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Exploring the Interplay of Social Networks and Global Migration Dynamics: A Focus on Refugee Resettlement via Turkiye

Sosyal Ağlar ve Küresel Göç Dinamiklerinin Etkileşimini Keşfetmek: Mültecilerin Türkiye Üzerinden Yeniden Yerleştirilmesine Bir Odaklanma

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Abstract

Purpose: *This study aims to enhance our understanding of the interplay between social networks and international migration, shedding light on migrants' decision-making and integration into new societies. The research examines the social network patterns of refugees from various nationalities who left their home countries due to institutional changes and were granted refugee status, particularly those resettled via Turkiye.*

Methodology: *The data from the UNHCR Resettlement Data Finder portal is analyzed to gain insights into the migration process. For analyses, social network analysis is implemented. As a result of the analyses, social network maps for migration traffic between immigration and emigration countries are prepared and degree centrality parameters for these countries are calculated for the years between 2003 to 2021.*

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Findings: *Analysis outcomes indicates that the migration and resettlement occurring through Turkiye has an impulse characteristic and driven by some economic and political events with significant and large effect called systemic shocks.*

Implications: *This study has contributions to the literature and fills some gaps. First, it explains change and evolution in social networks, particularly migration networks with impulse approach and institutional shocks. Second, the integration of social network theory and social network analysis into migration studies in a new way has been performed. Also, evolution mechanism of migration flows has been expressed in terms of and compared to social network theory.*

Limitations: *Since immigrant data were taken from the UHNC database, personal reasons of immigrants could not be included in the study.*

Keywords: International migration, Institutional shock, Migration drivers, Refugee resettlement, Social network.

Jel Codes: D85, F22, F55.

Özet

Amaç: *Bu çalışma, göçmenlerin karar alma süreçlerine ve yeni toplumlara entegrasyonuna ışık tutarak, sosyal ağlar ile uluslararası göç arasındaki etkileşime ilişkin anlayışı geliştirmeyi amaçlamaktadır. Araştırma, kurumsal değişiklikler nedeniyle kendi ülkelerini terk eden ve mülteci statüsü verilen çeşitli milletlerden mültecilerin, özellikle de Türkiye üzerinden yeniden yerleştirilenlerin sosyal ağ örüntülerini incelemektedir.*

Yöntem: *UNHCR Yeniden Yerleşim Veri Bulucu portalından alınan veriler, geçiş sürecine ilişkin içgörü elde etmek için analiz edilmiştir. Analiz için sosyal ağ analizi uygulanmıştır. Analizler sonucunda göç veren ve göç veren ülkeler arasındaki göç trafiğine ilişkin sosyal ağ haritaları hazırlanmış ve bu ülkeler için 2003-2021 yılları arasındaki derece merkezilik parametreleri hesaplanmıştır.*

Bulgular: *Analiz sonuçları, Türkiye üzerinden gerçekleşen göç ve yeniden yerleştirmenin, sistemik şoklar olarak adlandırılan, önemli ve büyük etkiye sahip bazı ekonomik ve politik olaylar tarafından yönlendirildiğini ve dürtü karakterine sahip olduğunu göstermektedir.*

Sonuç ve Katkılar: *Bu çalışma, literatürdeki boşlukları doldurmak için çeşitli katkılarda bulunmaktadır. Birincisi, sosyal ağlardaki, özellikle de göç ağlarındaki değişim ve evrim dürtü yaklaşımı ve kurumsal şoklarla açıklanmaktadır. İkinci olarak, sosyal ağ teorisi ve sosyal ağ analizinin göç çalışmalarına yeni bir şekilde entegrasyonu gerçekleştirilmiştir. Ayrıca göç akışlarının evrim mekanizması sosyal ağ teorisi açısından ifade edilmiş ve sosyal network teorisi yaklaşımları ile kıyaslanmıştır.*

Sınırlılıklar: *Göçmen verileri UHNC veritabanından alındığından göçmenlerin kişisel nedenleri çalışmaya dahil edilememiştir.*

Anahtar Kelimeler: Uluslararası göç, Kurumsal şok, Göçü tetikleyen faktörler, Mültecilerin yeniden yerleştirilmesi, Sosyal ağ.

Jel Kodu: D85, F22, F55.

1. Introduction

In recent years, international migration has emerged as one of the most complicated and widely debated phenomena on the global scale (De Haas et al., 2019; Hajro, Brewster, Haak-Saheem & Morley, 2022). According to the World Migration Report published by the International Organization for Migration (IOM) in 2022, there were approximately 281 million international migrants in the world in 2020, equivalent to 3.6% of the global population (International Organization for Migration, 2022).

Deciding to migrate is not a simple process, instead, it is complex and multidimensional, influenced by the economic, social, political, cultural, ecological, demographic and factors known as "drivers" (Castelli, 2018; Van Hear, Bakewell & Long, 2017). For example, institutional shocks or changes in the economic structure of the countries, such as economic recessions and crises (for sending countries), or decisions to promote free trade by joining or establishing a trade union, as in the case of NAFTA or free movement, can lead to a "migration hump", signifying a sudden increase in migration flow (Czaika & Reinprecht, 2020).

On the other hand, migration is a networked process, with migrants being integrated into multiple social networks that influence their mobility, adaptation to new circumstances, self-identity, and their ability to continue with their lives. During international migration, social networks play a crucial role in mapping and reconstructing the relationships and ties among people due to its visualization capability, affiliations, and attachments as well as in the decision-making process related to migratory paths. Furthermore, social networks are also influenced by migration itself (Bilecen & Lubbers, 2021). Post-migration individuals not only navigate and maintain ties to the connections they left behind but also actively build new relationships in their new places of residence. Therefore, social network analysis (SNA) can help challenge assumptions of de-territoriality by demonstrating that place remains significant and by elucidating how relationships are established and sustained within and across geographically separated locations (Ryan & D'Angelo, 2018). As a result, answering the questions, "why do people migrate?" and "how do they decide where to go?" has been a primary focus for social scientists and policymakers, as it helps in managing and influencing migratory flows, whether to accelerate or restrict them. In recent years, there has been a significant increase in the number of international migrants searching a better life apart from their homelands. According to The United Nations High Commissioner for Refugees (UNHCR), there has occurred a unprecedented number of humanitarian crisis due to civil conflicts in Syria and other nations, resulting in an estimated 26 million refugees by the end of 2019 (Beine, Bertinelli, Cömertpay, Litina & Maystadt, 2021). Turkiye, straddling the continents of Europe and Asia, has historically been a favored destination for migrants and is home to the highest migrant populations in the world. This situation is largely caused by its strategic location, bridging the Middle East and Europe, and the long-lasting conflicts in neighboring countries such as Iraq, Iran, and Syria, among other factors (International Organization for Migration, 2021). Turkiye currently hosts 3.7 million Syrians, in addition to 400,000 refugees and asylum seekers from various nationalities approximately, according to UNHCR Turkiye (The United Nations Refugee Agency, 2021d).

In this study, we explore the social networks of refugees who have been resettled in third countries—countries other than their country of origin or initial asylum—through Turkiye, focusing on individuals from various nationalities who left their home countries due to abrupt institutional changes and were granted refugee status. Social networks play a significant role in influencing migration decisions and as well as adjustment to new societies (Chi, 2020). Our research aims to examine refugees' mobility patterns from Turkiye to third countries as part of the resettlement program. The data is collected from the UNHCR Resettlement Data Finder portal, offering precise figures about individuals submitted, their temporary host country, and their ultimate resettlement destination, along with their nationalities (The United Nations Refugee Agency, 2021a; The United Nations Refugee Agency, 2023).

2. Migration Drivers

A refugee can be defined as any person, regardless of nationality, who is not in their country of origin and is incapable or reluctant to receive protection from his or her home country, according to the 1951 Convention and Protocol Relating to the Status of Refugees (The United Nations Refugee Agency, 1951; The United Nations Refugee Agency, 2011). Moreover, persons without a nationality, who have left their former country of residence and cannot seek protection due to factors like race, religion, or membership of a particular or specific group, may also be considered refugees (The United Nations Refugee Agency, 1951). Over 82.4 million people worldwide have been moved abroad by force (The United Nations Refugee Agency, 2020), and the United States is one of the leading countries in terms of receiving refugees, with over 70,000 arrivals each year and a total of 3 million refugees resettled since 1975. Additionally, European Union (EU) countries have significantly increased their quotas for refugee reception. For example, the Federal Office for Migration and Refugees hosted by Germany received more than 1.7 million asylum-seeker applications by 2017 (World Education News Reviews, 2019).

Out of approximately 20.7 million refugees who have fled their home countries seeking protection under the UNHCR, some individuals could have possibility to return willingly and freely to their countries of origin or have successfully integrated into their host communities. However, resettlement continues to be a vital mechanism for addressing displacement, as it offers a secure and legal status to beneficiaries, granting them access to essential rights in the resettled country, particularly for the most vulnerable individuals. Resettlement serves to aid individuals who face threats in their home countries, have specific needs or vulnerabilities unmet in their native lands, and includes those at risk of deportation or facing substantial danger from third parties. It may also encompass individuals with distinct medical requirements that cannot be accommodated in the host country due to resource constraints (The United Nations Refugee Agency, 2021c).

In Turkiye, the UNHCR collaborates closely with the Directorate General of Migration Management (DGMM) to recognize the most defenseless circumstances that qualify for resettlement processing. This collaboration also involves various non-governmental organizations, including the International Organization for Migration (IOM). This program is one of the world's most extensive resettlement initiatives, processing migrants according to global resettlement standards. The final decisions

regarding resettlement are made by the recipient countries. Turkiye has become one of the most attractive destinations for both regular and irregular migrants from neighboring countries like Iraq and Syria, as well as distant countries like Somalia and Afghanistan. The presidency of Migration Management (PMM) reported that Turkiye is one of the leading countries in hosting migrants, with around 5.1 million migrants worldwide (Republic of Türkiye Ministry of Interior Presidency of Migration Management, 2023). Most refugees worldwide, including those in Turkiye, have a tendency to prefer countries with robust economies and advanced healthcare systems for resettlement, such as Canada, Germany, the United States, and Nordic countries. Additionally, the language spoken in the country chosen for migration have a significant role in refugees' and asylum seekers' preferences. They frequently prefer the countries where the language spoken provide them with easier communication and integration opportunities. In this direction, countries like Canada, the United States, and the United Kingdom are among the most popular choices for resettlement, partly because their official language is English—one of the most widely spoken and commonly understood languages globally, which facilitates communication and integration for many refugees (Cheng, Drillich & Schattner, 2015).

Throughout human history, migration has been an integral aspect of the human experience. Individuals have consistently relocated in search of improved living conditions for themselves and their families, or as a means to escape challenging circumstances within their home countries. These two factors form the grounds of Lee's "push and pull" theory from 1966, which considers political, environmental, social, and economic, forces as the driving factors behind migration, both propelling individuals away from their home countries and drawing them toward their destinations (Castelli, 2018). Over the past two decades, a consensus has emerged among social scholars that structural forces play a crucial role in both initiating and perpetuating migration. Traditionally, explanations for the initiation and continuation of migration have focused on discrepancies and differences between origin country and destination country. Some classical literature has argued that migrants are pushed due to incomes that can be considered in low rates in their home regions or countries, being pulled by greater opportunities in highly prosperous ones (Massey, Arango, Hugo, Kouaouci & Pellegrino, 1999; Van Hear et al., 2017).

In the year 2000, China experienced remarkable economic growth, leading to a quadrupling of its GDP due to policy changes. This transformation attracted people from various parts of the country to move. The number of workers coming from areas outside their Hukou registration has surged from around 110 million in 2000 to 300 million in 2015 (Hao, Sun, Tombe & Zhu, 2020). This economic shift in China became a significant driver for people to leave their regions and migrate to areas with better economic conditions.

Conversely, climate change also stands out as a common driver of migration in terms of its impact (Silchenko & Murray, 2023). Climate change has displaced people across different geographical locations. Approximately 89.3 million people had been forcibly displaced by the end of 2021, as a result of climate change-induced disasters, including 27.1 million refugees, 4.6 million asylum seekers, and 53.2 million internally displaced individuals (Masson-Delmotte et al., 2021; Palattiyil, Sidhva, Seraphia Derr & Macgowan, 2021). Climate change is frequently seen as a "threat multiplier" which

heightens the probability of instability, discrepancies and conflict, intensifying the risk or potential of internal displacement (Ferris, 2020).

For many years, researchers have been investigating the underlying factors of migration, uncovering several crucial elements. These encompass economic, cultural, social, demographic, political, and environmental factors. The influence of these drivers on an individual's decision to migrate, as well as on broader migration patterns, depends on their functioning. This understanding is vital for comprehending the role that a single driver or a combination of multiple drivers may have various roles at different stages of the migration phases and process (Tintori et al., 2018).

The migration decision is profoundly affected and directed by the context in which it takes place. Identifying specific migration drivers is highly context-specific, contingent upon the time and place where migration plans are formulated and decisions are made. Nevertheless, certain context-specific roles of various migration drivers could be broadly categorized into various key functions. For instance, predisposing factors are rooted in societal systems and structural inequalities. As a fundamental principle, it can be assumed that migrants base their migration decisions on a combination of external and internal factors (Strey, Fajth, Dubow & Siegel, 2018).

The term "drivers of migration" encompasses a complex web of interconnected factors that affect and direct the choices of individuals, families, or entire population groups regarding migration, including displacement. This concept is dynamic and involves a blend of personal, circumstantial, social, environmental, and structural factors, all of which interact with incentives and constraints at local, national, regional, and global levels. These drivers play a significant role in determining whether migration has occurred in an internal or international manner, regularly or irregularly, and temporary or perennial. They exist on a spectrum that ranges from voluntary to involuntary movement. It is important to note that while *root causes* and *migration determinants* are related concepts, but they have distinct meanings. Root causes pertain to social and political factors, such as poverty, repression, and violent conflict, which lead to migration (Carling & Talleraas, 2016). Determinants involve the use of data and modeling to explain and predict migration patterns. The term *drivers of migration* encompasses a broader range of factors that ultimately result in migration (International Organization for Migration, 2019). Czaika and Reiprecht (2020) developed a classification system comprising 24 driving factors organized into nine dimensions. These factors can directly or indirectly influence migration processes at the micro, meso, and macro levels. The purpose of this classification system was to structure the expanding body of knowledge regarding migration drivers. Their comprehensive analysis of the literature revealed that these 24 topics are not only crucial for the study of migration drivers but also fundamental for developing a deeper perspective and understanding for the dynamics of migration processes. The environment in which migration drivers operate is shaped by this set of migration drivers, which, in turn, can significantly impact people's aspirations and decision-making (Bijak & Czaika, 2020).

3. Social Network and Migration

Lately, there has been an increasing interest in merging spatial analysis with social network analysis to understand the relationship between social networks and migration in depth (Chi, 2020; Derudder, Witlox & Taylor, 2007; Faust & Lovasi, 2012). Researchers examining the networked dimension of migration argue that individuals' actions are interwoven with social relationships. These relationships act as conduits for the exchange of resources, both tangible and intangible, resulting in complex social networks that influence individual behavior. While individuals can shape these social structures, being part of social networks can both offer opportunities and impose limitations on their actions (Bilecen & Lubbers, 2021).

Considerable attention has been given to the examination of bridging and bonding social capital in migrant communities. Nevertheless, questions have arisen concerning the clear definitions and distinctions between *bonding* and *bridging*. The overlap between these types of relationships further complicates their straightforward categorization (Portes, 1998). These relationships and connections can significantly influence migration decisions by providing financial support for relocation, housing, job opportunities, information, and emotional support after migration. Networks also play a vital role in community formation and permanent settlements. Notably, many migration scholars overlook the analysis of network formation. It is argued that studying migrants' networks is essential for developing a sociological understanding of their distinct characteristics and how they evolve from pre-existing relationships (Boyd, 1989; Eve, 2010; Ryan, 2011).

In this context, the social networks of migrants can serve as a reason or driver for migration. Migrants often rely on their social networks, such as friends, family members, or other acquaintances, for information and support during their migration process. These networks can facilitate the dissemination of information about potential jobs or profession opportunities, living conditions, and other factors that influence the decision to migrate. They can also provide support during the migration process itself, such as assistance in finding housing or accessing services in the destination country. Additionally, social networks can help migrants maintain a connection to their cultural and social roots, which can be essential for adapting to a new country. Therefore, social networks play a significant role in the migration decision-making process and the successful integration of migrants into their destination countries. Therefore, a Social Network Analysis (SNA) approach can examine the impact of physical separation and distance on the strength and evolution of social ties over time, including their significance and practicality. SNA bridges the personal and structural aspects in migration studies by providing a middle-level analysis. On the other hand, it is essential to relate the investigation of both local and transnational networks with an examination of the broader societal, political, and economic environments in which they develop, effectively linking the micro levels and meso levels to the macro level (Ryan & D'Angelo, 2018).

From January through mid-August 2019, a total of 10,690 refugees (72 percent Syrians and 28 percent other nationalities) were submitted to governments for resettlement consideration, with 7,066 refugees departing for 16 countries. UNHCR has already aided in the selection of 16 additional resettlement destinations, conducting 73 interviews in Turkiye. When it comes to finding solutions for refugees, UNHCR

advocates for a number of alternatives, such as family reunification and extended sponsorships from private or community sources, as well as employment mobility and third-country scholarship opportunities. If these entry or migration routes are made available to people seeking asylum, they may give comprehensive solutions and increase the number of players capable of providing safe and legal ways for refugees to remain in another country where their international protection necessities are satisfied. There are other obstacles that refugees face while attempting to employ additional channels, including eligibility limits, financial constraints, and paperwork constraints. With the assistance of states and other stakeholders, including the business sector, UNHCR is attempting to eliminate these impediments and form partnerships in order to research and create alternative route possibilities (The United Nations Refugee Agency, 2021b).

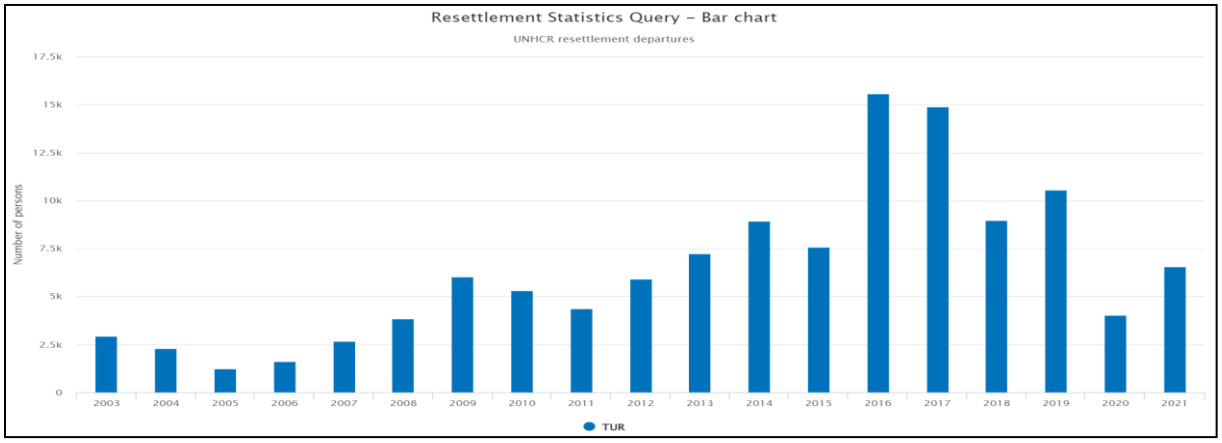

Figure 1. Number of the Refugees Who Departed from Turkiye Under Resettlement Program (The United Nations Refugee Agency, 2021c)

More than 50,000 refugees have left Turkiye for other countries around the world. However, this number decreased significantly in 2020 due to the COVID-19 pandemic. The top receiving countries for refugees were the United States, Germany, and Canada, with France, The Netherlands, and Sweden following closely behind.

Table 1. Number Of Refugees Who Departed from Turkiye in 2021

Country of Resettlement	Total Departures (persons)
Australia	2
Belgium	451
Canada	1234
Finland	188
France	107
United Kingdom	91
Germany	2029
Netherlands	280
Portugal	183
Spain	125
Sweden	270
Switzerland	275
USA	1316
TOTAL	**6551**

4. Method

4.1. Data Collection

In this study, data on the resettled refugees from Turkiye to the other parts of the world are retrieved from the UNHCR resettlement data center (The United Nations Refugee Agency, 2021c) from 2003 until 2021. A two-dimensional matrix which shows the scores for the countries that received refugees from or send refugees to Turkiye. This matrix is also cross-checked them with UNHCR and International Organization for Migration (IOM) data centers.

4.2. Data Analysis

Social Network Analysis (SNA) is applied to the Refugee Resettlement Program (RRP) from Turkiye for data analysis. To perform social network analysis, UCINET software (Borgatti, Everett & Freeman, 2002) is utilized. In social network analysis, the countries that receive or send refugees are considered as nodes while the traffic of refugees are taken as ties between these countries. The strength of tie is regarded as the number of refugees who travel this route. As a result of the social network analysis, separate social network maps are prepared for each year from 2003 to 2021. Also, degree density values for these years are calculated.

One of the fundamental examination and evaluation dimensions in social network analysis is degree centrality (Everett & Borgatti, 2005). The degree centrality of node in the network is the total number of its ties and it represents a significant indicator for the importance of the actor symbolized with this node in the network. Indegree centrality values for the countries that receive migration and outdegree centrality values for the countries that send refugees are also plotted with respect year.

5. Findings

Outdegree and normalized outdegree centrality values of emigration counties and indegree and normalized indegree centrality values of emigration counties receiving emigration for 2003 – 2021 are given in Table 2-5. Some examples of social network maps for the years 2003 – 2021 are presented in Figure 2-6, also. In the figures, node sizes are plotted with respect to degree centrality values of the nodes. The change of indegree centralities of countries of emigration and of outdegree centralities of countries of immigration occurred through Turkiye between 2003-2021 with respect to time is given in Figure 7 and Figure 8.

Table 2. Outdegree Centrality Parameters of Emigration Countries in 2003 – 2021

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Afghanistan	66	44	41	33	31	36	76	168	105	248	344	290	477	495	213	170	1195	222	902
Democratic republic of Congo	0	0	0	2	1	3	10	0	6	15	2	3	11	7	1	0	2	5	0
Eretria	0	0	1	2	9	5	8	11	13	12	8	7	1	9	1	0	3	0	1
Iraq	237	125	15	33	980	2418	4185	3564	2337	3565	4253	5803	4071	4433	2085	300	732	601	497
Myanmar	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Other	2612	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Somali	9	32	84	46	84	144	151	252	73	119	153	128	133	66	34	0	6	3	16
Sudan	0	8	4	3	4	4	7	31	7	11	28	1	7	0	1	4	5	0	16
Syria	5	8	0	12	1	0	2	3	4	2	22	284	1141	8443	11689	8096	8274	3126	4920

Table 3. Normalized Outdegree Centrality Parameters of Emigration Countries in 2003 – 2021

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Afghanistan	0.001	0.020	0.022	0.025	0.001	0.000	0.001	0.001	0.002	0.002	0.003	0.002	0.004	0.003	0.002	0.001	0.012	0.005	0.011
Democratic republic of Congo	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Eretria	0.000	0.000	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Iraq	0.004	0.055	0.000	0.025	0.025	0.028	0.028	0.027	0.037	0.028	0.038	0.033	0.036	0.029	0.019	0.003	0.007	0.012	0.006
Myanmar	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Other	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Somali	0.000	0.014	0.045	0.035	0.002	0.002	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000
Sudan	0.000	0.004	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Syria	0.000	0.004	0.000	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.010	0.054	0.105	0.070	0.083	0.065	0.059

Table 4. Indegree Centrality Parameters of Countries Receiving Emigration in 2003 – 2021

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Australia	340	9	0	0	11	200	374	284	561	203	959	577	656	426	221	83	44	106	0
Austria	4	0	0	0	0	0	0	0	0	0	0	0	40	0	214	0	0	0	0
Belgium	6	0	0	0	0	0	0	0	0	0	0	25	43	102	715	336	215	43	451
Bulgaria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	64	0	0
Canada	551	80	33	86	107	143	184	311	321	267	438	919	759	2717	1069	770	1176	748	1190
Switzerland	1	3	0	0	0	1	5	1	0	0	0	0	0	0	5	0	0	24	259
Germany	78	27	0	0	1	0	0	0	0	105	172	13	0	1033	2703	2824	2428	1180	2029
Denmark	3	0	0	0	0	0	0	0	0	0	3	2	4	0	0	0	0	31	0
Spain	0	0	0	0	0	0	0	0	0	0	0	0	0	57	358	17	319	7	124
Estonia	0	0	0	0	0	0	0	0	0	0	0	0	0	11	19	29	7	0	0
Finland	71	3	36	0	42	23	37	0	0	7	78	19	31	132	846	361	575	278	188
France	0	0	0	0	0	7	16	11	0	1	0	6	3	432	766	2072	1295	284	107
United Kingdom	9	0	13	0	0	0	0	0	0	2	6	10	90	714	572	290	557	128	91
Croatia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	88	122	0	0
Hungary	0	0	0	0	0	0	0	0	0	0	0	0	2	4	0	0	0	0	0
Irland	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0

Iceland	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0
Italy	0	0	0	0	0	0	0	0	0	0	0	0	0	82	245	50	15	0	0
Liechtenstein	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	0
Lithuania	0	0	0	0	0	0	0	0	0	0	0	0	0	25	58	18	0	0	0
Luxembourg	0	0	0	0	0	0	0	0	0	0	0	0	49	52	155	0	0	0	0
Latvia	0	0	0	0	0	0	0	0	0	0	0	0	0	6	40	0	0	0	0
Mexico	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Malta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0
Netherlands	5	2	0	0	1	0	0	0	2	1	0	8	3	450	2103	699	1151	127	280
Norway	263	0	0	0	0	2	0	3	1	0	50	157	374	313	530	407	0	0	0
New Zealand	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	11	0	0
Poland	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0	0	0	1	0	0	0	12	131	0	186	192	183
Romania	0	0	0	0	0	0	0	0	0	0	0	40	2	0	43	0	31	37	0
Slovenia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	0	0	0
Sweden	109	15	0	1	0	20	17	11	2	0	19	40	134	308	456	321	906	259	270
The United States	1487	78	62	44	948	2214	3804	3409	1658	3385	3085	4699	3622	6576	2718	149	1115	513	1180

Table 5. Normalized Indegree Centrality Parameters of Countries Receiving Emigration in 2003 – 2021

	2003	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Australia	0.006	0.004	0.000	0.000	0.000	0.002	0.002	0.002	0.009	0.002	0.009	0.003	0.006	0.003	0.002	0.001	0.000	0.002	0.000
Austria	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000
Belgium	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.006	0.003	0.002	0.001	0.005
Bulgaria	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
Canada	0.009	0.035	0.017	0.066	0.003	0.002	0.001	0.002	0.005	0.002	0.004	0.005	0.007	0.018	0.010	0.007	0.012	0.015	0.014
Switzerland	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
Germany	0.001	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.000	0.000	0.007	0.024	0.024	0.024	0.024	0.024
Denmark	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
Spain	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.003	0.000	0.001
Estonia	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Finland	0.001	0.001	0.019	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.008	0.003	0.006	0.006	0.002
France	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.007	0.018	0.013	0.006	0.001
United Kingdom	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.005	0.005	0.003	0.006	0.003	0.001
Croatia	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000
Hungary	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Irland	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Iceland	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Italy	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.000	0.000	0.000	0.000
Liechtenstein	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Lithuania	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000
Luxemburg	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000
Latvia	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mexico	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Malta	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Netherlands	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.019	0.006	0.012	0.003	0.003
Norway	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.002	0.005	0.004	0.000	0.000	0.000

New Zealand	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Poland	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Portugal	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.002	0.004	0.002
Romania	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
Slovenia	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sweden	0.002	0.007	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.004	0.003	0.009	0.005	0.003
The United States of America	0.025	0.035	0.033	0.034	0.024	0.025	0.025	0.026	0.026	0.026	0.027	0.027	0.032	0.042	0.025	0.001	0.011	0.011	0.014

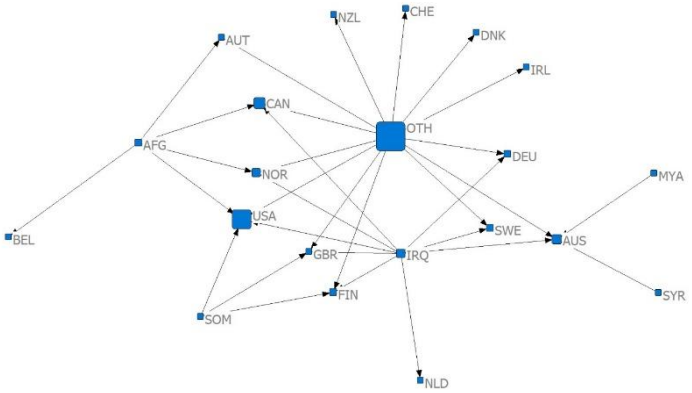

Figure 2. Social network map of migration occurred through Turkiye in 2003

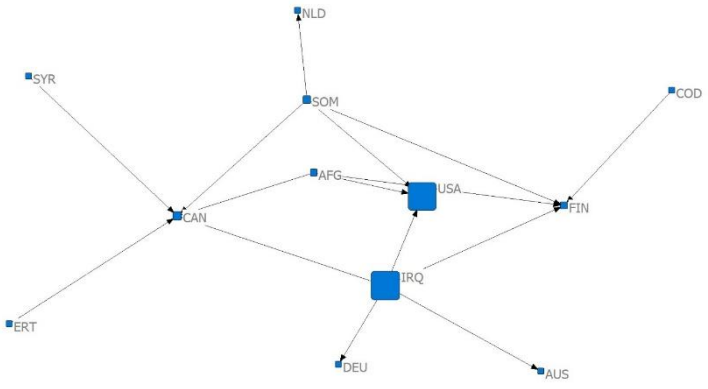

Figure 3. Social network map of migration occurred through Turkiye in 2007

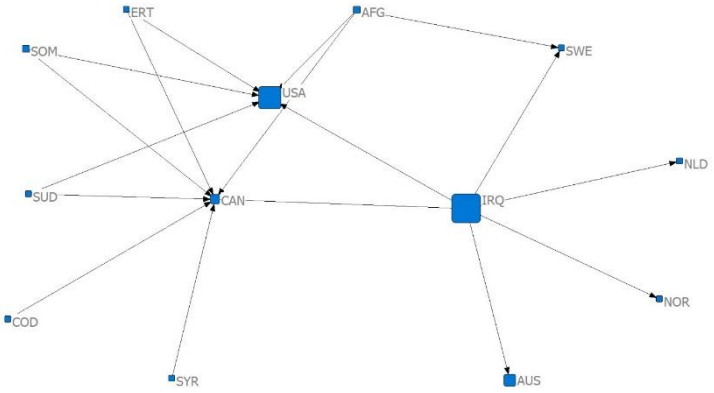

Figure 4. Social network map of migration occurred through Turkiye in 2011

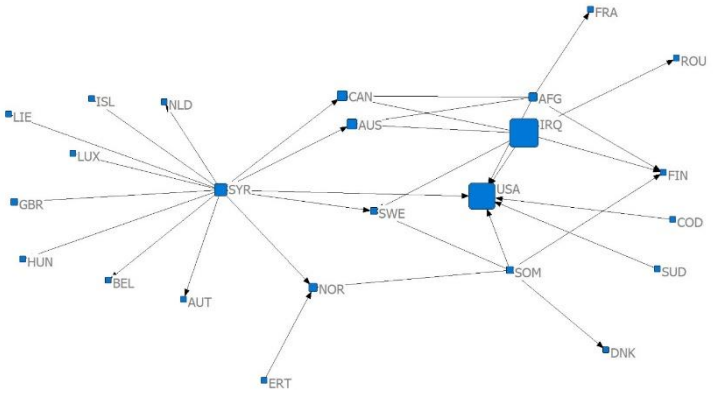

Figure 5. Social network map of migration occurred through Turkiye in 2015

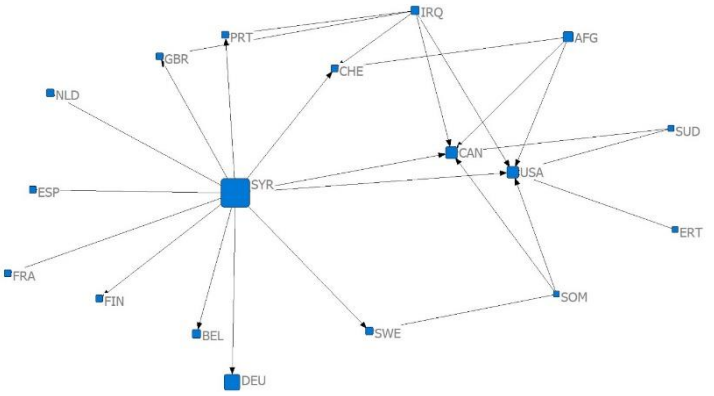

Figure 6. Social network map of migration occurred through Turkiye in 2021

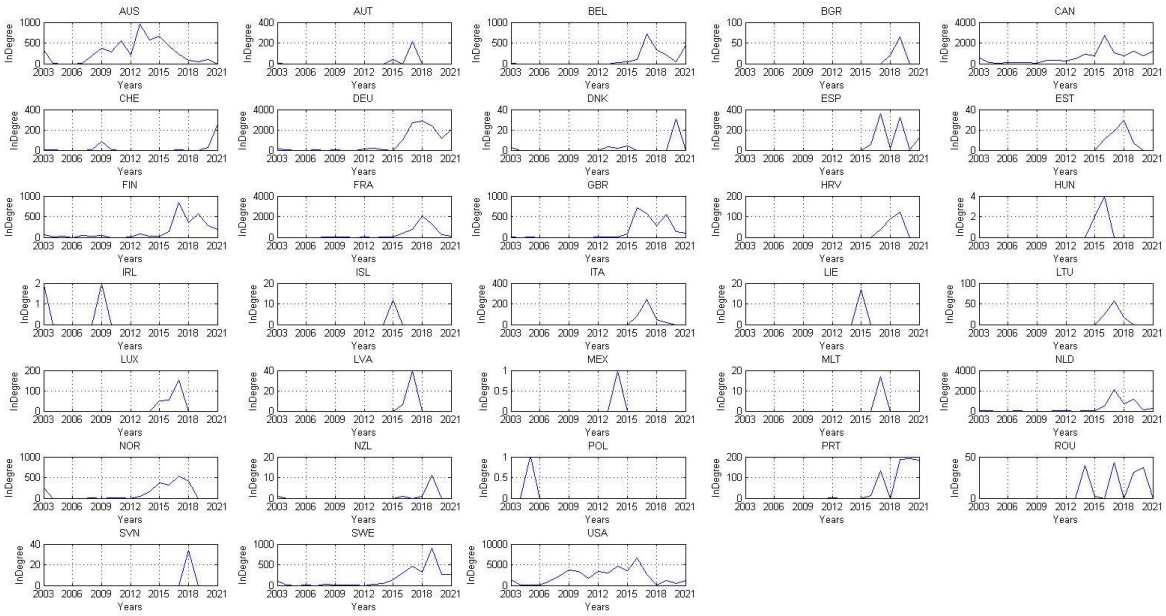

Figure 7. Indegree Centralities of Countries of Emigration Occurred Through Turkiye between 2003 – 2021

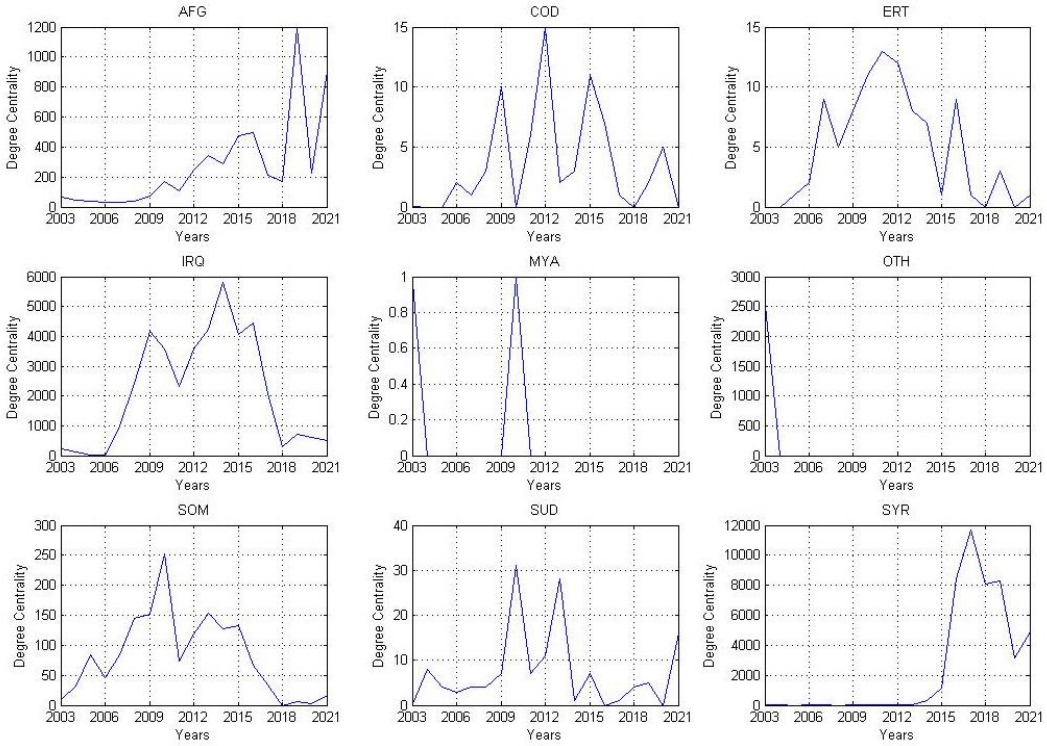

Figure 8. Outdegree Centralities of Countries of Immigration Occurred through Turkiye between 2003 – 2021

When the outdegree centrality change graphs of the countries of migration are examined, it can be seen that Afghanistan experienced two major jumps in 2019 and 2021, the Democratic Republic of Congo experienced three major jumps in 2009,

2012 and 2015 and a minor jump in 2020, the increases in Myanmar occurred between 2010 and 2003, Syria experienced many intense impulses that intertwined since 2015, Sudan experienced similar increases in 2010 and 2013, Somalia experienced its biggest jump in 2010, and Iraq recorded intense jumps similar to Syria from 2006 to 2018, the effects of which extended into each other's periods. The dates of these jumps coincide with systematic shocks such as coups, civil wars, rebellions and regional wars in these countries or their aftermath.

A similar behavior can be observed in the time-dependent changes in indegree centrality of countries that receive immigrants. Many countries, such as Lithuania, Latvia, and Luxembourg, have experienced these leaps once; while many countries, such as Spain, England, and the USA, which are the primary choices of immigrants and are more favorable to accepting immigrants and are more economically and sociologically stable, have experienced these jumps more than once. The dates of these leaps again coincide with the dates of systematic shocks in countries that send immigrants.

When the figures are examined, it can be seen that degree centralities experience sudden jumps in short time intervals for both immigrant-receiving and immigrant-sending countries. It can be noticed that when there is no extra excitation after these sudden jumps, this trend approaches to 0 and becomes stable after a certain period of time, and when there is an excitation again, there occurs a sudden jump in degree centrality values also. From this perspective, migration driver can be represented with the function $Ae^{-\alpha(t-t_0)}$, at any time point for immigration and emigration. In other words, migration drivers have an impulse function behavior in terms of the resettlement program carried out through Turkiye, both for the countries receiving and sending immigrants. Similar to institutional shocks and intensely related to them, at this point, the factors that create the impulse function in terms of immigration and emigration are systemic shocks, interventions such as war, civil war, foreign operations, and internal issues such as disasters and economic crisis. In this way, when the phenomenon or behavior of accepting or sending out immigration is considered as a black box, it can be expresses as a mathematic systemic response of the country receiving or giving immigration to the factor that creates immigration. In the formulation, $Ae^{-\alpha(t-t_0)}$, the coefficient A is the magnitude of the shock that occurred and is determined as a result of the severity and intensity of the systemic shock and the reaction of this country to the relevant systemic shock resulting from its own demographic, sociological and governmental structures. a is the relaxation time coefficient and represents the time that must pass for the receiving or sending country to become stable again in terms of migration, or in more detail migration drivers. At this point, examining the changes over time in terms of immigration or emigration through examples that lead these systemic shocks will provide insight.

6. Some Systemic Shock Examples

6.1. Iraq

When the emigration graph of Iraq, which has experienced much more intense out-migration compared to other countries, is examined on indegree centralities, it is seen that it has produced quite high values from 2006 to 2018 and that many consecutive impulses have been experienced for a long time to the point of entering

each other's time fields. In addition, the indegree centrality value, which experienced a relative decrease in 2011, increased rapidly again immediately afterwards and reached its peak value. Some systematic shock examples and the situations experienced before this process are given below.

6.1.1. The War in Iraq 2003

In March 2003, President George W. Bush declared the start of a military operation in Iraq. "We are in the early phases of a comprehensive and coordinated campaign," the president claims. The initial air strike attempt to *decapitate* Iraq's government miscarried, opening the path for a military invasion.

Internal (inside Iraq) and external (refugees, mainly in Turkiye and Syria) displaced persons in a range from 3.5 million to 5 million or more, all of whom were outrightly related to the war. Almost every first-hand story attributed violence or threats of ethnic or sectarian cleansing as the reason for the relocation.

The effects of displacement, which now number around 3 million people, are harsh enough. It is, nevertheless, another sign of the magnitude of death. Since 1945, all wars have had displaced-to-fatalities ratios of 10:1 or less, with most being closer to 5:1. If this average ratio holds true for the Iraq War, approximately one million Iraqis will have died.

6.1.2. 2004-2013 Post-War Situation in Iraq

In 2004, and according to Pentagon officials, insurgents controlled essential parts of central Iraq, and the time when American and Iraqi troops could secure and connect these areas is uncertain. Despite massive financial investments over the past decade, the coalition and successive Iraqi administrations have failed to win Iraqi people over mentally and emotionally. One reason is that they (successive governments) consistently fail to satisfy the population's basic needs: safety, shelter, food, and water.

The Iraqi health system has been analyzed and evaluated numerous times, using a variety of methodologies and national and international efforts in an attempt to find answers that will help with the proper channeling of resources required for a properly functioning health system. However, a health system cannot fulfill its mission of serving its population and improving people's health if the socioeconomic determinants of health are overlooked by strategists and planners. To observe any improvements in the health circumstances of Iraqis living in their country, comprehensive and coordinated methods must be implemented throughout all facets of life.

6.2. Syria

In Syria, where the migration output was most severe among the countries covered in the study, the first increase was recorded in 2012, immediately after the protests at the beginning of the Syrian war. The outdegree centrality value, which increased dramatically immediately after this event, reached its peak in 2017. At this point, one of the most important factors stands out as the capture of eastern Aleppo by regime forces and the Battle of Aleppo, which was quite destructive and caused

difficult humanitarian conditions. Between 2018 and 2020, when the current situation was relatively preserved, outdegree centrality values followed a decreasing trend.

6.2.1. Syrian War 2011

In March 2011, protests in favor of democracy erupted in the southern city of Deraa, spurred by movements against oppressive regimes in neighboring countries. After, in Syria, demonstrations calling for the president's resignation broke out as the government use lethal force to quell opposition. The repression intensified as the unrest increased. Supporters of opposition took up arms, first to protect themselves, and later to eject security forces out of their regions. Assad committed to ending "foreign-backed terrorism".

With the violence rapidly became out of control, Syria slid into civil war. Hundreds of rebel groups emerged, and the conflict quickly grew beyond a war between only Syrians who opposed and supported Assad. Foreign countries began to take a stand, supplying money, weapons, and warriors. As the unrest worsened, extreme jihadist groups with their own and separate goals, such as al-Qaeda and Islamic State (IS) organization, were involved. This increased anxiety around the world, since they were seen as a serious threat. Syria's Kurds, who have not engaged in combat with Assad's forces but seek independence have given the crisis a new facet.

6.2.2. Last Ten Years After the War

13.4 million people inside Syria required humanitarian aid as of January 2021, with 6 million in critical need, according to the UN. Five hundred thousand children were chronically undernourished and over 12 million people struggled to get adequate food daily.

The humanitarian catastrophe has been exacerbated in the last year by an extraordinary economic collapse, where it has been witnessed historic highs in food prices and a collapse in the value of Syria's currency (Keseljevic & Spruk, 2022). Moreover, Syria has been damaged by a Covid-19 outbreak, the exact scope of which is unknown due to inadequate capacity to test and a ruined healthcare system.

7. Conclusion

Objective of this study is to develop insights for the interplay between social networks and international migration, and bring clarity to the immigration and resettlement issues. In this study, immigration issue and particularly resettlement traffic flowing through Turkiye is examined by social network analysis and the changes in social network parameters are observed. At this point, Turkiye constitute a focal point for migration flows, due to its specific positions in terms of both geography and international policy. First, Turkiye is a geographical bridge and a passageway between the countries where the events that cause migration, such as rebellions, coups and civil wars, which are called systematic shocks in this study, occur and the economically and sociologically stable countries that are the primary choices of refuges to seek and establish a new beginning for themselves. Second, most of the countries of

immigrations are closely related to Turkiye in terms of historical, religious, ethnical and geopolitical ties. For this reason, Turkiye plays a key role as the first destination where refuges would choose to seek asylum, due to the trust and familiarity that these listed ties create in the minds of refugees.

As a result of the analysis, it is noticed that the refugee traffic occurring between the countries receiving and sending immigrants has some sudden jumps realized in short time intervals and relaxing through the time, called impulses in this study. These impulses from the mathematical and social network analysis perspective corresponds to some political and economic events that take places in the country of immigration, namely systemic shocks. This relation indicates that political and economic events operate as impulses in social network change and evolution and migration drivers in terms of refugee traffic.

As a result of the analysis, it is noticed that the refugee traffic occurring between the countries receiving and sending immigrants has some sudden jumps realized in short time intervals and relaxing through the time, called impulses in this study. These impulses from the mathematical and social network analysis perspective corresponds to some political and economic events that take places in the country of immigration, namely systemic shocks. This relation indicates that political and economic events operate as impulses in social network change and evolution and migration drivers in terms of refugee traffic. The results reveals that there is an intense relation between systemic shocks and migration drivers. Examples of migration drivers in the countries examined in this study include rebellions, civil wars, coups, humanitarian crises and regional wars.

In the literature, there are also a few studies that relates institutional shocks with political and economic events. Danilova, Bogdanova, Karpushkina and Karetnikova (2020) accept unexpected changes in institutional rules and trading instruments as institutional shocks and explains their impact on Russian regions with a similar approach to impulse explanation. In a similar way, Costie, Holm and Berardo (2018) examine the political events and relations after rapid institutional changes, which they called institutional shocks, and they have also applied social network analysis. Keseljevic and Spruk (2021) adapt a congruent approach to examine long-term effects of civil war in former Yugoslavia and identify Yugoslav civil war as an institutional shock with perennial implications on economy and economic development and growth beside political impacts.

This study has contributions to the literature and fills some gaps. First, it explains change and evolution in social networks, particularly migration networks with impulse approach and institutional shocks. As can be seen from the study results, migration networks generally follow a stable and constant course, except for external factors. However, when a systematic shock occurs, that is, when an event occurs that will radically change the established sociological, political and economic order in the country of immigration, a very rapid increase is observed, followed by a relaxation period and then a return to the old stability to a certain extent. From this perspective, migration network evolution can be modeled as a time-dependent function in which systematic shocks are evaluated as impulses. Second, the integration of social network theory and social network analysis into migration studies in a new way has been

performed. Also, evolution mechanism of migration flows has been expressed in terms of and compared to social network theory.

This study has some limitations, also. First, since immigrant data were taken from the UHNC database and were not collected via interviews, personal reasons of immigrants could not be included in the study. For this reason, the specific reasons why refugees choose the countries they migrate to could not be taken into consideration. In addition, since the level of systematic shocks cannot be measured clearly, a clear and precise mathematical relationship between the degree of shock and the degree centrality change could not be established.

As the future of the study, the study can be detailed with a new study in which the personal stories of the refugees can also be learned. Thus, a detailed examination of the factors conceptualized and brought together under the name of systematic shock can be carried out. Secondly, repeating a similar study with a country other than Turkey where migration traffic takes place will increase the insight on the topic. This study is conducted in accordance with Research and Publication Ethics throughout the entire research process.

Research and Publication Ethics Statement

The authors declare that ethical rules are followed in all preparation processes of this study. In case of detection of a contrary situation, Journal of Commercial Sciences has no responsibility and all responsibility belongs to the authors of the study. This study does not require ethics committee approval.

Author Contributions

Ömer YAVUZOĞLU contributed to the study in Introduction, Migration Drivers, Social Network and Migration, Method, Findings, Some Systemic Shock Examples, and Conclusion sections. Caner ASBAŞ contributed to the study in Introduction, Migration Drivers, Social Network and Migration, Method, Findings, Some Systemic Shock Examples, and Conclusion sections. Şule ERDEM TUZLUKAYA contributed to the study in Introduction, Migration Drivers, Social Network and Migration, Method, Findings, Some Systemic Shock Examples, and Conclusion sections. 1st author's contribution rate: 33%, 2nd author's contribution rate: 33%, 3rd author's contribution rate: 33%.

Conflict of Interest

There is no conflict of interest between the authors.

Araştırma ve Yayın Etiği Beyanı

Bu çalışmanın tüm hazırlanma süreçlerinde etik kurallara uyulduğunu yazarlar beyan eder. Aksi bir durumun tespiti halinde Ticari Bilimler Fakültesi Dergisinin hiçbir sorumluluğu olmayıp, tüm sorumluluk çalışmanın yazarlarına aittir. Bu çalışma etik kurul izni gerektirmemektedir.

Yazar Katkıları

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Çıkar Beyanı

Yazarlar arasında çıkar çatışması yoktur.

References

Beine, M., Bertinelli, L., Cömertpay, R., Litina, A., & Maystadt, J. F. (2021). A gravity analysis of refugee mobility using mobile phone data. *Journal of Development Economics*, *150*, 102618. doi: 10.1016/j.jdeveco.2020.102618

Bijak, J., & Czaika, M. (2020). *Assessing Uncertain Migration Futures: A Typology of the Unknown*. Southampton, England: University of Southampton and Danube University Krems.

Bilecen, B., & Lubbers, M. J. (2021). The networked character of migration and transnationalism. *Global Networks*, *21*(4), 837–852. doi: 10.1111/glob.12317

Borgatti, S., Everett, M., & Freeman, L. C. (2002). *Ucinet 6 for Windows: Software for Social Network Analysis* [Computer Software]. Harvard, MA: Analytic Technologies.

Boyd, M. (1989). Family and personal networks in international migration: Recent developments and new agendas. *International Migration Review*, *23*(3), 638–670. doi: 10.2307/2546433

Carling, J., & Talleraas, C. (2016). *Root causes and drivers of migration: Implications for humanitarian efforts and development cooperation*. *PRIO Paper*. Oslo, Norway: Peace Research Institute Oslo.

Castelli, F. (2018). Drivers of migration: Why do people move? *Journal of Travel Medicine*, *25*(1). doi: 10.1093/jtm/tay040

Cheng, I. H., Drillich, A., & Schattner, P. (2015). Refugee experiences of general practice in countries of resettlement: A literature review. *British Journal of General Practice*, *65*(632), e171–e176. doi: 10.3399/bjgp15x683977

Chi, G. (2020). *Migration and Social Networks: New Insights from Novel Data*. Berkley, CA: University of California, Berkeley.

Costie, D. P., Holm, F., & Berardo, R. (2018). Hydraulic fracturing, coalition activity and shock: Assessing the potential for coalition-based collective action in Argentina's Vaca Muerta Formation. *The Extractive Industries and Society*, *5*(4), 499–507. doi: 10.1016/j.exis.2018.08.003

Czaika, M., & Reinprecht, C. (2020). Drivers of migration. A synthesis of knowledge. *International Migration Institute Working Papers*, *163*, 1–45.

Danilova, I., Bogdanova, O. A., Karpushkina, A. V., & Karetnikova, T. (2020). The impact of external institutional shocks on Russian regions. *AUC Geographica*, *55*(1), 3–14. doi: 10.14712/23361980.2020.7

de Haas, H., Czaika, M., Flahaux, M., Mahendra, E., Natter, K., Vezzoli, S., & Villares-Varela, M. (2019). International migration: Trends, determinants, and policy effects. *Population and Development Review*, *45*(4), 885–922. doi: 10.1111/padr.12291

Derudder, B., Witlox, F., & Taylor, P. J. (2007). U.S. cities in the world city network: Comparing their positions using global origins and destinations of airline passengers. *Urban Geography*, *28*(1), 74–91. doi: 10.2747/0272-3638.28.1.74

Eve, M. (2010). Integrating via networks: Foreigners and others. *Ethnic and Racial Studies*, *33*(7), 1231–1248. doi: 10.1080/01419871003624084

Everett, M., & Borgatti, S. P. (2005). Ego network betweenness. *Social Networks*, *27*(1), 31–38. doi: 10.1016/j.socnet.2004.11.007

Faust, K., & Lovasi, G. S. (2012). Capturing context: Integrating spatial and social network analyses. *Social Networks*, *34*(1), 1–5. doi: 10.1016/j.socnet.2011.10.007

Ferris, E. (2020). Research on climate change and migration where are we and where are we going? *Migration Studies*, *8*(4), 612–625. doi: 10.1093/migration/mnaa028

Hajro, A., Brewster, C., Haak-Saheem, W., & Morley, M. J. (2022). Global migration: Implications for international business scholarship. *Journal of International Business Studies*, *54*(6), 1134–1150. doi: 10.1057/s41267-022-00565-z

Hao, T., Sun, R., Tombe, T., & Zhu, X. (2020). The effect of migration policy on growth, structural change, and regional inequality in China. *Journal of Monetary Economics*, *113*, 112–134. doi: 10.1016/j.jmoneco.2020.03.003

International Organization for Migration. (2019). *International Migration Law*. Retrieved on January 17 from https://www.iom.int/international-migration-law.

International Organization for Migration. (2021). *Migration in Türkiye*. Retrieved on January 17 from https://turkiye.iom.int/migration-turkiye.

International Organization for Migration. (2022). *World Migration Report 2022*. Retrieved on January 17 from https://www.iom.int/books/world-migration-report-2022.

Keseljevic, A., & Spruk, R. (2021). Long-term effects of Yugoslav War. *Defence and Peace Economics*, *34*(4), 410–436. doi: 10.1080/10242694.2021.2007334

Keseljevic, A., & Spruk, R. (2022). Estimating the effects of Syrian Civil War. *arXiv preprint*. arXiv:2209.03046.

Massey, D. S., Arango, J., Hugo, G., Kouaouci, A., & Pellegrino, A. (1999). *Worlds in Motion: Understanding International Migration at the End of the Millennium*. Oxford, England: Clarendon Press.

Masson-Delmotte, V., Zhai, P., Pirani, A., Connor, S. L., Pean, C. et al. (2021). *Climate change 2021: The physical science basis. The Working Group I Contribution to the Sixth Assessment Report, Intergovernmental Panel on Climate Change*. Cambridge, MA: Cambridge University Press.

Palattiyil, G., Sidhva, D., Seraphia Derr, A., & Macgowan, M. (2021). Global trends in forced migration: Policy, practice and research imperatives for social work. International *Social Work*, *65*(6), 1111–1129. doi: 10.1177/00208728211022791

Portes, A. (1998). Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology*, *24*(1), 1–24. doi: 10.1146/annurev.soc.24.1.1

Republic of Türkiye Ministry of Interior Presidency of Migration Management. (2023). *Temporary Protection*. Retrieved on January 17 from https://en.goc.gov.tr/temporary-protection27.

Ryan, L. (2011). Migrants' social networks and weak ties: Accessing resources and constructing relationships post-migration. *The Sociological Review*, *59*(4), 707–724. doi: 10.1111/j.1467-954x.2011.02030.x

Ryan, L., & D'Angelo, A. (2018). Changing times: Migrants' social network analysis and the challenges of longitudinal research. *Social Networks*, *53*, 148–158. doi: 10.1016/j.socnet.2017.03.003

Silchenko, D., & Murray, U. (2023). Migration and climate change: The role of social protection. *Climate Risk Management*, *39*, 100472. doi: 10.1016/j.crm.2022.100472

Strey, A., Fajth, V., Dubow, T. M., & Siegel, M. (2018). D*eterminants of migration flows within the EU. Paper Published as Part of the Reminder Project. Maastricht*. The Netherlands: Role of European Mobility and Its Impacts in Narratives, Debates and EU Reforms.

The United Nations Refugee Agency. (1951). *Convention and Protocol Relating to the Status of Refugees*. Retrieved on January 17 from https://www.uhncr.org/media/convention-and-protocol-relating-to-the-status-of-refugees.

The United Nations Refugee Agency. (2011). *Convention and Protocol Relating to the Status of Refugees*. Retrieved on January 17 from https://www.unhcr.org/fr-fr/en/media/convention-and-protocol-relating-to-the-status-of-refugees.

The United Nations Refugee Agency. (2020). *Figures at a Glance*. Retrieved on January 17 from https://www.unhcr.org/figures-at-a-glance.html.

The United Nations Refugee Agency. (2021a). *Refugee Survey Quarterly*. Retrieved on January 17 from https://rsq.unhcr.org/.

The United Nations Refugee Agency. (2021b). *Resettlement*. Retrieved on January 17 from https://www.unhcr.org/tr/en/ressettlement.

The United Nations Refugee Agency. (2021c). *Resettlement Fact Sheet November 2021*. Retrieved on January 17 from https://www.unhcr.org/protection/resettlement/61c444c14/resettlement-fact-sheet-november-2021.

The United Nations Refugee Agency. (2021d). *Turkiye | Global Focus*. Retrieved on January 17 from https://reporting.unhcr.org/node/2544?y=2020#year.

The United Nations Refugee Agency. (2023). *Refugees and Asylum Seekers in Turkiye*. Retrieved on January 17 from https://unhcr.org/tr/en/refugees-and-asylum-seekers-in-turkey.

Tintori, G., Kalantaryan, S., Grubanov-Boskovic, S., Scipioni, M., Farinosi, F., Cattaneo, C., Benandi, B., Follador, M., Bidoglio, G., & Barbas, T. (2018). *International migration drivers: A quantitative assessment of the structural factors shaping migration. European Commission Joint Research Center Science for Policy Report*. Luxembourg, Luxembourg: Publications Office of the European Union.

Van Hear, N., Bakewell, O., & Long, K. (2017). Push-pull plus: Reconsidering the drivers of migration. *Journal of Ethnic and Migration Studies*, *44*(6), 927–944. doi: 10.1080/1369183x.2017.1384135

World Education News Reviews. (2019). *The State of Refugee Integration in Germany in 2019*. Retrieved on January 17 from https://wenr.wes.org/2019/08/the-State-of-Refugee-Integration-in-Germany-in-2019.