	0.358*** (0.108)	0.360*** (0.108)	0.318*** (0.120)	0.305** (0.135)
Uppper secondary	0.483*** (0.114)	0.479*** (0.115)	0.455*** (0.123)	0.315* (0.173)
Higher education	0.562*** (0.209)	0.549*** (0.207)	0.613*** (0.209)	0.426** (0.197)
Years of experience	0.0165 (0.0134)	0.0165 (0.0136)	0.0169 (0.0118)	0.0192 (0.0133)
Years of experience squared	-0.000312 (0.000305)	-0.000317 (0.000310)	-0.000298 (0.000266)	-0.000410 (0.000297)
Controls	Yes	Yes	Yes	Yes
Observations	3,211	3,211	3,211	3,211
R-squared	0.269	0.266	0.019	-0.297

*Note: Standard errors in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. See Appendix 2.5.*

Source: The 2014 HBIS survey; Authors' calculations

Although we find a strong and positive overall relationship, the literature review has shown that not all types of ties have the same effect. Therefore, we investigate the differential effect of strong and weak ties, measured by the family relationship, on the performance. With the 2SLS estimation, we find that both family and non-family ties have a positive and significant effect of performance (see Model 10 and 11 in Table 2.6). The influence of the non-family ties on the performance seems stronger than that of the family ties, as shown by the magnitudes of the effects: an increase of the network size by one weak tie would triple the value added, while one additional strong tie would double the value added. However, the difference between the two coefficients is not significant.⁵⁴

These results demonstrate that the benefit of enforcement mechanisms, mutual trust and reciprocal exchange embedded in the strong ties dominates the cost due to social obligation and accessing false or redundant information from these strong ties. They confirm the result by Berrou and Combarous (2012), that strong ties are associated with better performance in the context of small urban

⁵⁴ Large standards errors due to the low occurrence of relying on weak ties make difficult the rejection of the null hypothesis of zero difference.

enterprises in Burkina Faso. These results also provide evidence of the strength of weak ties stressed by Granovetter (1973) and many others.

Table 2.6. Estimation of the effect of the family and non-family networks on performance with the OLS and 2SLS regressions

	Log of value added			
	OLS (Model 8)	OLS (Model 9)	IV (Model 10)	IV (Model 11)
Size of the family network	0.0665** (0.0264)		0.825* (0.484)	
Size of the non-family network		0.0716 (0.0457)		1.161* (0.623)
Log of labour	0.791*** (0.0612)	0.778*** (0.0621)	0.928*** (0.160)	0.707*** (0.113)
Log of capital	0.0383*** (0.00639)	0.0383*** (0.00647)	0.0307*** (0.00862)	0.0283*** (0.00969)
Education (ref. no education)				
Primary	0.406*** (0.0978)	0.415*** (0.0981)	0.293** (0.148)	0.396*** (0.112)
Lower secondary	0.355*** (0.108)	0.365*** (0.108)	0.260* (0.141)	0.390*** (0.119)
Upper secondary	0.474*** (0.115)	0.489*** (0.115)	0.329** (0.159)	0.535*** (0.126)
Higher education	0.552*** (0.206)	0.558*** (0.211)	0.523*** (0.188)	0.608*** (0.234)
Years of experience	0.0168 (0.0134)	0.0162 (0.0137)	0.0211* (0.0118)	0.0126 (0.0139)
Years of experience squared	-0.000321 (0.000305)	-0.000308 (0.000312)	-0.000408 (0.000264)	-0.000221 (0.000310)
Controls	Yes	Yes	Yes	Yes
Observations	3,211	3,211	3,211	3,211
R-squared	0.269	0.266	-0.199	-0.041

*Note: Standard errors in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. See Appendix 2.6.*

Source: The 2014 HBIS survey; Authors' calculations

Finally, we examine the role of social network in the starting phase and the current phase of the business. Model 14 and Model 15 in Table 2.7 show a positive and significant impact of relying on the network activated in the starting phase of the business as well as at its current phase. As expected and illustrated in Chapter 3, social network seems to be more crucial in the creation of the business, as shown by the much larger coefficient of the size of the network at the start compared to the one at the current phase: an additional tie in the starting phase of the business would double the value added, more than an increase in the value added by 2.33 times when one more tie in the current phase. But again, we cannot reject the null hypothesis of zero difference. To better contribute to the literature, we would like to compare the respective influence of strong and weak ties at each phase of the business. However, we are limited by our data, as far as our instruments become weak when subgroups of networks are considered for each business phase.

Table 2.7. Estimation of the effect of networks in the starting and current phases on performance with the OLS and 2SLS regressions

	Log of value added			
	OLS (Model 12)	OLS (Model 13)	IV (Model 14)	IV (Model 15)
Network size at the start	0.0770 (0.0484)		1.124* (0.655)	
Network size in the current phase		0.0912*** (0.0343)		0.845* (0.448)
Log of labour	0.784*** (0.0612)	0.788*** (0.0623)	0.768*** (0.118)	0.887*** (0.139)
Log of capital	0.0386*** (0.00640)	0.0377*** (0.00647)	0.0335*** (0.00823)	0.0269*** (0.0100)
Education (ref. no education)				
Primary	0.412*** (0.0987)	0.405*** (0.0970)	0.358** (0.139)	0.320*** (0.120)
Lower secondary	0.358*** (0.109)	0.359*** (0.108)	0.302** (0.137)	0.323*** (0.116)
Uppper secondary	0.480*** (0.115)	0.481*** (0.114)	0.385*** (0.147)	0.436*** (0.123)
Higher education	0.543*** (0.203)	0.569*** (0.211)	0.386** (0.196)	0.688*** (0.240)
Years of experience	0.0170 (0.0134)	0.0159 (0.0135)	0.0255* (0.0132)	0.0117 (0.0128)
Years of experience squared	-0.000322 (0.000306)	-0.000306 (0.000308)	-0.000448 (0.000278)	-0.000242 (0.000288)
Controls	Yes	Yes	Yes	Yes
Observations	3,211	3,211	3,211	3,211
R-squared	0.267	0.269	-0.137	-0.006

*Note: Standard errors in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. See Appendix 2.7.*

Source: The 2014 HBIS survey; Authors' calculations

5. Conclusion

Social networks for household businesses have attracted growing attention. On the one hand, relying on social networks is perceived as an efficient mean to get resources in contexts of credit constraint and imperfect information. Trust and reciprocity may reduce transaction cost as well. On the other hand, social networks can be an obstacle in the development of business due to social obligations, pressures to redistribute profit among family members, and the circulation of redundant information. The debate on the effect of social networks on small firm performance has not been conclusively clarified with vague empirical findings in the context of developing countries. The difficulty in concluding this literature lies in the lack of representative survey collecting information on both household business performance and social networks, and in the challenge of addressing the endogeneity bias while using reliable information on the social networks.

Chapter 2 contributes to the debate by providing new evidence on the relationship between social networks and household business performance based on a representative survey at the national level in Vietnam. It takes up the challenge of addressing the endogeneity issue in the identification of the relationship by using an original instrument. And it goes beyond the use of vague proxies of the social network by collecting contacts mobilized for the business activity only, and by distinguishing the effect of social networks according to the resources conveyed by the ties, the strength of the ties, and different phases of the business cycle.

Chapter 2 demonstrates that the use of the social network to get financial and information resources for the business has a strong and positive impact on the business performance. Another interesting result is that the benefit of the strong ties, which enforcement mechanisms, mutual trust and reciprocal exchange embedded in, dominates the cost of using them, including social obligations and poor access to false or redundant information. Finally, the results suggest that social network is particularly important at the start of the business.

A limitation of this Chapter 2 is that it does not shed light on the respective influence of the strength of the ties at each phase of the business, because our instrument is not strong enough to go at such level of details. In addition, because of the lack of additional instruments, we are not able to compare various dimensions of the network in a unique model, which would limit the potential omitted variable bias.

However, some policy implications can be drawn from this Chapter 2. These results call for the need to ease the access to financial resources for household business owners, especially at the start of their activity. As shown by Chapter 3, this implicates finding mechanisms which guarantee low cost and flexibility in reimbursement through collective enforcement practices and trust building. In addition, the importance of information support conveyed by the social network suggests the necessity to support current professional groups in diffusing information to newcomers.

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Appendix

Appendix 2.1. Statistics of variables

Variable	Obs	Mean	Std. Dev.	Min	Max
Log of value added	3373	10.491	1.246	5	14
Being the eldest son	3373	0.231	0.422	0	1
Whole network size (all ties)	3373	1.145	1.290	0	13
Financial network size	3373	0.784	1.064	0	13
Information network size	3373	0.362	0.604	0	5
Family network size	3373	0.866	1.145	0	13
Non-family network size	3373	0.279	0.653	0	8
Network size in the starting phase	3373	0.578	0.772	0	5
Network size in the current phase	3373	0.568	0.902	0	13
Log of capital	3211	6.744	5.227	-14	15
Log of labour	3373	0.467	0.489	0	2
Log of initial labour	3373	0.380	0.470	0	5
Primary education level of the owner	3373	0.172	0.378	0	1
Lower secondary	3373	0.312	0.463	0	1
Higher secondary	3373	0.159	0.366	0	1
Superior education	3373	0.089	0.285	0	1
Experience	3373	14.086	10.450	0	65
Experience squared	3373	307.582	458.187	0	4,225
Entrepreneurship skill	3373	0.357	0.479	0	1
Duration of business	3373	12.269	11.011	1	115
Formal business	3373	0.261	0.439	0	1
Urban area (ref. Rural area)	3373	0.446	0.497	0	1
Northeast (ref. Red River delta)	3373	0.176	0.381	0	1
North Central region	3373	0.107	0.309	0	1
South Central Coast region	3373	0.105	0.307	0	1
Central Highlands region	3373	0.039	0.194	0	1
Southeast region	3373	0.210	0.407	0	1
Mekong River Delta region	3373	0.209	0.406	0	1

Source: The 2014 HBIS survey; Authors' calculations

Appendix 2.2. The first stage of the IV regression of social network

A. Instrument for Social Network alone

	Network size (ties)						
	Whole network size	by content		by relation		by business phase	
		Financial network size	Information network size	Family network size	Non-family network size	Network size in the starting phase	Network size in the current phase
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Being the eldest son	0.187*** (0.0584)	0.0903*** (0.0287)	0.0970** (0.0475)	0.0943*** (0.0344)	0.0930** (0.0396)	0.0725 (0.0492)	0.115*** (0.0325)
Log of labour	0.00684 (0.0478)	0.0750*** (0.0231)	-0.0682* (0.0383)	0.0145 (0.0280)	-0.00763 (0.0324)	-0.00297 (0.0403)	0.00981 (0.0259)
Log of capital	0.0174*** (0.00436)	0.00122 (0.00207)	0.0162*** (0.00367)	0.00517* (0.00265)	0.0122*** (0.00289)	0.0116*** (0.00402)	0.00576*** (0.00207)
Primary education	0.0480 (0.0762)	0.0554 (0.0346)	-0.00745 (0.0642)	0.0708 (0.0451)	-0.0229 (0.0540)	0.0323 (0.0645)	0.0157 (0.0437)
Lower	0.0873 (0.0794)	0.0615* (0.0351)	0.0258 (0.0672)	0.0679 (0.0457)	0.0194 (0.0570)	0.0821 (0.0688)	0.00517 (0.0439)
Higher	0.0783 (0.0851)	0.0646* (0.0374)	0.0136 (0.0724)	0.0630 (0.0489)	0.0153 (0.0607)	0.127* (0.0734)	-0.0483 (0.0469)
Superior	0.0146 (0.104)	0.0337 (0.0491)	-0.0191 (0.0839)	0.0343 (0.0594)	-0.0197 (0.0741)	0.0500 (0.0888)	-0.0353 (0.0600)
Experience	-0.00344 (0.00647)	-0.000226 (0.00293)	-0.00322 (0.00530)	-0.000768 (0.00386)	-0.00267 (0.00441)	-0.00699 (0.00557)	0.00355 (0.00322)
Experience	-4.46e-06 (0.000129)	2.11e-05 (6.14e-05)	-2.56e-05 (0.000105)	-1.75e-05 (8.07e-05)	1.30e-05 (8.67e-05)	0.000118 (0.000111)	-0.000123* (6.48e-05)
Entrepreneurship skill	0.318*** (0.0535)	0.106*** (0.0252)	0.211*** (0.0431)	0.123*** (0.0306)	0.194*** (0.0363)	0.216*** (0.0455)	0.102*** (0.0282)
Duration of business	-0.000301 (0.00297)	0.00315** (0.00132)	-0.00345 (0.00242)	0.00498** (0.00176)	-0.00528** (0.00209)	0.00348 (0.00270)	-0.00378** (0.00124)
Formal business	0.125** (0.0592)	0.0757*** (0.0272)	0.0493 (0.0483)	0.107*** (0.0334)	0.0175 (0.0422)	0.148*** (0.0508)	-0.0233 (0.0306)
Urban area	-0.247*** (0.0492)	-0.0767*** (0.0227)	-0.170*** (0.0406)	-0.104*** (0.0280)	-0.143*** (0.0345)	-0.207*** (0.0425)	-0.0402 (0.0256)
Northeast	-0.271*** (0.0793)	-0.0417 (0.0333)	-0.229*** (0.0683)	-0.154*** (0.0420)	-0.117** (0.0577)	-0.251*** (0.0692)	-0.0199 (0.0419)
North Central region	-0.0632 (0.102)	0.0894* (0.0474)	-0.153* (0.0787)	0.0239 (0.0579)	-0.0871 (0.0688)	-0.0500 (0.0842)	-0.0132 (0.0452)
South Central Coast region	0.268** (0.110)	0.147*** (0.0482)	0.121 (0.0990)	0.125** (0.0638)	0.143* (0.0809)	0.173* (0.100)	0.0956* (0.0568)
Central Highlands	-0.248** (0.0972)	0.0369 (0.0466)	-0.285*** (0.0801)	-0.0725 (0.0622)	-0.176** (0.0695)	-0.328*** (0.0781)	0.0799 (0.0602)
Southeast	-0.0740 (0.0692)	0.132*** (0.0323)	-0.206*** (0.0572)	0.0495 (0.0384)	-0.124** (0.0498)	-0.129** (0.0601)	0.0545 (0.0383)
Mekong River Delta region	-0.207*** (0.0766)	0.0797** (0.0362)	-0.287*** (0.0621)	0.101** (0.0489)	-0.308*** (0.0514)	-0.0487 (0.0694)	-0.159*** (0.0340)
Constant	1.012*** (0.102)	0.127*** (0.0470)	0.885*** (0.0857)	0.360*** (0.0593)	0.652*** (0.0740)	0.756*** (0.0891)	0.256*** (0.0561)
Observations	3,211	3,211	3,211	3,211	3,211	3,211	3,211
R-squared	0.047	0.040	0.044	0.033	0.049	0.036	0.031

Whole network size	Network size (ties)						
	by content		by relation		by business phase		
	Financial network size	Information network size	Family network size	Non-family network size	Network size in the starting phase	Network size in the current phase	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Weak identification test							
Stock-Yogo weak ID test critical values for K1=1 and L1=1:							
10% maximal IV size 16.38							
15% maximal IV size: 8.96							
20% maximal IV size: 6.66							
25% maximal IV size: 5.53							
Cragg-Donald							
Wald F	39.66	27.85	16.93	16.607	27.47	21.085	26.10

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1;

Source: *The 2014 HBIS survey; Authors' calculations*

Principle: Stock and Yogo weak ID test for weak instruments by using the F-statistic form of Cragg-Donald Wald F statistic. The null hypothesis is that instruments are weak, where weak instruments are those that can lead to an asymptotic relative bias greater than some level up to 30% of OLS. A rule of thumb to have strong instruments that Wald F is more than 10.

Conclusion: SW F statistics of one instrument alone for the social network size are more than 10. Single instruments are strong for social network sizes.

The instrument for the social network size measured in all ties is the strongest, resulting a higher improvement over OLS in terms of bias (the 2SLS estimates' maximum bias are less than 10% maximal size of a 5% Wald test of coefficient estimate).

The instrument for the social network size, regarding the financial network, the non-family network, and the network in the current phase, is stronger than that regarding the information network, the family network, and the network in the starting phase, respectively.

B. Instruments for Social Network and Labour jointly

	Network size (ties)						
	Whole network size	by content		by relation		by business phase	
		Financial network size	Information network size	Family network size	Non-family network size	Network size in the starting phase	Network size in the current phase
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Being the eldest son	0.185*** (0.0586)	0.0893*** (0.0288)	0.0955** (0.0476)	0.0924*** (0.0345)	0.0924** (0.0395)	0.0699 (0.0492)	0.115*** (0.0325)
Log of initial labour	0.0436 (0.0499)	0.0888*** (0.0238)	-0.0452 (0.0409)	0.0422 (0.0281)	0.00135 (0.0359)	0.0355 (0.0424)	0.00807 (0.0271)
Log of capital	0.0172*** (0.00434)	0.00139 (0.00207)	0.0158*** (0.00366)	0.00507* (0.00265)	0.0121*** (0.00288)	0.0114*** (0.00400)	0.00580*** (0.00208)
Primary education	0.0492 (0.0760)	0.0590* (0.0346)	-0.00981 (0.0641)	0.0722 (0.0450)	-0.0230 (0.0538)	0.0331 (0.0643)	0.0161 (0.0436)
Lower	0.0884 (0.0792)	0.0663* (0.0351)	0.0221 (0.0672)	0.0693 (0.0456)	0.0191 (0.0569)	0.0827 (0.0687)	0.00573 (0.0437)
Higher	0.0784 (0.0850)	0.0645* (0.0374)	0.0139 (0.0725)	0.0631 (0.0489)	0.0153 (0.0607)	0.127* (0.0733)	-0.0483 (0.0469)
Superior	0.0128 (0.104)	0.0322 (0.0491)	-0.0194 (0.0839)	0.0328 (0.0594)	-0.0201 (0.0741)	0.0481 (0.0888)	-0.0354 (0.0601)
Experience	-0.00343 (0.00647)	5.13e-05 (0.00294)	-0.00348 (0.00530)	-0.000724 (0.00386)	-0.00270 (0.00441)	-0.00701 (0.00556)	0.00358 (0.00322)
Experience	-3.36e-06 (0.000129)	1.78e-05 (6.16e-05)	-2.12e-05 (0.000105)	-1.71e-05 (8.08e-05)	1.38e-05 (8.67e-05)	0.000120 (0.000111)	-0.000123* (6.48e-05)
Entrepreneurship skill	0.314*** (0.0533)	0.105*** (0.0253)	0.209*** (0.0430)	0.121*** (0.0307)	0.193*** (0.0360)	0.212*** (0.0454)	0.102*** (0.0281)
Duration of business	-0.000461 (0.00298)	0.00294** (0.00132)	-0.00340 (0.00244)	0.00484** (0.00176)	-0.00530** (0.00211)	0.00333 (0.00270)	-0.00379*** (0.00126)
Formal business	0.116* (0.0594)	0.0741*** (0.0267)	0.0421 (0.0491)	0.101*** (0.0330)	0.0151 (0.0431)	0.139*** (0.0518)	-0.0226 (0.0302)
Urban area	-0.244*** (0.0493)	-0.0752*** (0.0226)	-0.168*** (0.0408)	-0.101*** (0.0280)	-0.142*** (0.0348)	-0.203*** (0.0426)	-0.0404 (0.0256)
Northeast	-0.265*** (0.0788)	-0.0429 (0.0331)	-0.222*** (0.0684)	-0.150*** (0.0417)	-0.115** (0.0579)	-0.245*** (0.0688)	-0.0206 (0.0421)
North Central region	-0.0582 (0.102)	0.0929* (0.0474)	-0.151* (0.0796)	0.0279 (0.0579)	-0.0861 (0.0696)	-0.0449 (0.0847)	-0.0133 (0.0456)
South Central Coast region	0.273** (0.111)	0.150*** (0.0483)	0.123 (0.0995)	0.129** (0.0639)	0.144* (0.0813)	0.178* (0.101)	0.0955* (0.0569)
Central Highlands	-0.244** (0.0970)	0.0358 (0.0463)	-0.280*** (0.0803)	-0.0698 (0.0620)	-0.174** (0.0695)	-0.323*** (0.0783)	0.0794 (0.0600)
Southeast	-0.0696 (0.0692)	0.132*** (0.0321)	-0.202*** (0.0575)	0.0527 (0.0383)	-0.122** (0.0500)	-0.124** (0.0604)	0.0542 (0.0383)
Mekong River Delta region	-0.203*** (0.0768)	0.0831** (0.0361)	-0.286*** (0.0625)	0.104** (0.0489)	-0.307*** (0.0518)	-0.0442 (0.0697)	-0.159*** (0.0341)
Constant	0.997*** (0.102)	0.123*** (0.0462)	0.874*** (0.0866)	0.349*** (0.0589)	0.648*** (0.0749)	0.741*** (0.0897)	0.257*** (0.0558)
Observations	3,211	3,211	3,211	3,211	3,211	3,211	3,211
R-squared	0.047	0.041	0.043	0.033	0.049	0.036	0.031

Whole network size	Network size (ties)						
	by content		by relation		by business phase		
	Financial network size	Information network size	Family network size	Non-family network size	Network size in the starting phase	Network size in the current phase	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Weak identification test							
Stock-Yogo weak ID test critical values for K1=1 and L1=1:							
10% maximal IV size: 7.03							
15% maximal IV size: 4.58							
20% maximal IV size: 3.95							
25% maximal IV size: 3.63							
Cragg-Donald							
Wald F statistic	19.56	14.37	7.47	8.33	13.23	9.90	13.36

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1;

Source: The 2014 HBIS survey; Authors' calculations

Principle: Stock and Yogo weak ID test for weak instruments by using the F-statistic form of Cragg-Donald Wald F statistic. The null hypothesis is that instruments are weak, where weak instruments are those that can lead to an asymptotic relative bias greater than some level up to 30% of OLS. A rule of strong instruments is when Wald F statistics is higher than the Stock-Yogo critical values.

Conclusion: SW F statistics of two instruments for the social network size and the labour size jointly are higher than the Stock-Yogo critical values. Two instruments jointly are strong for the social network size and the labour size.

The instrument for the social network size measured in all ties is the strongest, resulting a higher improvement over OLS in terms of bias (the 2SLS estimates' maximum bias are less than 10% maximal size of a 5% Wald test of coefficient estimate).

The instrument for the social network size, regarding the financial network, the non-family network, and the network in the current phase, is stronger than that regarding the information network, the family network, and the network in the starting phase, respectively.

Appendix 2.3. Regression of business performance on social network sizes

	Log of value added		
	(Model 1) OLS	(Model 2) IV	(Model 3) IV
Size of the whole network (all ties)	0.0712*** (0.0236)	0.478** (0.238)	0.482** (0.238)
Log of labour	0.791*** (0.0612)	0.855*** (0.0797)	0.836*** (0.110)
Log of capital	0.0376*** (0.00638)	0.0296*** (0.00840)	0.0297*** (0.00841)
Primary education level of the owner (ref. No)	0.404*** (0.0978)	0.337*** (0.116)	0.336*** (0.116)
Lower secondary	0.356*** (0.108)	0.313*** (0.116)	0.314*** (0.117)
Higher secondary	0.476*** (0.114)	0.415*** (0.124)	0.414*** (0.124)
Superior	0.556*** (0.206)	0.559*** (0.193)	0.558*** (0.192)
Experience in years	0.0166 (0.0133)	0.0174 (0.0118)	0.0176 (0.0117)
Experience squared	-0.000316 (0.000304)	-0.000328 (0.000265)	-0.000330 (0.000264)
Entrepreneurship skill	0.170** (0.0761)	0.0307 (0.126)	0.0300 (0.126)
Duration of business	0.00541 (0.00608)	0.00487 (0.00547)	0.00485 (0.00545)
Formal business (ref. Informal business)	0.436*** (0.0764)	0.349*** (0.0837)	0.353*** (0.0847)
Urban area (ref. Rural area)	0.125** (0.0622)	0.221** (0.0885)	0.221** (0.0888)
Northeast	-0.271** (0.122)	-0.263** (0.121)	-0.267** (0.119)
North Central region	0.000799 (0.103)	-0.0215 (0.114)	-0.0239 (0.114)
South Central Coast region	-0.105 (0.115)	-0.205 (0.136)	-0.207 (0.136)
Central Highlands region	-0.0729 (0.122)	0.0116 (0.148)	0.0109 (0.148)
Southeast region	0.334*** (0.0892)	0.341*** (0.100)	0.340*** (0.1000)
Mekong River Delta region	-0.0584 (0.0996)	0.000400 (0.117)	0.000434 (0.117)
Constant	9.016*** (0.148)	8.634*** (0.275)	8.637*** (0.277)
Observations	3,211	3,211	3,211
R-squared	0.270	0.101	0.098

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1;
Source: The 2014 HBIS survey; Authors' calculations.

Appendix 2.4. The probit IV regression of social network measured as a categorical variable

	First stage Network size	Second stage Log of value added
Being the eldest son	0.284*** (0.046)	
Network size (all ties)		0.559*** (0.170)
Log of labour	0.012*** (0.004)	0.017*** (0.004)
Log of capital	-0.100** (0.043)	-0.253*** (0.045)
Primary education level of the owner	-0.051 (0.065)	-0.047 (0.067)
Lower secondary	0.079 (0.052)	0.030 (0.054)
Higher secondary	0.025 (0.062)	-0.055 (0.065)
Superior education	-0.068 (0.077)	-0.118 (0.079)
Experience	-0.000 (0.005)	-0.004 (0.005)
Experience squared	-0.000 (0.000)	-0.000 (0.000)
	0.270*** (0.042)	0.255*** (0.043)
Duration of business	0.005** (0.003)	0.001 (0.003)
Formal business (ref. Informal business)	0.181*** (0.048)	0.157*** (0.050)
Urban area (ref. Rural area)	-0.234*** (0.042)	-0.202*** (0.044)
Northeast (ref. Red River delta)	-0.010 (0.069)	0.010 (0.071)
North Central region	0.004 (0.081)	-0.010 (0.083)
South Central Coast region	0.251*** (0.079)	0.046 (0.082)
Central Highlands region	-0.105 (0.110)	-0.190* (0.114)
Southeast region	-0.038 (0.068)	-0.212*** (0.071)
Mekong River Delta region	-0.065 (0.070)	-0.209*** (0.073)
Constant cut1	-0.079 (0.085)	0.000 (0.089)
Constant cut2	0.684*** (0.086)	0.844*** (0.090)
Constant cut3	1.379*** (0.088)	1.488*** (0.093)
Observations	3,211	3,211
R-squared		0.129

Standard errors in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$;

Source: The 2014 HBIS survey; Authors' calculations

Weak identification test

Stock-Yogo weak ID test critical values for $K1=1$ and $L1=1$:

10% maximal IV size: 13.43

15% maximal IV size: 8.18

20% maximal IV size: 6.40

25% maximal IV size: 5.45

Cragg-Donald Wald F statistic: 15.12

The null hypothesis is that instruments are weak. A rule of strong instruments is when Wald F statistics is higher than the Stock-Yogo critical values.

Conclusion: SW F statistics of two instruments for the social network size and the labour size jointly are higher than the Stock-Yogo critical values. Two instruments jointly are strong for the social network size and the labour size.

Appendix 2.5. Regression of business performance on social network sizes

	Log of value added			
	(Model 4) OLS	(Model 5) OLS	(Model 6) IV	(Model 7) IV
Size of the financial network	0.0807*** (0.0254)		0.681* (0.349)	
Size of the information		0.0741 (0.0582)		1.653 (1.008)
Log of labour	0.798*** (0.0617)	0.774*** (0.0631)	0.973*** (0.155)	0.504*** (0.194)
Log of capital	0.0376*** (0.00639)	0.0389*** (0.00644)	0.0266*** (0.00964)	0.0372*** (0.00845)
Primary education level of the owner (ref. No	0.409*** (0.0979)	0.410*** (0.0976)	0.360*** (0.115)	0.279* (0.164)
Lower secondary	0.358*** (0.108)	0.360*** (0.108)	0.318*** (0.120)	0.305** (0.135)
Higher secondary	0.483*** (0.114)	0.479*** (0.115)	0.455*** (0.123)	0.315* (0.173)
Superior	0.562*** (0.209)	0.549*** (0.207)	0.613*** (0.209)	0.426** (0.197)
Experience in years	0.0165 (0.0134)	0.0165 (0.0136)	0.0169 (0.0118)	0.0192 (0.0133)
Experience squared	-0.000312 (0.000305)	-0.000317 (0.000310)	-0.000298 (0.000266)	-0.000410 (0.000297)
Entrepreneurship skill	0.177** (0.0769)	0.185** (0.0763)	0.0468 (0.126)	-0.0107 (0.175)
Duration of business	0.00572 (0.00611)	0.00521 (0.00619)	0.00735 (0.00553)	-0.00122 (0.00720)
Formal business (ref. Informal business)	0.439*** (0.0763)	0.447*** (0.0776)	0.341*** (0.0985)	0.383*** (0.103)
Urban area (ref. Rural area)	0.120* (0.0622)	0.115* (0.0623)	0.210** (0.0877)	0.246* (0.127)
Northeast	-0.273** (0.123)	-0.270** (0.124)	-0.270** (0.129)	-0.259* (0.135)
North Central region	0.00737 (0.103)	-0.00182 (0.103)	0.0312 (0.122)	-0.158 (0.156)
South Central Coast region	-0.0922 (0.114)	-0.101 (0.117)	-0.126 (0.135)	-0.406 (0.250)
Central Highlands region	-0.0687 (0.122)	-0.0896 (0.122)	0.0747 (0.167)	-0.144 (0.167)
Southeast region	0.349*** (0.0889)	0.320*** (0.0885)	0.465*** (0.124)	0.0344 (0.231)
Mekong River Delta region	-0.0489 (0.0996)	-0.0761 (0.100)	0.0991 (0.147)	-0.239 (0.154)
Constant	9.015*** (0.148)	9.076*** (0.148)	8.497*** (0.343)	8.978*** (0.216)
Observations	3,211	3,211	3,211	3,211
R-squared	0.269	0.266	0.019	-0.297

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1;

Source: The 2014 HBIS survey; Authors' calculations.

Appendix 2.6. Regression of business performance on social network sizes

	Log of value added			
	(Model 8) OLS	(Model 9) OLS	(Model 10) IV	(Model 11) IV
Size of the family network	0.0665** (0.0264)		0.825* (0.484)	
Size of the non-family network		0.0716 (0.0457)		1.161* (0.623)
Log of labour	0.791*** (0.0612)	0.778*** (0.0621)	0.928*** (0.160)	0.707*** (0.113)
Log of capital	0.0383*** (0.00639)	0.0383*** (0.00647)	0.0307*** (0.00862)	0.0283*** (0.00969)
Primary education level of the owner (ref. No	0.406*** (0.0978)	0.415*** (0.0981)	0.293** (0.148)	0.396*** (0.112)
Lower secondary	0.355*** (0.108)	0.365*** (0.108)	0.260* (0.141)	0.390*** (0.119)
Higher secondary	0.474*** (0.115)	0.489*** (0.115)	0.329** (0.159)	0.535*** (0.126)
Superior	0.552*** (0.206)	0.558*** (0.211)	0.523*** (0.188)	0.608*** (0.234)
Experience in years	0.0168 (0.0134)	0.0162 (0.0137)	0.0211* (0.0118)	0.0126 (0.0139)
Experience squared	-0.000321 (0.000305)	-0.000308 (0.000312)	-0.000408 (0.000264)	-0.000221 (0.000310)
Entrepreneurship skill	0.177** (0.0758)	0.189** (0.0779)	-0.0202 (0.169)	0.101 (0.111)
Duration of business	0.00533 (0.00613)	0.00560 (0.00618)	0.00333 (0.00604)	0.00698 (0.00579)
Formal business (ref. Informal business)	0.432*** (0.0773)	0.456*** (0.0778)	0.216 (0.172)	0.546*** (0.109)
Urban area (ref. Rural area)	0.125** (0.0626)	0.108* (0.0623)	0.309** (0.143)	0.0971 (0.0709)
Northeast	-0.270** (0.122)	-0.273** (0.125)	-0.249* (0.138)	-0.292** (0.136)
North Central region	0.00301 (0.103)	0.00258 (0.103)	-0.0161 (0.130)	-0.0350 (0.123)
South Central Coast region	-0.0917 (0.115)	-0.100 (0.116)	-0.140 (0.152)	-0.302 (0.185)
Central Highlands region	-0.0638 (0.122)	-0.0985 (0.122)	0.208 (0.244)	-0.267 (0.183)
Southeast region	0.339*** (0.0896)	0.329*** (0.0883)	0.400*** (0.127)	0.254** (0.105)
Mekong River Delta region	-0.0687 (0.100)	-0.0584 (0.0995)	-0.0686 (0.130)	0.0976 (0.139)
Constant	9.032*** (0.148)	9.070*** (0.147)	8.453*** (0.436)	8.898*** (0.187)
Observations	3,211	3,211	3,211	3,211
R-squared	0.269	0.266	-0.199	-0.041

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1;

Source: The 2014 HBIS survey; Authors' calculations.

Appendix 2.7. Regression of business performance on social network sizes

	Log of value added			
	(Model 12) OLS	(Model 13) OLS	(Model 14) IV	(Model 15) IV
Network size at the start	0.0770 (0.0484)		1.124* (0.655)	
Network size in the current phase		0.0912*** (0.0343)		0.845* (0.448)
Log of labour	0.784*** (0.0612)	0.788*** (0.0623)	0.768*** (0.118)	0.887*** (0.139)
Log of capital	0.0386*** (0.00640)	0.0377*** (0.00647)	0.0335*** (0.00823)	0.0269*** (0.0100)
Primary education level of the owner	0.412*** (0.0987)	0.405*** (0.0970)	0.358** (0.139)	0.320*** (0.120)
Lower secondary	0.358*** (0.109)	0.359*** (0.108)	0.302** (0.137)	0.323*** (0.116)
Higher secondary	0.480*** (0.115)	0.481*** (0.114)	0.385*** (0.147)	0.436*** (0.123)
Superior	0.543*** (0.203)	0.569*** (0.211)	0.386** (0.196)	0.688*** (0.240)
Experience in years	0.0170 (0.0134)	0.0159 (0.0135)	0.0255* (0.0132)	0.0117 (0.0128)
Experience squared	-0.000322 (0.000306)	-0.000306 (0.000308)	-0.000448 (0.000278)	-0.000242 (0.000288)
Entrepreneurship skill	0.183** (0.0748)	0.177** (0.0789)	0.0258 (0.146)	0.0332 (0.139)
Duration of business	0.00479 (0.00612)	0.00623 (0.00616)	-0.00496 (0.00808)	0.0122* (0.00645)
Formal business (ref. Informal business)	0.444*** (0.0780)	0.441*** (0.0759)	0.361*** (0.110)	0.347*** (0.109)
Urban area (ref. Rural area)	0.119* (0.0620)	0.118* (0.0626)	0.255** (0.116)	0.195** (0.0891)
Northeast	-0.269** (0.123)	-0.275** (0.125)	-0.236* (0.129)	-0.291** (0.144)
North Central region	-0.00108 (0.102)	0.00654 (0.103)	-0.0884 (0.128)	0.0245 (0.129)
South Central Coast region	-0.0960 (0.116)	-0.0998 (0.114)	-0.217 (0.162)	-0.201 (0.142)
Central Highlands region	-0.0815 (0.123)	-0.0760 (0.121)	-0.00365 (0.174)	0.0218 (0.156)
Southeast region	0.322*** (0.0883)	0.348*** (0.0889)	0.164 (0.152)	0.471*** (0.134)
Mekong River Delta region	-0.0844 (0.100)	-0.0369 (0.0990)	-0.300* (0.172)	0.227 (0.205)
Constant	9.054*** (0.149)	9.031*** (0.146)	8.691*** (0.313)	8.597*** (0.307)
Observations	3,211	3,211	3,211	3,211
R-squared	0.267	0.269	-0.137	-0.006

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1;

Source: The 2014 HBIS survey; Authors' calculations.

CHAPTER 3

Influence mechanisms of Social Networks on Household Business Performance: A qualitative assessment in Vietnam

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Abstract

Household business owners mainly rely on their social networks of strong ties to acquire resources in Vietnam. However, no consensus is found in the literature on the influence of strong ties on the performance of small firms in developing countries. Using an original set of qualitative data collected based on the representative 2014 HBIS survey, Chapter 3 provides new evidence on the influence of social networks on household businesses by employing a relational approach of the networks. It contributes to the literature by distinguishing the effects of social networks at different phases of the business cycle. It shows that, in the business creation process, strong ties are by far the preferred source of the initial capital as well as information supports. They shape the business at a small size and make it less adaptable to rapid changes in the market demand and the technologies in the latter phase of business development. Weak ties are much less mobilized at the start of the business, but they provide a source of valuable information to create innovative businesses. The more the business grows, the higher is the strength of the weak ties. The study illustrates that the use of social networks, including the weak ties, should be understood to be embedded in family structures and local community contexts, with a set of duties and rights embedded in reciprocal relationships beyond the business interactions.

Keyword: social network, strength of ties, household businesses, informal sector, and Vietnam.

1. Introduction

There is strong evidence demonstrating the importance of social networks for small businesses in developing countries (Hoang and Antoncic, 2003). In Vietnam, the personal network is a general strategy that household businesses use to acquire resources, as shown by Pasquier-Doumer (my colleague) and me (Pasquier-Doumer and Nguyen P., 2017). Additionally, the family network is the primary provider of information and skills when starting a business. Family members are by far the people most often asked to support the business, especially financial support. As an illustration, they account for 89 percent of the contacts mobilized for funding.

While strong ties are the main common source of support in business functioning, recent literature has demonstrated the negative effect of family and kinship ties on small business performance. As an illustration, Grimm et al. (2013) report the "adverse incentive effects" of the redistributive pressure of family networks. Burt (1992, and 2001) and Bartolini and Bonatti (2004) provide evidence that the "gossip effect" may eliminate the possible role of social networks in reducing transaction costs.

This draws attention to the need to understand the reasons why the family network is preferably mobilized, and to scrutinize whether the dominance of strong ties in the informal sector in Vietnam hinders the household business growth. Therefore, Chapter 3 aims to fill that knowledge gap by providing a qualitative picture of the role of one's social network in the performance of household businesses in Vietnam. It relies on an original set of qualitative data collected based on the representative 2014 HBIS survey.

Chapter 3 has two contributions. First, it looks at the mechanisms and channels through which different social networks transfer different resources and affect household business design and performance. Differences in social networks are analysed through the lens of the strength of the ties. Information, financial capital, and labour are the resources under consideration. The prevalence and the cost and benefit related to the use of different networks in order to reach these different kinds of resources are examined.

Second, Chapter 3 analyses the social network's influence by distinguishing the start-up process from the scale-up process. In fact, a social network may influence the success of business differently at different times as the business grows (MacMillan, 1983; Birley, 1995; and Johannisson, 1996).

Findings illustrated that, in the business creation process, strong ties are by far the most preferred source of the initial capital, and information supports as well. In a context where the formal financial market is not well developed, the support from strong ties is a necessary condition to start a business. However, the financial capacity of close relatives and the status of the owner within the family usually shape the size of the business at a low level. Information support from the family networks plays an essential role in the choice of the business activities. However, it often goes against innovation and makes the business ill-

adapted to rapid changes in the market demand and the technologies. Weak ties are much less mobilized at the start of the business, but they are a source of valuable information to create innovative businesses. The more the business grows, the more important the weak ties. The study illustrates the use of social networks should be understood to be embedded in family structures and local community contexts, supposing a set of rights and obligations embedded in reciprocal relationships beyond the business interactions only.

Chapter 3 has five sections. Following the introduction, Section 2 is a review of the literature. Section 3 is an introduction to the methodology of the qualitative research. Section 4 is a discussion of the findings, and Section 5 concludes.

2. Literature review

There is wide agreement that personal networks are critical for the performance of small businesses (MacMillan, 1983; Hoang and Antoncic, 2003). An idea for a new business pushes an entrepreneur to ask for resources, including equipment, premises, capital, advice, information, and reassurance from some contacts in his or her networks. By providing resources to business, personal contacts may influence an entrepreneur's goals, strategy and business planning. On the one hand, social networks help entrepreneurs to overcome constraints, e.g., market entry barriers, market information asymmetry, skill shortage, and credit barriers. Relying on social networks can improve business efficiency thanks to business advice, lower transaction costs, and flexible commitments. On the other hand, receiving support from a network can create constraints or add costs to a business due to social obligations that then arise (Portes and Landolt, 2000). As shown by the literature linking social network and small business performance, the value of different networking strategies depends on the properties of the network, but on the specific phase of the business life cycle as well (Stam et al., 2014). Yet, despite a growing interest in the influence of social networks on small business performance, little consensus exists regarding these two issues.

2.1. The strength of ties and business performance

Based on theories of influences of social networks on small businesses, properties of a network are evaluated along with its three dimensions, which are the relational, structural and resource ones. Our approach mostly aims at contributing to the understanding of the role of the relational dimension, which best fits with the methodological choices we made for the data collection (see Chapter 2).

Researchers examining the relational dimension of social networks consider the nature and quality of interactions between partners, highlighting a trade-off between weak and strong ties. On the one hand, researchers have employed Granovetter's (1973) weak tie theory to argue that entrepreneurs can access more valuable information through weak ties. Weak ties serve essential functions such as providing new and non-redundant market information, advice and problem-solving suggestions. Also, they leave more opportunities to connect

to other social networks by bridging between disconnected networks, and thus they provide access to more diverse resources.

On the other hand, the benefit of strong ties has been stressed by various studies. Emotional support is often transferred through strong ties, thanks to the trust and intimacy inherent in those relationships (Marsden and Campbell, 1984; Granovetter, 1993). Durable and reliable relationships can provide many benefits, including information and financial support (Uzzi, 1997; Bygrave et al., 2003; and Ruef, 2010). First, the benefits of strong ties are explained by the principle of reciprocal exchange, which is essential to avoid opportunism and uncertainty between the entrepreneur and business contacts. Kranton (1996) demonstrates that reciprocal exchange between people who know each other very well reinforces mutual trust and belief in future reciprocal commitments. According to Kranton, having a reciprocal relationship is an informal way to enforce contracts and lower transaction costs. Penalties for lack of reciprocity in the future keep the relationship stable. Second, the benefit of strong ties may be driven by altruism. When loved ones commit an act of altruism such as providing financial support without charging interest, they feel good. When close relationships trust the business owner, they provide the emotional support needed to take risks or persevere in business (Gimeno et al., 1997). Third, since they are more likely to share similar characteristics and the same values and interests (McPherson et al., 2001), strong ties place great trust in the business owner, particularly in his or her ability to run a business (Falck et al., 2010; Bosma et al., 2012; and Anderson and Larsson, 2016). Putnam (2000) states that "thick trust" is embedded in strong ties. They also improve mutual understanding in case of a difficult situation. Hirschman (1972) explains that this benefit stems from the predictability of other parties' behaviour when the situation changes.

Conversely, strong ties are not always associated with positive influences on the business. Support from strong ties often comes with social obligations, which may limit the freedom of the entrepreneur to exploit new opportunities (Uzzi, 1997). Reciprocity can take the form of pressure to redistribution of the benefit of the business to family members, hindering the capacity of the business to grow (Meagher, 2006; Whitehouse, 2011; Grimm et al., 2013). Strong ties may give poor advice or false information, and they may express overconfidence in an entrepreneur's abilities (Sorenson, 2018). Burt (1992, and 2001) and Bartolini and Bonatti (2004) provide evidence that the "gossip effect" may eliminate the possible role of social networks in reducing transaction costs.

The debate between these two conflicting perspectives remains unresolved, although it has gone on for decades. The lack of evidence, especially in developing countries, partially explains this. One exception is the research by Berrou and Combarrous (2012), which tests the global influence of strong ties on the performance of small urban enterprises in Burkina Faso. It finds that relying on strong ties is associated with better performance of the business in this context. Thus, Chapter 3 aims at contributing to this debate by providing an in-depth analysis of the costs and benefits of relying on strong versus weak ties for small entrepreneurs in another developing country.

2.2. Influences in different phases of a business

Literature finds different influence process wherein the entrepreneur interacts with the networks in his local environment at different phases of development of a business. Strong ties are more important than weak ties at the early stage (Witt, 2004; Ruef, 2010; and Hancock, 2013 among many others). The benefits from strong ties are valuable when they provide available and less expensive resources for the start, or even resources would not be available in the market (e.g., reputation, customer contacts). The explanation is the nature of frequent interaction and intimacy, which built up the belief and trust to provide the support among close contacts. Ruef (2010) emphasizes that, in the beginning phase, the business always goes with high uncertainty about the business owner's ability to deal with the risks. In such circumstance, only strong ties, with whom have confidence on the business owner's capacity, and are the best to evaluate the business owner, can transfer resources with the belief that he or she would succeed. In part, the support from strong ties is straightforward to show the altruism towards the business owner at the start, as social encouragement (Bygrave and Reynolds, 2006; Sorenson, 2018). Ruef (2010) also agrees that without any support from strong ties, those best to be able to consider the business owner's ability, it would be a signal of weak success to others. Starting a new business plan, the business owner may consult only strong contacts, when he or she has not any other contacts. The business owner often accepts advice or information from strong ties in the starting phase, because he or she desires to satisfy his or her close contacts. Ruef explains that strong contacts would be insulted if their advice were not taken into consideration.

Also in the starting phase, the business owner also relies on weak ties, especially to acquire innovative information. Shane and Venkataraman (2000) argue that new information, which is obtained through weak ties with casual acquaintances, is the most important thing to identify a business opportunity. Ruef (2010) also confirms the stronger importance of weak ties, regards to the innovation at the beginning, even when he does not deny the essential roles of strong ties in the business start. He discusses that weak ties do not request social conformity or selection of information to show the respect or trust on the understanding of circumstance. Then, the business owner is freer to modify the advice from available weak ties. The stronger influence of weak ties in the starting period often involves a more innovative business plan.

Weak ties become more and more important during the operating phase (Hite and Hesterly, 2001; Hoang and Antoncic, 2003; Elfring and Hulsink, 2004). According to Hoang and Antoncic (2003), when a business grows, the owner's reputation may improve, which helps to build up a more extensive professional network gradually. In that process, the business owner explores more contacts to manage their business at best. New connections are built up to grow the business, to find potential markets, search for innovations and best practices.

However, empirical evidence supporting these theoretical patterns is scarce and even inexistent in the context of developing countries. Chapter 3 seeks to provide evidence on the evolution of small business networks in a developing

country where there is a lack of formal institutions, and where the businesses are embedded in a cohesive local community.

2.3. Case study of Vietnam

Vietnam is well known for having a developed culture of “close networks” based on strong family and community relationships. That explains why some literature shows the dominant role of strong ties over weak ties in supporting businesses in this country. Turner (2009) describes how traders mainly rely on supports from close contacts from the previous work, where they worked before the Renovation⁵⁵ (the country’s economic transformation), to start the same type of business in the urban part of Hanoi, the central city in the Red River Delta. Also, Tuner and Nguyen P.A. (2009) observe that almost all entrepreneurs rely on close networks of family members and friends, in their starting period, in a qualitative study in Vietnam. However, they show a cost of lower business efficiency in the later phase, when they face a social obligation to employ family members regardless of their ability.

In a study on the characteristics of the rural Red River Delta, Nguyen D.T. (2003) explains the cultural principles of supports among strong ties of rural businesses. The husband and wife in a nuclear household tend to have close connections with extended members in their parents’ families.⁵⁶ Some have reciprocal financial supports arrangements with each other, which is key to maintaining intimacy among siblings. Family contacts often give out supports, regardless of immediate returns, because of a hope that a reciprocal exchange tradition will be established in the clan in order to support other members in the future.⁵⁷ However, Nguyen D.T. also reveals how strong ties cannot work for all the cases. Siblings often act in their own best interest in order to show economic independence. “*I come first*”⁵⁸ is an often-heard expression about no support among family contacts. Non-reciprocal economic support among relatives, e.g., siblings, after they got married is also sometimes provided, but only exceptionally, because doing so may upset an in-law. This study shows some evidence of the strength of strong ties in providing support for businesses in the rural area. However, it does not analyse the influences throughout the business lifetime.

Clearly, these qualitative studies on the influences of social networks in Vietnam so far have not considered the strength of the ties in each phase of a business cycle. Given that the literature on the role of social network on businesses was last updated with the 2014 HBIS survey, there is a need to conduct an original qualitative survey and a following analysis on the mechanisms through which different social networks, i.e., strong versus weak ties, may affect household business performance in each business phase of its development in Vietnam.

⁵⁵ “*Đổi Mới*” in Vietnamese, which began in 1985, is a political and economic change from a centrally-controlled economy to a market economy.

⁵⁶ “*Gia đình gốc*” in Vietnamese.

⁵⁷ “*Quan hệ ứng trước trả sau qua thế hệ*” in Vietnamese.

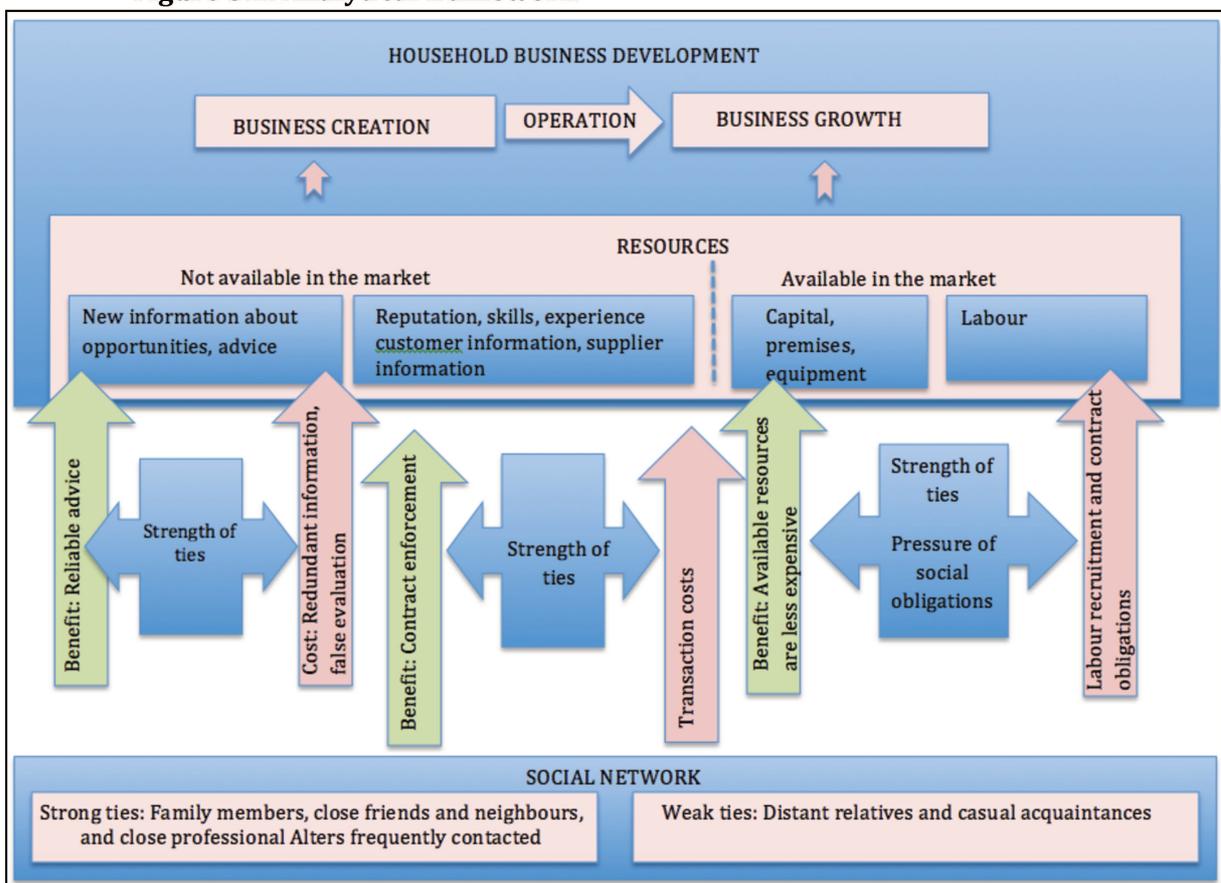
⁵⁸ “*Anh em kiến giả nhất phận*”, “*Ai có thân nấy lo*” in Vietnamese.

3. Methodology

3.1. Conceptual background

This qualitative study explores business owners' perceptions of the process of using contacts in their social networks to perform their business. Figure 1 describes the different possible mechanisms through which different social networks may affect the trajectory of a business's performance by providing benefits and resources that are less expensive than those available in the market or are not available in the market, e.g., a reputation or a customer network. As explained in the literature review, these influences vary according to the strength of the ties between *Ego* (the business owner) and an *Alter* (a network contact), and the pressure for reciprocity in the exchange (social obligations).

Figure 3.1. Analytical framework



Source: by Authors

The cost and benefit analysis focuses on business owners' perceptions of why a social network is used to access a particular resource in a specific market context. Regarding growth, this study analysis uses a business cycle approach. It distinguishes two phases, namely the creation of the business, and the development phase later. According to the literature, social networks are critical to the creation of business because they provide information, business opportunities and resources that a new business has difficulties in accessing in the market (or for which no market is available given the business failure risks). During the development phase, social obligations may force business owners to hire family members and accept relatives as trainees, with the possible negative consequences on the labour efficiency. Following the framework suggested by Shane and Venkataraman (2000), the analysis looks at the two types of support needed at the time of creation: identifying a business opportunity and raising resources to create the business. The study explores how a social network provides new and useful information, and then how it provides access to additional resources to start a business.⁵⁹ Following Witt (2004), the study observes how social networks provide resources for business upgrading, in the development phase, including both factors available (i.e., labour, and capital), and not available in the market (contacts with customers and suppliers, and professional contacts for cooperation and strategic operations).

A focus is given to mechanisms through which social networks may affect the trajectory of the business performance. The literature informs that the strength of strong ties may bring more available resources or premises, and capital, which have no interest or any cost. Strong ties include close, intimate and frequent contacts. They involve emotional intensity and reciprocal exchange. They may be granted (family clan's members) or built over time through repeated demonstration of trust, mutual supports, based on same values and interests. However, the benefit of strong ties may be questioned as far as they provide repeated information or a wrong evaluation of the business owner's ability, or when they involve costly social obligations.

Detecting the strength of ties, the study investigates the reason why social interactions with strong ties to get particular support are preferred to those with weak ties or vice versa. Raising benefits and costs from social interactions, the interviewee shares nuances of personal thinking, specific contexts, and traditions. In addition, other factors, e.g., gender, risk aversion, social background, may drive these benefits and costs from the social networks.

A limitation of the study is that it focuses only on the consideration of *Ego* about the benefits and costs from interaction, but it does not take into consideration the decision-making process of the *Alters* to interact. For example, when *Ego* receives technical support from a friend within a day to fix a machine, the study takes as given situation that the friend is willing to support him. It ignores other options of employment or activity that the friend could have on that day. To

⁵⁹ Tangible and intangible resources for the business are both considered. Information, advice and problem-solving suggestions are defined as intangible resources.

some extent, the network is considered as given. The central topic is the influence process from that given networks related to the business performance.

3.2. Sample design

The qualitative survey covers 41 household businesses purposively sampled from 625 household businesses in Hanoi interviewed during Household Business and Informal Sector survey in Vietnam (HBIS) in 2014. The 2014 HBIS survey is the first representative survey of the household businesses and the informal sector in Vietnam. It collects information about the characteristics of the entrepreneurs, their businesses production and performance, including the characteristics of workers and the social network of the entrepreneurs (see Chapter 2). The qualitative survey focuses on the province of Hanoi because it is one of the two provinces where household businesses are the most concentrated in Vietnam⁶⁰ and because the 2014 HBIS survey is representative at the Hanoi province level.

The qualitative survey has been conducted in the last two months of 2017. Based on the HBIS sample, the interviewees have been selected in order to cover the wide range of situations for the following information collected in the HBIS survey: the network type of the business owner,⁶¹ the size of the business (a self-account worker or a business with at least two workers), the sector of activity (manufacture, trade, or service), the business performance (in the top decile of the value added, or not), the location (rural or urban area), and the sex of the owner. This selection has two phases (see Appendix 2). In the first phase, 41 groups are selected by targeted characteristics of household businesses. In the second phase, one household business is randomly selected in each group. Some descriptive statistics about the business selected in the sample are presented in Appendix 1. The geographical localisation of the interview sites is in Appendix 3.

⁶⁰ The data of Labour Force Survey in 2017 by GSO shows that the two provinces having the largest number of non-farm household businesses are Hanoi and Ho Chi Minh City, accounting for 6.9 and 7.4 percent of the national business population, respectively. Meanwhile, each other province has that figure no more than 2.2 percent of all businesses.

⁶¹ The type has been defined from a reasoned typology of social network in six categories (see Appendix 3.2). This typology has been built according to the type of support received from the network, and the strength of the ties.

3.3. Interview implementation

3.3.1. Interview methods

The interview uses two qualitative tools, including (1) the history life of the business to explore the influence of social networks over time, and (2) the social network map to explore influences (benefits and costs) from specific supports from *Alters*. The interview was scheduled to last about two hours. An open-structured interview guideline was developed with interview topics to gain an in-depth understanding of the influences of the social network on household businesses (see Appendix 3.4).

There might be possible discomfort by the interviewee when speaking about his or her social network, i.e., talking about the third persons. Box 3.1 shows two examples when the ice between the authors and the respondent was not broken yet.

Box 3.1. Self-restriction of the respondent in a discussion about a third person

Interview 31, making chopsticks, female, 38 years old

My sister often comes to visit me. She wants to see me because we are very close sisters. Nothing to say about her here. It is just her kindness to help me in her free time. For the business, it does not matter. I would like that you don't take her name, and go to her with questions later.

Interview 41, a truck driver, male, 46 years old

You should write that he is just a regular friend. You also have friends, so you should understand me. It would take too much time to enter into the details about our friendship. Anyway, why would you like to know that he is a family member or a friend?

Then, two strategies were used to minimize the self-censorship of the respondents when they discuss their social networks. The first one is the observation method on business site, which is to conduct the interview at the workplace during business hours and to spend longer time on site (about three hours) to observe the business operations and environment (interactions with their neighbours, family members, suppliers, partners, and customers, etc.). However, not all interviews were conducted at the workplace during business operation, especially when the workplace is mobile (e.g., taxi motor driver), or when the interviewee requested to be interviewed at home. The second one is the pre-interview approach, which is to make dialogues with neighbours and local authorities before the interview with the business owner. These pre-interview conversations were conducive to formulate more accurate and relevant open-ended questions. The two strategies are helpful to break the ice with the interviewee, as the authors express some relevant knowledge of the business or the neighbourhood. Besides, they build up the respondent's confidence in the authors' ability to understand the issues when the authors express some information about the context and constraints on the network, which the business might face.

3.3.2. Interview interpretation

A challenge in interview interpretation is found when *Ego* has a complex network, especially a sophisticated family clan, and identifies one person by several roles. The business owner may address a third person as a family member, but in fact, he is a non-family member (see Box 3.2). Therefore, the interview pays attention not to rely only on how the interviewee addresses the third person, but also explore the real tie.

Box 3.2. A contact presented as a family member when it is not the case

Interview 1, lacquer painter, male, 43 years old

I borrow small amounts of money from family members. When I have not sold my product yet, but I run out of money for paints and living expenses. So I borrowed between a few hundred up to a few million VND. I ask first to my parents if I am not in debt with them already, because they receive a pension every month. Otherwise, I come to my younger brother and my close friends. All of them are family members.

After a further chat, the authors understood that the respondent had one younger brother but also named a very close friend who works in the same sector as "my younger brother". For both of them, the respondent used the term "my younger brother"⁶², but he also addressed his close friend as "my friend"⁶³ or "a brotherhood friend"⁶⁴.

Another challenge is to reconcile saying that seems to be contradictory, as illustrated in Box 3.3. This calls for an in-depth discussion about *Ego's* perception of the support, and about the context the support has been given. In some cases, the business owners have been interviewed twice to clarify the interpretation of some of his or her saying.

Box 3.3. Wording interpretation difficulty

Interview 33, small grocery store, female, 35 years old

[The first interview]

I borrowed only once from her [my close friend; above seven million VND]. It would be very embarrassing to borrow again from her. Now, when I need more, I have to borrow elsewhere. When the bank does not give me a loan, I have to go to the moneylender. (...) I also ask money from people around, including friends, because now they trust me. I can ask five million, or three million VND. I can collect small amounts from each one and raise a large amount of fund to repay the debt I have to the Women Union (a grass-root organization).

[The second interview]

It is true that I received the support of a close friend only once, at the start. I think that my friend gave the maximum that she could. Because of that, I did not ask for any additional amount. When I start the business, with no business experience, and yet no capacity to repay the debt, a few million was a huge amount for me. I won't ask her for a second loan, because she would give it to me free of interests and I don't want to take advantage of my friend. Now I have to work harder and get regular loans from professional lenders, not from my friend (or not from friends). I have asked friends for a short-term shortfall of cash

⁶² "Chú em" in Vietnamese

⁶³ "Bạn của anh" in Vietnamese

⁶⁴ "Anh em bạn bè của anh" in Vietnamese

in the business, between one and five million VND. People trust me, and repaying small amounts is not a problem.

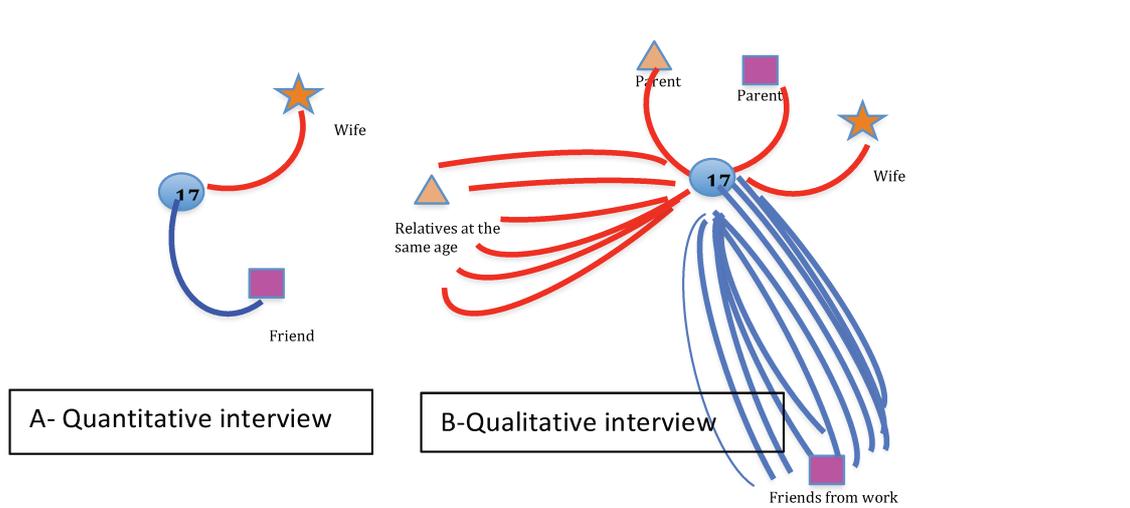
To me, asking for a loan to start a business, to buy things for the shop, is a different thing than asking for support because of a short-term shortfall of cash in the business. There may be no apparent difference between five and seven million VND. But to me, there is a difference: seven million VND when I had nothing, is much more valuable than five million VND now when I have a business and a house. My friend gave me seven million VND, just because of her caring for me. It is entirely different from five million VND today, when lenders see how my shop operates, they expect that I will be able to pay back the debt very shortly. Of course, inflation makes a difference as well. But to me, I will not rely on my close friends for any loan, in order not to take advantage of their friendship. If I need to make a significant investment in order to remain active (or to keep my business active), I would prefer to get a loan with interests from a single professional lender (bank/money lender). I feel free from thinking of taking advantages from friends. I would work hard, to repay the debt. Only in case of short-term running out of cash for repayment, as sometimes it happened already, I could ask friends around small amounts of some millions, one to five million VND. Currently, people trust me, and repaying the small amounts is just a short-term problem of cash.

3.3.3. Differences with the 2014 HBIS survey

Those above challenges in interview interpretation explain the gap between information on the network collected during the quantitative 2014 HBIS survey and the one from the qualitative survey. Generally, information is much complete and precise with the qualitative survey (see Box 3.4). As pointed out in the literature, the name-generators methodology used in the HBIS survey leads to an underestimation of the ties, especially the weak ties (Lin et al., 2001).

Box 3.4. Social network maps from the quantitative and qualitative surveys

Interview 17, motorbike accessories, male, 37 years old



Note: Business owner in blue circle with the interviewee code; Resources presented in triangle (finance), star (managerial support), or square (information); Frequency with intimacy of contact presented by the thickness of line; Membership of family versus non-family presented by the colour of line (red line for a family relationship and blue line for non-family one).

The 2014 HBIS survey informs the owner of a motorbike accessory factory received three non-financial supports from his wife and a close friend (Figure A). The wife handled the cash and other small accounting, and managed stuff while he was busy or away from the business. One friend provided him with information on suppliers or customers. High intimacy with this friend is reported.

Meanwhile, the qualitative survey depicts a more extensive network of friends and relatives, including the parents, six relatives providing financial support at the start of the business, and about ten friends from previous works (ten friendly professional acquaintances) (Figure B). He received advice from his parents to learn about motor fixing, and later, was granted the premise for production from them. The respondent was also well connected to a large group of professional friendly acquaintances (about ten senior mechanic workers). They helped him with labour and technical issues, and supported his specialization in the production of tailpipes. Six relatives (cousins) provide him loans of around one million VND each at the start of the business. Because of the small amounts and the multiplicity of the contacts, the interview did not mention them during the HBIS survey. In this example, the network between the two interviews evolved from a simple one to a complex one.

4. Influence mechanisms of social networks on household business performance

4.1. Business creation process

This section scrutinizes the use of social networks for the creation process of household businesses, in order to gather information to design business activities and to raise the initial capital.

4.1.1. Getting information from the personal network

The initial choice of what kind of business should be significantly undertaken influences the trajectory of the business. This decision could be made according to one's observation of the market opportunities, and by considering one's constraints, skills, and preferences. But this decision is often embedded in a social process where social relationships play a crucial role in shaping what the business will be like. By providing advice, transmitting skills, transferring a business or exerting pressure on a business plan, a social network could be a cornerstone of the decision-making process.

In the 2014 HBIS survey, owners were asked whether they had received advice when they started their business and from whom. They also declared whether their business was a family tradition.⁶⁵ By combining both kinds of information,⁶⁶ we find that more than one-third of all business owners (35 percent) relied on their social network to get information to build their business. One's family network was by far the main provider of such information: 80 percent of *Alters* who provided information at the start of the business belonged to the family sphere, 13 percent were friends or neighbours, and only seven percent were professional contacts.

This representative picture highlights the social embeddedness of the decision making process and the importance of family networks at this phase of the business, but it does not show the diversity concealed behind these broad categories or the mechanisms through which the different uses of the social network may affect the future trajectory of the business. The process of choosing the activity and designing the business is an essential part of the qualitative survey with the objective of understanding how social interactions take part in this process. Interactions with family members are scrutinised first because the family sphere is where information circulates the most at that starting phase of the business. Interactions with friends and neighbours, and the mobilisation of a professional network are then examined. The last category under study is owners who did not rely on any personal relationships to develop their business idea. This category is different than the others in that the reasons for and the

⁶⁵ Family tradition corresponds here to cases where the owner had learned his or her activity with a family member or when he or she stated that he or she has become self-employed to follow a family tradition or whose business was created by a family member.

⁶⁶ In the case of family tradition, the source of information is defined as the family.

consequences of not using one's social network in that starting phase are questioned.

a. Apples do not fall far from the tree: Influence of one's family network

Family members can affect the business choice in several ways. The most influential is when a family member creates a business and then transfers it to *Ego*, the owner of the business. This is the case for around four percent of all business owners, according to the 2014 HBIS survey, and it generally happens among very close family members: Parents transfer business to their children, parents-in-law to their daughter-in-law, and even children to their parents. In such cases, *Ego* benefits from a brand name or a reputation, a network of suppliers and customers, a savoir-faire and capital.

However, in this situation, he or she has very little room to manoeuvre and adapt the business to market opportunities. The business is often a reproduction of what was successful some years or even decades earlier. In a context of extremely fast structural changes, and without the huge investment required to adapt the business to a new environment, the business is very likely to experience very poor performance. Interview 9 in Box 3.5 illustrates such cases. Although the printer family has built a very strong professional network and has a reputation for high-quality service, they can no longer compete in a market where capital has become the main input, and where investment counts more than skills, reputation, and professional relationships. In addition, they have not updated their skills. In some other sectors of activity, the investment needed to adapt business to new technologies and demands is lower. Đậu (see Interview 13 in Box 3.5) has succeeded in adapting the business of his father to technological changes while benefiting from the good reputation of and the strong business relationships created by his father.

This finding goes hand in hand with the result presented by Nguyen H.C. and Nordman (2018). Using a nationally representative survey, they find that business inheritance is detrimental to the technical efficiency of businesses. They interpret this result as evidence of the family pressure to recruit relatives in the business as a counterpart of the inheritance of the business. Although not exclusive, our interpretation is different: the benefits of inheriting a family business are many, but a halt to innovation may result since the new owner of the business is not forced to question the suitability of the business when he or she starts to manage it.

Box 3.5. Inheritance of a family business: a real opportunity or a heavy legacy?

Interview 9, Family printing business and spice seller, female, 52 years old

My eldest brother-in-law transferred this printing business to us. He trained my husband first, and now the whole family works here. He trained my family, and now my husband and all our children work here. My husband still works, but not as much as before. For the most part, my children run the business. The majority of my family's income is from this printing business. (...) It is manual work, and we can't earn lots of money. (...) We are typographers who are hired by big printing houses. They massively invest in shops and are in charge of materials, so we don't worry about capital. The wage earned doing manual labour is enough to cover the cost of living, but it won't make us rich. If we want to make a profit, we need to be in charge from A to Z, from the placement of the order to the final product. There are six or seven printing houses that usually place orders with us. The most important thing is trust, which takes time to build. We have known each other for two or three generations. (...) We are like brothers in a family, and we always gather at a New Year's party or a special event. It would be good if our children can maintain these relationships. But now business is more competitive, and we don't receive many orders. Many new printing houses use advanced technology and modern equipment, which allows them to offer very competitive prices. We earn barely enough to cover the cost of living. In the past, the machine was simple, and the quality of printing depended mainly on our skills. In the past, we earned a good wage by working hard. Now, advanced printing technology does not require skilled workers to do many processes like before, so it is easier for those who invest in advanced machinery to start a business.

Interview 13, Motorbike repair, male, 39 years old

After being discharged from the army, my father opened a bicycle repair shop and ran it from 1985 to 1995. In 1997, my father changed over to motorbike repair, so he built this house. He let me study motorbike repair so that I could work with him. We only sell decent quality parts, and our workers are highly skilled and have a lot of experience. We pay attention to details, so our store is well-known in the area as the best motorbike repair shop. (...) I have been working in this shop since 1997. (...) I have observed and learned from his experience. My father also traded second-hand motorbikes, and I followed in his footsteps. I already work with two motorbike stores. They are stores that focus on selling motorbikes and do not provide repair services. I buy old bikes, spend around 12 million fixing each one up, and then sell each one for 14 million VND. In the past, I repaired motorbikes with a manual transmission, and now, I fix modern automatic motorbikes that have the new generation engines and advanced electronic technology. Therefore, I use advanced equipment to check the motorbikes. The equipment will identify damage that I can't find by myself.

Family members can influence the choice of a business in another way: the transmission of specific skills. *Ego* chooses an occupation because it is what he or she learned in childhood. The practice of a traditional handicraft is one of these skills. In contrast to inheriting a family business, only skills are passed down, no brand name, reputation, capital or professional network, and strong family ties are still in play. These cases are quite frequent: 16 percent of all family business owners learned their skills from a family member, and an additional four percent of those who get familiar with the family member's occupation and chose to go into it, according to the 2014 HBIS survey. As illustrated in Box 3.6, the choice of occupation seems obvious for these business owners given the constraints they face. It is considered to be “the easiest way” and “the best choice” (see Interviews 20 and 14).

They use a savoir-faire passed down from generation to generation to their advantage, and they choose this occupation even when the working conditions are difficult (see Interview 20), or the opportunities to make money are few (see Interview 32). In addition, these activities generally require very little investment. The only barrier to entry is the lack of the requisite skills. The family business is the best option for business owners who join the labour market and do not have any vocational training in another field. At least they feel confident that they can run the business, they are aware of the difficulties in conducting the business, and they have often developed a taste for it (see Interview 1). As with the transmission of a family business, the adequacy of the occupation and the current economic context are not taken into account, and neither is the potential demand.

Box 3.6. Taking advantage of the transmission of skills among the family

Interview 1, Lacquer painter, male, 43 years old

I have been around painting since my childhood. I like it very much. My father often took me to the theatre where he painted the backdrop. When I finished school, I decided to learn lacquer painting and follow in my father's footsteps. My brother did not complete secondary school, so he started to work for me, to learn the lacquer painting from me. But he did not like it. When one does not like something, the determination to improve one's skills is lacking. So even though I showed him a technic a thousand times, it was new to him each time.

Interview 14, Sidewalk soup restaurant, female, 39 years old

With no experience, you can't start any business. As I need to earn money, I thought the easiest way would be to run the family business. I've been involved in the family business since I was young, so I know how it works.

Interview 20, Tofu maker, female, 45 years old

I've been making tofu for 28 years, which is what my mother and my mother-in-law used to do in the past. I thought it would be best to continue my family's business, which I have been involved in since I was young, even though this job is strenuous.

Interview 32, Clock and watch repair, male, 54 years old

I've been doing this job for quite a while, since 1985. Before then I worked as a reporter for the Vietnam News Agency. I quit that job because I was discontent with the organisation. Then I got involved with the family business, which had already existed for a while. It was my father who started repairing watches and clocks. When I was a young boy, I wanted to learn how to fix watches and clocks, so my father taught me. (...) I'm very skilful with my hands, so I decided to take over my father's business. I thought that was the best choice because no investment was needed. For me, fixing watches is easy. People always come to me when their watches don't work, or the battery dies, and those things are simple to fix. I don't have to invest in any expensive equipment either. I just need some screws, a magnifying glass, and a desk lamp. I can use some parts from old watches as well. (...) In short, my business is tiny. I can earn some money to cover daily family expenses, but I don't make enough to save money, because I have fewer and fewer clients nowadays. People tend to buy new watches rather than fix broken ones nowadays as the economy is going up.

The family is also a sphere where information circulates. Family events provide opportunities to meet relatives and to exchange information and advice. Contrary to the transmission of a family business or specific skills, the ties are generally weak. Only four percent of all business owners receive information from distant relatives. However, this information can be decisive in some cases, as it was for Yến.⁶⁷ When she was a wage worker in the garment industry at an industrial park, she complained to her relatives that she did not earn enough money. Cousins said that she could make more money if she were self-employed. One cousin told her that she could earn four million VND in one day renting out wedding props, which was higher than the monthly wage of three million VND Yến received. Yến decided to open her own business in order to be able to accumulate some savings. The idea to rent out props for weddings combined with her observation of the growing market for wedding services, the lack of a wedding props rental business in her rural neighbourhood, and her belief in her ability to create beautiful wedding decorations made her decide to start this kind of business. Because she was the first person to open this kind of business in her area, her business is very successful. Her company became large and established a brand name, so she had an advantage over competitors who started their business later.

In the case of Dung⁶⁸ and two of her distant nephews, innovative information was effectively transferred through distant relatives. Dung's uncle suggested that she migrated to Hanoi and provided her with an introduction to a hairdressing shop owned by a distant niece. Dung emphasised the importance of learning important skills and finding a successful shop in which to work as an apprentice, a shop that uses modern techniques and is not located near a similar shop. Later, after building up her own business, Dung advised her nephew to do the same thing. That advice played a key role in his later success.

b. Role of friends and neighbours in conveying information

Friends can play a substantial role in the decision-making process of a business by providing advice on how to conduct a business (see Interview 21 in Box 3.7) or even by suggesting what kind of business could be promising (see Interview 19 in Box 3.7). In the case of Bái (see Interview 21), the connection she has with her friend is very strong. She has known him since childhood. They are neighbours, meet regularly and consider each other as intimate friends. It is on because of this friendship that her friend was willing to help her by sharing his knowledge in the retail business. In the second example, Vàng (see Interview 19), the tie between Vàng and his friend is weak. Even though they live in the same city, they meet once or twice a year and are not intimate. The friend plays an important role as a model, inspiring Vàng, but not because he wants to help him. It should be noted that Vàng met his friend through the family sphere, and this relationship, therefore, falls into the category of weak family ties providing advice. While in the first case the interaction with a close friend (strong ties) helps *Ego* feel more confident and improve the design of her business, in the

⁶⁷ Interview 18, wedding logistics, female, 41 years old

⁶⁸ Interview 36, hairdresser, female, 39 years old

second case the interaction with a not-so-close friend (weak ties) provides information of much greater value, contributing to the creation of an innovative business.

Box 3.7. With a little help from my friends

Interview 19, Demolition contractor, male, 50 years old

I've been working as a demolition contractor for 20 years since 1997. I started off working with some fellow villagers installing concrete floors at construction sites. Later on, a friend of my brother-in-law introduced me to this job. He had been doing the job for quite some time by then. If it had not been for him, I wouldn't have known about the job.

Interview 21, Grocery store, female, 47 years old

I have some friends from high school, and they are very supportive. They recommended that I sell more items in my store. They also suggested what kind of goods I should sell and how to sell them. They said that I didn't need to pay cash on delivery. I could pay after selling everything.

c. Professional network

Receiving advice from members of one's professional network seems to occur rarely according to the representative 2014 HBIS survey (2.5 percent of all business owners). However, we can see from the qualitative survey that this percentage is undoubtedly underestimated. Of the eight interviews (20 percent of our qualitative sample) in which the owner mentioned having relied on his or her professional network to build the idea of his or her business, no one said they had received advice or information from a professional contact in the 2014 HBIS survey. Interestingly, it shows that one's professional network is not considered to be an external source of help. The owners built their professional networks by themselves. So the way they see it, they conceived their project by themselves without receiving advice. Their interactions with professional contacts were part of the path they designed to create their business.

A business owner's professional network is usually formed through repeated interactions with colleagues, customers, and suppliers during previous professional experiences. Khoát started a wood furniture manufacturing business, thanks to a friend who was a supplier to Khoát's previous business (see Interview 30 in Box 3.8). Regular transactions, trade credit and repaying debts on time built trust and then a friendship. During these interactions, they realised that they shared a vision for a business, so they learned their respective skills, honed their abilities and came up with the idea of doing business together since they had complementary skills. Khoát described his friend as a very close brother with whom he has a "spiritual connection". He said, "*We share the same views, so it's easy to discuss things. It has never occurred to me to stop doing business with him. We are not just working together to make money; we are like family, and it is as though we were related by blood. Money can be lost, but I cannot lose this brother*". In the same way, Dũng (see Interview 17) started a new business in 2003 thanks to the advice of one of his suppliers. As highlighted by Dũng, this contact played a crucial role in his decision to switch from servicing to manufacturing motorbike tailpipes, and his decision to scale up his business. According to Dũng, "*He played the biggest role in that plan*" and "*I never thought*

about going into the manufacturing business". The supplier provided Dững with an idea for a business in a promising market, fostered confidence in his abilities, and proposed a long-term business plan that included taking orders in advance so as to limit the risk of this new business. The ties between Dững and his supplier used to be weak. However, he is now part of a large professional network that Dững started to form when he was an apprentice. This professional network is an essential part of his business. *"I must maintain a relationship with many people as part of this job. I couldn't do everything well"*, he said. Dững actively maintains relationships by exchanging information and advice and by dedicating part of his time to social interactions. Trust and reciprocity cement those relationships. *"They needed someone like me. They also helped me in my business"*, he said.

Repeated contacts with her supplier allowed Uyên to get essential information about the business she planned to create: renting costumes for artistic events (see Interview 11). What is interesting about Uyên's case is that she did not succeed in getting reliable information from a choreographer she knew. Only frequent contact with a member of his staff enabled Uyên to build trust and get reliable information.

The experiences of business owners who relied on their professional network for advice or even the idea for their business during the start-up process, including the three cases presented here, show that professional ties are essential for getting innovative information. Most of these business owners reported an upward trajectory, and it was the use of professional connections that put them on the road to success. This finding is confirmed by the data collected during the 2014 HBIS survey. Most of them are among the 25 percent of the businesses with the highest performance (as measured by the value added). They are more likely than the others to have additional workers and professional premises (see Appendix 3.1). Although it is difficult to establish a causal link between the use of a professional network and high performance, it appears that use of this network is a way to get non-redundant information, and it plays the role of a structural hole (Burt, 1992). As found by Granovetter (1973), these ties are weak at the beginning of the relationship. They are not inherited from the familial sphere, and they do not induce intimacy. However, they should be actively maintained through frequent interactions and sometimes reciprocity to make possible the flow of innovative and reliable information.

Box 3.8. Key role of professional network

Interview 11, Artistic costume rental, female, 27 years old

First, I spoke with a well-known choreographer to get some ideas for the business. He also rents out costumes to performers. I am a choreographer, so I knew him. I asked him how much it would cost to make a particular costume, what it would cost to make dozens of them and so on. He said it depends, and it could cost up to a billion. However, he said that first I had to have 500 million to open a store, order a certain amount of costumes and have money to operate the store. At first, he convinced me that he was telling me the truth because he wanted to be a good friend, someone who had gone through this process before me and wanted to share the good lessons he had learned with me. But in my heart, I knew it was not true. Who is good enough to be honest when telling me everything about the business? I needed to learn by myself, so I went to his store to rent costumes. Then I made the acquaintance of an employee at the store who happened to be a manager. At first, we were not close. I was just an ordinary customer. But day-by-day we got to know each other, and she really liked me, so she told me everything she knew. She closely monitored the workflow at the store so I could ask about details. After talking to her, I realised that the owner had greatly exaggerated the cost. I think that he doesn't want me to invest in that business.

Interview 17, Motorbike accessories, 37 years old

I opened a motorbike accessories shop in 2003. Previously, in 1998, I began a small motorbike repair shop, which mostly served the villagers nearby. I went into this business because around here many people use a motorbike. In addition, the demand for fixing motorbikes was high. However, I didn't think about developing the business because the people here were not well educated and the economy was still tough. This area is a suburb of Hanoi. Many people gather here to sell wholesale at markets in Hanoi. (...) My mother suggested that I learn how to repair motorbikes. At the time, my friends mostly worked as bricklayers. I didn't work with my friends because I wanted to receive money immediately, while bricklayers need to wait for a long time before they receive their wages. I thought I should go to the city centre, where there were many modern motorbikes, so that I could learn how to repair new motorbikes, because the workshops near my house mostly repaired old motorbikes. By myself, I found a workshop where I could learn. (...) When I was good at this job, I went to other places to work. At the age of 20, I was earning money. In 1998, when I was 21 years old, I opened my repair shop in my village.

The number of motorbikes that were in need of repair was increasing. Within a week, I removed nearly 100 broken motorbike tailpipes and replaced them with new ones supplied by a welder. He told me that I should make tailpipes myself when I had a lot of orders. Bending and welding the tailpipes was difficult, so he helped me by discussing many aspects related to materials and manufacture. Initially, I produced stainless steel tailpipes, but it was hard to weld them well. Then I tried different materials and selected one that was easier to weld. I just repaired my customers' motorbikes. After a while, a friend who specialises in motorbike accessories suggested that I set up a factory that specialises in the manufacture of tailpipes. He played the most significant role in that plan. A box of tailpipes imported from the South costs three million VND. He said that if I could produce the same amount of tailpipes and sell them for two million VND, he would buy all of them. At the time, nobody in the North was producing tailpipes. I never thought about going into the manufacturing business. Who dares to invest money and hire workers when they are not sure whether the product can be sold or not? However, he promised to buy the tailpipes I made, so I decided to follow his advice because there was no risk. (...) I didn't know him well. I only knew that he had many orders for motorbike accessories. (...)

My friends come from other villages, so I did not know them well in the beginning. I used to work in several repair shops on Hue Street and in Van Dien. When I found it difficult to repair a motorbike, I brought it to a bigger shop nearby, sometimes up to 10 or 15 km from

here, to ask for help. I talked with the repairmen in those shops, and gradually we became close. We sometimes meet each other, about once a month. Everyone specialises in a specific area related to motorbike repair and accessories. They need someone like me. They also help me with my business. What I can't do by myself, I ask them to do and vice versa. I must maintain relationships with many people as part of this job. I can't do everything well. We often discuss repairing and purchasing new motorbikes as well as the problems they have and how to fix them. (...) We all run small businesses. We also support each other at work. Although we are friends, we don't offer preferential treatment to each other when doing business. We have been friends for many years, so we are straightforward and trust each other very much. (...) We only go to each other's homes on special occasions. When I am not in a hurry, I chat with them. For many years, we have met on the occasion of the New Year holiday or a wedding to eat and drink together. (...) I still maintain my relationships with previous employers. Now that I make accessories for motorbikes, I ask them if they want to buy my goods. My prices are based on the market prices. Our relationship does not affect the prices; it is business.

Interview 30, Wood furniture manufacture, male, 39 years old

When I was 28, I started a clothing business through which I befriended an older guy. I bought clothes from his shop, sometimes on credit, and I always managed to pay him back immediately. He sold clothes for two years and then went to Korea for ten years to learn carpentry. When he came back to Vietnam to get married, we teamed up to start a business. My friend said that each of us was good at doing particular tasks and that together we could run a business. He said that he would take care of production at the workshop and I could do the marketing. After listening to his proposal, I wanted to try. My younger brother also started a wood furniture manufacturing business, but he did not use traditional designs. He used modern designs. He runs a shop that is four times bigger than mine. He employs nearly 50 people. He likes to take enormous risks, unlike me. I don't want to take risks. Since we do not work the same way, we cannot work together.

d. Choosing alone: from survival to entrepreneurship

The other side of the coin has to be examined to understand the role one's professional network plays in conveying information at the start of business: why are some business owners not influenced by their acquaintances when making decisions at the start of their business, and who are they? According to the 2014 HBIS survey, they constitute the majority of business owners (65 percent), although this percentage is probably overestimated. They are most likely to have an informal business, to be involved in trade and to have few workers. The sex and the level of education of the owner is not a determining factor at the starting phase of the business. However, the manner, in which the skills to run the business are acquired, is significantly associated with the use of a network: Business owners who do not rely on their professional network are most likely to gain the skills and knowledge needed for the job by doing the job, meaning that they have not been trained by someone else. They are also older on average than other business owners. Interestingly, performance, as measured by the value added, is not associated with the use of their professional network (Pasquier-Doumer and Nguyen P., 2017). A possible explanation for this is that this category masks a large diversity of situations, as shown by the qualitative survey. At the bottom of the spectrum are business owners who are barely surviving and do not face any entry barriers. At the top are entrepreneurs who jump at any chance in a context of rapid structural changes.

Survival activity: no use of a network because there is no entry barrier

Many household business owners who do not rely on a network are self-employed and face high constraints. Low qualifications and no capital are the main constraints. Poor health, old age and having to do household chores are the usual additional constraints. Negative events, like doing time in prison or losing a job, and regulations⁶⁹ can also negatively affect the choice of business. Given these constraints, people in such situations choose to start a small-scale business with no entry barriers, which means only a very low level of investment and no particular skills are required. They have a limited perception of opportunities. Their choice of businesses is mostly driven by their appreciation of the businesses, which are prevalent in their immediate environment and whether or not their constraints limit their ability to start and run such businesses. They expressed their views in the following ways: “*I do what is easy*”, “*I do what is easiest*” and “*I do what is quite easy and simple*” (see Box 3.9). Compared to people who rely on a network, they did not inherit specific skills, a business or even a taste for a business from their family. Their previous experience as farmers, being unemployed, or as unskilled labourers did not provide them with a professional network. In addition, the lack of an entry barrier and the absence of innovativeness related to their business do not foster the need to collect information from acquaintances and friends. Market information about input supply, prices and quantity are public information.

Box 3.9. The easiest option when facing high constraints

Interview 2, Selling cheap drink, female, 44 years old

Selling something else would be hard work. I am alone. I don't have much strength. I do things that are easy. I don't want to take any risks or do any calculations.

Interview 8, Motorcycle taxi, male, 45 years old

Being a motorcycle-taxi driver⁷⁰ is the easiest option when one is self-employed. That's the reason why I chose this job. I had just been released from prison. Before going to prison, I did not have a job. In jail, they didn't teach me anything. I had no qualifications, and I had done time in prison, so it was tough to get a job — even as a guard. Therefore, I started working as a motorbike taxi driver.

Interview 16, Sewing sockliner, female, 60 years old

Previously, I was a farmer. My extra work was carrying bricks near the Red River. I did that for five years. I quit because of my health. I find this sewing job quite easy and straightforward. I mostly press the pedal of a sewing machine. Nobody tells me what to do. I have seen a few people in the village doing this job. (...) This work is the traditional work of Ha Thao Village, and it began to flourish 10 years ago. Villagers make bags, shoes and many other things.

Interview 31, Making chopstick, female, 38 years old

⁶⁹ In interview 7, Phúc lost the right to drive a small truck he had invested in because a city regulation prohibits this kind of vehicle in order to limit pollution. He became a motorcycle taxi driver instead, which is a less lucrative business.

⁷⁰ "Xe ôm" in Vietnamese.

Making chopsticks is just a part-time job I do whenever I have free time. Women around here find these kinds of jobs on their own to earn some extra money. They are truly hard workers. My main duties include doing the housework, farming and helping my husband when he goes fishing. In order to save a bit of money, I make chopsticks. That's what we do in this village.

From apprenticeship to self-employment

Another common trajectory is becoming self-employed doing the kind of business one learned as an apprentice in other household businesses. Entry barriers to these activities are weak, but they include having specific skills. The choice of the skills one learns may be driven by one's professional network (the father in Interview 3, the classmates in Interview 25, in Box 3.10), but the decision to create a business comes as a natural outcome of one's training experience. Business owners start as apprentices in one or several household businesses, and then they become an employee. As soon as they feel qualified enough, they open their own business in the same sector. What distinguishes them from owners who rely on a professional network is often the distance between the place where they have been trained and their hometown, which is where they go back to live and start their business. They usually do not have enough capital to rent premises or even a place to live. Thus, they have to live with their parents or their parents-in-law. As explained by Hung (see Interview 25), they do not stay in touch with the people they meet during their apprenticeship and employment. Maintaining contact supposes frequent interaction, as shown in Box 3.8, which is prevented by distance. It is a typical trajectory for young males from rural areas who go to a city to learn specific skills and young women from peri-urban areas who go to the centre of a city to become a hairdresser or tailor. In the case of Trang (see Interview 3), she learned some skills at her successful uncle's tailor shop, but she did not foster the relationship enough to make it a strong one. The performance of such businesses depends on the demand in their local area, the level of skills they have acquired and the capital they can invest.

Box 3.10. Starting a household business after completing an apprenticeship

Interview 3, Tailor, female, 33 years old

When I dropped out of school, my father told me to make clothes. He thought of only that job for me. He didn't want me to work as a hairdresser. My father worked as a mechanic, and he has already passed away. He forced me to learn how to make clothes, and he paid for me to learn how. I didn't like it at first, but after I got married, I had to work to support my family. I have to work hard, but I enjoy it. I only have a low level of education, so I have to do this kind of job. When I got married, I didn't have any job experience, so my uncle (a famous tailor on the same street) invited me to come to his big tailor shop and learn by doing. I went to his shop to learn techniques, but I only worked there for two months, because he was too strict. I don't like asking my uncle to do me any favours, so I tried to learn by myself sometimes. I did not ask him for help, not because I am his niece, or because I felt embarrassed, or because I didn't want to take advantage of my relatives. It was just because I didn't like that he was so strict. He was too hard to be around, so I left. I preferred to learn at other shops — even when I had to pay fees. Each person has different personal characteristics. I don't like to ask for help from anyone, especially when that person is too hard to be around. I like to interact with easy-going people. My uncle is a good person, but he is too strict. At least that's how I feel. When I learned by doing in his

shop, I sometimes did not understand how to do some of the techniques, but I was too afraid to ask him to show me again.

Interview 25, Welder, male, 30 years old

All my peers in the village had vocational training in an industrial zone, and then they began working as workers in factories. Many jobs are taught here, for example, electrician and car and motorbike repair. However, I didn't want to work as a labourer after completing my training. I don't like the discipline in a workshop. I only like to work in a flexible environment. At the time, I hadn't yet finished secondary school. I went to Đê La Thành Street to look for a job when I was not 17 yet. I went by myself. I heard from friends who worked in the city and had come back home for a funeral that that street specialised in welding and iron and that there were many jobs available there. I saw that a shop was hiring, so I went inside to ask for a job. I was young and had no skills or experience. At first, I just helped them do chores. After working for them for two years, they paid me a wage that covered all my living expenses. I also learned how to weld, repair and make water appliances. (...) Early in 2007, I quit and returned to my hometown. (...) After coming back here, I didn't stay in touch with friends or peers at my previous workshop. A few others like me travelled to many places looking for a job, so I haven't kept in touch with them.

Opportunistic approach

For others, structural changes like rapid urbanisation or an increase in the standard of living raise the idea of starting a business. Although these cases seem rare,⁷¹ it is interesting to scrutinise them. Starting with their analysis of emerging markets in the area in which they are living, business owners build a promising business, taking advantage of the emergence of demands for new services and trading in their local area, due to urbanisation and economic development. Examples are the case with Dương (see Interview 12 in Box 3.11), who jumped at a chance when there was a boom in demand for student housing in a nearby area, and Thiệu (see Interview 26), who transposed the concept of a city centre restaurant to his peri-urban location. In addition to conducting market studies to identify opportunities, such projects usually require significant investment, which constitutes an entry barrier for some people. However, they do not necessarily have to rely on an acquaintance to get information about these types of business. For Dương, the cost of enlarging his house was easy to evaluate, as the cost of renting is public information. Thiệu went to the centre of his commune to observe how these businesses functioned and get the necessary information. He strongly believed in his plan, and he was very persistent, despite a lack of support from his family. His case shows evidence of bad influences from strong ties: members of his family told him about risks in order to discourage him from starting a new business. That is the reason why he had to come up with ideas for the business on his own, without using any social network.

⁷¹ This cannot be determined from the 2014 HBIS survey, but we only encountered four such cases in our sample of 41 interviews.

Box 3.11. Taking advantage of structural changes

Interview 12, Renting out room, male, 41 years old

In 2007, I started renting out rooms to university students. At the time, the agricultural university had just expanded; so many more students began to attend the university. There was not enough space in the university dorm, so I built a house on some unused land I had next to my own house, and then I had three rooms I could rent out.

Interview 26, Noodle restaurant, male, 36 years old

Ten years ago, in 2008, people, even members of my family, laughed at my seemingly horrible idea to rent this place in the middle of nowhere. Everyone tried to convince me not to open a shop here. My parents and my brothers all thought it was a bad idea. They said that it would not be successful and that there would be no demand because there were no other shops here. There was absolutely nothing in the neighbourhood. Only a small barbershop with a tiny mirror. No one believed that I could do it, and they laughed at me. I had to tell my parents to stop commenting on my plan. I said to my parents that by introducing this new type of eatery that is common in the town to residents, and then altering the recipe based on their feedback, I would eventually be successful.

4.1.2. Important role of social networks for the initial investment

Although the use of savings is the main way to finance the initial investment,⁷² the role of personal relationships or a social network to access capital is far from being negligible. 17 percent of the HBs used loans or gifts from their relatives or friends as the main source of financing when starting their business, and only nine percent took out formal loans. Within one's social network, family members are those who are most frequently asked to contribute: 89 percent of the contacts mobilised to raise funds were family members, meaning that 15 percent of the businesses were started using family funds as the main source of financing.⁷³ This percentage does not account premises and other physical capital contributed by families. Parents are by far the family members the most often solicited.

Beyond this representative picture demonstrating the importance of social networks — in particular, one's family network — to get capital, it is important to understand the reasons why this source of funding is favoured, or, in other words, what its implicit costs and benefits are compared to other sources of financing. Another critical question is the strategy used to select people within the network to ask for support. Answering this question supposes understanding the process by which the family decides to allocate its capital among family members. These questions are addressed in this section.

⁷² For more than half of the household businesses, personal resources were the main source of the financial capital used to start the business (59 percent).

⁷³ This percentage corresponds to 89 percent of the 17 percent of the HB owners who relied on personal contacts as their main source of financing when they started their business.

a. Asking one's family is the most common way to get initial capital

The interviews confirm the dominant use of family members to get the required capital to start a business. Most of the interviewees relied on close relatives to obtain the initial capital for their business (32 out of 41 businesses).⁷⁴ Business owners who use only their savings are the exception, suggesting an underestimation of the use of one's social network to get capital in the 2014 HBIS survey. In addition, savings can be from past family support: many business owners said that most of their savings was money they received at their wedding. A wedding is an important event where the social networks of the bride and groom's families give money to help pay for the event, to support the couple as they begin their life together, and to maintain their relationships with the bride and groom's families. In total, the capital accumulated through these gifts can be substantial (Pannier, 2012). Reciprocity is expected, and thus these gifts are either future debts or the repayment of past debts (Pannier and Pulliat, 2016). Some of these gifts were offered to repay the parents for similar gifts they made in the past. The parents generally cover wedding expenses, and then the use of these gifts is considered a form of support provided by one's family.

Borrowing money from family members is by far the cheapest way to get money. Parents and siblings, who are the main providers, usually do not ask for any interest. Distant relatives with whom the ties are not strong might charge interests for loans. But again, asking a distant relative for money is the second best option, and people only resort to that when close family members are too constrained financially to lend money. In addition to being the cheapest way to get funds, a family loan offers other advantages.

First, no guarantee is needed when asking for a loan from one's family. Bank loans often involve a mortgage and a complicated procedure to show the profitability of the business. As an illustration, Dương (see Interview 12) went twice to a bank to borrow 200 million VND to build the three-store house he planned to rent out to students. He complained about the cumbersome procedure, during which numerous details about the building plan and profitability were asked. He said that he was too busy to fill out all the forms and then be denied a loan. Like Hương (see Interview 20), many people are discouraged from asking for bank loans. They are afraid of loan refusals when they do not have land certificates or already existing and profitable businesses. *"You cannot get a loan if you do not have any assets and you live in poverty. Only people who are well-off can borrow money"*, said Hương. A good relationship with a bank employee and a bribe to shorten the process are often an additional condition for getting a loan.

Second, the repayment schedule for a family loan is very flexible. In most cases, family members do not impose any penalties for late payment. The implicit contract is that the business owner reimburses the amount bit by bit whenever he or she can. According to the interviews, repayment can take from a couple of

⁷⁴ 9 out of 41 business owners did not have a demand for initial capital, because most of them decided to start a small-scale (i.e. survival) business, and they mainly relied on their skills and labour (because they had no education and no professional network).

weeks to a decade. However, in cases where the family lender urgently needs money, the loan has to be repaid right away. Although this flexibility is generally highly appreciated, some owners perceive it to be a constraint. Having to repay a loan immediately can destabilize a business by forcing the owner to sell productive assets or take out a costly loan from an informal lender in order to repay their relative rapidly. For the most entrepreneurial of the business owners, this flexibility is not worth the risk and is not part of a good business plan. They prefer bank loans, which even though are more costly than those from social networks. As a result, they have an incentive to be more efficient in business operation for repayments to the bank.

The widespread practice of taking out a family loan at the start of a business cannot be understood through a cost-benefit analysis alone. It has to be comprehended by analysing the more general concept of the Vietnamese family and the set of duties, obligations, and rights embedded in familial relationships, and the tension and affection as well. Two different considerations drive the decision to ask for family support. The first is anchored in the traditional vision of the Vietnamese family (Bui, 2004). The family is conceived as a strong structure, a “warm nest”⁷⁵, where harmony is based on respect and obedience from the youngest to the oldest and the women to the men, but also on mutual assistance and the contribution of each its members to the well-being of all. The interviews in Box 3.12 illustrate this common perception of close contacts. Financial support from parents makes it possible for their children to take risks and be persistent when doing business. Asking for support from a non-family member is considered suspicious because it means that there is a problem with you or your family (see Interview 34 in Box 3.12). The gossip cost of obtaining funding from outside the family network is high in rural contexts, where people are closely interconnected.

Box 3.12. Family as the most common form of support

Interview 10, Seller at a vegetable stall, female, 39 years old

I had to plan my business and find information by myself. I was in charge, and no one gave me any advice. Only my mother, brothers and sisters encouraged me. When I got out of the canteen business, I asked my mother to let me use the front room in her house for free, so that I could open a store. There was already a store there that sold children's clothes, and it was a successful business, so after my mother evicted them, I decided to sell children's clothes as well. My mother thought this was a good idea and let me do it. My parents love us very much and always take care of us. They supported me because my husband and I were unemployed and our children were still in school. (...) The total investment for the clothing business was 100 million. I borrowed 50 million from my mother. (...) My mother had saved money by renting out the place before she let me have it, so I asked her for a loan (...). She would have given me more if that had not been enough. She wondered whether 50 million was enough or if I needed more than that. I didn't ask for more because 50 million was already too much to ask for from my mother.

⁷⁵ "Tổ ấm" in Vietnamese

Interview 21, Small grocery shop, female, 47 years old

When I need money, I ask my relatives for help. Borrowing from relatives is easiest. They even lend me money and tell me I don't have to repay them. They support me in order to encourage me to take risks in business. If I don't take it, they will be unhappy. When I have enough money, I will pay them back.

Interview 34, Wholesale rice trader, female, 32 years old

In rural areas, people think that you should only borrow from family members. Otherwise, people will speak badly about your family and say that you had to borrow money because of gambling or alcohol problem.

Another thing to consider before asking one's family for support is how to avoid potential conflicts related to financial issues that could occur and thereby preserve the harmony in the family (see Box 3.13). A potential conflict may arise when one person feels another is taking advantage of blood relationships (see Interview 7), or when there is disagreement as to how to allocate money among family members (see Interview 11). A reluctance to ask one's family for support can be rooted in fear of emotional blackmail as well. If there is some conflict or tension in the relationship, the family member will ask for the money to be paid back immediately and thereby put the business in a difficult situation. The fear of conflict is particularly common among women and their husband's family. Sometimes, it is men who fear conflict with their sisters-in-law (see Interview 7). Women are at higher risk of experiencing conflict, especially those who come from a traditional family. In a traditional family, financial support is offered to sons first, and daughters usually have to rely on their husband's family (see Box 3.14). However, a woman's position in her husband's family may prevent her from asking for financial support.

Box 3.13. Family financial support as a source of conflict**Interview 7, Motorcycle taxi, male, 51 years old**

Everyone has his or her own family. I don't want to ask my two older brothers for help, but I can ask my sister. A sister and brother have a close relationship. Borrowing money from her is fine. But with brothers, if their wives found out that I had borrowed money from them and not paid it back, they might say that I had taken advantage of my brothers. That would not be good, and I don't want to be in that situation.

Interview 11, Artistic costume rental, female, 27 years old

My first store was run in my husband's parent's house. The front of the house is seven meters wide. My parents-in-law divided it into two parts, one for my husband's brother and one for his sister. My husband didn't run a business, so they gave him a house in an alley. His sister ran a business for a time. Then she went abroad. His brother rented her part for five million VND per month to run a plastic products business. However, his business failed, so I asked them if I could rent both parts to start my first store. I paid five million VND to each of them. After two months, my business was booming. My husband's sister and brother were jealous. As a consequence, his parents urged me to find another place. They took the store back and ran the same business like mine. It is a conflict in my family.

Interview 16, Sewing sock-liners, female, 60 years old

My husband is the oldest brother in his family. His siblings live all around the village, but I didn't like to borrow from them. My family doesn't have enough financial potential, so I can't rely on my relatives at all. In addition, money matters can easily cause divisive emotions among people in the family. I asked neighbours because it was easy, and they lend me money without charging interest.

The allocation of money among family members is indeed often driven by the traditional roles of its members. According to Confucianism, the eldest son has more obligations but at the same time more support. He has to take care of his parents, carry out the worship of ancestors and support his younger brothers. In return, he has more financial support, which can be capital to create a business, the use of the land certificate to get bank loans, or the inheritance of a house or better land than the others siblings (see Box 3.14). This rule does not hold true in every family, but in most of the business owners interviewed said that the eldest sons received an advantageous allocation of family resources, either to counterbalance their obligations or because they were the first ones to ask for their parent's support. Conversely, the daughters are more disadvantaged than sons. The ability to get financial support from their family greatly depends on their relationship with their in-laws.

Box 3.14. The advantage of being the eldest son

Interview 10, Selling vegetables at a stall, female, 39 years old

I am the youngest child in the family. I have a brother and a sister. My brother lives in Thanh Xuan District and works at the Ministry of Construction. My sister has passed away. My parents are old, and they would like to live in another house in the countryside. So my family moved to my parent's house in the city, in order to take care of the house. My parents are old-fashioned, so even though I live in this house, my brother will inherit it. In the past, my parents rented out this front room for five million VND per month. My parents want to support my business, so they let me have the front room to run my shop. They do not ask me to pay them the rent. If I had the money, I would give some to them. However, I don't make much profit. I can't make a lot of money.

Interview 11, Artistic costume rental, female, 27 years old

My brother inherited my parent's business – a restaurant. (...) The restaurant is very big, about 500–600 square meters. (...) My parents still have a gender prejudicial mindset. My father is traditional and paternalistic. So are my grandparents. My brother was born first, so my grandparents and my parents like my brother more than my siblings and me.

Interview 24, Construction, male, 57 years old

I inherited this house from my parents. I am the firstborn male in the family. I have one older sister and five younger brothers and sisters. They are labourers. They do things like selling vegetables in the market and working in factories. I am the firstborn male, so I take care of my parents when they are sick, and I am in charge of worshipping our ancestors. My parents are farmers, so they are not wealthy. The land was divided into four parts for the four sons only. I have a little more land than the others because I need to take care of my parents.

Interview 26, Noodle restaurant, male, 36 years old

My eldest brother sold shoes at a store in Hanoi until four years ago, when I told him he would fare better selling food here, as our hometown had developed economically. He returned home and inherited my parents' pig organ restaurant. Each of us inherited a piece of land from our parents, but mine was way back in a cul-de-sac, so it could not be used as an eatery, and I had to rent a place somewhere else.

Interview 27, Truck transportation, male, 43 years old

None of us came from wealthy families, so we had to borrow from the bank at an interest rate of 1.7 or 2 percent per month. Since I am the oldest son of four children, I am expected to support the others. My brother went into business with me. My parents gave us the certificate of land use rights as a deposit. Thus, I was able to obtain 100 million VND to start the business. I was the eldest child, so everyone respected me, but I also assumed all the responsibility. I could have taken all the profits and paid a substitute driver a modest salary, but I had to show my brother how to make money because he had no idea how to do it by himself. I am the first son, so in any case, I will take care of my brother and make sure he has a job. (...) My two sisters live with their in-laws.

b. Developing strategies when financial support from one's family is not enough

Interviews confirmed that the immediate family is the main source of informal loans. They also highlighted that although there are numerous advantages to borrowing money from family members, there is sometimes a price to pay and that some people are excluded from this kind of support because of the place they occupy in the family. Another reason for not relying on family loans is that the immediate family is not wealthy enough to be able to afford lending money — even to close relatives — or to finance the total amount of initial capital needed. In those cases, some decided against opening a business,⁷⁶ and others adapt the size of their business according to the capital they can get from their family and their savings. Yet, the diversification of funding sources is a frequently observed strategy. The case of Binh is a good illustration of what people highlighted in the interviews (see Interview 29 in Box 3.15). After working for several years in a welding workshop, Binh decided to open his own business, and he described the strategy he intends to implement to raise the initial capital. First, he plans to ask several people for small amounts instead of asking one person for a large amount, not even his parents. The main reason for doing this is that people are more likely to agree to lend him money, but it is also to avoid placing a heavy burden on immediate family members (see Interview 17 as well).

Second, the order in which people are asked to lend money is associated with the level of intimacy embedded in the relationship: The family comes first, and then close friends if the family loans are not sufficient. A male like Binh generally excludes his in-laws, because being indebted to them is likely to damage their relationship. Support comes mostly from the parents, directly or indirectly. As shown in Interview 25, parents often act as an intermediary to get loans from family members outside the nuclear family. They stake their credibility within the extended family to support their children. Family events are also a means to get in touch with distant relatives who one does not often see (see Interview 23). Women often prefer to not rely on their own family, because after marriage a daughter is considered to be a member of her husband's family, and she should not bother her own family (see Interview 33). When they have no other choice

⁷⁶ Our quantitative and qualitative data are not designed to provide information about the proportion and characteristics of wage workers or the unemployed who have not become own-account workers because they lack capital. Indeed, both surveys rely on a sample of business owners only.

(e.g., when the in-laws are poor, or when their creditworthiness is too low to get a loan from a moneylender), they ask their mother only.

Outside the family sphere, intimacy and the corresponding trust are not sufficient to ask for financial support. Reciprocity is an important criterion as well. Binh thinks, for example, that his friends should help him because they are in debt to him. He helped them in the past. In addition to intimacy and reciprocity, one should be sure that the potential borrower is sufficiently well-off.

Bank loans are generally a last resort, as in Binh's case. He will only ask a bank for a loan if he cannot get any money from people in his network. He is reluctant to take out a bank loan because such a loan is expensive. For other business owners, using the land certificate of their parents as a mortgage is too risky. They do not want to run the risk of causing their parents to lose their house. And as seen above, some do not have this option because of being women, or because the eldest brother has already used the land certificate.

Box 3.15. Multiplying the source of funding

Interview 17, Motorbike accessories, male, 37 years old

I opened the store so both my wife and I could work and earn a living. I can't afford to raise a family working alone. I only borrowed one million VND. I had to borrow from five or six relatives and friends. They also do business, and they have money, so they lent me a little. I told them that I needed capital and that every penny counts. After one year, I paid off my debts.

Interview 23, Construction material transportation, male, 28 years old

I got married in 2007, and I was 21 years old. I had to work away from my wife, and I wanted to work closer to my family. At the time, I could not even borrow 10 million VND. My friends were also young, and they didn't have any savings. Two years later, in 2009, when my uncle came back for a funeral, I told him that I wanted to buy a truck and settle down. He lived in the city and had stable work, so he was quite better off. He asked me how much I had saved and how much I needed. After working for several years, and with the money from my wedding, I had about 60 million VND. I told him I wanted to buy a truck that cost about 120 million VND, so he lent me 60 million VND. If he hadn't gone to the funeral that day and lent me the money, I would still be driving for someone else.

Interview 25, Welder, male, 27 years old

My parents didn't have any money, so they asked my aunt, who lives nearby, to lend them some. She let my father borrow 20 million VND. My father gave me all the money so I could buy equipment and machinery. After two years, I was able to pay back the loan. She is my relative, so I didn't have to pay interest. She also didn't urge me to pay back the money. However, I paid her right away because her family was in need of money. (...) I am the only one who asked my parents for money to start a business. My brothers are all employees, so they don't need significant capital.

Interview 29, Employee at a welding workshop who plans to open his own business, male, 24 years old

It costs at least 100 million VND to open a small business in Hanoi, including renting space and buying machinery. I don't have enough start-up capital, so I will have to purchase machinery one piece at a time over a period. Regarding materials, I can ask my customers to leave a deposit. Over the last three years, I have saved 20 million VND. I think I will have

to ask for a loan of 100 million VND. I will ask my family first and then my friends. It is easier to borrow five to 20 million VND from each person. I've never borrowed money before. I'm not sure if my parents can lend me money, but I will ask them anyway. I guess I can get a loan of 20 million VND from my family. I have about six close friends who also came to Hanoi to make a living. I'm confident that they will help me because I helped them when they were building their houses or got married. I even lent money to one of them. If I don't get any help, I will use my parents' land license as security for a bank loan. I think my family and friends will lend me money eventually. If so, I will not have to pay interest. I expect to pay off all the debts in two or three years if my business goes well. I do not want to ask for support from my wife's family, so I will only consider it as a last resort.

Interview 33, Small glossary store, female, 35 years old

I asked two wealthy neighbours to lend me money (and charge me interest). But none of them would lend me money, because they thought my financial situation was not stable enough to be able to pay them back. So I stopped asking neighbours and tried instead to seek support from my family and close friends. (...) One friend agreed to lend me money. She is my best friend from childhood, and she is wealthy. She even owns a car now. (...) Of the five or six friends I have, she is the wealthiest. The others are just manual labourers like me. (...) I didn't ask my mother to give me money as a gift. I asked her for a loan because I had already moved out, and my parents still had to provide for my three younger brothers. I was afraid that she would not give me any money. I had to talk to her several times to convince her, and finally, my mom agreed to loan me some money (...) I did not ask my mom or my friend for a specific amount. I just said, "I need a few million to start a grocery store. Could you please lend me some money?" I was worried that I would not get any money from them, so I explained that I wanted to take advantage of the location of my house on the main road, and because my in-laws were too poor to be able to help me, I needed their support to raise the initial capital. I was poor at the time, so I was thankful for any money at all.

4.2. Development of household businesses

Three important aspects of the development of businesses are examined in this section: the access to labour, and capital, and the building of professional networks to face competition and to upgrade the size and the technology.

4.2.1. The family as a good source of labour?

At the start of a business, people generally work alone or with close family members. According to the 2014 HBIS survey, 55 percent of the business owners started alone and 34 percent with one other person, usually the spouse. As a business expands, additional workers have to be found.⁷⁷ In a context where formal labour market institutions are almost non-existent, an interpersonal relationship is a dominant way to recruit workers.⁷⁸ Again, family networks play a significant role: Half of all employees — excluding the spouse — are linked to the owner by family relationship. The use of family labour is even more widespread among informal household businesses, and it is associated with small but longstanding businesses and trade activity (Pasquier-Doumer and

⁷⁷ The representative 2014 HBIS survey data shows that 20 percent of the household businesses have expanded their labour force by at least one worker since they began doing business.

⁷⁸ According to the 2014 HBIS survey, 93 percent of the employees at household businesses were recruited through an interpersonal relationship.

Nguyen P., 2017). Our qualitative survey allows us to scrutinise the reasons why business owners massively rely on family labour and what the consequences for the development of the businesses are. We distinguish the support providing by the spouse from having family employees or family apprentices.

a. Working with one's spouse

Around 40 percent of the business owners work with their spouse, according to the 2014 HBIS survey. In most of the cases, the spouse's contribution is decisive from the start of the business. Because of cultural perceptions about gender roles, some female business owners have to get their spouse to agree to most of the decisions regarding the business. To illustrate, Yến (see Interview 18) considers her role in her wedding logistics business to be secondary even though she is the boss. Regarding her husband's decision to buy an expensive sound system that they have not been able to use, she said: "How can I dare to be against him? He is the man of the house. When he wants something, he decides without asking me for my opinion". In the case of Thiệu (see Interview 26), his wife has no other choice than to work with him first at a shoe shop, and later, at their rice noodle restaurant. "Boats are rowed by oars and wives are instructed by husbands"⁷⁹, he said, and "After getting married, a wife has to work at her husband's family's business"⁸⁰.

For other business owners, including women, it is necessary for the spouse to work at the business. At least, two people are needed to run the business. The reason is that it does not make enough profit to pay someone, and it would be almost impossible to find someone willing to do the hard work that would be required, e.g., beginning to work at four a.m. Vy's case (see Interview 14) is illustrative. She decided to open a small restaurant on the public pavement together with a neighbour. She thought, "*No one can work alone. Two people are always better than one alone in this business*". However, she soon realised that the profit they made was too low for both of them to earn a living, so she decided to run the business alone with the help of her husband. The husband is not defined as the business owner. He is a wage worker for the city bus company and works there in the evening. Vy was ambiguous in the way she defined the role of her husband. On the one hand, she said that he just supports her business. On the other hand, she used the terms "*our couple*"⁸¹, "*we, I and my spouse*"⁸² instead of "*me*" in the discussion. She said, "*without his (her husband) help, I would stop the business immediately*". The reason is that she cannot afford to hire a man to carry the heavy cooker at four a.m., and to serve food then until noon, make noodles and wash the dishes. She focuses on preparation, cash management and working as a waitress.

Working with one's spouse is quite common among both male and female business owners. It generally means shared management of the business. They work together like this because they have complementary skills and are unable

⁷⁹ "*Thuyền theo lái, gái theo chồng*" in Vietnamese.

⁸⁰ "*Lấy chồng thì phải theo nghề nhà chồng*" in Vietnamese.

⁸¹ "*Anh chị*" in Vietnamese.

⁸² "*Nhà anh chị*" in Vietnamese.

to hire someone. Also, the reason is rooted in traditional culture. In most cases, this nuclear structure within the labour force of a business does not change over time. What does vary is the recruitment of other workers, which is associated with the growth of the business.

b. Recruiting family labour: a burden on the growth of a business?

When a business is growing, the easiest way to expand the labour force is to rely on one's family network. In a context with no labour market intermediaries to convey information about workers and jobs, the family is a sphere where such information circulates and where young people can receive vocational training that is tailored to the job (see Interviews 24 and 10 in Box 3.16). However, the most common reason given for favouring family labour is the trustworthiness of family members (see Interviews 24 and 11). "*It is hard to trust strangers*" is a largely shared opinion. Many business owners believe that only family members can keep designs and method of production a secret. They assume that family members are trustworthy and honest. In practice, however, this is not always the case, as shown by the experience of some business owners (see Interview 23). Nevertheless, according to the 2014 HBIS survey, more than half of the business owners feel that family workers are trust-worthier than other workers (Pasquier-Doumer and Nguyen P., 2017).

Another reason is the existence of strong obligations towards one's family. The recruitment of family members may be the result of a need for workers. Besides, many business owners stated that they have felt obliged and pressured to hire a family member. A family member has demanded that another young relative was trained and given a job. In the recent literature on social networks, this behaviour is generally associated with the response to pressure for redistribution. But our qualitative interviews show that recruiting a family member is also done to maintain the family network and enhance its cohesion. Agreeing to demand from someone in a higher position in the family hierarchy is a way to guarantee support from the family in the future. In addition, but more marginally, family labour is also valued because it provides moral support (see Interview 6).

While there are clear benefits to working with family members, this can be costly as well. It is not rare that family members are better paid than non-relatives. When they are paid market wages, they usually benefit from more in-kind benefits like free meals or more flexibility with the work schedule (see Interview 10). However, the main cost is undoubtedly not being able to punish family members when they break the rules. For example, while non-family workers have to reimburse the business owner when they break or lose goods, family members do not have to do so, and the business owner covers the losses. A lack of effort, absenteeism, and theft among family members are not uncommon, according to business owners. Although the business owners complained about the difficulty of firing their family workers when faced with such situations, they managed to do so by giving another reason for their dissatisfaction (see Interviews 10 and 23). It is usually something along the lines of "business has

been slow". But this makes it difficult for business owners to hire other workers soon after and thereby expand their business.

In conclusion, it seems that family workers are used during the starting phase of a business. When the business grows, there is often a switch from family labour to market-oriented recruitment. At a certain point, having trusted family members on the payroll becomes less important, because the cost of not being able to enforce regulations or having to pay more than market wages becomes too high. The case of Dũng (see Interview 17 in Box 3.16) illustrates this point. The expansion of his business called for product-based payments instead of a fixed monthly salary, and for the recruitment of highly skilled workers. These two conditions forced him to replace family workers with non-family workers. It shows that the use of family labour is more widespread among small and informal household businesses than larger ones (Pasquier-Doumer and Nguyen P., 2017), and it helps to understand why.

Box 3.16. Strength and weakness of the family labour

Interview 6, Cell phone repair, male, 61 years old

(Do any of your relatives want to assist you?) Yes, two of my nephews. They asked me if they could be my apprentices, and I agreed. They were very helpful. They helped me look after my store and assisted me with the daily tasks. They also kept me company, but sometimes they messed up, and I had to compensate my clients.

Interview 10, Selling vegetables at a stall, female, 39 years old

When I sold food in the hospital canteen, I was pregnant. I needed helpers who I could trust, and I had no experience managing others. I called relatives in the countryside and asked for two people to come and help me. I had just started the business, and I needed workers, so it was good that my relatives were able to come and help me. But having relatives work for me is not easy. The market wage is only 500,000 VND a week. I pay my relatives higher, at 700,000 VND a week, and I cover the cost of their meals. This is uneconomical. (...) When I have to hire workers, I prefer to hire non-relatives to pay them the market wage. First, the reason is that I cannot question relatives. When I sold food at the canteen, if a non-relative worker did something wrong or stole money, I would talk straightforwardly with them, but I am reluctant to question relatives. I have to fire relatives who cause trouble at work. If I don't, I have to oversee them, and that is a headache. So, I have to think of some reasons to fire them, and I cannot simply say that I am not satisfied with their work. My cousin made mistakes when working for me in the canteen and I had to fire her. I could not say really the reason I fired her, so I said it was because the hospital (where the canteen is located) would not allow me to expand the business, and I, therefore, did not need her help anymore.

Interview 11, Artistic costume rental, female, 27 years old

I could easily find another workshop that could produce costumes for my rental business less expensively. I prefer to work with her (her husband's sister, who currently produces the costumes), even though she charges more than others do. I give her my designs, and the money needed to buy materials and manage a team of sewers. The market prices for materials and wages in this industry are very transparent. When prices go up, I pay her more. (...) In short, money is not the most crucial factor. The most important thing is having someone I can trust who will keep my designs a secret, do good work and deliver the costumes on time. She is my relative and has worked with me for six years. We work well together, and I treat her fairly.

Interview 17, Motorbike accessories, male, 37 years old

Of the seven master workers, only my older cousin is a relative. Previously, all of the labourers in my workshop were relatives. Gradually I hired people. At first, I offered my cousin, who is an experienced mechanic, a position in my workshop, and I pay him the market wage. (...) He works very well, so I'm delighted. One older brother and two younger brothers used to work for me. In general, I feel an obligation to help my relatives, but over time I discovered that there are many problems associated with employing relatives. The young relatives often asked for days off, and they often discussed my business behaviour at their houses, since I quarrelled with bossy relatives. I could not punish relatives or reduce their salary when they did something wrong. Gradually I expanded my business and made some regulations. I found that the paying a fixed salary is not reasonable because then productivity is low. So, I began to pay according to output, and I made everyone follow the regulations at work. Since my relatives' productivity was lower than the others, I was able to replace them with highly-skill workers. Now, only one of my cousins works for me. None of the other workers are relatives.

Interview 23, Construction material transportation, male, 28 years old

I used to employ my cousin. I have known him since childhood. He was also an obedient boy, so when my uncle (his father) asked me to hire him, I agreed right away. At first, he behaved well, but later he stole money from me. I couldn't ask him to return the money because I had no proof he had taken it. He even dared to pawn my truck to get money. Maybe he needed money, and he planned to repay me after receiving his salary. I didn't talk to my uncle about this, but it caused me a lot of stress. After a while, I fired him and told him it was because it was low season.

Interview 24, Construction, male, 57 years old

I needed a helper but couldn't find one, so I contacted my nephew in Phu Tho Province and asked him to work in my store. I told him that I would teach him how to do the job. Afterward, he could choose to work with me or to go back to his hometown and open his own business. (...) Of course, I only hire relatives. It is a way to help them. I do not hire strangers. Trusting strangers is hard. I don't want to let them inside my house.

4.2.2. The weakness of strong ties to increase capital

Most businesses have to invest if they want to grow. Access to capital is a determining factor for those who plan to grow their business.⁸³ The interviews show that business owners generally do not rely on their close family anymore. The main reason is that they can usually only ask people in their network for support once. When they get the initial capital from parents or close family members, they do not dare to ask for money again, because they do not want to burden them. "I can't borrow from my parents because I have already borrowed a lot from them" was a frequent statement. The same holds true for the people who offered support at the start of the business who are not family members. Business owners do not want to ask their friends and relatives for more money, because then it would look as though they were taking advantage of them (see Interview 33 in Box 3.17). In addition, the amount of money needed to develop a business is often greater than the amount of required capital at the start of a business.

⁸³ According to the 2014 HBIS survey, 30 percent of the household business owners plan to increase their level of activity within the next 12 months.

Similar to when starting a business, a strategy for obtaining funds to grow a business is asking people with whom one has weaker ties for money (see Box 3.17). If it is not possible to raise the required funds, the business owner will continue to run the business as it is. However, there is another possibility: borrowing money from informal moneylenders. As the business already exists, it can be used to guarantee the creditworthiness of the owner. The interest rate they have to pay depends on the strength of their relationship (see Interview 22 in Box 3.17).

Box 3.17. From family loans to money-lender loans

Interview 22, Groceries and rice seller, female, 41 years old

When I started making tofu and sold groceries, I didn't have to invest a lot of money. My parents-in-law gave me five million VND to use as capital. (...) When I needed more money, I borrowed from my parents. I borrowed 10 million VND from them, and then I paid them back. (...) Later, I built a house and changed my job and began selling rice. To do this, I needed to borrow money again. My husband and I are very hard working. My husband is different from his brothers. He always strives to have a better life, and he thinks about how to improve our economic situation. He talked to me about borrowing more money to expand our business. My mother has a retirement pension. She was a teacher at an elementary school. She had saved about 100 million VND and gave us all her money so we could build the house, so I can't borrow from her anymore. The people in my family are farmers, and they do manual labour, and they don't have much money to lend. My elder brother lives near my house. I often borrow small amounts of money from him in order to make change for customers. I always pay him back soon, usually the same day or the next day. (...) When we needed to borrow money to buy stocks of rice, only my mother was willing to support us, but she had no money left. I had to borrow from someone else. I borrowed from a woman named Toan who was recommended by my neighbours, and she charged me two-percent interest. The interest rate is quite low. It is three or four percent everywhere else. Because I am poor, my acquaintances don't trust me enough to lend me money, so I also had to borrow from a moneylender at a high-interest rate, but I had no other options. We live in the same village, so we know each other. Her house is 500 meters from here. She knows I run a legal business and make money from it, so she trusts me. Both my husband and I went to her house and asked to borrow money. First, we borrowed about 10 million VND, then 20 million VND and then 50 million VND. (...) Gradually, we are enthusiastically investing the borrowed money, because it helps us make more money than when we ran a small store.

Interview 33, Grocery store, female, 35 years old

I borrowed from a friend when I started the business. At the time, I had just gotten married and had no savings. She supported me because she was a close friend. She was very helpful and gave me all she could. I only asked her to lend me money once. It would have been embarrassing to ask a second time. If I had asked for more, that would have implied she had some left and that she did not want to give to me. If I were to ask for a second interest-free loan, she might think I was trying to take advantage of her. Because she is my friend, she never charged me interest. If I want another loan, I will have to go to a moneylender or a bank. Now I have some savings and a house, so I can use the land use certificate to take out a bank loan if I want. I should work hard, and I should not take advantage of my friend's kindness, nor that of my mother.

Other business owners prefer to take out bank loans. In addition to providing the owner with a large amount of money, bank loans have the advantage of a clear repayment schedule. Borrowing money from a bank requires the owner to make a business plan and creates an incentive to be more efficient (see Interview 11 and Interview 17 in Box 3.18). However, whether or not one gets a formal loan depends on the guarantee, they have at their disposal and also their level of risk aversion. Because a bank loan usually requires a land certificate to take out a mortgage, only business owners who have a good position in the family hierarchy – usually the eldest son — or those who have enough savings to buy their own house can use such a guarantee. However, some business owners are reluctant to risk losing their houses or their parents' houses in the event the business fails. Quyên (see Interview 13) has a land certificate and the good relationships needed to expand his business, but he is unwilling to risk losing his home in order to expand his business. Thu (see Interview 9) does not want to risk losing her house either. A mass organisation like the Women's Union is another source of formal loans, although the amounts of these social loans are smaller than commercial loans. Taking out a mortgage is not required, but a strong commitment is, and local associations supervise the disbursements of these loans. This kind of loans is frequently dependent on having a good relationship with some of the leaders (see Interview 34).

Box 3.18. Conditions for bank loans and risk-aversion

Interview 9, Family printing business and spice seller, female, 52 years old
Borrowing money is not easy nowadays. We print wedding cards and invitations in our living room, and our business would be successful if we had a proper shop. However, if we were to borrow money and our business failed, we wouldn't be able to repay the money. We use our savings when we need to invest in the business. So if our business were to do poorly, we would only lose the effort we put into the business and our own money, not borrowed money. (...) My husband's parents gave this house to his brothers. My husband lives in and looks after the house, but we can't mortgage it to borrow money. Even if we could, we wouldn't. The reason is that if our business failed, we would lose the house. I don't want to borrow money to open a proper shop.

Interview 11, Artistic costume rental, female, 27 years old
When I got money from my parents, it was up to me to decide when to pay them back. Only by borrowing from a bank, will I be motivated to improve my business. When you take out a loan, you have to run the operation better.

Interview 13, Motorbike repair, male, 39 years old
My father has a great network. A friend of him has a car repair shop. I think that as Vietnam has been developing fast recently, more people will get around by car soon. The demand for shops that can service and repair cars will increase in the same way that the demand for motorbike repair shops increased in the past. So, I have a plan to turn this motorbike repair shop into a car repair shop, just as my father converted his bicycle repair shop into a motorbike repair shop. I told my father's friend, who has a car repair shop, about my plan, and he has agreed to teach me everything. I need to know about the business during the launching process. I also have a house that my father gave me. However, I would need a space that is four times bigger. My plan requires a large investment. However, I'm not sure I can run such a large business, so I need to consider my options carefully. My shop is fine as it is, so I will probably continue running it. Thinking about the investment for new car repair shop has made me lose interest. Borrowing one billion VND from a bank and having to pay it back within six months seems too risky. The

potential profit is good, but the idea of borrowing the money to expand the business frightens me.

Interview 17, Motorbike accessories, 37 years old

Two years ago, I needed more than 500 million VND to invest in my business. I went straight to a bank. There are many banks, I just went there and asked them. I knew that ACB Bank only charges seven-percent interest per month, less than the others, so I decided to borrow there. The advantage of a bank loan is that the repay plan is transparent and fixed. I used my land certificate as a guarantee. I never asked my parents or siblings to lend me money. I am only willing to risk my savings and home. I don't want to risk losing money borrowed from others. If my business fails and I lose my house, I will go and stay at my parent's home. They bought a house for each of their children, and now they don't have any extra money. (...) Capital is the most important thing. Now, I can only borrow about 500 million VND. Borrowing a larger amount of money is not possible, because the amount of the loan is based on the guarantee. If I had two billion VND, I would invest in an automated production line. That would increase output, and the workshop could be expanded fivefold. At present, a worker can make ten products per day. If I had an automated production line, a worker could make up to 20 products per day. But my workshop is only about 200 square meters. It is the house I inherited from my parents.

Interview 34, Wholesale rice trader, female, 32 years old

My parents-in-law gave me the initial capital. They left me some stock when they handed over their business to me, and after the stock was sold, I gave them what they had spent buying the stock. To import new stock I needed 50 to 60 million VND. (...) To get 60 million VND I had to borrow from three sources: 10 million VND from the Farmer's Union, 30 million VND from the Women's Union and 20 million VND from my friends, who are also relatives of my husband. I have a relative in the Women's Union. She also lives around here, so she knows my financial situation. So, I went to her and told her that I was in desperate need of some money. She told me that the Women's Union would be more likely to borrow me money if I said that I wanted to plant trees by the riverside, and she helped me write a proposal. I just had to sign it. Then I got the money, and I think I was lucky. It was a three-year loan, and I managed to pay it off. The woman who lent me money is a relative of my husband. She sells plastic household products and is financially secure. I told her I was in need of money and asked her for 10-20 million VND. She gave it to me right away without asking any questions. We are quite close because her stall in the market is next to mine.

Giving financial support to a friend or close relative so that they can start a business is seen as a form of encouragement and emotional support. However, relying on people in one's social network many times might be perceived as taking advantage of those relationships, and that should be avoided. It explains why the majority of business owners rely only once on their acquaintances, and usually only at the start of the business. Asking for financial support from people in one's social network at a later phase is rare, except for small loans used for current expenditures. This self-restriction may explain why most businesses owners do not grow their business and instead continue to conduct business on a small scale. Only those who have access to informal lenders or bank loans have an opportunity to invest in their business and grow. This supposes having a privileged relationship with a moneylender who offers a reasonable interest rate or having a large enough guarantee and low risk aversion in the case of a bank loan as well as a land certificate, a key form of support that is often provided by the family network. Women, who generally do not have a land certificate, are thus disadvantaged in their opportunities to develop their business.

4.2.3. Building a professional network

Building a professional network is important for business development. Maintaining strong relationships with customers is a strategy to deal with competition. On the other hand, horizontal cooperation with owners having similar business could be essential to reach critical size because it provides technical support and allows sharing orders. In this section, we examine how these professional relationships are built and what are the costs and benefits.

a. Building strong relationships with customers to deal with competition

Because of small entry barriers, competition in the household business sector is generally fierce. A way to survive and to grow is to build and maintain strong and long-term relationships with the customers. As shown by Interview 18 in Box 3.19, there is a mutual advantage to maintain this relationship. Guarantying the product quality throughout repeated transactions is a privileged way to build long-lasting relationships as illustrated in the Interview 17 (see Box 3.19). An interruption in the exchanges can be fatal to the relationship (Interview 28 in Box 3.19).

Providing trade credit and preferential prices are other frequent strategies to build close and trusting relationships. Trade credit refers to the facilitation by the supplier of the purchase of supplies without immediate payment. According to the 2014 HBIS survey, around two-thirds of the household businesses (68 percent) having one main supplier benefit from trade credit in the form of late payment from their main supplier (Pasquier-Doumer and Nguyen P., 2017). Late payments are usually provided to regular customers who demonstrated through repeated interactions their capacity to pay off after reasonable delays. For customers, late payments are an important source of short-term financing. The change of supplier implicates the loss of this advantage for the customer. Besides maintaining customer loyalty, trade credit and preferential prices could be mean to express gratitude towards previous support (Interview 14 in Box 3.19).

While trade credit is a generalized practice, it is not always costless for the owner. Late credit sometimes results from social pressure, especially in rural areas. Because customers are neighbours or acquaintances, some owners have to provide them with trade credit or preferential prices even this is out of their interest. As explained in Interviews 21 and 24 (see Box 3.19), some customers take advantage of their close relationship and the fear of conflict in a cohesive neighbourhood to delay payments. Trade credit can even be counterproductive by discouraging customers. Although trade credit can sometimes place the business in difficulties, the owner could accept it as a support to the community (Interview 19).

Box 3.19. Importance and strategies to maintain customer-supplier relationships

Interview 14, Soup restaurant in the street pavement, female, 39 years old

I'm not afraid to compete with anyone because of the difference in my processing and cooking. Firstly, all the cooking steps are done in the traditional ways. My sister in law taught me, and I consider the customer's advice as well. (...) Moreover, I am always friendly and sociable. I treat people around very kindly, so they trust and like me very much. Almost every day, four people are helping me a little. (...) We know each other because we sell together on the sidewalk. They are very supportive, so when they eat from my food stalls, I will charge them cheaper or add more ingredients to the soup for them. They don't agree to eat free, because everyone has self-respect. If they can't sell well, I will buy the remaining for them. They will charge me cheaper.

Interview 17, Motorbike accessories, 37 years old

I mostly work with the mold I buy. (...) The difficulty is to maintain the relationships with four mold suppliers. We have been together for many years. Even when I tell them shortly, they can understand my request right away and clearly. They have a deep understanding of my requests and the specificity of my products. I have to maintain the relationships with them; otherwise, my job can be delayed. If I work with others, I have to explain them thoroughly, but sometimes they still don't understand me. At first, when I got one or two suppliers only, my work was affected a lot. The order was delayed so I lost my customers. When I have more good suppliers, it became better. We are fair to each other, and they don't overcharge me. It is hard to find a supplier, so I have to try doing with them one or two times. If they do well, I will continue to co-operate with them. At first, there were always problems with the products, but I felt that they also try to fix problems, then we co-operate long term. (...) Finding good supplier needs time, I have worked with more than ten suppliers [before selecting four].

Interview 18, Wedding event logistic, female, 41 years old

It is the long-term business that they [the suppliers] want to do with me. For me, I want them to provide me with high-quality goods. In return, they also hope my business will go well so that they can keep being my suppliers. In this business, both sides rely on one another to keep the other going well, so I try to pay them off as soon as possible.

Interview 19, Demolition contractor, male, 50 years old

The only limitation I face in my job is when my clients delay paying. Some clients do not have enough money to build their house, but they do it anyway, resulting in several debts. They do not try not to pay, but actually, they could not arrange yet. I could not do anything but accepted because that was the support among villagers. (...) Each only rebuilt his house once in his life, so I should support them to show the cohesion of social relationship. This is not exchange for anything back from them, but I value the spiritual connection among relatives.

Interview 21, Grocery, female, 47 years old

My customers live around here, we are acquaintances, so I also sold on credit in the past. Then I realized that it made me lose customers. Because when they owed me money, if they didn't have enough money or didn't want to pay back, they would buy from other stores. After six months, I stopped selling on credit. I started to require cash on delivery. Who said that they would pay later, I said that the profit was very little or I needed to return my loan after that so I could not allow late payments. Gradually, they understood that so no one asked me to sell on credit. Sometimes, if they forget to bring money, I still sell goods only when I know for sure that they will pay back soon.

Interview 24, Construction, male, 57 years old

In this business, owing money is quite normal. Most of my customers are neighbours. After I finished my works, some said that they didn't have money, while some said they had sent all the money to the bank. I could not do anything, but had to wait for the money. I could not uninstall equipment or argue with them. We were neighbours living in the same area, so conflict was not good. But I still had to pay the cost of materials to the suppliers. There were some cases, not many. Then, I got experiences. Now, I deal with customers that they must pay deposits for materials at first, while human fee can be paid later.

Interview 28, Vegetable whole trader, female, 40 years old

There was one reseller that I met at Kim Lien by accident. She asked me to collect vegetables from other sellers then resell them to her. Since then she became my reseller for ten years. However, we stopped doing business six years ago when I took maternity leave. When I came back to work, another wholesaler had already supplied her shop.

b. Fostering the cooperation with other business owners

Horizontal cooperation is another important challenge for the development of a business. Building relationships with owners of similar businesses may be a valuable asset. As shown by Interview 13 in Box 3.20 (or Interview 17 in Box 3.8), cooperation among business owners is demanded to solve technical problems, when each specializes in particular skills. They share advice, market information or supplier recommendation. Discussion with peers allows staying up to date with new technologies. Another advantage of horizontal cooperation is the opportunity to share orders (Interviews 19 and 24 in Box 3.20). It helps the business to regulate the activity, especially in sectors where seasonality is an issue.

Therefore, similar businesses are usually not considered to be competitors but, instead, are regarded as a source of support. It is particularly true in rural areas or craft villages. The perception of "*each has his owned fortune*"⁸⁴ facilitates this process. New competitors are not considered as a threat, although it can slightly reduce the market share, because of the strong link established with regular customers. Cooperation is instead highly valued, and competitors are viewed as members of the same community, professional community (Interviews 13 or 17), local community (Interview 22) or both (Interview 24). Supporting members of this community is more important than the cost and benefit related to this support.

Professional networks are usually built with the development of the businesses through business interactions. The expansion of the business leads to more contacts. In turn, these contacts are helpful to the business. Maintaining a professional relationship supposes reciprocity and sharing leisure time and social events. However, this investment in time is not very costly according to the business owner (Interview 13).

⁸⁴ "*Lộc ai người nấy hưởng, mỗi người có duyên riêng của mình*" in Vietnamese

Box 3.20. Cooperating instead of competing

Interview 13, Motorbike repairing, male, 39 years old

If the issues are hard to find, I will ask for support from other repair shops. I bring the scooter to a repair store, which has well-skilled workers, and then ask how I can fix it. I pay them at the same rate I charge the customer. Day by day, I become closer to workers, so they are supportive. Many times, they fix for me without charging money. There are a few stores, which have well-skilled workers. We keep in touch even some work far away. Now, mobile phones are very advanced. I can take a photo, then send the image to them to ask for help. If they know, they will tell me how to fix it. (...) We work in the same industry, and so all things are simple. We all are busy, so we only contact each other if needed. Or on some special occasions like the Lunar New Year event, we gather for food and drinks. Shortly, I don't have to spend much time and money to maintain those relationships. Each one is good at a specific field. If I need information, they will provide for me.

Interview 19, Demolition contractor, male, 50 years old

Two workers quitted my business and invested in doing the same business. They charged lower prices than mine. Thus, I lost some contacts with construction managers. The same happens to all kind of businesses, not only mine. I just kept thinking that my service was the best and tried my best. Even they proposed lower prices to the market; I did not care. (...) We work together in the same sector, so it would be fine among us, still being close friends. When we have so many orders, we introduce orders to each other. It's good as well.

Interview 22, Grocery and rice seller, female, 41 years old

My cousin wanted to set up his store, but he didn't know about the investment and the ordering process. We are relatives, so he asked me straight away for help. I instructed him like a senior. There is nothing to hide. I helped him quite enthusiastically and told him what to buy, how to install it. It doesn't affect my business and me at all. I only wasted little time to talk to him. If there is one more store, the number of my customers will decrease slightly. I still ok. (...) Now, his store is bigger as twice as mine. Helping others is the predestined tie. I help them, and then, there will be others helping me. He is my relative, as well as my villager. This sibling relationship is precious. We don't care about the advantage or disadvantage.

Interview 24, Construction, male, 57 years old

There are four people around here who also open water and electrical stores. There is no competition in this business. Firstly, we are neighbours who work in the same industry. Secondly, this business is based on relationships with construction contractors or house owners. In general, the customers mostly come from the references from others, so there is no competition. Otherwise, we are quite close and actively support each other. In free time, we visit each other and chitchat. When I am too busy, I ask them to support in one or two work shifts and vice versa. It is not frequent. However, when there is a high season, all of us are busy.

5. Conclusion

The creation process of household businesses is largely embedded in the family networks of the business owners in Vietnam. Interactions with family members, especially those linked with the business owner through strong ties, shape the design of the business. They condition the business size by providing the initial capital, and the business activity by diffusing the main information and by transferring skills.

In the business creation process, family networks are by far the most preferred source of the initial capital, which brings many benefits to the business. They include low cost, flexibility in reimbursement and no requirement of guarantee. In a context where the formal financial market is not well developed, these benefits are usually a necessary condition to start a business. Conversely, the flexibility in the reimbursement of loans from family networks limits the structuring of the business. Accessing such loans from social networks, business owners do not need to evaluate the risks related to the business or even to build a business plan. In addition, this source of funding makes the business dependent on good relationships within the family.

Although the bulk of business owners benefits from financial family support, the amounts and the conditions of the loans they can get are determined by two factors: the wealth of their close families and their status in the families. Women are particularly disadvantaged in this last aspect. Interestingly, this study highlights the strategies implemented by some business owners to circumvent these limitations. The main strategy is to multiply the source of funding by asking small amounts from several people in the family networks. Moving out of the family sphere may be costly, especially in rural areas where this behaviour generates gossip. And, it supposes to get intimate and reciprocal ties with people who are better off enough in order not to burden them. Therefore, business owners frequently adapt the sizes of their businesses to the amounts of loans they can get from very close relatives. Only those having a privileged status in the families (mostly the eldest sons) and families with land certificates can access formal loans. Low risk-aversion and long-term perspective for the business are commonly observed characteristics of business heads doing so.

Strong family ties also play an essential role in the choice of the business activities. Information for the business creation process is transferred through family members, but not as common as financial family support. However, it does not mean a less important role in information support. Family support in diffusing information is ranged from the transfer of businesses or specific skills to some advice on the choice of business activities. Strong ties are mostly involved in the transfer of businesses or skills. It results in resources for the business owners that are *savoir-faire* or brand names, reputation and professional networks. Information support from family networks heavily influences the design of the business and consequently its trajectory. Choosing to reproduce a business already conducted by the family makes the owner more confident in his or her capacity. It is a natural choice, "the easiest way", and a mean to take advantage of the private information. However, in comparison to

financial support, information support from the family networks is not costless. Information support often goes against innovation and does not encourage the owner to question the sustainability of the business he or she plans to create: the adequacy of the activity with the current economic context is not taken into account, neither the potential demand. As a consequence, the business usually has a low potential opportunity for growth, except in the rare cases where the owner can invest and upgrade his or her skills. In that aspect, it does not differ much from businesses, which are created with public information, or in other words, without relying on social networks.

A more efficient way to get private information is through weak ties. Weak ties generally convey innovative information for the business and provide the owner with new perspectives and models on what he or she can do. The weaker the ties are, the less detailed information is. Information from weak ties would come to the business owner having developed entrepreneurial skills and being low risk-averse, which are essential for a successful business.

Therefore, support from strong family ties is essential at the start of the business, and also shape the business at a small size at first, which is often not adapted to rapid changes in the demand and the technologies in the latter phase of business development. Weak ties are much less mobilized at the start of the business, but they are a source of valuable information to create innovative businesses.

The more the business grows, the higher the strength of the weak ties is. Relying on family networks to get labour to develop the business is common practice. Besides the lack of labour market intermediaries to recruit workers, the main reasons are the trustworthiness of these family workers and the obligation or desire to participate in the business for the well-being of the whole family. But this practice is not sustainable as soon as a critical size of the business is reached. Enforcing regulation at work and applying market-based remuneration is difficult with family workers. Moreover, relying on family workers could be a drag to the development of the business in case of bad experience with one family worker: the condition to fire a family worker is often not to recruit someone else because the pretext of firing have to be a slowdown in the activity, in order to get the acceptance from the family.

Similarly, family support in financing the business leaves the place to the use of weak ties or even formal loans to access financial resources for the development of the business. Asking for financial support commonly happens once only at the start of the business: close ties are willing to provide loans at the business start, as a form of encouragement and emotional support, but relying on them several times is perceived as taking advantage of these relationships. Moneylenders or bank loans thus fund investment in the business. For moneylenders, interest rates depend on the strength of their relationship with the owner. And bank loans are conditioned to having land certificates and are risky as the land is taken as a loan mortgage. For these reasons, most business owners do not grow their businesses and maintain their activities on a small scale.

After having shaped the business at its start, family or inherited networks become less and less essential in the development of the business. Meanwhile, the professional networks, which have been built since the business started, get more importance. Maintaining strong relationships with customers and suppliers is a way to deal with competition. Guarantying the product quality throughout repeated transactions and providing trade credit for customers and suppliers are common strategies. Horizontal cooperation among owners having similar businesses could be essential to reach a critical size of professional networks because it provides technical support to the owner and allows sharing orders. These professional networks among household businesses are usually built up with their reciprocal interactions and the spending of their leisure time together.

The use of social networks for a household business performance is a consistent component of its functioning. Most of the resources for the household business are getting through personal relationships of the business owner. A cost-benefit analysis of the use of social networks and family networks, in particular, remains mixed. Besides providing resources, the use of social networks often conditions the business to remain small, in circumstances where other alternative accesses to resources are weak. However, the use of social networks should be understood from a larger perspective than a cost-benefit analysis of accessibility of resources for business performance. Indeed, it is anchored in family structures and local community contexts, supposing a set of duties and rights embedded in reciprocal relationships beyond the business interactions only.

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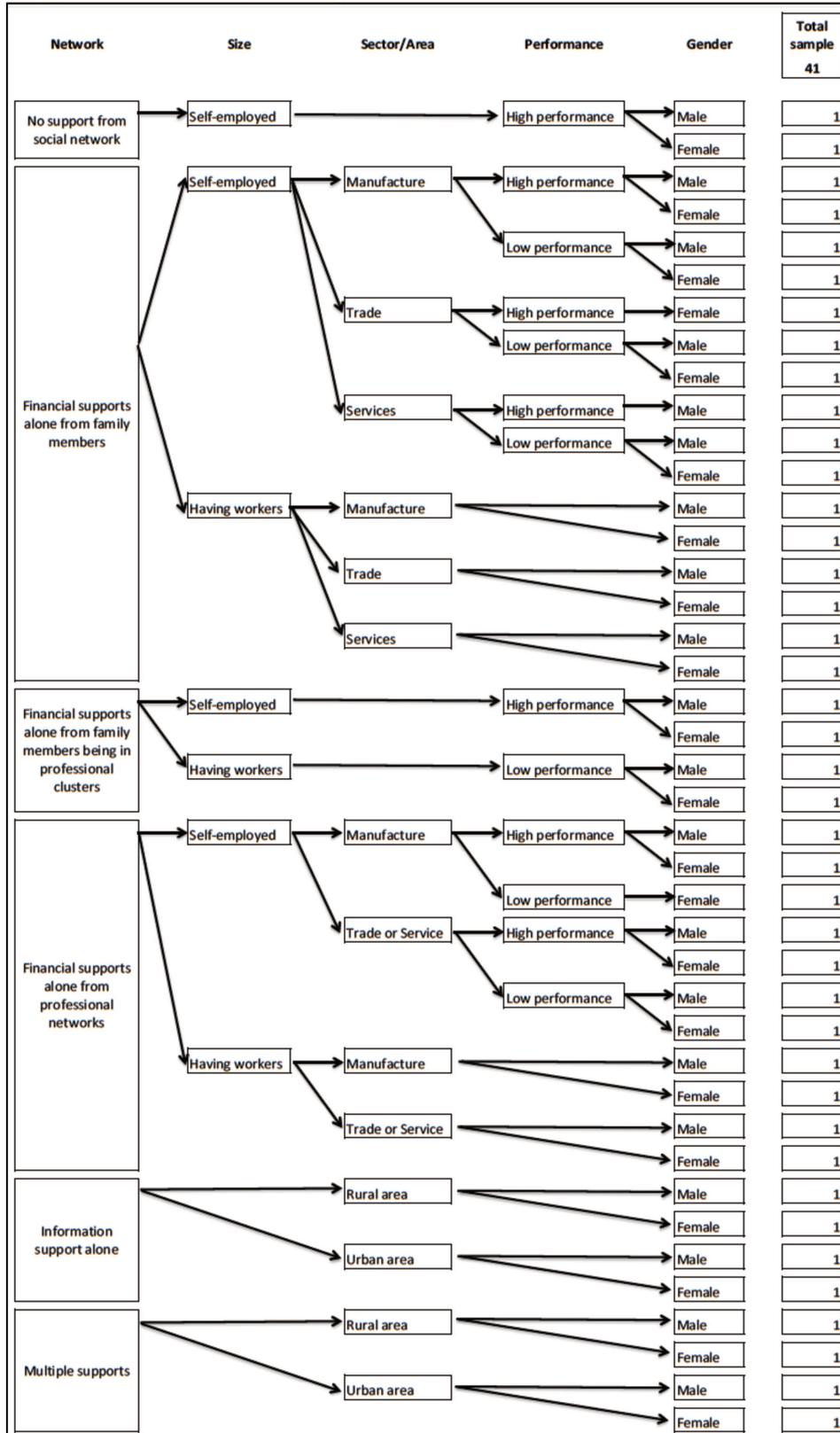
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Appendix

Appendix 3.1. Characteristics of the businesses of the qualitative survey sample

Interview number	Source of information at the creation	Annual value added (000 VND)	Quartile of value added	Type of premises	Number of workers
1	Family network	6600	1	Home	2
2	No network	43267	3	No premises	1
3	No network	67680	3	Home	1
4	No network	832833	4	Home	6-18
5	No network	16921	1	Home	1
6	Family network	6120	1	Professional premises	2
7	No network	26880	2	No premises	1
8	No network	10236	1	No premises	1
9	Friends	20993	2	No premises	1
10	No network	82500	3	Home	1
11	Business tie	315042	4	Professional premises	6-18
12	No network	32866	2	Home	1
13	Family network	370436	4	Home	3-5
14	Family network	356040	4	No premises	3-5
15	No network	162960	4	Professional premises	3-5
16	No network	3600	1	Home	1
17	Business tie	1488000	4	Professional premises	6-18
18	Family network	254177	4	Home	3-5
19	Friends	878915	4	No premises	6-18
20	Family network	113400	4	Home	3-5
21	Friends	26520	2	Home	3-5
22	No network	11880	1	Home	3-5
23	Business tie	922000	4	Professional premises	3-5
24	No network	20000	2	Home	1
25	Business tie	85200	3	Home	1
26	No network	68040	3	Home	3-5
27	Business tie	72000	3	Home	1
28	Business tie	11264	1	No premises	1
30	Business tie	102000	4	No premises	1
31	No network	19594	2	Home	3-5
32	Family network	26513	2	Professional premises	1
33	No network	7170	1	Home	1
34	Family network	41300	2	No premises	1
35	No network	36000	2	No premises	1
36	Family network	82690	2	No premises	1
37	Family network	432600	4	Home	3-5
38	Business tie	6929538	4	Home	6-18
39	No network	173866	4	Professional premises	1
40	No network	55100	3	Home	1
41	Friends	88967	3	No premises	1

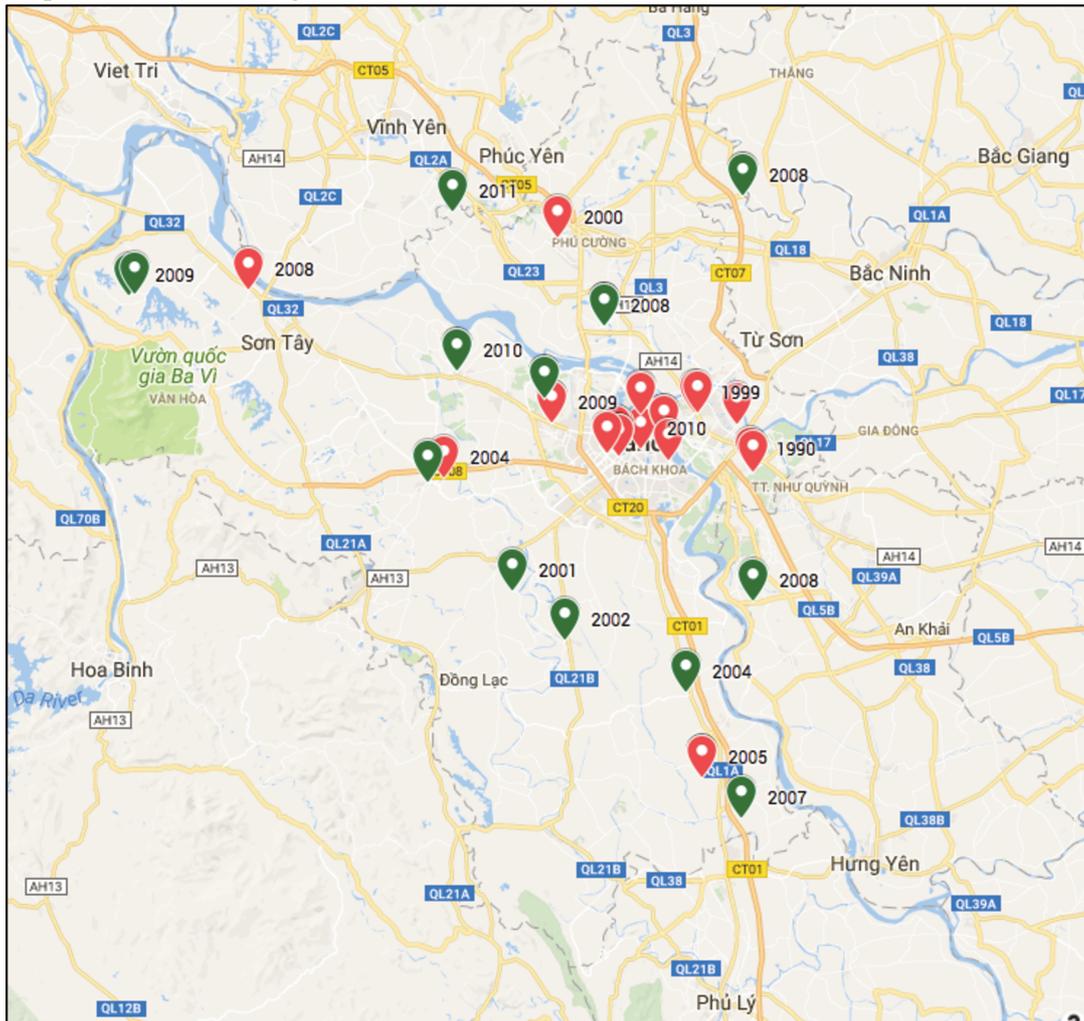
Appendix 3.2. Sample design



Source: by Authors

Appendix 3.3. Survey site maps

Map 3.1. Interviews by location of urban or rural areas

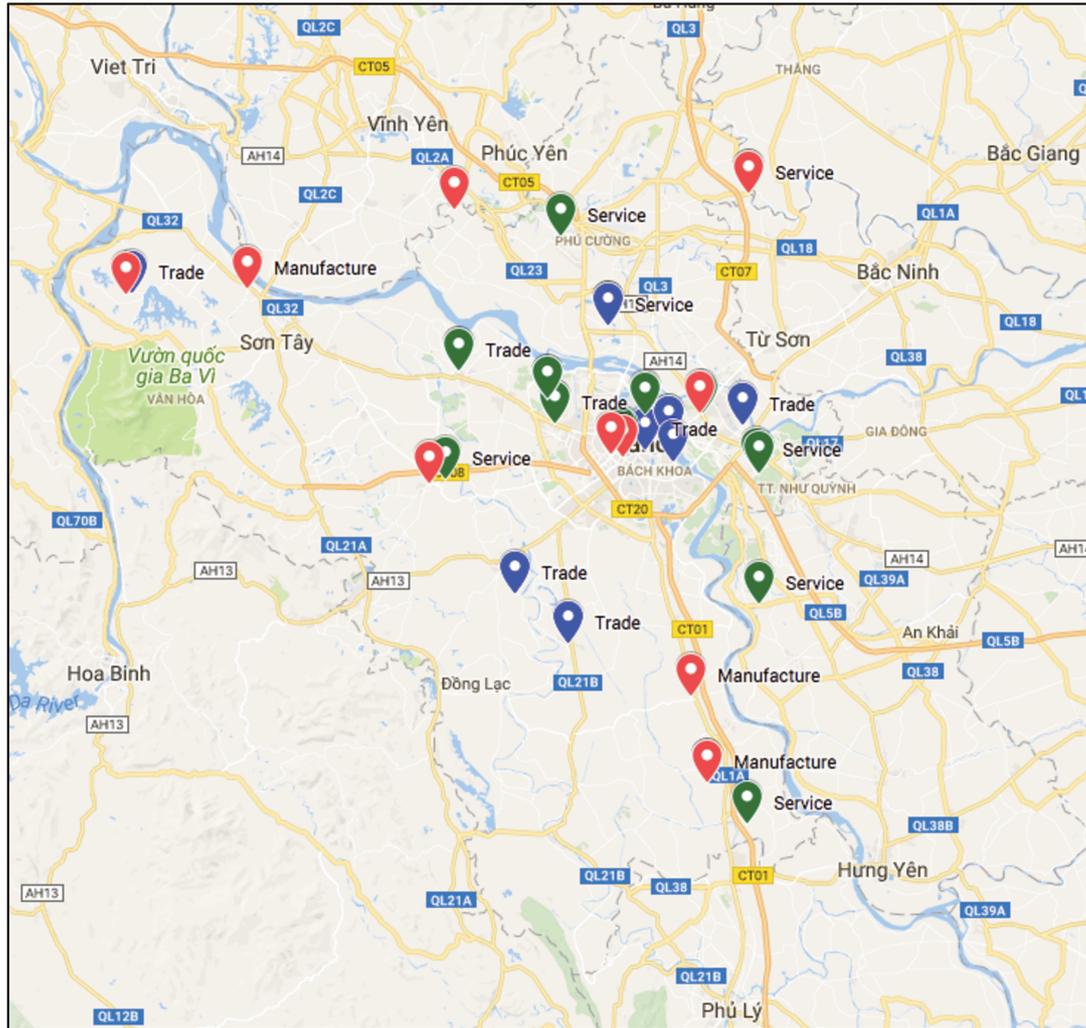


Note: Observation in urban areas as in red (24 observations); Observation in rural areas as in green (17 observations).

Provincial boundary in dashed line. Observations are marked by the starting year of the business.

Source: by Authors

Map 3.2. Interview locations by sector

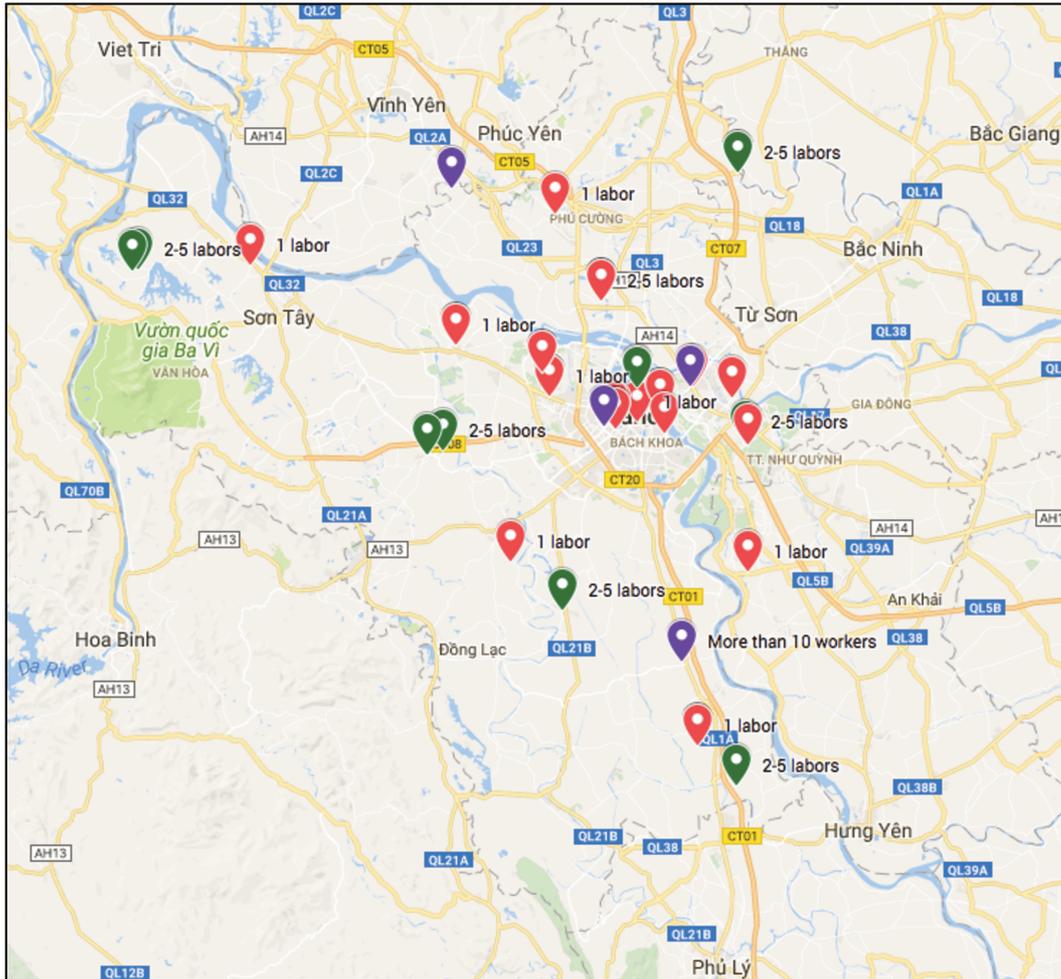


Note: Manufacturing businesses are marked in red (14 observations); Service businesses are marked in green (17 observations); Trading businesses are marked in blue (10 observations).

Provincial boundary in dashed line.

Source: by Authors

Map 3.3. Interview locations by the business size



*Note: Self-employed businesses without worker are marked in red (25 observations);
 Businesses having 2-5 workers are marked in green (12 observations);
 Businesses having more than 10 workers are marked in purple (4 observations).
 Provincial boundary in dashed line.
 Source: by Authors*

Appendix 3.4. Interview topics

In-depth interviews aim to gain an in-depth understanding of the influence process of social networks on the business performance. The interview is developed based on the combination of two qualitative tools, including (1) the timeline of the business to explore the process over time, and (2) the social network map to explore influence from a particular *Alter*, based on the 2014 HBIS survey data.

Along these two tools used as a support for discussion, interview topics were structured for in-depth interviews as followed.

1. Introduction

Objective: explaining the objective of the study and gaining the trust of the interviewee

2. Discussion of the global context of the business and social environment of the business owner

Objective: To get a detailed timeline of the business including the main changes in the business operation and in the opportunities, constraints, and difficulties in conducting this business; to complete the social network map built from the 2014 HBIS survey.

Topics for discussion:

- The process of how the business owner had evaluated his or her need, goals and constraints in starting a business;
- The identification of people, who had influenced the choice of this kind of business activity, and more generally of the social embeddedness of the owner at the start of the business;
- The perception of the business owner about the important changes in his or her business operation, and how social interactions had influenced these changes; reversely how changes in the network had affected the business operation.

3. Costs and benefits of particular relationships in a specific phase of business

Objective: To discuss about the costs and benefits of all interactions identified in the network map, and to compare them with the ones related to other potential sources of supports.

Topics for discussion:

- The evaluation of the opportunities to rely on alternative strategies (formal institution, other relationships) to get resources, and the relative cost and benefit of these strategies;
- The process of how supports had been distributed among family members and what were the ins and outs of this decision-making process;
- The identification of the social commitments related to each use of social relationship; and the consequences when the commitment was not fulfilled;
- The history of exchanges between *Ego* and *Alters* to identify the long-term social obligation and reciprocity included in the interaction.

RÉSUMÉ DE LA THÈSE

Au cours des deux dernières décennies, les deux groupes vulnérables des ethnies minoritaires et des entreprises familiales ont contribué à la croissance économique, mais n'ont pas été en mesure de bénéficier de la croissance économique autant que d'autres groupes au Vietnam. Le caractère moins inclusif de ces deux groupes dans la croissance économique demande une étude sur la discrimination ethnique et des performances des entreprises familiales au point de vue des réseaux sociaux. Cette recherche étudie le rôle des réseaux sociaux en utilisant la méthode Q-square sur une base de données originale, les données quantitatives et qualitatives des relations sociales d'une entreprise familiale, et avec un instrument innovant: être le fils l'aîné. Le chapitre 1 mesure et analyse les déterminants principaux de la discrimination ethnique pendant les dix ans derniers. Le chapitre 2 identifie les effets de cause entre les réseaux sociaux et la performance des entreprises familiales. Enfin, le chapitre 3 présente une étude qualitative de l'impact des réseaux sociaux sur les performances des entrepreneurs informels. Cette étude se centre sur une dimension particulière des réseaux qui est la force des liens. Elle distingue par ailleurs l'utilisation des réseaux à la création de l'entreprise et à un stade plus avancé de son développement.

Mot-clé: Discrimination ethnique, décomposition, réseau social, fonction de production, force des liens, entreprises familiales, secteur informel, Q-square, générateur de nom, effet causal, Vietnam.

INTRODUCTION GÉNÉRALE

Ce travail est le résultat d'une longue expérience et d'un travail de recherche débuté en 2009 lorsque j'ai coordonné un programme d'évaluation rapide de l'impact de la crise mondiale au Vietnam. Avec 40 chercheurs au Vietnam, j'ai visité dix parcs industriels et cinq marchés du travail informel dans les rues des deux plus grandes villes du pays, six villages d'artisans et plus de 20 villages du pays, y compris dans les régions montagneuses. L'enquête avait pour objectif de recueillir des informations sur les risques, les pertes et les stratégies d'adaptation. Cette fois-ci, deux groupes de ménages ont particulièrement retenu mon attention: les ethnies minoritaires et les entreprises familiales. Même si la crise a touché les secteurs les plus exposés au commerce international et a eu des effets à court terme, ces personnes ont été touchées et ont connu une vulnérabilité croissante par la suite. Notre travail a révélé qu'ils étaient également considérés comme le pare-chocs de la résilience de l'économie pour absorber les salariés des secteurs les plus exposés, qui se sont tournés vers leurs réseaux sociaux comme stratégie d'adaptation au chômage. En même temps, ils seraient encore plus laissés pour compte des progrès en matière de développement. Il était évident que ces groupes n'avaient pas bénéficiés comme les autres de la forte croissance économique des deux dernières décennies. Alors que la société a bénéficié de sa contribution à la résilience pendant la crise, ils ont été laissés pour compte en période de croissance économique. Ce contraste a suscité mon intérêt pour ces deux groupes vulnérables, pour les mécanismes de la tendance à être laissés pour compte, pour les facteurs de cette tendance et pour les interventions politiques qui pourraient y remédier.

Ce projet nous a permis de prendre en compte les risques inhérents à une intervention politique par manque d'informations sur les groupes vulnérables et sur le mécanisme de transmission de l'impact. Il existait un écart d'information entre les données des systèmes de statistiques nationales sur la main-d'œuvre et sur les ménages tous les deux ou cinq ans d'une part, et la base de données qualitative réduite à un petit nombre de localités d'autre part. Un problème d'évaluation proviendrait de l'absence de méthodologie complète pour combiner les données des bases de données quantitatives et qualitatives.

Heureusement, le projet m'a permis de rencontrer le Dr. François Roubaud, Dr. Mireille Razafindrakoto, et l'équipe de chercheurs de l'IRD-DIAL à Paris, qui ont présenté les résultats d'une étude originale sur les entreprises familiales et les conséquences de la crise à Hanoi et à Ho Chi Minh ville au Vietnam en 2009. Nous avons partagé la même préoccupation sur la manière dont ce segment vulnérable du marché du travail a été touché par la crise, les canaux qui ont transmis les effets négatifs et la manière dont ils ont réagi. Il m'a présenté la première enquête sur les entreprises familiales et le secteur informel dans les deux plus grandes villes du Vietnam, qui comportait une approche combinée quantitative et qualitative. Nous nous souvenons encore du froid glacial à Tam Dao, où un atelier national sur l'observation des impacts de la crise sur les travailleurs et les ménages au Vietnam a eu lieu pour la première fois en 2010.

Cet événement m'a ouvert les yeux sur le sujet du développement par le biais des réseaux sociaux, qui présente un mécanisme de transmission de l'influence, et m'a encouragé à poursuivre la recherche dans le cadre du programme de doctorat. Dr. Roubaud a étudié la manière d'aborder les questions relatives aux entreprises familiales et au secteur informel, même après son départ du Vietnam. Il m'a apporté l'amitié et les relations avec ses collègues qui ont continué à travailler au Vietnam, Dr. Laure Pasquier-Doumer et Dr. Xavier Oudin, qui sont des spécialistes des réseaux sociaux et des entreprises familiales dans les pays en développement.

Depuis lors, tout au long de ma carrière de chercheur, je me suis rendue compte de plus en plus de lacunes dans les études sur l'inclusion des ethnies minoritaires et des entreprises familiales dans la croissance économique, sur le rôle du réseau social, et surtout sur l'approche de la combinaison des facteurs quantitatifs et qualitatifs pour une compréhension approfondie et complète du problème. L'évaluation de la pauvreté au Vietnam et le rapport sur le développement humain au Vietnam pendant de nombreuses années depuis le début des années 2000, parmi tant d'autres, visaient l'inclusion de tous ceux qui participent et profitent de la croissance du pays. Cependant, ils ne traitent jamais du rôle du réseau social avec une base de données représentative. En ce qui concerne la croissance inclusive, pour ces deux groupes vulnérables, j'étudie leur participation à la croissance économique du pays et ce que celle-ci leur apporte. En particulier, l'inclusion des ethnies minoritaires ne fonctionnerait que si elles bénéficiaient de leurs dotations pour rattraper le développement des Kinh et des Hoa. L'étude s'interroge sur la discrimination ethnique, entre les Kinh et les Hoa et les autres minorités ethniques. En outre, en ce qui concerne les entreprises familiales, l'inclusivité serait attendue quand elles auraient bénéficié de leurs ressources pour améliorer leurs performances. C'était le point de départ de cette thèse en 2012.

L'apport essentiel de cette étude est qu'elle est un choix méthodologique d'une approche quantitative et qualitative appelé Q-Square qui étudie le rôle des réseaux sociaux des groupes vulnérables pour améliorer l'inclusion au développement. Au point de vue quantitatif, la thèse propose une base de données originale sur les réseaux sociaux, et une analyse des effets du réseau social sur les résultats, basé sur un outil pour résoudre le problème d'endogénéité. Au point de vue qualitatif, la thèse est axée sur une analyse originale du mécanisme d'influence des réseaux sociaux sur la performance, en particulier des entreprises familiales. Des techniques qualitatives sont appliquées pour collecter des données approfondies sur le mécanisme d'influence des réseaux sociaux sur les performances. Certaines stratégies de recherche visent à établir le lien entre ces deux composantes afin de tirer une conclusion globale. L'approche complémentaire du Q-square vise à déterminer comment les résultats quantitatifs peuvent éclairer le bloc qualitatif et à l'inverse, comment le bloc qualitatif peut expliquer davantage les résultats quantitatifs.

Dans l'ensemble, cette thèse étudie les deux groupes vulnérables des ethnies minoritaires et des entreprises familiales au Vietnam, en mettant l'accent sur le rôle des réseaux sociaux sur leur inclusion dans le développement basé sur l'approche Q-square. Le reste de l'introduction générale est structuré comme suivant. La première partie présente le contexte des ethnies minoritaires, des entreprises familiales et des réseaux sociaux au Vietnam. Elle démontre l'importance du sujet et de la base de données utilisée dans cette thèse. La deuxième partie présente les bases de données utilisées dans l'étude. La troisième partie présente le domaine de recherche et ses limites. Enfin, la dernière partie présente les trois chapitres de cette thèse.

1. Contexte du Vietnam - focalisation sur les ethnies minoritaires, les entreprises familiales et les réseaux sociaux au Vietnam

1.1. Ethnies minoritaires vulnérables et entreprises familiales

Il existe un large consensus sur le fait que le Vietnam a réalisé des progrès impressionnants au cours des dernières décennies, à la fois en termes de développement humain et de performance économique. La pauvreté mesurée selon le seuil de pauvreté national a presque diminué de moitié, passant de 19,5% en 2004 à 9,8% en 2016. La création rapide d'emplois et la transition en cours vers des emplois salariés sont les moteurs de la réduction de la pauvreté et de la prospérité partagée. Cependant, le Vietnam est confronté à de nouveaux défis en matière de politique sociale et économique pour parvenir à une croissance plus inclusive pour tous. Les minorités ethniques et les entreprises familiales sont considérées comme abandonnées dans tous les débats sur le développement du Vietnam.

Les ethnies minoritaires et les entreprises familiales ont été mentionnées dans tout débat sur le développement du Vietnam, un pays en développement. Le Vietnam compte 54 groupes ethniques, chacun ayant sa propre langue, son mode de vie, son patrimoine culturel et ses divers niveaux de développement. Les groupes les plus grands, les Kinh et les Hoa, vivent dans des deltas et des zones côtières. Les Hoa sont généralement regroupés avec les Kinh en raison de niveaux de vie similaires. Les autres groupes ethniques sont qualifiés d'ethnies minoritaires et se concentrent dans les zones montagneuses et les montagnes. En ce qui concerne les entreprises familiales, elles représentent une grande proportion des entreprises informelles non agricoles, non enregistrées comme une entreprise, et une petite partie des entreprises formelles du pays. Les entreprises familiales sont des entreprises non constituées en sociétés appartenant aux particuliers ou aux familles, qui produisent ou distribuent des biens et des services pour le marché. Ce secteur est le résultat d'une histoire particulière dont la révolution (Doi Moi, en vietnamien) en 1986, lors de la restructuration économique, a libéré la plupart des travailleurs coopératives et des entreprises d'État pour créer leurs propres travailleurs indépendants ou familles qui gèrent des entreprises. Un boom de ce secteur a rempli les villes de vendeurs de rue, qui ont été facilement observés partout dans le pays.

D'une manière générale, les ethnies minoritaires et les entreprises familiales sont les groupes les plus vulnérables de la population lorsqu'une grande partie d'entre eux est perçue avec beaucoup d'inconvénients à participer et à bénéficier de la croissance économique. On dit souvent que les ethnies minoritaires restent dans des régions montagneuses isolées et ont des difficultés à accéder aux marchés et aux infrastructures publiques par rapport au groupe des ethnies majoritaires comme les Kinh et les Hoa. En outre, les entreprises familiales informelles ont été principalement mentionnées comme étant faiblement rémunérées, moins innovantes et non couvertes par la protection sociale.

L'attention portée aux ethnies minoritaires et aux entreprises familiales provient du fait qu'elles ont participé à la croissance économique mais ont été laissées pour compte dans les progrès du développement. Constituant seulement 15% de la population, les ethnies minoritaires sont considérées comme le groupe actif dans les activités forestières et touristiques, grâce à leurs zones montagneuses et à leur propre culture. Les ethnies minoritaires des zones montagneuses cultivent des plantes précieuses, produisent des médicaments très coûteux ou des matériaux pour les secteurs de la construction et de la production de papier. En ce qui concerne les entreprises familiales, elles représentent un tiers du PIB non agricole et 23% du PIB total en 2014 (Pasquier-Doumer et al., 2017). Les entreprises familiales fournissent la part principale de l'emploi, juste après l'agriculture. Elles représentent près d'un tiers de l'emploi total et la moitié des emplois non agricoles. Un niveau supérieur d'entreprises familiales comprend également des entrepreneurs innovants et des performances à forte valeur ajoutée.

Cependant, on se demande comment les ethnies minoritaires et les entreprises familiales bénéficient de la croissance du pays. Toutes les évaluations nationales de la pauvreté font état d'une grande différence de bien-être entre les groupes ethniques dans tous les aspects, comme par exemple la pauvreté monétaire, l'éducation et la santé (PNUD et VASS, 2016). Le taux de pauvreté national est de 7,4% pour le groupe Kinh et Hoa, mais il est nettement supérieur pour le reste des ethnies minoritaires, à 34,6%. Cela montre clairement que les ethnies minoritaires ont été laissées pour compte du développement et ont moins bénéficié de la croissance économique que les Kinh et les Hoa. De même, les entreprises familiales affichent les revenus les plus faibles parmi les secteurs non agricoles (Pasquier-Doumer et al., 2017).

Malgré la contribution à la société des ethnies minoritaires et des entreprises familiales, elles sont placées en dehors du progrès du développement économique. Cette contraste interroge sur la tendance d'être placées en dehors du développement économique, les facteurs de cette tendance et l'intervention politique qui pourrait y remédier. Plusieurs politiques d'intervention sont remises en question sur les bénéficiaires ciblés, sur leur préférence à la quantité versus qualité, et sur la manière de mettre en place des interventions efficaces pour les ethnies minoritaires et les entreprises familiales afin d'atteindre le développement inclusif pour tous.

1.2. Le rôle de la relation sociale dans la variation de l'écart

Lors d'une évaluation récente de la pauvreté ethnique ; j'ai découvert, avec mon collègue, des preuves qualitatives de l'impact des réseaux sociaux sur les ethnies minoritaires au Vietnam (Nguyen P. et Le, 2018). La barrière de la langue entre les groupes ethniques différents reste un obstacle à l'accès au marché et, par conséquent, les ethnies minoritaires ont souvent tendance à interagir entre personnes ayant la même appartenance ethnique, pour s'entraider, pour améliorer leurs conditions de vie, pour fournir des informations sur les opportunités économiques et des supports pour les grands événements familiaux et les emprunts entre eux. Les réseaux sociaux dans les villages où vivent des ethnies minoritaires seraient essentiels pour parvenir à un consensus élevé dans la lutte contre les conflits au sein de la communauté et pour créer un environnement favorable au développement. Le bien-être des ménages des ethnies minoritaires est accru parallèlement à l'extension de leurs relations sociales aux personnes ayant la même appartenance ethnique dans les villes plus développées. Cependant, il existe également des signes d'impacts négatifs, lorsque les réseaux sociaux transmettent de plus en plus d'informations sur les risques et augmentent l'aversion au risque des ménages des minorités ethniques, les empêchant de saisir de nouvelles opportunités économiques.

De même, un nombre croissant de publications ont démontré l'importance du réseau social dans l'accès à la main-d'œuvre et au capital pour l'entrepreneuriat. La plupart de ces études sont basées sur une enquête qualitative à petite échelle. Nguyen D.T. (2003) se concentre sur le rôle du premier fils, créant des conditions favorables pour la mise en réseau et la gestion de l'entreprise familiale avec le soutien des membres de la famille. Turner et Nguyen P.A. (2005) illustrent le fonctionnement de réseaux solides du capital social au sein de la famille et des amis afin de contribuer à la création et à l'expansion d'une entreprise. Digregorio (2006) et Fanchette et Stedman (2009) ont mis en lumière la dynamique des villages artisanaux dans la banlieue de Hanoi organisés en clusters spécialisés dans une activité basée sur la garantie de relations durables et à long terme. Turner (2009) montre comment les commerçants des anciens quartiers de Hanoi ont réussi à rester en place et à contrebalancer les tendances défavorables causées par de nombreux bouleversements (c'est-à-dire pendant la guerre et les périodes socialistes, ainsi que l'impact de la libéralisation du commerce). Tran et Santarelli (2013), parmi d'autres, se concentrent sur le réseau social, en tant que canal pour fournir des ressources financières dans le pays. Ils débattent du fait que l'offre de crédit informel se fait davantage par le biais du réseau social dans les pays en développement tels que le Vietnam.

Très peu d'analyses quantitatives ont été réalisées au sujet des réseaux sociaux et des entreprises familiales au Vietnam. Nguyen H.C. et Nordman (2012) constatent l'impact négatif d'une plus grande proportion de travailleurs employés pour les entreprises formelles au Vietnam. De plus, Le et al. (2018) indiquent un impact modéré des réseaux sociaux sur la vente d'entreprise. Nous avons récemment présenté avec ma collègue, M. Pasquier-Doumer, une image descriptive de l'utilisation des réseaux sociaux par les entreprises familiales, à partir d'une base de données représentative à l'échelle nationale (Pasquier-

Doumer et Nguyen P., 2017). Il en ressort qu'environ 60% des entreprises familiales utilisent les réseaux sociaux, principalement pour accéder à des ressources financières. Cependant, il ne fournit aucune information sur les coûts d'utilisation des réseaux sociaux et ne fournit aucune analyse détaillée de la contribution du réseau social à la performance des entreprises familiales.

Il existe donc une lacune dans la littérature sur le rôle du réseau social dans le fossé du développement au Vietnam. Comment le réseau social aura un impact global sur l'élargissement ou la réduction de l'écart, est une question qui reste en suspens. Plus précisément, quel est le rôle des réseaux sociaux dans la discrimination ethnique entre les ménages et dans l'écart de la performance des entreprises? Reconnaisant les avantages et les coûts potentiels de l'utilisation des réseaux sociaux, l'étude cherche à savoir si les avantages des réseaux sociaux sont supérieurs à leurs coûts.

2. Base de données sur les ethnies minoritaires, les entreprises familiales et les réseaux sociaux

En ce qui concerne les ethnies minoritaires, l'enquête sur le niveau de vie au Vietnam (VHLSS) de 2016, la plus récente, est considérée comme la meilleure base de données représentative sur les ménages et les ethnies au niveau national. La VHLSS comprend des questionnaires sur les communes et les ménages. Les données couvrent donc un riche ensemble de variables sur les membres du ménage, ainsi que les caractéristiques des infrastructures locales et des communes. Cependant, il reste un manque d'indicateurs de réseau social des ménages. Un nouveau proxy pour les réseaux sociaux est ajouté à cette analyse grâce à la dernière base de données de 2016. En raison de contraintes de temps, l'étude se limite à une analyse quantitative de la discrimination ethnique, afin de voir comment le réseau social affecte l'écart entre les groupes Kinh et Hoa et le reste des autres ethnies minoritaires.

En ce qui concerne les entreprises familiales, le système statistique national vietnamien comprend des bases de données qui sont mises en œuvre par le Bureau de la statistique générale (GSO). Premièrement, les enquêtes sur les établissements d'affaires individuels non agricoles (NFIDBE) sont menées chaque année et ont un échantillon de plus de 200 000 personnes ou entreprises familiales. L'échantillon NFIDBE est basé sur le recensement des établissements, qui est effectué tous les cinq ans. Cependant, cette base de données élimine certains segments importants des entreprises familiales, y compris ceux qui sont mobiles et qui n'ont pas d'adresse d'entreprise fixe, et ceux qui gèrent l'entreprise en tant qu'emploi secondaire. Deuxièmement, le VHLSS est également utilisé pour étudier les entreprises familiales. Néanmoins, il n'a pas été conçu pour capturer le secteur des entreprises familiales. En particulier, il n'existe pas de base de données sur le travail des entreprises ni sur les réseaux sociaux dans les VHLSS.

Quand j'ai commencé ce doctorat, j'ai eu la chance d'avoir l'excellente opportunité de coordonner l'enquête HBIS au Vietnam en 2014. Cette première base de données nationale représentative sur les entreprises familiales s'appuie

sur le précédent projet IRD-DIAL et GSO sur le secteur informel de 2006 à 2011. La conception de l'enquête HBIS 2014, qui repose sur la méthodologie de l'enquête 1-2-3, a été conçue par IRD-DIAL (Roubaud, 1994) et est le résultat d'une expérience internationale. En collaboration avec ma collègue, Dr Pasquier-Doumer, nous avons conçu un nouveau module pour mesurer les réseaux sociaux dans cette enquête quantitative et une enquête qualitative sur le mécanisme d'influence des réseaux sociaux sur la performance des entreprises familiales. Ainsi, l'analyse sur les entreprises familiale est basée sur les bases de données HBIS 2014.

3. Domaine de recherché et limitation

Comme mentionné, cette thèse étudie les deux groupes vulnérable, les ethnies minoritaires et les entreprises du secteur privé au Vietnam, en portant une attention particulière au rôle des réseaux sociaux sur leur intégration dans le développement et en s'appuyant sur une approche quantitative et qualitative (à savoir l'approche Q-square). Plus précisément, la question de recherche générale étudie la relation entre les réseaux sociaux et l'inclusivité de la croissance des deux groupes les plus vulnérables, d'ethnies minoritaires et d'entreprises familiales. En d'autres termes, le réseau social contribue-t-il de manière significative à un impact positif ou négatif sur l'inclusion de ces groupes au Vietnam?

Les questions de recherche principales sont identifiées comme étant les suivantes:

- En ce qui concerne les ethnies minoritaires, qui sont laissées pour compte par les progrès de la croissance économique, l'étude se concentre sur une mise à jour sur l'écart entre les Kinh et les Hoa et les autres ethnies minoritaires, en accordant une attention particulière au facteur de réseau social, entre autres facteurs. Est-ce que la discrimination ethnique continue à se creuser comme lors de la période précédente? Les réseaux sociaux, entre autres facteurs, jouent-ils un rôle important dans la réduction de la discrimination ethnique ou dans l'élargissement? L'étude examinera les déterminants, y compris le réseau social, de la discrimination ethnique.
- En ce qui concerne les entreprises familiales, dont la performance est remise en question, l'étude s'intéresse à la contribution des réseaux sociaux dans l'amélioration de leur performance. Les réseaux sociaux ont-ils un impact positif global sur les performances des entreprises familiales? Ou encore, où les réseaux sociaux ont-ils un impact négatif global résultant des coûts sociaux dominants de l'utilisation des réseaux sociaux sur leurs avantages? L'étude examinera la contribution des réseaux sociaux en tant que fournisseurs de ressources aux entreprises familiales.

Les contributions significatives de ce doctorat à la littérature proviennent des méthodologies choisies. Premièrement, l'étude construit une meilleure mesure des réseaux sociaux. Sur ce point, l'étude s'appuie sur un nouveau proxy des réseaux sociaux des ménages des ethnies minoritaires dans l'édition 2016 du VHLSS. En outre, il conçoit un module permettant de collecter la base de données des réseaux sociaux des entreprises familiales, dans différentes dimensions du contenu et de la force des relations, ainsi que de la phase de développement de l'entreprise. Basé sur l'approche du générateur de nom, nous collaborons avec ma collègue, Dr. Pasquier-Doumer, à la conception et à la coordination de la collecte de données pour une base de données originale des réseaux sociaux des entreprises familiales dans le cadre de l'enquête HBIS 2014.

Deuxièmement, cette étude teste un instrument original pour résoudre le problème d'endogénéité dans la relation entre les réseaux sociaux et le résultat de performance. D'une part, davantage de connections avec d'autres personnes peuvent générer de meilleures performances en réduisant les coûts de transaction ou en apportant des informations sur les opportunités du marché. D'un autre part, une meilleure performance peut améliorer la réputation du propriétaire et favoriser ainsi les interactions commerciales avec d'autres personnes. La simultanéité des effets des réseaux sociaux sur la performance et vice versa est la première source de biais d'endogénéité. Les variables omises sont une autre source de biais d'endogénéité. La capacité est la plus évidente. Proposant un instrument pour les réseaux sociaux, l'étude peut conclure sur l'effet des réseaux sociaux sur les résultats de la performance des entreprises familiales.

Troisièmement, cette étude combine une approche quantitative et qualitative pour étudier le rôle des réseaux sociaux. Comme mentionné ci-dessus, l'étude effectue une collecte de données à la fois quantitative et qualitative sur le rôle des réseaux sociaux, en ce qui concerne les entreprises familiales. Tout d'abord, la base de données quantitative représentative de l'enquête HBIS de 2014 explique la conception de l'enquête qualitative initiale. L'étude qualitative fournit à son tour une explication du mécanisme d'influence sur les résultats quantitatifs de l'impact des réseaux sociaux.

Puis, l'analyse quantitative doit se concentrer sur l'impact global des réseaux sociaux, afin de conclure sur la base de données représentative à grande échelle. Elle peut montrer le résultat final de l'impact dominant, à savoir si le réseau social apporte des changements positifs ou négatifs au résultat final. Les techniques quantitatives sont utiles pour identifier l'effet final des réseaux sociaux uniquement; c'est-à-dire, en contrôlant de nombreux autres facteurs, et en traitant le problème d'endogénéité et en omettant le biais des variables. Les résultats qualitatifs ne permettent pas quant-à-eux de faire une telle chose, mais de prêter attention aux nuances et aux contextes spécifiques pour aborder les différents canaux des réseaux sociaux. Ce bloc peut montrer une large gamme d'impacts positifs par rapport aux impacts négatifs, selon les contextes.

Ayant mentionné ses contributions à la littérature, cette thèse de doctorat a tout de même des limites. Premièrement, en raison des contraintes de temps, l'étude

ne peut collecter des bases de données originales que sur les réseaux sociaux des entreprises familiales. L'analyse des ethnies minoritaires se limite donc à la base de données secondaire disponible des VHLSS. Elle ne peut pas mettre à jour l'analyse de l'approche qualitative mais seulement étudier l'écart quantitatif entre les ethnies. Deuxièmement, l'étude fait toujours face à une limitation de la mesure du réseau social. Elle s'arrête à la taille du réseau social, en tant qu'indicateur des réseaux sociaux, et accepte un manque de mesure structurelle du réseau. Troisièmement, on suppose que l'étude conserve toute endogénéité après les régressions instrumentales, ce qui signifie qu'elle ignore les autres variables omises des entreprises familiales, par exemple leurs talents dans les opérations commerciales. La seule base de données transversale, et non une base de données de panel, et sans régressions à effets fixes, font partie des limites de cette étude.

4. Développement de la thèse

Les questions de recherche sont abordées dans trois chapitres, dont le chapitre 1 sur les disparités ethniques et les chapitres 2 et 3 sur les performances des entreprises familiales. Sous l'angle des réseaux sociaux, les chapitres 1 et 2 explorent de manière quantitative l'impact global du réseau social, entre autres facteurs importants sur le fossé ethnique et les performances commerciales, respectivement. Le chapitre 3 explore qualitativement plus en profondeur chaque canal d'impact pour le compléter avec des nuances de structure familiale et de contextes locaux. Les résumés des trois chapitres sont les suivants.

4.1. Chapitre 1 - Facteurs ethnique la discrimination ethnique

Au cours des trois dernières décennies, la croissance économique a profité à tous les groupes ethniques du Vietnam, mais l'écart de protection sociale entre les minorités ethniques et les groupes Kinh et Hoa n'a malheureusement pas été réduit. Les politiques publiques ont toutefois ciblé les régions des ethnies minoritaires avec des programmes spéciaux. Parmi eux, les efforts politiques en matière d'éducation et d'infrastructures se sont révélés comme de bonnes stratégies pour remédier aux principaux facteurs à l'origine de la discrimination ethnique, c'est-à-dire pour renforcer le capital humain des ethnies minoritaires et leur permettre d'accéder au marché. On se demande si ces interventions ont effectivement réduit l'écart, ou si la discrimination sociale envers les minorités ethniques s'est traduite par un élargissement persistant de la discrimination ethnique au Vietnam. Ce chapitre étudie donc les facteurs entraînant des différences dans la manière dont les personnes appartenant à des groupes ethniques minoritaires et les personnes appartenant aux principaux groupes ethniques au Vietnam ont, ou peuvent saisir, des opportunités économiques et sociales. En utilisant les enquêtes sur le niveau de vie au Vietnam (VHLSS) de 2004 à 2016 (la plus récente) et en abordant le rôle des réseaux sociaux en matière d'inégalité ethnique, le chapitre 1 met à jour la décomposition des écarts ethniques pour déterminer les facteurs de l'augmentation de l'écart. La décomposition à la moyenne de l'écart de bien-être en différences de dotations et de rendements est calculée à partir des résultats des régressions MCO et, afin de mesurer l'importance relative des inégalités intra-groupes, sur les résultats

des régressions quantiles. Les résultats ont montré que même si les ethnies minoritaires avaient des infrastructures similaires à celles des Kinh et des Hoa, elles auraient tendance à être plus pauvres que les Kinh et les Hoa. Les ajustements apportés en raison de l'intervention des pouvoirs publics bénéficieraient davantage aux minorités ethniques les plus riches qu'aux reste des minorités ethniques. Les différences de réseau social ont modestement contribué à l'élargissement de la discrimination ethnique. L'étude n'a pas fourni de preuve claire de la discrimination sur le marché du travail à l'égard des ethnies minoritaires. Cependant, elle a soulevé la question de la moindre qualité des dotations des ethnies minoritaires, plus que de leurs quantités moins importantes que celles des Kinh et Hoa. Cela impliquerait de donner la priorité à l'amélioration du ciblage des politiques, de la qualité des interventions et de l'accès effectif aux infrastructures et aux services sociaux de toutes les minorités ethniques, en particulier aux services d'éducation, de planification familiale et de diversification économique.

4.2. Chapitre 2 - Analyse quantitative des réseaux sociaux sur les performances des entreprises familiales

L'importance des entreprises familiales dans les économies en développement incite à mieux comprendre les déterminants de leur performance. Comme le montre une littérature récente, les entreprises familiales s'appuient fortement sur leurs relations sociales pour faire face aux imperfections du marché. Cependant, l'influence des réseaux sociaux personnels sur leurs performances fait toujours l'objet d'un débat. Ce chapitre contribue au débat en fournissant de nouvelles preuves sur la relation entre le réseau social et les performances des entreprises familiales, sur la base d'une enquête représentative réalisée au niveau national au Vietnam. Il fait face à un double défi: (1) résoudre le problème de l'endogénéité lors de l'identification de la relation et (2) avoir une bonne mesure du réseau social. En particulier, le chapitre distingue l'effet du réseau social en fonction des ressources fournies par les liens, de la force des liens et du stade du cycle économique. Le chapitre démontre que l'utilisation du réseau social pour obtenir des ressources financières et d'informations pour l'entreprise a un impact fort et positif sur la performance de l'entreprise. Un autre résultat intéressant est que l'avantage des mécanismes d'application, de la confiance mutuelle et de l'échange réciproque enchâssés dans les liens forts domine le coût de l'obligation sociale et de l'accès à des informations fausses ou redondantes. Enfin, les résultats suggèrent que les réseaux sociaux jouent un rôle important au début de l'activité.

4.3. Chapitre 3 - Analyse qualitative des mécanismes d'influence des réseaux sociaux sur la performance des entreprises familiales

Les propriétaires des entreprises familiales comptent principalement sur leurs réseaux sociaux forts pour acquérir des ressources au Vietnam. Cependant, aucun consensus ne se dégage de la littérature sur l'influence des liens étroits sur la performance des petites entreprises dans le contexte des pays en développement. À l'aide d'un ensemble original de données qualitatives recueillies sur la base de l'enquête représentative menée en 2014 par le HBIS, cet

article fournit de nouvelles preuves de l'influence des réseaux sociaux sur les petites entreprises en suivant une approche relationnelle des réseaux. Il contribue à la littérature en distinguant les effets des réseaux sociaux aux différentes phases du cycle économique. Cela montre que, dans le processus de création d'entreprises, les liens forts sont la source la plus privilégiée du capital initial, ainsi que les supports d'information. Elles façonnent l'entreprise sur une petite taille et la rendent inadaptée aux changements rapides de la demande du marché et des technologies dans la dernière phase du développement des affaires. Les liens faibles sont beaucoup moins mobilisés au début de l'entreprise, mais ils constituent une source d'informations précieuses pour créer des entreprises innovantes. Plus l'entreprise se développe, plus les liens faibles sont forts. L'étude montre que l'utilisation des réseaux sociaux, y compris les liens faibles, doit être comprise dans les structures familiales et les contextes communautaires locaux, avec un ensemble de devoirs et de droits intégrés dans des relations réciproques au-delà seulement dans les interactions commerciales.

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Résumé

Au cours des deux dernières décennies, les deux groupes vulnérables des ethnies minoritaires et des entreprises familiales ont contribué à la croissance économique, mais n'ont pas été en mesure de bénéficier de la croissance économique autant que d'autres groupes au Vietnam. Le caractère moins inclusif de ces deux groupes dans la croissance économique demande une étude sur la discrimination ethnique et des performances des entreprises familiales au point de vue des réseaux sociaux. Cette recherche étudie le rôle des réseaux sociaux en utilisant la méthode Q-square sur une base de données originale, les données quantitatives et qualitatives des relations sociales d'une entreprise familiale, et avec un instrument innovant: être le fils l'aîné. Le chapitre 1 mesure et analyse les déterminants principaux de la discrimination ethnique pendant les dix ans derniers. Le chapitre 2 identifie les effets de cause entre les réseaux sociaux et la performance des entreprises familiales. Enfin, le chapitre 3 présente une étude qualitative de l'impact des réseaux sociaux sur les performances des entrepreneurs informels. Cette étude se centre sur une dimension particulière des réseaux qui est la force des liens. Elle distingue par ailleurs l'utilisation des réseaux à la création de l'entreprise et à un stade plus avancé de son développement.

Mots Clés

Discrimination ethnique, décomposition, réseau social, fonction de production, force des liens, entreprises familiales, secteur informel, Q-square, générateur de nom, effet causal, Vietnam.

Abstract

Over the past two decades, the two vulnerable groups of ethnic minorities and household businesses have participated in the economic growth but could not benefit from the growth process as much as the other groups in Vietnam. The inadequate inclusiveness of these two groups in the economic growth calls for an investigation of the ethnic gap and household businesses' performance with a lens of social networks. This study aims to examine the role of social networks, using a Q-squared method to analyze an original dataset, which combined both the quantitative and qualitative datasets on social networks of household businesses. In doing so, the study employs an innovative instrument of being the first son in the family. Chapter 1 measures and analyses the main drivers of the ethnic gap over the last ten years. Chapter 2 identifies the causal effects of social networks on household businesses' performance. Chapter 3 presents a qualitative analysis of the impact of social networks on business performance by the content and the strength of social relationships, and the business phase.

Keywords

Ethnic gap, decomposition, social network, production function, the strength of ties, household businesses, informal sector, Q-squared, name generator, causal effect, Vietnam.