FINANCIAL LITERACY AMONG IMMIGRANTS

A Quantitative Measure of Financial Knowledge and Financial Behavior Within Immigrant Groups at Stamina Kurssenter AS

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ABSTRACT

The topics of both immigration and financial literacy are rich in previous research, but a merger of these two topics are incomplete. An analysis of previous research and theory on the merged topic revealed that there was not enough available. Some research had a similar starting point, but few, if any, went into details on the differences within immigrant groups related to financial literacy, and where the deviances derived from. Furthermore, most of the relevant articles found on the topic were based on relatively small sample sizes. This became the trigger behind the research to analyze the levels of financial literacy within different groups of immigrants. Descriptive and quantitative research were conducted in form of a questionnaire with questions related to both financial behavior and financial knowledge. The most important findings implied that individuals with work or education as motive possess the highest levels of financial literacy, whilst refugees were found on a significantly lower level compared to all other groups. Furthermore, financial literacy was compared between immigrants and native Norwegians. This resulted in split findings where immigrants proved themselves to perform better than Norwegians on financial behavior, but worse on financial knowledge.

PREFACE

I was first introduced to the topic of immigration and its relation to financial literacy when I started working with adult immigrants in a government supported program. This topic triggered my curiosity which eventually became the motivation behind this research. I searched a deeper understanding and more knowledge about the financial and economic situation related to the immigrant programs.

The motive of such programs is to provide the admitted immigrants with thoroughly structured lessons in the Norwegian language and culture. The overall goal is to integrate the participants in the Norwegian labor market and society. Experiencing how these programs function expanded my understanding of the demanding situation many foreigners face. It also made me aware of the distinctive differences between the groups of immigrants. In my experience I found that these differences varied not only between countries, but also within one country. I was immediately curious why these differences were so distinctive. I also wanted a deeper understanding of the immigration process, especially to Norway where I originate from. As the final year of my education approached, I found the opportunity to do research on this topic combined with my master thesis as a meaningful and interesting combination. Acquaintances within this industry allowed me the chance to complete such surveys, and I concluded that this opportunity had to be taken advantage of.

As a final statement in this preface, I would like to thank all the involved parties for contributing to this master thesis. Especially, I want to thank Per Kristian Hanssen for giving me the opportunity to perform the study within his organization. His support and encouragement motivated me to complete the thesis to the best possible result.

Additionally, I would like to show my gratitude towards my supervisor Ellen Katrine Nyhus. She consistently followed my work and provided me with valuable feedback.

Finally, I am grateful for all participants involved in the survey who spent their time and energy on my research. I would not have been able to complete this thesis without their involvement.

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1. INTRODUCTION

1.1. The Thesis Topic

The purpose of this thesis is to investigate the level of financial literacy amongst immigrants in Norway, and to test if different groups of immigrants differ with respect to financial literacy and behavior. In official statistics, immigrants are overrepresented in low income groups (Statistisk Sentralbyrå, 2010). Furthermore, this study will research the levels of financial literacy within different groups of immigrants.

Throughout history migration has been a frequent phenomenon. People have moved across borders seeking improved living standards, safety and work. Research from 2015 estimated that every 7th individual in the world is a migrant (Atkinson and Messy, 2015). Recent history of events leads to belief that the current number might be even higher.

The immigration to Norway has continuously increased since 1951. The reasons behind such immigration flows differ depending on the current state of origin (Cappelen et al., 2011). At the start of 2018 there were 746 700 immigrants and 170 000 Norwegian-born by immigrant parents registered in the country. This number increased by 11 200 from the previous year. It was estimated that over 14% of the population in Norway was immigrants per January 2018 (Statistisk Sentralbyrå, 2018). For the rest of the world, an estimated number of 215 million international migrants contribute to the global economy, both on a micro- and macro-economic level. On a general basis, migration is a major source of income for several countries all over the world. In fact, this income exceeds all international development funds combined. This income stream positively affects financial wellbeing and household prosperity in the respective country (Atkinson and Messy, 2015). Norway is no exception from this phenomenon. Nevertheless, migrants establishing in a new country are often more vulnerable, and many of them experience financial barriers and challenges. Despite the important economic contribution of migrants, financial exclusion is a prevalent case all around the world. Such exclusion leads to low levels of inclusion in the formal financial sector and scarce experience with financial products and tools (Atkinson and Messy, 2015). Previous research has shown that financial decision making, retirement planning, participation in financial markets and avoidance of over-indebtedness increase with growing financial literacy levels (Lusardi and Mitchell, 2007; Lusardi and Tufano, 2015; van Rooj,

Lusardi and Alessie, 2011). It would be natural to assume that lack of such skills may result in difficulties to adapt to new financial systems in a host-country.

This thesis seeks to quantify and analyze the financial literacy levels amongst the studied group of immigrants settled in Norway and try to identify decisive factors behind the related results. The research question to be studied and discussed in this thesis is:

"Are there any differences in levels of financial literacy within immigrant groups?"

1.2. Motivation Behind This Thesis

Fundamental interest for people combined with studies of economics lead to the fusion of the two topics. As existing theories on financial differences within immigrant groups were small, an opportunity to contribute to a relevant and important topic were taken. Furthermore, the desire to be able to confirm or reject prejudices about financial levels amongst immigrants were an additional driving force for writing this thesis.

1.3. The Thesis Structure

Firstly, this thesis will identify the relevant theory already existing on this topic. Basic theory on immigration and financial literacy will be reviewed separately before combining the two factors in relevant theory. Previous research on financial literacy amongst immigrants will be presented at the end of this literature review.

From here a detailed presentation of the methods used in this research follows. In this chapter you will be presented with the descriptive and quantitative research method, as well as relevant information regarding data collection, possible biases and a discussion of validity and reliability. Following, an analysis of the collected data and the relevant findings will be presented. In the end I will shortly highlight the most important aspects of this thesis and discuss the results.

2. LITERATURE REVIEW

2.1. Financial Literacy

We live in a rapidly developing world that is becoming increasingly financially sophisticated (Gramatki, 2017). Consumers now experience an increase in available financial services and products (Lusardi and Mitchell, 2014). Financial tools such as payment technologies, bank loans and different options of investments are now part of the modern everyday life (Nicolini, 2019, p. 16). Nevertheless, the financial market functions differently from country to country. This means that one country might have experienced a higher technological development, while another might have a financial market that is less controlled. Norway is ranked one of the most developed countries when it comes to digitalization. The financial technology system, also called FinTech, scores remarkably high on quality as well. This enables Norway to further develop new financial technology (PwC, 2020). With such developments follows greater gaps between the highly rated countries and the low rated countries. This is a source of financial barriers that an immigrant from a lower rated country might face when settling in Norway. Nicolini (2019, p. 16) claimed that the recent years have offered a drastic increase in the required level of knowledge to participate in today's financial systems (Nicolini, 2019, p. 16).

Knowledge related to basic financial issues is crucial to perform well in such a society (Lusardi & Mitchell, 2014). According to Agnew and Harrison (2015, p. 122) individuals need to be able to assess the growing number of financial products and services adequately, as well as making responsible and appropriate financial decisions on a personal level. To be able to do so, the individuals need high enough levels of knowledge and understanding of personal finance (Agnew et al, 2015, p. 122). Such skills are often gained through informal communication with for example friends or family (Lusardi et al., 2010). This knowledge and understanding should include how to handle money, transactions and general finances, as well as how to identify financial information and how to analyze its risks and returns (Atkinson and Messy, 2013). This type of knowledge and understanding is called financial literacy (Gramatki, 2017), and it will affect the financial well-being and performance not only on a personal level but also of society as a whole (Marchetti, Castelli, Massaro and Valle, 2016). In other words, financial literacy is a term describing people's knowledge, skills and attitudes in regard to finance and financial issues, and works as a key component to financial stability and a well-functioning society (Gramatki, 2017; Nicolini, 2019, p. 16). The

assumption is that when the degree of financial literacy increases, so does the ability to manage finances and related plans. Financial literacy is now more relevant and critical than ever (Nicolini, 2019, p. 16).

The many different investment options available today require a level of understanding, as well as the ability to compare and select the right one. This emphasizes the sophistication and developing need for financial knowledge and skills today, compared to just a few years ago (Nicolini, 2019, p.18). The rapid change in the credit market and use of debt is an example of the changes made in recent years. The socio-cultural development some countries have experienced have caused a bloom of available options and the use of debt (Nicolini, 2019, p.18). Not only have the advancing financial society proved the need for financial literacy, but also the risk of misusing the available credits and its resulting over-indebtedness (Nicolini, 2019, p.18). According to Nicolini (2019, p.18) this has resulted in a scenario where many individuals who previously were able to manage their finance and financial needs no longer can. The unawareness about this development, such as the newly needed plan for retirement, can cause individuals to rely on the old set of rules and thereby inhibit their personal financial development (Nicolini, 2019, p.17). The lack of understanding of a financial product can cause a consumer to act passively, and thereby exclude themselves from the modern financial system. Moreover, this exposes the consumer to only face all the negative consequences of this scenario. Without the possession of required financial literacy, the individual must trust the knowledge and sincerity of the counterpart of a trade. This trust exposes the individual to misunderstandings, and in worst case financial fraud (Nicolini, 2019, p.18).

Since the financial changes have developed over only a short period of time, the research perspective claims that there is a need to identify individuals' financial knowledge and skills (Nicolini, 2019, p.18). Nicolini (2019, p. 18) stated:

«if financial literacy is crucial from a micro-perspective, it is even more interesting from a macro point of view. »

The concept of financial literacy is multidimensional in nature, so it can mean different things to different people (Natoli, 2018). This has resulted in several different definitions of the concept (Jacob, Hudson and Bush, 2000, p.8). Overall, a simple and precise definition follows from an article by Noctor, Stoney and Strandling (1992, p.4) which states that financial literacy is:

«(...) the ability to make informed judgements and to take effective decisions regarding the use and management of money».

Common for the different definitions is the association between financial literacy and level of financial knowledge (Natoli, 2018). The link between financial literacy and financial knowledge is a widely discussed theme in research and literature (Lusardi and Mitchell, 2014; Lusardi, Michaud and Mitchel, 2013).

In most countries in the world standard literacy is nearly 100% (Gramatki, 2017). Nevertheless, previous empirical studies have stated that even developed countries are performing badly on levels of financial literacy (Gramatki, 2017). According to a study performed by Lusardi (2008) in America only 33 percent of the sample group managed to receive a full score in a test of basic financial literacy. Results are also surprisingly low among young individuals who were born into a more evolved financial society. A study revealed that barely 27 percent of a sample from the National Longitudinal Survey of Youth (NLSY, USA) understood and managed the concepts of inflation, risk diversification and interest rates (Lusardi et al., 2010).

Furthermore, according to the two mentioned studies on financial literacy there is a disproportionate distribution related to demography. Both studies show that the illiteracy is more pronounced with the female, poorly educated, black and/or Hispanic respondents (Lusardi, 2008; Lusardi et al., 2010; Gramatki, 2017). This leads us to the question whether these findings are representable for the immigrants living in Norway.

2.2. Historical Background for Migration

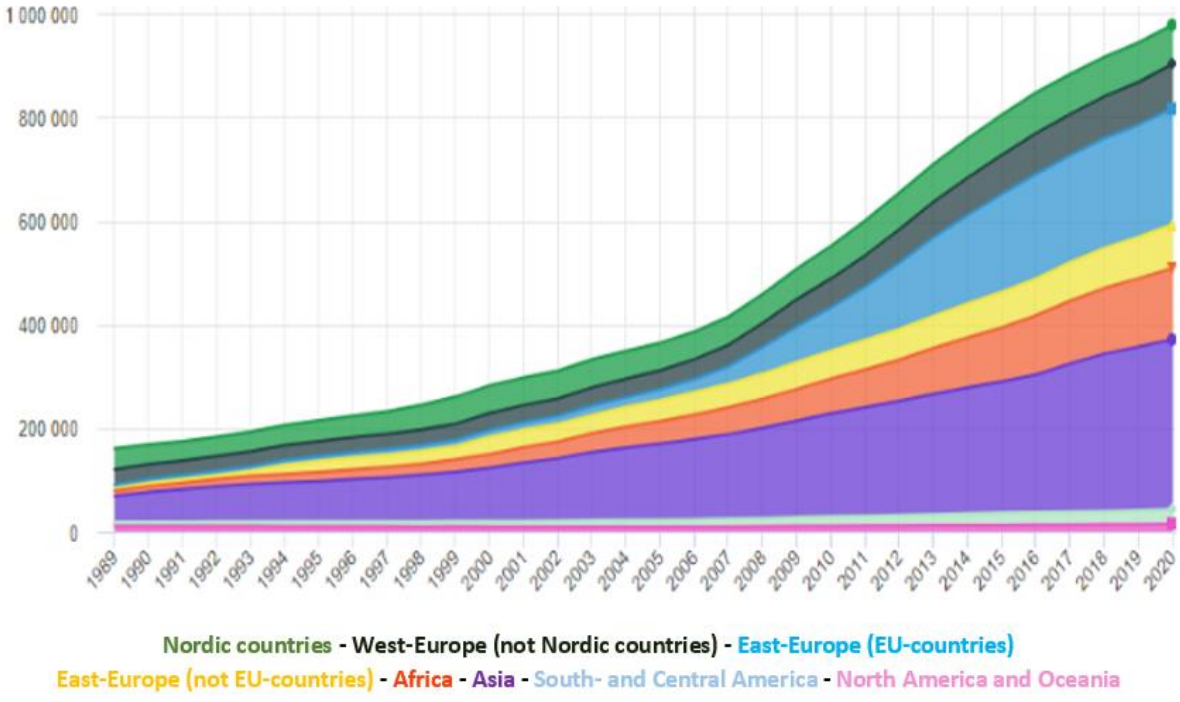
The past decades have been affected by a large increase in immigration to more developed nations (Banks, 2016). The terms “immigrant” and “migrant” is used for individuals who have moved from their home country to another, independent of the events leading up to immigrating. According to Cappelen, Ouren and Skjerpen (2011) the breakdown of the «iron curtain» in the early nineties, which functioned as a boundary dividing Europe into two separate areas, was a significant driver for migration flows. So was the expansion of the European Union (EU) which brought former East-European countries into a common labor market. Norway is not a part of the EU. Nevertheless, it is part of the European Economic Area (EEA), an international agreement which enables the extension of the European Union's single market to parties who are not members of the EU, and thereby also a part of the common European labor market. Consequently, the migration flows in Europe affect Norway just as much as any other country that is a member of the EU (Cappelen et al., 2011). Crossing borders have become more usual in recent years, whether it is for personal or professional reasons. Many western countries such as Norway have been experiencing this influx of migrants. In such scenarios the host country often experiences differences in linguistic backgrounds, culture, skills and knowledge (Banks, 2016; Bove and Elia, 2017).

There are several events that have influenced Europeans´ access to Norway. Becoming a member of the EEA, expansion of the EU and entry into Schengen, which is an agreement of border controls, are examples of such events (Cappelen et al., 2011). Furthermore, Cappelen et al., (2011) found similar results as many other studies, namely that economic variables matter for the level of immigration to Norway. They identified differences in income between the countries and the distribution of income as important factors for the immigration. Bigger unevenness in the distribution of income between Norway and the country of origin causes bigger immigration. The labor market is also relevant. Lower unemployment rates in Norway result in bigger flows of immigrants (Cappelen et al., 2011). These findings match well with the recent development in Norwegian immigration levels compared to its related income levels and unemployment levels. A study performed by Cappelen et al. (2011) also revealed that the higher the levels of unemployment is within a country, the bigger the emigration is. Furthermore, they found evidence that many immigration policies measures have had the intended effect. An example of this is the immigration stop that was formally implemented in Norway in 1975.

Historically, Norway was a country characterized by higher emigration levels than immigration levels. This means that more people left the country than what arrived. Together with Ireland the two countries had two of the World's highest rates of emigration during the late 19th century and early 20th century (Cappelen et al., 2011). The past decades have been known for the opposite. In the period from 1951 to 2010 the immigration to Norway was steadily increasing (Cappelen et al., 2011). In the late 50s and early 60s the yearly number of immigrants coming to Norway was just above 10 000. At the same time there was a higher number of emigrants leaving Norway. In the early 70s the government implemented several actions to influence the number of immigrants coming to Norway. At this point in time Norway turned the rates around and started to have a positive net immigration rate. This rate continued to increase and reached 40 000 around year 2000. After the expansion of the EU in 2004 the labor migration sat speed again, and around 2010 the number was as high as 70 000 yearly immigrants coming to Norway (Cappelen et al., 2011).

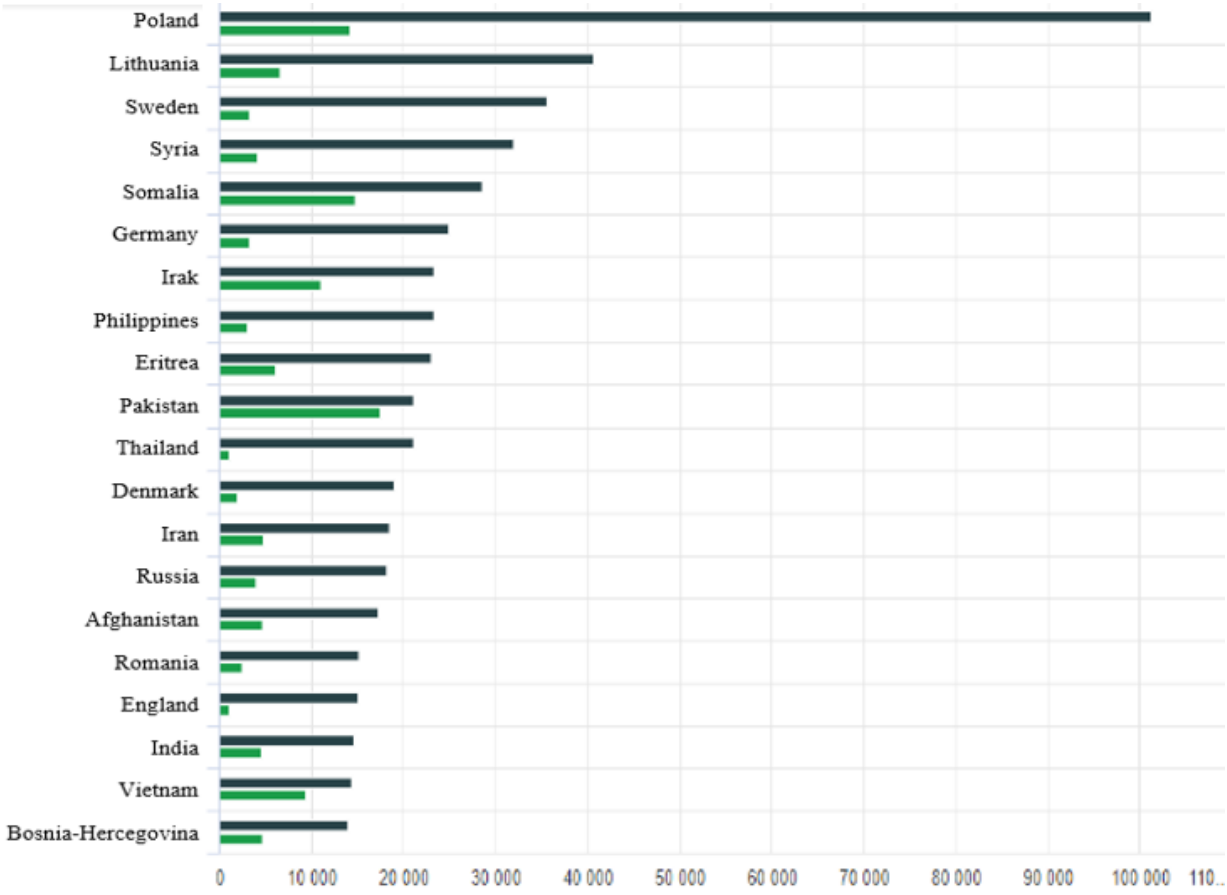
Statistisk Sentralbyrå (2020) mapped the development in registered numbers of immigrants and immigrant-children in Norway according to their country of origin. They identified 790 497 individuals as immigrants and 188 757 as children of immigrants in the beginning of year 2020. An overview of the total composition of immigrant types established in Norway is demonstrated below. The figure emphasizes the total number of immigrants living in Norway in the respective year.

Figure 1: Immigrant flows to Norway based on origin 1989-2020



Furthermore, the figure below more precisely identifies the origin of immigrants in Norway, represented by Statistisk Sentralbyrå (2020). This figure compares the number of first-generation immigrants by the black lines and second-generation immigrants by the green.

Figure 2: Origin of immigrants in Norway



In economic research on migration flow you can find a type of standard model for variables that influence an individual's decision to emigrate. In this model economic factors in the home country are compared to the country of interest (Cappelen et al., 2011). The possibility of work and related income is of great matter. So are the costs related to moving and establishing in a new country. This is where the aspect of cultural and linguistic differences interferes. In some cases, the economic factors are ignored because of bad conditions in the home country. Refugees are examples of this scenario (Cappelen et al., 2011).

According to Cappelen et al. (2011) the reason to why individuals chose to migrate to Norway in the period 1990-2010 can be classified into four main categories: work, family, refugee and education. Similar categories were identified by Statistisk Sentralbyrå (2020). They identified the rates in each category until 2018, which is presented in the figure below.

Figure 3: Motivation behind migration 1992-2018

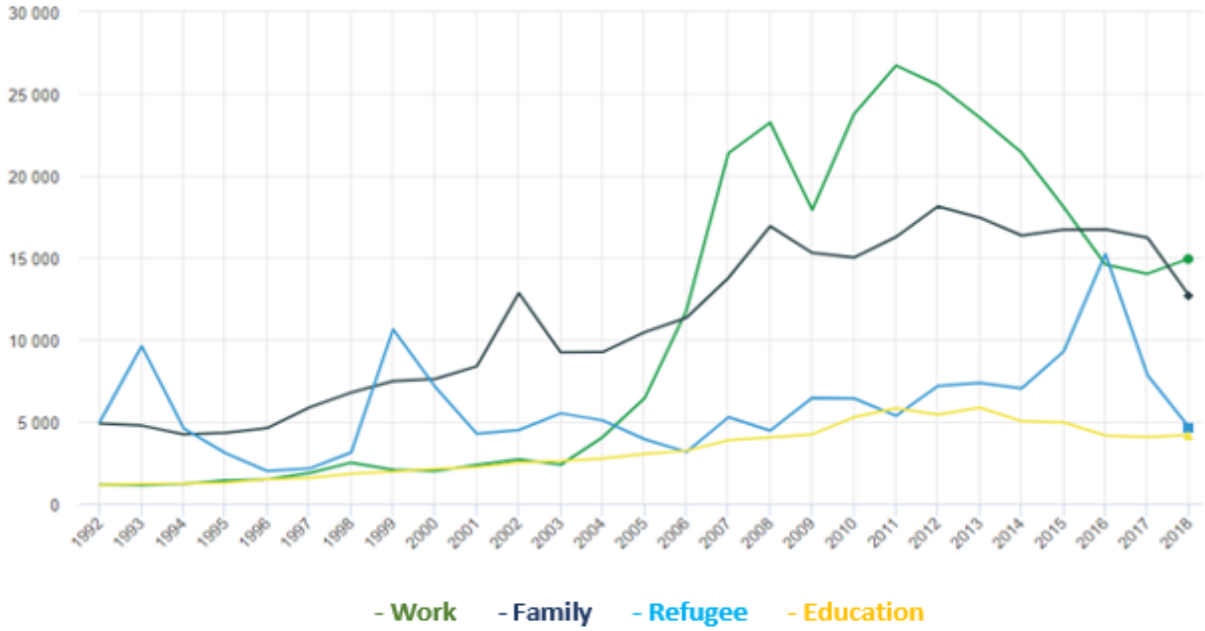


Figure 3 shows the granted reason for residence permit. As demonstrated in the figure you can see that accepted applications for asylum have varied greatly along the years. Nevertheless, educational immigration has had a steady and small increase all the way. Migrants who came for work used to be quite synchronous with this development, until 2003. From then on it increased at a drastic pace. This is a result of the EU expansion in May 2004 (Cappelen et al., 2011).

Family reunion, which has been an important motive for immigrating to Norway, is most likely related to the other motives (Cappelen et al., 2011). According to Cappelen et al., (2011), particularly the motives connected to work and refuge are connected to the family motive for immigrating.

It is relevant to note that the statistics in figure 1 and figure 3 does not include immigrants from other Nordic countries. This is due to the free access to Norway these citizens have had since 1957. The free access releases them from having to document a motive for immigrating. Furthermore, stays that were intended to last less than 6 months are not included in the statistics.

2.3. Barriers and Effects of Financial Inclusion

Due to the highlighted different types of immigrants it would be natural to discuss whether all immigrants hold the same prerequisites for a successful integration in their new host country. Individuals and families who escape war or danger might have a different starting point than those who leave their home country to seek better work or education. Countries suffering from war, poverty or political danger might be more exposed to poor educational systems and work. Based on this belief, a possible conclusion could be that the immigrants who origin from such countries are a result of these underdeveloped systems. It would then be relevant to question whether their educational competence can be compared to other immigrants who are not exposed to these shortcomings. Another aspect to consider is the resources required to travel or escape a country. This leaves the debate open to discuss whether most immigrants are individuals who can afford the travel, and those resourceful enough to believe they will do well in a new country. On the other side, it is reasonable to argue that when faced with extreme conditions you are willing to risk much to feel safe. This is a relevant issue that is not further researched in this thesis due to time limitations but should be kept in mind when assessing the findings.

When settling in Norway as an immigrant, it can occur many requirements of knowledge. The culture, rules and norms might be different from their home country. For example, Falk, Becker, Dohmen, Enke and Huffman (2018) stated that financial knowledge and decision making related to time or risk preferences might be affected by culture. Lindbeck (1997) addressed social norms and claimed that culture might affect behavior related to repayment of debt and insurance in times of financial distress. From a psychological perspective variation in financial socialization and economical attitudes are a result of financial knowledge and decision making that is influenced by culture (Yamauchi and Templer, 1982). Similar findings were documented by Lusardi, Mitchell and Curto (2010) who documented significant variation in financial knowledge among young citizens in The United States by ethnicity and race. This research backs up the question about how culture and origin might affect levels of financial knowledge and understanding. Nevertheless, ethnicity and race are often correlated with variating socio-economic backgrounds, which make it hard to identify what effect culture has on financial knowledge (Henchoz and Spycher, 2018).

2.3.1. Barriers to the Norwegian Financial System

Norwegian labor and welfare systems such as NAV and Brønnøysund are likely to be perceived as complex and difficult to understand for immigrants facing linguistic barriers. Strict rules about tax and other fees might be frightening, but also difficult for immigrants to familiarize themselves with. Among these barriers and several others, integrating in a new country would seem both demanding and difficult. According to Norges Bank (2019)

"the financial system consists of many different institutions, markets and financial market infrastructures."

They also claim that the payment system is evolving rapidly due to advancing new technology, new regulations and new providers. Real-time payments have evolved as a result of this development. Additionally, electronically payments have become the most used method. Mobile phone payment applications have emerged and become very much used in Norway over the past year, especially for payments from person to person (Norges Bank, 2019). Surely this rapid development can be difficult to keep up with when also facing linguistic barriers in a new host country. Nevertheless, managing the finances, income and expenses are skills that immigrants need to possess. Understanding effective use of their money, how to smooth irregular cash flows and having control over money sent, used and received is beneficial. So is the proper knowledge of how to calculate exchange rates and creating a budget (Brown, Henchoz and Spycher, 2018). Brown et al. elaborated that

"The vast majority of migrants and their families could benefit from access to - and a thorough understanding of - a range of financial products, including remittance mechanisms, current accounts, insurances, long-term saving products and credit."

Further on they emphasized the urgent importance for immigrants to understand credit, especially basic calculations, the impact of interest payments and how to prioritize repayments and demands. Financial education of such character would not only be beneficial for that immigrant, but also for that individual's children. Recent research found that the immigrants' status of children at the age of 15 was associated with their financial knowledge, as they scored 37 points less than native children (OECD, 2014; Brown et al., 2018). Children's financial education is thus heavily influenced by the parents (Grohmann, Kouwenberg and Menkhoff, 2015; Lusardi and Mitchell; 2014). By teaching financial

concepts and norms as well as giving them the opportunity to handle their own money they also influence financial decisions and understanding (Norvilitis and MacLean, 2010; Lusardi et al., 2010).

There are several barriers to the use of financial services for immigrants and their families. Such barriers are likely to hinder both the access to, and use of, those services (Brown et al., 2018). Examples of such barriers are listed below:

- Underdeveloped financial systems in their home countries so that this is unfamiliar when arriving at a new host country.
- Lack in familiarity with the system in the host country can cause immigrants to be uncertain of how and where to seek advice or help.
- Culture, religion and related prejudices can hinder financial inclusion.
- Previous experience or knowledge of economic crime such as corruption or poorly regulated systems might cause individuals to mistrust financial services also in the host country.
- Illegal immigrants might fear participating in financial services can identify their situation and thereby punish or deport them.
- Limited linguistic skills can create discomfort of using the host language to communicate, read and use the financial language.
- Inadequate or insufficient financial education programs might limit the adoption and integration of knowledge and understanding.

(Brown et al., 2018).

2.3.2. Effects of Migration on National Economy

As mentioned in the introduction, immigration greatly contributes to the global economy (Atkinson and Messy, 2015). On a micro-economic level financial remittance leads to reduced risk of poverty, improved nutrition and health, higher school attendance and a positive development in gender equality (Atkinson and Messy, 2015). Such remittances mean transfer of money, often from a migrant to an individual in their home country. The financial effects have also been used to fund microenterprises (Azad, 2005). The economic importance of immigration has been identified internationally as significant and important (Atkinson and Messy, 2015). Economic migrants and the related remittance can help reduce poverty by providing additional income to their household in the home country. Furthermore, lack of financial knowledge can also cause ignorance of costs and difficulties related to sending money home. Furthermore, this can result in a severe reduction in money available for the individual in the host country and thereby create barriers to reduce poverty and improve financial wellbeing (Brown et al., 2018). Moreover, despite the financial contribution and the fact that nearly 15% of the population in Norway are immigrants, several organizations in the country lack immigrants in their work staff. Fortunately, there has been a decrease in this number the last decade. From 2008 to 2017 the rate dropped from 43% to 25% by 7 400 organizations.

2.4. Previous Research on Financial Literacy on Immigrants

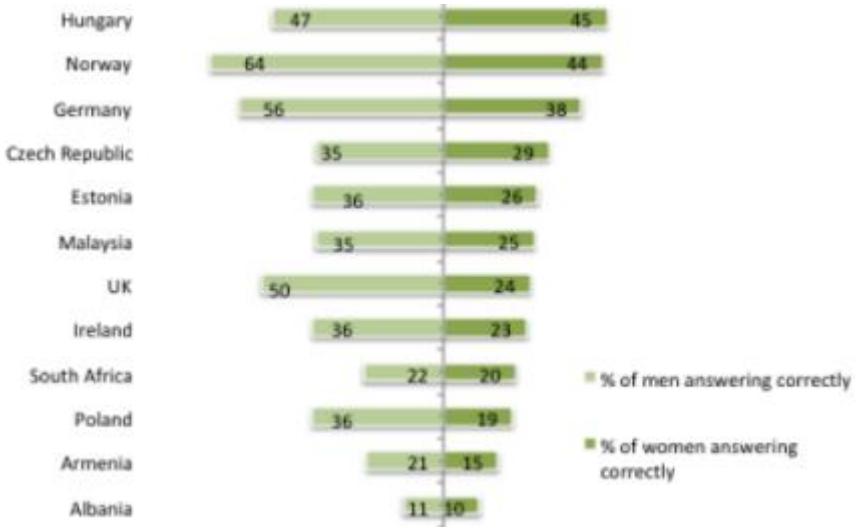
2.4.1. Key Determinants of Financial Literacy

Several of the major previous studies on financial literacy found that there is a correlation between financial literacy and a number of variables; Country of origin, age, gender, educational level, employment, income and marital status (SRC, 2008, 2011, 2015; Roy Morgan Research, 2003, 2005; CBF, 2004b, a; Financial Literacy Foundation (FLF), 2007). A brief review of the variables considered most prominent, as well as relevant previously performed research is elaborated below. Finally, the hypotheses to be tested in this study is presented.

2.4.1.1. Gender

Some studies suggest that gender significantly impacts the level of financial literacy (Wagland and Taylor, 2009). For instance, researchers such as Goldsmith and Goldsmith (1997), and Chen and Volpe (2002) found that when it comes to financial literacy women have less knowledge. Further on they concluded that this phenomenon significantly affected women's ability to achieve financial security in a negative direction. The ability to provide for their retirement in an adequate manner was also negatively affected. Similar findings have been found for the Norwegian women (Nyhus and Refvik, 2016). The figure below shows the results of a research study on the differences between men and women. In this research they were asked questions about interest. The diagram highlights the percentage of each gender answering correctly according to their country of origin.

Figure 4: Differences in scores related to gender and origin



These findings lead to the question whether there are any differences between gender within the studied group of immigrants. The following hypothesis is expected on the basis of this research:

H_1: Women possess lower levels of financial literacy compared to men.

2.4.1.2. Age

Several studies show that there is a decrease in the ability to make good financial decisions related to old age, and according to some researchers there is evidence to the claim (Finke, Howe and Huston, 2017; Korniotis and Kumar, 2011). Furthermore, De Bruin, Parker and Fischoff (2012) used the example of reliance on decision rules to show that also the skills closely related to financial decision-making are reduced in old age. Other factors such as decision-making quality have also been found to decrease. According to Choi, Kariv, Muller and Silverman (2014) respondents over the age of 65 hold lower quality in their economic decision-making, while Agarwal, Driscoll, Gabaix and Laibson (2009) claim that credit decisions are negatively affected by age after peaking in the mid-50s.0 Based on the mentioned research, the following hypothesis is integrated in this thesis:

H_2: Financial literacy levels decrease with older age.

2.4.1.3. Origin and Background

The variable describing country of birth is integrated to distinguish between immigrants coming to Norway at a certain age and those born in Norway. This way it is possible to separate the category of children who were born in Norway but whose parents have a different country of birth (Natoli, 2018). Previous studies have revealed that immigrants struggle with financial inclusion and that they often hold a lower level of financial literacy (Atkinson & Messy, 2013; Zuhair, Wickremasinghe and Natoli, 2015). Other studies indicated that there is a difference between migrant families and non-migrant families when it comes to attitude towards financial topics (Berry, Phinney, Sam and Vedder, 2006; Duong, Badaly, Liu, Schwartz and Mccarty, 2016; Glick and White, 2004). There are also findings which conclude that many young migrants are raised in an environment that is educationally deprived (OECD, 2014, p.95). This can result in lower levels of financial literacy especially on a personal level (OECD, 2014, p.95).

Several researchers have found that migrant communities have financial literacy levels that are demonstrably lower than average (Huston, 2010; Social Research Centre (SRC), 2008). An example of this was demonstrated by the ANZ Survey of Adult Financial Literacy in Australia report (SRC, 2011), which showed results that migrant communities had an average level of financial literacy of 77,9 percent, compared to the national average of 83,1 percent. Most studies that focus on financial literacy within migrant societies in western

countries do not separate the different groups of migrants within. Therefore, this broad approach causes an analysis as if all migrants were indistinguishable (Natoli, 2018). Based on such gathering of immigrants this thesis will research if this approach is correct, or if there in fact are any differences within such groups. As a result, the following hypothesis was constructed:

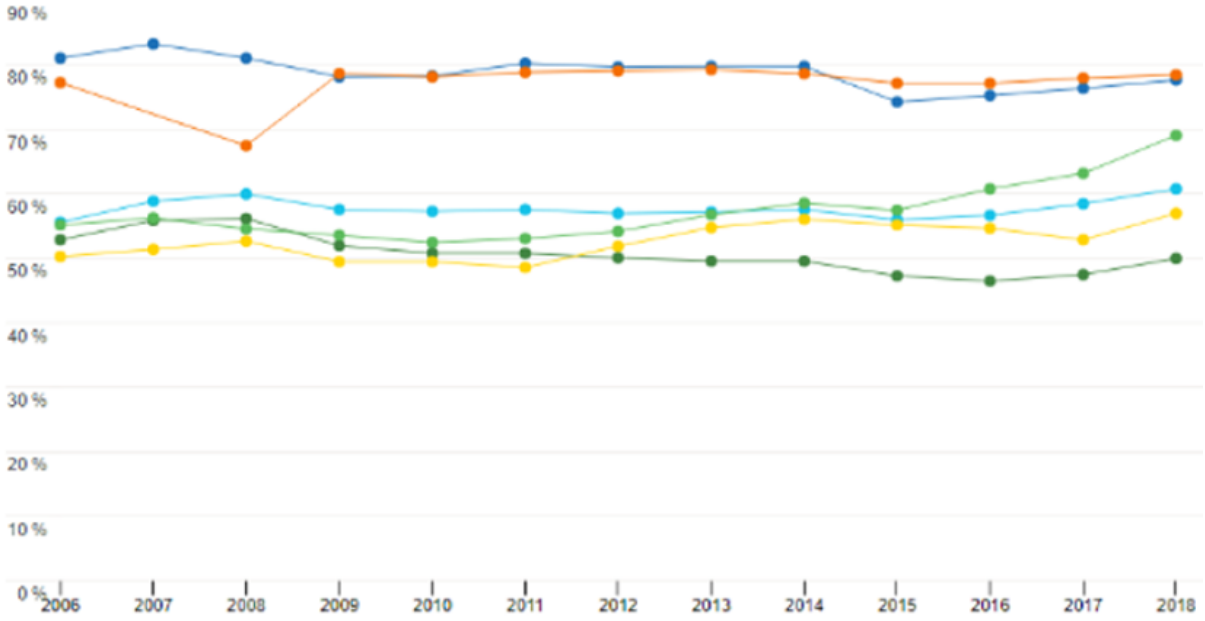
H_3: There is not a significant variance in financial literacy levels amongst the different groups of immigrants.

2.4.1.3.1. Motive Behind Migration

Many immigrants come to Norway in search of work. According to the SRC (2015) report from 2015 individuals in white collar employment such as professional employment holds higher levels of financial literacy than those working in blue collar professions such as manual labor. Accordingly, several other studies conclude that low levels of financial literacy are correlated with low levels of employment (CBF, 2004b; Lusardi et al., 2011; Marcolin and Abraham, 2006; FLF, 2007).

A Norwegian research revealed that 61% of immigrants in Norway were deployed in 2017, compared to 67% of the ethnic population. 6% of immigrants were registered as unemployed in 2018, which is three times the rate for ethnic citizens (Integrerings- og Mangfoldsdirektoratet, 2019). The figure below was produced by Integrerings- og Mangfoldsdirektoratet (2019) and demonstrates the employment of immigrants in Norway based on their motive for migrating. The categories “Unspecified” and “Other reasons” are not further researched in this thesis and will therefore not be focused on.

Figure 5: Employment based on motive behind the migration



Based on these research findings, the following hypotheses were formulated:

H_4: Financial literacy levels are highest for immigrants coming to Norway for work.

2.4.1.4. Educational Level

Previous research has concluded that language skills is an important driving force for the development of knowledge (Natoli, 2018). Conformingly, according to the ASIC (2011) financial literacy is correlated with the level of education. Studies performed by Capuano & Ramsay (2011) show that suboptimal financial behavior is reduced when the level of financial literacy is higher. Lusardi et al. (2014) backs up the same theory as their research found that low levels of financial literacy is a result of a relatively low educational level. Furthermore, this is aggravated by the language barriers faced by the migrants (Natoli, 2018).

The findings above lead to the following hypothesis:

H5: Financial literacy increase with higher educational level.

The 5 hypotheses presented in this thesis with related conclusions are my contribution to the topic of financial literacy of immigrants. Hopefully, the results of this research will bring some new knowledge to the subject.

3. METHODS

According to Nardi (2018, p. 13)

«Doing survey research is a skill, an art, and an intellectual process involving collaboration, patience, and creativity. »

There are many factors influencing the selection of the right data collection method. You should evaluate what or whom you want to study, as well as the related questions you want to ask. Limitations on time and finance are also relevant evaluations. Finally, the desired scope of detail must be identified. These factors should all contribute to leading the researchers towards the best fit of research method for his/her study (Nardi, 2018, p. 60).

In this chapter of the thesis I will elaborate the types of methods I have used in my research. Firstly, I will explain the descriptive and quantitative methods which are used in my research. Advantages and disadvantages of the quantitative method will be presented. Further on, I will amplify the sample involved in my research, and how valid and reliable these are for the study. Finally, I will reveal the structure and implementation process of the questionnaire.

3.1. Descriptive and Quantitative Methods

The method for this research is called descriptive research. This type of research is often used either as the first step or as the primary objective in a research. The main goal of this method is to gather information so that it is possible to profile the respondents and describe relevant issues (Nardi, 2018, p. 22). Furthermore, the questionnaire qualifies as a quantitative survey. This means that the responses are counted or quantified and statistically analyzed into my own data (Nardi, 2018, p. 36). There are many advantages to this type of surveys, but also several disadvantages that are important to consider.

The advantages of a quantitative survey such as the one performed in this study mainly related to efficiency, both for time and costs. It is possible to collect a larger sample at a lower cost when using questionnaires compared to for example individual interviews. The questions in the questionnaire can be standardized so that it is easier to analyze and compare. This way it is also easy to ask for opinions and attitudes without a wide variety of different

answers. Using this method ensures efficiency when collecting data. Furthermore, it is possible to guarantee each respondent´s anonymity by handing in the questionnaire electronically or in writing without identification. The anonymity makes this method suitable for sensitive and personal questions, such as income questions in this case. The respondents can take their time to answer each question in the questionnaire so that time pressure is avoided, and each question is thoroughly thought out.

The questionnaire method is ideal for probability sampling and more accurate generalizability. By using close-ended questions you ease the work of coding the answers. As a result, you can compare and replicate similar studies easily and effectively (Nardi (2018, p. 26).

In contradiction to the advantages, there are also several disadvantages of using a quantitative survey. Many of which can limit the representativeness of such surveys. First, a questionnaire such as the one used in this survey, requires that each respondent have a certain level of reading abilities and that these skills are not significantly affected by age, eyesight or education. This is especially relevant when the respondents are immigrants with language barriers. This amplifies the chance of misunderstandings and mistakes. When depending on sincere answers to base your study on there is always a chance that there is a gap between stated reply and reality. This will result in incorrect data that can affect the outcomes of the study. There is also a chance that the respondents cooperated when for example solving the last five calculation tasks, or even copied answers from other respondents.

Another downside of a questionnaire is that it might be difficult to gather enough respondents, as the response rates of such surveys often are low. In this study I was lucky to have access to relevant possible respondents, but they of course had the choice whether to participate in the survey or not. Nevertheless, the sample size was severely decreased due to the coronavirus situation. A low participation level limits the generalizability, which I also experienced in this survey. Several countries are weakly represented with few respondents. Having access to many more respondents from each country would make the survey more representative. As a result, national identification had to be changed to migration motives.

When using closed-ended questions, like most of the questions in this study, you restrict the answers to a degree. Open-ended questions exclude this disadvantage, but in return are more difficult to code. It also requires certain designing skills to ask the correct questions to answer the relevant research question. Consequently, such one-time-use questionnaires are harder to generate reliability and validity for (Nardi, 2018, p. 19).

3.2. Research Design

The questionnaire used in this survey was presented in several school classes where the participants were asked to volunteer for the study. Those expressing willingness to participate received a paper-and-pencil questionnaire. Each participant was informed of their rights. Furthermore, the questionnaire was approved by "Personvernombudet" and all the rules and guidelines for performing the survey were closely followed.

Each class of possible respondents was introduced to the questionnaire in advance of execution to provide a mutual understanding of the questions. This means that the questionnaire was received and executed manually and immediately. The Norwegian language was consistent throughout the whole survey, but all respondents could use translation tools to help solve possible linguistic challenges. They were given the time they needed to complete the questionnaire, but after one hour I asked the few remaining respondents to finish.

3.2.1. Self-Administration

The questionnaire was self-administered, but respondents had the opportunity to ask me questions if they needed to clarify something. Self-administered questionnaires are one of the most common methods for collecting primary data (Nardi, 2018, p. 87). According to Nardi (2018, pp. 87-88) such questionnaires are well suited for

"(...) (a) measuring variables with numerous values or response categories that are too much to read to respondents in an interview or on the telephone, (b) investigating attitudes and opinions that are not usually observable, © describing characteristics of a large population (like demographics), and (d) studying behaviors that may be more stigmatizing or difficult for people to tell someone else face-to-face."

A self-administered questionnaire opens for anonymous respondents to be more candid. The downside to such questionnaires, however, is that the researchers cannot be sure that the respondents and their answers are truthful (Nardi, 2018, p. 88). The questionnaire was read through in plenary in advance, where I explained the questions to make sure of a common and complete understanding.

It is possible to argue that a self-administrative survey is more standardized and allows for increased reliability. This is due to independent work with the questionnaire and therefore less influence from the researcher (Nardi, 2018, p. 88). Nevertheless, as emphasized previously in this thesis, clarifications and explanations were performed when introducing the questionnaire. This was to reduce the bias of linguistic restrictions. According to Nardi (2018, p. 88) this can inhibit the increased reliability a self-administered questionnaire normally would get.

3.2.2. Type of Questions

The questionnaire consists of mainly closed-ended questions where the respondents choose between several fixed responses. This type of responses narrows the variation and limits the possibilities. Nevertheless, they are both easier and quicker for the respondents to answer, and are therefore often preferred (Nardi, 2018, p. 93). The questionnaire is introduced with biographical questions to understand the background of the ones responding. This is to be able to link the result to variables such as gender, age, country of origin and so on. The following questions, which make up for the biggest part of the survey, are investigative to classify and measure the financial literacy level.

The last few questions are open-ended questions where the respondents are required to individually write the answer they see fit. Open-ended questions are a good way to find out what people think (Nardi, 2018, p. 93). The downside to such responses is that the handwriting can be hard to make sense of. Additionally, a content analysis of all the open-ended answers are more demanding than with closed-ended questions (Nardi, 2018, p. 93). According to Nardi (2018, p. 93) open-ended questions are more time consuming, and therefore respondents do not like when there are too many of such questions.

3.3. Validity and Reliability

To accept research findings as credible and trustworthy they need to be both valid and reliable. These two factors are the main drivers for all types of research and can tip a research towards good or poor (Brink, 1993, pp. 35-38). Both have been defined differently in previous research, which means that people might have different evaluation methods and criteria for a study (Easterby-Smith, Thorpe and Jackson, 2012, p. 70).

Reliability is related to consistency, stability and repeatability in the research. This comes from the informants. Furthermore, it concerns the researcher’s abilities to accurately collect information (Dalland, 2012, p. 52). As the reliability in this research is a result of each

respondents' credibility, I had to evaluate their situation related to my research objective. All respondents in this study are first generation immigrants, which means that they have experienced a different country and possibly a different national system prior to immigrating to Norway. Based on this experience, I consider the respondents in this research to be reliable.

Validity in research concerns how accurate and truthful a scientific finding is. To classify a study as valid it should reveal what really does exist and measure what it is meant to (Le Comple and Goetz, 1982, p. 32). Campbell and Stanley (1966) categorized validity into two main types: internal validity and external validity. When assessing the strengths and weaknesses of quantitative surveys it is important to distinguish between these two types. Internal validity concerns how representable a research finding is of reality, compared to just being a result of extraneous variables (Flick, 2011, p. 202). External validity, on the contrary, relates to how the representation of reality from the internal validity is acceptable to apply across other groups. This means how well a research result can be transferred to a similar situation, making external validity a matter of generalization (Gripsrud, Olsson and Silkoset, 2016).

3.4. Bias

One type of bias I have considered is the response bias. This type of bias occurs when respondents exaggerate the truth or give false answers (Nardi, 2018, p. 104). To filter the response biases, many researchers ask «trap questions» that can imply such behavior. Listing possible answers on close-ended questions that are either very unlikely or impossible is another similar method (Nardi, 2018, p. 104). The questionnaire in this study contains some questions and options that purposely can behave as such traps. Follow-up questions where the respondents must prove relevant financial literacy level is an example of this. The option to answer «don't know» allows respondents to be honest when they do not know the answer, instead of guessing or giving false answers.

Other biases that are highly relevant for this study is whether the respondent understands the questions and answering options. The survey is performed in foreign language on respondents attending a program to advance their Norwegian language. Therefore, language barriers and large variations in background are natural and relevant biases in this study. There is no minimum level of education or experience required to attend

the program. Nevertheless, basic linguistic understanding and communication skills are required. This secures a certain level of understanding when it comes to the survey.

Another possible bias is not having enough respondents and maybe not a representative selection. In this case of opportunity sampling I had to use the respondents I had available, so it is natural to question how representative this collection is.

The sample size consists of respondents from 37 different countries widely spread. Immigrants with Nordic origin are not represented. It is impossible to say if the lack of such representation is of importance for the results without conducting further research on the subject. Nevertheless, it would seem natural that immigrants from especially Nordic countries will have less barriers regarding language and maybe more experience with similar systems. If this is the actual scenario, it would be reasonable to believe that those individuals have more knowledge and understanding of the Norwegian economic systems and economy in general. This is due to the general level of education in the Nordic countries.

Unfortunately, this study was conducted during the pandemic crisis of Covid-19. The restrictions clearly affected the sample size for this study. An estimated 100 additional respondents were lost because of this. As a result, there are fewer respondents within each category of the questionnaire, making it less representable. This is unfortunate, but unavoidable as Stamina Kurssenter was under lock-down from early April.

Furthermore, as this data collection is derived from Stamina Kurssenter AS only, it cannot be claimed that the same distribution is the case in other similar organizations. It would have been helpful to research different organizations than just Stamina Kurssenter AS to make the findings more representative for all immigrants. If there were looser time limits, more in-depth demonstrations of skills would have been preferred. In this way the level of financial literacy of each respondent could have been more extensive and accurate.

A positive addition to the survey would be an identification of the reasons for immigrating to Norway. The questionnaire could have been improved by asking a question about everyone's background and incentives for immigrating. That way it would have been possible to secure accurate categorization of the immigrants as for example refugees or looking for work. Secondly, performing questionnaire studies on different groups over a longer period would help to exclude coincidences.

3.5. Data Collection

The question of which method to use rose early in the process. The biggest issue I faced was whether to use a qualitative method of interviews or a quantitative method of questionnaires, or possibly both methods combined. As the goal was to identify the level of financial literacy amongst immigrants in Norway, I concluded that a big sample size would contribute to a more valid study. Continuously, interviews would be too time consuming, considering the sample size I wanted. This harmonizes with Nardi's (2018, p. 87) statement that questionnaires are more efficient than interviews when it comes to large sample sizes and limited time. He also stated that one of the strengths of questionnaires is the ability to generalize to a larger population. Nevertheless, with such surveys you risk having response rates as low as 20 to 30 percent. In the case of my research I implemented the survey as a part of the teaching program, and thereby secured a higher response rate. Using a questionnaire was selected to be able to collect a relatively large amount of responses, considering the available time and demographic. This means that the method of opportunity sampling was used. Moreover, this sample is collected as a non-probability sample, meaning that there is no random selection of the cases from the sample frame. Rather, the sample was retrieved through the available possibilities. In this case, this meant working with the immigrants I had access to through Stamina Kurssenter AS. As a result, this non-probability sample selection will be varied in terms of educational level as well as linguistic skills.

3.6. Data Analysis

A data analysis is a complex and contested part of a research process. Nevertheless, it has received limited theoretical attention (Savage, 2000, pp. 1493-1500). According to Froggatt (2001, pp. 433-438) the process of analyzing is best learnt by doing. Furthermore, this process can be defined as splitting something into pieces or elements (Kvale and Brinkmann, 2015, p. 219). The main goal by doing so is to gain knowledge of the collected data by interpreting and theorizing the elements (Flick, 2011, p. 13; Schwandt, 2001, p. 6).

In terms of this research, SPSS Statistics 25 was used to code the replies after collecting all possible questionnaires. Each respondent was registered with relevant information needed to analyze and compare their level of financial literacy. All replies were analyzed with attention to the differences between distinctive groups such as age groups, origin or education. By using this information to compare I was able to look for patterns and analyze everyone's skill and knowledge. Finally, a similar research performed on Norwegian individuals was used to compare the results.

3.7. The Measures

3.7.1. Definitions

A presentation of the relevant definitions should be identified. The two most emphasized variables in this thesis and research are «migration» and «knowledge and understanding of personal finance». Below follows a brief and precise definition of how the variables are used in this specific thesis.

1) *Migration/Immigration:*

Two factors contribute to defining an individual as a migrant/immigrant; *mother tongue* (Ali et al., 2016; OECD, 2014) also referred to as home language in this thesis and *parental origin* (Middendorff et al., 2013; OECD, 2014). According to Jang et al. (2014) and Peña (2016) these factors are examples of culturally shaped differences from a foreign home environment. Such differences reflect one's knowledge and understanding of personal finance. If Norwegian is not the parental origin and the mother tongue of an individual, that participant is considered an immigrant.

2) *Knowledge and understanding of personal finance (financial literacy):*

When reviewing previously performed research on personal finance it became evident that many different definitions exist (Antonietti et al., 2016; Henchoz, 2016; Schuhen and Schürkmann, 2014). This thesis implements knowledge and understanding of personal finance as a set of two components: both the internal aspect of an individual's finance and a set of «external» financial concepts. This approach aims at measuring knowledge and understanding of an individual or its household, as well as knowledge of financial products and basic underlying principles that are crucial in current financial society.

3.7.2. Type of Immigrant Based on Origin

As previously mentioned, the sample size was limited due to the coronavirus situation. This caused the national representation to be too low for a reliable comparison of the countries. Therefore, the respondents were divided into groups based on statistics related to immigration incentives in different regions, which can be used to determine the likely reason for their migration. Since such motives were not a question in the performed survey, existing theory and research were the foundation of the categorization (Statistisk sentralbyrå, 2020; Cappelen et al., 2011; Atkinson and Messy, 2013).

85 participants registered their country of origin, and all these were divided into one of the four groups: work, education, family or refugee. Based on this distribution a comparison was made possible after all. Below follows a presentation of which countries of origin fell into which category of immigrant type.

Table 1: Motive for migration based on country of origin

Work	**Education**	**Family**	**Refugee**
Albania (4)	Vietnam (1)	Kurdistan (1)	Venezuela (1)
The Dominican	England (2)	Pakistan (8)	Palestine (1)
Republic (1)	France (3)	Lebanon (2)	Somalia (3)
Poland (2)	Italy (1)	Gambia (1)	Nigeria (1)
Lithuania (1)	China (1)	Thailand (1)	Eritrea (1)
Spain (4)		Iran (3)	Bangladesh (1)
Serbia (1)		Sri Lanka (1)	Egypt (2)
Croatia (1)		Turkey (1)	Sierra Leone (1)
Romania (3)			Syria (6)
Bosnia-Hercegovina (2)			Ethiopia (2)
India (11)			
Greece (4)			
Makedonia (1)			
Russia (2)			
Cuba (1)			
USA (2)			
= 40 (47%)	**= 8 (10%)**	**= 18 (21%)**	**= 19 (22%)**

From the figure it is possible to conclude that immigrants who are likely to have immigrated to work in Norway, hold the largest number compared to the other groups. They represent 47% of the total immigrants in this survey. Refugees come second with 22%, followed by Family on 21% and Education on 10%. It is possible that the skewed distribution has affected the results due to different backgrounds and starting points regarding education and financial experience.

3.7.3. Calculation of Scores on Financial Knowledge

The total scores of financial knowledge consist of one score from a task about financial tools and one score from a task with financial calculations. The scores are used as a quantitative measure of each immigrant's level of financial knowledge. They were calculated by evaluating every question in the questionnaire individually and given weighted based on the degree of financial literacy they represent. This means that the calculation tasks, which was open-ended questions, was weighted zero points by an incorrect or lacking answer, and with more points for a correct answer when the difficulty of the question increased. They are found as question 20-23b in the questionnaire, where question 20 and 21 was classified as easy, question 22 as easy-moderate, question 23a as moderate and 23b as slightly difficult. Question 23b was a similar follow-up question from 23a.

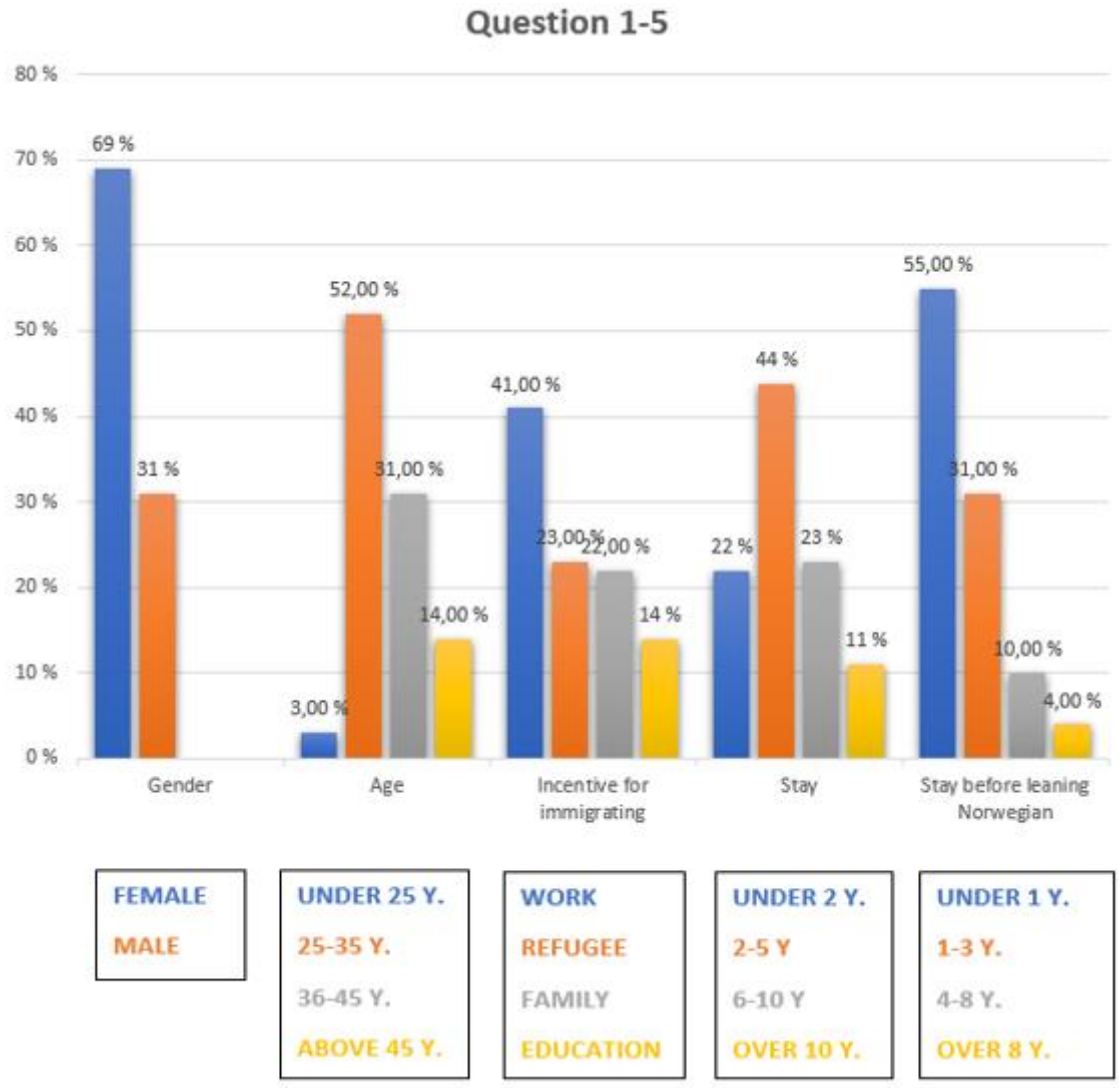
The closed-ended task of financial tools, which is question 19 in the questionnaire, was evaluated as one point for each financial tool an immigrant claimed to have knowledge about. There were 16 different tools in the task, making 16 the maximum possible amount of points to receive in this task. The points in all questions were used to grade each immigrant with either low, medium or high scores according to how many points they received. Followingly, the total score of financial knowledge was retrieved by adding the scores from both categories, where a low score was measured as one point, a medium score as two points and a high score with three points. This means that an individual who scored medium on the financial tool task and high on the calculation tasks would receive 2+3=5 points. The total scores were then used as the foundation for comparison between different groups of immigrants such as gender, age, motive for immigration and education.

4. ANALYSIS AND RESULTS

4.1. Description of the Sample

This study consisted of a variated sample. The figure below describes the sample regarding the information they gave in question 1-5.

Figure 6: Sample description of gender, age, motive, stay and language



4.1.1. Gender

The amount of men and women in the study was difficult to balance. This was due to women being stronger represented within all classes at Stamina. Based on the data collection in this study and the perceived overall situation at Stamina Kurssenter AS the past year, it seems that women generally tend to make use of similar offers to a larger degree than men. This perception agrees with previous experience of the manager at Stamina Kurssenter AS.

69% of the respondents were female, whilst 31% were male. The skewed distribution might have different explanations. For example, job rejections and past traumas influenced men stronger than women towards psychological distress. Another possible reason can be an imbalance in employment between men and female in migrant families.

4.1.2. Age

Like the situation regarding gender, there is also a large variation within the sample when it comes to age. Most respondents placed themselves in the age group 25 to 35 year, meaning that the average age in the sample is relatively young. Previous research has shown that levels of language, school performance, income and social participation is higher for individuals who immigrate at a young age compared to older immigrants (Bleakley and Chin, 2010; Böhlmark, 2008, 2009; Henriksen, 2009; Løwe, 2009; Myers, Gao and Emeka, 2009; Lee and Edmonston, 2011; Åslund, Böhlmark and Skans, 2009). This might be a possible explanation to why the age of respondents in this study show that more than half of the participants in integration programs offered by Stamina Kurssenter are under the age of 35 years. Further on, the participation rate gradually decreases as the age increases.

4.1.3. Origin and Incentive for Immigrating

There was a large variance in represented countries in this survey, but due to low representation for each country the sample were distributed according to most likely motive for migration. When comparing the different groups of immigrants, it stood out that immigrants with work as motive were strongest represented in this survey with 41% of the sample. Furthermore, the refugee and family incentives amounted respectively 23% and 22%. Weakest represented were the educational immigrants who amounted 14% of the sample. This distribution correlates with theory on the subject which emphasize the great load of EU-workers coming to Norway for work. Nevertheless, a possible explanation for the low percentage of students might be that the largest part of educational migrants attends

international school programs in which they are not dependent of Norwegian linguistic skills. Thus, joining an integration program such as the one where this survey is performed is not necessary or beneficial in relation to the relevant education. Based on this possible explanation there is a chance that educational immigrants are underrepresented in this survey, and that the percentage would have been higher if the survey were conducted in a different environment.

Additionally, several studies performed in Oslo have shown that psychological distress has a larger prevalence among African, Asian and East-European immigrants. Western immigrants showed the same prevalence as native Norwegians (Dalgard, Thapa, Hauff, McCubbin, Syed, 2006; Syed et al., 2006; Dalgard et al., 2006; Thapa and Hauff, 2005).

4.1.4. Stay

The study identified 2-5 years as the most common length of stay in Norway for the respondents. 44% gave this answer, which means that this group greatly influenced the study with almost half the answers. A length of stay less than 2 years was as frequent as 6-10 years with respectively 22% and 23%. It was less likely that a respondent had been in Norway for over 10 years, as the study showed that only 11% of the respondents gave this answer. This can be explained by most immigrants being more integrated in the new host country by the time they have lived there for such a period. Moreover, the study reveals a potential for improvement. For more effective and immediate integration the rate given by participants in governmental programs such as the one at Stamina Kurssenter should be highest at "under two years" and steadily decrease with the years.

4.1.5. Stay Before Learning Norwegian

Another aspect of integration and stay is analyzing how long it takes before an immigrant starts learning the Norwegian language. The study shows that as much as 55% of immigrants start learning the new host country language within a year after arriving. This indicates that a process of integration has started. Whether this process is effective or not, is another matter. By comparing "Stay" against "Stay before learning Norwegian" it becomes obvious that many individuals who have stayed several years in Norway still possess a low level of linguistic skills for the native language. 34% have spent more than six years in Norway, but still attend integration measures offered by Stamina Kurssenter. This indicates

that although many immigrants start learning the Norwegian language within the first year after arriving, the learning process is slow and ineffective.

The figure below shows further sample characteristics given by the respondents in question 6-9.

Figure 7: Sample description of skills, education, income and residential status

4.1.6. Own Perception of Norwegian Linguistic Skills

The study shows that there is a large variation in how the immigrants perceive their own skills when it comes to the Norwegian language. Linguistic skills consist of both speaking and understanding, which might be on two different levels for one individual.

Half of the respondents answered to have either "low" or "high" skills. The other half is distributed with 45% on "medium" and only 5% on "very high". These variations indicate that the immigrants populated in Norway hold large differences in skills related to the Norwegian language. This finding might be a result of variating educational levels, integration and origin within the immigrant groups.

4.1.7 Educational Level

The study revealed that the educational level of most immigrants in the study was from bachelor's degree and above. This finding supports a speculation discussed earlier in this thesis, namely that most of the individuals conducting an immigration process are the more educated or resourceful ones. The survey showed that 67% of the immigrants have completed a degree. Only 2% of the participants stated that they have never gone to school, and 9% that they have an educational level below high school. This finding further supports the given speculation and will contribute to a research result mainly based on well-educated immigrants.

When comparing the different types of immigrants, it became clear that educational levels varied greatly within the groups. The table below demonstrates the distribution of immigrants according to educational level.

Table 2: Educational level within each group of immigrants

		Work	Refugee	Family	Education	Total
Education	Very much	0 %	30 %	16 %	0 %	9 objects
	Some	20 %	45 %	21 %	8 %	21 objects
	Very little	80 %	25 %	63 %	92 %	56 objects
Total		100 %	100 %	100 %	100 %	86 objects

The most prominent finding was the gap between refugees and the remaining groups of immigrants. The analysis identified refugees as the group with the largest part of low-educated immigrants with 30%. 45% had completed a medium level of education, meaning maximum level was high school. For comparison, immigrants with work as motive were identified with 0% low educated and 25% medium educated.

4.1.8. Monthly Income for the Household

The survey revealed that 39% of all respondents in the survey had a household income below 15 000 Norwegian kroner. This means that a yearly income is below 180 000 Norwegian kroner, which is barely one third of the median household income of all Norwegian households (Statistisk Sentralbyrå, 2019). When comparing two households with a parental couple and one or more children, the median household income in Norway is between 787 700 and 1 029 400 Norwegian kroner. Based on these comparisons it is possible to categorize many of the immigrants in this study as having exceptionally low income, or even as poor. According to Mogstad (2005) this phenomenon is more prominent in the capital, which can explain this finding as this is the location of Stamina Kurssenter AS.

Furthermore, it has been found that nearly 40% of immigrants from Africa and Asia living in Norway had low income in 2017 based on the EU-definitions (Amundsen, 2019). Amongst refugees 47% were identified as having low income. Considering the high rental prices in Oslo, a low income will cover even less when living in the capital (Amundsen, 2019).

4.1.9. Residential Status

When analyzing the household income of the respondents it is important to consider the residential status. A monthly income of 15 000 Norwegian kroner will have a much different impact for a single individual compared to a couple with several kids.

84% of the sample live together with either boyfriend/girlfriend, spouse or family. This indicates that the income levels are mostly based on households with more than one contribution to the total income. Thus, it is possible to conclude that the mean household incomes found for immigrants are low compared to the rest of the Norwegian population.

4.2. Comparing Immigrants to Native Norwegians

Some differences were found when comparing the results of this study performed on immigrants and a similar previously performed study on native Norwegians. The research on financial literacy of native Norwegians was performed in relation to the OECD-measurements from 2015 and was further investigated by Nyhus and Refvik (2016). The compared questions from the two studies are identical, making the comparison more reliable. The table below demonstrates the differences between the two groups.

Table 3: Comparison of financial literacy between Norwegians and immigrants

	Native Norwegian	Immigrant
Using a budget	31%	68%
Having an economic goal	60%	83%
Considering a purchase	69%	67%
Managing simple dividation task	96%	93%
Managing interest task	89%	63%
Knowledge of financial tools	66% (Score 10,6)	51% (Score 8,1)

Initially, the analysis of the results revealed that immigrants have score better on behavior related to financial literacy. It showed that 68% of immigrants had a budget. This is more than twice the percentage compared to native Norwegians who scored 31%. Furthermore, 60% of native Norwegians said that they have an economic goal. This result is also lower compared to immigrants, where 83% claimed the same. Nevertheless, when analyzing the results of considerations related to a purchase, the comparison revealed that Norwegians and immigrants are on a similar level. 69% of Norwegians claimed to consider before making a purchase, in similarity to the 67% retrieved from immigrants in this study. Thus, the total impression from the comparison indicates that immigrants have better results within financial behavior, compared to Norwegians.

Scores were also compared between the two groups. This analysis showed that Norwegians had a tendency of receiving better scores than the immigrants. For instance, in the first calculation task of dividing there is a similar frequency of correct answers with 96% within the Norwegian group and 93% within the group of immigrants.

Nevertheless, when the difficulty is slightly increased in a question of interest, the differences becomes more prominent. Here 89% of Norwegians answered correctly whilst only 63% of immigrants managed the same task. Furthermore, the scores from the task asking about financial tools revealed the same pattern. In this task Norwegians received a mean score of 10,6, which is significantly higher than 8,1 received by the immigrants. These findings imply that Norwegians have higher financial knowledge compared to the immigrants involved in this study.

All in all, the comparison of immigrants and Norwegians indicates that the results are split. In terms of financial behavior immigrants show higher levels of financial literacy, whilst in terms of financial knowledge Norwegians show the highest level. This finding can be a result of experience versus educational system. Perhaps a higher frequency of immigrants has more financial experience with tools such as budgets, whilst Norwegians are further educated in financial theory. This explanation would fit the Norwegian school system, which is focused on solving tasks on the paper, but not as much in practice. Furthermore, the sample in this survey were found to consist mostly of highly educated individuals. This skewed distribution can have affected the results, making it less representable. Nevertheless, due to limited time and resources, the underlying reasons for this result will not be further researched in this thesis.

4.3. Financial Knowledge

4.3.1. Perceived Financial Literacy

The analysis revealed a significant relationship between educational level and perceived financial literacy (Chi-square test with 4 degrees of freedom=9,873, p=0,043).

Table 4: Perceived financial literacy based on educational level

		Knowledge			
		Very much	Some	Very little	total
Education	Low	0%	11%	25%	7 objects
	Medium	27%	19%	33%	21 objects
	High	73%	70%	42%	58 objects
Total		100%	100%	100%	86 objects

Not so surprisingly, the immigrants with the lowest educational levels had the lowest frequency of stating that they have very much economic knowledge. In fact, the survey

showed that when the educational level increased, the response rate of "very little" economic knowledge decreased. When analyzing perceived financial literacy in relations to the different types of immigrants no large findings were made. The correlation was weak and not statistically significant (Spearman's rho correlation=-0,044, p=0,695). Nevertheless, it was possible to identify refugee immigrants as the group who most frequently claimed to have "very little" financial knowledge. This finding is demonstrated in the table below.

Table 5: Own perception of financial literacy within each group of immigrants

		Work	Refugee	Family	Education	Total
Knowledge	Very much	40 %	44 %	31 %	59 %	34 objects
	Some	49 %	28 %	56 %	33 %	35 objects
	Very little	11 %	28 %	13 %	8 %	12 objects
Total		100 %	100 %	100 %	100 %	81 objects

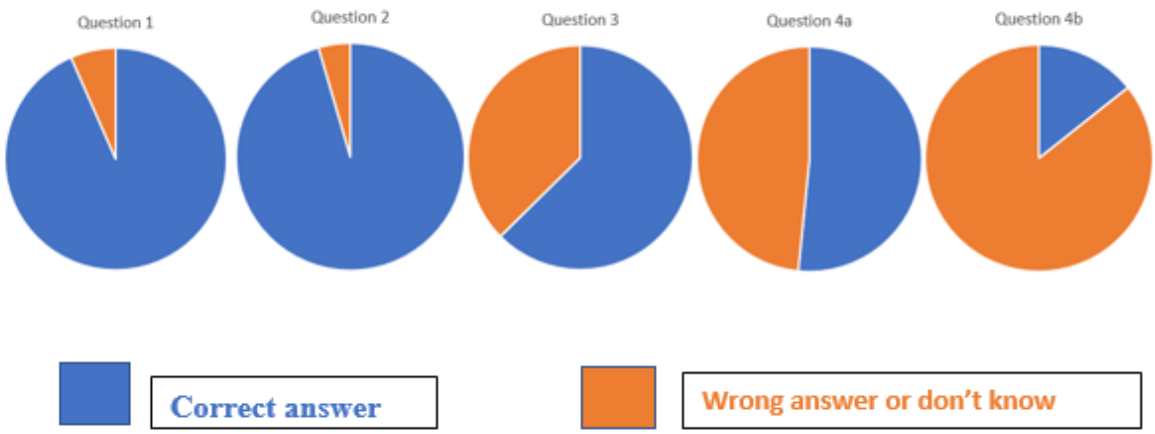
28% of refugee immigrants claimed to have "very little" financial knowledge. Within immigrant groups with work, family or education as a motive respectively 11%, 13% and 8% claimed the same. This finding indicates that refugees are the most vulnerable within this subject. Furthermore, based on the large amount claiming to have only some financial knowledge, it can be concluded that there is a consistent room for development and improvement within all four groups of immigrants. Statistically this correlation was found to be both weak and insignificant.

4.3.2. Scores

4.3.2.1. Calculation Tasks

As expected, the scores on the calculation tasks variated. These results are presented in the figure below.

Figure 8: Scores on questions in calculation task



As demonstrated by figure x question 1 and 2 had the largest degree of correct answers. 93,4% of the respondents answered correctly on question 1, whilst 95,6% answered correctly on question 2. From question 3 the difficulty slightly increased, which resulted in a large decrease in the amount of correct answers down to 63%. The rate continuously decreases with the difficulty of question 4a and 4b. Respectively, 52% managed task 4a successfully, whilst 14% gave a correct answer to question 4b. This development indicates variating levels of financial literacy within immigrant groups. Furthermore, it suggests that few possess high enough levels to independently complete and control a broad spectrum of financial tasks related to their own economy.

4.3.2.2. Financial Tool Task

Table 6: Mean score of financial tools

Mean	N	Std. Deviation
8,1209	91	4,09833

There was found to be a significant relationship between the scores from this task and migration motive (Chi-Square test with 6 degrees of freedom=11,336, p=0,079). The mean score received on the task asking what financial tools the immigrants are familiar with was

8,1. Several variables can influence the scores. Such variables will be analyzed in combination with the total score from the tasks of financial tools and calculations.

4.3.2.3. Total Scores Related to Tasks of Financial Knowledge

By combining the scores from the calculation tasks and the task of financial tools it was possible to analyze a total score of financial knowledge. There was found to be a strong correlation between the scores of the two tasks (Paired samples T-test correlation=0,931, p=0,00).

Table 7: Total and mean scores

	Frequency	Percent
Low	29	31,9
medium	52	57,1
high	10	11,0
Total	91	100,0

Mean	N	Std. Deviation
3,5824	91	1,24781

The total and mean scores from all participants combined are presented in the table above. The total scores are categorized as either low, medium or high. The result showed a mean score of 3,6 which implies that the average total score was below medium. This finding indicates that many immigrants lack fundamental and important financial knowledge. This thesis will now analyze how this knowledge is distributed across the different categories of immigrants.

4.3.2.3.3. Total Score and Gender

Like previous research on the topic, this analysis implied that men possess higher levels of financial knowledge than women (Goldsmith and Goldsmith, 1997; Chen and Volpe, 2002). However, the deviance was small. The results are presented in the table below.

Table 8: Mean total score related to gender

	Gender	N	Mean	Std. Deviation	Std. Error Mean
TotalScore	Female	63	3,5556	1,21520	,15310
	Male	28	3,6429	1,33927	,25310

According to the comparison, male immigrants received a mean score of 3,64 whilst female immigrants received a mean score of 3,56. Nevertheless, the results were found to be

insignificant (Chi-Square test with 2 degrees of freedom=0,491, p=0,782). Thus, H_1 claiming that women possess lower levels of financial literacy compared to men are not supported.

4.3.2.3.2. Total Score and Age

It were found to be a significant relationship between total score and age (Chi-Square test with 6 degrees of freedom=14,232, p=0,027). Comparing mean scores of each age group gives further information, which are presented in the table below.

Table 9: Mean total score related to age

TotalScore

Age	Mean	N	Std. Deviation
Under 25 years	4,0000	3	,00000
25 to 35 years	3,4468	47	1,15737
36 to 45 years	3,5000	28	1,17063
Over 45 years	4,1538	13	1,72463
Total	3,5824	91	1,24781

This finding implies that the highest levels of financial knowledge are present in the youngest and the oldest age groups. In fact, the oldest age group with immigrants older than 45 years received the highest total scores of all groups. This finding is inconsistent with previous studies showing that there is a decrease in the ability to make good financial decisions related to old age (Finke et al., 2017; Korniotis and Kumar, 2011). Nevertheless, based on this research, I will reject H_2 which claims that financial literacy decreases with older age.

4.3.2.3.1. Total Score and Immigration Incentive

This analysis revealed that there is a significant relationship between the immigration incentive and total score (One-way Anova test with 3 degrees of freedom, p=0,026). Moreover, the mean of the dependent variable differed significantly among the groups. The test does not reveal if the difference is between only two of the groups or between all. However, a multiple comparison shows that there is a strong and significant difference between the groups of work and refugee immigrants, which is presented in the table below.

Table 10: Total score related to immigration incentive

Tukey HSD

(I) Incentive	(J) Incentive	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Work	Refugee	,94286*	,33952	,034	,0525	1,8333
	Family	,57444	,34516	,349	-,3308	1,4796
	Education	-,05714	,40519	,999	-1,1198	1,0055

Additionally, a comparison of the mean total scores gives more information of the differences, and these are presented in the table below.

Table 11: Mean total score related to immigration motive

TotalScore

Incentive	Mean	N	Std. Deviation
Work	3,9429	35	1,13611
Refugee	3,0000	20	1,21395
Family	3,3684	19	1,16479
Education	4,0000	12	1,47710
Total	3,6047	86	1,25819

The overview shows that immigrants who came to Norway for work or education received the highest scores. These scores are equivalent to a medium level of financial knowledge in this research. Thus, the most educated immigrants within the topic still lack some fundamental and basic financial knowledge. This further emphasizes the importance and need for financial and economic attention within integration systems such as Stamina Kurssenter AS. Additionally, the analysis identified refugees as the most vulnerable group of immigrants. Together with the family-incentive they scored significantly lower on financial knowledge, both when comparing to the mean score and to the other incentives. This finding might be a result of insufficient financial funds or educational opportunities in their home country. The poor conditions many immigrants might have experienced before migrating can be a logical explanation to why they cannot be equated with the financial levels of other immigrant groups.

The findings from this research are strong indicators that there in fact are differences within the immigrant population. Thus, H_3 claiming that there is not a significant variance in financial literacy levels amongst the different groups of immigrants are rejected. Furthermore, the related findings imply that educational immigrants possess the highest levels of financial literacy. Immigrants with work as motive follows closely behind. Based on these results this thesis will not fully support hypothesis 4 saying that financial literacy levels are highest for immigrants coming to Norway for work. A precise correction of the hypothesis could claim that immigrants with education and work as motive for immigration both possess the highest levels of financial literacy.

4.3.2.3.4. Total Score and Education

The mean educational level was earlier in this thesis proved to be relatively high for the participating immigrants in this research. When comparing the scores between low, medium and high levels of education it was clear that the total scores were significantly affected by education. The table below demonstrates the mean scores received by each educational level.

Table 12: Mean total scores related to educational level

TotalScore

Education	Mean	N	Std. Deviation
low	2,8889	9	1,05409
medium	3,5238	21	1,24976
high	3,7049	61	1,25624
Total	3,5824	91	1,24781

It was found that when the educational level increases, so does the total score. Nevertheless, immigrants with high levels of education received a mean score of 3,7 which implies a medium level of financial knowledge. Thus, even the highest educated group did not show well developed knowledge within the subject. However, this result was not found to be statistically significant (Chi-Square test with 4 degrees of freedom=3,477, p=0,481). Therefore, it is not possible to say that this is not a result of chance, even though previous research has found the same pattern as this study. As a result, H_5 claiming that financial literacy increases with educational level is not supported.

4.4. Financial Behavior

4.4.1. Budgets and Economic Goals

68% of the immigrants in the study claimed to have an economic budget. The remaining 32% claimed not to have. The analysis found age and stay to have a significant relationship to these answers (Chi-Square test with 3 degrees of freedom=7,163, p=0,067; Chi-Square test with 3 degrees of freedom=7,582, p=0,055). The analysis further revealed the frequency of budget-users to increase with age. This finding is demonstrated through the table below.

Table 13: Mean percentage using budgets within each age group

Budget

Age	Mean	N	Std. Deviation
Under 25 years	,5000	2	,70711
25 to 35 years	,5581	43	,50249
36 to 45 years	,8148	27	,39585
Over 45 years	,8462	13	,37553
Total	,6824	85	,46832

The largest gap was seen between the age groups 25-35 and 36-45. This is an indicator that immigrants start using budgets more frequently after turning 35. Such a pattern can be explained by family establishment, more financial responsibility or growing experience as independent and with control of one's own economy from this age. It would seem natural that individuals who have decades of experience with controlling personal or household income and costs will have a better system for handling this. This hypothesis matches the results saying that with increased age, and thereby most likely increased financial experience, follows higher rates of respondents using budget as a financial tool. This finding is dependent on financial experience increasing with age, which is only a suggested explanation, and will not be further researched in this thesis.

The length of the stay in Norway also significantly affected the results. Below follows a representation of the mean percentage within each time group.

Table 14: Frequency of using a budget related to years of stay in Norway

Stay	Mean	N	Std. Deviation
under 2 år	,7895	19	,41885
2-5 år	,5278	36	,50631
6-10 år	,8500	20	,36635
flere enn 10 år	,7000	10	,48305
Total	,6824	85	,46832

It indicated that immigrants who have stayed less than two years in the country have a high frequency of using budgets. This can be explained as those initiating integration in their host country immediately after arriving often possess higher motivation and possibly financial literacy in general. Thus, they understand the importance and effects of immediate integration to the Norwegian financial systems. Nevertheless, it was also found that a 6 to 10 years stay gave high rates, which is inconsistent with the previous explanation. This deviance might occur if immigrants experience negative effects of not using a budget to maintain economic control, and therefore start using the tool when realizing this. Thus, these findings might still be an indicator of the importance of initiating immediate economic measures.

4.4.2. Consideration of Financial Actions

When asking about thoughts before a purchase, the survey revealed that 5% never consider, 28% sometimes consider, and 67% always consider a purchase before making it. Nevertheless, the only variable in this research found to have a significant relation to whether an immigrant considered a purchase before committing it was length of stay. This relation was statistically significant (Chi-Square test with 6 degrees of freedom=11,436, p=0,076).

Figure 15: Consideration of purchase related to years in Norway

		Stay				
		Under 2 y.	2-5 y.	6-10 y.	10+ y.	Total
Consider	No	0%	5%	0%	20%	4 Objects
	Sometimes	18%	26%	47%	20%	24 Objects
	Always	82%	69%	53%	60%	57 Objects
Total		100%	100%	100%	100%	85 Objects

The analysis indicated that the immigrants who have stayed in Norway less than two years most often considered the economic aspect before a purchase. This rate steadily decreased with age. This pattern reinforces the suggestion that immigrants who initiate learning and integration immediately after arriving possess greater financial understanding.

On the question about paying bills in time the study revealed a clear difference between the age groups. The frequency of always paying bills in time was found to increase with age. This finding might be interpreted as higher levels of financial control within the older age groups, and as a result of higher financial experience with increasing age. Nevertheless, this relationship was found to be statistically insignificant (Chi-Square with 3 degrees of freedom=0,583, p=0,90), and therefore not valid to claim true. The findings are presented in the table below:

Table 16: On time payments related to age

		Age				
		Under 25 y.	25 - 35 y.	36 - 35 y.	Over 45 y.	Total
On time	Sometimes	0%	12%	9%	8%	8 Objects
	Always	100%	88%	91%	92%	72 Objects
Total		100%	100%	100%	100%	80 Objects

4.4.3. Saving

The question of saving money is not necessarily a matter of financial understanding, but rather about affording it. The analysis proved a statistically significant relationship between saving behavior and immigrant group (Chi-Square test with 6 degrees of freedom=25,979, p=0,00). The figure below shows the different results.

Figure 17: Saving behavior related to migration motive

		Work	Refugee	Family	Education	Total
Saving	Never	3%	42%	12%	0%	11 Objects
	Sometimes	47%	37%	63%	91%	43 Objects
	Always	50%	21%	25%	9%	26 Objects
Total		100%	100%	100%	100%	80 Objects

42% of the refugees answered that they never save money, which is significantly and drastically higher than the other groups. 12% of those with family as incentive answered the same, while the work and education incentives showed the lowest numbers of respectively 3% and 0%. Furthermore, immigrants with work as motive revealed the highest rate of respondents who save money each month with 50%, over double the number of the second-best group. This finding can be interpreted as a sign of higher economic success for the immigrants who came to Norway for work, and larger struggles for refugees. This seems like a logical result as the income for working full time most often surpass the income from governmental measures like NAV. Furthermore, research performed by Statistisk Sentralbyrå (Aamodt, 2018) showed that there are more employees from the EU countries than from the rest of the world. Respondents from the EU countries represent most of the sample within the work group.

Additionally, there was a significant relationship between gender and saving habits (Chi-Square test with 2 degrees of freedom=7,603, p=0,022). The frequency of saving is presented in the table below.

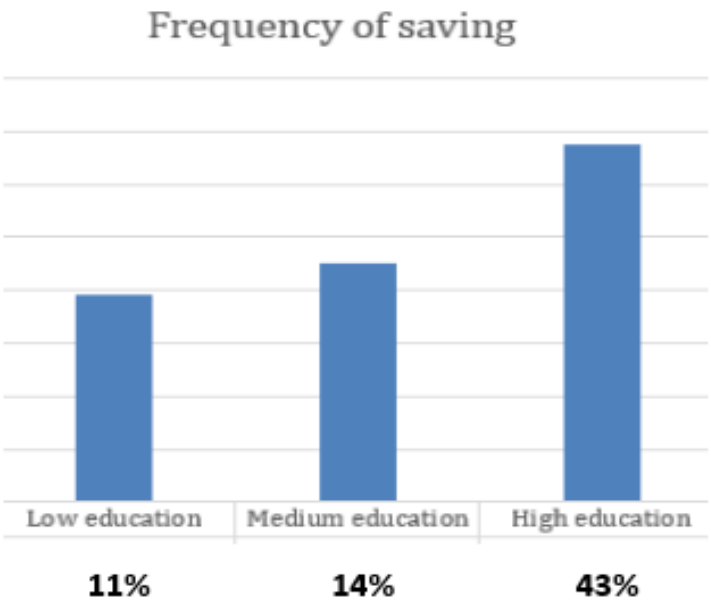
Table 18: Saving behavior related to gender

		Never	Sometimes	Always	Total
Gender	Female	9 %	52 %	39 %	100 %
	Male	27 %	58 %	15 %	100 %
Total		14 %	54 %	32 %	100 %

The findings indicated that 39% of female immigrants save money every month and 52% sometimes. In contrast only 15% of male immigrants claimed to save money every month and 58% sometimes. Thus, female immigrants save money more often than male. A possible explanation to this finding can be related to buying behavior. Female immigrants in this study showed lower tendencies to consider a purchase before completing it. This might be connected to the finding that female immigrants save money more frequently, thus having more money available, and therefore not having to consider a purchase to the same extent as male immigrants.

Educational levels also showed a positive relationship to saving behavior (Chi-Square test with 4 degrees of freedom=10,898, p=0,028). The figure below demonstrates the differences related to educational level.

Figure 10: Saving behavior related to educational level



The immigrants with higher education showed higher frequency of saving money on a monthly basis compared to the low educated. The figure above demonstrates the percentage within each educational group claiming to always save money. This pattern might be an indicator that immigrants with higher education possess greater financial understanding regarding the impact of saving behavior. Additionally, low educated immigrants might represent a larger share of those originating from countries with poorly developed economies, thus affecting their personal financial capabilities.

4.4.4. Borrowing Money

According to the analysis there was a relationship between immigrant type and the frequency of borrowing money (Chi-Square test with 6 degrees of freedom=10,678, p=0,099).

Table 19: Borrowing behavior based on migration motive

		Incentive				
		Work	Refugee	Family	Education	Total
Borrow	Never	68%	33%	59%	58%	46 Objects
	Sometimes	29%	61%	41%	25%	31 Objects
	Always	3%	6%	0%	17%	4 Objects
Total		100%	100%	100%	100%	81 Objects

44% of the studied immigrants claimed to either sometimes or always borrow money when they do not have enough. Furthermore, it revealed that refugees tend to borrow money more often than the other groups. 67% within this group answered that they sometimes or always borrow money if needed. For comparison, the remaining groups had rates between 32%- 41%. A logical explanation for this might be that refugees experience larger financial barriers both in terms of knowledge and experience when migrating to Norway. This hypothesis is consistent with the previous finding on savings which revealed that 42% of refugees never save money on a monthly basis.

The group of work-immigrants showed the lowest frequency of borrowing money. This finding can be logically explained by the need for money decreasing when becoming integrated in work. Thus, indicating that working instead of receiving governmental economic support is more financially beneficial.

4.4.5. Planned Pension

Table 20: Pension in relation to migration motive

PrivatePension

Mean	N	Std. Deviation
,5385	91	,50128

Pension

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	50	54,9	61,0	61,0
	A little	28	30,8	34,1	95,1
	A lot	4	4,4	4,9	100,0
	Total	82	90,1	100,0	

On average, only 54% of the total sample knows what private pension savings is. Furthermore, 61% claimed to not have planned anything regarding their pension, while 34,1%

have planned a little, and 4,9% have planned a lot. These results can be caused by several factors. For instance, lack of money inhibits savings, and lack of knowledge about the Norwegian pension system might inhibit related planning. Furthermore, the fact that almost half the sample answered that they do not know what private pension saving is, indicates that they do not have the fundamental knowledge about the subject. Nevertheless, the results were found to be statistically insignificant (Chi-Square test with 6 degrees of freedom=2,830, p=0,830).

Additional tests were computed, but no variables were found to correlate with behavior related to pension savings.

4.5. Comparing Financial Knowledge and Financial Behaviour

Based on the analysis of the tasks related to financial knowledge and behavior there was conducted a comparison. This result showed that the findings from the two different categories are mostly consistent.

Despite results from previous research, gender was not found to have any significant relation to financial knowledge or most of the variables for financial behaviour. Nevertheless, gender was found to differ when saving and purchasing behavior was analyzed. Here it was indicated that female immigrants save more frequently than male immigrants but purchase with less considerations. This finding is inconsistent with several previously performed researches. Thus, the research findings related to gender was varying and differed from one variable to another.

Both categories within financial literacy found that educational level had a positive influence on financial knowledge as well as some financial behaviors. Moreover, financial behaviour showed variating relations to educational levels. Planned pension, for example, had no significant relation to educational level. Instead, several variables for financial behaviour were affected by length of stay in Norway and age. Especially length of stay was indicated to influence financial behaviour. For example, the frequency of using a budget was significantly higher for the immigrants who have spent the shortest amount of time in Norway. Furthermore, experiencing a shortage of money was more frequent within the group of immigrants with the longest stay. This implies that financial literacy is higher for the immigrants who have joined an integration program immediately after arriving in their new host country. Nevertheless, when analyzing length of stay in relation to financial knowledge the highest scores were found to be both within the group of less than two years in Norway as

well as more than ten years in Norway. This finding implies that there is not a decreasing level of financial literacy related to the amount of years in the country before joining an integration program. Thus, the two findings related to stay are inconsistent. Furthermore, the results from financial knowledge were not found to be statistically significant, which means that it might be caused by chance. This research emphasizes the initial finding from financial behaviour indicating that length of stay has an impact on financial literacy levels.

Another variable found to affect financial literacy was age. This variable also showed varying impact. Within financial knowledge the highest scores were received by both the youngest and the oldest age groups. Moreover, within financial behaviour it was a more consistent finding that financial literacy increased with age.

Finally, the variable to show the largest impact on both financial knowledge and financial behaviour was immigrant type. This variable revealed that refugees hold significantly lower levels of financial literacy compared to the other groups. Immigrants with work as motive were consistently through the analyses found to possess the highest levels. Educational immigrants also showed some tendencies of high financial literacy, but these results variated when analyzing different financial behaviors. These results are quite like those found for the immigrants with family as their motive. Nevertheless, this type of immigrants showed a higher tendency of low financial literacy and could in many situations be related to the group of refugees.

5. CONCLUSION

The purpose of this study was to connect migration to financial literacy by answering the following research question:

"Are there any differences in levels of financial literacy within immigrant groups?"

Moreover, this thesis aimed to investigate if there were any differences within the group of immigrants. By conducting research with financial questionnaires on a topic with little content the goal was to add knowledge and contribute with new perspectives on financial literacy related to immigrants.

As there are almost 800 000 first-generation immigrants in Norway, they make up a significant part of the population, and hence impact the national economy. Great funds are invested in governmental integration programs with the aim of implementing immigrants in the social and working society. Economic and financial matters are important parts of the program. Having knowledge about these subjects related to the immigrants are therefore important and can function as a performance booster.

Like previous studies, educational level and in some cases length of stay were found to have a positive relation to financial literacy. Age, on the contrary, had opposite results than previous research, and proved to positively effect financial literacy when increasing. There were also some variations in the results of financial knowledge and financial behaviour, in which were analyzed and compared. Especially the results of immigrants compared to native Norwegians differed here, where immigrants performed best on financial behavior and Norwegians best on financial knowledge.

Some variables were found to have variating impact. For example, some financial behaviors like pension planning, usage of budget and paying bills in time increased with age, making age a positive driver for financial literacy. Nevertheless, when analyzing financial knowledge, it was found that increased age was not a consistent driver. In this case the highest scores were received by both the youngest age group, being immigrants under 25 years, and the oldest age group, being immigrants over 45 years. Thus, this research will conclude that how age impacts financial literacy depends on the category; behaviour is often positively

affected by increased age whilst knowledge is split between the youngest and oldest possessing the highest levels.

Furthermore, another variable with varying results was length of stay. This variable showed no significant pattern in some scenarios, whilst being of importance in others. The most emphasized findings related to how long the immigrants have lived in Norway were a negative relation to using a budget and a positive relation to experience lack of money. Both findings point towards lower financial literacy. This indicates that immigrants who have stayed in Norway less than two years have better results related to financial behaviour, and that the results decrease when the length increases. Nevertheless, the amount of time in the host country before joining an integration program was not found to have any effects on financial knowledge. Thus, this variable is also dependent on the category within financial literacy.

These variations are also consistent with the impact of gender in this study. Previous research found that men possess higher levels of financial literacy, whilst this study found the results to be split. For example, women had a higher frequency of saving, but men considered the usage of money more than the opposite gender. Nevertheless, the findings were found to be insignificant, thus making it impossible to exclude the previous findings.

The two variables found to have the largest impact on financial literacy were educational level and motive for migration. This study revealed that both financial knowledge and financial behaviour improved with higher education. Moreover, the most significant findings were made when analyzing the four different types of immigrants. These results indicated that immigrants with incentive to work or attend higher education often possess the highest levels of financial literacy. Throughout the research, work was the incentive found to continuously show superiority. Furthermore, refugees stood out as the most vulnerable group. Both financial knowledge and financial behaviors like routines for saving and borrowing were all together showing prominent weakness compared to the other groups. These findings highlight the difficulties and challenges faced by refugees. They are struggling in the present and will continue to struggle in the future because they do not plan for pension or generally handle their personal finances to a sustainable level. The importance of financial education within the governmental integration programs are therefore especially important for the refugees.

5.1. Own Reflections of the Findings

Several of the findings from this study were not as expected. Before starting the research, I had the perception that most immigrants possessed a lower level of financial literacy compared to native Norwegian. This is only as a prejudice based on ignorance of the topic. I was under the impression that the immigrants who did not speak the Norwegian language well, or who were unemployed, was so due to low education. Conducting this research expanded my awareness and understanding for the situation immigrants go through. The findings from this study made me aware of how many immigrants in Norway who are educated and well experienced, and in several cases further developed on financial literacy than the Norwegian population.

5.2. Recommendations to Stamina Kurssenter AS and Authorities

This research revealed several important aspects which should be considered by all parties involved in immigrant programs. By having more knowledge of the subject, it is possible to develop and improve the routines. Moreover, knowing that there in fact are differences between groups of immigrants, and understanding what these differences are, opens for further improved performance.

Furthermore, by sharing this research with Stamina Kurssenter AS I believe they will be able to adjust their financial subject even better, to suit the participants more accurately. This research identifies what financial subjects there is little knowledge about, and which groups to target in the relevant subject. Such knowledge can be valuable not only in the process of optimizing a system, but also for educating employees. By taking advantage of this research I believe the performance of Stamina Kurssenter AS, and authorities in general, can improve. This way it can be easier to reach their goals so that more immigrants will be better implemented in the Norwegian society.

The positive benefits of financial education programs have been proved by several other researchers. Their findings indicated positive behavioral changes in terms of saving and borrowing as well as increased financial knowledge. Many other host countries have experienced benefits by trying to improve their programs. For example, Australia released a national strategy in 2011 to increase financial literacy, Canada has multi-agency efforts on financial education for migrants and in England not-for-profit institutions provide financial education to migrant groups (Atkinson and Messy, 2015).

5.3. Research Contribution

This research correlates in some categories with several other studies on the subject. It identifies the variables impacting financial literacy of immigrants. Additionally, it can contribute to knowledge and further improvement for the organization in which the research was performed. Thus, the contribution of this research is limited. Time and scope limitations narrowed the depth of the study. As a result, the empirical evidence is also limited.

5.4. Further Research

Based on the constraints of both time and available target groups due to the corona virus situation, future studies can with advantage use either the same or other research methods to do further research on the topic. My recommendations to other researchers are to further investigate variances depending on nationality. Moreover, a thorough analysis of immigrants compared to native-born in the respective country would positively contribute to the available theory on the subject.

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STATEMENT

I declare on my word of honor, that I am the sole author of this master's thesis. This thesis is my own work. It has not been submitted as another degree in any form. The thesis was completed using the cited references only. All information coming directly from source material or ideas based on information taken from source material have been identified in the reference overview.

Kristiansand, May 19th, 2020

Maria Gjestvang

APPENDICES

APPENDIX 1: Questionnaire in Norwegian

1) Hvilket kjønn er du?
   - Kvinne
   - Mann
   - Annet
2) Hvor gammel er du?
   - Under 25 år gammel
   - 25-35 år gammel
   - 36-45 år gammel
   - Over 45 år gammel
3) Hvilket land kommer du fra?
4) I hvor mange år har du bodd i Norge?
   - Under 2 år
   - 2-5 år
   - 6-10 år
   - Flere enn 10 år
5) Hvor lenge hadde du bodd i Norge før du begynte å lære deg å snakke og forstå norsk?
   - Under 1 år
   - 1-3 år
   - 4-8 år
   - Over 8 år
6) Hvor god synes du selv at du er til å snakke og forstå norsk?
   - Dårlig
   - Litt god
   - Ganske god
   - Veldig god
7) Hva er din høyeste utdanning?
   - Jeg har aldri gått på skole
   - Barneskole
   - Ungdomsskole
   - Videregående skole
   - Fagutdanning
   - Bachelorgrad
   - Mastergrad
   - Doktorgrad
8) Hva er den månedlige inntekten til din husstand?
   - Under 15 000 kroner i måneden
   - Mellom 15 000 og 20 000 kroner i måneden
   - Mellom 20 000 og 29 000 kroner i måneden
   - Mellom 29 000 og 40 000 kroner i måneden
   - Over 40 000 kroner i måneden
   - Jeg vil ikke svare på dette
   - Vet ikke

9) Hvordan bor du?
   - Alene
   - Med kun kjæreste/samboer/ektefelle
   - Med familie
   - Med venner
10) Har husholdningen din et budsjett? Et budsjett brukes til å bestemme hvor mye av inntekten din som skal brukes på feks. mat, sparing eller regninger.
   - Ja
   - Nei
   - Vet ikke
11) Noen setter seg økonomiske mål, som feks. å ha nok egenkapital til kjøp av bolig, spare til pensjon, kjøpe bil eller bli gjeldsfri. Har du noen økonomiske mål?
   - Ja
   - Nei
   - Vet ikke
12) Har du begynt å planlegge din økonomi som pensjonist?
   - Ja, jeg har planlagt litt
   - Ja, jeg har planlagt mye
   - Nei, jeg har ikke planlagt noe
   - Vet ikke
13) Svar på spørsmålene under ved å krysse av under «alltid», «noen ganger», «aldri» eller «vet ikke»:
   - Før jeg kjøper noe vurderer jeg om jeg har råd til det
   - Jeg er flink til å spare penger
   - Jeg betaler regningene mine i tide (før forfall)
   - Jeg følger nøye med på økonomien min
   - Jeg låner penger hvis jeg ikke har nok selv (feks. forbrukslån eller lån av venner)
14) Hvor mye kunnskap har du om økonomi?
   - Veldig mye
   - Litt
   - Veldig lite
   - Vet ikke
15) Hvem har lært deg om økonomi? Kryss av under «mye», «middels», «lite» eller «vet ikke»:
   - Mine foreldre
   - Arbeidsgiver
   - Tiltak gjennom NAV (feks. Stamina)
   - Skolen
   - Banken
   - Jeg har selv lært meg økonomi (feks. ved å lese bøker)
   - Andre
16) Har du det siste året opplevd å ikke ha nok inntekt til å dekke (betale) alle utgiftene dine?
   - Ja
   - Nei
   - Jeg vil ikke svare på dette
   - Vet ikke

17) Har du gjeld? (Feks. til banken eller venner du har lånt penger av)
    - Ja
    - Nei
    - Vet ikke
18) Hvis du svarte ja på forrige spørsmål, er gjelden din større enn den årlige inntekten til din husstand?
    - Ja
    - Nei
    - Vet ikke
19) Vet du hva dette er? Kryss av hvis du kan forklare hva det er.
    - Privat pensjonssparing
    - Fondssparing
    - Boliglån
    - Banklån med pant i eiendom
    - Forbrukslån
    - Kredittkort
    - Brukskonto/lønnskonto
    - Sparekonto/høyrentekonto
    - Forsikring
    - Aksjer
    - Obligasjoner
    - Mobilbetaling
    - Billån
    - Seniorlån i bolig
    - Rammelån/Boligkreditt/Flexilån
    - Digital valuta (kryptovaluta, bitcoin, eller lignende)
20) 5 søsken får 1 000 kroner på deling. Hvor mye får hver av dem?
21) Maria lånte 60 000 kroner av sin onkel før jul. Hun tilbakebetalte 10 000 kroner i går. Hvor mye penger skylder Maria sin onkel nå?
22) Du setter inn 100 kroner på en konto med 2% årlig rente. Hvor mye penger har du på denne kontoen etter 1 år, inkludert renter?
23) Du lånte 1 000 000 kroner fra banken i dag. Du skal betale 5% renter hver måned, og 5 000 kroner i avdrag hver måned. Hva blir terminbeløpet den første måneden? Hva blir terminbeløpet den andre (neste) måneden?

APPENDIX 2: Questionnaire in English

1) Which gender are you?
   - Female
   - Male
   - Other
2) How old are you?
   - Under 25 years old
   - 25-35 years old
   - 36-45 years old
   - Over 45 years old
3) What is your country of origin?
4) How many years have you lived in Norway?
   - Under 2 years
   - 2-5 years
   - 6-10 years
   - More than 10 years
5) How many years did you live in Norway before you started to learn to speak and understand the Norwegian language?
   - Under 1 year
   - 1-3 years
   - 4-8 years
   - More than 8 years
6) In your opinion, how well do you speak and understand the Norwegian language?
   - Poorly
   - Mediocre
   - Quite well
   - Very well
7) What is your highest degree of education?
   - I have never gone to school
   - Primary school
   - Secondary school
   - High school
   - Vocational training
   - Bachelor's degree
   - Master's degree
   - Ph.D.
8) What is the monthly income for your household?
   - Under 15 000 kroner
   - Between 15 000 and 20 000 kroner
   - Between 20 000 kroner and 29 000 kroner
   - Between 29 000 kroner and 40 000 kroner
   - Over 40 000 kroner
   - I don't want to answer
   - I don't know

9) How do you live?
   - Alone
   - With girlfriend/boyfriend/spouse
   - With family
   - With friends
10) Does your household have a budget?
   - Yes
   - No
   - I don't know
11) Some have economic goals, for instance having enough equity to buy a house, save for pension, buy a car or becoming debt free. Do you have an economic goal?
   - Yes
   - No
   - I don't know
12) Have you started to plan your economy after retirement?
   - Yes, I have planned a little
   - Yes, I have planned a lot
   - No, I have not planned anything
   - I don't know
13) Answer the questions below by crossing off on "always", "sometimes", "never" or "don't know":
   - I consider a purchase before making it
   - I am good at saving money
   - I pay my bills in time
   - I pay much attention to my personal economy
   - I borrow money if I don't have enough myself (for instance consumer loan or loan from friends)
14) How much knowledge do you have about economics?
   - Very much
   - A little
   - Very little
   - I don't know
15) Who taught you about economics? Cross off on "much", "medium", "little" or "don't know":
   - My parents
   - My employer
   - Programs through NAV (such as Stamina)
   - School
   - The bank
   - My self (for instance by reading books)
   - Others
16) Have you experiences not having enough money to pay your bills the last year?
   - Yes
   - No
   - I don't want to answer
   - I don't know

17) Do you have debt? (for instance, in the bank or from friends you have borrowed from)
    - Yes
    - No
    - I don’t know
18) If you answered yes on the previous question; is your debt higher than the annual income of your household?
    - Yes
    - No
    - I don’t know
19) Do you know what this is? Cross off on the ones you can explain.
    - Private pension saving
    - Fund savings
    - Mortgage
    - Bank loan with safety in property
    - Consumer loan
    - Credit card
    - Checking account
    - Savings account
    - Insurance
    - Stock
    - Bonds
    - Mobile payment
    - Car loan
    - Senior housing loans
    - Credit lines
    - Digital currency (crypto currency, bitcoin or similar)
20) 5 siblings get 1 000 kroner to share. How much does each of them receive?
21) Maria borrowed 60 000 kroner from her uncle before Christmas. She repaid 10 000 kroner yesterday. How much money do Maria owe her uncle now?
22) You deposit 100 kroner to a bank account with 2% annual interest. How much money do you have in this account after one year, including interests?
23) You borrowed 1 000 000 kroner from the bank today. You must pay 5% interest each month and 5 000 in repayment each month. What is the monthly total installment/payment to the bank the first month? What is the monthly total installment/payment to the bank the second (next) month?