

Impacts of Syrian Construction Workers on the Turkish AEC Industry

Abdullah Selim Taflı¹, Savaş Bayram²

¹ Graduate School of Natural and Applied Sciences, Gazi University, Ankara, Turkey.

² Dept. of Civil Engineering, Erciyes University, Kayseri, Turkey.

(Alınış / Received: 27.09.2021, Kabul / Accepted: 16.12.2021, Online Yayınlanma / Published Online: 30.12.2021)

Keywords

Syrian revolution,
Refugees,
Kayseri,
AEC industry,
Labor force

Abstract: Since the beginning of the Syrian Revolution, over 600 thousand people killed across Syria. The civil war in Syria caused Turkey to be the largest refugee-hosting country worldwide and approximately 4 million Syrians immigrated to Turkey. The integration and employment of the Syrian refugees in Turkey require further research. The role of the architecture, engineering, & construction (AEC) industry in the Turkish economy is vital. In this context, this study investigates the impact of Syrian workers on the Turkish AEC industry, especially for the province of Kayseri; under three different perspectives as Syrian workers, Turkish workers, and Turkish employers. The topics of the research consist of; (i) causes of migration & future plans, (ii) contributions, (iii) working conditions, and (iv) cheap labor. The findings reveal that on many issues, there are conflicts between Syrian workers and Turkish workers/employers.

Suriyeli İnşaat İşçilerinin Türk İnşaat Sektörüne Etkileri

Anahtar Kelimeler

Suriye devrimi,
Mülteciler,
Kayseri,
İnşaat sektörü,
İşgücü

Öz: Suriye devriminin başlangıcından bu yana, Suriye genelinde 600 binden fazla insan hayatını kaybetmiştir. Suriye'deki iç savaş, Türkiye'nin dünyanın en fazla mülteci barındıran ülkesi olmasına neden olmuş ve yaklaşık 4 milyon Suriyeli Türkiye'ye göç etmiştir. Suriyeli mültecilerin Türkiye'ye entegrasyonu ve istihdamı daha fazla araştırma gerektirmektedir. İnşaat sektörünün Türk ekonomisindeki rolü hayati önem taşımaktadır. Bu bağlamda, bu çalışma Suriyeli işçilerin Türk inşaat sektörü üzerindeki etkilerini, Kayseri ili özelinde; Suriyeli işçiler, Türk işçiler ve Türk işverenler olmak üzere üç farklı perspektifte incelemektedir. Araştırmanın temel konu başlıkları; (i) göçün nedenleri ve gelecek planları, (ii) katkılar, (iii) çalışma koşulları ve (iv) ucuz işgücü, şeklindedir. Bulgular, birçok konuda Suriyeli işçiler ile Türk işçiler/işverenler arasında görüş ayrılıklarının olduğunu ortaya koymaktadır.

* Corresponding Author, e-mail: sbayram@erciyes.edu.tr

1. Introduction

Global change is an interaction between countries that have been going on for centuries. The Middle East is the most affected region by this change. There are many reasons for the emergence of the Arab Spring, which started in 2010. The reasons can be listed as historical, social, and psychological, administrative, political, economic, and other [1]. After March 2011 the civil war spread to Syria, according to the data of the 'Syrian Human Rights Observatory' (SOHR), as of June 2021, it is estimated that over 606,000 people killed across Syria since the beginning of the Syrian Revolution, including 495,000 documented [2]. Besides, 92% of the refugees emigrated to Lebanon, Jordan, and Turkey; this is the largest migration movement in recent history. The civil war in Syria caused Turkey to follow an "open door" policy and become the largest refugee-hosting country [3]. Approximately 4

million Syrians have immigrated to Turkey [4]. As of June 2021, the Turkish Directorate General of Migration Management (Göç İdaresi Genel Müdürlüğü, TDGMM) announced that of 3,684,412 persons, 54% were men and 46% were women [5]. It is estimated that this number is even higher when unofficial entrances are considered. As the number of Syrian refugees increased, some precautions were taken by the Turkish authorities to control the arrival of members of certain “dangerous” ethnic, ideological, and religious groups and to limit the number of entries [6]. The provincial breakdown of Syrian refugees in Turkey, according to the data of ‘The Office of the United Nations High Commissioner for Refugees’ (UNHCR) as of May 2021 is presented in Figure 1.



Figure 1. The provincial breakdown of Syrian refugees in Turkey [7]

Following the Syrian refugee influx in Turkey, the aspect of civil society in integration and employment requires further clarification and legislation [8, 9]. In this context, refugees in Turkey have been able to obtain a work permit by applying through their employers since 2016 [10]. Namely, the Ministry of Labor and Social Security (Çalışma ve Sosyal Güvenlik Bakanlığı) issued “Regulation on Work Permits of Foreigners under Temporary Protection” in January 2016 to further clarify and facilitate the access of Syrians to the job market under certain conditions [8]. Subsequently, a further work permit regulation was passed specifically for international protection applicants and conditional refugee status holders in April 2016 [11].

The population of Kayseri province is 1,421,455 according to the data of 2021, with 5.70% of this population registered as Syrians under temporary protection. In other words, six out of every 100 people living in Kayseri are Syrians [5]. On the other hand, the number of registered Syrians under temporary protection to the Turkish population is 4.39% across the country [5]. Based on the interviews with the provincial immigration administration, primary care providers, non-governmental organizations and Syrian refugees in the sample of Kayseri province, Sarigül et al (2019) concluded that all participants, including Syrian refugees, see the general situation and living conditions of Syrian refugees in Kayseri as good [12]. However, their main problems were determined as; lack of communication, education, financial inadequacies, and adaptation problems.

The architecture, engineering, & construction (AEC) industry in the Turkish economy is defined as the 'locomotive sector' in terms of the numerous sub-sectors and as the 'sponge sector' in terms of employment. According to the data of the International Labour Organization (ILO), 13.2% of the Syrian refugees work in the Turkish AEC industry [10]. However, the Turkish Social Security Institution (Sosyal Güvenlik Kurumu, SGK) indicated that unregistered employment in the Turkish AEC industry reached 37.74% as of 2019. The AEC industry is also vital in Kayseri, which is one of the most significant industrial centres of Central Anatolia, and therefore requires a large labor force. The labor force is partially met with Syrian workers. They provide cheap and unqualified labor, are thought to benefit the economy of Kayseri; however, there is a debate on whether they actually negatively affect the industry. For this reason, although the research was conducted on the scale of Kayseri province, it is thought that the results may represent the Turkish AEC industry since the Syrian population rate in Kayseri is close to the average of Turkey.

Based on the aforementioned theoretical framework, the research question of this study was to determine the contributions of Syrian construction workers to the Turkish AEC industry. The purpose of this study was to investigate the impact of the Syrians on a more specific AEC industry, where unskilled labor is important; rather than general studies on Syrian refugees. The survey research was conducted from three different perspectives as Syrian workers, Turkish workers, and Turkish employers. The main topics of the research consist of; (i) *causes of migration & future plans*, (ii) *contributions*, (iii) *working conditions*, and (iv) *cheap labor*.

Numerous studies discuss various refugee and immigrant problems worldwide and handle Syrian refugees. However, since the majority of the Syrian refugees emigrated to Jordan, Lebanon, and Turkey as mentioned, the literature review of this study was mainly focused on these countries.

Kattaa and Byrne (2018) stated that Syrians may obtain a work permit through the General Federation of Jordanian Trade Unions (GFJTU) to work in the Jordanian AEC industry [13]. However, only 20% of interviewed Syrian workers had work permits covered by social security; and only 8% reported that their working conditions, as well as work permits, were checked during labor inspections. Lenner and Turner (2019) stated that Syrians in Jordan primarily work in construction, wholesale, retail and repair trades, agriculture, and manufacturing [14]. It was emphasized that the rent alone easily can exceed the meagre salary, which is much less than in the AEC industry. It was concluded that the Jordanian economy could not offer Syrians a self-sufficient life.

Kobaissy (2016) stated that the work areas of the Syrians in Lebanon were limited to three sectors like agriculture, cleaning, and construction [15]. However, the growing number of Syrian workers caused the protection of the Lebanese workers. In 2015, the Lebanese government imposed visa requirements on Syrians, which limited the Syrian migration. Corstange (2019) claimed that the study of Syrian public opinion is in its infancy, and presented initial survey evidence from a large sample of displaced Syrians in Lebanon [16]. Betts et al (2020) on the other hand assessed the role of municipal authorities and mayors in Turkey and Lebanon [17].

Syrian refugees living in Turkey have been the subject of research in developed countries. For instance, Akgündüz et al (2015) from the Netherlands analysed the effect of the Syrian refugee influx in Turkey on the employment rates [18]. They concluded that the employment rates of natives in various skill groups are largely unaffected. Del Carpio and Wagner (2015) from the USA stated that the inflow of refugees to Turkey created higher-wage formal jobs, allowing for occupational upgrading of Turkish workers and the wages increased [19]. Baban et al (2017) from Canada stated that Syrian refugees in Turkey are 'neither guests nor refugees' due to identity, social, and legal issues [20]. Tören (2018) from Germany claimed that Syrian refugees in Turkey are in a difficult process due to living conditions, discrimination, bureaucracy, and language barriers [21].

Turkey-originated studies related to Syrian refugees started in 2011, the year immigration started. These studies have generally been carried out in various provinces in four different dimensions as sociological, economic, political, and labor market. Apak (2014) stated that Syrian refugees do not have adaptation problems of living in the Mardin province, however, their expectations are not fully met and their homeland is indispensable for them [22]. Özkarslı (2014) concluded that in the Mardin province, 65% of the Syrian refugees' primary reason to immigrate to Turkey is to work and only 4% stated "trade" purposes [23]. Navruz (2015) emphasized the low level of social acceptance of Syrian refugees in the Konya region by the local people and revealed that social acceptance differs according to demographic and socioeconomic variables [24]. Assida (2016) concluded that refugees in the Samsun province were working below the minimum wage compared to the local population, nevertheless, rental prices have increased, and social peace has deteriorated [25]. Cengiz and Tekgüç (2017) stated that there is no adverse employment or wage effects for native-born Turkish workers overall or for those without a high school degree due to the Syrian influx [26]. Yılmaz (2017) concluded that the possible return of the Syrian refugees had gradually decreased and that the Syrian population increased the economic and societal problems in the southern border provinces of Turkey [27]. Aksu (2017) concluded that Syrian refugees had taken the place of locals and that this is why the unofficial job losses for Turkish workers were increasing [28]. Mıznaşı (2018) found that Syrian refugees negatively affected the gross domestic product (GDP), increased the unemployment rate, and that there is not enough data on the unregistered employment of Syrian refugees [29]. Parlak Biçer et al (2018) pointed out problems faced by Syrian construction workers working in Kayseri province and emphasized that some legal sanctions should be imposed on Syrian workers and Turkish employers [30]. Çınar (2018) concluded that the competition among workers in the construction labor market in Diyarbakır has become higher with Syrian immigration, and the bargaining power of local workers has decreased [31]. Kale and Erdoğan (2019) performed interviews and surveys in Istanbul and purposed emphasizing the critical role of local authorities and municipalities in refugee-hosting situations and integration processes [32]. They concluded that, unlike many Western countries, a comprehensive refugee settlement and integration policy at the state level does not exist in Turkey.

The literature review indicates that the Syrian refugees in Turkey have been investigated in various sectors. However, hosting millions of Syrian refugees, detailed and specific fieldwork in terms of the AEC industry has not yet been performed in Turkey. The Syrian refugee issue is much more important for the AEC industry, which requires an unskilled workforce, and should be deeply investigated. The current study offers a wider perspective, as it is dealt with from the perspective of Syrian workers, Turkish workers, and Turkish employers rather than a single perspective.

2. Material and Method

In this study, in order to examine the social, economic, and welfare levels of Syrian workers working in the Turkish AEC industry in Kayseri province, and to investigate the contributions of these workers to the industry, the "screening model" of qualitative models was used. The screening model is preferred to describe the structure of objects, societies, institutions, and the functioning of events [33]. In order to explain a random phenomenon, information about the phenomenon is required. For this reason, survey research is based on information obtained from a large amount of data [34]. As a data collection tool, different branches of the AEC industry, in which Syrian workers are efficient, were evaluated in terms of their demographic characteristics and the survey has been prepared. Similar survey questions were directed to Turkish civil engineers, architects, subcontractors, and workers working in the AEC industry in Kayseri, and their validity and reliability were analysed by taking expert opinions. The survey study was conducted between February and May 2019. The data has been obtained from the study conducted as a face-to-face interview and has been analysed statistically. According to the result of the analysis, the impacts of Syrian workers working in the AEC industry in Kayseri province were determined and solutions were suggested.

The survey study carried out consists of 3 sections and 55 questions. The first section consists of 11 questions aimed at determining the demographic characteristics of the participants, the second section consists of 23 questions for Syrian workers to respond to, and the third section consists of 21 questions for Turkish workers and employers to respond. While 51% (45 people) of the total 88 construction workers participating in the survey were Turkish citizens, 49% (43 people) were Syrian citizens. All of the 45 employers (100%) participating in the survey were Turkish citizens. No Syrian employer or subcontractor was found. All (100%) of Turkish and Syrian workers participating in the survey were men. No female construction worker was found. However, 96% (43 people) of Turkish employers were men and 4% (2 people) were women. The age distributions of the respondents are presented in Figure 2; in which *TW*: Turkish workers, *SW*: Syrian workers, and *TE*: Turkish employers.

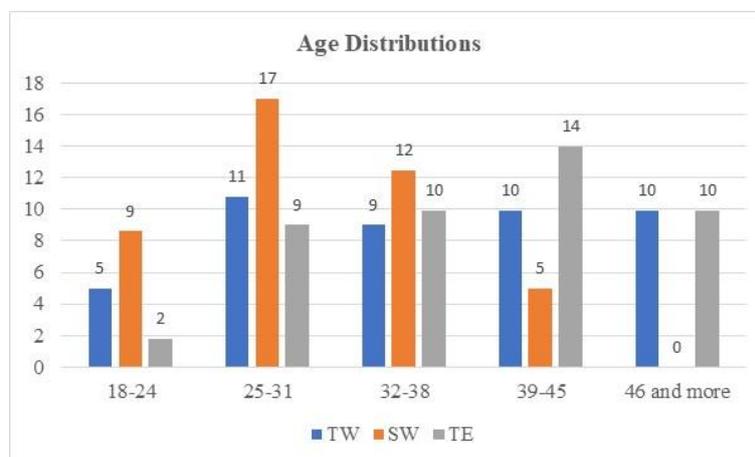


Figure 2. Age distributions of the respondents

Almost half of the Turkish workers (44%), a minority of Syrian workers (12%), and more than half of Turkish employers (53%) are 39 years old and above. 69% of Turkish workers, 89% of Syrian workers, and 87% of Turkish employers are married. Besides, 43% of Turkish workers, 63% of Syrian workers, and 48% of Turkish employers have three or more children. At an educational level; 33% of Turkish workers, 37% of Syrian workers, and 18% of Turkish employers were graduated from primary school. More than half (51%) of Turkish employers are graduated from a higher education; and consist of 13% architects, 24% civil engineers, 33% subcontractors, and 30% other professionals (mechanical engineer, electrical engineer, construction technician, tradesman). The occupational experiences of the participants are presented in Figure 3.

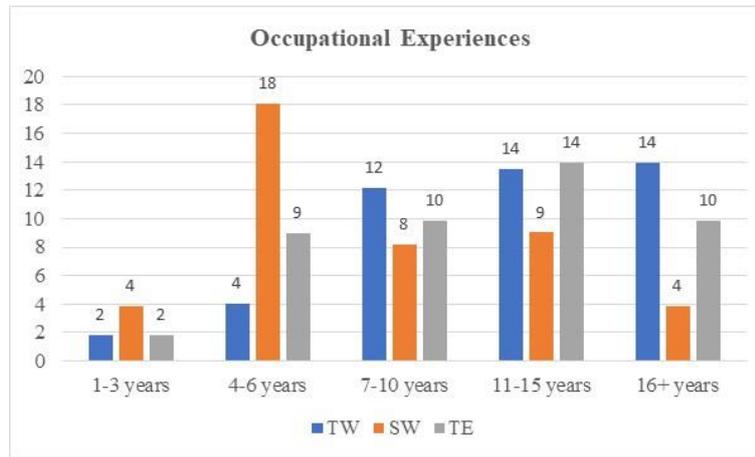


Figure 3. Occupational experiences of the respondents

In terms of experience; 62% of Turkish workers, 30% of Syrian workers, and 53% of Turkish employers have more than 10 years of occupational experience. The Syrians began to migrate to Turkey in the year 2011; up to 6 years of experience with 51% of the total of Syrian workers can be interpreted as they began to work in the AEC industry after they migrated to Turkey. In addition, the monthly income of 40% of Turkish workers, 76% of Syrian workers, and 11% of Turkish employers are at or below the minimum wage. The monthly minimum wage in Turkey was 2,020.00 Turkish Lira (TL) when the survey was conducted (between February and May 2019), which corresponds to approximately 318 euros in the average 2019 year exchange rate. Besides, while 9% of Syrian workers cannot speak or understand Turkish and communicate via translator, 24% stated that they know very little Turkish, 53% know moderate Turkish and 14% stated that they know Turkish well. No Syrian was encountered, who declared that he knew Turkish very well. 54% of the Syrian workers stated that their relatives are in Kayseri as the reason to migrate to Kayseri, 26% said they have job opportunities, 11% came by chance, 7% because the city is conservative, and 2% declared that they came for other reasons.

In the second and third sections of the survey, 23 questions were asked to the Syrian respondents while 21 questions were asked to the Turkish respondents. Fifteen of these questions are common to both sides, while the other questions are independent. The five-point Likert scale was used to reveal the perspectives of the respondents. The commonly used five-point scale measures different response levels in the range of 1 = *poor* and 5 = *excellent*. The ranges in this study were categorized as; strongly disagree (1.00-1.80), disagree (1.81-2.60), indecisive (2.61-3.40), agree (3.41-4.20), and strongly agree (4.21-5.00), [35].

Reliability analysis was conducted in order to understand the consistency of the data obtained within the scope of the survey. One of the most common methods of calculating reliability, the Cronbach's alpha (α) constant has a value in the range 0-1, close to 1 indicating a high degree of reliability [36]. The α is calculated as follows;

$$\alpha = \left(\frac{k}{k-1} \right) \times \left(1 - \frac{\sum_{i=1}^k \sigma_{y_i}^2}{\sigma_x^2} \right) \quad (1)$$

Here; k : number of items (number of questions prepared with Likert scale), $\sigma_{y_i}^2$: variance of the i . item in the total sample, σ_x^2 : the variance of the total test score. The average α value for the fifteen common questions to both sides (second and third sections) of this study was calculated as 0.82. Measurements with α value of 0.70 and above are considered reliable [37]. Therefore, the scale can be defined as reliable. The obtained results of the second and third sections of the survey were combined with the following section to verify the findings and elaborate further.

3. Results

One of the biggest difficulties experienced during the research is that employers of the Syrian workers were reluctant to allow surveys of Syrian workers and when allowed, insisted on asking for the answers given by Syrians during the survey. Another challenge is the timid attitudes of Syrian workers, who think that they will be reported, especially those who are illegal. Another difficulty is the timid attitudes of Turkish employers towards the survey study, fear of being complained about, and being asked to know how many Syrian workers they employ in their organization. Ensuring the participation of Turkish workers in the survey was the easiest link of the study, however, the necessity of conducting the survey during working hours brought the perception that it was a waste

of time. The most debated issues following the immigration of the Syrians to Turkey are divided into four groups; *causes of migration & future plans, contributions, working conditions, and cheap labor.*

3.1. Causes of Migration & Future Plans

Three main causes for Syrians to immigrate to Turkey were civil war, commercial purposes, and unemployment. 95% of Syrian workers, 62% of Turkish workers, and 64% of Turkish employers agree/strongly agree with the civil war. No significant difference was observed between the perspectives of Turkish workers and employers. 40% of Syrian workers, 42% of Turkish workers, and 26% of Turkish employers agree/strongly agree with the commercial purposes. At this point, the perspectives of Syrian and Turkish workers are similar, and Turkish employers tend not to agree with the commercial purposes. 54% of Syrian workers, 33% of Turkish workers, and 38% of Turkish employers agree/strongly agree with unemployment. The Syrian workers associate their reason for migration with unemployment; however, the Turkish workers and employers tend not to agree with the unemployment. As a result, the most significant reason for the migration of Syrian workers to Turkey was seen as the civil war in Syria, from three perspectives. While there can be a consensus on the main reason, Turkish workers' putting the commercial purpose before unemployment can be interpreted as they have job concerns because of the Syrians. According to Özkarslı (2014), Syrians living in Mardin (south-eastern Anatolian region) stated their reasons for migrating as unemployment (65%) and commercial purposes (4%), [23]. This difference shows that the priorities of Syrians may have changed in the past five years.

Apart from the three main questions related to the causes of migration, more than half of the Syrian workers stated that their relatives are in Kayseri as the reason for moving to Kayseri. The other reasons were the availability of job opportunities, being chosen by chance, and the city being conservative. This result shows that sociologically, Syrians have created their own neighbourhoods in Kayseri, do not get homesick, and even start to feel like Kayseri is their hometown. The result obtained is similar to Apak (2014), [22], who concluded that Syrian refugees do not experience adaptation problems related to life in the province of Mardin. However, it contradicts the conclusion that their homeland is indispensable for them. The findings related to the issue of adaptation problems are also contradict with Sarıgül et al (2019), [12].

Regarding Syrian workers' plans to return to Syria from Kayseri; 35% of Syrian workers, 29% of Turkish workers, and 31% of Turkish employers agree/strongly agree. It can be stated that two-thirds of the Syrians do not intend to return to the mainland. Moreover, Turks are more pessimistic about the return of Syrians to the mainland. The result indicates that the level of social acceptance of refugees by Turks is low, as Navruz (2015) [24] indicated for Konya (central Anatolian region). As Yılmaz (2017) [27] stated, Syrians are less likely to return home and in this scenario, social cohesion efforts should begin immediately. Moreover, three-quarters of the Syrians are planning to continue living in Kayseri and do not tend to change cities in Turkey. Although this finding indicates that Syrians do not experience adaptation problems, as of July 2019, efforts to move Syrians from metropolitan cities (such as Istanbul and Ankara) to the cities where they are registered, will create dissatisfaction for both Syrians and Turks. At this point, it may be a more objective approach to refer to provinces where the Syrian settlement rate is less than those with a higher rate by determining a standard rate (e.g. 5% of the population) for all cities.

3.2. Contributions

Whether it is a necessity to work in the AEC industry; 79% of Syrian workers, 65% of Turkish workers, and 60% of Turkish employers stated that they agree/strongly agree with the necessity. There is a general dissatisfaction in the AEC industry and Syrians seem more dissatisfied than the Turks do. Regarding the level of satisfaction with the job opportunity in Kayseri; 77% of Syrian workers, 42% of Turkish workers, and 34% of Turkish employers stated that they agree/strongly agree. Although three-quarters of the Syrian workers are satisfied with the job opportunity in Kayseri, Turkish workers have two extreme opinions on this issue. It is interesting that Turkish employers are more pessimistic than Turkish workers are since only one-third of Turkish employers are satisfied with job opportunities in Kayseri. The findings contradict Akgündüz et al (2015) [18], who claimed that the employment rates of natives are largely unaffected in Turkey. Therefore, what changes from 2015 to 2019? Economic fluctuations started in the second half of 2018 in Turkey and caused higher construction costs, which is thought to be the reason for the finding. Despite the positive attitude of Syrian workers, all three professions stated that they reluctantly work in the AEC industry. The general dissatisfaction at this point can also be attributed to reasons such as the heavy working conditions at construction worksites, absence of worker attrition, and the reflection of economic problems on wages. The inference is similar with Çınar (2018) [31], that the competition among workers in the construction labor market has become higher.

Regarding the contribution of Syrian workers to the AEC industry in Kayseri; 72% of Syrian workers, 32% of Turkish workers, and 37% of Turkish employers stated that they agree/strongly agree. While seven out of every

10 Syrian workers think that they contribute to the AEC industry in Kayseri, Turkish workers and employers are much more pessimistic in terms of the sectoral contribution of Syrians with similar rates. In addition, almost half of the Syrian workers (42%) agree/strongly agree with the self-criticism that they negatively affect the employment of Turkish workers. Turkish workers are more rigid in this regard (78%), while Turkish employers are relatively positive (69%). The authors opined that unregistered Syrian workers have a big share in this difference; the problem is there is not enough data on the unregistered employment of Syrian refugees as Mıznaşı (2018) [29] stated. However, it can be emphasized that Turkish employers intend to work with Syrian workers due to some kind of financial reasons.

More than half of Syrian construction workers (58%) have worked in different jobs in Syria and have learned their current profession in Turkey. In the AEC industry, where experience is of great importance, this situation causes discontent among Turkish employees, who have been in the industry for many years. This is because about half of the Turkish workers and employers opined that Syrian workers do not do quality work, do not work honestly, and are preferred because of cheap labor and their own work capacities are negatively affected. This situation poses a major problem for the Turkish housing sector, which is currently experiencing quality production problems due to the lack of intermediate technical staff. Moreover, almost none of the Syrian workers do their own job and work with an employer, and 93% of them stated that they work for a subcontractor.

3.3. Working Conditions

Construction sites require teamwork. Working together in harmony in the workplace is, therefore, a significant parameter. Regarding the working harmony with each other; 86% of Syrian workers, 42% of Turkish workers, and 49% of Turkish employers agree/strongly agree. Syrians are much more optimistic than Turkish workers are and Turkish employers appear to be more optimistic than Turkish workers are. The Syrians positive attitude of harmonious work is remarkable. However, the roles for 'obligation to work together' are changing. Regarding the obligation of working together; 61% of Syrian workers, 35% of Turkish workers, and 33% of Turkish employers agree/strongly agree. While Syrian workers have a negative and rigid view, Turkish workers and employers have a more positive attitude towards this issue. For this reason, it can be stated that Syrian workers view work-life more professionally than Turkish workers do. Another possibility may be an overly optimistic bias psychologically due to their refugee situation.

Regarding the effective communication issue; 9% of Syrian workers, 49% of Turkish workers, and 62% of Turkish employers agree/strongly agree that Syrian workers often have to use body language to communicate. On the point of effective communication, it can be stated that Turkish workers have more problems than Syrian workers do, while Turkish employers are more affected than Turkish workers are. The findings related to the issue of lack of communication are similar to Sarıgül et al (2019), [12].

On the occupational health and safety (OHS) awareness of Syrian workers; 33% of Syrian workers, 23% of Turkish workers, and 18% of Turkish employers agree/strongly agree that Syrian workers are paying attention to the OHS rules. Both Syrian and Turkish workers stated that generally, the Syrian workers do not abide by OHS rules. It was observed that Turkish employers are more pessimistic than Turkish workers are. Turkey ranks third in the globe following El Salvador and Algeria; first in Europe in terms of occupational accidents [38]. The fact that the AEC industry is ranked first in terms of fatal work accidents in Turkey and contains great risk in terms of the OHS. Therefore, new regulations are urgently required within the scope of OHS, where serious legal improvements have been made recently. The findings are similar to Parlak Biçer et al (2018) [30], emphasizing that some legal sanctions should be imposed on construction workers and employers as soon as possible. On the other hand, the fact that employers are not subject to legal sanctions in the event that workers without social security have an occupational accident is another problem. Four of five Syrian workers do not have social security and they do not need it. For this reason, it is essential to increase and systematize labor inspections in the Turkish AEC industry.

3.4. Cheap Labor

The Turkish employees/workers, who have lost their jobs in recent years, believe that they "lost their jobs due to Syrians". It is thought that there is unfair competition between enterprises employing informal workers and those employing registered workers and this inequality will damage work peace over time. It was stated by the employers that the local people do not want to work in factories, there is a qualified personnel and labor force deficit, and this gap has been closed with the arrival of refugees [39]. The rights of refugees allow them to apply for a work permit in Turkey but the number of refugees who get them is unsatisfactory. Therefore, refugees and immigrants are mostly involved in informal labor markets. The exploitation of labor is at its greatest in this manner. For example, if a refugee working in a job cannot receive the money he/she earned, it is not possible to make a formal complaint.

As the reason for Syrian workers to move to Kayseri; 21% of Syrian workers, 31% of Turkish workers, and 25% of Turkish employers agree/strongly agree with Kayseri having affordable prices. The fact that the city is cheap, is not the reason for Syrians to live in Kayseri, is the prevailing opinion on both sides. Regarding the fact that Syrian workers generally work in regular paid jobs; 76% of Syrian workers, 34% of Turkish workers, and 43% of Turkish employers agree/strongly agree. There is a difference of opinion between Turkish and Syrian workers on this issue because while Syrian workers point that they work in regular jobs, however, Turkish workers and employers opined that Syrian workers do not work in regular jobs. Regarding the adequacy of their earnings; 49% of Syrian workers, 52% of Turkish workers, and 60% of Turkish employers agree/strongly agree. It can be mentioned that Syrian workers and Turkish workers share similar thoughts, while Turkish employers are more optimistic.

The monthly income of 40% of Turkish workers and 76% of Syrian workers are at or below the minimum wage (2,020 TL, approximately 357 Euros in the average 2019-year exchange rate). Despite this, approximately half of the Syrian and Turkish workers think that their earnings are sufficient. This finding contradicts the studies by Sarıgül et al (2019) [12] and Tören (2018) [21], who claim financial inadequacies for Syrian refugees. No Syrian workers earn more than 3,000 TL per month and one of 5 Turkish workers earn over 3,000 TL, it can be interpreted that Syrian workers have reduced the market value of the workforce in the AEC industry and Turkish workers are negatively affected by this situation. These findings also contradict with Cengiz and Tekgüç (2017) [26] as well as Akgündüz et al (2015) [18] and Del Carpio and Wagner (2015) [19], who concluded that no negative impact of Syrian refugees on the native workforce. The main reason for this situation is considered to be unregistered employment. The findings on the other hand are similar to those by Assida (2016) [25], who stated that in Samsun (Black Sea region), local people have experienced decreases in income levels. The findings are also similar to Aksu (2017) [28], who claimed unofficial job losses for Turkish workers.

Nevertheless, it is necessary to emphasize the age and work experience of the sample. Turkish workers, who are 39 years or older, make up 44% of Turkish workers but this rate is only 9% for Syrian workers. Although Turkish workers have higher age and more work experience than Syrian workers do, they share the same satisfaction with younger Syrians in terms of earnings sufficiency. Despite this, the fact that 'Kayseri city is cheap' cannot be the reason for Syrians to live in Kayseri, is the dominant opinion by both sides. In addition, 43% of Turkish workers and 38% of employers opined that the wages of Syrian workers are insufficient in Kayseri conditions. This situation can be associated with the high population of Syrian families; a few members of each family actively work. Therefore, they can sustain their livelihood, even if the money earned individually is small. The social assistance of the Turkish Government is also effective in this hypothesis. Please note that the rate of marriage and the number of children among Syrian workers is much higher than for Turkish workers.

4. Discussion and Conclusion

In this study, the impacts of Syrian construction workers on the Turkish AEC industry were investigated under three different perspectives as Syrian workers, Turkish workers, and Turkish employers. Within the scope of the findings obtained from the study and discussed in the previous section, the following conclusions were reached.

- Due to the possessive attitude of the Turkish Government in providing social assistance, covering health costs, etc., the Syrian construction workers seem satisfied with their lives and wages in Turkey. The Syrian refugees initially lived in container towns close to the border, and later emigrated to the provinces of Turkey. For this reason, Turkish workers and employers criticize Syrians for taking advantage of Turkey's unconditional opening of border crossings. Thus, the view that the Syrian refugees' migration reason is civil war, as it was in the beginning, weakens. This situation also increases tension between the sides. For this reason, plans should be made for Syrians under temporary protection to be sent to conflict-free areas in their home countries because temporary protected status in Turkey is a status that obliges them to return to their homeland when conditions improve.
- Syrian workers create a negative impact on the AEC industry in Kayseri on the point of employment. Turkish workers suffer from insufficient wages/job opportunities dwindled. Especially with the economic recession that began in the second half of 2018, the situation was even more difficult. The future return of Syrians to their countries creates a great expectation in terms of the construction market and employment of workers. However, if Turkey does not make a political decision on the Syrians, they intend to live in Turkey. Syrians working for low wages have started to raise capital and when they start working as employers/subcontractors in the future, there is no concern for creating employment for Turkish citizens. Apart from the fact that Syrians remain permanently, they do not have the idea of being beneficial to the city or the region, and there is the possibility that it may cause sociological deterioration. As of the end of 2019, approximately 110 thousand Syrians have been accepted as Turkish citizens.

- Although it is thought that Syrian construction workers have contributed positively to the industry on the point of filling gaps and due to cheap labor, it is likely to face negative effects in the long term. It has been observed that Turkish construction workers and employers have serious concerns about the loyalty and ambition of Syrian workers. In this respect, it is wrong for Syrians to be preferred in every sub-sector of the AEC industry for the reason they provide cheap labor. No clear data on the unregistered employment of Syrians on a sectoral basis could be reached.
- The market value of Syrian workers is increasing. Especially, the Turkish workers' refusal to choose heavy work in the AEC industry has caused Syrians to be assigned to such places in order to close these gaps. Syrian youth fill this dynamic labor shortage. As Syrians noticed the difficulty of employing Turkish workers in such heavy jobs, they tend to demand an increase in their salaries and some refuse to work for low wages.
- Syrian workers are more likely to perceive the Turkish language than the Arabic language perception of Turkish workers and employers. Despite this, one out of every three Syrian workers still does not use Turkish, even at a basic level. This causes communication problems at the worksite. However, the effect of two nations having different cultures and occupational ethics in working in harmony with each other, being members of the same religion is too much to underestimate.
- It has been observed that Turkish employers are more positive to employ Syrian workers rather than Turkish workers. The fact that they have to spend much more if they employ the same number of Turkish workers, may have caused employers to approach Syrian workers more positively. Turkish workers with the same status, on the other hand, cannot benefit from social aid, etc. and they clearly stated that they feel inferior to Syrians in their home country. However, they do not give up their hospitality due to the civil war in Syria. Therefore, in the employment of Syrian workers, at least social security, tax, health, etc. should be ensured according to the same conditions as Turkish workers.

Within the scope of this research, five different limitations were encountered. The first is communication with Syrians. Syrians generally have a low perception of the Turkish language. This situation caused trouble in providing information about the study but a translator overcame the problem. The second is that unregistered Syrian workers were not comfortable during the interview. It was expressed that the study carried out scientific purposes and a sincere environment was provided as much as possible. The third is that Syrians experienced differences in their understanding and interpretation of survey questions due to the different education levels. In this context, the survey was organized using simple language as much as possible. The fourth is; in line with the available possibilities (the necessity of conducting the survey face-to-face, and the necessity of different sample groups) the survey study was carried out in the province of Kayseri. The last limitation is the age limit. The sample of the study consisted of workers aged 18 and over.

The civil war in Syria caused Turkey to be the largest refugee-hosting country worldwide. As a novel field study indicating the perspectives of both Syrian workers and Turkish workers/employers, this study can provide guidance for the refugee policy of Turkey. Furthermore, this study will be beneficial for the stakeholders in the AEC industry, which is of great importance in the developing Turkish economy, to have the knowledge and make their plans for the future correctly. The results of this study are open to development and may guide further studies in several countries hosting Syrian refugees.

Abbreviations and Acronyms

AEC	: Architecture, Engineering & Construction
AFAD	: Turkish Disaster and Emergency Management Authority
GDP	: Gross Domestic Product
GFJTU	: General Federation of Jordanian Trade Unions
ILO	: International Labour Organization
OHS	: Occupational Health and Safety
ORSAM	: Center for Middle Eastern Studies
SGK	: Turkish Social Security Institution
SOHR	: Syrian Observatory for Human Rights
TDGMM	: Turkish Directorate General of Migration Management
UNHCR	: The Office of the United Nations High Commissioner for Refugees

References

- [1] Tafli, A.S. 2019. Investigation of the contribution of Syrian construction workers to the construction sector in Kayseri. Master thesis, Erciyes University, Kayseri, Turkey.
- [2] SOHR, 2021. Total Death Toll. <https://www.syriaahr.com/en/217360/> (Access date: 08 July 2021).
- [3] Tođral Koca, B. 2016. Syrian Refugees in Turkey: From “Guests” to “Enemies”? *New Perspectives on Turkey*, 54(2016), 55–75.
- [4] Içduygu, A., Üstübcü, A. 2014. Negotiating Mobility, Debating Borders: Migration Diplomacy in Turkey-EU Relations. In Schwenken H and Russ-Sattar S (ed.) *New Border and Citizenship Politics*. London: Palgrave MacMillan, pp. 44-59.
- [5] TDGMM, 2021. Syrians in Turkey. <https://multeciler.org.tr/turkiyedeki-suriyeli-sayisi/> (Access date: 08 July 2021).
- [6] ORSAM, 2019. Syrian Refugees. http://tesev.org.tr/wp-content/uploads/2015/11/Suriyeli_Siginmacilarin_Turkiyeye_Etkileri.pdf (Access date: 11 November 2019).
- [7] UNHCR, 2021. UNHCR Turkey: Provincial Breakdown Syrian Refugees in Turkey - May 2021. <https://data2.unhcr.org/en/documents/details/86580> (Access date: 08 July 2021).
- [8] Içduygu, A., Diker, E. 2017. Labor Market Integration of Syrian Refugees in Turkey: From Refugees to Settlers. *The Journal of Migration Studies*, 3(2017), 12-35.
- [9] Sunata, U., Tosun, S. 2019. Assessing the Civil Society’s Role in Refugee Integration in Turkey: NGO-R as a New Typology. *Journal of Refugee Studies*, 32(2019), 683-703.
- [10] ILO, 2019. ILO’s Support to Refugees and Host Communities in Turkey. https://www.ilo.org/ankara/projects/WCMS_702144/lang--tr/index.htm (Access date: 08 July 2021).
- [11] UNHCR, 2016. Turkey Operational Update. http://www.unhcr.org/turkey/uploads/root/unhcr_turkey_operational_update_jan-june_2016.pdf (Access date: 06 May 2020).
- [12] Sarigül, O., Özdoğan, M., Öner, G. 2019. Family of Refugees in Turkey in Kayseri Samples of the General Status: An Overview. V. International Congress on Education and Social Sciences, 13-15 December, İstanbul, 1644-1655.
- [13] Kattaa, M., Byrne, M. 2018. Quality of Work for Syrian Refugees in Jordan. *Forced Migration Review*, 58(2018), 45-46.
- [14] Lenner, K., Turner, L. 2019. Making Refugees Work? The Politics of Integrating Syrian Refugees into the Labor Market in Jordan. *Middle East Critique*, 28(2019), 65-95.
- [15] Kobaissy, F. 2016. Organizing the Unorganized: Migrant Domestic Workers in Lebanon. *Cairo Papers in Social Science: The American University in Cairo Press*, 112 pp.
- [16] Corstange, D. 2019. The Syrian Conflict and Public Opinion among Syrians in Lebanon. *British Journal of Middle Eastern Studies*, 46(2019), 178-200.
- [17] Betts, A., Memişođlu, F., Ali, A. 2021. What Difference do Mayors Make? The Role of Municipal Authorities in Turkey and Lebanon’s Response to Syrian Refugees. *Journal of Refugee Studies*, 34(2021), 491-519.
- [18] Akgündüz, Y., Van Den Berg, M., Hassink, W. H. J. 2015. The Impact of Refugee Crisis on Host Labor Markets: The Case of the Syrian Refugee Crisis in Turkey. *IZA Discussion Paper 8841*, 24 pp.
- [19] Del Carpio, X. V., Wagner, M. C. 2015. The Impact of Syrian Refugees on the Turkish Labor Market. *World Bank Social Protection and Labor Global Practice Group, Policy Research Working Paper 7402*, 32 pp.
- [20] Baban, F., Ilcan, S., Rygiel, K. 2017. Syrian Refugees in Turkey: Pathways to Precarity, Differential Inclusion, and Negotiated Citizenship Right. *Journal of Ethnic and Migration Studies*, 43(2017), 41–57.
- [21] Tören, T. 2018. Documentation Report: Syrian Refugees in the Turkish Labour Market. Kassel: ICDD Working Papers, No. 22, Kassel University press GmbH, 57 pp.
- [22] Apak, H. 2014. Adaptation and future expectations of the Syrian immigrants: A case study of Mardin. Master thesis, Artuklu University, Mardin, Turkey.

- [23] Özkarslı, F. 2014. Migration from Syria to Turkey and informal employment of Syrians: Example of Mardin. Master thesis, Artuklu University, Mardin, Turkey.
- [24] Navruz, M. 2015. Urban refugees between dilemmas of integration and isolation. Master thesis, Selçuk University, Konya, Turkey.
- [25] Assida, O. M. A. 2016. The economic and social impacts of forced migration: A case study of Syrian and Iraqi forced migrants in Samsun. Master thesis, Ondokuz Mayıs University, Samsun, Turkey.
- [26] Cengiz, D., Tekgüç, H. 2017. Is it Merely a Labor Supply Shock? Impacts of Syrian Migrants on Local Economies in Turkey. ASSA 2018 Annual Meeting, 05-07 January, Philadelphia, PA, 1-68.
- [27] Yılmaz, L. Y. 2017. Opinions of local people toward Syrians in Turkey: Case of Kilis, Gaziantep, Şanlıurfa, Hatay and Adana. PhD dissertation, Yıldırım Beyazıt University, Ankara, Turkey.
- [28] Aksu, E. 2017. The impact of Syrian refugees on the Turkish labor market. Master thesis, Boğaziçi University, İstanbul, Turkey.
- [29] Mıznaşı, A. 2018. Investigating the effect of Syrian refugees on the gross domestic product and unemployment rate in Turkey between 2011-2017. Master thesis, İstanbul Aydın University, İstanbul, Turkey.
- [30] Parlak Bicer, Z. O., Taner, Z. T., Oymakapu, N. 2018. The Analysis of the Effect of Syrian Immigrants' Workforce on Turkish Building Sector: A Case of Construction Sites in Kayseri. 5th International Project and Construction Management Conference (IPCMC 2018), 16-18 November, Kyrenia, 592-601.
- [31] Çınar, S. 2018. New Actors and New Conflicts in the Construction Sector: Syrian Workers from the perspective of Local Workers. *Labour and Society*, 56(2018), 121-138.
- [32] Kale, B., Erdogan, M. 2019. The Impact of GCR on Local Governments and Syrian Refugees in Turkey. *International Migration*, 57(2019), 224-242.
- [33] Cohen, L., Manion, L., Morrison, K. 2007. *Research Methods in Education*. London: Routledge, 638 pp.
- [34] Özdemir, E. 2015. Tarama Yöntemi. In Metin M (ed.): *Kuramdan Uygulamaya Eğitimde Bilimsel Araştırma Yöntemleri*. Ankara: Pegem Academy, pp. 77-97.
- [35] Memnun, D. S., Hart, L. A., Akkaya, R. 2012. A Research on the Mathematical Problem Solving Beliefs of Mathematics, Science and Elementary Pre-Service Teachers in Turkey in Terms of Different Variables. *International Journal of Humanities and Social Science*, 2(2012), 172-184.
- [36] Yockey, R. D. 2016. *SPSS Demystified: A Simple Guide and Reference*. United Kingdom: Taylor & Francis, 276 pp.
- [37] Bernardi, R. A. 1994. Validating Research Results when Cronbach's Alpha is below .70: A Methodological Procedure. *Educational and Psychological Measurement*, 54(1994), 766-775.
- [38] Demir, A., Öz, A. 2018. Investigation of Occupational Accidents from Theological Perspective. *European Journal of Science and Technology*, 14(2018), 189-197.
- [39] AFAD, 2020. Syrian Refugees in Turkey. https://www.afad.gov.tr/upload/Node/2376/files/61-2013123015505-syrian-refugees-in-turkey-2013_print_12_11_2013_eng.pdf (Access date: 05 January 2020).