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The Impact of Syrian Influx over Labour Market Integration in Turkey

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The Impact of Syrian Influx over Labour Market Integration in Turkey

By

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in partial fulfilment of the requirements for the degree of

Masters of Business Administration, MBA.

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Science/ Arts / Doctor of Philosophy.

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I certify that this thesis satisfies all the requirements as a thesis for the degree of Master of Science / Arts / Doctor of Philosophy.

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Head of Department

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I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Marwan Mohammed Hazim TAWFEEQ

ACKNOWLEDGMENTS

I am not a mathematician yet I know that we have an infinite set of numbers. If I use all of them to thank you, it will not be enough. To my lifeline and life-coach, mother and father, I owe it all to you!

I am honoured to have such a great man, Professor Mehmet ÇİÇEK, to supervise my academic work. Thank you sir!

Sunflowers
Are
Roses
At
Fall.
And
Redolent
Musky
At
Neck.

ABSTRACT

The Impact of Syrian Influx over Labour Market Integration in Turkey

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Once chaos takes part, pursuing rest becomes a must. During 2011 and onward, unrest arose, where thousands were slain, due to unremitting open-fire revolts in Syria. Fear was at its utmost. Economy shifted to an extraordinary blemish. Local currency lost almost ninety percent of its value. On average, what was earned in a month was not sufficient for two kilos of tomato. Total number of 3.6 million Syrians crossed borders into Turkey. A demand shock hit the Turkish labour market. What was expected to be temporary became permanent. A young and able-to-work cluster found its way into the informal labour force. The Turkish economy had been flourishing since 2002 where it was shifting to the upper-middle-class emerging economy. Will it be affected by this unprecedented migration case? The impacts of the Syrian inflow into Turkey are measured by inspecting the performance of the Turkish economy throughout different economic variables such as employment and unemployment rates, GDP, CPI and inflation rate.

Key words: Syria, Turkey, Civil war, population, displacement, economy, analysis, GDP, inflation, employment, debt, capital, survey, questionnaire.

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Chapter One

Introduction

1 INTRODUCTION

Back in time to the second decade of the second millennium; in December 2010, the Arab world witnessed a trigger for sequence of rebellions, revolts, revolutions and disorder in the whole region. A man his name is Mohammed Bouazizi, who sells wares on street, performed a self-immolation in response to the confiscation of his goods by the local government in his province. This act served as a catalyst[1] for wider Tunisian revolts and extended to the whole Arab and Middle Eastern region consequently. Protests then followed by Egypt, Morocco, Yemen, Oman and Syria. On the 25th of January 2011, thousands or Egyptians gathered in the Liberation Square in order to overthrow Husni Mubarak. February 15th of 2011 is the date when Libyans broke out against Mummar Ghaddafi and then led into civil war in Libya.

In March 15th 2011, protests in Syria stood against the regime that was represented by Bashar AlAsad. AlAsad, from his side, asked the Army to open fire on the protestors and a civil war has started at that time and it has not been set to an end up to now. Many other regional countries were set on fire like Iraq, Bahrain, Morocco and Algeria as well. During that time, political platform were jiggled as well as security and stability. If we want to categorize those countries, we would say they are middle-class countries with low-income and high poverty rates. Since then, some countries gained little stability and others have not witnessed any comfort like Syria. On the other way around, displacement has been the role theme for this country. Both internal and external displacement have recorded around 11.8 million civilian who left their houses due to violence and war where 5.6 million Civilian Syrians were EDPs and other 6.2 million IDPs.[2] (UNHCR, IDP, 2018)

[1] The term catalyst is metaphorically used in the sentence while it is a substance that increases the rate of a chemical reaction without itself undergoing any permanent chemical change.
[2] EDPs are the Externally Displaced People and IDPs are the Internally Displaced People.

In outright terms, Turkey and Germany are the two countries hosting the highest number of Syrian refugees. Turkey has hosted around %64 of the Syrian Refugees which is 3.6 million people according to the UNHCR[3] reports.[4] Other refugees were distributed as %16.7, %11.7, %4.5 and %2.4 among Lebanon, Jordan, Iraq and Egypt respectively (UNHCR, IDP, 2018). Surprisingly, the Syrian government called the revolution as "terrorist groups with weapons". Therefore, more than 180,000 deaths were recorded where %63.8 of them were civilians and the Syrian Government is hold accountable for more than %75 of that (VDC). According to Slim & Trombetta, these protests were increasingly altered into an enduring carnage that can be classified as a outsized scale regional clash that has many official states and non-official states involved in (Slim H., 2014). On the other side, the European society along with USA and the Arab League and other states condemned any act of violence against the protestors. As a result of the Syrian's act against the protestors, the Syrian's membership in the Arab League was suspended. Subsequently, in the 15th of March2012, the International Committee of Red Cross classified the issue as a "non-international armed conflict," which is the ICRC[5]'s official phrase for civil war. And accordingly the international humanitarian law was applied on Syrian under the Convention of Geneva.

The European Union has described the Syrian Refugee catastrophe as the most dangerous crisis has ever happened since the WW2 due to the fact that it has not stopped to regenerate new waves of immigrants (Berti, 2015). Regarding the current situation in Syria, an early return to their home country seems unlikely. Accordingly, a solid integration of Syrian refugees into society became one of the major domestic issues in both Turkey and Germany. Key to such a successful integration is the **labour market inclusion[6]** of the

[3] UNHCR: United Nations High Commissioner for Refugees.
[4] (UNHCR, Situations\Syria, 2019).
[5] ICRC: International Committee of Red Cross.
[6] A labor market is inclusive when everyone of working age can participate in paid work.

refugees. But, in their role as migrants, they are part of the most vulnerable group in the labour market. Therefore, the legal framework and policies in the host countries not only define the conditions of the labour market access, but also impact the scope and the outcomes of the integration of Syrian refugees into the national labour markets.

The proposed master thesis will examine to what extent the Syrian refugees affect labour markets in both Turkey and Germany. The chosen approach of a comparison of the integration framework and outcomes in both countries is supposed to show the different effects of different labour markets and thus allow for a better identification of probable causal links. For this purpose, the Syrian working-age population from 15-64, which arrived in the two host countries after the outbreak of the Syrian civil war, will be considered.

Chapter Two

Literature Overview

2 LITERATURE OVERVIEW

2.1 Warfare's effects on the Syrian economy

Enormous economic loss has been caused due to the civil war in Syria. We talk about substructure devastation, paralyzed trade and ceasing functionality in other economic activities (Ianchovichina, 2014). According to the World Bank databases, there was a significant rising in the unemployment and poverty rates where they were %11 and %28 respectfully.[7] The Syrian refugees have been ranked in the UNHCR databases as the largest refugee population (UNHCR, DATA, 2015). These enormous numbers of refugees have shaded the host economic positively in different attributions surly. A recent study that was published by the World Bank stated that the flow of refugees into a host community has boosted workforce supply, consumption and investment (Ianchovichina, 2014). That would lead us into an obstacle where the host community may not accept this additional workforce supply due to xenophobia. Yet, that would be a clear violation of the 1951 Convention that stated equal employment opportunities for the refugees to work locally (UNHCR, 2015).

[7] Data.worldbank.org/countries/Syrian-arab-republic (2010)

2.2 Theoretical approaches to labor market integration.

Studies of migration emphasize mainly on the questions of *why* people migrate, *who* migrates and what the *consequences* of this migration are (Bodvarsson & Van den Berg, 2013, p. 27). Some researchers suggested that Syrian refugees represent a case of forced immigration (Ceritoglu, Yunculer, Torun, & Tümen, 2017, p. 2); and then they will be called refugees[8]. Accordingly, the questions of *who* migrates and *why* do not need to be taken care of at this point. According to Article 1 in 1951 Geneva Convention, *a refugee is someone who has fled his or her own country "owing to well-founded fear of being persecuted for reason of race, religion or nationality, membership of particular social groups or political opinion*" (UNHCR, 2015). On the other way around, they might not be migrated forcibly. They might flee out of the country because they seek for better life. If so, then they will be called migrants. So, the question should be asked in a different way; are the Syrians people, who flew out of their land during and after the conflict, migrants or refugees? Nevertheless, as per for Borjas, the question for the *consequences* of migration needs to be partitioned into three focus topics: the economic ***performance*** of immigrants in the host country, the ***effect*** of immigrants on the employment conditions of natives and the most ***beneficial immigration policies*** for the host country (1994, S. 1667).

The most former and utmost common speculative approach to the economic inspection of immigration is the ***Neoclassical Labour Market Model***, being an equilibrium approach which studies migrants simply as the "working force" and subsequently, immigration as a factor movement (Bodvarsson & Van den Berg, 2013, p.

[8] A refugee is someone who forcibly crosses borders.

16). Furthermore, it considers native and migrant workers to be substitutes. This neoclassical "textbook model", as mentioned to by Bodvarsson and Van den Berg (2013, p. 136), assumes simply that the income of inborn workers will decline due to the influx of foreign workers. However, other academics like Johnson (1980) or Ottaviano and Peri (2005) sustained the neoclassical model by counting distinctions of skilled and unskilled workers and come up with the hypothesis that inborn and foreign workers are not perfect substitutes. We can understand from that the immigration impact over the national labour market depends on the skills that are distributed within both the community of immigrant firstly and immigrants-natives secondly. All in all, the neoclassical method focuses mainly on short-term impacts of immigration and disregards migration policies as influencing factor for the long run.

An alternative approach to the neoclassical labour market model is the *Dual Labour Market Theory* which divides the economy into a primary (high-skilled) and secondary (low-skilled) labour market (Harrison & Sum, 1979; Reich, Gordon, & Edwards, 1973). Müller applied this approach in order to forecast the different migration policies impact over the labour market integration of immigrants. Müller came up with two migration dogmas: A "guest-worker" dogma which is referring the immigrants as the low skilled subdivision and thus they are serving as a step forward which gives the opportunity to the inborn labours to get better jobs. Second is a non-discriminative "melting-pot" dogma which objects to the long-term integration of immigrants. He concluded that restrictive and discriminative policies which are developed based on an expected return of the migrants lead to a higher sectorial partition between migrant and native workers, what can eventually generate efficiency losses (Müller, 2003, p. 143).

2.3 Turkey's "open-door" strategy and its impacts on the Turkish Economy

The Turkish Republic was among the first neighbors that involved in the Syrian crisis back in 2011. Right after this date, Syrians had their intensified influx into Turkey according to (Syrian refugees: A snapshot of the crisis in the Middle East and Europe. , 2017). The government adopted an "open-door" strategy due to its geographical location to the northern of Syrian. For almost a decade, starting from 2000 up to the Syrian crisis, the Turkish economy was flourishing astonishingly. During this period, the per capita rate of income almost tripled when it reached 10k US Dollar, a cut in half for poverty and moderate-poverty rates, noticeable approximate of 6.1 million jobs were created right after the European financial crisis and the unemployment rates were kept less than 10 percent. (World Bank, Turkey Overview, 2017). All the above factors shifted the Turkish economy to an upper-middle-class economy. (Kuyumcu, 2017) For the same period, regional uncertainty has its shades over the Turkish economy especially the July's coup attempt which then was followed by terroristic attacks and the political vagueness pulled the Turkish economy a little bit by the end of 2016. (Focus Economics, 2017) Nevertheless, according to the head of Istanbul Global Securities, the economic situation in Turkey sustains its resiliency against the fluctuating circumstanced in the region. (Candemir, 2016)

2.4 Are Syrians bonus, or a burden?

Through business making and economic enhancement, Syrians have never been a burden to the Turkish economy. According to "Perspective, Expectations, and Suggestions of the Turkish Business Sector on Syrians in Turkey," a paper that was prepared by academicians, by the mid of 2015, the number of Syrian companies was around 2800 where almost 60 percent of them are registered in the chamber of commerce in Turkey. (Karakaya, 2016)

A think-tank which is based in Ankara foundation stated that more than 1600 company were established by 2015 and that number was followed by an approximate number of 600 other companies were also registered by 2016. Guven Sakm the head of the think-tank, added that "they are not only people in the street yet there is a vivid evidence that the Syrians are contributing positively in the Turkish economy." (Capitalizing on Syrian refugees, 2017)

According to Haberturk[9], the deposits that were placed in the Turkish banks exceeded the 400 million US Dollars beyond the amount and gold that they save at home as they are prepared for any unforeseen alteration in the conditions. (Syrian refugees boosting Turkey's economy., 2017) According to Oytun Orhan who is an analytical specialist at MESS[10], both investors and business owners from Syria have been playing a remarkable role in counterweighing the Turkish diminishing exports due to their immense acquaintance in the ME[11] region. (Syrian refugees boosting Turkey's economy., 2017)

[9] A Turkish daily newspaper.
[10] MIDDLE ESTERN STRATEGIC STUDIES.
[11] MIDDLE EAST.

2.5 Additional Worldwide Literature

By taking a deep look at the modern and contemporary history, we find that migration is not a fresh phenomenon to happen. More than 62 million, where 12 of which are German, were pushed to be displaced by force in WW2 for the period 1939 – 1945 (Giada Zampano, 2015). Preceded by three years, around 5 million Palestinian civilians ended up being refugees after a conflict with Israel back in 1948 (UNRWA). Around 4 million refugees were the result of the Korean War for the period 1950 to 1953 (YCAR). Furthermore, for more than twenty years, the Vietnam War ended up in 1975 with around 3 million refugees to be relocated in different countries (UNHCR, State of the World's Refugees, 2000). For the period from 1979 up to 2014, the Afghani political unrest ended up with 2.5 million refugees (Wickramasekara, 2006).

The genocide in Rwanda in 1994 left more than two million civilians to be refugees in different countries. Simultaneously, the conflict in Yugoslavia added to the statistics 2.7 million IDPs[12]. The Congo Democratic Republic has more than 500 thousands refugees in 1998. Also, the war in Iraq in 2003, which has its consequences up to today, recorded around 4 million IDPs and immigrants.

By all means, nothing can be compared with the vast records of displaced people, refugees and immigrants. 13.1 million Syrians are in danger and in need to humanitarian aids. It is the highest number that has been recorded in all the time (Vision, 2019).

All in all, the literature review showed that there are a couple of solid academic papers that show the immigration scene and its impact and amplifications. Yet, the most recent study goes back to 2015 and so. Additionally, almost all the studies studied only

[12] IDP means Internal Displaced People.

the influence of immigrants without taking into consideration the internal situation inside the immigrant's community. This paper is going to offer an implicit updated study for both the internal situation of Syrian immigrants and the economic impact that they have in Turkey.

A literature review is conducted for both Turkey and Germany; yet, due to the complexity and the massive correlations, this paper is going to serve as an embryo for a further wide study for immigrants in different countries throughout mixed correlation. Accordingly, we will be discussing only the situation of the immigrants and their impact in Turkey. In two different approaches where the economic situation will be discussed through a Multiple Regression Model Analysis and the Syrian internal situation will be investigated through a questionnaire analysis, this paper is going to be able to provide answers and estimations to the following concerns:

1. What is the total weight of Syrians immigrants in Turkey?
2. Do we call them immigrants or refugees?
3. To what extend they are educated?
4. Is this phenomenon temporary or permanent?
5. What are the correlation between the number or immigrants and some economic variables?
6. Does the employment rate increase?
7. Are Syrians bonus or burden?

Chapter Three

Methodology

3 METHODOLOGY

3.1 Definitions: clarifying the key concepts

Since an international analysis will be conducted in this paper, the definition of the regarded categories might differ in different interpretations. Therefore, it is important to elucidate and give an illustrated definition to the meaning of informal employment or informal work and refugees in this paper.

The generally agreed on definition for "refugee" is derived from the international as well as the respective national laws. Turkey is a signatory of the Convention Relating to the Status of Refugees established in Geneva in 1951 which considers everyone a refugee who, "*owing to well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinions, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country*" (Art. A para. 2 Convention Relating to the Status of Refugees, 1951). Differently from Turkey, Germany merged this definition in its asylum laws and categorises Syrian people who are seeking protection either as refugees or "person entitled to asylum", which results in the same legal status and protection essentially (BAMF, 2017). Nevertheless, Turkey declared an alarm by stating that it "applies the Convention merely to people who have become refugees as a result of events occurring in Europe" (UN, 1967, p. 4). Consequently, Syrian migrants are not formally called refugees and they will not be granted the corresponding status in the Republic of Turkey.

On the other way around, they are referred to as people under "temporary protection", which were "forced to leave their countries and are unable to return to the

countries they left" (Art. 3 para. 1 lit. f and Art. 7 para. 1 Art Temporary Protection Regulation, 2014). Substantively, the "temporary protection" part refers to the same people as the German refugee definition and the Geneva Convention on Refugees. Consequently, the present paper also refers to persons under temporary protection as refugees. Referring to refugees it is meant that the German and Turkish authorities already accepted the right to shelter refugees of the respective people in their lands. As long as the status of the Syrian people which entered Turkey is not clarified by the indigenous authorities yet and as long as they are not recorded as under "temporary protection," they will be named asylum seekers referring to the UNHCR well-definition (UNHCR, Asylum-Seekers, 2017).

Also, the differentiation of formal and informal labour plays a crucial role in labour market studies. The utilised definition for informal employment is derived from the ILO's understanding of informal economy which includes all economic activities "not covered or insufficiently covered by formal arrangements" (General Conference of the International Labour Organization, 2002, p. 2). This definition can be further specified and applied to informal employment so that it refers to "paid" labour by a worker who is not registered with the public governmental authorities, whereas formal employment refers to the workers who are registered with the public or private governmental authorities. In Turkey, the responsible authority where the workers need to be registered in order to not work informally is the "Social Security Institution" (*Sosyal Güvenlik Kurumu*).

Another key concept used in the paper is **labour market integration**. It alludes to the embeddedness or the weight of Syrian refugees in the labour market. What we are

saying here is that it includes the refugees, or which share of the refugees, are employed and which is not employed. Furthermore, it makes a reference to the types of employment of the refugees and in which proportions they take part. For instance, it will be analysed how many of the employed refugees are employed formally and how many informally. Above and beyond, it should be considered if the working refugees perform or acquire a job that is equivalent or related to their educational level or not.

Another aspect that is important to cover will be if the refugees are treated identically as compared to the native workers in terms of rights, amount of work and wages. All in all, we are talking about a successful labour market integration of individuals, when refugees are employed formally in a job that is appropriate for their educational level and enjoy the equivalent rights and privileges. Also, do they have equivalent working conditions and wages as native workers in the same or comparable jobs? Prosperous and fruitful labour market integration should be endorsed by public integration policies as well (Konle-Seidl & Bolits, 2016, p. 12).

3.2 Data Collection: Digging for material

A professor of mine once mentioned, “Data is the new oil and the sky is not a limit.” Professor Mehmet Cicek, CPA. I personally believe that since we have data, we can understand the situation, analyse it and forecast for the future. Throughout the journey of “digging” for information and datasets that could be useful for my research, I knocked more than one door to find useful, trustful and reliable data that could be used in different ways in order to come up with convenient and valuable interpretations. I used information from previous academic papers that that have already went over this subject like (Akgündüz, Van den Berg, & Hassink, 2015), (Balkan Konuk & Tümen, 2015),

(Bodvarsson & Van den Berg, 2013), (Canpolat, 2012), (Ceritoglu, Yunculer, Torun, & Tümen, 2017), (Ceritoglu, Yunculer, Torun, & Tümen, 2017), (Harrison & Sum, 1979), (Ianchovichina, 2014), (Wickramasekara, 2006), (Reich, Gordon, & Edwards, 1973) and other academic relevant papers.

Beyond the academic work, the internet has, nowadays, the supreme and the upper hand in offering any answer to whatever question comes to our minds. Yet, unfortunately, it is not reliable to grab any information from here and there in the internet. Accordingly, I focused on only the reliable, official and trusted websites. For instance, I based my research on statistics that were only taken from World Bank Open Data Organization and the United Nations High Commissioner for Refugees UNHCR. Plus, the Turkish Government runs a rich of data institute, Turkish Statistical Institute, where I have been able to list a statistical history for the Turkish economy in different categories.

When I trying to analyse all these information and data during my Master thesis, the most important stumbling block that I face or it might occur dis the fact that not all of these statistics and surveys considers only refugees from Syria predominantly, yet they frequently group them under the classification of non-European citizens or they refer to them as citizens from conflict zones from the Middle East and North Africa.

3.3 Data Processing: Plugging numbers and getting information.

3.3.1 Demographically,w ho are the Syrians in Turkey?

I am pretty sure that it is a broad question to be asked. Yet, before we jump on analyzing their impact over the economic in Turkey, we need to understand who the Syrians who came to Turkey are? What are their ages? What educational background do they have? Do they work? Accordingly, with an extensive help by the Canadian Leaders in International Consultancies Organization[13], I developed a questionnaire form that targeted the Syrians in Turkey and only in Istanbul to be precise. This questionnaire will help us understand the Syrian society that lives in Turkey. The sample consists of 217 participants where they were picked according to ***Systematic Sampling***[14]**.** The system we followed in order to select the participants is by picking each 10th person we face. We followed this method in order to maintain fair distribution among the population and not to be biased. The survey took place in four places in Istanbul; Fatih, Bahcesehir, Beylikduzu and Esenyurt. The below results are exported from "IBM SPSS Statistical Software" (IBM, 2017) where the raw answers were processed with. Also, we provide bar charts in order to visualize the results. All the answers to our survey questions are going to be subjected for further interpretations. This analysis can be categorized as a descriptive analysis.

As per to Table1 and Figure1 below, among the population that we surveyed, there is a percent %78.8 males as compared to %21.2 females. That is an indicator of a potential powerful labor inflowing to the Turkish labor force. Beyond the gender equality

[13] www.clic-consultants.com
[14] SYSTEMATIC SAMPILING: Astatistical method of population sampling where you pick samples in a systematic way.

issue, males can give more hands into a labor market due to the muscularity and endeavoring more than females do.

GENDER

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MALE	171	78.8	78.8	78.8
	FEMALE	46	21.2	21.2	100.0
	Total	217	100.0	100.0	

Table 1: Gender distribution among Syrians in Istanbul - Randomly Selected Population.

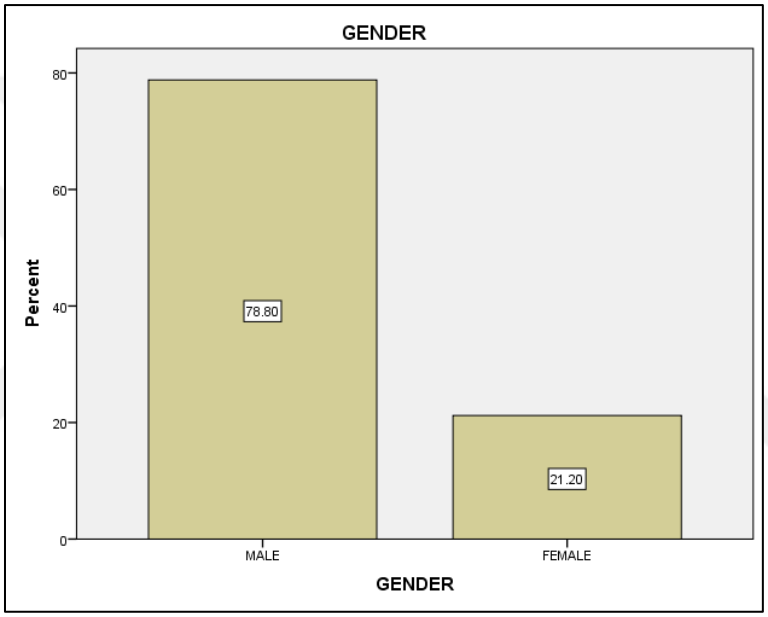

Figure 1: Gender distribution among Syrians in Istanbul - Randomly Selected Population.

The below Table2 and Figure2 present a very important age issue. The majority of Syrians in Istanbul fall into the category of the age between 15 to 25 years old where they represent %68.7. This youth power has the ability to integrate in the labor market more than any other category due to their young age which gives them the opportunity of learning the Turkish language and get involved in the Turkish community faster than the other ages. Other categories like 25-35, 35-45 and 45-55 represent %19.8, %4.1 and %7.4, respectively.

AGE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	15-25	149	68.7	68.7	68.7
	25-35	43	19.8	19.8	88.5
	35-45	9	4.1	4.1	92.6
	45-55	16	7.4	7.4	100.0
	Total	217	100.0	100.0	

Table 2: Age Average for the Syrians in Istanbul - Randomly Selected Population.

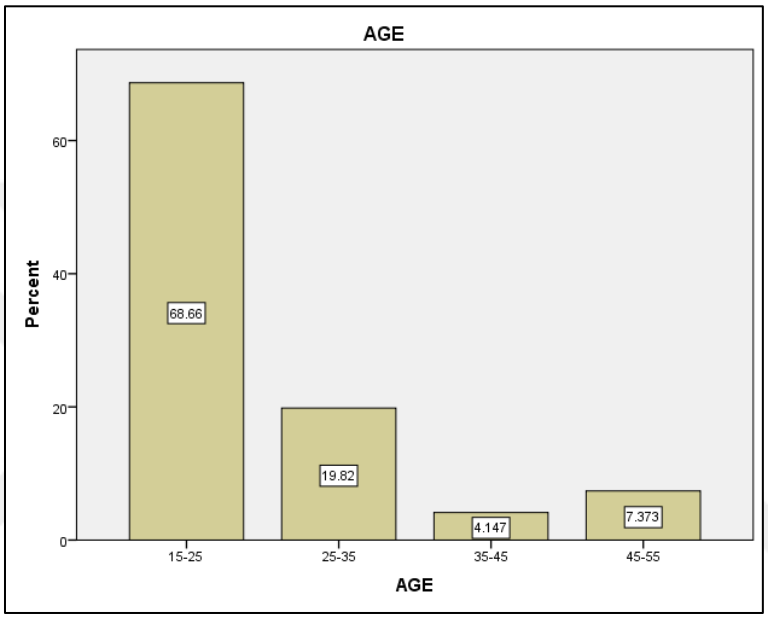

Figure 2: Age Average for the Syrians in Istanbul - Randomly Selected Population.

I personally did not to expect that %61.3 percent of the Syrians, as it is shown in Table3 and Figure3 below, are single! Yet, we can that we got this percentage due to the fact we did that survey outside where mostly singles are outside. Nevertheless, it is still a huge ratio of the population that is single and cannot be neglected. Again, it could be a great potential to be integrated in the Turkish labor market.

MARITAL

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SINGLE	133	61.3	61.3	61.3
	MARRIED	73	33.6	33.6	94.9
	WIDOW	11	5.1	5.1	100.0
	Total	217	100.0	100.0	

Table 3: Marital Status for the Syrians in Istanbul - Randomly Selected Population.

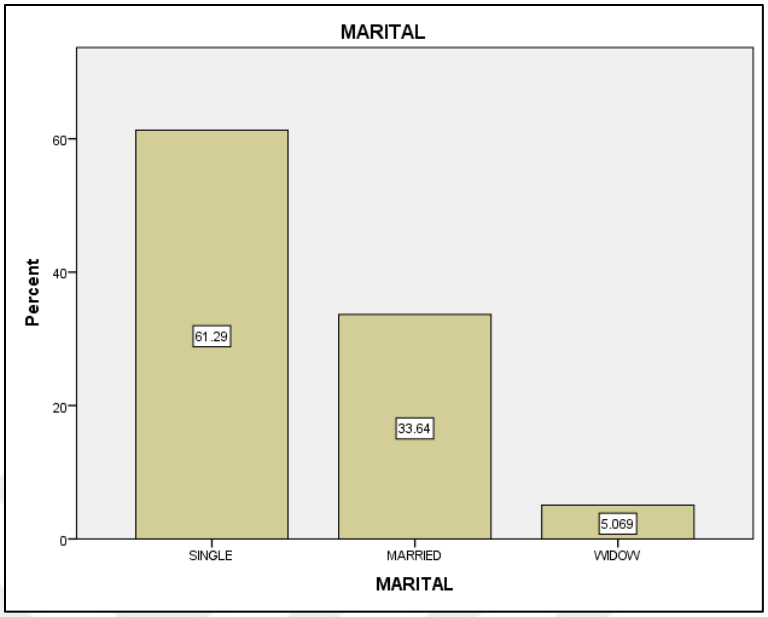

Figure 3: Marital Status for the Syrians in Istanbul - Randomly Selected Population.

It is obvious from the below Table4 and Figure4 that the majority of the Syrian population came from cities where %79.7 represent the urban districts and %20.3 represent the rural districts.

FORMER LIVING

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	URBAN	173	79.7	79.7	79.7
	RURAL	44	20.3	20.3	100.0
	Total	217	100.0	100.0	

Table 4: Former Place of Living for the Syrians in Istanbul - Randomly Selected Population.

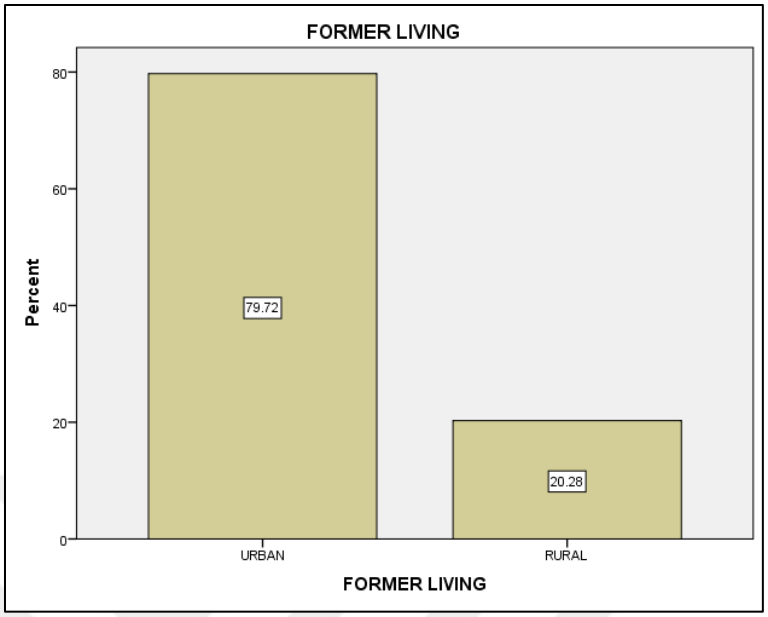

Figure 4: Former Place of Living for the Syrians in Istanbul - Randomly Selected Population.

Since our survey was conducted only in the city of Istanbul then it is normal to %100 of the participants say they are living in an urban place according to the below Table5 and Figure5.

CURRENT LIVING

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	URBAN	217	100.0	100.0	100.0

Table 5: Current Place of Living for the Syrians in Istanbul - Randomly Selected Population.

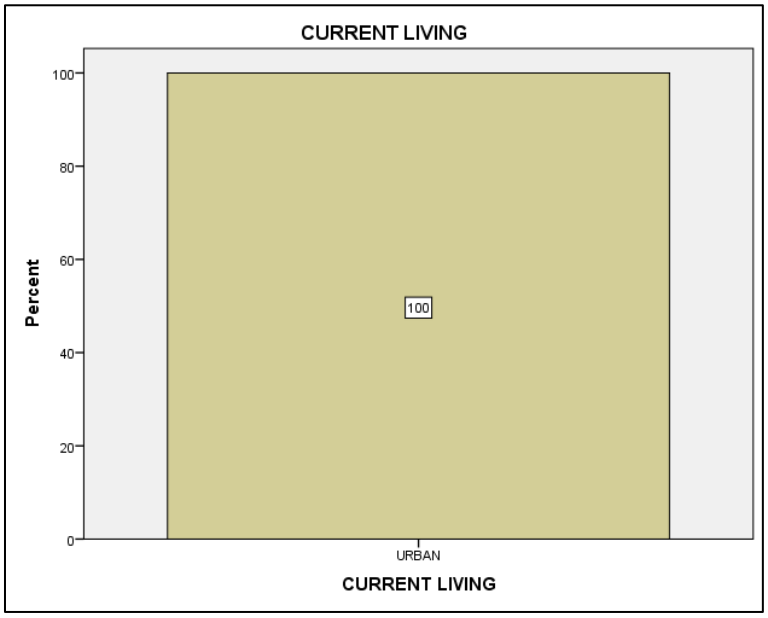

Figure 5: Current Place of Living for the Syrians in Istanbul - Randomly Selected Population.

For the educational background question, we took the still students at universities into a consideration of a university graduate because by the end of the day they will graduate. So, according to Table6 and Figure6, we notice that %70.5 are university degree holders which means that they will end up having a great share in the labor force for the next estimated five years.

EDUCATION

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ILLITERATE	8	3.7	3.7	3.7
	HIGHSCHOOL	40	18.4	18.4	22.1
	UNIVERSITY	153	70.5	70.5	92.6
	HIGHER EDUCATION	16	7.4	7.4	100.0
	Total	217	100.0	100.0	

Table 6: Educational Background for the Syrians in Istanbul - Randomly Selected Population.

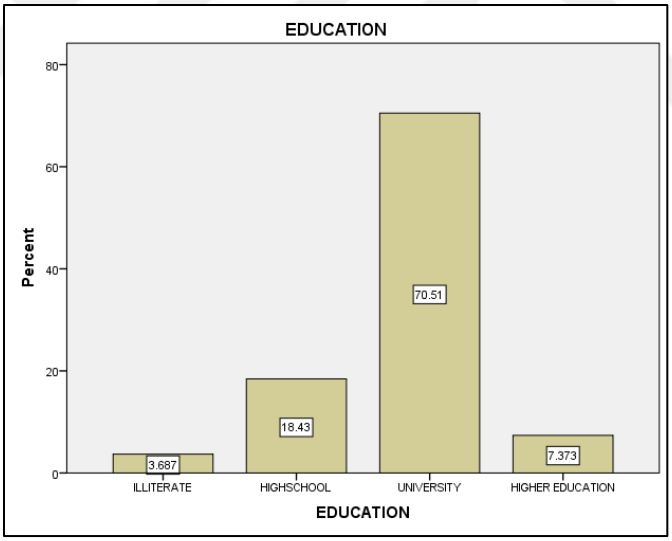

Figure 6: Educational Background for the Syrians in Istanbul - Randomly Selected Population.

Syrians are really well-known as a really active people and they do not sit at home and nothing. The below Table7 and figure7 prove that impression by having %80.6 of the participants employed and only %19.4 are unemployed. Yet, all the employed participants fall into the category of informal employment since we did not meet someone who is registered in the governmental authorities. That should make sense

because Syrians fall into the category of "under protection people" and they are not eligible for work permits.

WORK STATUS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	EMPLOYED	175	80.6	80.6	80.6
	UNEMPLOYED	42	19.4	19.4	100.0
	Total	217	100.0	100.0	

Table 7: Working Status for the Syrians in Istanbul - Randomly Selected Population.

Figure 7: Working Status for the Syrians in Istanbul - Randomly Selected Population.

The average wage that a Syrian could gain is in the range of 1000 TRY[15] – 1500 TRY according to the below Table8 and Figure8. As we compare this range with the a formal registered Turkish employed who gains around 2000 TRY, we can conclude that this wage is fair enough for this period of time. Especially, a further cross-tabs analysis[16] in the next chapter will determine which category of educational background gains the highest wages average. Particularly, we previously found out that %71.5 of the Syrians are, or will be, holding a university degree in the near future.

[15] TRY represents the Turkish Lira which is the official Turkish currency. In May 2019, the US Dollars = 5.97 Turkish Lira.

[16] CROSS-TABS ANALYSIS: It is an analysis where we cross the results of two variables and look at how they intersect and correlate to each other. Accordingly, we will be able to determine the weighted impact of each.

WAGES

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	500-1000	27	12.4	12.4	12.4
	1000-1500	94	43.3	43.3	55.8
	1500-2000	45	20.7	20.7	76.5
	2000-2500	41	18.9	18.9	95.4
	MORE THAN 2500	10	4.6	4.6	100.0
	Total	217	100.0	100.0	

Table 8: Average Wages for the Syrians in Istanbul - Randomly Selected Population.

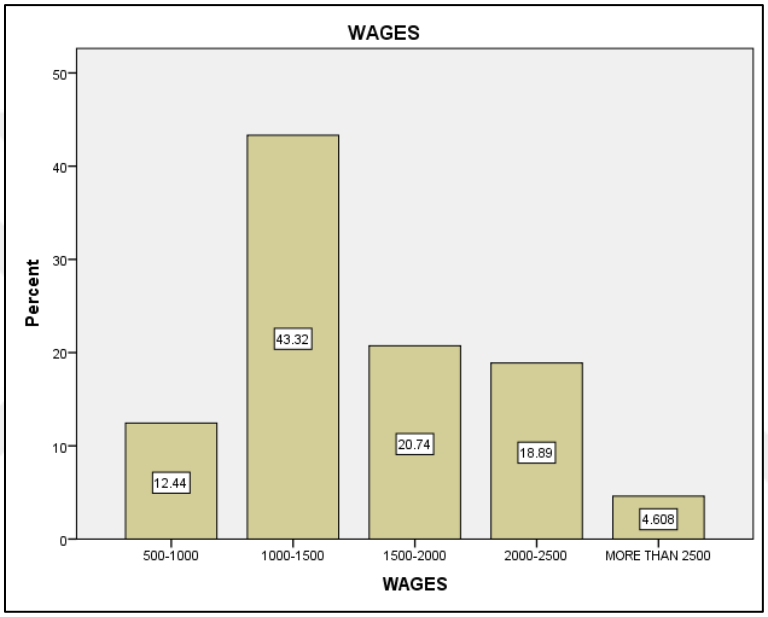

Figure 8: Average Wages for the Syrians in Istanbul - Randomly Selected Population.

Now, that was very surprising for me knowing that %49.8, according to Table9 and Figure9, of the participants referred crossing borders to Turkey and leaving their own country is mainly because of the economic situation right after the conflict in Syria had begun. Further discussion with the participants showed that the Syrian Lira was heavily affected by the conflict where the US dollars equals around 50 SYP[17] in 2011. Dramatically speaking, the US dollars equals to around 540 Syrian Pound now! The 10,000 SYP was equal to around $200 US dollars, the man continued. Yet, it equals to around $20 US Dollars!

[17] SYP is the Syrian Pound.

LEAVING REASON

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	CIVIL WAR	66	30.4	30.4	30.4
	ECONOMIC SITUATION	108	49.8	49.8	80.2
	MILITARY SERVICE	43	19.8	19.8	100.0
	Total	217	100.0	100.0	

Table 9: Leaving their country reason for the Syrians in Istanbul - Randomly Selected Population.

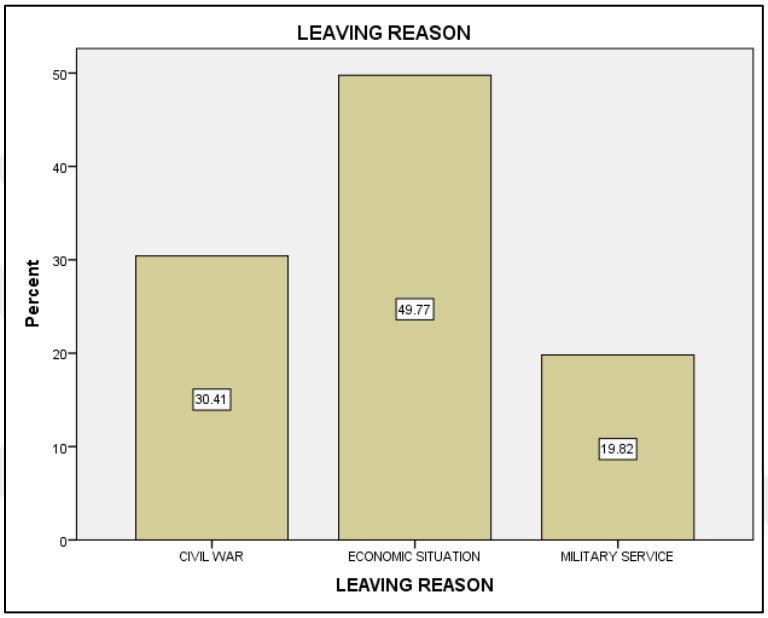

Figure 9: Leaving their country reason for the Syrians in Istanbul - Randomly Selected Population.

The next question is designed to check the sense of security since people cross borders due to insecurities whether economical or safety. So, we ask them whether they feel secure or not. According to the below results in Table10 and figure10, %88.9 expressed their agreement. On the other hand, only %11.1 said no. Further cross-tab analysis will show us who feels insecure in Turkey.

ARE YOU SECURE?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	193	88.9	88.9	88.9
	NO	24	11.1	11.1	100.0
	Total	217	100.0	100.0	

Table 10: Security Feeling for the Syrians in Istanbul - Randomly Selected Population.

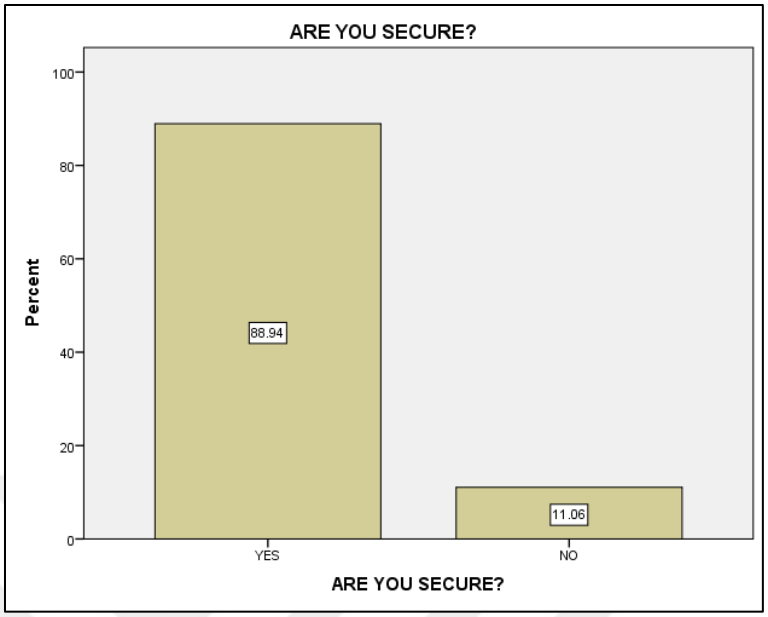

Figure 10: Security Feeling for the Syrians in Istanbul - Randomly Selected Population.

Moreover, I was trying to check the number of potential population that is going to get back to Syria when the war will be over so that I ended my survey with this last question; Are you going to stay in Turkey if the situation in Syrian improves? Looking at the below Table11 and Figure11 is enough to understand that %85.7 of the participant answered Yes. However, only %14.3 of the participants showed their interest in going back to Syria. Further cross-tab analysis will investigate who is the %14.3 percent who is willing to get back.

WILL YOU STAY?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	186	85.7	85.7	85.7
	NO	31	14.3	14.3	100.0
	Total	217	100.0	100.0	

Table 11: Staying in Turkey for the Syrians in Istanbul - Randomly Selected Population.

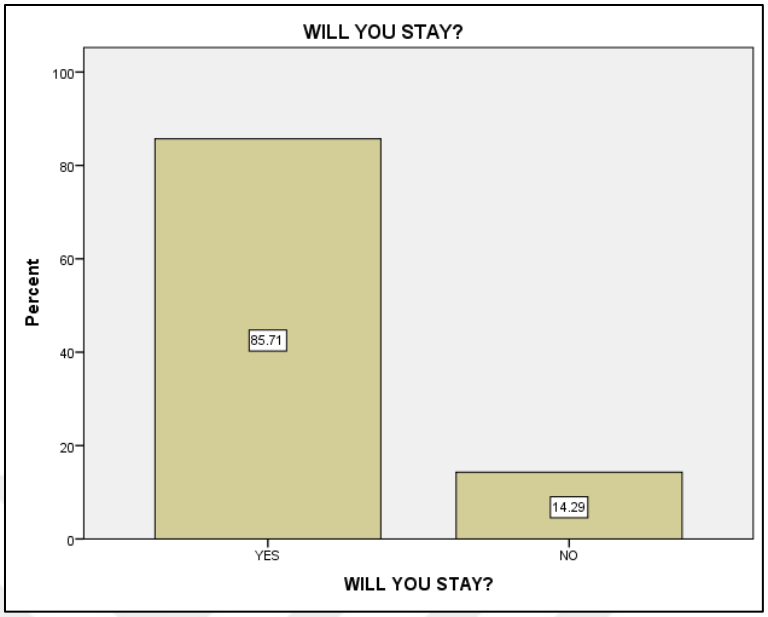

Figure 11: Staying in Turkey for the Syrians in Istanbul - Randomly Selected Population.

3.3.2 Cross-tab Analysis

As we mentioned above in the previous section, a cross-tabs analysis will show the tendencies of factors to act, react or correlate differently. For instance, we have the educational background and wages factors and we want to know how they each interpret the other. The Figure12 and Table12 below show us how as we move more higher with educational background, we notice that we are having higher wages. It means the more educated you are, the more wages you can earn in Turkey. The higher education degree tends to earn no less than 1500 TRY and more than 2500 TRY. While, the university degree tends to earn from 1500 TRY to 2000 TRY. Subsequently, illiterate people tend to earn no more than 1000 TRY.

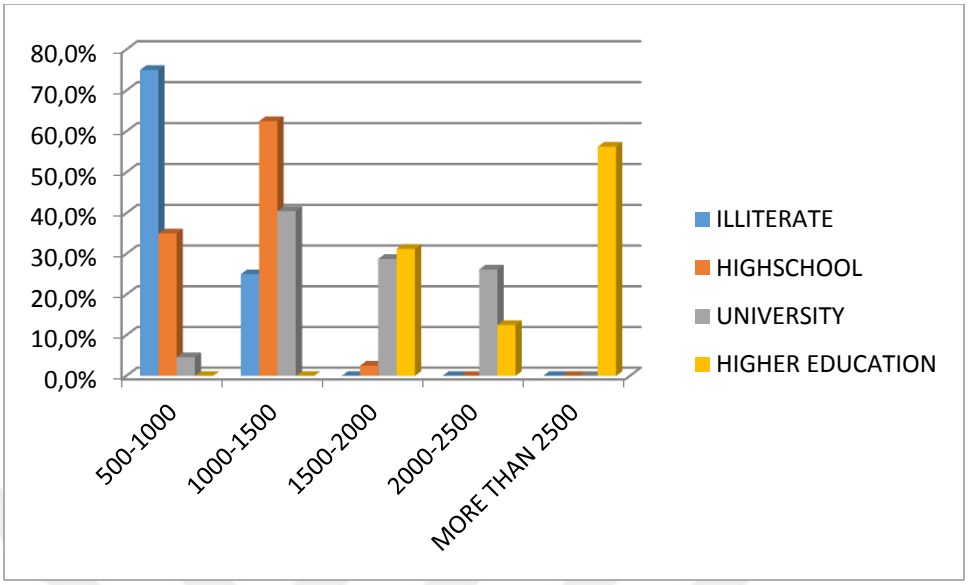

Figure 12: Cross-tabs Analysis for Educational Background in cross to Wages.

EDUCATION * WAGES Crosstabulation

		WAGES					Total
		500-1000	1000-1500	1500-2000	2000-2500	> 2500	
ILLITERATE	Count	6	2	0	0	0	8
	% within EDUCATION	75.0%	25.0%	0.0%	0.0%	0.0%	100.0%
HIGHSCHOOL	Count	14	25	1	0	0	40
	% within EDUCATION	35.0%	62.5%	2.5%	0.0%	0.0%	100.0%
UNIVERSITY	Count	7	62	44	40	0	153
	% within EDUCATION	4.6%	40.5%	28.8%	26.1%	0.0%	100.0%
HIGHER EDUCATION	Count	0	0	5	2	9	16
	% within EDUCATION	0.0%	0.0%	31.2%	12.5%	56.2%	100.0%
Total	Count	27	89	50	42	9	217
	% within EDUCATION	12.4%	41.0%	23.0%	19.4%	4.1%	100.0%

Table 12: Cross-tabs Analysis for Educational Background in cross to Wages.

Another crosstabulation[18] between educational status and being secure showed that the higher the educational background the more secure they feel. In Table13 and Figure13, %100 of the higher education degree holders feel secure, %90 of the university

[18] CROSSTABULATION: A statistical term that refers to intersecting two or more datasets.

degree holders feel secure and %67.5 of the university degree holders feel secure as well. On the other hand, only %25 of the illiterate people feels secure.

EDUCATION * ARE YOU SECURE? Crosstabulation

		ARE YOU SECURE?		Total
		YES	NO	
ILLITERATE	Count	2	6	8
	% within EDUCATION	25.0%	75.0%	100.0%
HIGHSCHOOL	Count	27	13	40
	% within EDUCATION	67.5%	32.5%	100.0%
UNIVERSITY	Count	139	14	153
	% within EDUCATION	90.8%	9.2%	100.0%
HIGHER EDUCATION	Count	16	0	16
	% within EDUCATION	100.0%	0.0%	100.0%
Total	Count	184	33	217
	% within EDUCATION	84.8%	15.2%	100.0%

Table 13: Cross-Tab Analysis for Educational Background versus Security.

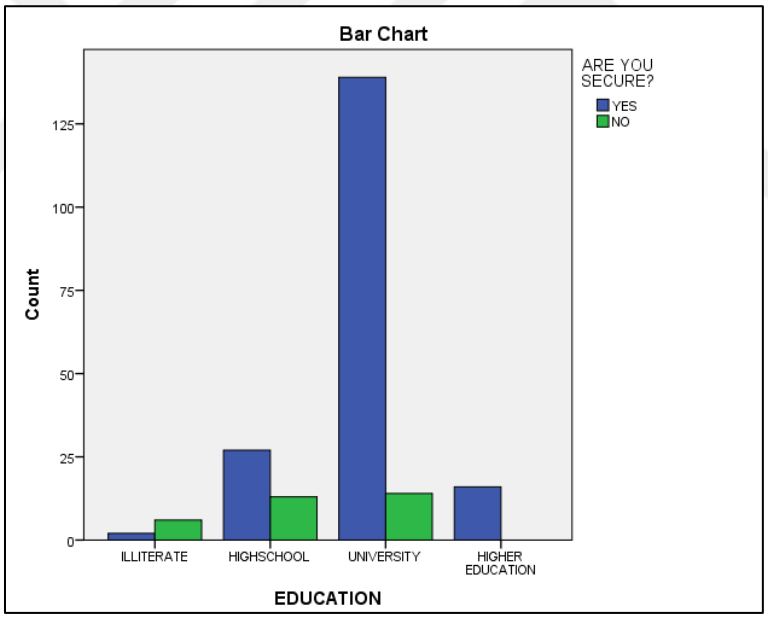

Figure 13: Cross-Tab Analysis for Educational Background versus Security.

Moving towards earnings, Table14 and Figure14 show it clears that the more you earn the more secure you feel. %100, %95.2, %92, &78.7 and %70.4 are the gradual security feeling as per to earning where they correspond respectively to more than 2500 TRY up to less than 1000 TRY. The more you earn, the more you feel secure. It assures

what we have mentioned before in Table9 and Figure9 that the main reason of crossing borders was the devastating economic situation with %49.8 back in Syrian.

WAGES * ARE YOU SECURE? Crosstabulation

		ARE YOU SECURE?		Total
		YES	NO	
500-1000	Count	19	8	27
	% within WAGES	70.4%	29.6%	100.0%
1000-1500	Count	70	19	89
	% within WAGES	78.7%	21.3%	100.0%
1500-2000	Count	46	4	50
	% within WAGES	92.0%	8.0%	100.0%
2000-2500	Count	40	2	42
	% within WAGES	95.2%	4.8%	100.0%
MORE THAN 2500	Count	9	0	9
	% within WAGES	100.0%	0.0%	100.0%
Total	Count	184	33	217
	% within WAGES	84.8%	15.2%	100.0%

Table 14: Cross-Tab Analysis for Earnings versus Security.

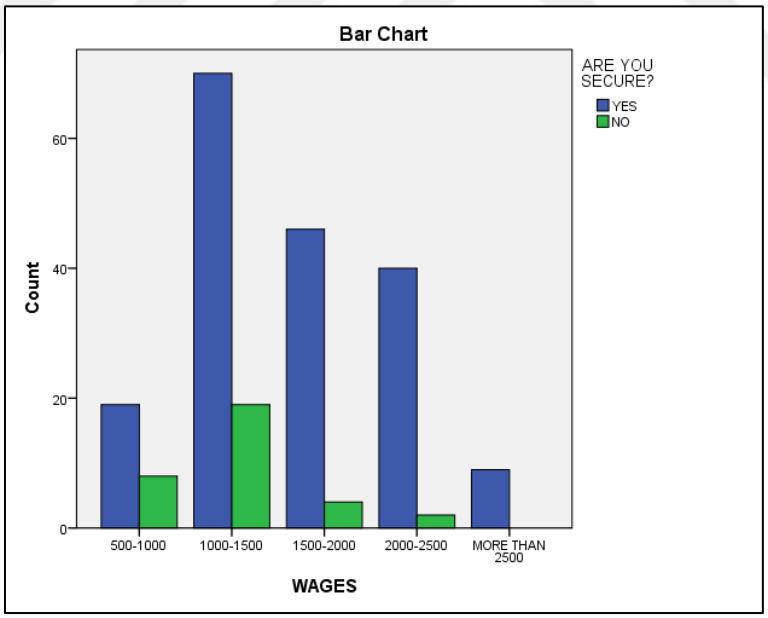

Figure 14: Cross-Tab Analysis for Wages versus Security.

Our next cross-tab analysis is the relation of who is willing to stay in Turkey after the war will be over in Syria in respect to the earnings? Table15 and Figure15 show the correlation of how much can some earn will affect his/her decision of going back to the original country. Numbers show that the more you earn in Turkey, the more you tend to

stay. The ones who earn more than 2500 TRY are willing to stay in Turkey with a very rigid percent of %100. 97.6 percent of the ones who earn between 2000 -2500 TRY showing their interest to stay in Turkey. Furthermore, 92 percent of the ones who earn 1000 – 2000 TRY also show the interest of staying. Dramatically, only %29.6 of the low-earning category wants to stay in Turkey.

WAGES * WILL YOU STAY? Crosstabulation

		WILL YOU STAY?		Total
		YES	NO	
500-1000	Count	8	19	27
	% within WAGES	29.6%	70.4%	100.0%
1000-1500	Count	82	7	89
	% within WAGES	92.1%	7.9%	100.0%
1500-2000	Count	46	4	50
	% within WAGES	92.0%	8.0%	100.0%
2000-2500	Count	41	1	42
	% within WAGES	97.6%	2.4%	100.0%
MORE THAN 2500	Count	9	0	9
	% within WAGES	100.0%	0.0%	100.0%
Total	Count	186	31	217
	% within WAGES	85.7%	14.3%	100.0%

Table 15: Cross-Tab Analysis for Wages versus Staying in Turkey.

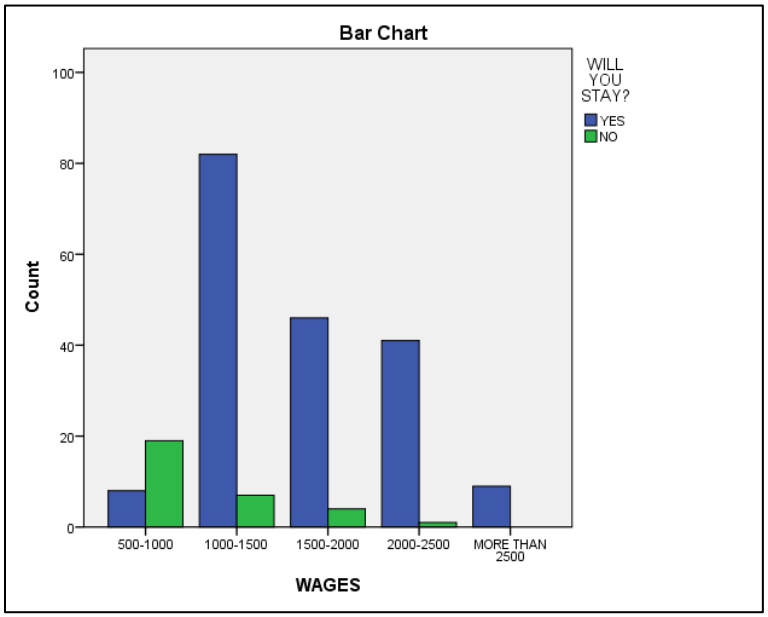

Figure 15: Cross-Tab Analysis for Wages versus Staying in Turkey.

Our last cross-tab analysis is the relation of who is willing to stay in Turkey after the war will be over in Syria in respect to the educational background? Table16 and

Figure16 show the correlation of how you educational background will affect his/her decision of going back to the original country. Numbers show that the higher your educational background in Turkey, the more you tend to stay. The ones with higher educational background are willing to stay in Turkey with a very rigid percent of %100. 88.9 percent of the ones who hold a university degree showing their interest to stay in Turkey. Additionally, 80 percent of the ones who are, or finished, high school also show the interest of staying. Dramatically, again, only %25 of the illiterate category wants to stay in Turkey if things get better in Syria.

EDUCATION * WILL YOU STAY? Crosstabulation

			WILL YOU STAY?		Total
			YES	NO	
EDUCATION	ILLITERATE	Count	2	6	8
		% within EDUCATION	25.0%	75.0%	100.0%
	HIGHSCHOOL	Count	32	8	40
		% within EDUCATION	80.0%	20.0%	100.0%
	UNIVERSITY	Count	136	17	153
		% within EDUCATION	88.9%	11.1%	100.0%
	HIGHER EDUCATION	Count	16	0	16
		% within EDUCATION	100.0%	0.0%	100.0%
Total		Count	186	31	217
		% within EDUCATION	85.7%	14.3%	100.0%

Table 16: Cross-Tab Analysis for Educational Background versus Staying in Turkey.

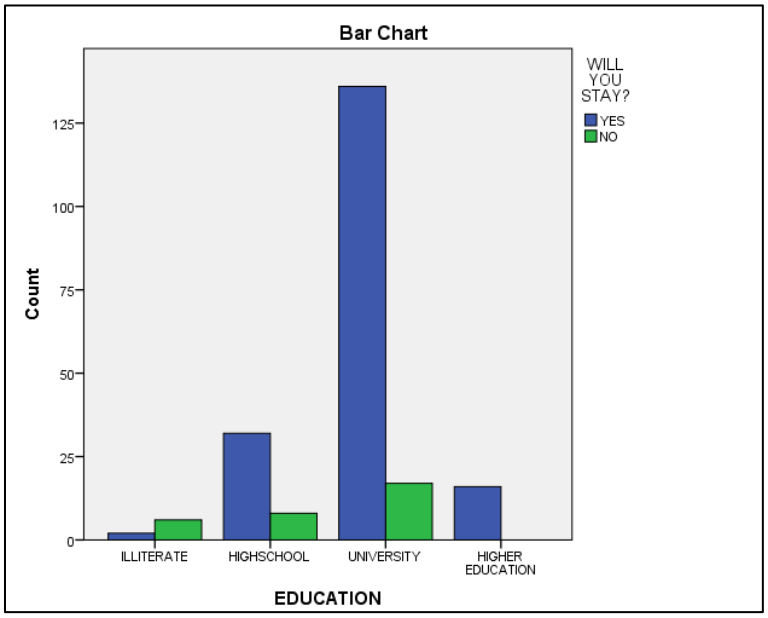

Figure 16: Cross-Tab Analysis for Educational Background versus Staying in Turkey.

3.4 Economic Analysis

For the sake of this academic research paper, the Regression Analysis will be conducted in order to determine and interpret the received information about the economic circumstances in Turkey. The dataset that I am using in order to analyze the economic situation is going to be categorized into two main classifications; (1) Independent Variables and (2) Dependent Variables. The variables are listed and defined in the Table17 below:

Dependent Variables	***ID***	***Independent Variable***	***ID***
Employment Rate	*EmpRate(y)*	Number of Refugees	*NumRefugees(x1)*
Unemployment Rate	*UnempRate(y)*	Consumer Confidence Index	*CCI(x2)*
Inflation	*InfRate(y)*	Economic Price Index	*ECI(x3)*
Consumer Price Index	*CPI(y)*	Exports	*Export(x4)*
GDP Growth	*GDPGrowth(y)*	Imports	*Import(x5)*
Broad Money	*BroMoney(y)*		
National Debt	*Debt(y)*		

Table 17: Independent and Dependent Variables.

The analysis is going to be presented in two main stages. First stage is independent variables to Independent Variables Analysis. It is a correlation analysis that is going to be conducted among the Independent Variables themselves. This approached analysis will determine to a vivid extend the Multicollinearity[19]. For instance, if two independent variables x1 and x2, or even more, have the same attitude and tendency in affecting the regression model, then we would end up having an unknown impact on the

[19] Multicollinearity: a statistical phenomenon in multiple regression model in which two predictors or independent variables (in our case) have the same linear tendency to impact the other variables.

regression analysis. We would not be able to tell whether in it's the impact of the independent variable x1 or the independent variable x2. Accordingly, the correlation analysis among independent variables will prevent us from and impact of redundancy.

Furthermore, in stage two, correlation analysis will proceed in phase two where we will be testing the independent variables along with the dependent variables. At this analysis, we analyze the impact of independent variables over the dependent variables. As a result of this analysis, we will be able to tell how the independent variables affect the dependent variables throughout the Multiple Regression Model. The main way to utilize this approach is following the Multiple Regression Model as it shown in equation (1) below. The model itself does nothing unless we make an equation out of it like in Multiple Regression Equation (2). Nevertheless, since we are estimating the impact, then we need to narrow it down and follow the Estimated Regression Equation (3).

$$\boldsymbol{Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \cdots \beta_p X_p + \epsilon} \text{ ..... (1)}$$

Equation 1: Multiple Regression Model.

$$\boldsymbol{E(Y) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \cdots \beta_p X_p} \text{ ..... (2)}$$

$$\epsilon = Assumed\ to\ be\ Zero$$

Equation 2: Multiple Regression Equation.

$$\boldsymbol{\hat{Y} = b_0 + b_1 X_1 + b_2 X_2 + \cdots + b_p X_p} \text{ ..... (3)}$$

$$\hat{Y} = Predected\ Value\ of\ the\ Dependent\ Variables$$

$$b_0, b_1, b_2, b_p\ are\ the\ estimates\ of\ \beta_0, \beta_1, \beta_2, \beta_p$$

Equation 3: Estimated Regression Equation.

3.5 Data Interpretation and Discussing: Seeking for answers.

3.5.1 Part one: Independent Variables Analysis; Multicollinearity Analysis.

As it is mentioned in the previous section and in order not to proceed blindly, we are going to run our first Multicollinearity analysis. We will be checking the correlation of each two independent variables aside and see whether they behave similarly or not. We will be using the scatterplot diagram along with P-Value in order to see rigid results. We find the P-Value of each pair of independent Variables by running a correlation function in Minitab software for the independent variables NumRefugees(x1), CCI(x2), ECI(x3), Exports(x4) and Imports(x5). Table18 below shows the correlation for each pair of independent variables:

Correlation: NumRefugees(x1), CCI(x2), ECI(x3), Exports(x4), Imports(x5) (Multicollinearity)

	NumRefugees(x1)	CCI(x2)	ECI(x3)	Exports(x4)
CCI(x2)	-0.915			
	0.004			
ECI(x3)	-0.856	0.923		
	0.014	0.003		
Exports(x4)	-0.241	0.192	0.118	
	0.602	0.681	0.802	
Imports(x5)	0.687	-0.624	-0.462	0.392
	0.088	0.134	0.296	0.384

Cell Contents: Pearson correlation
P-Value

Table 18: The Correlation among Independent Variables (Multicollinearity).

Our first correlation is between NumRefugees(x1) and CCI(x2). By looking at Figure17 below, we can visually notice the linear relation between the two independent variables. Reading the correlation and P-Value for their intersection can assure the significance by 0.004 P-Value and correlation of %91.5. The result states that

NumRefugees(x1) is highly correlated with CCI(x2) and they behave similarly. Therefore, this is multicollinearity.

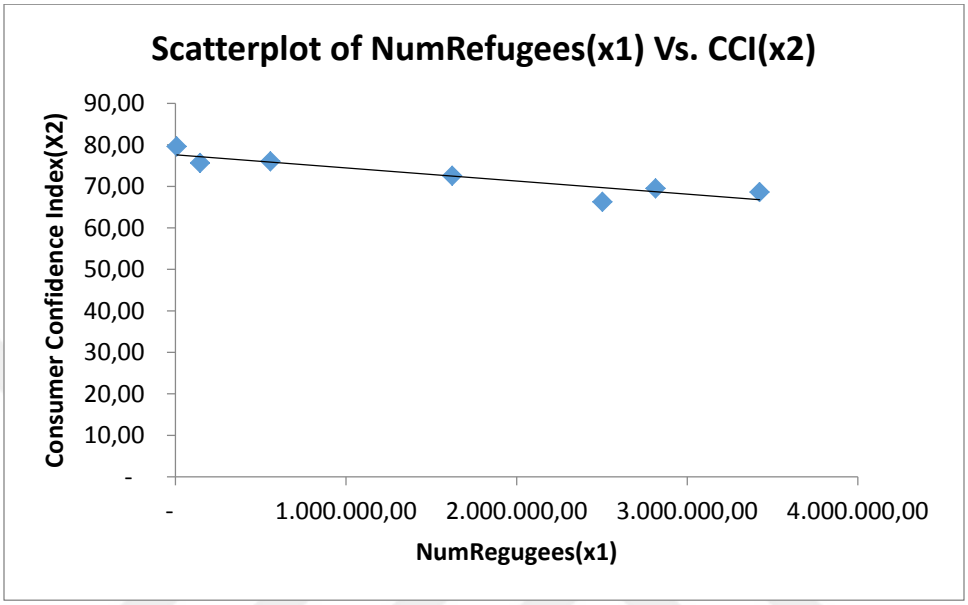

Figure 17: Scatterplot of NumRefugees(x1) Vs. CCI(x2)

Moving to the next correlation which is between NumRefugees(x1) and ECI(x3); by looking at Figure18 below, we can also visually notice the linear relation between the two independent variables. Reading the correlation and P-Value for their intersection can guarantee the significance by 0.014 P-Value and correlation of %85.6. The result states that NumRefugees(x1) is also highly correlated with ECI(x3) and they both behave similarly. Therefore, this is multicollinearity, too.

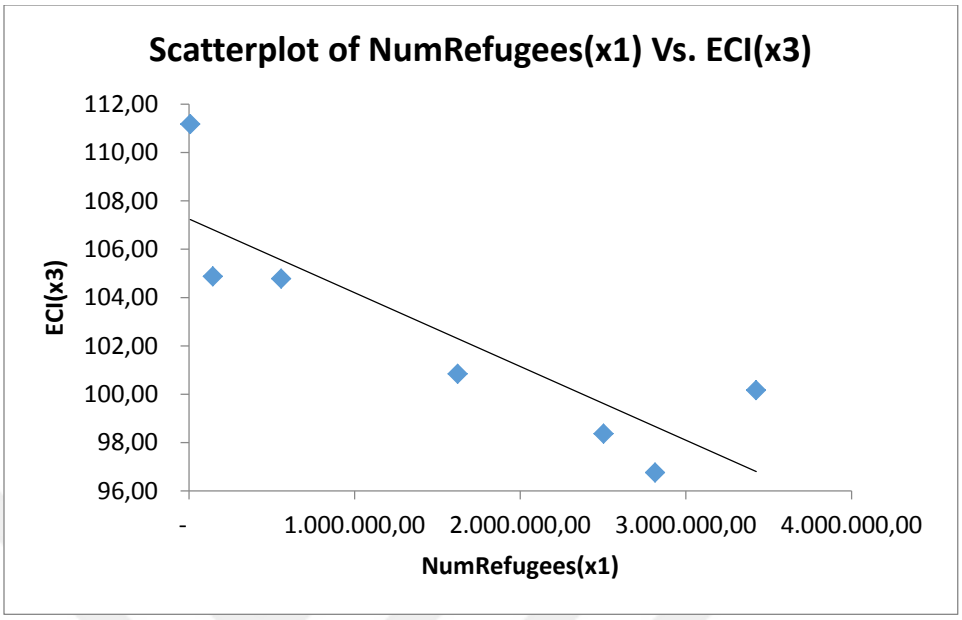

Figure 18: Scatterplot of NumRefugees(x1) Vs. ECI(x3)

Moving further to another correlation; we have a correlation between NumRefugees(x1) and Export(x4). A quick glance at Figure19 below is enough to tell about the nonlinear distribution between those two independent variables. By looking at the correlation and P-Value for their intersection in Table18 can guarantee the insignificance by 0.602 P-Value and the poor correlation of %24.1. The result states that NumRefugees(x1) is also not correlated with Export(x4) and they both behave differently. Therefore, this correlation DOES NOT have multicollinearity.

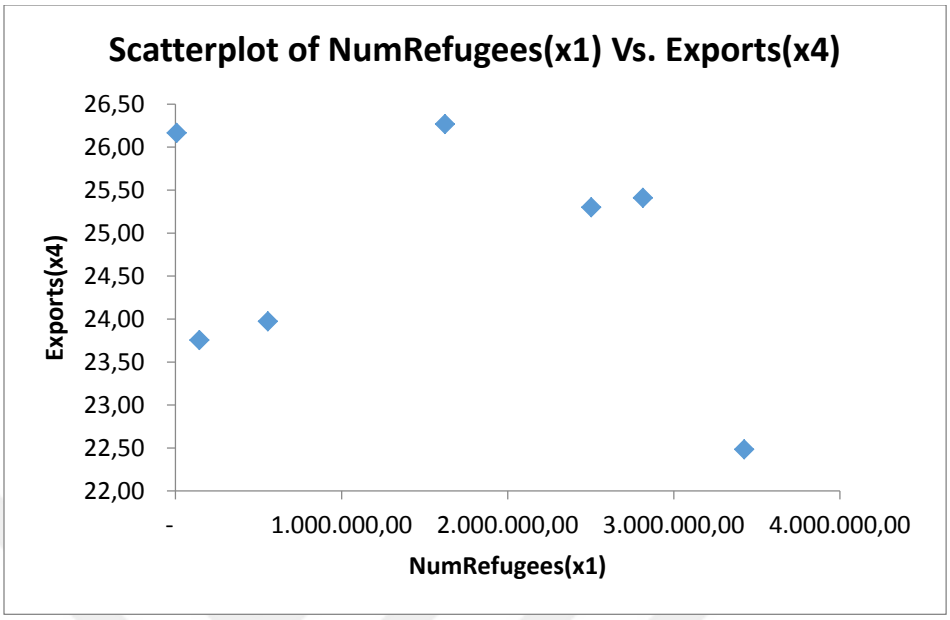

Figure 19: Scatterplot of NumRefugees(x1) Vs. Exports(x4)

The next correlation that we have is between the two independent variables NumRefugees(x1) and Export(x4). A quick look at Figure20 below is not adequate to state the nonlinear distribution between those two independent variables. We notice the very close linear correlation. On the other hand, by looking at the correlation and P-Value for their intersection in Table18, it is hard to say the correlation is insignificance due to the close P-Value of 0.088 from the threshold of 0.05. Plus, the correlation of %68.7 is not weak. Yet, mathematically speaking and by definition, the result states that NumRefugees(x1) is also not correlated with Import(x5) and they both behave differently. Therefore, this correlation DOES NOT have multicollinearity.

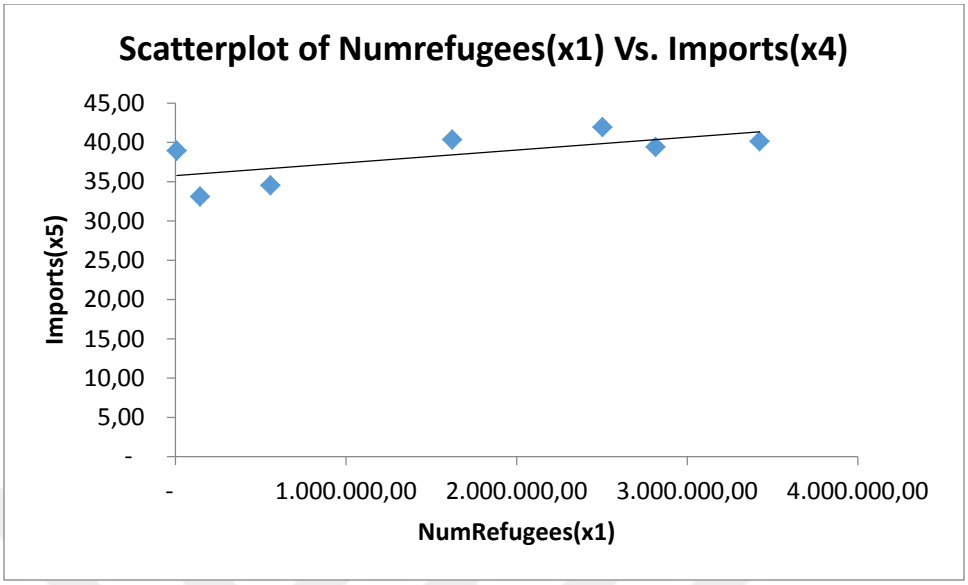

Figure 20: Scatterplot of NumRefugees(x1) Vs. Imports(x5)

Moving to the scatterplot of the correlation between CCI(x2) and ECI(x3); by looking at Figure21 beneath, we can also visually notice the noticeable linear relation between the two independent variables. Reading the correlation and P-Value for their intersection in Table18 can guarantee the significance by 0.003 P-Value and the strong correlation of %92.3. The result states that CCI(x2) is highly correlated with ECI(x3) and they both behave similarly. Therefore, multicollinearity is pretty obvious between these two independent variables.

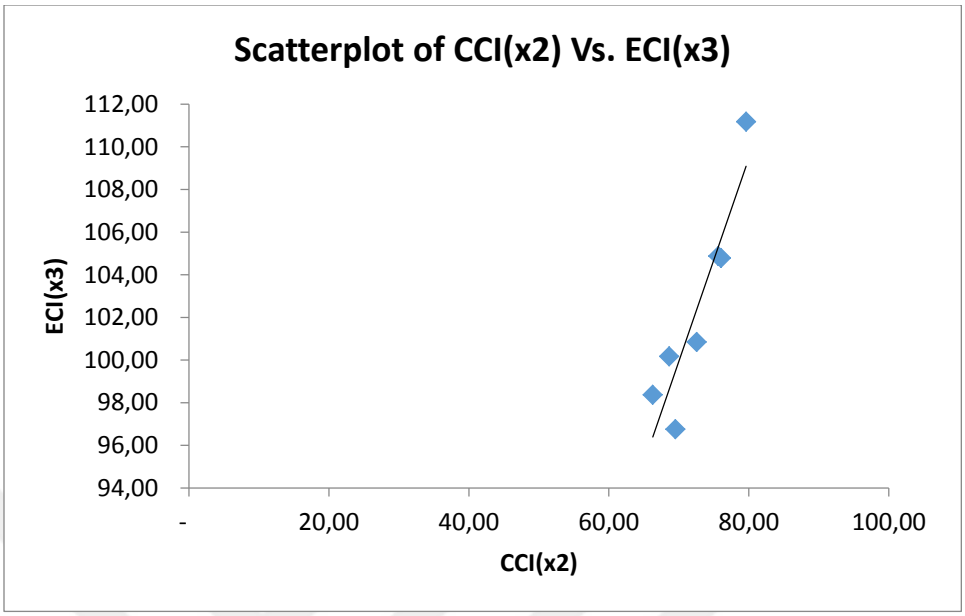

Figure 21: Scatterplot of CCI(x2) Vs. ECI(x3)

Proceeding further to another correlation; we have a correlation between CCI(x2) and Export(x4). We can tell that there is a nonlinear correlation between those two independent variables from the Figure22 below. By looking at the correlation and P-Value for their intersection in Table18, we can guarantee the insignificance by 0.681 P-Value and the poor correlation of %19.2. The result is that CCI(x2) is not correlated with Export(x4) and they both behave differently. Therefore, this correlation DOES NOT have multicollinearity.

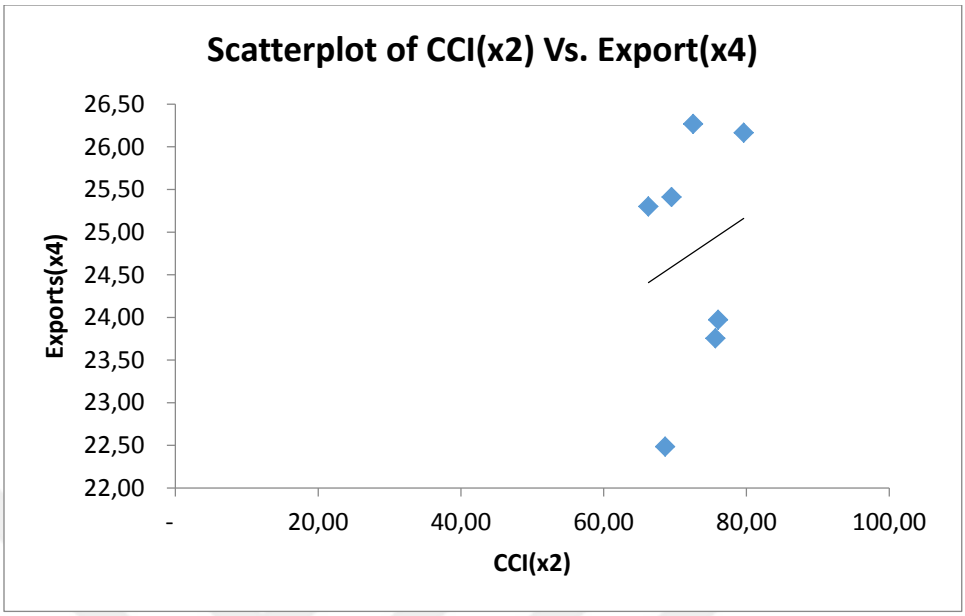

Figure 22: Scatterplot of CCI(x2) Vs. Exports(x4)

Moving forward to the next correlation that we have which is between the two independent variables CCI(x2) and Import(x5). In it obvious from the scatterplot in Figure23 that there is no linear correlation since the dots are not aligned in a linear way. Also, by looking at the correlation and P-Value for their intersection in Table18, we notice that the P-Value is 0.134 which is higher than the threshold of 0.05. Yet, the correlation of %62.4 is not weak. Consequently, the result states that CCI(x2) is not correlated with Import(x5) and they both behave differently. Therefore, this correlation DOES NOT have multicollinearity.

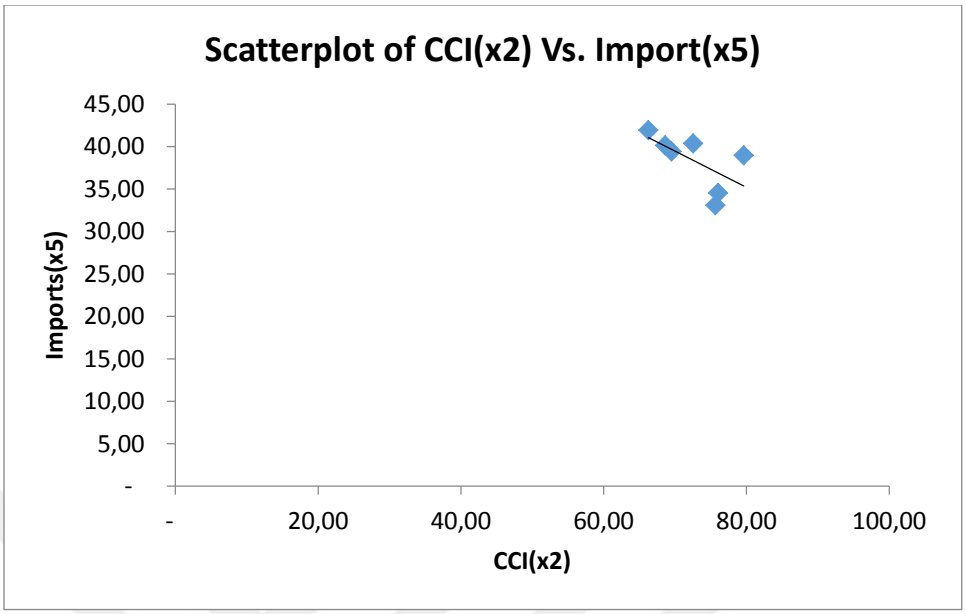

Figure 23: Scatterplot of CCI(x2) Vs. Imports(x5)

The next correlation that we have is between ECI(x3) and Export(x4). A quick scan at Figure24 below is quite enough to tell about the nonlinear distribution between those two independent variables. By reading the correlation and P-Value for their intersection in Table18, we can guarantee the insignificance by a P-Value of 0.802 and the humble correlation of %11.8. The result, accordingly, states that ECI(x3) is also not correlated with Export(x4) and they both behave in a different way. Therefore, this correlation DOES NOT have multicollinearity.

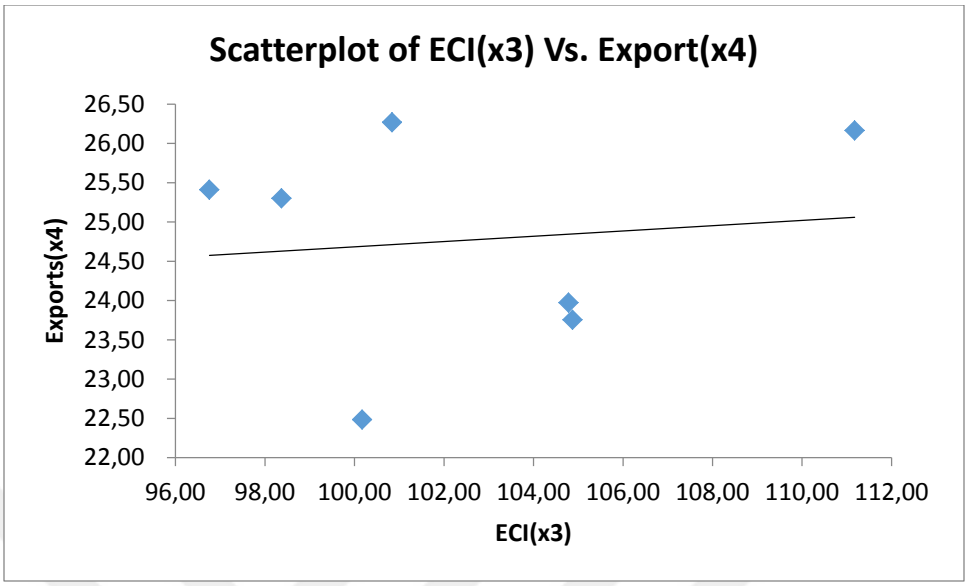

Figure 24: Scatterplot of ECI(x3) Vs. Exports(x4)

Despite the fact that the scatterplot in Figure25 can be a little bit manipulative by demonstrating a look like linear correlation between the two independent variables ECI(x3) and Import(x5); yet, by reading the correlation and P-Value for their intersection in Table18, we notice that the P-Value is 0.296 which is higher than the threshold of 0.05. Moreover, the correlation of %46.2 is not that strong. Consequently, the result states that ECI(x3) is not correlated with Import(x5) and they both behave contrarily. Thus, this correlation DOES NOT have multicollinearity.

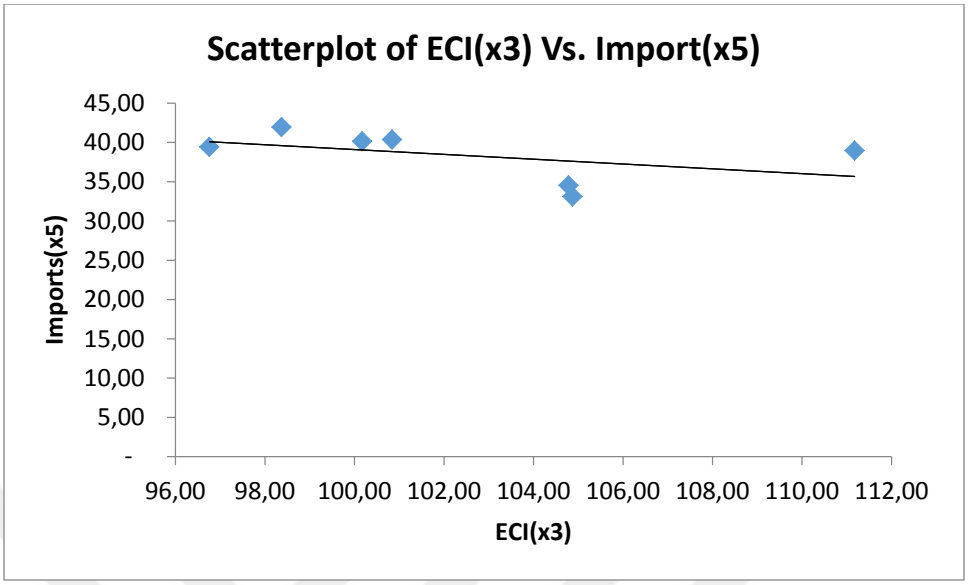

Figure 25: Scatterplot of ECI(x3) Vs. Imports(x5)

Our last correlation is between Export(x4) and Import(x5). It is true that they both fall in the same trade category, yet then both have different impact on the dependent variables as the numbers in Table18 could show. Again, the scatter plot in Figure26 below shows a nearly linear correlation. Yet, the P-Value of 0.384 proves that the correlation is under the significance threshold of 0.05. They also have a comparatively weak correlation of %39.2. As a result, multicollinearity doesn't exist in this correlation.

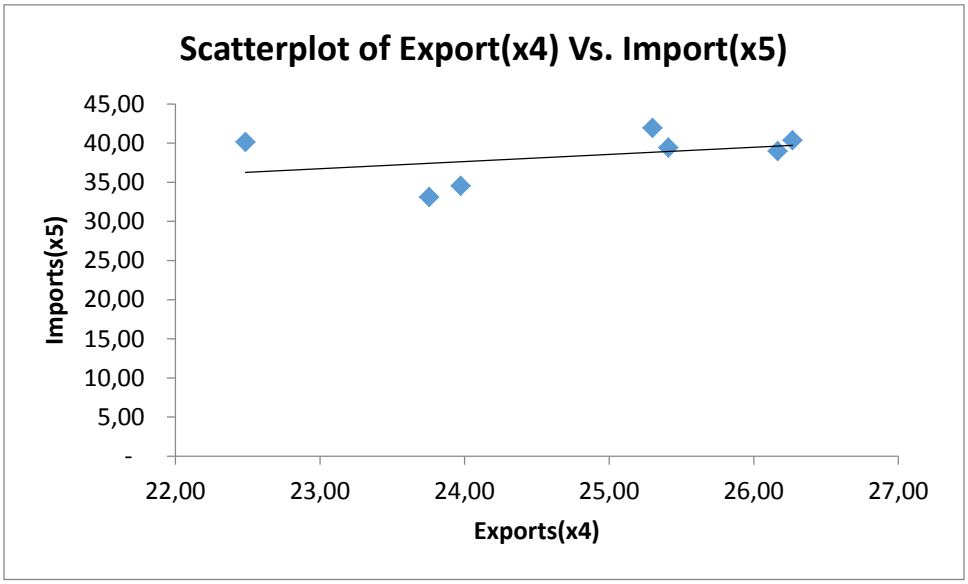

Figure 26: Scatterplot of Exports(x4) Vs. Imports(x5)

As a result to our first analysis, we find that multicollinearity accurse to exist in only three correlations. It seems to exist between NumRefugees(x1) and CCI(x2), NumRefugees(x1) and ECI(x2) and CCI(x2) and ECI(x3) as it is shown in Table3 below:

	NumRefugees *X1*	CCI *X2*	ECI *X3*	Export *X4*	Import *X5*
NumRefugees *X1*	X	X	X	X	X
CCI *X2*	**Multicollinear**	X	X	X	X
ECI *X3*	**Multicollinear**	**Multicollinear**	X	X	X
Export *X4*	Not Multicollinear	Not Multicollinear	Not Multicollinear	X	X
Import *X5*	Not Multicollinear	Not Multicollinear	Not Multicollinear	Not Multicollinear	X

Table 19: Multicollinearity Summary.

3.5.2 Part two: Independent Variables to Dependent Variables Analysis.

In this part of the analysis, we will be conducting series of analysis throughout the regression model in order to demonstrate to what extend an independent variable can affect a dependent variable. We will check the impact by grouping all the independent variables with a dependent variable in one regression approach at a time. Since we have six dependent variables as we already mention in Table1 then, as a result, we will end up having six sets to be examined independently.

3.5.2.1 Correlation of Independent Variables versus Employment Rate

Our first set of variables consists of all the dependent variables with the dependent variable EmpRate(y). Looking at the scatterplots of each independent variable correlating to the dependent variable in the Figures27, 28, 29, 30 and 31 below can give us a broad understanding on how they correlate independently.

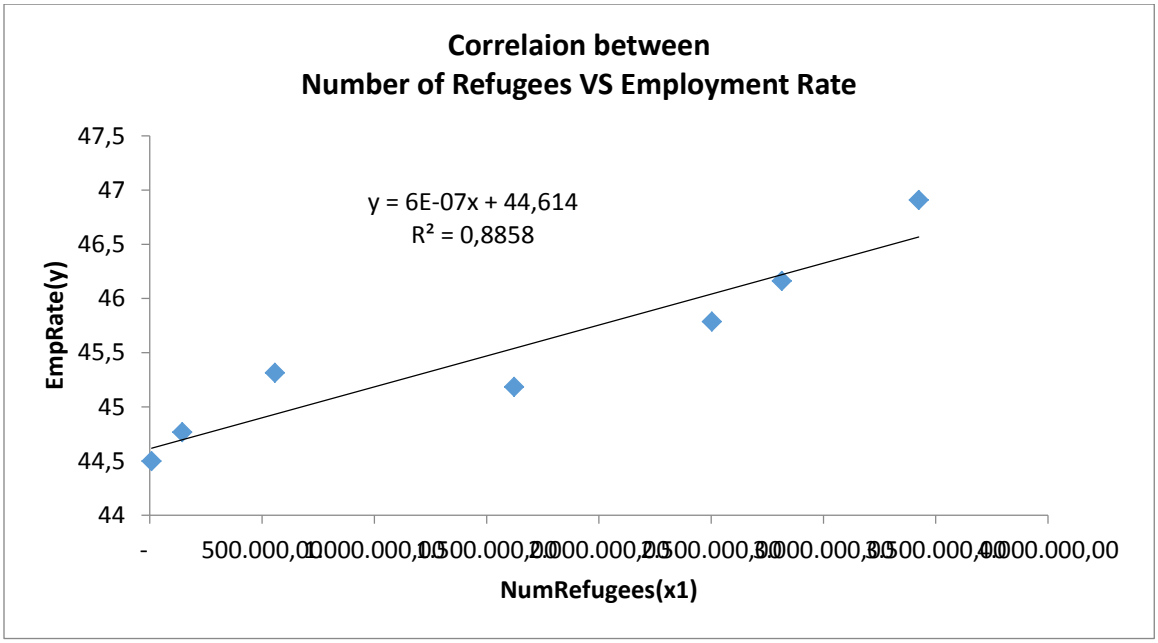

Figure 27: Correlation between EmpRate(y) and NumRefugees(x1)

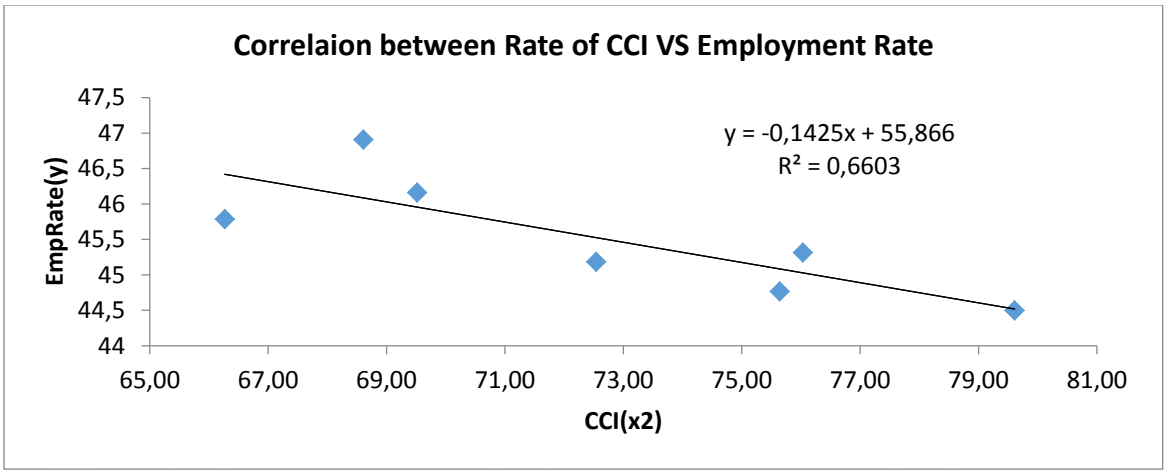

Figure 28: Correlation between EmpRate(y) and CCI(x2)

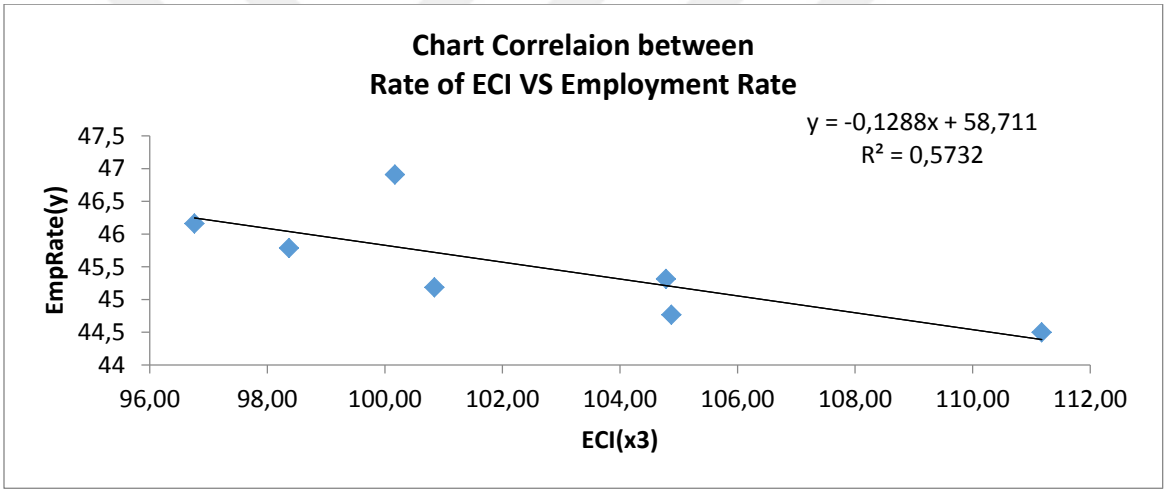

Figure 29: Correlation between EmpRate(y) and ECI(x3)

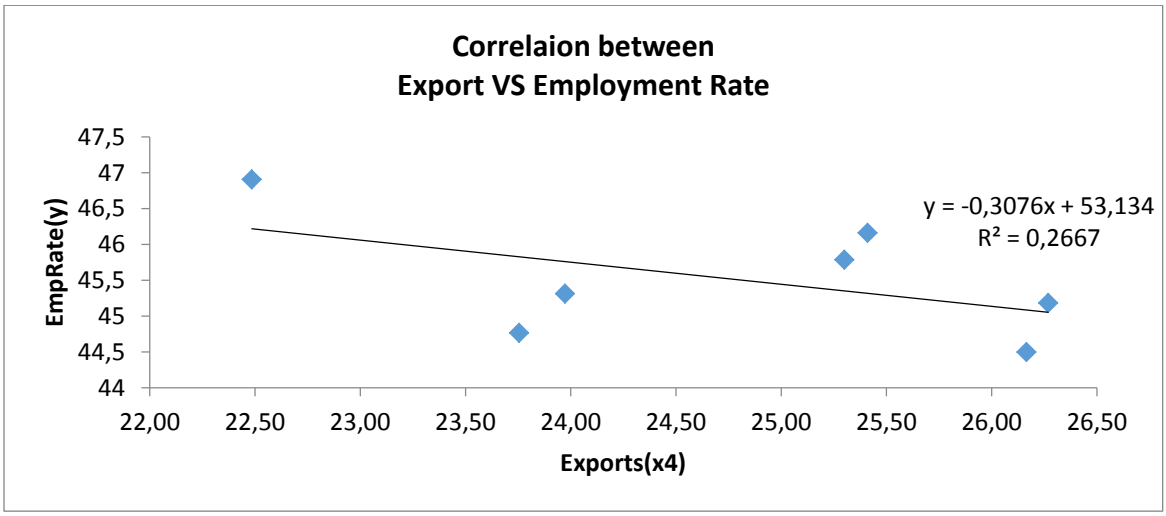

Figure 30: Correlation between EmpRate(y) and Exports(x4)

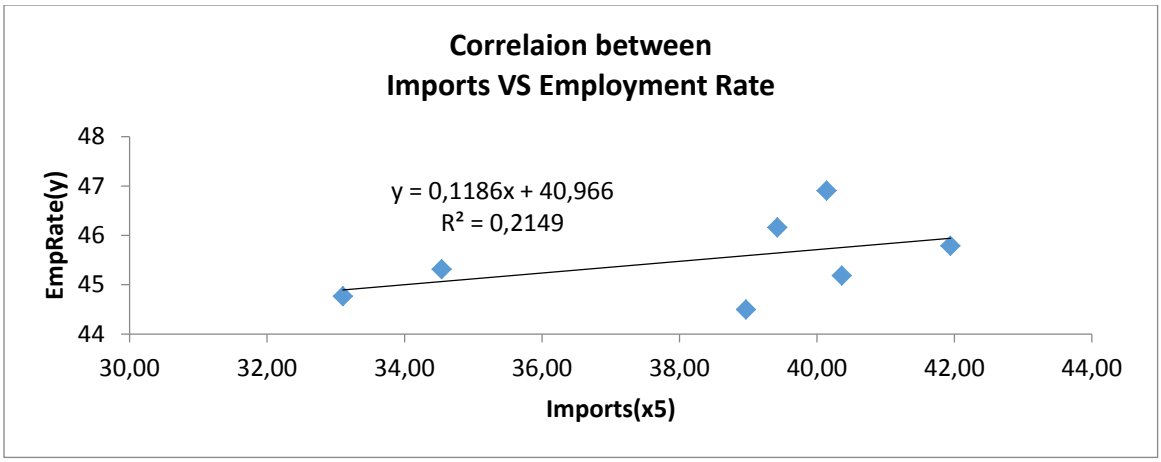

Figure 31: Correlation between EmpRate(y) and Imports(x5)

Now, we pull a correlation analysis so that we know the weight of impact that these independent variables have on the dependent variable which in our case is the EmpRate(y). By reading the outputs in Table20, we notice that we have a P-Value of 0.002, 0.026, 0.049, 0.235 and 0.295 that correspond to our independent variables NumRefugees(x1), CCI(x2), ECI(x3), Export(x4) and Import(x5) respectively. These P-Values mean that only NumRefugees(x1), CCI(x2) and ECI(x3) have significance impact over the EmpRate(y) with a strong correlation of %94.1, %81.3 and %75.7 respectively as well. Accordingly, we do not put into consideration the insignificant independent variables Export(x4) and Import(x5) when we pull a Regression Analysis.

Correlation: NumRefugees(x1), CCI(x2), ECI(x3), Exports(x4), Imports(x5), EmpRate(y)

	NumRefugees(x1)	CCI(x2)	ECI(x3)	Exports(x4)	Imports(x5)
CCI(x2)	-0.915				
	0.004				
ECI(x3)	-0.856	0.923			
	0.014	0.003			
Exports(x4)	-0.241	0.192	0.118		
	0.602	0.681	0.802		
Imports(x5)	0.687	-0.624	-0.462	0.392	
	0.088	0.134	0.296	0.384	
EmpRate(y)	0.941	-0.813	-0.757	-0.516	0.464
	0.002	0.026	0.049	0.235	0.295

Cell Contents: Pearson correlation
P-Value

Table 20: Correlation between Independent Variables and EmpRate(y)

Regression Analysis: EmpRate(y) versus NumRefugees(x1), CCI(x2), ECI(x3)

S	R-sq	R-sq(adj)	R-sq(pred)
0.372196	90.05%	80.10%	22.49%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	40.26	6.89	5.84	0.010	
NumRefugees(x1)	0.000001	0.000000	2.69	0.074	6.16
CCI(x2)	0.045	0.106	0.42	0.702	11.10
ECI(x3)	0.0082	0.0807	0.10	0.925	6.78

Table 21: Regression Analysis: EmpRate(y) versus NumRefugees(x1), CCI(x2) and ECI(x3).

Now, we pull an accumulative regression analysis so that we know the weight of impact that these remaining independent variables have on the dependent variable which in our case is the EmpRate(y). By reading the outputs in Table21, we notice that we have the constant intersect of 40.26 along with the coefficients of 0.000001, 0.045 and 0.0082 that correspond to our independent variables NumRefugees(x1), CCI(x2) and ECI(x3) respectively. We use these coefficients in our Estimation Regression Equation (3) below so that we will be able to interpret them into meaningful explanation.

$$\widehat{\boldsymbol{Y}} = \boldsymbol{b_0} + \boldsymbol{b_1 X_1} + \boldsymbol{b_2 X_2} + \cdots + \boldsymbol{b_p X_p}$$

$$\hat{Y} = Predected\ Value\ of\ the\ Dependent\ Variables$$

$$b_0, b_1, b_2, b_p\ are\ the\ estimates\ of\ \beta_0, \beta_1, \beta_2, \beta_p$$

$$\widehat{\boldsymbol{Y}} = \mathbf{40.26} + \mathbf{0.000001}\boldsymbol{NumRefugees}(\boldsymbol{x1}) + \mathbf{0.045}\,\boldsymbol{CCI}(\boldsymbol{x2}) + \mathbf{0.0082}\boldsymbol{ECI}(\boldsymbol{x3})$$

Now, by holding all the variables constant, we can say that an increase in 1 refugee can have the impact of %0.001 over the EmpRate(y). It has a slight or even unnoticed impact as the number show; yet, it is due to the large amount of refugee's influx. We can make it more meaningful by multiplying the coefficient by 10000 and say

each 10,000 refugees have the impact of %1 over the EmpRate(y). As per to the CCI(x2), by holding all the variables constant and increasing the CCI(x2), the EmpRate(y) will increase by %4.5 percent. Regarding the ECI(x3), by holding the entire variables constant and increasing the ECI(x3), the EmpRate(y) will increase by %0.08 percent.

3.5.2.2 Correlation of Independent Variables versus Unemployment Rate

Our first set of variables consists of all the dependent variables with the dependent variable UnempRate(y). Looking at the scatterplots of each independent variable correlating to the dependent variable in the Figures32, 33, 34, 35 and 36 below can give us a broad understanding on how they correlate independently.

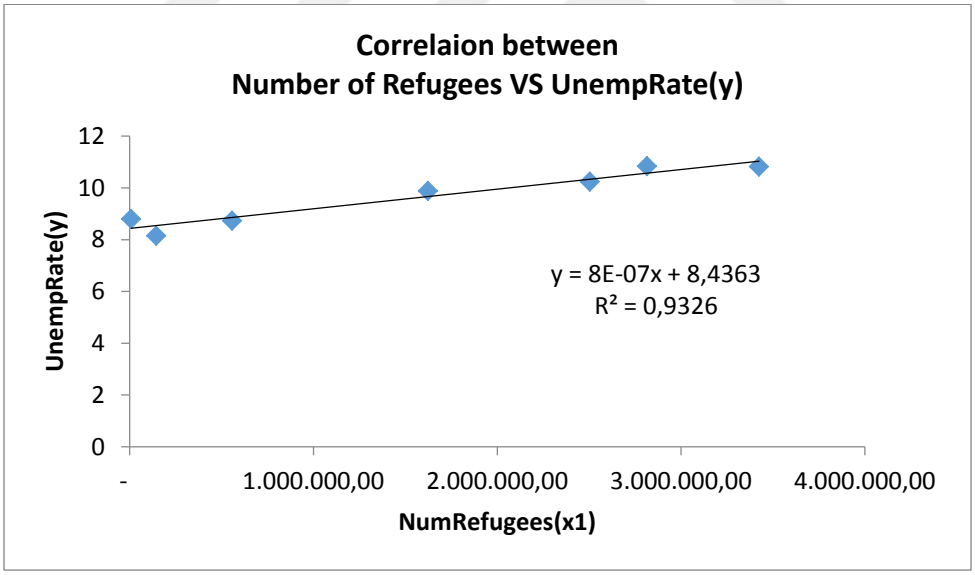

Figure 32: Correlation between UnempRate(y) and NumRefugees(x1)

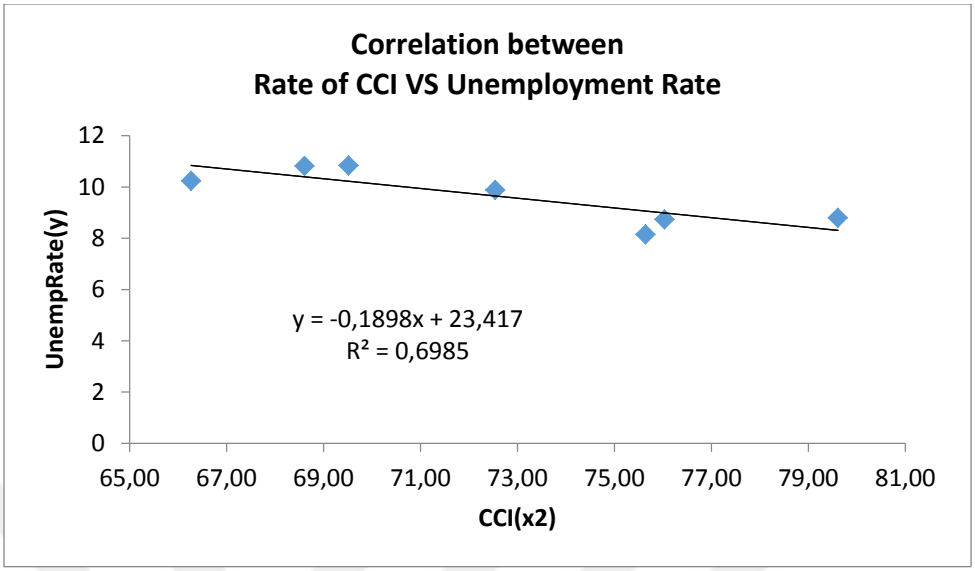

Figure 33: Correlation between UnempRate(y) and CCI(x2)

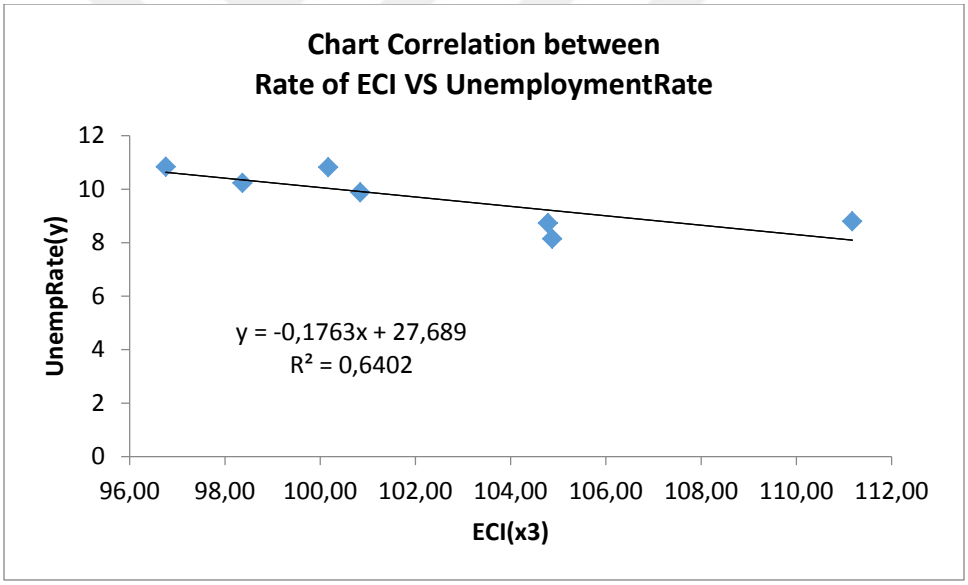

Figure 34: Correlation between UnempRate(y) and ECI(x3)

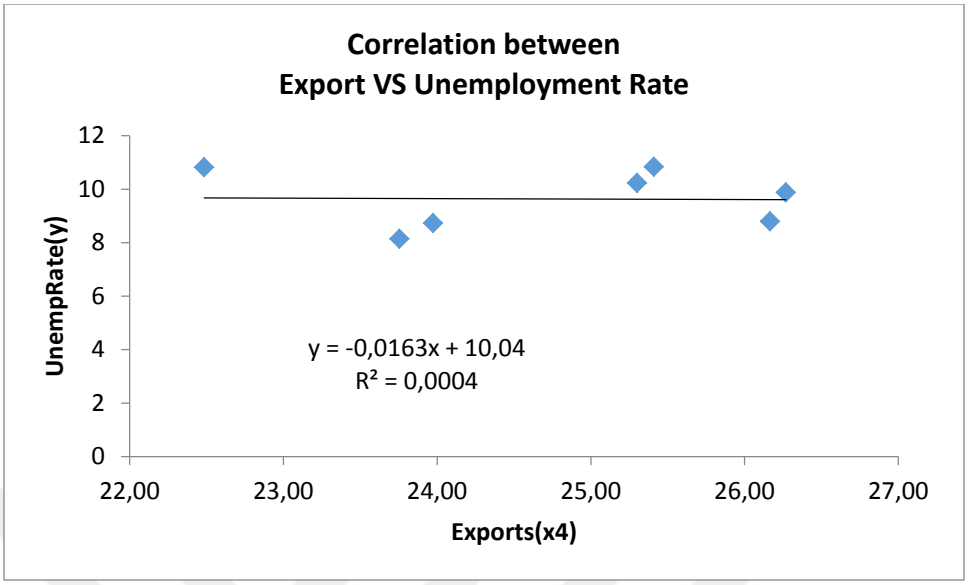

Figure 35: Correlation between UnempRate(y) and Exports(x4)

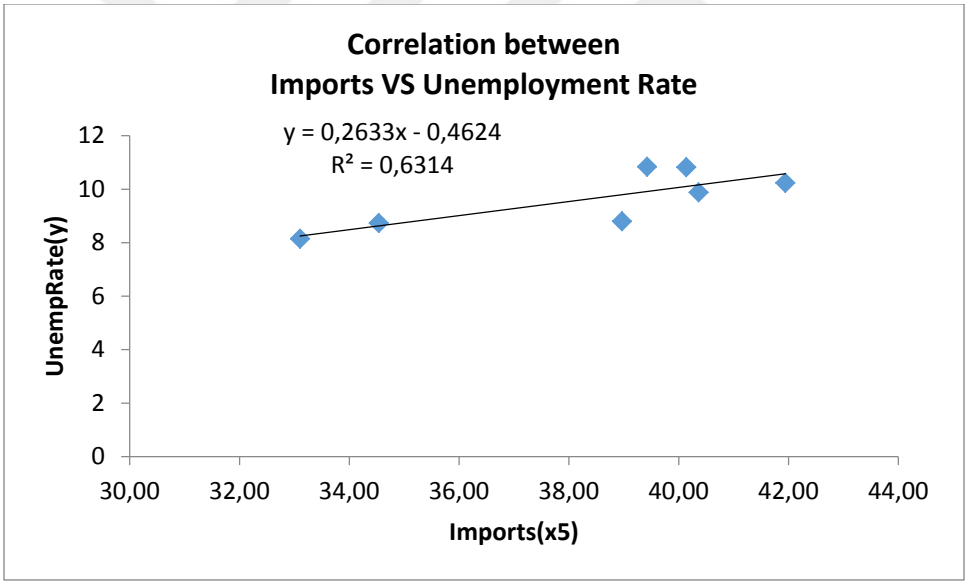

Figure 36: Correlation between UnempRate(y) and Imports(x5)

Now, we pull a correlation analysis so that we know the weight of impact that these independent variables have on the dependent variable which in our case is the UnempRate(y). By reading the outputs in Table22, we notice that we have a P-Value of 0.000, 0.019, 0.031, 0.964 and 0.033 that correspond to our independent variables NumRefugees(x1), CCI(x2), ECI(x3), Export(x4) and Import(x5) respectively. These P-Values mean that only NumRefugees(x1), CCI(x2), ECI(x3) and Import(x5) have

significance impact over the UnempRate(y) with a strong correlation of %96.6, %83.6, %80.0 and %79.5 respectively as well. Accordingly, we do not put into consideration the insignificant independent variable Export(x4) when we pull a Regression Analysis.

Correlation: NumRefugees(x1), CCI(x2), ECI(x3), Exports(x4), Imports(x5), UnempRate(y)

	NumRefugees(x1)	CCI(x2)	ECI(x3)	Exports(x4)	Imports(x5)
CCI(x2)	-0.915				
	0.004				
ECI(x3)	-0.856	0.923			
	0.014	0.003			
Exports(x4)	-0.241	0.192	0.118		
	0.602	0.681	0.802		
Imports(x5)	0.680	-0.624	-0.462	0.392	
	0.088	0.134	0.296	0.384	
UnempRate(y)	0.966	-0.836	-0.800	-0.021	0.795
	0.000	0.019	0.031	0.964	0.033

Cell Contents: Pearson correlation
P-Value

Table 22: Correlation between Independent Variables and UnempRate(y)

Regression Analysis: UnempRate(y) versus NumRefugees(x1), CCI(x2), ECI(x3), Imports(x5)

S	R-sq	R-sq(adj)	R-sq(pred)
0.133898	99.49%	98.46%	80.66%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	2.68	2.50	1.07	0.396	
NumRefugees(x1)	0.000001	0.000000	6.97	0.020	7.56
CCI(x2)	0.1366	0.0401	3.40	0.077	12.19
ECI(x3)	-0.0819	0.0323	-2.54	0.127	8.38
Imports(x5)	0.1099	0.0257	4.28	0.050	2.34

Table 23: Regression Analysis: UnempRate(y) versus NumRefugees(x1), CCI(x2), ECI(x3), Imports(x5).

Now, we pull an accumulative regression analysis so that we know the weight of impact that these remaining independent variables have on the dependent variable which in our case is the UnempRate(y). By reading the outputs in Table23, we notice that we have the constant intersect of 2.68 along with the coefficients of 0.000001, 0.1366, 0.0819 and 0.1099 that correspond to our independent variables NumRefugees(x1), CCI(x2), ECI(x3) and Import(x5) respectively. We use these coefficients in our

Estimation Regression Equation (3) below so that we will be able to interpret them into meaningful explanation.

$$\widehat{\boldsymbol{Y}} = \boldsymbol{b_0} + \boldsymbol{b_1 X_1} + \boldsymbol{b_2 X_2} + \cdots + \boldsymbol{b_p X_p}$$

$$\hat{Y} = Predected\ Value\ of\ the\ Dependent\ Variables$$

$$b_0, b_1, b_2, b_p\ are\ the\ estimates\ of\ \beta_0, \beta_1, \beta_2, \beta_p$$

$$\widehat{\boldsymbol{Y}} = \mathbf{2.68} + \mathbf{0.000001}\boldsymbol{NumRefugees}(\boldsymbol{x1}) + \mathbf{0.1366}\ \boldsymbol{CCI}(\boldsymbol{x2})$$
$$-\mathbf{0.0819}\ \boldsymbol{ECI}(\boldsymbol{x3}) + \mathbf{0.1099}\ \boldsymbol{Import}(\boldsymbol{x5})$$

Now, by holding all the variables constant, we can say that an increase in 1 refugee can have the impact of %0.001 over the UnempRate(y). It has a slight or even unnoticed impact as the number show; yet, it is due to the large amount of refugee's influx. We can make it more meaningful by multiplying the coefficient by 10000 and say each 10,000 refugees have the impact of %1 over the UnempRate(y). As per to the CCI(x2), by holding all the variables constant and increasing the CCI(x2), the UnempRate(y) will increase by %13.6 percent. Regarding the ECI(x3), by holding the entire variables constant and increasing the ECI(x3), the EmpRate(y) will decrease by %8.19 percent. Finally, as per to the Import(x5), by holding the entire variables constant and increasing the Import(x5), the UnempRate(y) will increase by %10.99 percent.

3.5.2.3 Correlation of Independent Variables versus Inflation Rate

Our first set of variables consists of all the dependent variables with the dependent variable InfRate(y). Looking at the scatterplots of each independent variable correlating to the dependent variable in the Figures37, 38, 39, 40 and 41 below can give us a broad understanding on how they correlate independently.

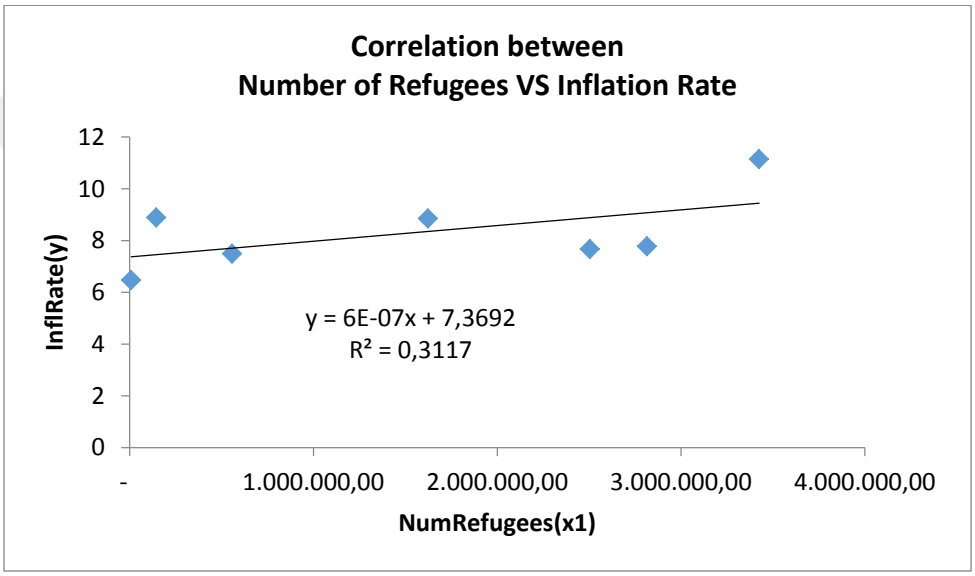

Figure 37: Correlation between Inflation Rate(y) and NumRefugees(x1)

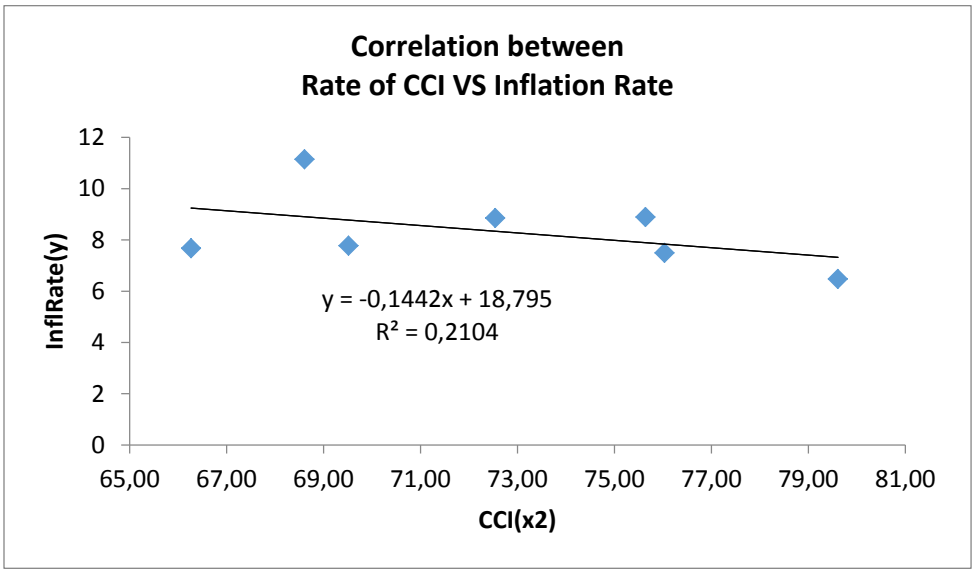

Figure 38: Correlation between Inflation Rate(y) and CCI(x2)

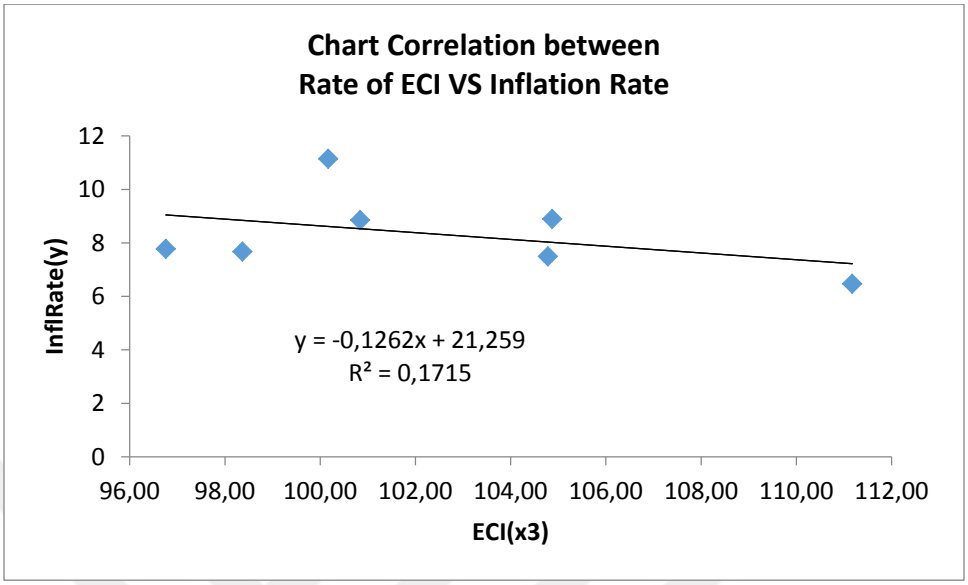

Figure 39: Correlation between Inflation Rate(y) and ECI(x3)

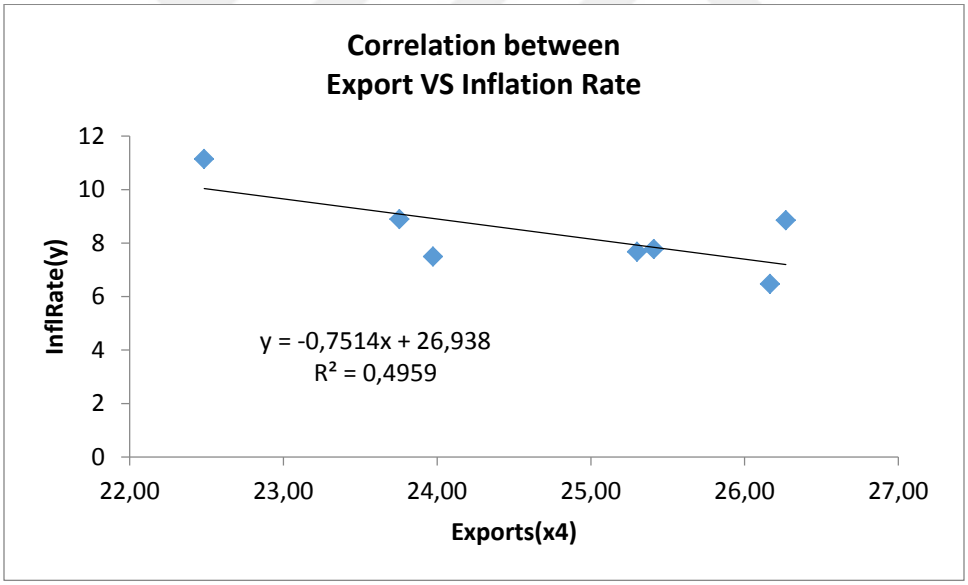

Figure 40: Correlation between Inflation Rate(y) and Exports(4)

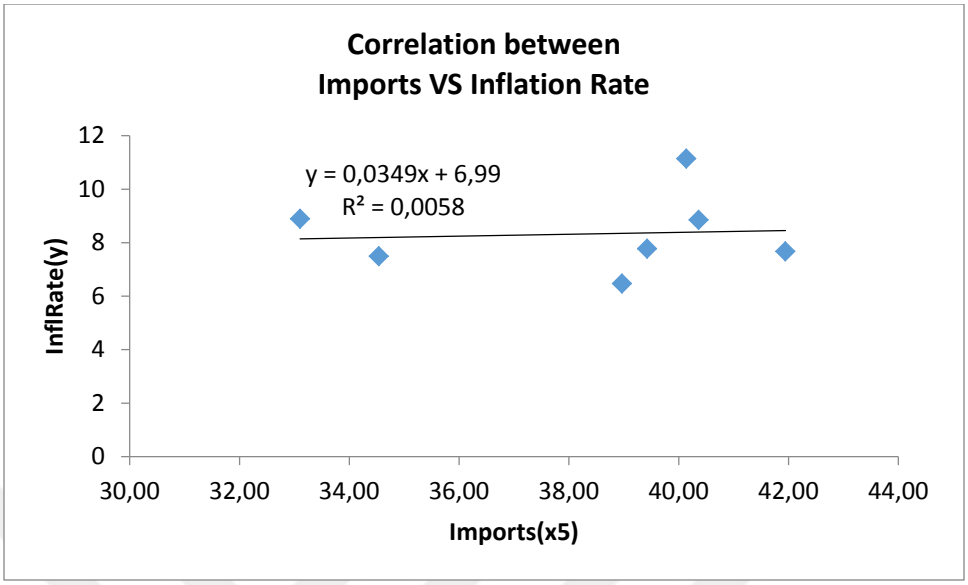

Figure 41: Correlation between Inflation Rate(y) and Imports(x5)

Now, we pull a correlation analysis so that we know the weight of impact that these independent variables have on the dependent variable which in our case is the InfRate(y). By reading the outputs in Table24, we notice that we have a P-Value of 0.193, 0.301, 0.356, 0.077 and 0.871 that correspond to our independent variables NumRefugees(x1), CCI(x2), ECI(x3), Export(x4) and Import(x5) respectively. These P-Values mean that no independent variable has a significance impact over the InfRate(y). Also, none of them have a strong correlation since they are %55.8, %45.9, %41.4 and %7.6 and %70.4 respectively as well. Accordingly, I suggest raising the significant value to %10 in this case and then we will be having the import(x5) to be checked.

Correlation: NumRefugees(x1), CCI(x2), ECI(x3), Exports(x4), Imports(x5), InfRate(y)

	NumRefugees(x1)	CCI(x2)	ECI(x3)	Exports(x4)	Imports(x5)
CCI(x2)	-0.915				
	0.004				
ECI(x3)	-0.856	0.923			
	0.014	0.003			
Exports(x4)	-0.241	0.192	0.118		
	0.602	0.681	0.802		
Imports(x5)	0.687	-0.624	-0.462	0.392	
	0.088	0.134	0.296	0.384	
InflRate(y)	0.558	-0.459	-0.414	-0.704	0.076
	0.193	0.301	0.356	0.077	0.871

Cell Contents: Pearson correlation
P-Value

Table 24: Correlation between Independent Variables and InfRate(y)

Regression Analysis: InflRate(y) versus Exports(x4)

S	R-sq	R-sq(adj)	R-sq(pred)
1.16258	49.59%	39.50%	0.00%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	26.94	8.40	3.21	0.024	
Exports(x4)	-0.751	0.339	-2.22	0.077	1.00

Table 25: Regression Analysis: InflRate(y) versus Exports(x4).

Now, we pull an accumulative regression analysis so that we know the weight of impact that these remaining independent variables have on the dependent variable which in our case is the InfRate(y). By reading the outputs in Table25, we notice that we have the constant intersect of 26.94 along with the coefficients of 0.751 that correspond to our independent variable Export(x4). We use these coefficients in our Estimation Regression Equation (3) below so that we will be able to interpret them into meaningful explanation.

$$\widehat{\boldsymbol{Y}} = \boldsymbol{b_0} + \boldsymbol{b_1 X_1} + \boldsymbol{b_2 X_2} + \cdots + \boldsymbol{b_p X_p}$$

$$\hat{Y} = Predected\ Value\ of\ the\ Dependent\ Variables$$

$$b_0, b_1, b_2, b_p\ are\ the\ estimates\ of\ \beta_0, \beta_1, \beta_2, \beta_p$$

$$\widehat{\boldsymbol{Y}} = \boldsymbol{26.94 - 0.751 Export(x4)}$$

Now, by holding all the variables constant and increasing the Export(x4), the InfRate(y) will happen to have a reverse impact by %75.1 percent. That correlation is very high and tight. The more Turkey export, the less it faces inflation.

3.5.2.4 Correlation of Independent Variables versus Consumer Price Index Rate

Our first set of variables consists of all the dependent variables with the dependent variable CPI(y). Looking at the scatterplots of each independent variable correlating to the dependent variable in the Figures42, 43, 44, 45 and 46 below can give us a broad understanding on how they correlate independently.

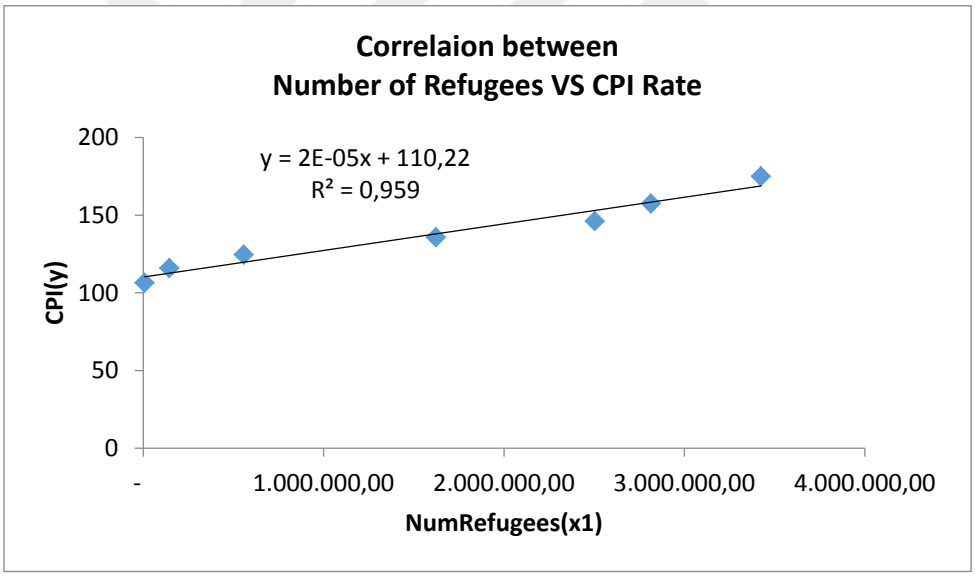

Figure 42: Correlation between CPI Rate(y) and NumRefugees(x1)

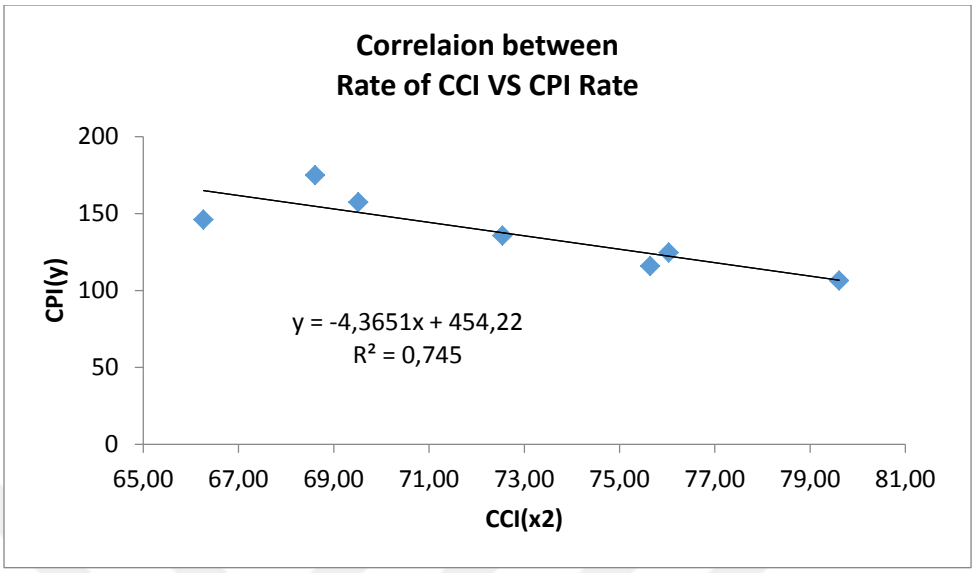

Figure 43: Correlation between CPI Rate(y) and CCI Rate(x2)

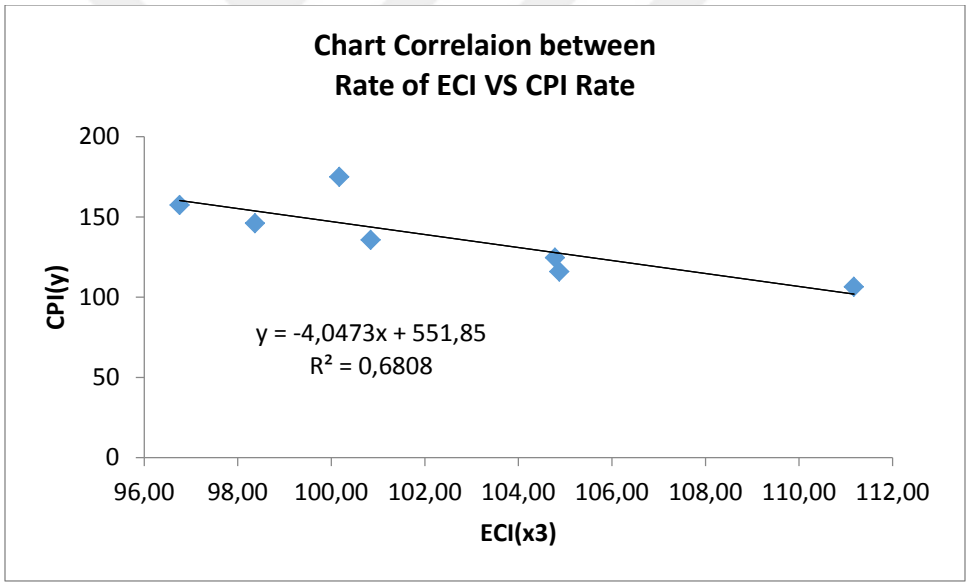

Figure 44: Correlation between CPI Rate(y) and ECI Rate(x3)

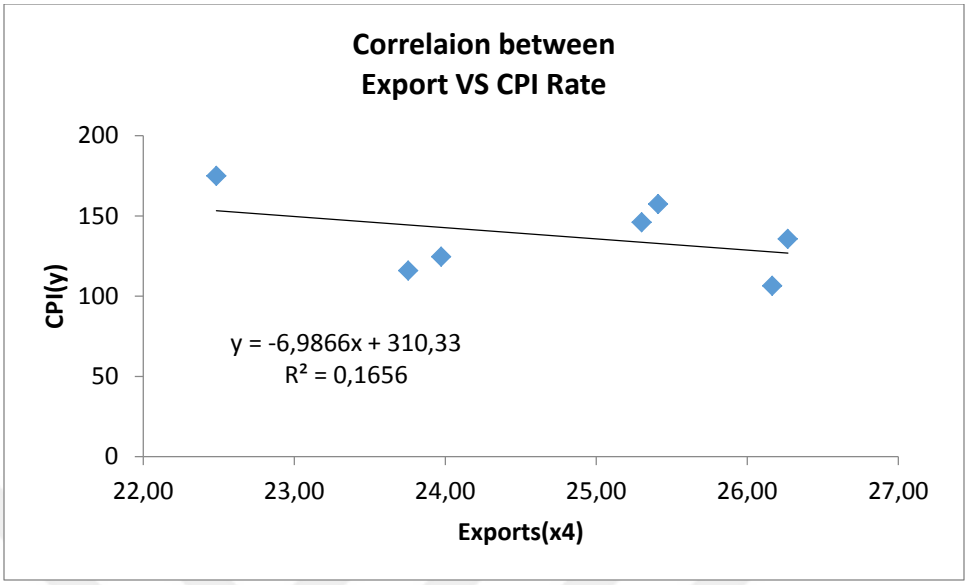

Figure 45: Correlation between CPI Rate(y) and Exports(x4)

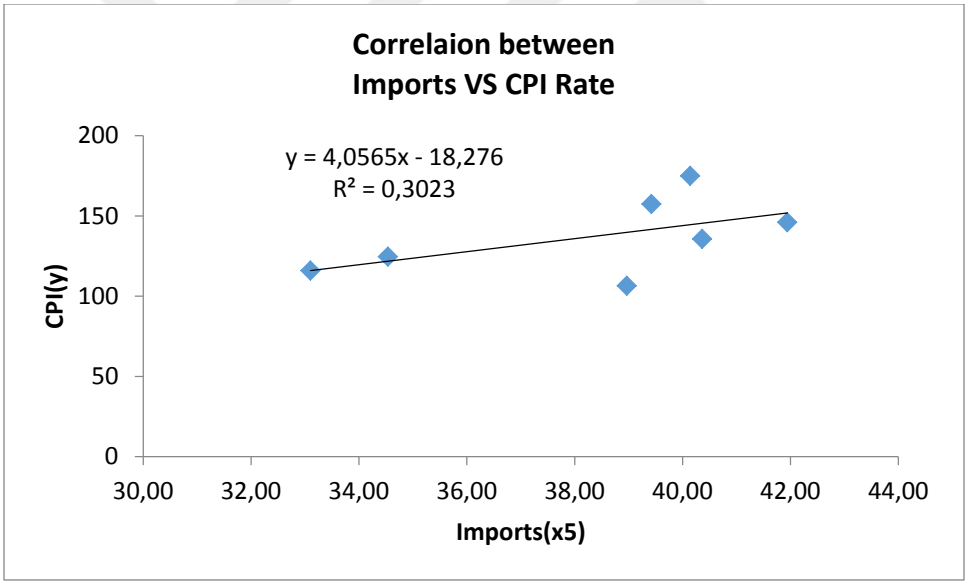

Figure 46: Correlation between CPI Rate(y) and Imports(x5)

Now, we pull a correlation analysis so that we know the weight of impact that these independent variables have on the dependent variable which in our case is the CPI(y). By reading the outputs in Table26, we notice that we have a P-Value of 0.000, 0.012, 0.022, 0.365 and 0.201 that correspond to our independent variables NumRefugees(x1), CCI(x2), ECI(x3), Export(x4) and Import(x5) respectively. These P-Values mean that only NumRefugees(x1), CCI(x2) and ECI(x3) have significance impact

over the EmpRate(y) with a strong correlation of %97.9, %86.3 and %82.5 respectively as well. Accordingly, we do not put into consideration the insignificant independent variables Export(x4) and Import(x5) when we pull a Regression Analysis.

Correlation: NumRefugees(x1), CCI(x2), ECI(x3), Exports(x4), Imports(x5), CPI(y)

	NumRefugees(x1)	CCI(x2)	ECI(x3)	Exports(x4)	Imports(x5)
CCI(x2)	-0.915				
	0.004				
ECI(x3)	-0.856	0.923			
	0.014	0.003			
Exports(x4)	-0.241	0.192	0.118		
	0.602	0.681	0.802		
Imports(x5)	0.687	-0.624	-0.462	0.392	
	0.088	0.134	0.296	0.384	
CPI(y)	0.979	-0.863	-0.825	-0.407	0.550
	0.000	0.012	0.022	0.365	0.201

Cell Contents: Pearson correlation
P-Value

Table 26: Correlation between Independent Variables and CPI(y)

Regression Analysis: CPI(y) versus NumRefugees(x1), CCI(x2), ECI(x3)

S	R-sq	R-sq(adj)	R-sq(pred)
6.17829	96.70%	93.40%	52.70%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	51	114	0.44	0.687	
NumRefugees(x1)	0.000020	0.000005	4.44	0.021	6.16
CCI(x2)	1.45	1.77	0.82	0.472	11.10
ECI(x3)	-0.49	1.34	-0.37	0.737	6.78

Table 27: Regression Analysis: CPI(y) versus NumRefugees(x1), CCI(x2), ECI(x3).

Now, we pull an accumulative regression analysis so that we know the weight of impact that these remaining independent variables have on the dependent variable which in our case is the CPI(y). By reading the outputs in Table27 above, we notice that we have the constant intersect of 51 along with the coefficients of 0.00002, 1.45 and -0.49 that correspond to our independent variables NumRefugees(x1), CCI(x2) and ECI(x3), respectively. We use these coefficients in our Estimation Regression Equation (3) below so that we will be able to interpret them into meaningful explanation.

$$\widehat{\boldsymbol{Y}} = \boldsymbol{b_0} + \boldsymbol{b_1 X_1} + \boldsymbol{b_2 X_2} + \cdots + \boldsymbol{b_p X_p}$$

$$\hat{Y} = Predected\ Value\ of\ the\ Dependent\ Variables$$

$$b_0, b_1, b_2, b_p\ are\ the\ estimates\ of\ \beta_0, \beta_1, \beta_2, \beta_p$$

$$\widehat{\boldsymbol{Y}} = \mathbf{51} + \mathbf{0.00002}\boldsymbol{NumRefugees}(\boldsymbol{x1}) + \mathbf{1.45}\boldsymbol{CCI}(\boldsymbol{x2}) - \mathbf{0.49}\boldsymbol{ECI}(\boldsymbol{x3})$$

Now, by holding all the variables constant, we can say that an increase in 1 refugee can have the impact of %0.02 over the CPI(y). It has a slight or even unnoticed impact as the number show; yet, it is due to the large amount of refugee's influx. We can make it more meaningful by multiplying the coefficient by 10000 and say each 10,000 refugees have the impact of %2 over the CPI(y). As per to the CCI(x2), by holding all the variables constant and increasing the CCI(x2), the CPI(y) will increase by %145 percent. That is pretty high. Regarding the ECI(x3), by holding the entire variables constant and increasing the ECI(x3), the CPI(y) will happen to have a decrease of %49 percent. That is pretty obvious since the stronger the Economic Confidence Index, the less of the Consumer Price index.

3.5.2.5 Correlation of Independent Variables versus GDP Growth Rate

Our first set of variables consists of all the dependent variables with the dependent variable GDPGrowth(y). Looking at the scatterplots of each independent variable correlating to the dependent variable in the Figures47, 48, 49, 50 and 51 below can give us a broad understanding on how they correlate independently.

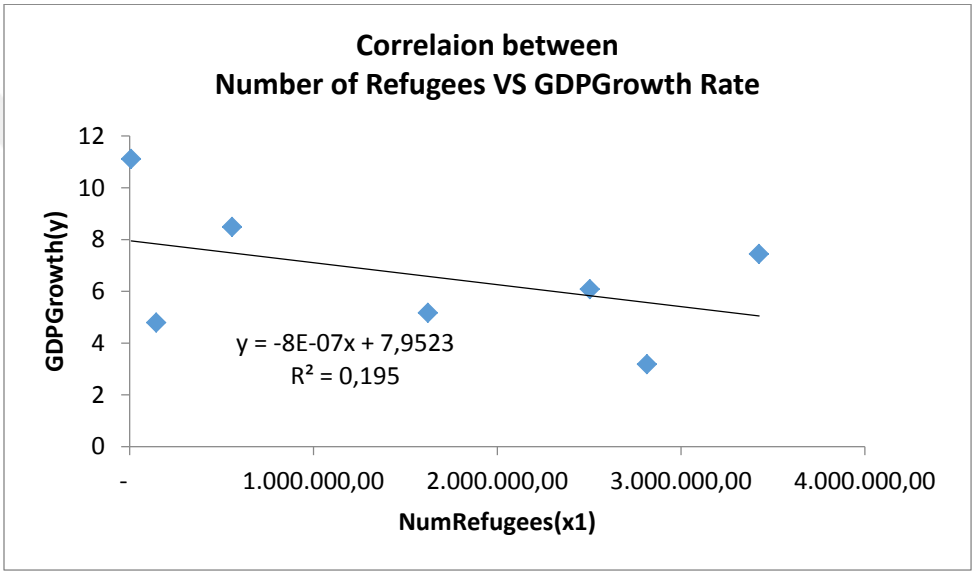

Figure 47: Correlation between GDPGrowth Rate(y) and NumRefugees(x1)

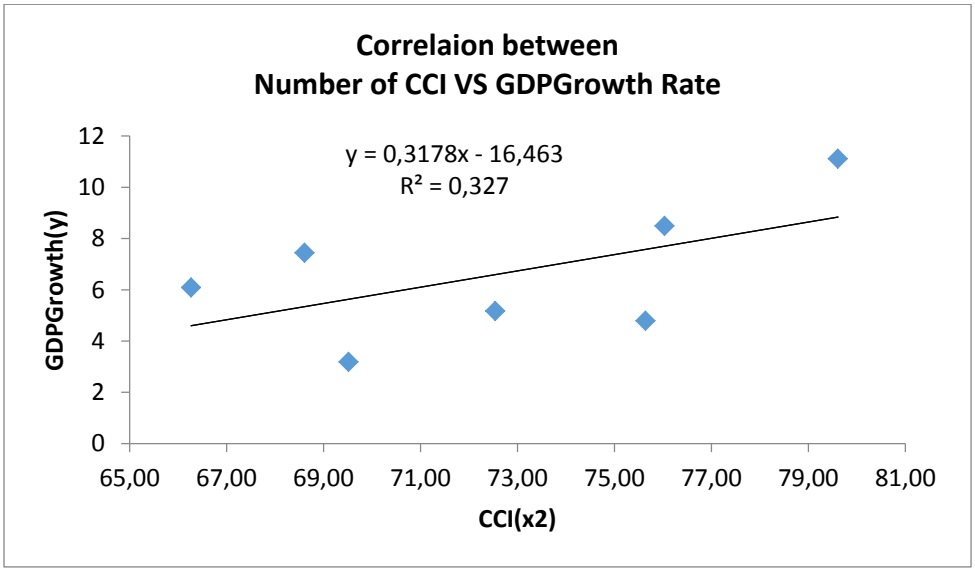

Figure 48: Correlation between GDPGrowth Rate(y) and CCI(x2)

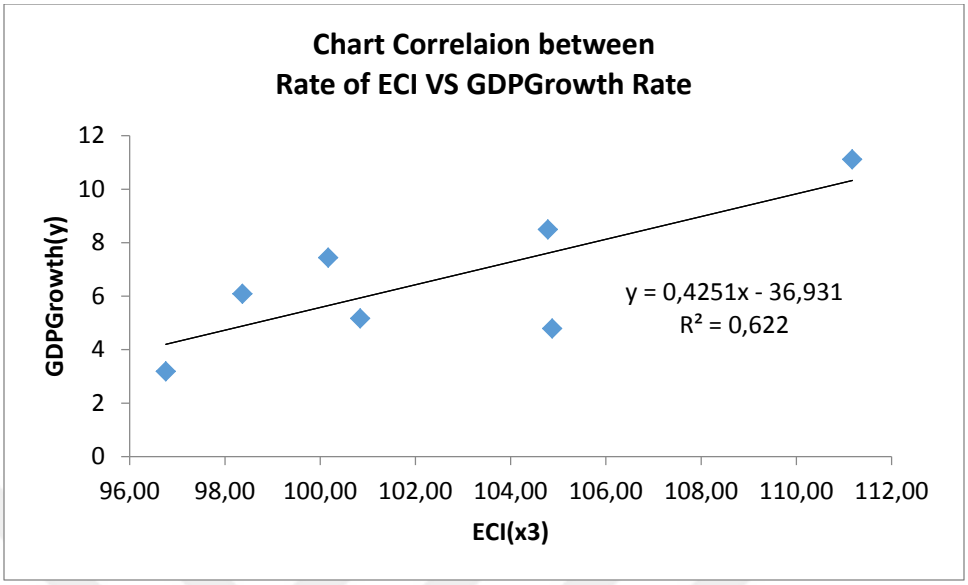

Figure 49: Correlation between GDPGrowth Rate(y) and ECI(x3)

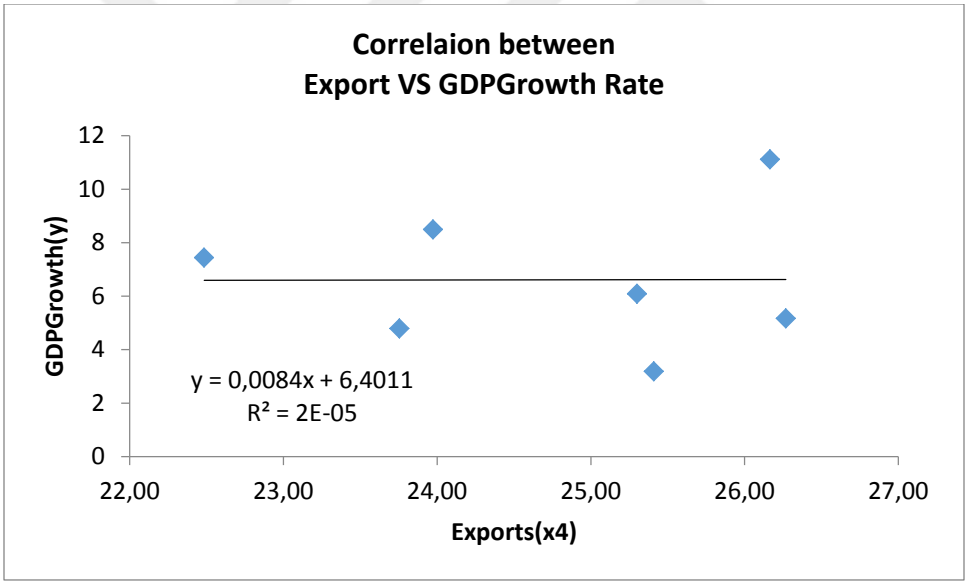

Figure 50: Correlation between GDPGrowth Rate(y) and Exports(x4)

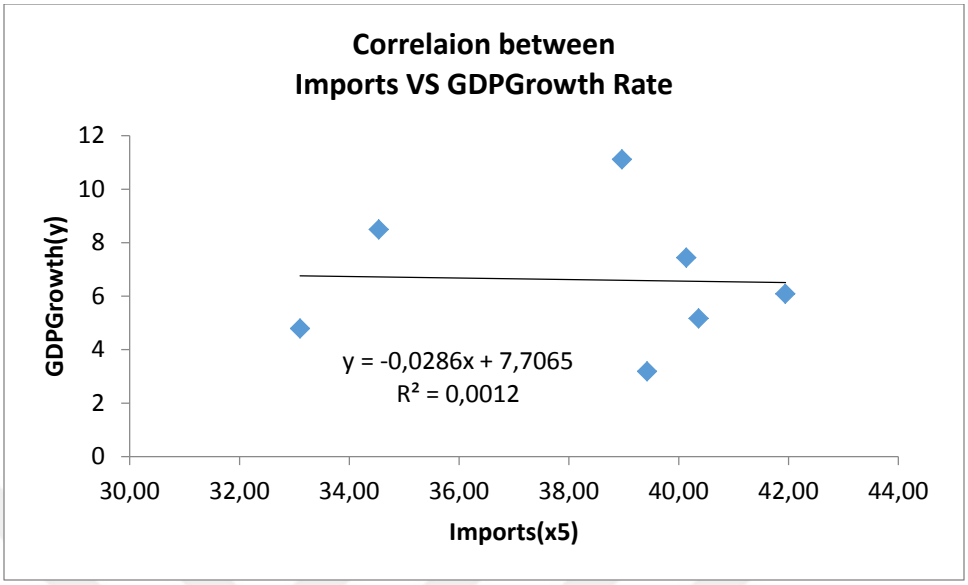

Figure 51: Correlation between GDPGrowth Rate(y) and Imports(x5)

Now, we pull a correlation analysis so that we know the weight of impact that these independent variables have on the dependent variable which in our case is the EmpRate(y). By reading the outputs in Table28, we notice that we have a P-Value of 0.321, 0.180, 0.035, 0.992 and 0.940 that correspond to our independent variables NumRefugees(x1), CCI(x2), ECI(x3), Export(x4) and Import(x5) respectively. These P-Values mean that only ECI(x3) has a significance impact over the GDPGrowth(y) with a strong correlation of %78.9. Accordingly, we do not put into consideration the insignificant independent variables NumRefugees(x1), CCI(x2), Export(x4) and Import(x5) when we pull a Regression Analysis.

Correlation: NumRefugees(x1), CCI(x2), ECI(x3), Exports(x4), Imports(x5), GDPGrowth(y)

	NumRefugees(x1)	CCI(x2)	ECI(x3)	Exports(x4)	Imports(x5)	
CCI(x2)	-0.915					
	0.004					
ECI(x3)	-0.856	0.923				
	0.014	0.003				
Exports(x4)	-0.241	0.192	0.118			
	0.602	0.681	0.802			
Imports(x5)	0.687	-0.624	-0.462	0.392		
	0.088	0.134	0.296	0.384		
GDPGrowth(y)	-0.442	0.572	0.789	0.004	-0.035	
	0.321	0.180	0.035	0.992	0.940	

Cell Contents: Pearson correlation
P-Value

Table 28: Correlation between Independent Variables and GDPGrowth(y)

Regression Analysis: GDPGrowth(y) versus ECI(x3)

S	R-sq	R-sq(adj)	R-sq(pred)
1.78007	62.20%	54.64%	28.48%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-36.9	15.2	-2.43	0.059	
ECI(x3)	0.425	0.148	2.87	0.035	1.00

Table 29: Regression Analysis: GDPGrowth(y) versus ECI(x3).

Now, we pull an accumulative regression analysis so that we know the weight of impact that these remaining independent variables have on the dependent variable which in our case is the GDPGrowth(y). By reading the outputs in Table29, we notice that we have the constant intersect of -36.9 along with the coefficients of 0.425 to our only eligible independent variable ECI(x3). We use this coefficient in our Estimation Regression Equation (3) below so that we will be able to interpret them into meaningful explnation.

$$\widehat{\boldsymbol{Y}} = \boldsymbol{b_0} + \boldsymbol{b_1 X_1} + \boldsymbol{b_2 X_2} + \cdots + \boldsymbol{b_p X_p}$$

$$\hat{Y} = Predected\ Value\ of\ the\ Dependent\ Variables$$

$$b_0, b_1, b_2, b_p\ are\ the\ estimates\ of\ \beta_0, \beta_1, \beta_2, \beta_p$$

$$\widehat{\boldsymbol{Y}} = -\mathbf{36.9} + \mathbf{0.425}\ \boldsymbol{ECI}(\boldsymbol{x3})$$

Now, by holding the entire variables constant and increasing the ECI(x3), the GDPGrowth(y) will increase by %42.5 percent.

3.5.2.6 3.7.2.6. Correlation of Independent Variables versus Broad Money.

Our first set of variables consists of all the dependent variables with the dependent variable BroMoney(y). Looking at the scatterplots of each independent variable correlating to the dependent variable in the Figures52, 53, 54, 55 and 56 below can give us a broad understanding on how they correlate independently.

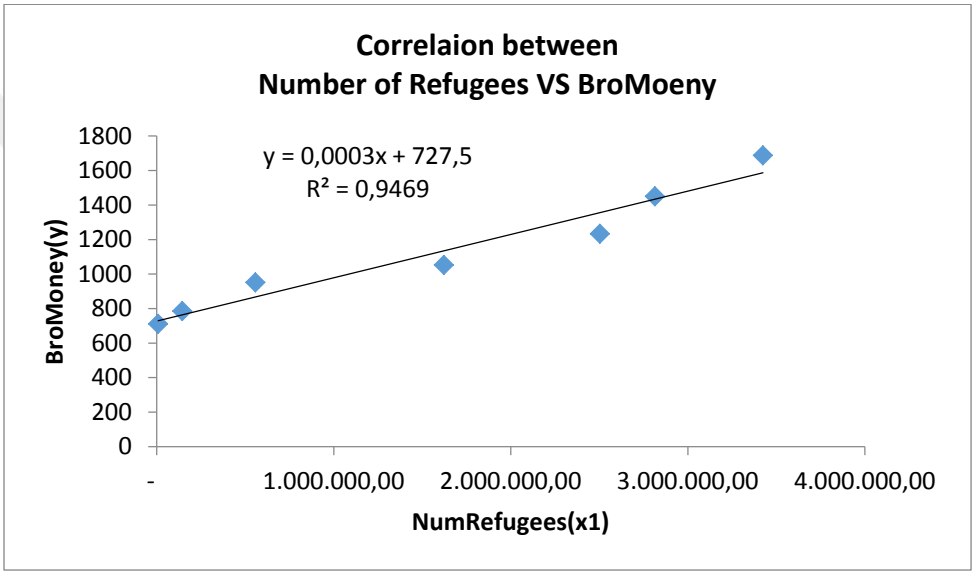

Figure 52: Correlation between BroMoney(y) and NumRefugees(x1)

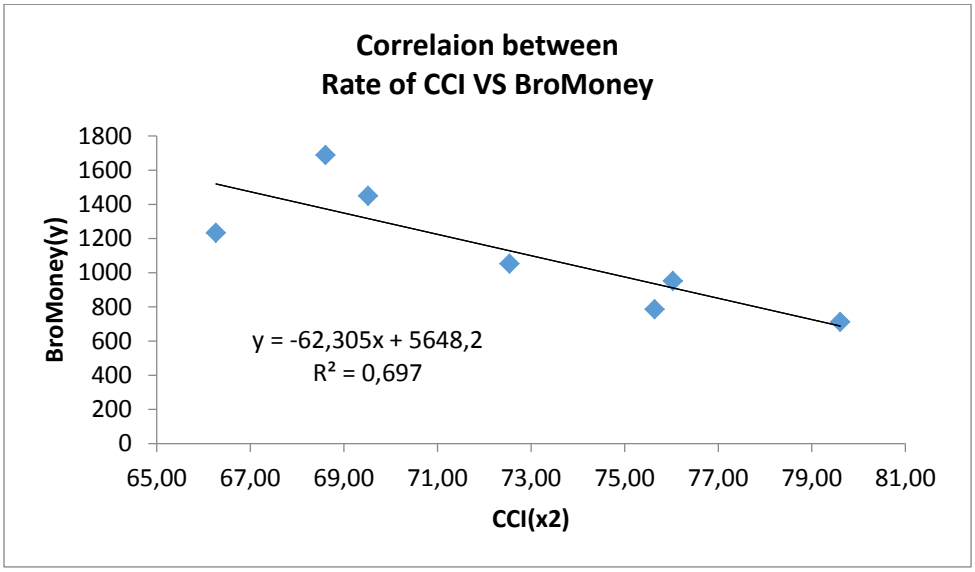

Figure 53: Correlation between BroMoney(y) and CCI(x2)

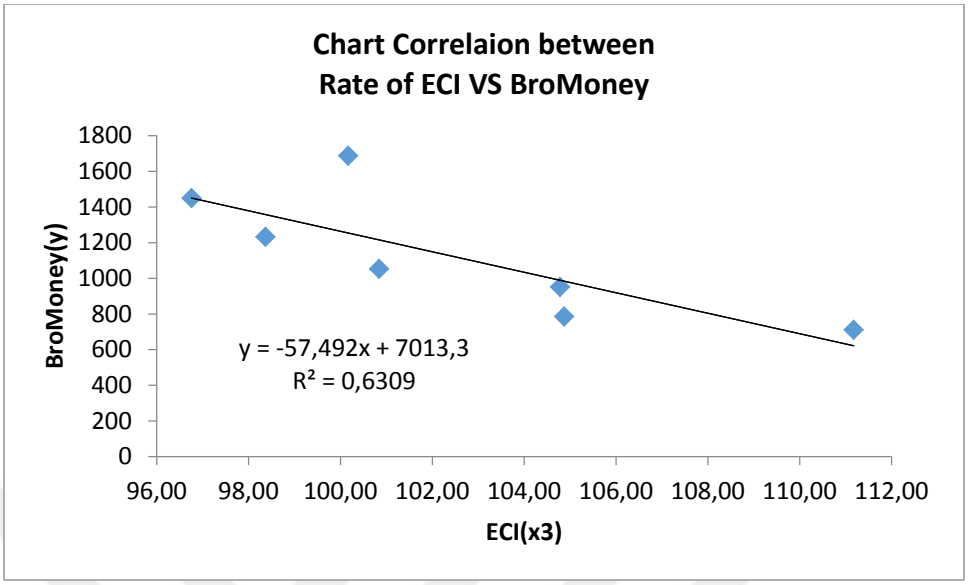

Figure 54: Correlation between BroMoney(y) and ECI(x3)

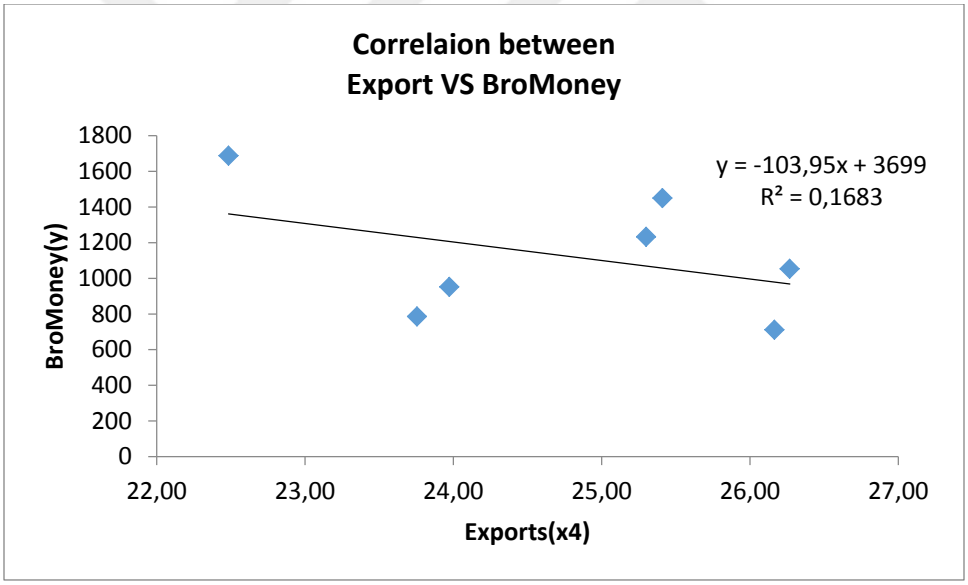

Figure 55: Correlation between BroMoney(y) and Exports(x4)

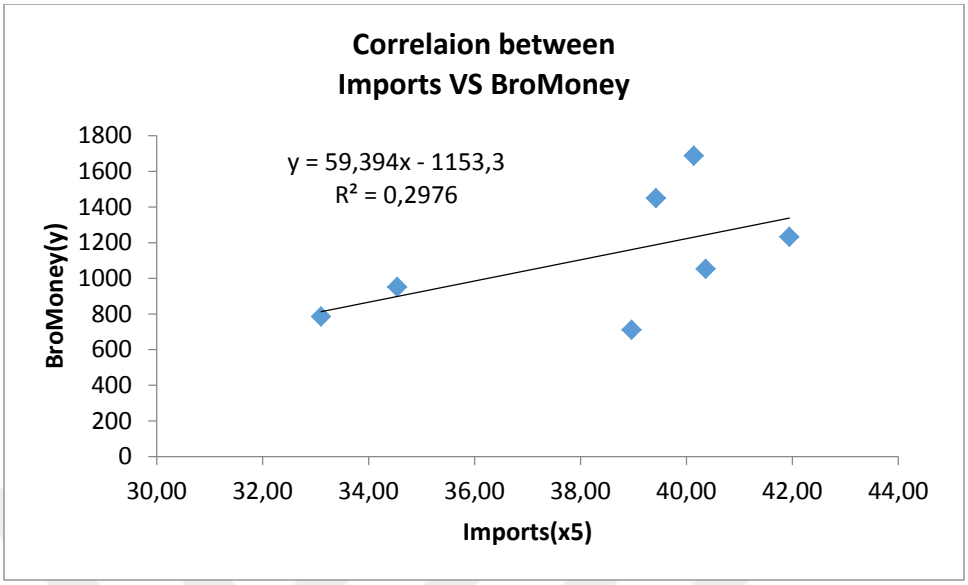

Figure 56: Correlation between BroMoney(y) and Imports(x5)

Now, we pull a correlation analysis so that we know the weight of impact that these independent variables have on the dependent variable which in our case is the EmpRate(y). By reading the outputs in Table30, we notice that we have a P-Value of 0.000, 0.019, 0.033, 0.316 and 0.205 that correspond to our independent variables NumRefugees(x1), CCI(x2), ECI(x3), Export(x4) and Import(x5) respectively. These P-Values mean that only NumRefugees(x1), CCI(x2) and ECI(x3) have significance impact over the EmpRate(y) with a strong correlation of %97.3, %83.5 and %79.4 respectively as well. Accordingly, we do not put into consideration the insignificant independent variables Export(x4) and Import(x5) when we pull a Regression Analysis.

Correlation: NumRefugees(x1), CCI(x2), ECI(x3), Exports(x4), Imports(x5), BroMoney(y)

	NumRefugees(x1)	CCI(x2)	ECI(x3)	Exports(x4)	Imports(x5)
CCI(x2)	-0.915				
	0.004				
ECI(x3)	-0.856	0.923			
	0.014	0.003			
Exports(x4)	-0.241	0.192	0.118		
	0.602	0.681	0.802		
Imports(x5)	0.687	-0.624	-0.462	0.392	
	0.088	0.134	0.296	0.384	
BroMoney(y)	0.973	-0.835	-0.794	-0.410	0.546
	0.000	0.019	0.033	0.361	0.205

Cell Contents: Pearson correlation
P-Value

Table 30: Correlation between Independent Variables and BroMoney(y)

Regression Analysis: BroMoney(y) versus NumRefugees(x1), CCI(x2), ECI(x3)

S	R-sq	R-sq(adj)	R-sq(pred)
92.4490	96.61%	93.21%	68.97%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-1069	1712	-0.62	0.577	
NumRefugees(x1)	0.000330	0.000068	4.84	0.017	6.16
CCI(x2)	29.0	26.4	1.10	0.352	11.10
ECI(x3)	-4.3	20.0	-0.21	0.845	6.78

Table 31: Regression Analysis: BroMoney(y) versus NumRefugees(x1), CCI(x2), ECI(x3).

Now, we pull an accumulative regression analysis so that we know the weight of impact that these remaining independent variables have on the dependent variable which in our case is the BroMoney(y). By reading the outputs in Table31, we notice that we have the constant intersect of 1069 along with the coefficients of 0.000330, 29.0 and 4.3 that correspond to our independent variables NumRefugees(x1), CCI(x2) and ECI(x3) respectively. We use these coefficients in our Estimation Regression Equation (3) below so that we will be able to interpret them into meaningful explanation.

$$\hat{\boldsymbol{Y}} = \boldsymbol{b_0} + \boldsymbol{b_1 X_1} + \boldsymbol{b_2 X_2} + \cdots + \boldsymbol{b_p X_p}$$

$$\hat{Y} = Predected\ Value\ of\ the\ Dependent\ Variables$$

$$b_0, b_1, b_2, b_p\ are\ the\ estimates\ of\ \beta_0, \beta_1, \beta_2, \beta_p$$

$$\hat{\boldsymbol{Y}} = \mathbf{1069} + \mathbf{0.000330}\,\boldsymbol{NumRefugees}(\boldsymbol{x1}) + \mathbf{29.0}\,\boldsymbol{CCI}(\boldsymbol{x2}) - \mathbf{3.3}\boldsymbol{ECI}(\boldsymbol{x3})$$

Now, by holding all the variables constant, we can say that an increase in 1 refugee can have the impact of %0.033 over the EmpRate(y). It has a slight or even unnoticed impact as the number show; yet, it is due to the large amount of refugee's influx. We can make it more meaningful by multiplying the coefficient by 10 and say each 10 refugees have the impact of %1 over the BroMoney(y). As per to the CCI(x2), by holding all the variables constant and increasing the CCI(x2), the BroMoney(y) will increase by %290 percent. Regarding the ECI(x3), by holding the entire variables constant and increasing the ECI(x3), the BroMoney(y) will increase by %33 percent.

3.5.2.7 Correlation of Independent Variables versus Debt

Our first set of variables consists of all the dependent variables with the dependent variable Debt(y). Looking at the scatterplots of each independent variable correlating to the dependent variable in the Figures57, 58, 59, 60 and 61 below can give us a broad understanding on how they correlate independently.

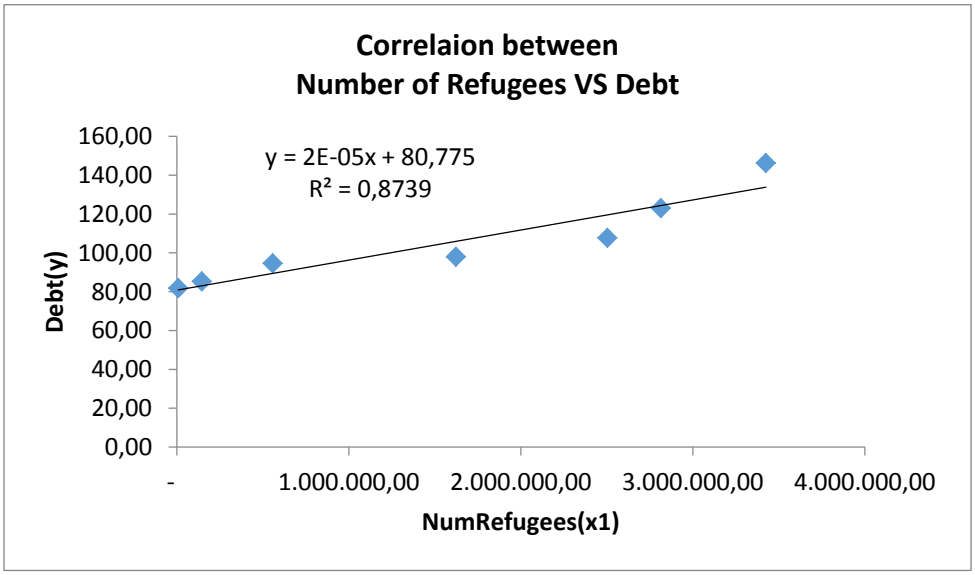

Figure 57: Correlation between Debt(y) and NumRefugees(x1)

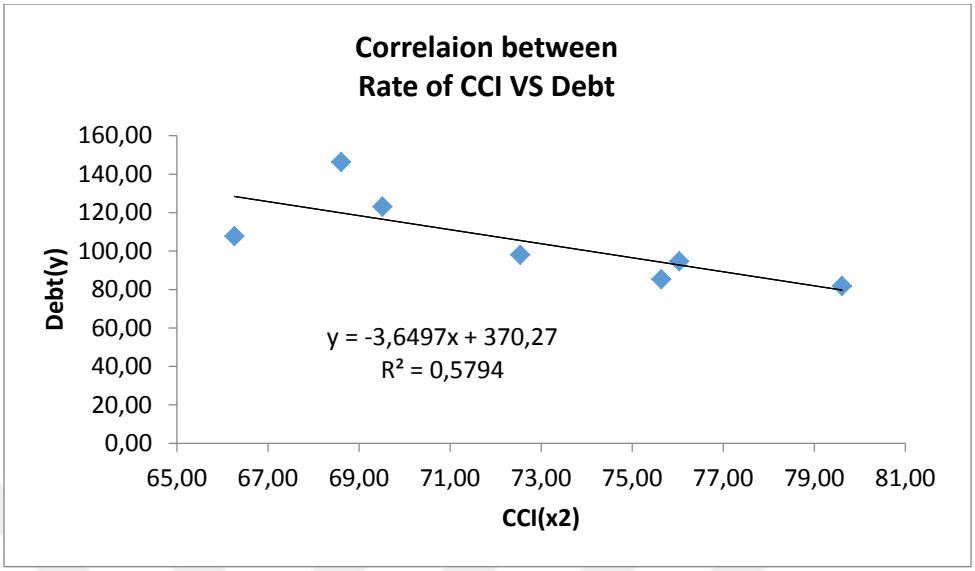

Figure 58: Correlation between Debt(y) and CCI(x2)

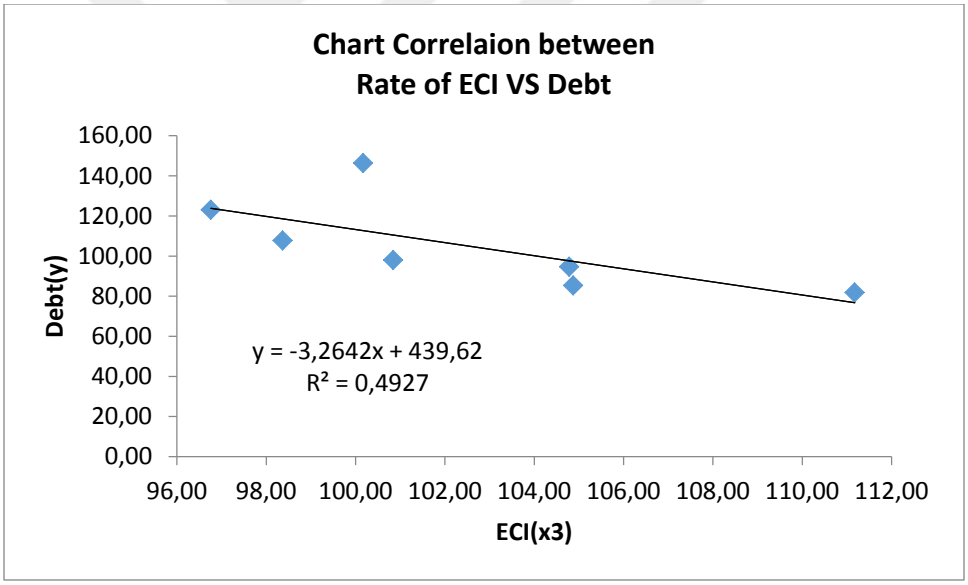

Figure 59: Correlation between Debt(y) and ECI(x3)

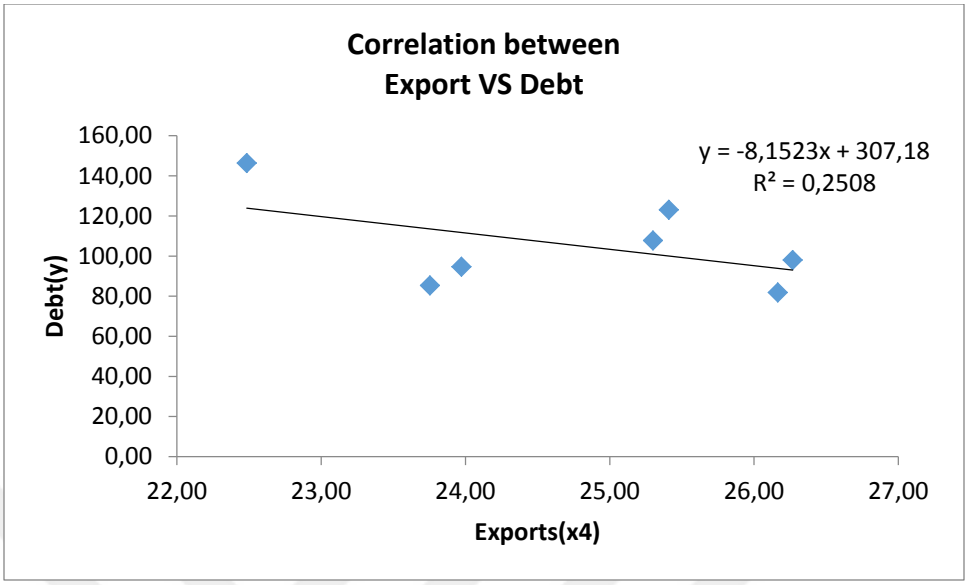

Figure 60: Correlation between Debt(y) and Exports(x4)

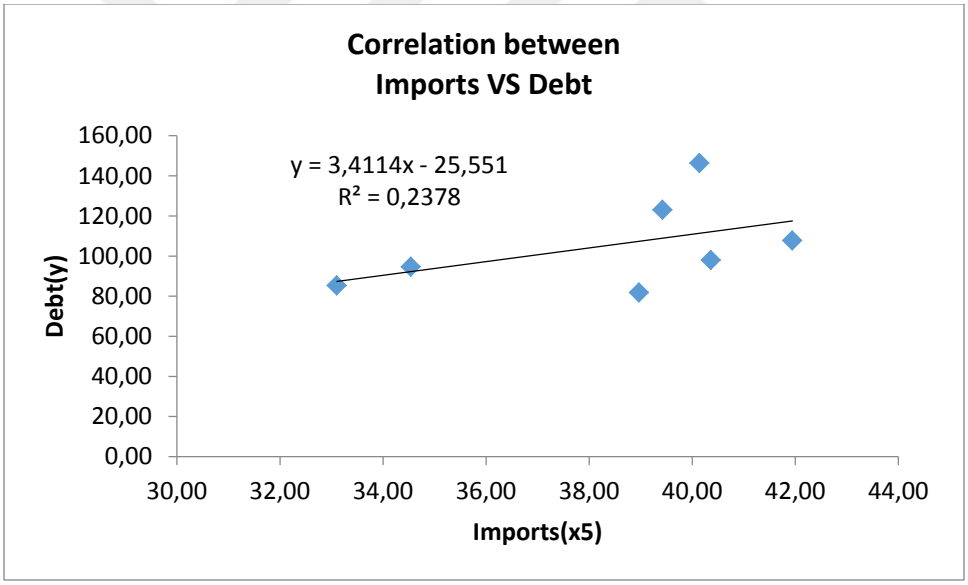

Figure 61: Correlation between Debt(y) and Imports(x5)

Now, we pull a correlation analysis so that we know the weight of impact that these independent variables have on the dependent variable which in our case is the Debt(y). By reading the outputs in Table32, we notice that we have a P-Value of 0.002, 0.047, 0.079, 0.252 and 0.297 that correspond to our independent variables NumRefugees(x1), CCI(x2), ECI(x3), Export(x4) and Import(x5) respectively. These P-Values mean that only NumRefugees(x1) and CCI(x2) have significance impact over the

EmpRate(y) with a strong correlation of %93.5 and %76.1 respectively as well. Accordingly, we do not put into consideration the insignificant independent variables ECI(x3), Export(x4) and Import(x5) when we pull a Regression Analysis.

Correlation: NumRefugees(x1), CCI(x2), ECI(x3), Exports(x4), Imports(x5), Debt(y)

	NumRefugees(x1)	CCI(x2)	ECI(x3)	Exports(x4)	Imports(x5)
CCI(x2)	-0.915				
	0.004				
ECI(x3)	-0.856	0.923			
	0.014	0.003			
Exports(x4)	-0.241	0.192	0.118		
	0.602	0.681	0.802		
Imports(x5)	0.687	-0.624	-0.462	0.392	
	0.088	0.134	0.296	0.384	
Debt(y)	0.935	-0.761	-0.702	-0.501	0.488
	0.002	0.047	0.079	0.252	0.267

Cell Contents: Pearson correlation
P-Value

Table 32: Correlation between Independent Variables and Debt(y)

Regression Analysis: Debt(y) versus NumRefugees(x1), CCI(x2)

S	R-sq	R-sq(adj)	R-sq(pred)
7.49678	92.79%	89.19%	74.08%

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-133	124	-1.08	0.341	
NumRefugees(x1)	0.000024	0.000006	4.40	0.012	6.13
CCI(x2)	2.76	1.59	1.73	0.158	6.13

Table 33: Regression Analysis: Debt(y) versus NumRefugees(x1), CCI(x2)

Now, we pull an accumulative regression analysis so that we know the weight of impact that these remaining independent variables have on the dependent variable which in our case is the Debt(y). By reading the outputs in Table33, we notice that we have the constant intersect of -133 along with the coefficients of 0.000024 and 2.76 that correspond to our independent variables NumRefugees(x1) and CCI(x2) respectively. We use these coefficients in our Estimation Regression Equation (3) below so that we will be able to interpret them into meaningful explanation.

$$\widehat{\boldsymbol{Y}} = \boldsymbol{b_0} + \boldsymbol{b_1 X_1} + \boldsymbol{b_2 X_2} + \cdots + \boldsymbol{b_p X_p}$$

$$\hat{Y} = Predected\ Value\ of\ the\ Dependent\ Variables$$

$$b_0, b_1, b_2, b_p\ are\ the\ estimates\ of\ \beta_0, \beta_1, \beta_2, \beta_p$$

$$\widehat{\boldsymbol{Y}} = \boldsymbol{-133 + \ 0.000024 NumRefugees(x1) + 2.76\ CCI(x2)}$$

Now, by holding all the variables constant, we can say that an increase in 1 refugee can have the impact of %0.0024 over the Debt(y). It has a slight or even unnoticed impact as the number show; yet, it is due to the large amount of refugee's influx. We can make it more meaningful by multiplying the coefficient by 1000 and say each 1000 refugees have the impact of %2.4 over the Debt(y). As per to the CCI(x2), by holding all the variables constant and increasing the CCI(x2), the Debt(y) will increase by %27.6 percent.

Chapter Four

Findings & Discussion

4 FINDINGS AND DISCUSSION

This paper is a reflective academic work for the impact that the Syrian's dramatic leap has on the Turkish economy. The Turkish authorities referred to the Syrians as people "under temporary protection" until the conflict resolves in Syria. Nevertheless, the situation seemed to be not temporary and a significant number of people are in Turkey. Accordingly, the Turkish government has been focusing on integrating the Syrians into the Turkish labour market. Now, due to the fact that it is an emerged issue and we do not have that amount of literature review over this subject, this paper is going to add value to the migration case. This work is considered as a cornerstone that will be built on in further investigations and studies related for migration in different countries as I proceed for PhD.

This academic paper is based on two main approaches where the first investigated the demographic information of the Syrian community that crossed the border which was conducted throughout a survey analysis. The second approach focused on the economic analysis and how the number of refugees has its influence over employment rate, unemployment rate, inflation rate, CPI[20] along with the national debt throughout a regression analysis.

As per to the survey that was conducted with the collaboration with the Canadian Leaders for International Consultants (CLIC), we were able to create a questionnaire that was used afterward in surveying 217 participants. We found that the majority of the Syrians in Istanbul, the city that hosts the majority of the Syrians, are young and they represent a potential labour force that can be part of the Turkish labour force. The

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majority of Syrians in Istanbul fall into the category of the age between 15 to 25 years old where they represent %68.7 of the participants. Also, the educational background factor indicates that %70.5 of the Syrians is university degree holders. As per to the employment indicator, we found that %80.6 of the participants are employed and only %19.4 are unemployed. Yet, all the employed participants fall into the category of informal employment.

Now, most people think that Syrians fled out of their country due to civil war, yet we found that %49.8 of the participants attributed crossing borders to Turkey and leaving their own country is mainly because of the economic situation right after the conflict in Syria had begun. Furthermore, %88.9 feel secure in Turkey and %85.7 are not planning to go back to Syrian when things get better. The cross-tabs analysis showed that the higher the educational background, the more wages they earn. Also, the tendency of staying in Turkey gets higher as both the educational background and wages get higher.

We check the impact of the Syrians by checking the main economic factors. Throughout analyzing the economic situation, we found that each 10,000 Syrians raise up the employment rate by %1 whereas any increase in one point of the CCI[21] could result in %4.5 percent increase for the employment, as well. Yet, the ECI[22] has less impact over the employment by only %0.008 for each increased point. The unemployment rate increases by %1 for each increase on 10,000 Syrian when it rises up by %13.6 for each increase in the CCI. Yet, the ECI affect the unemployment in %10.99. Exports are found to reduce the inflation rate by %75.1 for each billion US dollars. Moving for CPI[23], each 10,000 Syrians increases the CPI %2. And due to the demand, the CCI could affect in

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[22] ECONOMIC CONFIDENCE INDEX
[23] CONSUMER PRICE INDEX

%145 whereas ECI has the impact of 49%. The GDP is impacted the ECI by %42.5 for each point of increase. Lastly, the Turkish national debt can be affected by %2.4 for each 1000 Syrian while the CCI affect it in %27.6.

By looking at the numbers, we can say that the number of refugees plays an enormous role in the economic situation. On top of that, more than 400 US Million Dollars are the deposits of the Syrian influx into the Turkish territories. Plus, more than 2600 Syrian firms are legally registered in the chamber of commerce. We can conclude that the Syrian inflow cannot be a burden to Turkey where, on ground, it has a positive fingerprint on the economy in general.

Chapter Five

Conclusion

5 CONCLUSION

The history of our mankind has never drained from migration. People from across the antiquity migrated seeking for better circumstances, environments and opportunities. Some of them due to food or water supply whereas other people were seeking for security. On the other hand, some people were migrating due to fear. The Middle Eastern region, as any other place one this planet, occurs to have multiple migration waves after witnessing a flood of revolts against the ruling regimes. The most obvious and catastrophic one is the Syrian influx into the Turkish territories after the "open-door" policy that was adopted by the Turkish Republic government in 2011. After approximately four-decades of AlAssad's regime ruling the country, protestors blowout the street with massive demand for changing the regime. As a result of that, thousands of civilians were killed, other were bombed and around twelve million Syrian, which is almost half of the Syrian population have been displaced internally and externally up to today.

By looking at the numbers in this research, we can say that the number of refugees plays an enormous role in the Turkish economic situation. On top of that, more than 400 US Million Dollars are the deposits of the Syrian influx into the Turkish territories. Plus, more than 2600 Syrian firms are legally registered in the chamber of commerce. We can conclude that the Syrian inflow cannot be a burden to Turkey where, on ground, it has a positive fingerprint on the economy in general.

6 Survey Questionnaire

This is Marwan Tawfeeq; an MBA student at Altinbas University in Istanbul. I am doing a research about the impact of Syrian refugees in host communities' labour market. The below information that you are giving is going to be used in my research. So, thank you very much for giving me couple of minutes from your time.

1. Gender.
    1. Male
    2. Female
2. Age.
    1. 15 - 25
    2. 25 - 35
    3. 35 - 45
    4. 45 - 55
3. Marital Status.
    1. Single
    2. Married
    3. Widow
4. Former place of living.
    1. City
    2. Rural
5. Current place of living.
    1. City
    2. Camp
6. Education.
    1. Illiterate
    2. School
    3. University
    4. Higher Education
7. Work status.
    1. Employed
    2. Unemployed
8. If yes, what is your current wages?
    1. 500 – 1000 TRY
    2. 1000 – 1500 TRY
    3. 1500 – 2500 TRY
    4. More than 2500 TRY
9. Leaving reason.
    1. Civil war
    2. Economic situation
    3. Military Service
10. Do you feel secure?
    1. Yes
    2. No
11. Planning to stay if the situation gets better in Syria?
    1. Yes

7 APPENDICES:

8 FIGURES INDEX:

9 EQUATIONS INDEX:

10 ACRYNOMS

IDP:	Internally displaced people.
EDP:	Externally Displaced people.
UNHCR:	United Nations High Committee for Refugees.
GDP:	Gross Domestic Product.
CPI:	Consumer Price Index.
CCI:	Consumer Confidence Index.
ECI:	Economic Confidence Index.
ICRC:	International Committee of Red Cross.

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