



FORMALITY OF HOUSEHOLD BUSINESSES IN HO CHI MINH CITY: APPROACHED FROM THE LOGIT MODEL

Hoang Thi Thu Huyen^{1*}

¹Southern Institute of Social Sciences

ARTICLE INFO	ABSTRACT
<p>DOI: 10.52932/jfm.vi72.293</p> <p><i>Received:</i> May 15, 2022</p> <p><i>Accepted:</i> November 30, 2022</p> <p><i>Published:</i> December 25, 2022</p> <p>Keywords: Business registration; Household business; Formality.</p>	<p>Household businesses constitute an important part of the private economic sector, contributing to economic development and job creation, especially in big cities like Ho Chi Minh City. Resulting from the existing policies, however, there are emerging issues that need discussing to find out appropriate solutions, particularly those related to the formality of household businesses. Based on the regression models using mainly data of the 2017 Economic Census, the article is aimed to detect and measure the factors affecting the formality of household businesses. This can be considered as the first study that has used the dataset of the 2017 Economic Census to run a logit model for this topic. Some new and important findings can be mentioned as follows: Household size (labour, turnover) is still a significant factor affecting the formality of household businesses, although it is not the only one. Another factor is the transparency (reflected by the difference between the turnover reported by the household and the figure estimated by interviewers), since the more a household business can conceal in the turnover declaration, the less it wants to formalise business activities.</p>

*Corresponding author:

Email: hoanghuyensiss@gmail.com

1. Introduction

The topic on household businesses or individual business households (Law on Enterprises, 2005) has drawn much attention from various perspectives. Probably, the concept of “household business” is used only in Vietnam. Before the Renovation (was initiated in 1986, household businesses were called by various names such as “small owner”, “cottage industry households”, “small-scale productive organisations”, “individual households”, and “individual business households”,... Since then, the name “household business” has been officially used in legal documents. Over a long period prior to the promulgation of the Resolution No. 01/2021/NĐ-CP, the household business was defined unanimously in all regulations as follows: “A household business is a business unit owned by an individual, a group, or a household of Vietnamese citizens; its business is registered to be carried out in only one place; the number of employees must not exceed 10; it does not have a registered seal and is fully responsible for business activities by all assets of the household”.

With around 465,344 household businesses (General Statistics Office of Vietnam, 2021), Ho Chi Minh City has the biggest economic size in the country. Owing to particular characteristics, this sector not only contributes significantly to the economic growth but also provides jobs and incomes for millions of labourers in Ho Chi Minh City. In practice, there are many problems resulting from the existence and development of household businesses such as: the formality of household businesses (the business registration), the business size, the loss of taxation, management difficulties, and the vulnerability as well as the equality and opportunity in comparison with enterprises... Especially, the recent 4th outbreak of the Covid-19 pandemic in Ho Chi Minh City has resulted in some issues relating to development of this economic sector. The formality of household businesses has emerged as a controversial topic, as the policy-related

treatment still relies on formality or informality of household businesses. As a result, the actual state and the elements affecting the formality of household businesses are really important factors that should be taken into account in policy-making for development and effective administration of this sector.

In this research, the household businesses that have a business registration certificate are classified into the formal sector and the rest (the household businesses that do not have a business registration certificate) are classified into the informal one. Meanwhile, the factors affecting the formality of household businesses are understood as the elements affecting the households’ business registration. Our analyses are mainly based on the results of the logit model, using data of the Economic Census carried out by the General Statistics Office of Vietnam in 2017.

2. Theories and empirical research works

2.1. Some theories and research viewpoints relating to the formality of household businesses

During the discussion and development of theories, the research works on the informal economic sector are divided into three groups with three different approaches, including: (1) The dualism developed on the basis of the research works carried out by Lewis (1954) and Harris & Todaro (1970), which argues that the informal economic phenomenon is a secondary economy that appears in any countries, since the formal economy cannot satisfy the employment demand. As a result, the informal economy is seen as an obvious entity in the market and does not have a strong relationship with the formal economy; (2) The structuralism developed on the basis of the research works carried out by some Marxist scholars (Moser, 1978; Portes, 1989), which contradicts the dualism and argues that a close relationship is found between the formal and the informal economic sectors; and, (3) the

legalism, also called “formalism”, developed on the basis of the research works carried out by De Soto (1989), which argues that the informal economic sector results from the excessive cost of the join in the formal economic sector; consequently, many small-scaled production units have to be run “informally” (Cling J.P, Nguyễn Thị Thu Huyền, Nguyễn Hữu Chí, Phan Thị Ngọc Trâm, Razafindrakoto Mireille, and Roubaud Francois, 2010).

The term “informal sector” was first mentioned by Hart (1973) to imply “a traditional economic sector in developing countries”. At the 15th International Conference of Labour Statisticians (ILO, 1993), the “informal sector” was conceptualised and defined as an sector, where units engaged in production of goods and services satisfied the following criteria: (a) They were not established as legal entities that were separate from their owners; meanwhile, they were owned and controlled by household members; (b) They did not have formal accounting records, including also the accounting balance; at least a part of their products and services were supplied in the market; and, the number of employees was limited under a certain figure; and, (c) They did not have registration of economic activities according to the legal regulations.

In Vietnam, in the framework of the cooperation project between the General Statistics Office of Vietnam (GSO) and the Institute of Development Research (Institut de Recherche pour le Développement/ Développement Institutions Mondialisation - IRD/DIAL) from 2006 to 2011, the informal sector was commonly conceptualised “to consist of all businesses, which did not have the legal capacity, produced at least one or some kinds of goods and services for trade or exchange, and were run without business registration (i.e. did not have a business registration) outside the agricultural, forestry, or aquatic sectors” (Cling J.-P., Nguyễn Thị Thu Huyền, Nguyễn Hữu Chí, Phan T. Ngọc Trâm, Razafindrakoto M. and Roubaud Francois, 2010).

Another research work was done in cooperation between Vietnam Academy of Social Sciences (VASS) and the Institute of Development Research (IRD/DIAL), in which the survey on individual household businesses and the informal sector was carried out in late 2014 and early 2015. In this research work, the informal sector is defined to consist of all individual household businesses (Doumer, L.P., Oudin, X., and Nguyễn Thắng, 2017).

According to the definition applied by the General Statistics Office of Vietnam in 2016, “the informal economic sector consists of all business activities in the trade or production units that do not have the legal capacity; at least a part of their products and services are sold or exchanged in the market; and, they do not register economic activities (i.e. do not have a business registration certificate)” (General Statistics Office of Vietnam, 2018). This definition has been used many official statistical surveys carried out by the institution.

2.2. Some research works relating to formality and factors affecting the formality of household businesses

The first large-scale research work on the informal sector and household businesses was done in the framework of the cooperation between the General Statistics Office of Vietnam (GSO) and IRD/DIAL from 2006 to 2011, in which a special survey on the informal sector was carried out in Hanoi and Ho Chi Minh City in 2007 and 2009. Analysing data of the survey, we can see that the global economic crisis in the period accelerated the expansion of the informal sector, resulting in a decrease in the proportion of formalised, or household businesses”, also called “registered household businesses”. In 2007, registered household businesses (i.e. they had a certificate of business registration) accounted for 19.5% and 25.4% of all household businesses in Hanoi and Ho Chi Minh City respectively. In 2009, however, the corresponding figure fell to 14.3% in Hanoi (prior to the geographical expansion of Hanoi) and 17.6% in Ho Chi Minh City. Meanwhile,

the proportion of the household businesses that converted from the registered status into the unregistered one was 15% in Ho Chi Minh City, was lower than that in Hanoi (the corresponding figure in Hanoi was 31%) (Cling Jean-Pierre, Nguyễn Hữu Chí, Razafindrakoto Mireille, Roubaud Francois, 2010). The growth of the household businesses that converted from the unregistered status to the registered one was the highest and their business effectiveness was much higher than that of the household businesses that remained unregistered (Nguyễn Thị Thu Huyền, Axel Demenet, Mireille Razafindrakoto and François Roubaud, 2010).

The research project carried out in cooperation between Vietnam Academy of Social Sciences (VASS) and the Institute of Development Research (IRD/DIAL) on household businesses and informal economic sector in inclusive growth in Vietnam in 2014 and 2015 pointed out the reasons why individual household businesses have not registered their business (i.e. they have not formalised their economic activities) as follows: 68% of all households in the survey revealed that they did not have to register their business (no matter which size or which type of business they had); 12% revealed that they would not get any benefit after being formalised; 10% revealed that they did not register the business due to their instable income; and, 23% revealed that they were prepared for business formalisation (Phạm Thị Kim Thái, Oudin.X, Doumer, L.P, Vũ Văn Ngọc, 2017).

The comparison of these results with those of the project carried out in cooperation between the General Statistics Office of Vietnam (GSO) and the Institute of Development Research (IRD/DIAL) from 2006 to 2011 shows some noticeable points about unregistered household businesses in Ho Chi Minh City as follows: In respect of the readiness for business registration, 21.8% of unregistered household businesses were prepared to make the business registration in 2014, increasing insignificantly in comparison with the corresponding figure

in 2007 (19.4%); In respect of the awareness of the advantages of the business registration, the advantage of accessing bank loans was highly appreciated by most unregistered household businesses (45.6% in 2014, much higher than 6.1% in 2007), followed by the advantage of selling products to big companies (37.7% in 2014, while the corresponding figure in 2007 was 4.9%). The two advantages, which were not highly appreciated by unregistered household businesses and dropped down significantly, were the advantage of reducing bribery and corruption (4% in 2014, while the corresponding figure in 2007 was 55.1%) and the advantage of getting a favourable place of business (1.8% in 2014, while the corresponding figure in 2007 was 20.1%) (Doumer, L.P., Oudin, X. and Nguyễn Thắng, 2017).

According to a research project on the formalisation of household businesses, which was conducted by the Central Institute for Economic Management (CIEM) in 2017), of all 374 household businesses in the research sample, 97.1% of the household businesses that had a capital of less than 300 million VND had not made the business registration. Nguyễn Thị Thanh Nguyệt's research project on the State management of individual household businesses in the area of Gò Vấp District (Ho Chi Minh City) in 2019 shows that 63% of all household businesses in the area have a stable place of business, while the rest 27% have an unstable place of business; 68.34% of all the household businesses, which must register their business according to the regulation, have not done it yet; particularly, the District People's Committee issued 2,147 business registration certificates to households in 2018, but 1,138 ones were then returned.

Regarding the factors affecting why households run business in the formal or informal sector, the question "Why don't household businesses take part in the formal sector to seek for income?" was raised in a qualitative research survey in Ho Chi Minh City in the framework of the research project

“Informal Sector and Roles of Social Networks” (Hoàng Thị Thu Huyền, 2013). There are some answers to the question, including: (1) The household heads have some particular characteristics that make it difficult for them to take part in the formal sector; (2) Psychologically, the household heads do not want to take part in the formal sector; (3) The business registration certificate does not bring practical benefits to the household businesses, or just provides some benefit at a certain moment; (4) As they have a small-scale business, they do not need a business registration certificate to access formal sources of credit or apply for supply of electricity, tap water, and telephone; and, (5) The business registration is accompanied by the tax-paying responsibility, which means that tax-payment will be controlled more strictly by the taxation agencies. The research report also emphasizes that the business registration might not be the only criterion used to define whether a household business is formal or informal. Other important criteria that should be taken into account in defining whether a household business is registered or unregistered can be described as follows: they are small-scale business (in respect of the capital and the number of employees); they have a low income; and, their business is run unprofessionally (for example, they have neither a trade name nor an official bank account for business; they do not have accounting records). Similarly, Nguyễn Tuấn Vũ (2014) highlighted some points on the same topic: For many unregistered household businesses, the accessibility to sources of credit plays a very important role in maintaining business activities; and, the lack of low-interest credit access is considered as a severe problem by those who run business in the informal sector.

According to a survey on the household businesses that had not registered their business in 2014 and 2015 (Doumer, L.P., Oudin, X. and Nguyễn Thắng, 2017), apart from the most important reason which is that household businesses suppose they are not obligatory to make the business registration, there are other

factors affecting the formalisation of business, such as: unstable income, complicated procedures, expensive cost, and unwillingness. In the regression model on the factors affecting the business registration, the statistically significant elements include: the location of business (rural or urban), business activities, the number of employees, the length of business activities, the gender of the household head, and the educational attainment of the household head.

Lately, Vietnam Institute for Economic and Policy Research (VERP, 2021) carried out a survey on 1,016 household businesses in 2020. The results of the logistic regression, in which the turnover over a period of 5 years is used as a dependent variable (Turnover is one of the criteria for the obligation of business registration) show some factors affecting the turnover of household businesses, including: (1) the comparative advantage (formality, location, labour, and loan-borrowing); (2) the equivalence between business forms (tax, site, and capital); (3) the support in dealing with difficulties (credit, tax, and technology); (4) the policy barriers to the loan-borrowing from the banks and the credit organisations (regulations, policies, and preferential treatment); (5) the desire for support in accessing loans from the banks and other credit organisations (information, consultancy, procedures, and interest rates); and, (6) the importance of the measures to encourage the establishment of enterprises (assistance, enforcement, procedures, and cost).

The above-mentioned theoretical grounds and empirical research findings demonstrate that formality is an important factor creating a foundation for the research on relevant issues. Based on the common features of the concepts as well as the practical characteristics in Vietnam generally and Ho Chi Minh City particularly, unregistered household businesses make up a majority (the household businesses that do not have a business registration certificate account for a higher proportion than

the household businesses that have a business registration certificate). Previous research works have pointed out some factors affecting the conversion of household businesses into the formal sector (or the formalisation of economic activities), including: income, advantages, procedure cost, loan accessibility, location of business, taxes, and transparency (reduction of bribery and corruption)...

3. Research methods and models

3.1. Research methods

Aimed to identify the factors affecting the formality of household businesses, the main method used in this research is the logistic regression model, in which the business registration (whether a household business has a business registration certificate or not) plays a role as a dependent variable.

The data used in this research are derived from the 2017 Economic Census. Such a census is carried out by the General Statistics Office of Vietnam once every five years. It provides data on 4.59 million households businesses in Vietnam, including 347,676 ones in Ho Chi Minh City. Using the data available from the Census, we encounter a difficulty, since the qualitative model cannot include all expected variables (elements) as the theoretical one. However, some of the variables are really significant in practice.

3.2. Research model

Based on the theories and previous research works, formality of household businesses is defined by the business registration. When a household business has a business registration certificate, it is considered to be registered. Otherwise, it is unregistered.

Factors included in the model

For a household business, economic activities are often run on a small scale; there are not many employees, mainly consisting of family members; and, the household head

plays a decisive role in the household business. Characteristics of the household business are closely related to the behaviour of the household head. Apart from the regulation-related factors affecting whether a household business registers its business or not, the household head's decision (behaviour) is also a significant factor.

According to the theories of behavioural economics, the economic decisions of individuals are made on the basis of the psychological and economic grounds. This is different from the traditional economics that considers people's decisions as rational choices (Richard Thaler, 2015). Meanwhile, behaviour depends on the attitude towards the behaviour, the subjective norms, and the perceived behavioural control (Theory of Planned Behaviour –TPB (Ajzen, 1991). For a household business, they are closely related to the household head (age, qualification...) and the household's resources (location of business, capital, employees...).

In addition, as demonstrated in the previous research works, there are other factors affecting the business registration of households, including: the business characteristics (the location and the tax identification number...), the application of information technology (the use of computers and the internet...), the size (the total number of employees and the turnover...), the transparency (relating to the turnover, the profit, the tax charge...) and some others.

Regression model:

In this research, the dependent variable (Y_i) has either one of two values: 0 or 1; $Y_i = 1$ means the household business has a business registration certificate, while $Y_i = 0$ means it does not have a business registration certificate. At that time the binary logistic equation is shown as follows:

$$\Pr(Y_i = 1|x_i) = p_{i1} = \frac{\exp[x_i'\beta]}{1 + \exp[x_i'\beta]}$$

in which,

Y (dependent variable): Business registration, dividing into two options:

Y = 1: the household business has a business registration certificate

Y = 0: the household business does not have a business registration certificate

β : Estimated coefficient corresponding to each option

X_i (independent variable) is a set of factors affecting the household' business registration.

Table 1. Description of variables

Variable	Name	Explanation of variables
Having the business registration	Y dkkd1	1: Having the business registration (including the household that have a business registration certificate and those who have registered but have not received it yet); 0: Not having the business registration
Business location	X1 Location	LocationA: 1: at home, in the street or alley; 0: others LocationB: 1: in the supermarket, stores, or other places; 0: others LocationC: 1: in the shopping centre, supermarket, or local market; 0: others
Age of the household head	X2 tuoi	Continuous variable; unit: year
Qualification of household head	X3 TDCM	1: College graduation or higher 0: Lower than the college graduation
Tax identification number	X4 co_msthue	1: Having a tax identification number 0: Not having a tax identification number
Size (having more or less than 10 employees)	X5 Big10all	1: 10 or more employees 0: Less than 10 employees
Monthly average turnover	X6 DthuTB1T	The monthly average turnover is calculated as the arithmetic mean of the figure reported by the household business (i.e. the total revenue earned averagely a month from the business, including both capital and interest) and the figure estimated by the interviewers. Continuous variable, Unit: 1,000 VND
Use of computers in business	X7 co_pc	1: Using the computer 0: Not using the computer
Use of the Internet in business	X8 (co_int)	1: Using the Internet 0: Not using the Internet
Loan-borrowing	X9 vayvon	vayvon1: 1: Borrowing a loan; 0: Others vayvon2: 1: Not having a demand for a loan; 0: Others vayvon3: 1: Unable to borrow a loan; 0: Others
Turnover difference	X10 (CLDthu1T)	The turnover difference is calculated as the difference between the figures reported by the household business the figure estimated by the interviewers. Continuous variable, Unit: 1,000 VND (when the value is 0, 1 is used to run the variable LnCLDthu1T)

4. Research findings and discussion

4.1. Statistical results of the research sample

Regarding the formality of household businesses, at the time of the survey, at the time of the survey, the proportion of business households with business registration was lower than that of households without business registration, with rates of 45.23% and 54.77%, respectively. This result is close to the results of Pham Minh Thai's business research (2019). Similar to the business registration rate, the percentage of households with a tax code of 40.97% is also lower than the rate of households without a tax code (59.03%). The average age of householders is no longer young, the average is 44.4 years old (the highest is 100 years old), with a low level of expertise, mostly below college accounting for 89.68%. Households with 10 or more employees account for a very small proportion of only 0.7%. The average monthly revenue scale is only 41,261 million VND, there are households that do not generate revenue during the survey period. Business locations mainly at home, alleys and streets accounted for 83.38%. In business operations, the internet is more commonly used than computers, with

the percentage of households using the internet at 46.91%, computers at 11.64%. The demand for loans of households is low, only 10.74% of households have ever borrowed capital, and 1.17% of households cannot borrow capital. Transparency, expressed in part through the disparity between household revenue declared and revenue calculated by investigators. The average difference is 11,392 million VND, with the largest revenue difference up to 2.97 billion VND, showing the lack of transparency because it is closely related to the method of calculating securities tax based on revenue for business households.

4.2. Results of the model estimation

In the application of the logit model to our research, we encounter neither the perfect multicollinearity nor the heteroscedasticity, as they have been automatically processed by the Maximum Likelihood Estimation (MLE). According to the Likelihood Ratio Test (LR) the statistical significance of the logit model is 1%. (Table 2). On the other hand, the model provides a fairly proper forecast about the formality of household businesses with an accuracy of 93.86%.

Table 2. Estimation of the factors affecting the formality of household businesses

Dependent variable: Having the business registration	Regression coefficient	Error	Marginal effect (%)
Location of business: at home, in the street or alley (locationA)	0.7547**	0.3051	0.03624060
Location of business: in the shopping centre, supermarket, or local market (locationC)	1.6291***	0.3056	0.12325590
Age of the household head (tuoi)	0.0021***	0.0008	0.00011390
Qualification of the household head (TDCM)	0.9346***	0.0268	0.06310280
Having a tax identification number (co_msthue)	6.2177***	0.0252	0.51895740
Having a size of 10 or more employees (Big10all)	0.7795***	0.0962	0.05285070
Monthly average turnover (DthuTB1T)	0.0000***	0.0000	0.00000025
Use of the computer (co_pc)	0.9751***	0.0266	0.06602420
Use of the Internet (co_int)	0.0606***	0.0182	0.00328180
Have borrowed a loan (vayvon1)	0.2719***	0.0245	0.01561600
Unable to borrow a loan (vayvon3)	-0.2281***	0.0790	-0.01162530

Dependent variable: Having the business registration	Regression coefficient	Error	Marginal effect (%)
The turnover difference between the figure reported by the household business and the figure estimated by the interviewers (LnCLDthu1T)	-0.0097***	0.0020	-0.00052610
Adequacy of the model			
Pseudo R ²	0.7011		
Observation quantity	274,591		
Chi-Square Test	0.0000		

Notes: *** and ** correspond to the statistical significance of 1% and 5% respectively

Some characteristics can be drawn from the estimation shown in Table 2 as follows:

The personal characteristics of household heads affect the registration of household businesses. The older the age of the household head is, the higher (very slightly) the probability of having the business registration will be. If the age of the household head increases by 1 year, the probability of having the business registration will increase by 0.01 %. The higher the qualification of the household head is, the greater the probability of having the business registration will be. Specifically, the probability of having the business registration of the household businesses, in which the educational attainment of the household heads is college graduation or higher, is 6.31% higher than that of the household businesses, in which the educational attainment of the household heads is lower than the college graduation. This finding is similar to the finding of the research carried out by Doumer, L.P., Oudin, X. and Nguyễn Thắng (2017) on how the educational attainment of the household heads affects the business registration.

The size of household businesses, which has been analysed with two statistically significant variables: the number of employees and the monthly average turnover, demonstrates that the bigger size a household business has, the greater the probability of having the business registration will be. The probability of having the business registration of the household

businesses that have 10 or more employees is 5.29% higher than that of the rest household businesses. If the monthly average turnover increases by 1,000 VND, the probability of having the business registration will increase by 0.000025% (i.e., when the monthly average income increases by 10 million VND, the probability of having the business registration will increase by 0.25%). The total number of employees is a factor regulated in the Law on Enterprises, according to which the household businesses that have 10 or more employees must register their business. Turnover is also a factor regulated in the Law on Enterprises so as to identify the household businesses that have to register their business and pay taxes. How the size of household businesses affects their formality is mentioned in many research works. Most of small-sized household businesses (97% of the household businesses that have an annual turnover of less than 300 million VND) (CIEM, 2017), the small-scale household businesses (in terms of capital and number of employees) (Hoàng Thị Thu Huyền, 2013), and the household businesses that earn an unstable income (turnover) (Doumer, L.P., Oudin, X. and Nguyễn Thắng, 2017) has not made the business registration (or do not have an intention of doing it).

The credit-related situation of household businesses affects the probability of having the business registration positively for those who have borrowed a loan and negatively for

those who cannot borrow a loan. Specifically, the probability increases by 1.56% for the household businesses that have borrowed a loan, but decreases by 1.16% for those who cannot borrow a loan. This can be explained by the fact that the business registration certificate is one of the necessary documents a household business must have, in order to borrow a loan from the banks or official credit organisations. This is similar to the research finding of Doumer, L.P., Oudin, X. and Nguyễn Thắng (2017), which supposes that the access to loans is one of the goals that unregistered household businesses try to achieve, when deciding to make the business registration.

The location of business also affects the probability of having the business registration. Specifically, the probability of having the business registration increases by 3.62% for the household businesses, which run business at home, streets, or alleys, and even 12.33% for those who run business in supermarkets or local markets. The cause for the difference is that household businesses must have the business registration, when they run business in supermarkets or local markets. It means that a good location of business is an advantage that household businesses can get when they have the business registration (Doumer, L.P., Oudin, X. and Nguyễn Thắng, 2017).

Having a tax identification number also affects greatly the probability of having the business registration. For the household businesses that have the tax identification number, the probability of having the business registration increases by 51.9%. The tax identification number is a factor that causes the greatest impact on the formality of household businesses. According to the legal regulations, household businesses must register a tax identification number, when they register their business. As mentioned in the research works of Hoàng Thị Thu Huyền (2013) and Phạm Tuấn Vũ (2014), taxes are seen as a factor related closely to the formality of household businesses.

In addition, *the application of information technology* to business activities also affects the probability of having the business registration. For the household businesses that use computers for business and those who use the internet for business, the probability of having the business registration increases by 6.6% and 0.33% respectively. The application of information technology to business shows the effort to reach the professionalism and formality. In reality, the application of technology has not been analysed thoroughly in research works. Despite being taken into account in a recent research carried out by Vietnam Institute for Economic and Policy Research (VERP, 2021), it was considered as a factor relating indirectly to the formality of household businesses.

The difference between the turnover reported by the household businesses and the figure estimated by interviewers also affects the probability of having the business registration. Whenever the difference increases by 1%, the probability of having the business registration will decrease by 0.05%. This factor is relating to the transparency of business. In spite of affecting the formality of household businesses very slightly, it reflects the fact that household businesses cheat at their turnover declaration for the purpose of avoiding registering their business (as they are allowed not to register business, when the turnover is small) or paying/reducing taxes (taxes are calculated on the basis of the turnover). This results in bribery and corruption. Although this has not been directly studied by any research works, the research finding of Doumer, L.P., Oudin, X. and Nguyễn Thắng (2017) has pointed out that some household businesses prefer making the business registration, as they realise the advantage of reducing bribery and corruption.

5. Conclusion and policy recommendations

The factors affecting the formality of household businesses are related to the regulations and conditions as well as the characteristics of household businesses and

household heads. There are some outstanding issues, to which special attention should be paid. *Firstly*, the size of business (shown by the total number of employees and the turnover) affects the formality of household businesses, but the effect is not very significant. Moreover, it is not the only factor affecting the formality. In practice, the formality of household businesses also depends on the factors related to characteristics of the household businesses such as the location and the application of information technology as well as characteristics of the household heads such as age and qualification; *Secondly*, credit is a multidimensional factor related to the formality of household businesses. The accessibility to loans is a factor affecting the business registration of household businesses. Of the household businesses that have borrowed a loan, the household businesses that have the business registration make up a higher proportion of than the household businesses that cannot borrow a loan. This demonstrates that the advantage of borrowing a loan is a factor promoting the formality of household businesses. *Thirdly*, the tax registration (shown by the tax identification number) is closely related to the formality of household businesses (shown by the business registration certificate), due to the existing regulations. The tax registration, however, is not strictly accompanied by the business registration. *Lastly*, the difference between the turnover reported by the household businesses and the figure estimated by interviewers affects negatively the formality of household businesses. This reveals a problem relating to the transparency as well as the bribery and corruption.

As a result the following recommendations should be taken into account, when making and promulgating policies and regulations with respect to household businesses: (1) Turnover and size of business must be considered as two criteria used for management classification and

encouragement of the business registration; (2) It is necessary to review the existing policies relating to the distinction between registered and unregistered household businesses. In addition to the business registration, the tax identification number must be considered as a criterion for the distinction. (3) It is significant to provide support for the application of information technology, the software for business registration and tax declaration so as to promote the formalisation of household businesses. (4) It is essential to strengthen the credit provision for the household businesses that have the business registration, aimed to encourage household businesses to formalise their economic activities. (5) To promote the formalisation of household businesses, it is necessary to have appropriate policies and measures to deal with the rigging in turnover declaration made by some household businesses as well as authorities for the sake of dodging paying taxes.

Although the adjusted coefficient of determination (R^2) is quite high and the variables used in the regression model are statistically significant, the elements added into the model are limited due to the use of data available from the 2017 Economic Census. On the other hand, some data estimated by interviewers might affect the research findings to some extent. The elements that are not included in the model can be listed as follows: the policy-related elements, the relationship of the sector of household businesses with the formal sector (enterprises), local governments, and the tax agencies as well as the elements relating to business habits and social networks. If a follow-up research project is carried out, focusing particularly on identifying and measuring the factors affecting the formality of household businesses with a maximum number of elements included in the model, it probably will provide more proper research findings.

References

- CIEM – Viện nghiên cứu quản lý kinh tế trung ương (2017), *Chính thức hóa hộ kinh doanh, thực trạng và khuyến nghị chính sách*. Nhà xuất bản Hồng Đức, Hà Nội.
- Cling, J. P., Nguyễn Thị Thu Huyền, Nguyễn Hữu Trí, Phan Thị Ngọc Trâm, Razafindrakoto, M., & Roubaud, F. (2010). *Khu vực kinh tế phi chính thức ở hai thành phố lớn của Việt Nam: Hà Nội và TP. Hồ Chí Minh*. Nhà xuất bản Viện Khoa Học Thống Kê.
- Cling, J. P., Nguyễn Thị Thu Huyền, Nguyễn Hữu Trí, Razafindrakoto, M., & Roubaud, F. (2010). *Cuộc khủng hoảng kinh tế đã tác động đến Việt Nam ở mức độ nào: Phân tích trọng tâm về khu vực phi chính thức ở Hà Nội và TP. Hồ Chí Minh*. TCTK/IRD-DIAL, Hà Nội.
- Doumer, L.P., Oudin, X., & Nguyễn Thắng (2017). *Vai trò của hộ sản xuất kinh doanh cá thể và khu vực phi chính thức đối với tăng trưởng bao trùm ở Việt Nam*. Nhà xuất bản Thế giới;
- Fishbein, M., & Ajzen, I. (1977). Belief, attitude, intention, and behavior: An introduction to theory and research. *Philosophy and Rhetoric*, 10(2), 11-18.
- Hart, K. (1973). Informal income opportunities and urban employment in Ghana. *The journal of modern African studies*, 11(1), 61-89.
- Hoàng Thị Thu Huyền (2013). Báo cáo Điều tra khảo sát định tính khu vực TP.HCM, đề tài “Khu vực phi chính thức và vai trò của mạng lưới xã hội” thuộc Dự án hợp tác giữa VASS và IDR-DIALILO (1993), Resolution Concerning Statistics of Employment in the Informal Sector, Fifteenth International Conference of Labour Office, ILO January 1993
- CIET, X. (1993). *Resolution concerning statistics of employment in the informal sector*. Fifteenth International Conference of Labour Office, ILO.
- Nguyễn Thị Thanh Nguyệt (2019). *Quản lý nhà nước về hộ kinh doanh cá thể trên địa bàn quận Gò Vấp TP.HCM*. Học viện Khoa học Xã hội.
- Nguyễn Thị Thu Huyền, Demenet, A., Razafindrakoto, M., & Roubaud, F. (2010). *Sự năng động của khu vực phi chính thức ở Hà Nội và thành phố Hồ Chí Minh giai đoạn 2007-2009: Một số phát hiện chính từ Điều tra Hộ Sản xuất Kinh doanh và Khu vực Phi chính thức*. TCTK /IRD-DIAL, Hà Nội.
- Nguyễn Tuấn Vũ (2014). *Vài nét về khu vực kinh tế phi chính thức tại TP.HCM*. Viện Khoa học Xã hội vùng Nam Bộ.
- Thaler, R. (2015). *Misbehaving: The Making of Behavioural Economics* London. *Allen Lane*.
- Viện nghiên cứu kinh tế và chính sách (VEPR) (2021). *Giải pháp thuận lợi hóa hoạt động sản xuất - kinh doanh cho hộ kinh doanh Việt Nam*. <https://thitruongtaichinhhtiente.vn/vepr-ho-kinh-doanh-dong-gop-30-gdp-37528.html>
- Phạm Thị Kim Thái, Oudin.X, Doumer, L.P, & Vũ Văn Ngọc (2017). Đặc điểm của hộ sản xuất kinh doanh cá thể và khu vực phi chính thức trong Vai trò của hộ sản xuất kinh doanh cá thể và khu vực phi chính thức đối với tăng trưởng bao trùm ở Việt Nam do Doumer và cộng sự chủ biên. Nhà xuất bản Thế giới.
- Harris, J. R., & Todaro, M. P. (1970). Migration, unemployment and development: a two-sector analysis. *The American economic review*, 60(1), 126-142.
- Lewis W. A. (1954). Economic Development with Unlimited Supplies of Labour. *The Manchester School*, 22(2), 139-191.
- Moser, C. O. (1978). Informal sector or petty commodity production: dualism or dependence in urban development?. *World development*, 6(9-10), 1041-1064.
- Portes, A., Castells, M., & Benton, L. A. (Eds.). (1989). *The informal economy: Studies in advanced and less developed countries*. JHU Press.
- De Soto H. (1989). *The Other Path: The Invisible Revolution in the Third World*. New York: Harper and Row.

Appendix 1. Estimation of the model's accuracy

Classified + if predicted $\Pr(D) \geq .5$		
True D defined as $dkd1 \neq 0$		
Sensitivity	$\Pr(+D)$	88.22%
Specificity	$\Pr(\sim D)$	98.62%
Positive predictive value	$\Pr(D+)$	98.18%
Negative predictive value	$\Pr(\sim D-)$	90.84%
False + rate for true $\sim D$	$\Pr(+\sim D)$	1.38%
False - rate for true D	$\Pr(-D)$	11.78%
False + rate for classified	+ $\Pr(\sim D+)$	1.82%
False - rate for classified	- $\Pr(D-)$	9.16%
Correctly classified		93.86%