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**Impact of human capital on labour market integration of  
Vietnamese immigrants in the Czech Republic: Differences  
between the first and second generations of immigrants**

MASTER'S THESIS

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## **Declaration**

I hereby declare that I have done this thesis entitled “Impact of human capital on labour market integration of Vietnamese immigrants in the Czech Republic: Differences between the first and second generations of immigrants” independently, all texts in this thesis are original, and all the sources have been quoted and acknowledged by means of complete references and according to Citation rules of the Faculty of Tropical AgriSciences.

In Prague, 26<sup>th</sup> April 2019

.....  
Hoa Nguyen Khanh

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## **Abstract**

The study aimed at investigating the labour market integration of Vietnamese immigrants in the Czech Republic in the association with selected human capital characteristics. It attempted to find out the commonly chosen sectors of economic activities, employment rate, working hours, occupation status based on average ISEI-88 score and proportion of reaching to upper-middle social EGP class (Ganzeboom & Treiman 1996). A special focus was on analysing the differences between the first and the second generation on how their integration in the labour market was influenced by the selected human capital determinants (education level, Czech language level, duration of residence and gender).

A survey with a multiple-choice questionnaire was implemented together with in-depth interviews by the snowball sampling technique. The multiple linear regression analysis was used to find out the impact of selected human capital variables on the occupational status based on the ISEI-88 scores. Frequency distribution was used for descriptive analysis. Chi-squared and Mann-Whitney U tests were applied to analyse the association of employment rate, occupational status, working hours with gender and generation of Vietnamese immigrants. Independent samples T-test was used to find the differences between the first and the second generation in ISEI-88 occupational status score.

The results revealed that the education level had an impact only on the occupation status of the second generation while the duration of residence has the most significant influence on that of the first generation. The female Vietnamese immigrants were less integrated than males in terms of employment rate and occupation status. Overall, Vietnamese immigrants in the Czech Republic are mainly small business holders, mostly in retail trade and are expanding to more diverse sectors of economic activities. It is understandable since the second generation and one-and-a-half generation with fluent Czech and better education could reach better occupations.

**Keywords:** Vietnamese immigrants, Czech Republic, labour market integration, human capital, immigrant's generation

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## **List of the abbreviations used in the thesis**

1. CASMIN - Comparative Study of Social Mobility in Industrial Nations
2. CEE - Central Eastern Europe
3. CZSO - Czech Statistical Office
4. EGP - Goldthorpe, Erikson–Goldthorpe Class Scheme
5. ILO - International Labour Organization
6. ISCO - International Standard Classification of Occupations
7. ISEI - International Socio-Economic Index of Occupational Status
8. OCED - Organisation for Economic Co-operation and Development

## **1. Introduction and literature review**

In July 2013, the Vietnamese community officially became the third largest ethnic minority after Slovaks and Ukrainians (Reznik 2018). Until the 31<sup>st</sup> of December 2017, there are 59,761 Vietnamese living in the Czech Republic (CZSO 2017) and this number is probably still on the rise. They made up the third largest Vietnamese immigrant community in Europe, after France (127,857 Vietnamese) and Germany (113,338 Vietnamese), and one of the most populous Vietnamese diasporas in the world (United Nations 2017a).

Among all groups of immigrants in the Czech Republic, Vietnamese are typical of entrepreneurs or small businessmen, which is repeated in many research (Drbohlav & Džúrová 2007, Baláž & Williams 2007, Černá et al. 2011). The majority of them are involved in business activities, mostly retail and wholesale (43.8%) (CZSO 2014). In 2017, around 80% of registered Vietnamese employees in the Czech Republic had a valid trade licence (CZSO 2017). The data clearly shows a strong economical integrating path of the Vietnamese community in the Czech Republic.

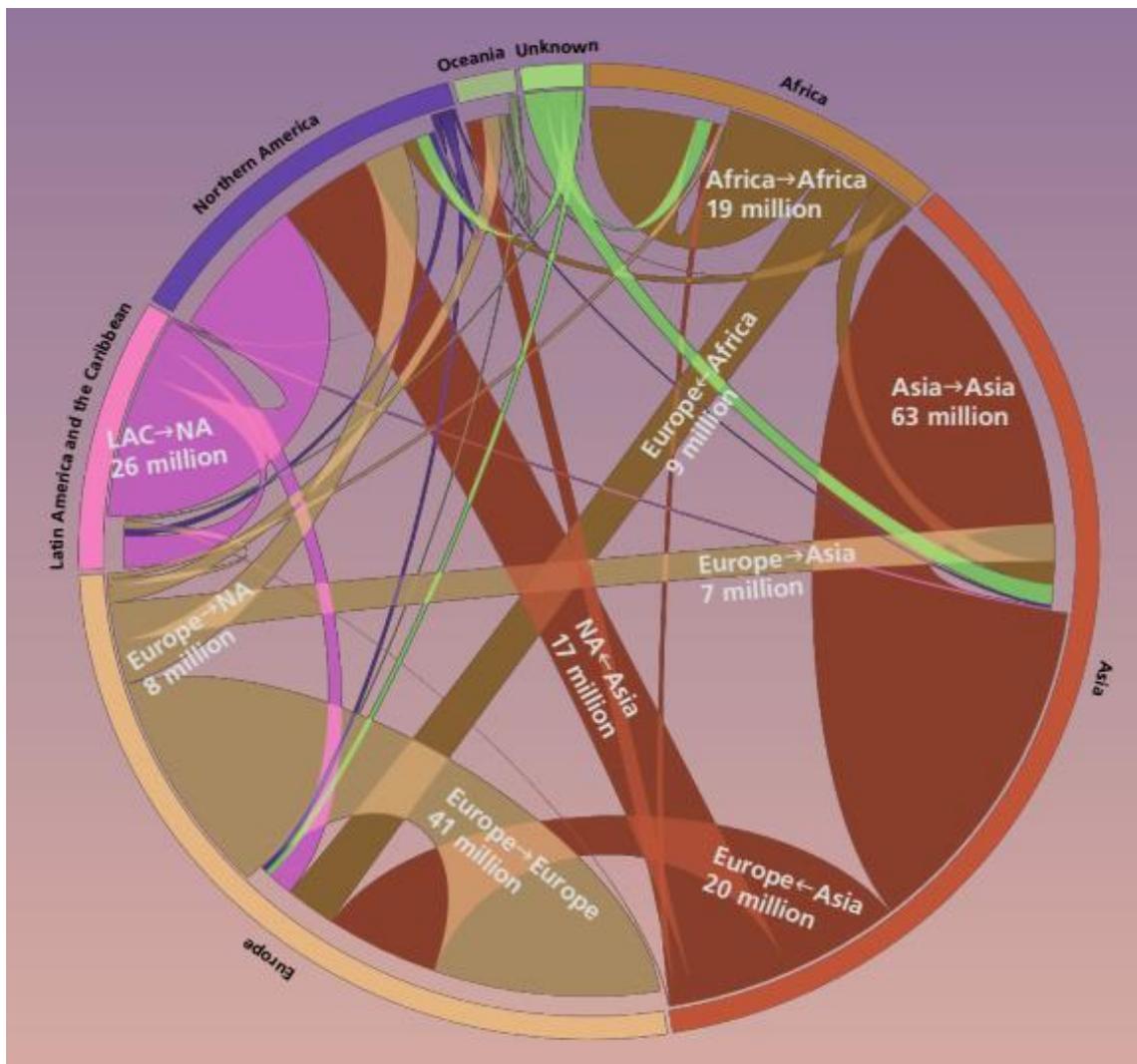
Therefore, it has been recently received more attention of researchers on the integration of Vietnamese in the Czech Republic. Vietnamese represents a “well-off” but separated and segregated community (Drbohlav & Džúrová 2007). Recently, Drbohlav and Cermáková (2016) analysed the spatial concentration of Prague’s Sapa site of the Vietnamese community. Svobodová and Janská (2016) investigated the identity development among young Vietnamese descent in the Czech Republic. Drbohlav (2004) also suggested human capital as explaining variables among other determinants such as former mutual relations between countries, cultural specificities, geographical distance between them and etc. However, besides cultural aspects, there has been not much research regarding the impact of human capital on the socio-economic integration of Vietnamese people.

Thus, this study focuses on analysing the labour market integration of Vietnamese immigrants in the Czech Republic under the impact of their human capital characteristics, which is also reflected on the differences between the first and the second generation. It also attempted to contribute a quantitative analysis on the current integration of Vietnamese in term of occupational status by using ISEI-88 index (Ganzeboom et al. 1992) and social classes scheme EGP (Ganzeboom & Treiman 1996).

## **1.1. International migration overview**

According to the report of the Department of Economic and Social Affairs of the United Nations (2017c), around 3.4% of the world population are international migrants. The number of international migrants reached 258 million in 2017 and would continue to rise rapidly. Over 60% of all international migrants live in Asia (80 million) or Europe (78 million). Between 2000 and 2017, Asia is the origin of the largest international migrants and also the highest inflow of migrant remittances in 2016 (US\$280 billion). Meanwhile, the most attractive destination of immigrants is the United States of America (50 million), followed by Saudi Arabia, Germany and the Russian Federation. Unsurprisingly, the major flow of migrants is to the high-income countries. Among the movements outside the regions, there was a noticeable number of around 20 million immigrants from Asia to Europe (Figure 1). In 2017, 67% of all international migrants were living in just 20 countries (United Nations 2017b). It is understandable since the main reasons for migration originated from economic motivation.

**Figure 1 – International migration patterns as vectors from origin to destination by geographical area and country**



Source: United Nations 2017a

Nowadays, one out of every seven international migrants is below the age of 20 years. In 2017, the median age of international migrants worldwide was 39.2 years (United Nations 2017c), which is of the most effective ages for the labour market. It is naturally foreseeable when the demand for immigrant labour will probably rise in some countries such as in Europe as its population is ageing. In 2017, the size of the European population would have fallen by one per cent in the absence of a net inflow of migrants (United Nations 2017b). Suitably, the migration trend serves the demand for labour in developed countries with an ageing population.

## **1.2. Labour market integration in migration studies**

### **1.2.1. Labour market integration and human capital**

At the rising of migrants, the migration study has consequently been received a lot of attention in social scientific research recently. It started from the work at the Chicago School with the theory of assimilation to its development of Gordon M (Alba & Nee 1997). Basically, it was expected that immigrants would become more alike or merge with natives over time socio-economically, spatially, socio-culturally and politically (Fleischmann & Dronkers 2007). Additionally, human capital was used in the status attainment path model (Blau & Duncan 1967) to explain the success achieved by individual characteristics and abilities such as educational level and skills.

Socio-economic integration plays an important role in the immigrant's lives since it is the common motive of immigrants. Economic migrants dominate among the different types of international migrants in the Czech Republic (Drbohlav 2003). This study concentrates its analysis of the socio-economic integration of immigrants on their success in the labour market. How immigrants integrate into the labour market of the destination country is presented in different aspects from the unemployment rate, working hours to occupational status and chances of reaching to the upper-middle class. Fleischmann and Dronkers (2007) found in their research on labour market integration of immigrants in 13 EU countries that they are different, although interrelated, dimensions of the socio-economic integration of immigrants and they work differently for men and women.

One of the vital influencing factors on the success of labour market integration of immigrants that has to be mentioned is human capital determinants. According to Organization for Economic Co-operation and Development (2007), "human capital" is defined as the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being. It has become the key to be able to earn a living and to wider economic growth. Fleischmann and Dronkers (2007) concluded that not making use of immigrants' human capital (in their case, the educational level) hampers both the immigrants themselves and the host country. Terrazas (2011) extended the human capital characteristics in case of the United States that the degree of economic integration varies substantially with immigrant workers' education and skill levels, language ability, duration of residence, and their entry routes. Continuing

in this direction, this study focuses on analysing the impact of human capital characteristics on labour market integration.

## **1.2.2. Occupation status measurement**

### **1.2.2.1. International Socio-Economic Index of occupational status (ISEI)**

In terms of labour market integration, occupation status is a meaningful factor apart from income, working hours, economic sectors, etc. Regarding the classification of occupation status, it is commonly based on the International Standard Classification of Occupations (ISCO) created by the International Labour Organization (ILO 2004). The ISCO groups jobs together mainly on the basis of the similarity of skills required to fulfil the tasks and duties of the jobs. In this study, even though the new ISCO-08 was released in 2008, the old ISCO-88 from 1988 was utilized to be able to synchronize to the available code of EGP scheme of social classes (Ganzeboom & Treiman 1996). It also makes the study findings easier to compare with most of the existing research.

Derived from the ISCO-88, the International Socio-Economic Index of occupational status ISEI-88 was established using comparably coded data on education, occupation, and income for 73,901 full-time employed men from 16 countries by Ganzeboom et al (1992). The aim of the ISEI-88 is to produce socio-economic status scores, which involved the calculation of an optimal score for detailed occupations in the following elementary status attainment: education => occupation => earnings (Ganzeboom et al. 1992). The optimization aims at minimizing the direct effect of education on earnings and maximizing the indirect effect of education on earnings via occupation (Ganzeboom et al. 1992). Table 1 shows the overall scale scores of the ISEI-88 in accordance with ISCO-88.

**Table 1 - Scale scores of the International Socio-Economic Index of occupational status ISEI-88**

Major group	Specific groups	ISCO-88 code	ISEI-88	EG P
□ Legislators, senior officials & managers	□ Legislators & senior officials	1100	<b>70</b>	<b>1</b>
	□ Corporate managers (large enterprises)	1200	<b>68</b>	<b>1</b>
	□ General managers (small enterprise)	1300	<b>51</b>	<b>2</b>
□ Professionals	□ Physical, mathematical & engineering science professionals	2100	<b>69</b>	<b>1</b>
	□ Life science & health professionals	2200	<b>80</b>	<b>1</b>
	□ Teaching professionals	2300	<b>69</b>	<b>2</b>
	□ Other professionals	2400	<b>68</b>	<b>1</b>
□ Technicians and associate professionals	□ Physical & engineering science associate professionals	3100	<b>50</b>	<b>2</b>
	□ Life science & health associate professionals	3200	<b>48</b>	<b>2</b>
	□ Teaching associate professionals	3300	<b>38</b>	<b>3</b>
	□ Other associate professionals	3400	<b>55</b>	<b>2</b>
□ Clerks	□ Office clerks	4100	<b>45</b>	<b>3</b>
	□ Customer services clerks	4200	<b>49</b>	<b>3</b>
□ Service workers & shop & market sales workers	□ Personal & protective services workers	5100	<b>38</b>	<b>3</b>
	□ Salespersons, models & demonstrators	5200	<b>43</b>	<b>3</b>
□ Skilled agricultural & fishery workers	□ Market-oriented skilled agricultural & fishery workers	6100	<b>23</b>	<b>10</b>
	□ Subsistence agricultural & fishery workers	6200	<b>16</b>	<b>11</b>
□ Craft etc. trades workers	□ Extraction & building trades workers	7100	<b>31</b>	<b>9</b>
	□ Metal, machinery, etc. trades workers	7200	<b>34</b>	<b>8</b>
	□ Precision, handicraft, printing, etc. trades workers	7300	<b>34</b>	<b>8</b>
	□ Other craft, etc. trades workers	7400	<b>33</b>	<b>8</b>
	□ Skilled workers (non-farm)	7500	<b>42</b>	<b>8</b>
□ Plant & machine operators & assemblers	□ Stationary-plant, etc. Operators	8100	<b>30</b>	<b>9</b>
	□ Machine operators & assemblers	8200	<b>32</b>	<b>9</b>
	□ Drivers & mobile-plant operators	8300	<b>32</b>	<b>9</b>
□ Elementary occupations	□ Sales & services elementary occupations	9100	<b>25</b>	<b>3</b>
	□ Agricultural, fishery, etc. Labourers	9200	<b>16</b>	<b>9</b>
	□ Labourers in mining, construction, manufacturing & transport	9300	<b>23</b>	<b>9</b>

Source: Ganzeboom & Treiman 1996

#### **1.2.2.2. EGP scheme**

To fully understand the occupational status, ISEI is analysed together with EGP class scheme – a categorization which allocates individuals into social classes (Ganzeboom & Treiman 1996). Because of its complex genealogy, it is variously referred to in the literature as the Goldthorpe, Erikson–Goldthorpe, EGP (Erikson–Goldthorpe–Portocarero), and CASMIN (Comparative Study of Social Mobility in Industrial Nations) typology (A Dictionary of Sociology 1998). In this research, the enhanced EGP class categories developed by Ganzeboom and Treiman (1996) are utilized. This EGP code is devised when taking into account the scheme of Erikson and Goldthorpe in 1992 and the CASMIN documentation by Erikson et al. in 1989 (Ganzeboom & Treiman 1996). The EGP classes are based on the work situation (authority and autonomy at work) as well as the market situation (including income, the degree of income security, career prospects and source of income) of the respondents (Leiulfsrud et al. 2005). Additional criteria are distinctions between owners, employers and employees; between firms with more or less than 10 employees; and between manual and non-manual occupations (Ganzeboom & Treiman 1996). Table 2 shows the 10 classes of EGP represented by codes 1–5 and 7–11. The more detailed classification of ISCO-88 together with ISEI-88 and EGP scheme is listed in the appendix A of the Internationally Comparable Measures of Occupational Status for the 1988 International Standard Classification of Occupations (Ganzeboom & Treiman 1996).

In Goldthorpe’s theory, class I and II are labelled the ‘service class’, VI and VII the ‘working class’ and III to V are referred to as ‘intermediate’ class positions (Leiulfsrud et al. 2005). In the EGP recoded by Ganzeboom and Treiman (1996), there was no differentiation between manual and non-manual routine employees, who are all grouped in class 3. Therefore, in this study, class 1 and 2 were considered the “upper-middle-class”, 3 to 5 were the “middle class” and 7 to 11 were the “working class”.

**Table 2 - The EGP class categories**

			Mean ISEI
1	I	<b>Higher service</b> Including mostly professional, large enterprise employers and higher managers (>10 subordinates)	68
2	II	<b>Lower service</b> Includes mostly associate professionals, lower managers (1-10 subordinates), higher sales	58
3	III	<b>Routine clerical/sales</b> Includes routine clerical and sales workers	45
4	IVa	<b>Small employers</b> Includes small entrepreneurs (1-10 subordinates)	48
5	IVb	<b>Independent</b> Own account workers, no employees	42
7	V	<b>Manual foremen</b> Manual workers with supervisory status (>1 subordinate)	40
8	VI	<b>Skilled manual</b> Mostly craft workers, some skilled service, and skilled machine operators	36
9	VIIa	<b>Semi-unskilled manual</b> Mostly machine operators, elementary laborers, elementary sales and services	31
10	VIIb	<b>Farm workers</b> Employed farm workers, irrespective of skill level, also family farm workers	18
11	IVc	<b>Farmers/farm managers</b> Self-employed and supervisory farm workers, irrespective of skill level	26

Source: Ganzeboom & Treiman 1996

\*Note: Roman numerals refer to Erikson and Goldthorpe (1992)

### **1.3. Overview of Vietnamese immigrants**

The migration of Vietnamese was originated mainly after the end of the Vietnam War in 1975 with an estimated two million Vietnamese left, mostly from the South to the USA, Australia and European countries (Coughlan 1998). After that, Vietnamese communities were established in Central Eastern Europe (CEE) countries thanks to international socialist solidarity agreements (Baláž & Williams 2007). Social science researchers over the world have been investigated these communities such as in the USA (McLaughlin & Jesilow 1998), or the comparison between their family lives between the USA and Taiwan (Ko 2014), or in Europe (Fleischmann & Dronkers 2007) and in the Czech Republic (Drbohlav & Cermáková 2016). However, apart from cultural relating issues, there was not much research on the economic and social trajectories of Vietnamese migrants in CEE over recent decades (Baláž & Williams 2007).

Vietnamese migration to CEE began significantly in the geopolitics of the Cold War, especially after the Sino-Soviet split in the late 1950s. Between 1976 and 1977, Vietnam signed many agreements on commodity, cultural, economic and scientific co-operation with a number of countries in CEE (Baláž & Williams 2007). Vietnam established close relations particularly with Czechoslovakia, the German Democratic Republic, and Hungary (Columbia Electronic Encyclopaedia 2003). Interestingly, William and Baláž (2005) found out in their research the fact that those agreements were largely reserved for the children of Communist Part or those with exemplary military records. Until the post-1989 transition, Vietnamese immigrants started repositioning themselves by switching to traders rather than factory workers and students (Baláž & Williams 2007).

According to the official data of the Department of Economic and Social Affairs – Population Division of United Nations (2017a), at the end of 2017, there were officially more than 2.7 million Vietnamese immigrants all around the world, among which approximately 87% of them migrated to the more developed or high-income countries. The majority of Vietnamese diaspora is currently well established mainly in Europe, Northern America, Oceania and some developed countries in Asia. The dominant destination is the United States of America with 1.4 million, which accounts for half of the Vietnamese immigrant's population in the world. It is followed by Australia, Canada and France. Around 2% of the Vietnamese immigrants located in the Czech Republic.

## **1.4. Immigration in the Czech Republic**

### **Brief on the current situation of immigration in the Czech Republic**

According to the most updated data from the Czech Statistical Office (CZSO 2017a), a total of 536,811 foreigners were resident in the Czech Republic as of 31 December 2017, in which approximately 53% of them had permanent residence status. Currently, immigrants constitute nearly 4.9% of the total Czech population. It makes the Czech Republic as the third largest immigration destination among the countries of CEE (United Nations 2017a). The Czech Republic is on the transition to super-diversity (Sloboda 2016).

The most significant immigrant inflows are from Ukraine (22%), Slovakia (21%), Vietnam (11%) and Russia (7%) (CZSO 2017a). The order is still remained as in the results from the data in 2001 of Horáková and Macounová (2001). Ukrainian immigrants prevail in four out of six Bohemian regions. Meanwhile, Slovaks take advantage of geographical proximity in Moravian regions. Vietnamese, mostly as small businessmen, started establishing their businesses in West Bohemia using the main transport corridors connecting Prague with Western Europe (Drbohlav 2003). With approximately 37% of total immigrants in the Czech Republic, Prague – the capital of the Czech Republic, is still the most attractive city for immigrants so far, followed by Středočeský Region (13%) (CZSO 2017a).

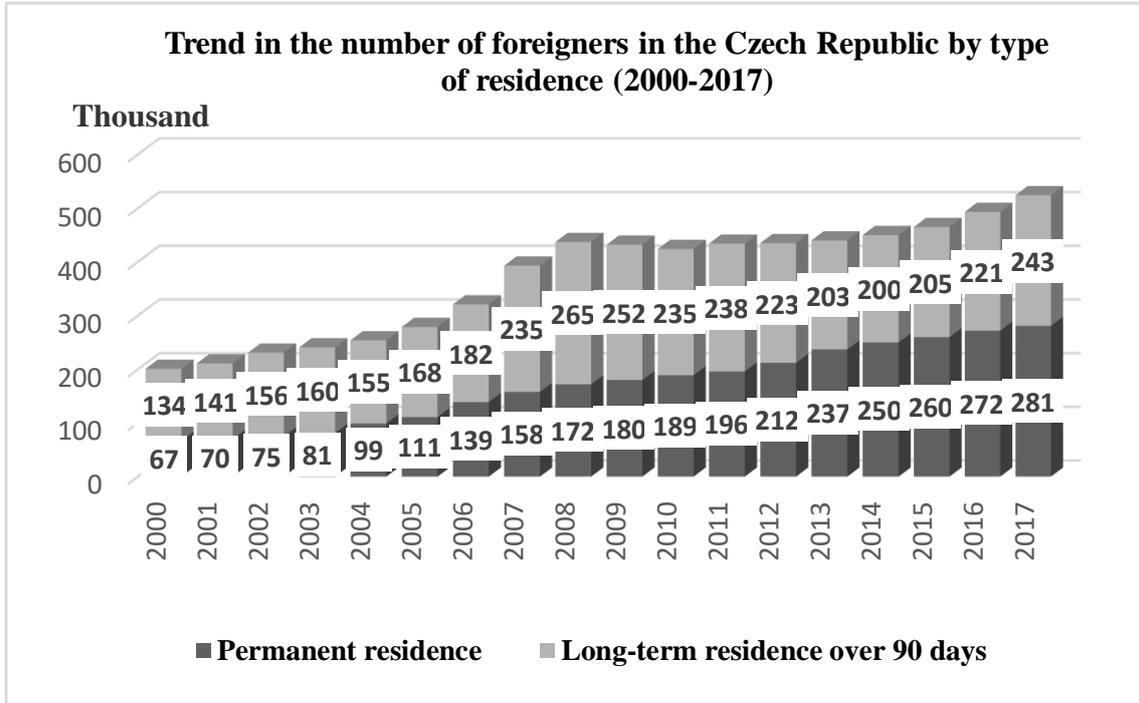
### **History of immigration in the Czech Republic**

Since the end of the 1980s, the Czech Republic went through a process of transition towards the free-market economy, as one of the transforming countries of the so-called buffer zone together with Poland, Slovakia and Hungary (Arltová & Langhamrová 2010). They shared common experiences such as hosting of a diversity of types of migrants, growing inflow of asylum seekers and refugees and declining permanent emigrants (Drbohlav 2003).

And a massive international migration is one of the new phenomena influencing strongly on the political and economic structure. At the beginning of the 1990s, the regulations were quite open for immigration when the laws regulating that the entry and presence of foreigners were passed (the Aliens Act No. 123/1992 and the Amendments to the Law No. 190/1994, 150/1996) (Drbohlav 2003). The significant flow of immigrants

to the Czech Republic started from approximately 78 thousand in 1993 to more than 524 thousand people in 2017 and clearly on a gradual rise (Figure 2).

**Figure 2: Numbers of foreigners in the Czech Republic by type of residence (2000 - 2017)**



Source: CZSO 2017a

The immigration flow provided the Czech Republic with a good source of cheap foreign labour from Poland, Vietnam, Hungary, Cuba, Mongolia and Angola. It filled gaps in labour – intensive fields such as food processing, textiles, shoe and glass industries, machinery, mining, metallurgy, agriculture (Drbohlav 2003). While the Czech population was ageing unintentionally fast, the migration influenced positively on the growth of the total number of inhabitants of the Czech Republic (Arltová & Langhamrová 2010).

### **Future trends of immigration**

According to Drbohlav (2003), the immigration trends might still continue no matter how against the voice of the Czech public. The absorption of immigrants into Czech society will be strengthened by the globalisation, low mobility of the Czech labour force, and most importantly, "the never-ending, strong desire for a cheap labour force of employers". Qualified immigrants are needed for the labour market and mean a higher number of taxpayers, which will be necessary to finance a sustainable standard of living not only for seniors (Arltová & Langhamrová 2010).

## **1.5. Vietnamese immigrants in the Czech Republic**

### **History of Vietnamese immigration in the Czech Republic**

Most research agreed that immigration from Vietnam to former Czechoslovakia began in the 1950s (Arltová & Langhamrová 2010, Drbohlav 2003, Krebs & Pechová 2009.). Initially, it started with students and since the 1970s, trainees and workers in nonqualified jobs also appeared (Baláž & Williams 2007) thanks to bilateral agreements on scientific and technological cooperation and the shortage of local labour in Czechoslovakia (Svobodová & Janská 2016).

After the breakdown of communism and termination of intergovernmental relations in the early 1990s, thousands of Vietnamese stayed in the CEE countries rather than return to Vietnam (Hüwelmeier 2015). At the time, Vietnamese migrants from the former German Democratic Republic also moved to the Czech Republic (Hillmann 2005). They travelled regularly between Central European countries and were called “mobile entrepreneurs” by Hüwelmeier (2015). Baláž & Williams (2007) also clarified that in the second phase from the 1980s, many Vietnamese turned to business activities and gradually developed into a quite robust economic group in the Czech Republic. Until now, Vietnamese are spread throughout the Czech Republic, with a higher concentration in Prague and areas near German and Austrian borders (Drbohlav et al. 2010).

Interestingly, Arltová and Langhamrová (2010) also found out the unique characteristics of migration paths of Vietnamese. While Slovaks migrated to the Czech Republic taking advantages of the geographic proximity and Ukrainian mainly on economic motives, there was a significant proportion of Vietnamese who came for a family reunion. And differently from those in the USA and Western Europe, a large part of Vietnamese immigrants in the Czech Republic originated from small villages of northern and central Vietnam (Drbohlav 2003).

### **Socio-economic of Vietnamese immigrants in the Czech Republic**

There are approximately 59,761 Vietnamese living in the Czech Republic at the end of 2017, which accounts for 11% of the foreigners living here (CZSO 2017). They made up the third largest Vietnamese immigrant community in Europe, after France (127,857 Vietnamese) and Germany (113,338 Vietnamese), and one of the most populous Vietnamese diasporas in the world (United Nations 2017a). In July 2013, the Vietnamese

community (together with Belarusians) received one seat in the Minority Council of the Czech Republic, officially becoming one of the ethnic groups including Slovaks, Bulgarians, Ukrainians, etc. (Reznik 2018).

In terms of labour resource, Vietnamese community provided a good source of labour to the Czech Republic. There is a high proportion of labour at the of 35–50 years in the group of Vietnamese immigrants in the Czech Republic (Arltová and Langhamrová 2010). And that is the good age for the labour market. They also filled the gaps of the market when specializing in selling cheap electronics, clothes and food (Drbohlav 2003).

Among all groups of immigrants in the Czech Republic, Vietnamese are typical of entrepreneurs or small businessmen, which was mentioned in many research (Drbohlav & Džurová 2007, Baláž & Williams 2007, Černá et al. 2011). Almost all economically active Vietnamese in the Czech Republic are involved in business, mostly in retail and wholesales – 43.8% (Table 3). As of 31<sup>st</sup> of December 2017, there were more than 28 thousand employed Vietnamese registered in the Czech Republic, among which 21,773 (80 %) holding valid trade licence. Meanwhile, there were only 36% (31,789 out of 87,228) employees from abroad holding valid trade licences in the Czech Republic (CZSO 2017). It is undoubtedly originated from the cultural and ethnic capital, former business activities since the 1990s (Cermáková et al. 2011). This characteristic clearly distinguished Vietnamese community to other immigrant groups in the Czech Republic.

Table 3 from the Czech census 2011 shows the significant amount of Vietnamese immigrants working in the business field. Currently, Vietnamese small business holders vary from open-air markets to “stone shops”, retailers of more foodstuffs, fruits, vegetables, nail bars (Hillmann 2005). And till now, Drbohlav and Cermáková (2016) even noticed that besides serving the general consumer market, a new big market for Vietnamese diaspora appeared too (Drbohlav 2010). This is very natural when the demand of an increasing community with different needs and culture asks for its supply.

**Table 3 - Foreigners in the Czech Republic in 2011 (%)**

<b>The sector of economic activity of foreigners</b>	<b>Total</b>	<b>Slovakia</b>	<b>Ukraine</b>	<b>Vietnam</b>	<b>Russia</b>	<b>Poland</b>
Total	100	100	100	100	100	100
Agriculture, forestry, fishing	1.5	0.9	3.3	0.3	0.3	1.0
Mining and quarrying	0.6	0.6	0.2	0.0	0.2	6.0
Manufacturing	20.6	28.9	17.9	7.6	8.0	32.8
Construction	8.7	6.4	20.2	0.3	2.8	6.4
Wholesale and retail trade; Repair and maintenance of motor vehicles	12.7	8.3	6.2	43.8	16.2	7.2
Transport and storage	2.5	4.0	1.9	0.3	2.3	2.6
Accommodation, meals and hospitality	4.1	3.2	3.7	3.9	3.5	2.5
Information and communication activities	4.5	6.0	1.1	0.2	7.5	3.6
Finance and Insurance	1.7	3.0	0.6	0.3	2.3	1.1
Real estate activities	1.8	0.5	2.1	0.2	13.1	0.3
Professional, scientific and technical activities	4.1	5.7	1.5	0.5	8.9	2.7
Administrative and support activities	4.8	3.9	7.7	0.3	6.4	4.1
Education	2.9	2.4	0.8	0.2	3.2	3.5
Health and social care	3.7	8.9	1.6	0.1	2.3	3.2
Cultural, entertainment and leisure activities	1.2	1.3	0.6	0.7	2.3	1.1
Other activities	2.1	1.3	1.7	3.4	2.7	4.2

Source: Foreigners in the Czech Republic according to census data (CZSO 2014)

Noticeably, Drbohlav and Dzúrová (2007) concluded that Vietnamese represent a “well-off” but separated and segregated community, which is typical of entrepreneurs with a low level of the Czech language. Their business activities rely strongly on the intensive “internal” social communication within the community. They managed to have “a rapid economic advancement with deliberate preservation of the immigrant community’s values and solidarity” (Portes & Zhou 2000). Therefore, the Vietnamese community still remains quite a strong distance from the Czech local society.

As aforementioned, Vietnamese immigrants integrated themselves economically in the Czech Republic typically as small business holders. Many research approached this by the historical and cultural perspectives. Taking a different approach, this study would analyze the integration in the labour market from the angle of human capital influences that should not be neglected.

## **2. Aims of the Thesis**

The aim of the study is to investigate the labour market integration of both the first and the second generations of Vietnamese immigrants in the Czech Republic under the impact of selected human capital characteristics.

Specific objectives are as following:

+ Analysing the integration of Vietnamese immigrants in the Czech labour market by trying to find out: What are the common sectors of economic activities in the Vietnamese immigrant's sample? How is their employment rate, occupational status, average ISEI-88 score, EGP class distribution and average working hours in the sample?

+ Finding out, in quantitative analysis, the association of selected relevant human capital determinants on the integration of Vietnamese immigrants, namely: education level, Czech language level, duration of residence and gender.

+ Investigating the different influences of the selected determinants above on the occupational status of the first and the second generation of Vietnamese immigrants in the sample.

Hypothesis 1: Female Vietnamese immigrants are less integrated into the labour market than those of male gender in terms of employment rate and occupational status based on the ISEI-88 scale (Ganzeboom & Treiman 1996).

Hypothesis 2: Educational level, among other human capital characteristics, has the most significant influence in the labour market integration only on the occupational status ISEI-88 score (Ganzeboom & Treiman 1996) of the second-generation Vietnamese.

Hypothesis 3: The second generation of Vietnamese immigrants have better occupational status based on the ISEI-88 scale (Ganzeboom & Treiman 1996).

### **3. Methods**

#### **3.1. Participants selection procedure**

Vietnamese immigrants are classified as proper respondents if they meet the following criteria: 1) long-term residence in the Czech Republic for at least 1 year until 30<sup>th</sup> June 2017; 2) one of their parents is Vietnamese citizen; 3) age ranges from 18 to 64 years old. The study is limited only in the immigrants' viewpoint.

It is expected that the labour market integration of immigrants differs between different generations of immigrants. This research distinguishes two generations, which is similar to the classification in the research of Fleischmann and Dronkers (2007). The first generation immigrants are those who were born outside the migrant country. The second generation immigrants are those who are born in the migrant country; however, have at least one parent who was born outside the country of destination.

Besides, there is the so-called '1.5-generation'. They were born outside the country of destination but migrated at such a young age that they received most or all of their education in the destination country. In this research, this 1.5-generation is classified to the second generation since they have almost the same characteristics as of the second one. More specifically, in this research, those 1.5-generations, who migrated into the Czech Republic under 16 years old and attended at least 3 years of school taught in the Czech language, is considered as the second generation. Those criteria are based on the regulations of the Czech government when granting citizenship for immigrant youngsters (Ministry of the interior of the Czech Republic 2019).

#### **3.2. Data collection**

Apart from the secondary data from Czech Statistics Office, United Nations and other sources, primary data was collected by a questionnaire survey with 193 Vietnamese immigrants for the population of more than 56 thousands of Vietnamese people living in the Czech Republic (CSZO 2017). Among them, eight questionnaires were marked as not applicable due to unfinished answers. Finally, 185 qualified responses were used for analysis. At the same time, six in-depth individual interviews were implemented for supplementary qualitative analysis.

This study attempted to include a diverse group of respondents by getting various kind of respondents located in each main region of the Czech Republic. However, there is undoubtedly a considerable number of non-registered immigrants. Thus, in the absence of reliable statistics on the actual lists of population elements, it is impossible to know whether the sample reflects the population as a whole, which led to the fact that the sampling was necessarily purposive. The convenient or so-called snowball sampling technique was chosen to collect the data because of easy accessibility and proximity to the researcher. In addition to increasing the representativeness of the sample, it was attempted to cover the distribution of socio-demographic variables of the population.

The data collection was implemented from 10<sup>th</sup> August until 30<sup>th</sup> September 2017 in major communities of Vietnamese people in the Czech Republic. The data is successfully collected from respondents living in 13 regions (out of 14 regions) of the Czech Republic including Prague; Central Bohemian; South Bohemian; Plzeň; Karlovy Vary, Ústí nad Labem; Liberec; Hradec Králové; Pardubice; Olomouc; Moravian-Silesian; South Moravian; Zlín. The questionnaires were distributed by the interviewer in person or via phone call thanks to support of the Integration Centre of Prague, the community of Vietnam mission church (VNTG) in the Czech Republic, and the Vietnamese community in the Vietnamese Sapa market in Prague.

### **3.3. Questionnaire design**

The questionnaire was developed after a review of relevant literature. Those unemployed respondents are people who are capable to work and “active in the labour market, but not currently employed” (Fleischmann & Dronkers 2007). For those respondents who are currently employed within 3 months until the date of interviewing, the study classified the occupation status of their jobs using the ISEI-88 scale which was created based on ISCO-88 (Ganzeboom & Treiman 1996). Then it was found out whether respondents succeed in entering the upper-middle-class EGP class or not (coded by Ganzeboom and Treiman (1996) and classified as in part 1.2.2.2).

Sixteen multiple-choice questions are included in the questionnaires for Vietnamese immigrant respondents focusing on two main sections:

(i) Section 1 comprises questions about the human capital of Vietnamese immigrants under the following characteristics: education level, Czech language level, duration of residence, gender; and some additional socio-demographic characteristics. To identifying the generation of immigrants, two more questions about the immigrating age and years of attending school taught in the Czech language are necessary. This section also comprises independent variables including duration of residence, education level, language level and gender.

(ii) Section 2 is for learning about the labour market integration of Vietnamese immigrant. The sectors of economic activities are divided according to the previous classification from the Census 2011 (CZSO 2014) including 16 different fields. Questions about labour market participants, employment status and working hour were also included. The final question asked about the occupational status using the ISCO-88 classification (ILO 2004). Data collected from this question was analysed to present the correspondent ISEI – 88 Index and proportion of reaching to the upper-middle class using the EGP class scheme (Ganzeboom & Treiman 1996). The ISEI score was collected as the metric dependent variable.

The questionnaire was presented among ten peer students and consult afterwards by the author's supervisor. Recommendations for change to maximize the interpretation of questions were completed. The final survey was translated from English to Vietnamese and was anticipated to take less than 10 minutes to complete.

Supplementary interview questions were designed for the purposes of collecting qualitative data, additional explanations and reconfirming the quantitative analysis. Six questions were included in the interviews asking about their opinions on the common jobs of Vietnamese immigrants who are working in the Czech Republic, opportunities for the second generation in labour market integration, effect of education and Czech language level on their life, working hours, employer preferences and the reasons. All of the interviews were taken place only in Vietnamese by the author, which makes it easier to gain trust, honesty and willingness to answer from the interviewees.

### **3.4. Data analysis**

Multiple linear regression analysis was utilized in order to analyse the impact of selected human capital independent variables (highest education level, Czech language level, duration of residence, gender) on the occupational status based on the ISEI–88 scores (dependent variables) of Vietnamese immigrants. Three models were built to reveal the differences in the influence of those determinants between the whole sample, the first generation and the second generation.

Frequency distribution was calculated to compare the distribution of Vietnamese immigrants in different sectors of economic activities. Chi-squared test was also applied to analyse the association of Vietnamese immigrants' working sectors, employment rate, occupational status with gender and immigrant generation. Mann-Whitney U test was used to reveal if there is a difference in means of working hours between the two immigrant generations. Pearson's Product-Moment Correlation test and Independent samples T-test was used for analysing the differences between the first and the second generation, female and male gender in ISEI-88 score and EGP classes.

The confidence level of 95% ( $p < 0.05$ ) was considered statistically significant. The statistical analysis was performed using SPSS statistical software (SPSS 25 for Windows, SPSS Inc., Chicago, IL, USA).

## **4. Results**

### **4.1. Description of the sample**

Of total 185 valid responses, 137 people (74.1%) belong to the group of the first generation while the rest is the second generation. A majority of the participants (55.7%) lives in the capital of the Czech Republic (Mode = Prague) while the rest disperses in different regions with a small portion. This distribution of the sample reflects closely the population. Approximately 70% of the respondents lived in the Czech Republic more than five years until 30th June 2017 and around 90% of them are from 18 to 50 years old, which is a good age range in the labour market. More than 80% of the respondents graduated from high schools and 35.7% of them achieved a Bachelor degree. Most of the respondents' Czech language ability is still at the beginner level (the mode is A1 with 36.8% and subsequently A2 with 18.9%). More details are in Table 4 for the overall description of the sample.

**Table 4 - Human capital and socio-demographic characteristics of the respondents**

Variables	Number of participants n (Total N = 185)	Percentage of participants (%)
<b>Age group (years)</b>		
18 – 30	97	52.4
31 – 50	69	37.3
51 – 64	19	10.3
<b>Gender</b>		
Male	92	49.7
Female	93	50.3
<b>Birth place</b>		
Vietnam	167	90.3
Czech Republic	16	8.6
Outside of Vietnam and the Czech Republic	2	1.1
<b>Czech language level</b>		
None	13	7.0
A1	68	36.8
A2	35	18.9
B1	12	6.5
B2	22	11.9
C1	8	4.3
C2	27	14.6
<b>Highest education level</b>		
under high school	7	3.8
vocational high school	11	5.9
high school (gymnasium)	96	51.9
bachelor degree	66	35.7
master degree	5	2.7
<b>Residence duration</b>		
1 -3 years	37	20.0
more than 3 - 5 years	18	9.7
more than 5 years	130	70.3
<b>Age of immigrating</b>		
born in the CR	16	8.6
under 16	32	17.3
16 and more	137	74.1
<b>Living regions</b>		
The capital - Prague	103	55.7
Central Bohemian	31	16.8
South Bohemian	1	0.5
Plzen	4	2.2
Karlovy Vary	21	11.4
Usti nad Labem	2	1.1
Liberec	1	0.5
Hradec Kralove	2	1.1
Pardubice	3	1.6
Olomouc	1	0.5
Moravian Silesian	6	3.2
South Moravian	9	4.9
Zlin	1	0.5
<b>Generation</b>		
First generation	137	74.1
Second generation	48	25.9

## 4.2. Labour market integration of Vietnamese immigrants

### 4.2.1. Employment rate

Among 185 respondents, 155 Vietnamese immigrants (83.8%) were working while 30 people (16.2%) were unemployed. 122 people (65.9%) were working fulltime while 33 people (17.8%) had part-time jobs.

The result of Chi-square test confirmed the association of generation and employment status (Chi-square = 4.739, P = 0.029) (Table 5). Thus, it is able to conclude that the unemployment rate of the first generation of Vietnamese immigrants (19.7%) was higher than that of the second generation (6.3%).

**Table 5 - Association of generation, gender and different aspects of labour market integration of Vietnamese immigrants in the Czech Republic**

<b>Independent factors</b>	<b>Dependent factors</b>	<b>Test value</b>	<b>P value</b>
<b>Immigrant generation</b>	Employment status	Chi-square = 4.739	P = 0.029*
	Working sector	Chi-square = 37.688	P = 0.000**
	ISEI score	T = -2.016	P = 0.046*
	EGP class	Pearson's r = -0.076	P = 0.354
	Working hour	Mann Whitney U = 1674.00	P = 0.002**
<b>Gender</b>	Employment status	Chi-square = 9.98	P = 0.002**
	Working sector	Chi-square = 12.722	P = 0.390
	ISEI score	T = 2.726	P = 0.007**
	EGP class	Pearson's r = 0.128	P = 0.190
	Working hour	Mann Whitney U = 1995.50	P = 0.001**

\* Significant at the level of 0.05

\*\* Significant at the level of 0.01

The Chi-square test also revealed the significant association of gender and employment status (Chi-square = 9.98, P = 0.002) (Table 5). Female immigrants had an employment rate of 75% on average, which is lower than that of male (92%). In other words, the percentage of unemployment female immigrants was more than in male immigrants. This finding supported the hypothesis n.1 that female Vietnamese immigrants are less integrated than male in the Czech labour market in term of employment rate. Table 5 above summarizes the correlation between gender, generation and different factors of labour market integration of Vietnamese immigrants in the Czech Republic.

#### **4.2.2. Sectors of economic activities**

According to the finding, the highest proportion of Vietnamese immigrants (34.6%) still works in the sector of Wholesale, retail trade or Repair and maintenance of motor vehicles (Table 6). However, it is clearly lower than that of the census 2011 (43.8%). Meanwhile, in many other sectors, the percentages had increased noticeably, including: accommodation, meals and hospitality (from 3.9% to 13%), finance and insurance (from 0.3% to 4.9%), administrative and support activities (from 0.3% to 4.9%), transport and storage (from 0.3% to 4.3%) and other activities also increased. It possibly indicates a slight expansion of Vietnamese to more diverse working fields in the Czech Republic.

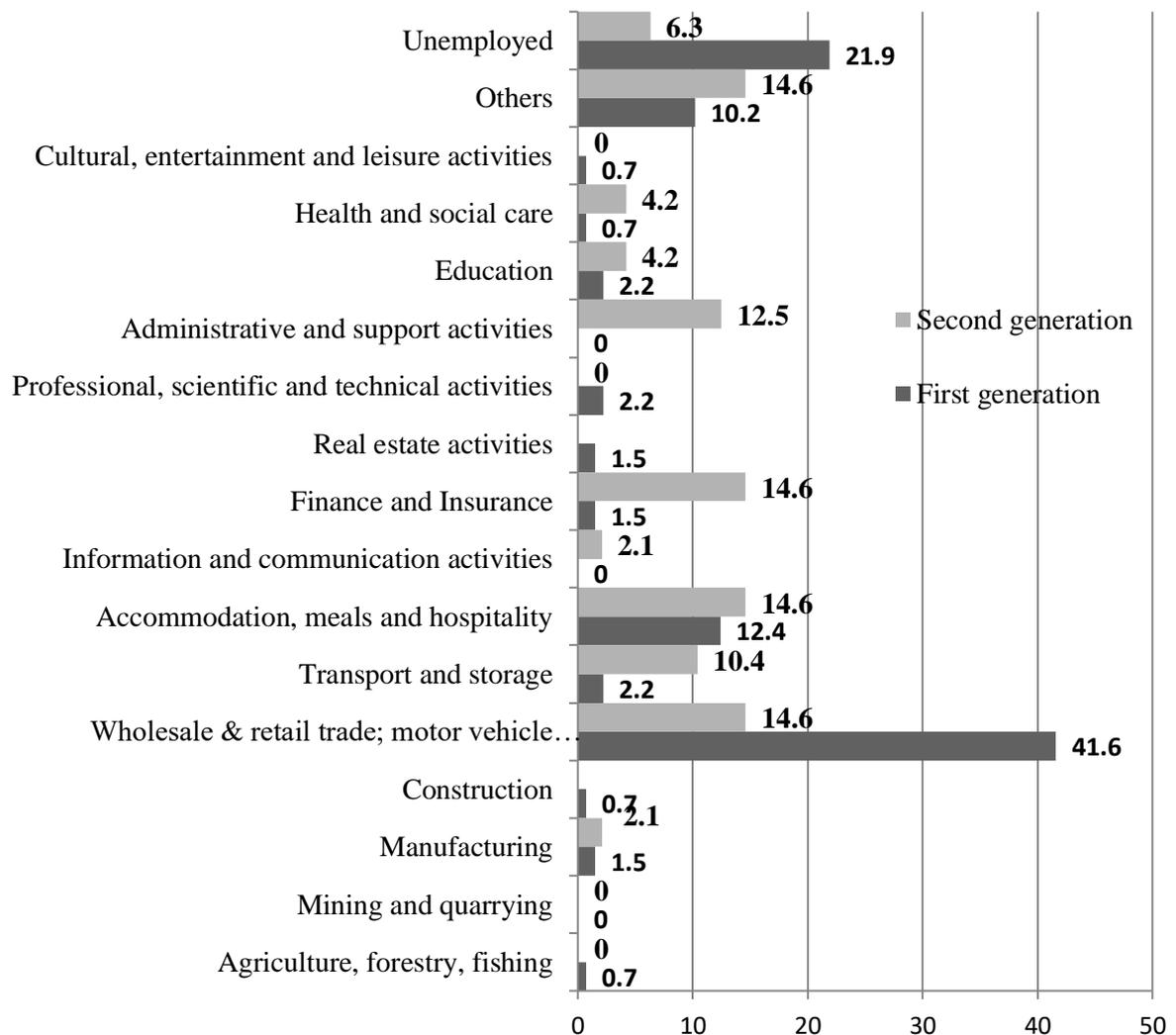
**Table 6 - The distribution of Vietnamese immigrants in the sectors of economic activities in the sample**

	<b>Frequency (N=185)</b>	<b>Percentage (%)</b>	<b>Data in the Czech Census (Table 3)</b>
Agriculture, forestry, fishing	1	0.5	0.3
Mining and quarrying	0	0.0	0.0
Manufacturing	3	1.6	7.6
Construction	1	0.5	0.3
Wholesale and retail trade; Repair and maintenance of motor vehicles	64	34.6	43.8
Transport and storage	8	4.3	0.3
Accommodation, meals and hospitality	24	13.0	3.9
Information and communication activities	1	0.5	0.2
Finance and Insurance	9	4.9	0.3
Real estate activities	2	1.1	0.2
Professional, scientific and technical activities	0	0.0	0.5
Administrative and support activities	9	4.9	0.3
Education	5	2.7	0.2
Health and social care	3	1.6	0.1
Cultural, entertainment and leisure activities	1	0.5	0.7
Others	21	11.4	3.4
Unemployed	33	17.8	-
<b>Total</b>	<b>185</b>	<b>100</b>	<b>100</b>

Additionally, the finding from in-depth interviews also revealed that currently, the common work of Vietnamese immigrants was not only in retail business (groceries called “potraviný”) but also in the restaurants, fast-food stores and nails. Vietnamese immigrants have expanded their business to a few more sectors of the Czech Republic’s economy. More specifically, interviewed respondents generally shared a similar observation that the second generation of Vietnamese immigrants had more choices of jobs in different sectors than their parents. One interviewee expressed about the second generation: “If they cannot study well, it is better for them to study vocational schools and then find jobs like their parents. However, as we can see, the second generation of Vietnamese immigrants are now able to work in all the sections. Some find very good

jobs in banking, integration services, hospitals, engineering”. This trend was more noticeable when comparing the working sectors of the first generation and the second generation (Figure 3).

**Figure 3 - The working sectors of two generations of Vietnamese immigrants in the Czech Republic (%)**



The result of the Chi-square test revealed the association between the generation and working sector (Chi-square = 37.688, P = 0.000) with a moderate relationship of a contingency coefficient 0.446 (Table 5). From the Figure 3, it is also noticeable that the distribution of the second generation is more balanced than that of the first one. While the first generation mostly still worked in wholesale and retail business (41.6%), only 14.6% of the second generation remained in that sector and they shifted to finance and insurance (14.6%), administrative and support activities (12.5%), transport and storage (10.4%) and

other activities. In accommodation, meals and hospitality, the percentage remained quite similar between two generations (12.4% and 14.6%).

### **4.2.3. Occupational status and ISEI-index**

The types of occupational status dominating the sample was General managers in small enterprises (16.2%), Salespersons, models & demonstrators (15.7%), Personal & protective services workers (14.6%). Subsequently, Office clerks took 8.1% and Laborers in mining, construction, manufacturing & transport (8.1%) while the proportion of other occupations took less than 5%. The average ISEI score of the sample was 41.57 (out of 90). The mode of ISEI score was 51, which belonged to 30 respondents. The highest ISEI score was 80 while the lowest ISEI score was 16 (range of 64).

The Independent samples T-test confirmed the hypothesis 1, in which the ISEI score mean of male respondents (43.95) was significantly higher than that of female respondents (38.63) with  $T = 2.726$ ,  $P = 0.007$  (Table 5). Therefore, Vietnamese male immigrants have better occupation status (higher ISEI score on average) than female ones in the Czech Republic.

Similarly, the Independent samples T-test revealed the difference between the ISEI score means of the two generations ( $T = -2.016$ ,  $P = 0.046$ ) (Table 5). The mean of ISEI score of the first generation in the sample (40.29) was lower than that of the second generation (44.62). Therefore, it confirmed that the second generation has a better occupational status than the first one based on the ISEI-88 scale (Ganzeboom and Treiman, 1996), which supports hypothesis n.3.

### **4.2.4. Working hours**

Most of the Vietnamese immigrants (36.8%) worked from 41 – 60 hours per week (Mode = 41 – 60 hours). Subsequently, 20% of them worked from 61 – 80 hours per week. These data showed that the working hours of Vietnamese immigrants on average were higher in the Czech Republic. Additionally, 53.5% of them worked during the weekend and 51.4% also worked during national holidays. This pattern of high working hours was also presented in the results of in-depth interviews. Four out of six interviewed respondents worked more than 40 hours per week. The reasons were low salary per hour and financial needs for supporting the family.

The Mann-Whitney U test revealed a significant difference between the mean of working hours between the two generations (Mann-Whitney U = 1995.50; P = 0.001) (Table 5). The second generation of Vietnamese immigrants in the Czech Republic worked fewer hours than the first ones. The majority of the first generation of Vietnamese immigrants (41%) worked from 41 – 60 hours per week while most of the second generation (40%) worked only from 21 – 40 hours per week.

#### **4.2.5. Proportion of reaching the upper – middle – class**

The EGP class categories from Ganzeboom and Treiman (1996) in part 1.2.2.2 was used to classify the social classes (Table 2). According to it, class 1 and 2 were considered the upper-middle-class”, 3 to 5 were the “middle class” and 7 to 11 were the “working class”.

Most of the Vietnamese immigrants’ occupation was classified into class 3 – routine clerical or sale workers with 42.2% (Mode = 3). 40 respondents (21.6%) were in class 2 – lower services including lower managers (1-10 subordinates) and 15.1% was in class 9 – semi-unskilled manual (mostly machine operators, elementary labourers, elementary sales and services). The range of EGP class of Vietnamese was 8, which is very high. However, with 63.8% of respondents in class 3 and 2, it revealed that a considerable number of Vietnamese immigrants’ occupation was in middle-class or upper.

Interestingly, the Pearson’s Product-Moment Correlation test showed that the EGP classes of Vietnamese immigrants in the Czech Republic were not significantly correlated with the immigrant generation (Pearson’s  $r = -0.076$ ,  $P = 0.354$ ). The mean of EGP in the first generation was 3.98 and that of the second generation was 3.56. However, the difference between those means of two generations was not significant. Similarly, the EGP class and gender were also not significantly correlated (Pearson’s  $r = 0.128$ ,  $P = 0.116$ ).

### 4.3. Impact of selected human capital characteristics on Vietnamese immigrant's occupational ISEI-88 score

The multiple linear regression model was built to analyse the impact of selected human capital independent variables (highest education level, Czech language level, duration of residence and gender) on the ISEI score (metric dependent variables) with the confidence level of 95%,  $P = 0.05$  as follows:

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \mu_i$$

$Y_i$  = ISEI score

$\beta_3$  = duration of residence

$\beta_0$  = Intercept on y-axis

$\beta_4$  = gender (dummy variable:

$\beta_1$  = highest education level

female = 1, male = 0)

$\beta_2$  = Czech language level

$\mu_i$  = error terms/ residual

Table 7 and 8 summarized the results of the three models.

**Table 7 - Model summary of three different cases in multiple linear regression model**

Case	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig. (p-value)
<b>The whole sample (N=185)</b>	0.552	0.305	0.286	10.321	16.127	0.000
<b>First generation (N = 107)</b>	0.523	0.274	0.246	10.105	9.626	0.000
<b>Second generation (N=45)</b>	0.640	0.410	0.351	10.579	6.947	0.000

*Predictors: (Constant), Gender, Czech language level, Highest Education level, Residence duration*

*Dependent Variable: ISEI index*

#### ❖ The whole sample (N = 185)

The model was firstly applied for the whole sample of 185 participants with a significant result of F-test ( $P = 0,000$ ). With the great goodness of fit (R-square = 30.5%), 30.5% of the variance in ISEI score was explained by the selected independent variables (Table 7). With adjusted R-squared of 28.6%, which is very close to R-square, the model does not contain redundant variables.

In this case, T-test revealed that all four independent determinants of human capital characteristics significantly influenced the ISEI score of occupations of Vietnamese immigrants in the Czech Republic at the confident level of 95%. Among them, residence duration had the highest positive impact (Standardized coefficient Beta = 0.329, P = 0.000) (Table 8). It means that the longer Vietnamese stay in the Czech Republic, the better occupation they can get. Besides, the highest education level and the Czech language level also improved their occupation status.

The negative coefficient of gender in all three cases implies that the male Vietnamese gets better jobs than the female, which again supports the hypothesis n.1.

**Table 8 - Coefficients of the multiple linear regression models on ISEI score**

Case		Standardized Coefficients	t	Sig.
		Beta		
<b>Whole sample</b> (N = 185)	(Constant)		2.047	0.042
	Highest Education level	0.300	4.185	0.000**
	Czech language level	0.183	2.473	0.015*
	Residence duration	0.329	4.456	0.000**
	Gender	-0.187	-2.707	0.008**
<b>First generation</b> (N = 107)	(Constant)		2.285	0.024
	Highest Education level	0.110	1.197	0.234
	Czech language level	0.256	2.824	0.006**
	Residence duration	0.373	4.228	0.000**
	Gender	-0.125	-1.444	0.152
<b>Second generation</b> (N = 45)	(Constant)		1.005	0.321
	Highest Education level	0.590	3.878	0.000**
	Czech language level	-0.050	-.325	0.747
	Residence duration	0.107	.873	0.388
	Gender	-0.268	-2.185	0.035*

\* Significant at the level of 0.05

\*\* Significant at the level of 0.01

#### ❖ **First generation (N = 107)**

The same multiple linear regression model was applied for the selected case of the first generation with  $N = 107$ . The F-test also confirmed the significance of the model ( $P = 0.000$ ) (Table 7). The R-square (27.4%) and adjusted R-square (24.6%) are still close to each other, which means that the included independent variables are not redundant. However, in this scenario, the T-test revealed that highest education level did not have a significant impact on the occupational ISEI score of the first generation of Vietnamese immigrants ( $P = 0.234$ ) (Table 8). This finding supports the hypothesis n.2. The first generation's occupation was not under the impact of education. Only Czech language level and residence duration had a significant impact on the ISEI score of the first generation. Additionally, residence duration still had the highest standardized coefficient (Beta = 0.373,  $P = 0.000$ ), which indicates the largest impact of residence time.

#### ❖ **Second generation (N = 78)**

In the case of the second generation ( $N = 78$ ), the F-test also confirmed that the model was also significant ( $P = 0.000$ ) with a high R-square (41.00%). Interestingly, the T-test revealed that the Czech language level and residence duration did not have a significant impact on their ISEI score anymore ( $P = 0.747$  and  $P = 0.388$  respectively). Instead, the highest education level showed the highest significant influence on the occupational ISEI score (Beta = 0.590,  $P = 0.000$ ). Hence, from all three findings of the three cases, it confirmed the second hypothesis n.2 that highest education level has the most significant influence only on the second generation in terms of ISEI score – 88.

## 5. Discussion

Vietnamese immigrants were initially known as the common stereotype, “stall-keepers” since they clustered in the country’s border regions and mainly sold textiles, electronics, and groceries (Martínková 2008). Recently Vietnamese businesses have been extending into more varied branches (Hofírek & Nekorjak 2009), including nail salons, dry-cleaners, and small restaurants offering authentic Vietnamese food. Additionally, with a high proportion of people who have a low understanding of the Czech language, some Vietnamese gained huge advantages working as interpreters (Martínková 2008). There was a source of profitable business in the area of mediatory services, including translating, legal and economic counselling (in Vietnamese “dich vu”). The SAPA wholesale market (in Libuš, Prague) became a commercial and cultural centre of the Vietnamese community in the Czech Republic (Krebs & Pechová 2009). These expanding patterns in sectors of economic activities were also confirmed in the data analysis of this study. The percentage of Vietnamese immigrants in Wholesales, retail trade decreased from 43.8% in the Census 2011 to 34.6% while many other sectors’ proportions had increased noticeably. Vietnamese immigrants were able to participate in more diverse sectors of economic activities, which also means that their presence appeared in more sections of the market. The expansion clearly developed in the second generation of Vietnamese immigrants. The distribution of the second generation in the economic sectors was more balanced when Wholesales and retail trade accounted for only around 14.6% .

However, in general, with more than 30% of Vietnamese immigrants participated in the wholesale and retails, it is still relatively high since those of other foreigner groups in the Czech Republic were only around 10%, such as Ukrainian (6.7%), Slovakian (8.3%). Many research shared the same observation. Vietnamese enterprises, mainly small business holders, mostly in retail trade, from open-air markets to retailers of consumables for Czech consumers (Hillmann 2005, Drbohlav et al. 2009). Therefore, it is not surprised today when encountering Vietnamese owners in the food or convenient stores (“potraviny” or “večerka” in the Czech language) in almost every big city or a small village in the Czech Republic. With the highest proportion in managers in a small business or sales workers (63.8% of respondents in EGP class 3 or 2), the study confirmed the findings from other research that Vietnamese immigrants in the Czech Republic mostly

do business activities and make them self-employed as the managers of their own small shops.

Drbohlav et al. (2009) also found out that 97% of all economically active Vietnamese in 2009 were typically entrepreneurs with trade licenses, focusing predominately on retail activities. In the most updated data from CSZO (2017b), around 80% of employed Vietnamese registered was holding a valid trade licence. There are several reasons leading to this option of Vietnamese. Cermáková et al (2011) explained it by their cultural and ethnic capital, former business activities. They took advantages of employment of family members and used services provided by co-ethnic companies (Hofírek & Nekorjak 2009), which made running business became easier. Additionally, with a low level of the Czech language, doing business through getting a trade license was also administratively much easier than becoming a worker through getting a work permit. Besides, when working as workers in factories, Vietnamese workers usually received lower wages, wage supplements and bonuses than regular Czech worker. They also have to abide by the laws of intermediaries due to a low understanding of Czech (Krebs & Pechová 2009). Eventually, doing business became the most effective way of integrating economically for Vietnamese in the Czech Republic.

In contrast, at the same time in 2009, 70% of immigrants from Ukraine worked as employees with mainly short-term migration focusing on less qualified professions such as in construction (over 60% of Ukrainian men) and unskilled workers (approximately 55%) (Drbohlav et al. 2009). Meanwhile, immigrants from Poland does not have strong traits and Polish women also more frequently marry the Czechs and are not therefore registered as foreigners (Arltová & Langhamrová 2010). People from Russia migrated due to the bad domestic social-economic situation with a considerable number of students (Arltová & Langhamrová 2010). Generally, among all groups of immigrants in the Czech Republic, Vietnamese is especially the representatives of entrepreneurs of small business in retail trade. This characteristic is more similar to the Chinese immigrants in the Czech Republic, who also mainly focused on business activities on several market gaps, especially in foreign trade (Drbohlav et al. 2009).

The findings from the study also revealed the significant differences between the first generation and the second generation of Vietnamese immigrants on how they integrated into the Czech labour-market. The second generation (44.62) had better

occupations with higher ISEI-88 score on average than the first one (40.29) ( $T = -2.016$ ,  $P = 0.046$ ). It could be further supported by the data collected through in-depth interviews. Four out of six respondents on question 2 agreed on the possibility of the second generation to get better jobs. One respondent said “The second generation who has already gone to the Czech public schools has a lot of opportunities. They will not do the same jobs as their parents. I have friends working as dentists, bankers, nurses or some jobs in the offices”. Although most of the interviewees agreed that the second generation should have better chance to get better jobs; however, they all mentioned that the possibility depends on the abilities to study of the second generation. In addition, the second generation also dispersed themselves into more diverse sectors of the economic activities (Figure 3). They worked fewer hours and had a lower unemployment rate than the first one. Sekyrová (2007) shared the same belief that when the one-and-a-half and second generation of Vietnamese mature, it is probable that they would perform different economic activities than their parents. The most obvious reason is that the second generation descendants of Vietnamese immigrants fully integrated into Czech education system and culture with excellent Czech (Krebs & Pechová 2009, Drbohlav & Džúrová 2007).

Most interestingly, the multiple linear regression analysis (using the dependent metric variable as ISEI-88 score) illustrated the different impact of human capital on those two generations. Education level had the most significant influence only for the second generation ( $P = 0.000$ ) while it was not significant for the first generation ( $P = 0.234$ ). Additionally, while residence duration and Czech language level ( $P = 0.000$ ,  $P = 0.006$  respectively) were the most influential factors in the first generation, they showed no significant impact on the second generation ( $P = 0.338$ ,  $P = 0.747$  respectively). Those findings confirmed the conclusion of Černá et al. (2011) that “Vietnamese primary devoted themselves to business activities, regardless of their previous education”. For the first generation, it is understandable that the higher residence time also reflected that the immigrants gained more experiences in the labour market and therefore, gave them better occupations.

In contrast, the second generation’s occupation level depends hugely on their education level ( $\text{Beta} = 3.878$ ,  $P = 0.000$ ). The academic ability is an important predictor of immigrants’ labour market outcomes, which allows the second generation to have a better chance to find better jobs. However, the findings of Fleischmann and Dronkers

(2007) proved a ceiling effect that highly educated second generation immigrants could not translate their qualifications into high-status jobs to the same extent as their native peers. Thus, it is expected to consider more variables that influence the labour integration of the second generation such as culture or discrimination, other than only the human capital.

Unsurprisingly, the analysis revealed that female Vietnamese immigrants had a higher unemployment rate and lower occupational ISEI score on average than male ones. The association of gender and employment rate was confirmed (Chi-square = 9.98,  $P = 0.002$ ), which supported the hypothesis n.1 that female Vietnamese immigrants are less integrated than male in the Czech labour market in term of employment status. It could be possibly affected by the Vietnamese culture which gives high responsibility for the woman to give birth and take care of family housework. Vietnamese female has the highest fertility rate among all groups of female foreigners in the Czech Republic, which is only 0.6 children per woman. The fertility rate of Vietnamese was 2.2, which is slightly higher than the level of normal reproduction (Pospíšilová 2007). It also explains that the female Vietnamese has lower occupational status when immigrant women in Europe, in general, are found to have a higher occupational status than their native counterparts (Fleischmann and Dronkers 2007).

By frequency distribution analysis, the study also showed that the Czech language ability of Vietnamese respondents is still at the beginner level (the mode is A1 with 36.8% and subsequently A2 with 18.9%). Approximately 35.7% of them finished university education. It is not relatively high when compared with other groups (Ukrainians – 53% and Armenians – 35%) in the research of Drbohlav and Džúrová (2007). They also found out that Vietnamese are typical of entrepreneurs who have a low understanding of spoken Czech, do not follow Czech newspapers. Meanwhile, Ukrainians are more employees than employers, understand spoken Czech fairly well, follow Czech newspapers. Most of the interviewees responded that the Czech language is very important for them in life and when seeking jobs. However, some found that it is not necessarily survival factors. One answered: “It is important. However, I can still work without a good Czech level. But if my Czech is better, my work and life will be easier”. These features are quite similar to Vietnamese in the Slovak. Vietnamese traders in Slovak also worked long hours and had

few opportunities to socialise. Many of them even women to deal with customers because their Slovak language was limited (Baláž & Williams 2007).

Besides the positive results, there is still some limitation in the study that should be analysed to get improvements in further research. According to EGP class scheme and ISEI-88 score, small managers or general managers of the small enterprise (1-10 employees) are classified to be in an upper-middle class and have also a high score of ISEI. Meanwhile, there are a large proportion of Vietnamese immigrants established their own business such as family convenient stores, small restaurants, nail shops. Thus, unsurprisingly, the analysis found out that a considerable number of Vietnamese immigrants' occupation was in middle-class or upper (around 20% belongs to EGP class 2). However, the EGP scheme and ISEI-88 are too generalized for occupation status that the study might overlook the number of working hours and equivalent incomes, which should be specifically emphasized in the case of Vietnamese immigrants. Therefore, the findings from the analysis are focused more on the occupational status aspects of labour integration.

Due to the unavoidable purposive sampling method, the results of the analysis, despite confirming the results of the other research and surveys, are not statistically enough to be generalized for the whole population of the Vietnamese immigrants in the Czech Republic. It would have been technically meaningful for the research if the reliable statistics of the whole population including the unregistered immigrants existed. However, a lot of attempts have been made to reach diverse interviewees from thirteen out of fourteen regions of the Czech Republic. It also combined with the qualitative data from interviews. In addition, it is observed that there is a similarity of the Vietnamese community in business activities in the Czech Republic due to the habit of learning from each other to establish their business and their preserved culture and lifestyles. Thus, it is likely certain that the results of the research have reflected the facts to the closest possibility.

With above findings, the study hopes to contribute a quantitative analysis for the new aspect of immigrant's labour-market integrations in the case of Vietnamese immigrants in the Czech Republic, which might support further research and suggest more quantitative analysis from others in this field. It would be great to continue to have

more studies in this direction which go more deeply in the human capital characteristics such as measurements for skills and experiences.

## 6. Conclusions

The study revealed an interesting finding that among all analysed human capital determinants, the most significant influence on the occupational ISEI-88 score of the second generation of Vietnamese immigrants is education level. In contrast, for the first generation of Vietnamese in the Czech Republic, the duration of residence is the most significant influencing factor while education level does not matter significantly. It is understandable since the first generation of Vietnamese is mainly engaged in economic activities as businessmen. The longer they stayed in the Czech Republic, the more experiences they gained and established a wider network for business. Meanwhile, the second generation and the one-and-a-half generation of Vietnamese immigrants grew up in Czech education. Therefore, it was found out that they have better occupation status and a higher employment rate.

The findings also confirmed the observations of many other researchers that Vietnamese immigrants are typical of small business holders, mostly in retail and wholesales trade. However, Vietnamese immigrants were expanding to more diverse sectors of economic activities in the Czech Republic. Besides the popular convenient shops, they also established nail bars, restaurants, services for interpreting and consulting.

Noticeably, the high percentage of Vietnamese immigrants in the Czech Republic (63.8%) are classified into the middle-class or upper according to the EGP class scheme since they mainly run a small family business or work as salesmen. But it was also revealed that Vietnamese worked long hour, mostly from 41 to 60 hours per week. And more than 50% of them work on the weekend and on holidays. The results also showed that female Vietnamese immigrants are less integrated into the labour market in terms of employment rate and occupation status.

To study on the impact of human capital characteristics on the integration of the first and the second generation of Vietnamese immigrants in the Czech Republic, the study attempted to apply quantitative methods in analyzing the ISEI-08 index. Although it gives an easier comparison between research, it is recommended to other researchers in this direction to get deeper in the analysis of integration to overcome the generalization of the ISEI index.

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