

THESIS OF THE DOCTORAL (PhD) DISSERTATION

**THE CHARACTERISTICS OF MIGRATION
DIFFERENCES
IN THE CASE OF OECD COUNTRIES**

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INTRODUCTION

International migration emerged as one of the main factors in the twenty-first century ever since it became a crucial aspect of population mobility growth and took on new forms, globally. Recently, it has become an important aspect for the number of migrants have increased almost by 40 million in the first half of the 21st century (De Haas, 2005 & Koser, 2010).

Global migrant numbers are still increasing. They reached 244 million people (3% of the world population) 80 million in Asia, 78 million in Europe, 58 million in North America, 25 million in Africa, 10 million in Latin America and the Caribbean and 8 million in Oceania in 2017 (UN, 2018).

The reasons for this massive migration is mostly related with economic, demographic and social issues along with political rights, religious freedom, personal safety and environmental factors (climate, seaside location). They all make people move to other countries. Additionally, an advanced transportation system that makes migration easier, cheaper and faster contributes to the numbers. The presence of large migrant populations globally creates a need to understand and address socio-demographic and economic differences.

Increase in migration is a multifaceted reality. Therefore, analysing migratory behaviours considering several uncertainties allows for various interpretations and definitions of certain aspects of it. There still is no common definition of migration and researchers disagree about how far a person must travel or how long one must reside in the destination to qualify as a migrant. The types of migration are another cause for indecisiveness about it. For example, *migration* defines crossing the national boundary of a political or administrative unit for a specified minimum period and the person taking the action in this humanitarian flow is called as a *migrant*. *Internal migration* refers to a move from one area to another within the same country. *International migration* means people crossing the border into another country. Many scholars debate that internal and international migration are part of the same process and should be analysed together. However, the dissimilarities between them can be fallacious (Castles, 2010).

Another uncertainty develops due to the difference between *asylum seekers*, *refugees* and *migrants*. Using these terms interchangeably has always been a confusing and contentious issue. However, they all have different meanings that need to be addressed to state the problems and analyse them better.

Migration is well-recognized as a complex and multi-faceted process with several changing and often unrelated purposes. Despite the complexity of migration, it is essential to determine socio-demographic differences based on the migrants' region and country of birth to formulate effective future migration policies.

Thus, this dissertation deals with the underlying socio-demographic and economic factors driving international migration by studying the differences in regional background (region and country of birth) among OECD (Organisation for Economic Co-operation and Development) countries. Empirical evidence about factors determining migration differences are presented in the literature review. The socio-demographic differences in international migration are based on coexisting (economic) theories. Each model is based on these differences in migration that have been empirically tested.

The databases gathered from data *OECD's International Migration Databases (DIOC)* for empirical analysis. DIOC makes an essential contribution to understanding the multidimensional aspects of bilateral migration between 34 countries of destination and more than 230 countries of origin by providing *a comparative perspective and extensive evidence about a broad range of demographic and labour market characteristics of migrants living in OECD countries.* The dissertation used the last update of *DIOC 2015/16* data.

However, exact migration issues require a long-term perspective. Short-run data gives provisional results and it is difficult to determine if significant trends are emerging. Meanwhile, representative data on international migration are scarce and difficult to analyze. It was one of the major challenges to detailed socio-demographic differences in migration from this perspective. The uncertainty of the types of migration presents another challenge. However, this study only examines *the characteristics of international migrants.*

Migration Growth Tendencies in OECD Countries

Migrants' regional background, age and sexual differences, educational qualifications and labour market status influence political implications in the destination countries. These differences also play a role in regional development (Südekum, 2003) and determine the major driving forces for international migration (Kibele & Janssen, 2013; Pietsch & Clark, 2015), especially in OECD countries.

The migration in OECD countries has risen over the last decade. Notably, due to economic, demographic and social issues regarding human security and discrimination. For example, the newly initiated wall between USA and Mexico, the socio-economic and political crisis in

Venezuela, the Syrian war and the free human capital flow in the EU attracts numerous migrants from the OECD countries.

Often, migrants arriving in the OECD countries lodge individual claims for protection which makes them *asylum seekers*. Recently, OECD countries have taken 120 million migrants aged 15 and older (OECD, 2019). On the other hand, the United Nations estimated 154 million migrants in 2000 and 223 million in 2015 globally. Approximately 45 per cent of them immigrate to OECD countries. This estimate indicates that the accepted migrants increased by 39 per cent in the non-OECD countries. Thus, the increased in the migrant population is higher than the population growth in OECD countries from 9 to 12 per cent for people aged over 15 in the past 15 years (OECD, 2019 also See figure 0-1).

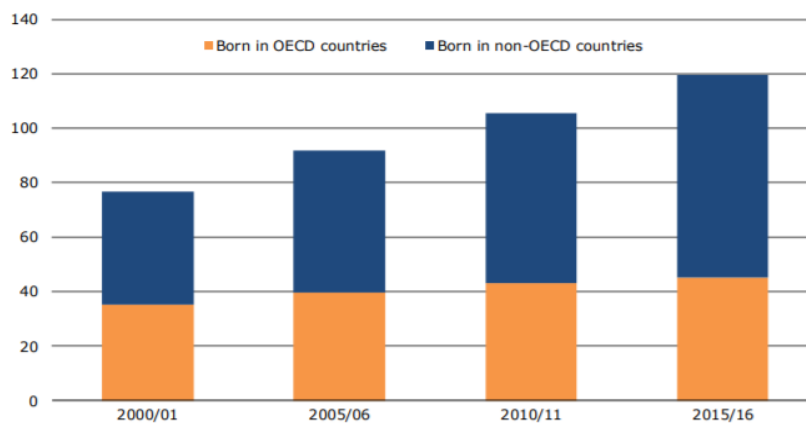


Figure 1-1: Share of the migrants in OECD by country birth versus the non-OECD countries from 2000/01 to 2015/16 (in millions)

Source: International Migration Data (DIOC, 2019)

Conversely, it is essential to mention that the number of highly educated migrants in the OECD countries is also increasing. According to the OECD report (2019), the highly educated migration has risen from 27 per cent to 35 per cent among those born outside of the OECD and from 21 per cent to 30 per cent for those born in the OECD between 2000/11 and 2015/16.

Another vital aspect of migration is gender differences. Undoubtedly, there are substantial gender-based differences among migrants. According to the United Nation (2015), the number of female migrants from all regions except Africa and Asia to the OECD countries has been increasing since 2000. There are fewer female migrants than males. Moreover, the proportion of female migrants has declined from 49 per cent to 48 per cent between 2000 and 2015 (OECD, 2019). United Nation (2015) estimated a percentage rise in female migrants from 51.6 per cent in 2000 to 52.4 in 2015 that, in Europe. In North America, it is increased from 50.5 to

51.2 (from 2000 to 2015). However, for Asia and Africa, the number of male migrants is higher than female migrants. For instance, between 2000 and 2015, the number of male migrants in Asia increased from 27 million to 44 million. Yet, the female migrant percentage decrease from 45.6 to 42. The same phenomenon can be observed in Africa where the female percentage declined from 42 to 37 per cent (from 2000 to 2015) and for Europe, Latin America and the Caribbean, Northern America and Oceania, the number of female migrants grew more than male migrants.

1. Topics and Objectives

This chapter aims to demonstrate the research background, goals, objectives, questions, hypotheses and significance of the study. It also briefly overviews the research methodology and structure of the dissertation.

2. Aims of the Research

This dissertation intends to address the factors driving the *socio-demographic and economic characteristics of international migration differences and regional background for OECD countries*. These differences are based on region, labour force, nativity, gender, educational attainment and age difference.

3. Research Objectives

The dissertation has following objectives:

1. To examine the influence of regional differences on migration.
2. To examine the socio-demographic differences of in the labour force status of migrants.
3. To explore the gender-based differences in migration.
4. To demonstrate the gaps in the educational attainment of migrants.
5. To highlight the role of ageing in migration differences.
6. To find the proper methodologies and adapt models suitable for analysing cross-country differences in migration.

4. Research Questions

The objectives of the research have been shaped by the following research questions. These questions guide the empirical work and findings of the dissertation.

1. Does regional background influence migration characteristics?
2. What determines the labour force status of migrants?
3. Do differences in migration cause gender-based division?

4. Is educational attainment associated with migration differences?
5. Does ageing cause differences among migrants?

5. Structure of the Thesis

This section is an overview of the path that will be followed to attain the research objectives and the research structure, topics and objectives, literature review, data and methodology, analyses, result, and lastly main conclusion and novel findings (see figure 1-1).

Chapter 1 clarifies the topics and objectives of the dissertation. The main objectives of the study demonstrate migration differences. Furthermore, descriptive methods are proposed and empirically tested to determine how these differences interact with each other.

Chapter 2 is a literature review. It shows that migration differences account for a considerable portion of the theoretical background about international migration. This chapter also forms the theoretical basis used to hypothesise and analyse this dissertation.

Chapter 3 explains the databases and methods applied to attain the research objectives and answers the research questions. SPSS is used for empirical testing that explores the socio-demographic and economic characteristics of migration differences in the country and region of birth.

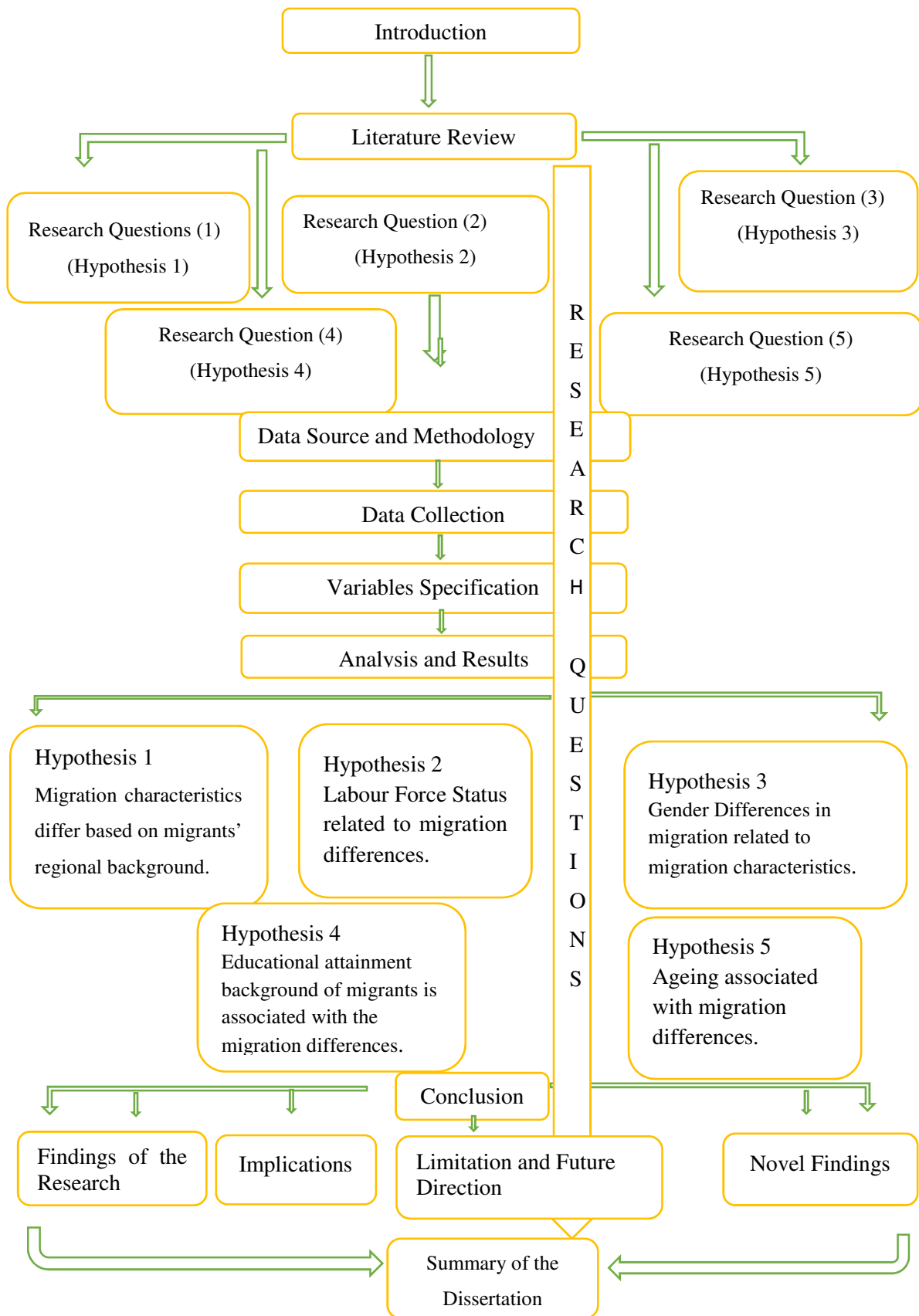
Chapter 4 shows the research findings. The variables are compared at the beginning of the chapter. Cross-tab functions analysis and independent sample U-test are employed to test the research questions and demonstrate the relationship between each variable. Finally, binary (binomial) and multinomial logistic regression are used to test the hypotheses of the study.

Chapter 5 discusses the concluding remarks of the study and specifies the limitations based on the implications, which also include future directions and recommendations for policymakers.

Chapter 6 states the results and novel findings of the dissertation.

The dissertation ends with a list of tables, figures, publications and references.

Figure 5- 1: The Sequencing of Each Sections of the Dissertation



Source: Author's compilation (2020)

6. Research Approach

A deductive model was used for the literature review with a quantitative research design to accomplish the research objectives. Conversely, the quantitative design covered a wide range of methods informed by positive assumptions. Objectives and theories were examined by the relationship between each variable. Additionally, deductive research was conducted to test theories (Creswell, 2003). Figure 1-2 shows the research model used in this research.

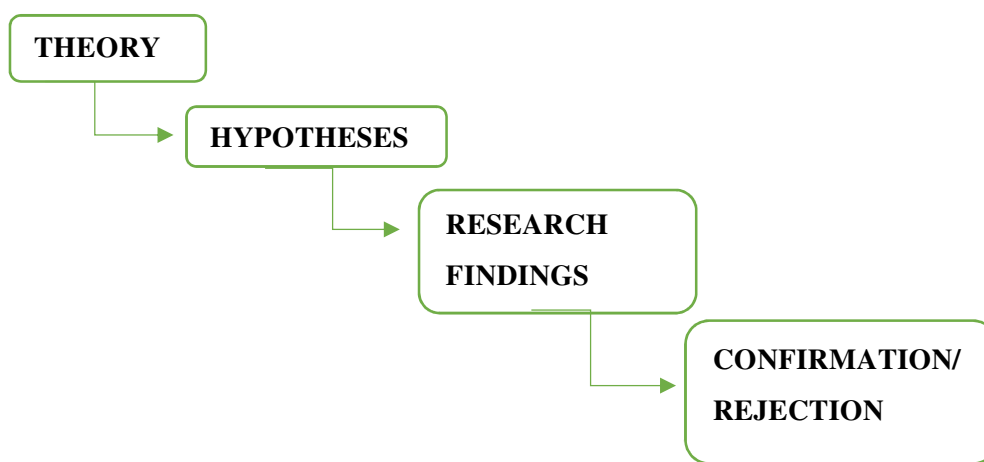


Figure 6-1: Research Applied Model in the Dissertation

Source: (Soiferman, 2010)

7. Data Collection and Sample

OECD started to collect data about migration based on the population censuses of OECD countries for its 2000 census. Since then, remarkable efforts have been made to create databases of international migration flows. OECD and the World Bank have been working together to extend the Database on Immigrants in OECD and non-OECD host countries.

The Database on Immigration in OECD Countries (DIOC) was published in 2008. This database is an excellent tool for providing the socio-economic characteristics of foreign-born populations living in OECD countries. DIOC data, which has been updated every five years since 2000/01 using censuses and representative surveys, give an insight into the dynamics of migration between origin and host countries of migrants. These databases measure the number of foreign citizens who arrive and intend to be residents in the host countries, annually. It

measures all foreign-born migrants who wish to settle down in the country, not for tourism, study or any business reasons (Mayda, 2010).

This dissertation used the latest update of DIOC 2015/16 data. The OECD compiled estimates of annual migration flows from 34 OECD member states and more than 200 countries of origin. Moreover, the dataset included information about the migrant's gender, age, labour market status, educational attainment, place of birth, duration of stay and labour market outcomes.

The database on migrants in OECD and non-OECD countries (DIOC) was constructed to ensure a reliable and internationally comparable database on migrants according to their country of origin (Arslan et al., 2014). With these databases, it is possible to describe migration differences in OECD countries. Simultaneously, the extension of DIOC provides substantial insights into the geographical dispersion of migrants worldwide (Dumont, Spielvogel, & Widmaier, 2010a) and comparing regional differences (Dumont, Spielvogel, & Widmaier, 2010b).

The data collection contains information about migrants by destination country based on the registered population censuses. Subsequently, the databases extended the migrants' characteristics, i.e. region, gender, educational attainment, etc. Accurate and internationally comparable data about migration is a crucial step for better understanding the characteristics and scope of migration movements. In this regard, DIOC makes an essential contribution by supplying multidimensional data on bilateral migration for countries of destination and origin.

8. Research Findings based on Methodologies

8.1. Descriptive Statistics and Cross-Tabulation

Descriptive statistics was used to determine frequencies of the database. This included migration differences based on (Africa, Asia, Europe, North America, Oceania, South and Central America) educational qualification, gender, age, foreign-born labour force status (employed and unemployed).

Crosstabs command is an SPSS procedure that cross-tabulates the association of two examined variables. Moreover, the crosstab analysis was used to demonstrate the relationship between two or more categorical variables. In the dissertation, it was used to indicate the association between regional, labour force, nativity status differences, gender differences, educational qualifications and age.

8.2. Independent-Sample Test

In statistics, the Mann–Whitney (U) test (or Wilcoxon rank-sum test) is a non-parametric test of the null hypothesis that it is equally likely that a randomly selected value from one population will be less than or greater than a selected value from a second population. This test can be used to investigate two independent samples selected from populations with the same distribution. In the dissertation, the independent sample U-test was used to evaluate whether the rank means of two independent variables are significantly different from each other. To demonstrate gender differences, foreign-born status, employed and unemployed status differences were associated with educational attainment and age.

8.3. Binary (Binomial) and Multinomial Logistic Regression

In the dissertation, binary and multinomial logit regressions demonstrate the relationship between migration differences. The Binary Logistic Regression model was developed by Cox (1958) and, like other regression analyses, the logistic regression is a predictive analysis. The goal of the regression model is exploring the best fitting and most parsimonious, reasonable model to define the relationship between an outcome (dependent) and independent variables (Hosmer & Lemeshow 2000). Logit and probit models are also appropriate for attempting to model a dichotomous dependent variable, for e.g. yes/no, like/dislike, etc. The logit model uses cumulative distribution function of the logistic distribution while the probit model uses standard normal distribution. Logistic regression is more popular among health sciences like epidemiology because coefficients can be interpreted in terms of odds ratios in this model. Probit models can be generalised to account for non-constant error variances in more advanced econometric settings. However, if these applications are irrelevant, it does not matter which method is chosen. In this dissertation, the Logistic Regression method was selected because it allows the predictors to be discrete, continuous and dichotomous or a mix which is suitable for this research (Morgan, 2004). Moreover, these models are extensively used in research work to assess the effect of numerous socio-economic and demographic characteristics to control the variables on the probability of the occurrence (Islam, Rahman & Hossain 2013).

The Multinomial Logistic (mlogit) Regression analysis also attempts to predict the outcome from a set of predictors which is the aim of this dissertation. In statistics, mlogit regression is a classification method that generalises logistic regression to multiclass problems, i.e. with more than two possible discrete outcomes (Willis, 1995). The mlogit model is used to predict the probabilities of the different outcomes of categorically distributed, dependent variables, given a set of independent variables (real-, binary-, or categorical-valued, etc.). Also, the use

of these logistic regressions in being consistent with many other international migration studies. In the dissertation, a mlogit regression model was employed to explain the relationship between educational attainment and age as a dependent variable with other variables (gender, age, labour force status and foreign-born status).

Another statistical goodness measure, which fits the analyses of the dissertation, is the Hosmer-Lemeshow Goodness of Fit statistic when there are one or more continuous predictors in the model. A substantial value of Chi-squared (with significant p-values) demonstrated the fitness of logistic regression models. Each result is separately explained under the title of Result of Regression Analyses. Additionally, each table with the logit regression is proportioned with variance explained by the predictors (Nagelkerke's pseudo R^2). On the other hand, the Omnibus (F-test) and HL-tests was used to explain the set of data that are importantly greater than the unexplained data fitting the model. To control and avoid dummy traps, Europe and inactive labour status dummies were chosen as control variables. Dummy trap is defined as a situation in which the independent variables are multi-collinear two or more variables are highly correlated. In simple terms, one variable can be predicted based on the others. To avoid this phenomenon, it is necessary to notify at least one dummy variable from the categorical values

9. Summary of the Results

Migration represents mobility from one place to another, and it contains all kind of movements. Moreover, it encompasses economic, internal and international migrants as well as asylum seekers. Due to this complexity, it is tough to observe and measure the components and differences of migration (Docquier, Peri, & Ruysen, 2014).

In this dissertation, the first result was obtained by estimating the regional differences of migration. Regional migration is affected by the demographic changes between the country of origin and country of destination. For this study, the regional differences were divided into two categories: the first one represents the region of birth (Africa, Asia, North America, South/Central America and Oceania) and the second one introduced the country of birth (OECD and non-OECD member countries). The empirical tests intended to explore the regional background differences that were affected by the migration characteristics. Educational qualification, age, gender, place of nativity and employment and unemployment (labour force) status differences were examined. The results showed that African migrants did not have any differences based on educational qualification, age, gender etc. However, migrants from Asia, North America, South/Central America and Oceania seemed to be mostly

foreign-born ones. Furthermore, in the case of labour force status, migrants tended to be more unemployed than migrants in other regions. In terms of country of birth, migrants from OECD-member countries were more educated and were mostly native-born. However, the migrants from non-OECD member countries tended to be unemployed in comparison to other migrants. ***The H1 hypothesis stated that the migration characteristics showed differences based on their regional background with five sub-hypotheses: H1a African migrants were less likely to be educated, older, foreign-born and female than others, H1b, Asian migrants were less likely to be educated, older, foreign-born and female than others, H1c – South and Central American migrants were less likely to be educated, older, foreign-born and female than others, H1d – North American migrants were less likely to be educated, older, foreign-born and female than others, and H1e migrants from Oceania were less likely to be employed than others.*** Thus, the results of the empirical testing shows that H1 is partially accepted.

The second result of the dissertation aimed to show labour force differences in migration. It is a well-known fact that labour market status is modifiable by migration. Diversity of educational qualification, age and gender, as well as the regional background of migrants, are essential ingredients for shaping the employment and unemployment statuses of migrants, which is indicated in ***H2: Labour force status is related to migration differences.*** Educational qualification and employment status have a positive relationship. If the educational level is higher, it is easier for migrants to be employed (Chiswick, Cohen, & Zach, 1997). Even so, according to the findings, employed migrants are mostly educated and elder. *H2a of the study stated that employed migrants are older than others, and H2b stated that employed migrants are more educated than others.* In this case, H2a and H2b are confirmed. *Conversely, unemployed migrants are younger, and it is confirmed by H2c that unemployed migrants are younger than others and are mostly native-born.* Overall, H2 has been supported by empirical analysis. In terms of the inactive status, older migrants tended to be mostly inactive, and migrants with this labour status tended to be foreign-born. In terms of regional perspective, migrants from non-OECD countries tended to be unemployed based on the country of birth. Migrants from Asia, Oceania and South and Central America were also more prone to being unemployed than those from other regions. On the other hand, migrants from Oceania and South and Central America tended to be more inactive than other regions.

The nativity status of migrants is another essential factor that demonstrated diversity in the destination countries. The findings of the estimated results highlighted that there was no educational, age or gender gaps between the foreign-born and native-born migrants. However,

it showed that native-born migrants tended to be unemployed. Moreover, the migrants from Asia, North America, Oceania and South and Central American tended to be foreign-born.

Gender diversity was introduced as another determinant of migration differences. Differences in gender were an invisible topic in migration research for a long time; however, it has now become a unit in migration studies and analyses (Manalansan, 2006). The findings of the result demonstrated that there were no gender differences in the case of educational qualification. *This result does not support H3a : Female migrants are less educated than male migrants.* In the case of age differences, there were no gaps between the ages of female migrants and male migrant. *This outcome does not support H3b: Female migrants are younger than male migrants.* In terms of labour force status and gender diversity, our empirical result indicated that there were no differences in employment and unemployment status; thus, *H3c: Male migrants tended to be more employed than female migrants* was not confirmed. However, in terms of the inactive status, the outcome of the result showed that female migrants tended to be more inactive than males, which adheres to *H3d: Female migrants are more inactive than male migrants.* In this case, ***H3: Gender differences in migration is related to migration characteristics*** is partially confirmed.

In the current study, educational qualification has been taken into consideration since it influences the migrants' lives in many ways. However, the research finding of the dissertation shows that educational qualification is not related to the gender, nativity status and regional background of the migrants. However, low educational level and employment status of migrants have a negative and significant relationship¹ as migrants with a low educational level tended to be less employed than those who have a higher educational level. Moreover, age and educational attainment had a significant and positive relationship with age (15-24). This result outcome demonstrated that migrants who had a low or medium level educational tended to be younger (15–24 age range). In this case, ***H4: Educational attainment background of migrants are associated with the migration differences*** can be partially confirmed. Furthermore, while considering *H4a, Low educated migrants tend to be younger than others, and H4b, Migrants with medium education level tend to be younger than others*, it can be confirmed that H4 is partially accepted.

On the other hand, it has been found from the empirical analyses on both level of education (low and medium) that older migrants tended to be employed more than younger ones. On the other hand, in the case of nativity status, foreign-born migrants were mostly older (between 25

and 64 years old). Finally, in terms of labour force status, the employed migrants tended to be older and unemployed migrants tended to be younger.

The finding of this study highlights ***H5: Ageing is associated with migration differences***, as well as *H5a, Migrants aged between 15 and 24 are more educated, and H5b, Migrants aged between 25-64 tend to be more employed*. Thus, H5a and H5b are accepted. Differences have also been found in the comparison between DIOC (2010/11) and DIOC (2015/16) databases. First, DIOC 2010/11 indicated several variances based on the regional background (Máté, Sarihasan, Popp, & Oláh, 2018). For example, it was stated in the previous data that migrants from Africa, Asia and Europe were less educated than those from other regions though, in our new estimation, there are no educational differences in these regions. However, the migrants from OECD countries tended to be more educated.

Moreover, age differences were evident in DIOC 2010/11. For instance, it was estimated that African, Asian, Oceanian and South/Central American migrants were younger than migrants from OECD countries and those from North American were older than them. On the other hand, foreign-born migrants were younger than the native-born ones. However, the findings of the current study addressed age differences only in the case of Asia, South and Central America and Oceania. Additionally, the gender differences in the current study existed only for inactive labour status. However, it was shown in DIOC 2010/11 that African migrants were mostly male, and South and Central American migrants tended have more females; further, female migrants were less educated than the male migrants. However, both datasets estimated similar educational qualification and age relationship. This comparison displays that migration characteristics are changeable in the case of different censuses.

In conclusion, the characteristics of migration differences is evident. Migrants have different characteristics based on their regional backgrounds. These characteristics also influence their labour status differences in the destination countries. As it was estimated from the empirical testing, educated migrants tend to be more employed than others. On the other hand, other differences such as nativity status, gender and age differences also play an essential role in the migration journey.

10. Implications

International migration is complicated and addresses issues that are not accessible. However, understanding the proportion and implications of alteration in migration behaviours is an essential component of the global international migration policy.

The findings of the study implies that more attention needs to be given to the socio-economic and regional differences of migration. Since every migrant is differentiated by at least nationality, age, gender, ethnicity, cultural and religious background, conventional migration policies will not work for the destination countries. Instead, the policies need to identify the migration characteristics more effectively based on their backgrounds to avoid conflicts in the receiving countries.

The finding of the dissertation also offers empirical evidence of labour status. Correspondingly, labour market status is correlated with educational attainment, age and gender diversity of migration. First, educated migrants tend to more employed in comparison with those who do not have a sufficient level of education (Oláh et al., 2017). For instance, the Canadian migration policy aims to demonstrate the migrant's language ability, education skills and experience. If the migrant fulfils all these criteria, then he/she is invited to apply for permanent residence and be a part of the labour force of the country. However, it is essential to focus on the unemployed and inactive migrants in the receiving society since the unemployment differences appeared to be the essential economic determinants of international migration and are insensitive to immigration policies.

Mainly, it should be taken into consideration that differences in migration can enhance unemployment in the receiving society. Additionally, lack of official language in the destination country, insufficient educational qualifications and the problem of transferring their labour abilities to the novel work environment are the some of the main reasons for this consequence (Kim & Markus, 1999). From this point of view, integration programs can be an alternative solution to the migrants. If the migrant is already in the labour sector, under human capital development-oriented programs, they can be trained to better adapt to their workplaces. The lack of linguistic skills is another severe problem. In the first place, due to insufficient language ability, it is tough to adapt to a new society and be part of their labour sector. In this case, the focus of the integration program should also be on teaching the native language of the destination countries to the migrants, which will make the adaptation process faster since knowing the official language will provide more opportunities to the migrants. However, it is worth mentioning that any effective integration program will be beneficial only if migrants play an essential role in the receiving societies. Another solution for reducing the

unemployment rate of migrants is to authorise the labour market institutions to resolve the unexpressed characteristics of migration. Along with that, a less stricter employment legislation and active labour market training can help to decrease the unemployment rates of migrants (Máté, Sarihasan, & Dajnoki, 2018). This is reflected in the migration policy of the USA, which believes that only a successful integration of migrants and family reunification in the labour market can contribute to the nation's economic vitality and its vibrant and ever-changing culture.

The finding of the study has a necessary implication on gender differences. Notably, female migrants face more discrimination than male migrants in the destination country. In particular, due to the concept of 'intersectionality', female migrants experience many identities at the same time. All these identities need to be stated in an integrated policy (UN, 2018). Additionally, in the labour sector, female migrants are more unemployed and inactive than male migrants. The most common reason for this is that male migrants tend to be more educated than the female migrants. In order to reduce the gender gap in the destination countries, educational differences should be reduced to educate female migrants by providing free access to educational opportunities. In the long term, this would also support female migrants to take an active role in the destination countries' labour sector. Educated female migrants would help to abolish the distinction and job segregation based on gender.

The study also accounts for the implications of age differences on migration. Previously, young migrants had more disadvantages than older migrants did. Mainly, the first disadvantage was due to educational background. When children move to another country, they find it challenging to adapt to a new educational system. Moreover, if they face any sort of discrimination in class, the psychological pressure could affect their entire life, which may be the reason of the increasing number of unemployment rates among migrants due to lack of educational background. Regional and cultural backgrounds can influence the education of youth migrants. Due to educational differences, only active programs can support to reduce the gap between foreign-born and native children.

Lastly, it is essential to understand the real driving migration factors of origin countries and frame some policies to improve the deficient factors, especially economically. Consequently, if the origin country has a massive brain drain, it lead to an economic breakdown and will force more migrants to go to the destination countries. In order to avoid more inflow of migrants, the destination countries apply strict migration policies, which leads people to enter countries illegally. Eventually, this becomes a reason for a high level of modern slavery. If it is not taken

into consideration, unfortunately, the number of people who are trapped by modern slavery will increase considerably.

Overall, it is important to be well informed about the migration differences since every migrant has different regional, educational, gender, age and nativity characteristics. Being oblivious to these differences will cause several problems to remain unsolved. In this case, policymakers should give enough attention to diversifying migration for the successful implementation of countries.

11. Limitations and Future Direction of the Study

There were many limitations to the current dissertation. First, DIOC 2015/16 does not contain the information of the receiving country for migration. It only provides access to information on the origin countries and regions of birth in the database. In this case, it was not possible to make a comparison between the country of destination and the country of birth. In the future, information on the destination country can be added in the DIOC extension version. This will make it possible to compare the source and host countries. Another limitation is that the databases did not provide the other determinants that also influence migration differences, for example, the integration rate in the receiving countries. In the future, researchers can examine the integration diversity rate among migrants based on the regional background. This will contribute to forming the regional migration policies of the destination countries in the future. Additionally, a massive gap still exists between migration theories and the results of the empirical analyses of databases. In fact, after the empirical tests, it was not indicated whether DIOC 2015/16 matched any significant gender differences in migration, which was another limitation of the empirical explanation of this difference. In this future, the findings of the result can be added as a part of the theoretical model for international migration as well. Another limitation of the study is related to educational qualification. This database divided educational level categories by only 3 ISCED code. In the future, migrants should be accurately categorised according to their ISCED educational level.

Another limitation is related to the missing data of financial crises. It has been mentioned that migration flows in other countries start to increase after financial crises. However, due to lack of census data, only cross-country analysis was available, and it was not possible to identify the direct influences of crises. In the future, the relationship between financial crises and migration differences should be distinguished in order to estimate its effect on migration flows. Finally, future research can make an exciting contribution by exploring the relationship between the differences of nationalities and duration of stay for international migration. Since

standard migration policies are ineffectual, it would be worth examining how migrants' nationalities are based on the duration of the stay to form effective adaptation policies.

12. Main Conclusion and Novel Findings of the Study

This dissertation intended to demonstrate the migration differences and their interactions by using specific statistical methods (cross tab, independent-sample test, binary and multinomial regressions). The empirical research supports the novel findings and proposals of the current dissertation by the deductive theoretical model.

- The scientific contribution of the research is the comparison of international migration characteristics, i.e., regional, educational, age, gender, nativity status and labour force status differences between OECD and non-OECD countries.
- The novelty of this study is that no previous research have empirically tested the migration differences using international comparison and such complex socio-economic perspectives on a representative database.
- Another scientific contribution is the different statistical methods (cross tabs, independents sample tests and different regression analysis) that were used to validate and emphasize international migration differences, which were not demonstrated before.
- The additional scientific contribution of the research is that two different census data, namely DIOC 2010/11 and DIOC 2015/16, were compared and they demonstrated many estimated differences. This comparison displays that migration characteristics can change in different censuses and periods.

Result of the hypotheses are presented in Table 5-11.

Table 5-1: Result of Hypotheses

Number	Hypotheses	Acceptance
H1	<i>Migration characteristics differ based on migrants' regional background.</i>	<i>Partially accepted</i>
	<i>H1a: African Migrants less likely to be educated, older, foreign born and female than others.</i>	<i>Rejected</i>
	<i>H1b: Asian Migrants less likely to be educated, older, foreign born and female than others.</i>	<i>Partially accepted</i>
	<i>H1c: South and Central American Migrants less likely to be educated, older, foreign born and female than others.</i>	<i>Partially accepted</i>
	<i>H1d: North American Migrants less likely to be educated, older, foreign born and female than others.</i>	<i>Partially accepted</i>
	<i>H1e: Migrants from Oceania less likely to be employed than others.</i>	<i>Partially accepted</i>
H2	<i>Labour force status related to migration differences.</i>	<i>Accepted</i>
	<i>H2a: Employed migrants elder than others.</i>	<i>Accepted</i>
	<i>H2b: Employed migrants are more educated than others.</i>	<i>Accepted</i>
	<i>H2c: Unemployed migrants are younger than others.</i>	<i>Accepted</i>
H3	<i>Gender differences in migration are related to migration characteristics.</i>	<i>Partially Accepted</i>
	<i>H3a: Female migrants are younger than male.</i>	<i>Rejected</i>
	<i>H3b: Male migrants tend to be more employed than female.</i>	<i>Rejected</i>
	<i>H3c: Female migrants are less educated than male.</i>	<i>Rejected</i>
	<i>H3d: Female migrants tend to be more inactive than male.</i>	<i>Accepted</i>
H4	<i>Educational attainment background of migrants are associated with the migration differences.</i>	<i>Partially Accepted</i>
	<i>H4a: Lesser-educated migrants tend to be younger than others.</i>	<i>Accepted</i>
	<i>H4b Migrants with medium education level tend to younger than others.</i>	<i>Rejected</i>
H5	<i>Ageing associated with migrational differences.</i>	<i>Accepted</i>
	<i>H5a: Migrants aged between 15-24 are more educated.</i>	<i>Accepted</i>
	<i>H5b: Migrants aged between 25-64 are more employed than others.</i>	<i>Accepted</i>

References

- Arslan, C., Dumont, J.C., Kone, Z., Moullan, Y., Ozden, C., Parsons, C. & Xenogiani, T. (2014). A New Profile of Migrants in the Aftermath of the Recent Economic Crisis. *OECD Social, Employment and Migration Working Papers*.
- Castles, S. (2010). Understanding Global Migration: A Social Transformation Perspective. *Journal of Ethnic and Migration Studies*, 36(10), 1565–1586.
- Chiswick, B. R., Cohen, Y., & Zach, T. (1997). The Labor Market Status of Immigrants: Effects of the Unemployment Rate at Arrival and Duration of Residence. *Industrial and Labor Relations Review*, 50(2), 289.
- Cox, D. R. (1958). The Regression Analysis of Binary Sequences. *Journal of the Royal Statistical Society: Series B (Methodological)*, 20(2), 215–232.
- Creswell, J. W & John W. Creswell Research Design Qualitative, Quantitative, And Mixed Method Approaches SAGE Publications (2013) : Free Download, Borrow, and Streaming : Internet Archive. Retrieved November 2, 2019
- De Haas, H. (2005). International migration, remittances and development: myths and facts. *Third World Quarterly*, 26(8), 1269–1284.
- Docquier, F., Peri, G., & Ruysen, I. (2014). The Cross-country Determinants of Potential and Actual Migration. *International Migration Review*, 48(1), 37–99.
- Dumont, J., C., Spielvogel, G., & Widmaier, S. (2010a). OECD Social, Employment and Migration Working Papers International Migrants in Developed, Emerging and Developing Countries: An Extended Profile Directorate for Employment, Labour and Social Affairs.
- Dumont, J.-C., Spielvogel, G., & Widmaier, S. (2010b). OECD Social, Employment and Migration Working Papers International Migrants in Developed, Emerging and Developing Countries: An Extended Profile Directorate for Employment, Labour and Social Affairs.
- Hosmer, D. W., & Lemeshow, S. (2000). *Applied logistic regression*. Wiley.
- Islam, R., Rahman, O., & Hossain, S. (2013). Factors Affecting on Migration to Chapai Nawabganj City in Bangladesh: Multivariate Approach. *American Journal of Economics*, 2013(6), 273–277.

- Kim, H., & Markus, H. R. (1999). Deviance or uniqueness, harmony or conformity? A cultural analysis. *Journal of Personality and Social Psychology*, 77(4), 785–800.
- Koser, K. (2010). Introduction: International Migration and Global Governance. Source: *Global Governance* 16(3), 301–315.
- Manalansan, M. F. (2006). Queer Intersections: Sexuality and Gender in Migration Studies. *International Migration Review*, 40(1), 224–249.
- Mayda, A. M. (2010). International migration: a panel data analysis of the determinants of bilateral flows. *Journal of Population Economics*, 23(4), 1249–1274.
- Morgan, G. A. (George A. (2004). *SPSS for introductory statistics : Use and interpretation*. Lawrence Erlbaum.
- Nations, U. (2018). International Migration Report 2017 Retrieved from: <https://www.un.org/development/desa/publications/international-migration-report-2017.html>
- Oláh, J., Halasi, G., Szakály, Z., Popp, J., & Balogh, P. (2017). The impact of international migration on the labour market. A case study from Hungary. *The Amfiteatru Economic*, 19(46).
- Soiferman, L. K. (2010). *Compare and Contrast Inductive and Deductive Research Approaches*.



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List of publications related to the dissertation

Articles, studies (3)

1. **Sarihasan, I.**, Máté, D.: Modern slavery policies in a conceptual perspective.
International Journal of Engineering and Management Sciences = Műszaki és Menedzsment Tudományi Közlemények. 3 (4), 30-35, 2018. ISSN: 2498-700X.
DOI: <http://dx.doi.org/10.21791/IJEMS.2018.4.4>.
2. Máté, D., **Sarihasan, I.**, Popp, J., Oláh, J.: The role of regional differences in immigration: the case of OECD countries.
Economics & Sociology. 11 (3), 190-206, 2018. ISSN: 2071-789X.
DOI: <http://dx.doi.org/10.14254/2071-789X.2018/11-3/12>
3. Máté, D., **Sarihasan, I.**, Dajnoki, K.: The Relations between Labour Market Institutions and Employment of Migrants.
Amfiteatru Economic. 19 (46), 806-820, 2017. ISSN: 1582-9146.
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Conference presentations (1)

4. Máté, D., **Sarihasan, I.**: The Labour Status and Demographic Characteristics of Migrants in a Regional Perspective.
In: Management 2018 : management and the world in motion, challenges, opportunities and threats. Ed.: Miroslav Frankovsky, Ján Dobrovic, Richard Fedorko, Bookman s.r.o. for Faculty of Management, University of Presov, Presov, 323-327, 2018. ISBN: 9788081653018





List of other publications

Articles, studies (2)

5. **Sarihasan, I.:** The gender differences of immigration in OECD countries.
Analele Universității din Oradea. Științe economice = Annals of University of Oradea. Economic science. 26 (1), 697-706, 2017. ISSN: 1222-569X.
6. **Sarihasan, I.:** Immigration Growth Tendencies in OECD Countries.
SEA-Practical Application of Science. 4 (3(12)), 547-553, 2016. ISSN: 2360-2554.

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