

**YOUTH MIGRATION TRENDS VS. IT JOBS OPPORTUNITIES: CASE STUDY OF NORTH MACEDONIA****Fitim Besimi<sup>1</sup>, Benjamin Besimi<sup>2</sup> and Adrian Besimi<sup>3</sup>**<sup>1</sup>Entrepreneur- SwissGerman LLC Tetovo, North Macedonia, South East Europe University in Tetovo, Master: South East Europe University in Tetovo, North Macedonia<sup>2</sup>Data Architect - Inspire11, South East Europe University in Tetovo, Master: Stockholm University – Sweden, North Macedonia<sup>3</sup>Professor in Faculty of Contemporary Sciences and Technologies, SEEU & South East Europe University in Tetovo, Master: Indiana University, Indianapolis -USA, North Macedonia<sup>1</sup>fitimbeshimi@hotmail.com, <sup>2</sup>benjamin.beshimi@gmail.com and <sup>3</sup>a.beshimi@seeu.edu.mk**ABSTRACT**

*The main objective of this paper is to analyze the migration trends from North Macedonia to Germany, in recent years. For this purpose, mostly we interviewed people that already migrated, and then we interviewed people who are in the migration process and who plan to migrate in the near future. In this event there are many reasons, incentives, and circumstances and in this research, we will try to find the most common reasons form migration. The idea is to try to find out which categories of people are leaving the country and reasons behind it.*

*From our interview the findings are that if young people study IT in North Macedonia, they will have significant opportunities to remain in the country. This would lead to economic growth as the IT sector can export services abroad, bringing foreign currency into the country and fostering the establishment of new businesses, creating employment opportunities. Additionally, the IT sector would play a crucial role in digitizing other industries, enhancing efficiency, and supporting their growth. In the long term, the surplus generated could be invested in real estate, the stock market, and other areas.*

*Index Terms – Youth Migration Trends, IT Jobs, North Macedonia.*

**INTRODUCTION**

We live in a time that had the opportunity to witness one of the biggest financial crises, that of 2009, a period that was not emphasizing a lot the migration from North Macedonia on a larger scale.

For the purpose of this paper, we initially are going to analyze the analyze the 2009 financial crisis, often referred to as the Global Financial Crisis (GFC), and the 2020 economic crisis caused by the COVID-19 pandemic and try to analyze the pre-conditions form migration. These are two distinct events that had significant impacts on the global economy. While there are some similarities and correlations between the two crises, there are also notable differences that will be elaborated in the next section of the paper.

*Two major financial crisis overviews*

To analyze the financial crisis and their impact on economy as well as on migration, we will focus on the following components of analysis:

1. The triggering factors
2. Impact on Financial Institutions
3. Global Economic Contractions
4. Government response and
5. Sectorial impact

*The Triggering Factors*

**2009 crisis**

The GFC originated in the United States due to the collapse of the subprime mortgage market, leading to a widespread financial crisis. It was primarily driven by issues within the banking and financial sectors (Duignan, 2023).

**2020 crisis**

As noted by (Milestein, 2023), the economic crisis in 2020 was triggered by the global COVID-19 pandemic. The pandemic forced widespread lockdowns and restrictions on economic activity, causing disruptions across multiple sectors and leading to a severe global recession. And after continued with the Russian-Ukrainian conflict that pushed up the prices

of the repro materials, fuel, gas and in the end even food got more expensive.

**1. Impact on Financial Institutions****2009 crisis**

The GFC had a significant impact on financial institutions, with several major banks and financial firms facing insolvency or requiring bailouts. The crisis exposed vulnerabilities in the financial system, particularly related to complex financial instruments and excessive risk-taking (European, Central Bank, 2010).

**2020 crisis**

While the 2020 crisis initially had a financial market component, with stock market declines and liquidity concerns, the primary impact was felt in the real economy due to the pandemic. Financial institutions were more stable in this crisis compared to the GFC, largely due to regulatory reforms implemented after 2009 (Adrian & Natalucci).

**2. Global Economic Contraction****2009 crisis**

The GFC resulted in a severe global recession, with significant contractions in GDP growth across many countries. The crisis had a prolonged impact on the global economy, and it took several years for many countries to recover (European Central Bank, 2010).

**2020 crisis**

The economic crisis resulting from the COVID-19 pandemic led to a rapid and widespread contraction of economic activity worldwide. The pandemic-induced lockdowns and restrictions caused a sharp decline in GDP growth and led to a deep recession. However, the crisis had a more immediate impact compared to the GFC (Adrian & Natalucci).

**3. Government Response****2009 crisis**

In response to the GFC, governments and central banks implemented various measures, including bank bailouts, fiscal stimulus packages, and monetary easing, to stabilize financial markets and support economic recovery (Milstein, 2021).

**2020 crisis**

Governments and central banks implemented similar measures in response to the 2020 crisis. However, the scale of the response was much larger and more coordinated globally. Governments introduced massive fiscal stimulus packages, central banks implemented aggressive monetary policies, and international institutions provided financial assistance to mitigate the economic impacts of the pandemic.

#### 4. Sectorial Impact

##### **2009 crisis**

The GFC had a significant impact on the housing market, financial services, and related industries. Unemployment rates increased, and consumer spending declined as households faced financial hardships (European Central Bank, 2010).

##### **2020 crisis**

The economic crisis resulting from the pandemic had a broader impact across multiple sectors. Industries such as travel, tourism, hospitality, retail, and entertainment were particularly hard hit, while technology, e-commerce, and healthcare sectors experienced growth in certain areas (Adrian, & Natalucci, 2020).

While there are some similarities in terms of the global recession, financial market disruptions, and government responses, the underlying causes, and specific impacts of the 2009 and 2020 economic crises were different. The 2009 crisis was rooted in financial sector vulnerabilities, while the 2020 crisis was primarily driven by a global health emergency.

##### **Migration trends in North Macedonia and the IT sector**

As already mentioned in the beginning, our main objective in this paper is analyzing the migration trends from North Macedonia to Germany, in recent years and to understand how is effecting on the IT industry.

The IT sector in North Macedonia has been experiencing significant growth and development in recent years. The country has made substantial progress in creating a favorable environment for the IT industry, attracting both domestic and foreign investments.

Here are some key aspects of the IT sector in North Macedonia:

**Skilled Workforce:** North Macedonia has a well-educated and skilled workforce, particularly in the field of information technology. The country boasts a high number of IT professionals, including software developers, engineers, and specialists in various IT domains (Stefanuk A).

**IT Parks and Hubs:** According to EIT (European Institute of Innovation and Technology, June 2023), North Macedonia has established dedicated IT parks and technology hubs to foster innovation and collaboration within the industry. The most notable IT park is the "Technology Industrial Development Zone" (TIDZ), located in the capital city of Skopje. The TIDZ provides a supportive ecosystem for IT companies, offering tax incentives, infrastructure, and other benefits.

**Outsourcing and Offshoring:** North Macedonia has become an attractive destination for outsourcing and offshoring IT services. Many companies from Western Europe and the United States choose to outsource their software development, customer support, and other IT-related activities to North Macedonian firms due to the competitive costs and high-quality services provided (Gallimore, 2023).

**Startups and Innovation:** Per Dimoska (Dimoska, 2020), the country has witnessed a rise in the number of tech startups and innovative ventures. Government initiatives and support programs, as well as private investment, have played a crucial role in fostering entrepreneurship and the development of startup ecosystems. Skopje, in particular, has emerged as a hub for tech startups.

**Digital Infrastructure:** According to Digital Development Country Profile (2021), North Macedonia has invested in improving its digital infrastructure, including broadband connectivity and internet penetration rates. Efforts have been made to expand the coverage of high-speed internet and enhance the overall digital ecosystem to support the growth of the IT sector.

**Government Support:** As stated on the website (The fund for Innovation and Technological Development, n.d) the government of North Macedonia has implemented various initiatives to support the IT industry. These include

providing financial incentives, promoting entrepreneurship, facilitating access to funding, and supporting research and development activities in the IT sector.

**Education and Training:** North Macedonia has focused on enhancing IT education and training programs to meet the industry's demands. Universities and educational institutions offer specialized IT courses and programs to produce a skilled workforce. Additionally, various public and private initiatives provide training and upskilling opportunities for IT professionals (Digital Development Country Profile, 2021).

Overall, the IT sector in North Macedonia has experienced substantial growth, driven by a skilled workforce, supportive government policies, and investment in digital infrastructure. The country continues to attract both domestic and foreign companies, positioning itself as an emerging hub for IT and innovation in the region.

*How is IT sector helping to avoid youth migration and support the economic growth potential?*

The IT sector plays a significant role in avoiding youth migration and supporting economic growth potential in several ways:

**Job Creation:** The IT sector creates a large number of job opportunities, especially for young individuals with technical skills. By offering employment opportunities in the local area, it reduces the need for young people to migrate to other regions or countries in search of work.

**Remote Work and Digital Nomadism:** The IT sector has been a driving force behind the rise of remote work and digital nomadism. This allows individuals to work from anywhere, including

their hometowns or smaller cities, eliminating the need for migration in pursuit of better job prospects. By embracing remote work, the IT sector enables young people to contribute to the industry while staying rooted in their communities (Choudhury, 2020).

**Skill Development and Education:** The IT sector places a strong emphasis on skill development and continuous learning. It offers various training programs, certifications, and online courses that enable young individuals to acquire relevant technical skills. This empowers them to participate in the digital economy and access well-paying jobs without the need for migration.

**Entrepreneurship and Innovation:** The IT sector fosters entrepreneurship and innovation, creating an ecosystem that encourages young people to start their own businesses and launch tech startups. This not only generates employment opportunities but also drives economic growth in the local area. By supporting young entrepreneurs, the IT sector helps retain talent and encourages the development of local economies.

**Economic Diversification:** The IT sector promotes economic diversification by reducing dependency on traditional industries. It encourages the growth of knowledge-based industries and attracts investment, which leads to the establishment of technology parks, innovation hubs, and research centers. These initiatives create a favorable environment for young professionals, helping them find opportunities within their own communities.

**Bridging the Urban-Rural Divide:** The IT sector plays a crucial role in bridging the urban-rural divide by bringing technology and connectivity to remote areas. Through initiatives such as internet connectivity projects and digital infrastructure development, it enables youth in rural areas to access information, education, and job opportunities without having to migrate to urban centers (Henry, n.d)

Overall, the IT sector's emphasis on job creation, remote work, skill development, entrepreneurship, economic diversification, and bridging the urban-rural divide contributes to avoiding youth migration and supporting economic growth potential. By providing opportunities in local communities, the sector helps retain talent, stimulates local economies, and promotes sustainable development.

**RESEARCH METHODOLOGY**

This chapter will present the selected research approach, along with the distinct scientific methods used for gathering data. Subsequently, application of the method and research ethics are described.

The main focus of this study is to analyze and understand the migration trends in North Macedonia, which as a process itself made a huge impact in labor market. Nearly in all branches of the economy there are needed workforce and this gap is going to increase in the future. According to the market analysis the construction sector is hit the most and the workers of this sector mostly have migrated to Germany. This leaves domestic companies with a reduced workforce which in macroeconomic point of view translates into slow growth of domestic economy. To investigate this and get a better and closer understanding of the trends, a qualitative research strategy was selected. This approach allowed us to explore individual perspectives and experiences.

The data collection method implemented for this study involved conducting interviews with people who migrated to Germany during the first quarter of 2023. We conducted interviews with more than 800 individuals. The interview strategy was designed to be structured with a list of pre-defined questions. This design allowed us to analyze people's responses more accurately, objectively, and reduce bias in the evaluation process.

This research involved collection of sensitive data that is not available to the public. To maintain ethical standards, informed consent was obtained from all interviewees before the interview was conducted.

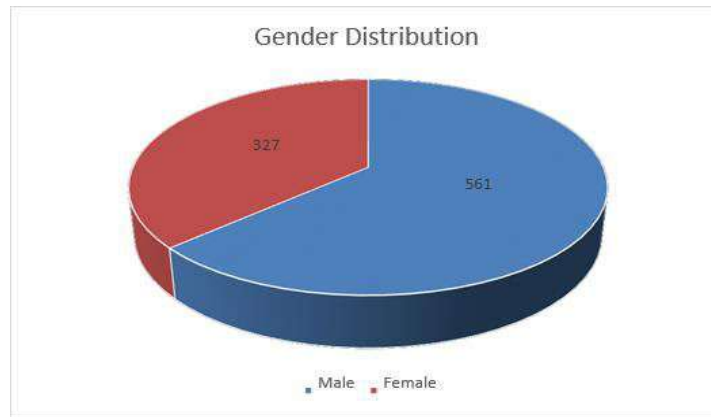
**RESULTS**

This section presents the results obtained from the interviews. It displays demographic characteristics of interviewees (migrants) in Germany. Data points collected from interviews were organized in a tabular format, and various statistical analyzes were performed to better understand the gender distribution, marital status, and age distribution of the migrants. We are presenting the findings in a clear and organized manner by using graphs and figures that are necessary to enhance the presentation of our data. By describing the main outcome of our study and support them with appropriate statistical analyses we will explain the correlation with the hypothesis and the findings from our research.

**Gender distribution**

Understanding whether migration occurs because of gender is a very significant finding in relation to the aim of this paper. According to UN, (The World Survey on the Role of Women in Development), addresses key issues related to women and international migration and it shows that women has always been an important component of international migration. As of 2000, the United Nations Population Division estimates that 49 per cent of all international migrants were women or girls, and that the proportion of women among international migrants had reached 51 per cent in more developed regions. Women often migrate officially as dependent family members of other migrants or to marry someone in another country. Female migrants are, however, increasingly part of flows of migrant workers, moving on their own to become the principal wage earners for their families. Most migrant women move voluntarily, but women and girls are also forced migrants leaving their countries in order to flee conflict, persecution, environmental degradation, natural disasters or other situations that affect their security, livelihood or habitat. In North Macedonia the situation has always been the same where only male populations migrated into western countries to find a better job and earn more so that can be able to support their families home.

At these modern times, the situation has changed also. The gender distribution of the participants is shown in Figure 1. Out of the total population interviewed, still, the most significant portion is male, whereas females are representing a smaller percentage but significantly has risen in the last years. The exact distribution is as follows: 561 migrants (63%) are male whilst 327 migrants (37%) consist of females. These results provide us with better insights on the gender dynamics when it comes North Macedonian migrants in Germany.



**Figure 1 - Gender Distribution of Interviewers**

**Marital Status**

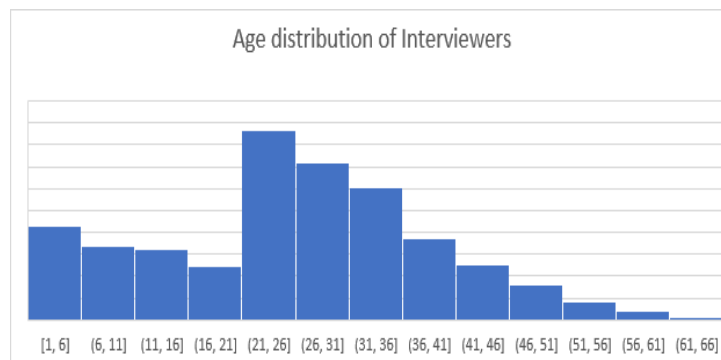
To better comprehend the marital status, we generated a pie chart for a clearer visualization, see Figure 2. The marital status is only considering two categories, married and non-married. Although, the largest group were those who were married, still the difference is very insignificant.



**Figure 2 - Marital status of the interviewers**

**Age Distribution**

To display the age distribution of the migrants, a histogram was created. The x-axis represents the age, divided into bins of five and the y-axis indicates the number of individuals falling into each age group. The age distribution in Figure 3 shows a higher distribution in the 22-36 years range, with 22-26 being the age distribution with the most individuals. The histogram provides valuable insight into the age of demographics of North Macedonian migrants in Germany.



**Figure 3 - Age distribution of interviewers**

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As seen in Table 1 below, from a total of 887 interviewers, 448 of them are at an age that is able to work within EU and have a job visa, the rest are below 19. This results in 50,8% of interviewers migrating to European Union with already established job visas and job offerings. It is important to mention here that only 14% out of 448 interviewers with already established job visas are female migrants, which is important fact since the migration is not a “male duty” as it was in the past, but female citizens more and more get access to European job markets and therefore migrate.

**Table 1.** Age, Gender distribution for workable age with Job Visa

Age	Male Total	Female Total	Total
19-21	30	5	35
22-24	62	12	74
25-27	54	14	68
28-30	54	9	63
31-33	41	8	49
34-36	38	6	44
37-39	32	3	35
40-42	23	3	26
43-45	16	3	19
46-48	19	1	20
49-51	5	1	6
52-54	3		3
55-57	6		6
<b>Grand Total</b>	<b>383</b>	<b>65</b>	<b>448</b>

### DISCUSSION

By interpreting our results, it becomes very clear that people that are migrating not are from the IT sector. From the interviewed only 3 males where from the IT sector, aged 23-27 and for this category there are significantly easy conditions and documentations for obtaining the visa in Germany. The others are mostly in gastronomy, construction, gardening, post/delivery. We must say that these professions are in very high demand in Germany, but also for IT workers is very high demand. People that migrating want better salaries, better working conditions, better healthcare and these requests are nearly impossible to reach in our country. On the other hand, IT industry offers the very highest salaries in our country, work from home options so that gives them enormously big freedom to organize their lives as they please, with their big salaries they can buy healthcare services in the private sector (which are better but more expensive).

Migration is a process that happens naturally from time to time and the history of mankind has proof of this fact. The period of which we are living is happening a small migration in numbers comparing to global migration, but for our small country the impact is enormous in the short term and midterm. History tells us that all migrants in the past sent remittances home to their families, build houses, bought apartments or even they returned with their new know-how and opened up new businesses. Maybe the same phenomenon will happen in the future, but as the statistics show, many of the people are migrating with their families and leaves very small hope that they will come back soon. Anyhow, in the long term this may indicate capital investments from our countryman, but for this part we just will have to wait and see how the situations will develop in the future. In meantime, our government must have other plans how will close the gap of the demand and supply in the labor market.

The analysis in this paper show that the IT sector workers in our country are staying home. The developers have the luxury to work from home with expenses close to zero, with flexible working hours, with very high salaries (the highest in the country) and they can work for domestic and foreign companies. The findings and the message of this paper is that the youth should study IT and software development if they would want to avoid migration and live above the average living standard in our country. On the other hand, universities, high schools and even

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the government itself should encourage the youth to go massively in this sector, where it will provide the sector fresh workforce in the future that will result with steady increase.

### **CONCLUSION**

To summarize our findings that we extract from the statistics is that if the youth study IT there is very high opportunity to stay in North Macedonia. With that comes economic growth potential, because they export their services abroad and bring foreign currency in North Macedonia, they will have steady income, will open new businesses and employ other people as well. IT sector will help to digitize other sectors and help them become more efficient and help them grow. In the future, the surplus may be invested in real estate, in stock market, in training new talents etc. In macroeconomic point of view more taxes will be payed, the unemployment will be low. Another sector that will improve drastically is the higher education. The higher education will need to adapt to the request of the market and will not be as conventional as it is at the moment. From this transition of the focus will benefit many sectors.

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