



Employment of disadvantaged groups in OECD countries: A comparative study with MDS analysis

Asli Beyhan Acar^(a), Mine Afacan Findikli^(b)



^(a)Assoc. Prof. Istanbul University, Faculty of Business Administration, Organizational Behaviour Department, Istanbul, Turkey.

^(b)Assoc. Prof. Beykent University, Faculty of Economics and Administrative Sciences, Business Administration (English), Istanbul, Turkey.

ARTICLE INFO

Article history:

Received 16 June 20

Received in revised form 30 June 20

Accepted 02 July 20

Keywords:

Employment and unemployment rates of disadvantaged groups, MDS analysis, unemployment rates of OECD countries.

JEL Classification:

J21, J23, J64, J7

ABSTRACT

In the labour relations literature, groups such as women, students, youth, youth who are neither employed nor in education or training (15-29-year-olds) disabled people, and retirees are accepted as "disadvantaged". Although the employment of disadvantaged groups or unemployment indicators vary across countries, the employment of disadvantaged groups appears to be a common problem in many countries. In this context, in this study, it was conducted to investigate the dissimilarity of some disadvantaged groups in terms of employment and unemployment among OECD countries, including women, youth, youth who are neither employed nor in education or training. The most dissimilar countries tried to be determined in terms of variables handled within OECD countries. This determination was considered important to make comparisons correctly between countries. Since the most recent data in OECD and World Bank databases belong to 2018, countries that belong to this year and cover the most variables whenever possible are tried to be addressed. Multidimensional scaling analysis (MDS) was used in the research. In macro studies, Cluster or MDS analyses are generally preferred for cross country comparisons. MDS analysis is a method especially used to determine the dissimilarity between units. In this study, it was found that Turkey was the most dissimilar country in other OECD countries in terms of the variables that are used in the study. This study is a due diligence and the results should not be considered as good or bad. There are very good examples of countries in the field of employment and social policy, and it is also important to evaluate the locations according to these countries in determining the main results.

© 2020 by the authors. Licensee SSBFNET, Istanbul, Turkey. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).

Introduction

Employment rates vary among different groups of the population, as affected by various factors such as age, sex, region, ethnic origin, disability, and level of qualifications. Some groups face particular barriers to entering, remaining in, and progressing within employment (Barrett, 2010); these are called disadvantaged groups in the labour market. In recent years, there has been a growing interest with and, indeed, efforts within the European Union and non-governmental organizations to increase the participation of disadvantaged people in the workforce (Pagan, 2007). Not only in the international arena but also on the basis of countries, related institutions are seeking ways to increase awareness of the problems faced by disadvantaged groups and to combat discrimination in the labour market (Dedeoğlu, 2012). This is because studies have shown a strong relationship between employment rates amongst disadvantaged groups and societal welfare. However, despite laws and structural practices introduced by governments (e.g., House of Commons Work and Pensions Committee, 2007) to promote equality of opportunity and the integration of disabled people into the workplace, the associated target levels have not been achieved.

For developing countries, average patterns for female labour force participation are more mixed, ranging from a low of 21 per cent in the Middle East and North Africa region in 2010, to a high of 71 per cent in the East Asia and Pacific region. The gender gaps in

* Corresponding author. ORCID ID: 0000-0001-6824-6494

© 2020 by the authors. Hosting by SSBFNET. Peer review under responsibility of Center for Strategic Studies in Business and Finance.

<https://doi.org/10.20525/ijrbs.v9i4.763>

labour force participation are also the highest in the Middle East and North Africa and South Asia regions (The World Bank, 2012). Men, as a group, are spread more evenly than women across ages, career categories, length of time as professional workers, and income categories (Dean, 2008). Employment rates are much lower for women, and low-skilled women in particular (Mayhew & Rijkers, 2004).

As based on the part-time employment rates reported in 2018, the main objective of this research is to demonstrate the positioning of OECD countries in terms of employment rates of disadvantaged groups including women, and youths who are neither employed nor in education or training. Moreover, as alternative types of employment, especially part-time working, are effective in terms of creating employment opportunities for vulnerable groups, they are included in the study to analyse the mutual positions of Turkey and other OECD countries. The analysis has been conducted using MDS (multidimensional scale) analyses. MDS helps to detect meaningful underlying dimensions that allow the researcher to explain observed similarities or dissimilarities (distances) between the investigated objects. MDS also helps to identify dimensions affecting perception or behaviour which may not otherwise be readily evident in the data. This provides the researcher with a comprehensive overview of the relationship between variables (Jaworska & Chupetlovska-Anastasova, 2009). Thus, in terms of the selected variables, the general trend and similarities or differences in OECD countries can be examined concretely.

In this study, four variables have been used to reveal the positionings of the countries based on a two-dimensional scale. These are: (1) employment rates of youth employment (aged between 18-24); (2) female workforce participation levels; (3) youths who are not in education or working life; and (4) part-time employment levels. To this end, the related data has been obtained from OECD and World Bank statistical web sites.

The first contribution of the research to the literature is the fact that there are few up-to-date research efforts that have considered the analysis of the labour force, even though international reports on such are generated on a regular basis and available in various databases. Therefore, this study contributes to the literature through the analysis of a significant factor as a part of the literature on the labour force market and social policy. The determination of differences and overall trends through an analysis based on employment figures in OECD countries presents a clearer picture of international best practices. The second contribution of the research to the literature is the methodology of analysis adopted. An MDS analysis allows for comparison between variables in social sciences such as psychology, sociology, organizational behaviour, social policy, and economy, especially for macro-level studies. While an MDS analysis is a favourable methodology through which to gain insight into levels of difference for variables in a concrete manner, it is considered that it is not common in the literature, and that research is usually performed by similar methods to those reported in the literature. Therefore, the aim of the research, as based on an MDS analysis, is to serve as a guide to further research.

Literature Review

Disadvantaged Groups in Employment

Recent studies suggest that the disadvantaged groups encompass youth employment (aged 18-24), women's employment, older age workers (aged between 55-64), and disabled people. On the other hand, when analysing the OECD or World Bank statistics databases or population segments of these databases in the labour market, various groups may also be considered disadvantaged in addition to those mentioned above. For example, youth who are neither employed nor in education or training (15-29-year-olds) constitute another disadvantaged group in the labour market, where early school leavers represent an increasing segment of the disadvantaged youth (Vallejo & Dooly, 2013). In the current age of the Internet, the demand for high skilled workers has been constantly increasing (O'Neill J. & O'Neill D., 2012). As a result, inexperienced people, especially today's youth, represent an increasingly disadvantaged group in terms of employment. While it is usually disabled individuals that come to mind when considering vulnerable groups, recently displaced Syrian migrants (Kızıl, 2016) and young women (Akkan & Serim, 2018) are also disadvantaged in Turkey, as well as elderly labours and uneducated young individuals (15-29-year-olds) (Pagan, 2007). Women are the most vulnerable group of people in Turkey in terms of labour force participation. While some essential acts have been introduced to boost women's employment and eliminate inequality as a part of the country's EU accession (Dedeoğlu, 2012; Kazanoğlu, 2019), the secondary roles of women are a barrier to growth in women's employment (Gündüz, 2013; Ustabaş & Afacan Findikli, 2017).

Youth Employment

The number of young drop-outs, who are the cheapest labour force on the market and are generally looking for employment, has increased from 4 to 5.5 million since the financial crisis, with unemployment among young people currently reaching almost 21% at the EU level (Nita & Fleşer, 2011). This does not show any improvement in the EU's reports for 2018, either. Based on OECD reports, in addition to 130 million young people without basic reading, writing and numeracy skills, early school leavers also represent an increasing segment of the disadvantaged youth (International Labour Organization, 2012). Moreover, during an economic crisis, young people in work or as jobseekers are generally the weakest group in the labour market and need special attention in terms of forward-looking labour market policies.

This adversity to young people is not specific to more recent years or events, even before the Great Recession began at the end of 2007, employment outcomes among the disadvantaged and/or less-educated youth, and especially young men, had in any case been deteriorating (Edelman, Holzer, 2013).

Table 1: Youth Employment Rates in 2018 in OECD countries

Country	Percentage (%)	Country	Percentages (%)
Australia	59.85	Latvia	33.1
Austria	51.35	Lithuania	32.42
Belgium	24.98	Luxembourg	28.4
Canada	56.31	Mexico	40.74
Czech Rep.	28.38	Netherlands	63.92
Denmark	53.75	New Zealand	56.33
Estonia	41.70	Norway	49.08
Finland	44.08	Poland	30.98
France	29.75	Portugal	27.25
Germany	47.17	Slovak Rep.	27.45
Greece	14	Slovenia	35.15
Hungary	28.98	Spain	21.65
Island	75.4	Sweden	44.65
Ireland	40.27	Switzerland	62.6
Israel	43.72	Turkey	35
Italy	17.68		

Source: World Bank Statistics;

<https://databank.worldbank.org/reports.aspx?source=2&type=metadata&series=SL.TLF.CACT.FE.ZS>

The size of the total workforce in a given country depends on two factors: the age and gender compositions of the working-age population (beyond the minimum age of dropout, but below the retirement age; that is, between the ages of 15 and 65) and levels of participation in the labour market in each age and gender group (Delsen, 1993). It can be said that the picture we discussed above has a negative impact on the economical wealth of countries. It seems possible to employ these disadvantaged groups with alternative types of work in the labour markets, namely that of part-time working arrangements. Part-time labour arrangements can be established when an individual's normal weekly working hours are planned to be substantially fewer than those of an equivalent worker employed on a full-time labour contract.

Table 2: Part-Time Employment Rates (Total, % of employment, 2018)

Country	Percentages (%)	Country	Percentages (%)
Australia	25.57	Latvia	6.5
Austria	20.36	Lithuania	6.73
Belgium	16.64	Luxembourg	12.83
Canada	18.68	Mexico	17.01
Czech Rep.	4.84	Netherlands	37.31
Denmark	20.01	New Zealand	20.62
Estonia	9.19	Norway	19.28
Finland	14.11	Poland	6.06
France	13.98	Portugal	7.09
Germany	22.03	Slovak Rep.	5
Greece	10.46	Slovenia	8.51
Hungary	3.75	Spain	13.29
Island	17.02	Sweden	13.68
Ireland	20.80	Switzerland	26.74
Israel	15.49	Turkey	9.95
Italy	17.97		

Source: World Bank Statistics

<https://databank.worldbank.org/reports.aspx?source=2&type=metadata&series=SL.TLF.CACT.FE.ZS>

The International Labour Organization describes part-time employment as "a regular hour of work shorter than those for comparable full-time work concluded between an employee and employer." (Messenger, 2018). Part-time working arrangements have been expanded in active labour market policies in many countries (Delsen, 1993) because this approach is considered to represent a solution to combatting high levels of unemployment. With regard to Turkey, part-time working conditions came into effect upon the introduction of the applicable law. As is the case in other countries, these regulations are focussed on the elimination of unemployment. Part-time employment represents an effective path from inactivity to employment or an appropriate instrument to bring people into business life (Pagan-Rodriguez, 2009).

Table 3: Youth neither employed nor in education nor training (15-29-year-olds).

Country	Percentages (%)	Country	Percentages (%)
Australia	6.9	Latvia	7
Austria	8.1	Lithuania	7.7
Belgium	8.5	Luxembourg	5.6
Canada	9.4	Mexico	29.3
Czech Rep.	10.8	Netherlands	10.9
Denmark	3.6	New Zealand	10.5
Estonia	4.8	Norway	3.5
Finland	7.4	Poland	13.3
France	6.2	Portugal	9.3
Germany	5	Slovak Rep.	8.2
Greece	23.7	Slovenia	9.7
Hungary	5.5	Spain	8.4
Iceland	6.1	Sweden	4.1
Ireland	5.7	Switzerland	9.5
Israel	7.6	Turkey	33.2
Italy	13.4		

Source: OECD Statistics, <https://data.oecd.org/youthinac/youth-not-in-employment-education-or-training-neet.htm>

There is a clear relationship between child labour and future youth employment. First, child labour prevents children from obtaining the necessary education and skills to compete for good jobs as young adults. Second, as a result, there is a lower quality of jobs to which former child labourers can gain access, resulting in a greater potential that they will be unemployed as youths. Third, when families are living in poverty, the value of education, training and potential future income may understandably appear less attractive than the immediate return that can be gained from child labour (Freedman, 2008). Depending on this, young people need a broad range of skills, education, and experience to find employment. The average for "youth neither employed nor in education or training (15-29 year-olds)" in 31 OECD countries as percentages in 2018 are reported in the table below.

As can be seen, Turkey has the highest figure among the OECD countries (33.2 %) for youth neither employed nor in education nor training (15-29-year-olds).

This group is particularly at risk of both labour market for social exclusion. It means that this group is more disadvantageous than others in terms of finding suitable jobs for themselves. In addition, this group is already at a disadvantage due to lower levels of education and lower household incomes (ILOSTAT, 2020).

Women Employment

One of the most striking developments of the past two decades has been the massive incorporation of women in the labour force, despite significant variations by region. Never before have women been as educated as today. And yet, their status in the labour market is not commensurate with their educational achievements and work experience. This strongly implies a waste of human resources that undermines economic growth (Diop, 2007; 5).

Industrialization and urbanization have drawn women into the formal workforce and also into the informal workforce, where informal economies are significant. This trend is most noticeable among mothers with young children, the group most likely to drop out of employment in the immediate postwar period (Chandra, 2004; 2). Family responsibilities are important both for steering women toward informal employment and for constraining their income-earning activities as informal economy workers (Addati, Cassirer & Gilchrist, 2014).

While women’s participation in paid employment has increased worldwide, women can still work in certain types of employment. Due to complex factors, including household duties, educational background, cultural/ social norms, and personal choice, women are more likely to be engaged in part-time or temporary work. Moreover, they are forced to work in the informal sector (e.g., house cleaning) or unpaid labour in family enterprises which are usually at the lower end of the pay and status scale (Floro & Meurs, 2009). Although gender roles continue to change in a direction whereby men and women are seen more as equals, there are still gender differences in role expectations and role identities (Leslie, Manchester, & Kim, 2015).

Li and Shore-Sheppard (2014) examined the issue, focussing on both describing the relationship between demographic factors and duration in and out of employment. The demographic factors that they handled in their study included age, education, race, ethnicity, and number of children under the age of 6. They found significant effects on the fraction of time employed of having more schooling, while the effects that were found to increase rates of unemployment and having a child are right on the edge of statistical significance (Ham, Li & Shore-Sheppard, 2016).

Table 4: Women Labour Force Participation Rates in OECD (15+)

Country	Percentages (%)	Country	Percentages (%)
Australia	60.4	Latvia	56.0
Austria	55.0	Lithuania	56.5
Belgium	48.7	Luxembourg	54.7
Canada	61.0	Mexico	44.1
Czech Republic	53.1	Netherlands	58.4
Denmark	58.3	New Zealand	64.8
Estonia	57.4	Norway	60.4
Finland	55.7	Poland	48.9
France	50.8	Portugal	54.5
Germany	55.2	Slovak Republic	52.4
Greece	44.4	Slovenia	53.8
Hungary	48.4	Spain	52.0
Iceland	71.1	Sweden	61.3
Ireland	56.2	Switzerland	62.9
Israel	59.7	Turkey	34.1
Italy	40.8		

Source: World Bank Statistics,
<https://databank.worldbank.org/reports.aspx?source=2&type=metadata&series=SL.TLF.CACT.FE.ZS>

Research Methodology

Aim and Scope

The purpose of this research is to identify the mutual positions of Turkey and other OECD countries concerning vulnerable groups of people as part of these countries’ labour forces based on data dating back to 2018.

The employment of vulnerable groups is a matter of importance for economic and social development and indeed is an area of policy adopted within the framework of the active labour force markets of many developed and developing countries. To this end, a concrete analysis of mutual positions of countries will be useful to see the outcomes of their practices and identify best practices.

Research includes young people aged 18 to 24 who are not in employment, education, or training in 31 OECD countries based on the 2018 figures of OECD and World Bank databases on young unemployment, women’s employment and part-time employment.

It could have been more useful to perform the research in a way that covered trends over a much longer period of time, where the lack of one, or more than one variable for some countries in certain years required the analysis to cover recent years only.

Hypothesis

The hypotheses were formed on a per country basis and based on the variables analysed.

Hypothesis 1: The cases in most of countries are similar to each another.

Hypothesis 2: Turkey is in the most distinctive position in terms of variables analysed.

Method

The unemployment and employment figures for OECD countries for 2018 as set out in the research were collected from the OECD and World Bank databases, and a Multi-Dimensional Analysis was performed using the SPSS suite of programmes. The positions of the countries were displayed by means of distance matrix, coordinates, and graphs.

Multi-Dimensional Scaling Analysis

The multi-dimensional scaling analysis is performed to present configurations of objects concerning their positions in multi-dimensional space based on a matrix of distances between a number of 'n' objects (unit, individual, observation) (Aydın & Başkan 2013, 35). The multi-dimensional scaling analysis is a method that does not require the assumption of a distribution of figures. Performed to visually present relations between objects or units in a space with fewer dimensions, multi-dimensional scaling analysis is common and applicable to various types of data measured by sequenced, equally spaced and equally proportional scales (Ersöz, 2008, 100).

MDS provides a visual representation of the similarities (or dissimilarities) between objects, cases, or broader observations. In particular, the technique attempts to find structure in data by rescaling a set of difference measurements into distances assigned to specific locations in a spatial configuration. The general purpose in the use of MDS is, for example, to identify dimensions that affect perception or behaviour that may not otherwise be evident from the data. This provides an overview of the relationships between variables in the analysis (Jaworska & Chupetlovska-Anastasova, 2009; 2).

Multi-dimensional scaling analysis can be performed in two forms: metric multi-dimensional scaling and non-metric multi-dimensional scaling, depending on the type of data. The configuration distances to original distances, as based on how high stress values are, is fully compatible should the stress be $\bullet 0,20$, and the weak compatibility $0.10 < 0.20$ and medium compatibility $0.05 < 0.10$, and good compatibility $0.025 < 0.05$, and perfect compatibility $0.00 < 0.025$. With regard to MDS solutions, those that correspond to a stress value close to 0 are solutions that can be described as desired or viable.

Results

Young's S-stress formula 1 is used.

Iteration	S-stress	Improvement
1	.03540	
2	.02804	.00736
3	.02791	.00012

Iterations stopped because S-stress improvement is less than .001000

For matrix: Stress = .02179 RSQ = .99872

A small stress value (0.00012) indicates a good fitting solution, whereas a high value indicates a bad fit. Kruskal provided some guidelines for the interpretation of the stress value with respect to the goodness of fit of the solution (Wickelmaier, 2003).

Stress Goodness of fit

> 0.20 poor; 0.10 < 0.20 fair; 0.05 < 0.10 good; 0.025 < 0.05 excellent; 0.00 < 0.025 perfect

In this study, the Kruskal stress value is nearly 0.11 and indicates fair level of fit. The stress value is computed as 0.99872, which means that the stress value for k = 2 dimensions explains 0.998 of the data as a proportion.

Table 5: Stimulus Coordinates Dimension

Stimulus Number	Stimulus Name	1	2
1	Australia	1.4553	.1910
2	Austria	1.1206	.2275
3	Belgium	-.4393	-1.1531
4	Canada	.9164	.4033
5	CR	-.9617	-.0293
6	Denmark	1.1961	.1073
7	Estonia	.2285	.0971
8	Finland	.4868	.1016
9	France	-.1029	-.6951
10	Germany	1.1146	-.2409
11	Greece	-3.1980	-.4633
12	Hungary	-.4328	.0296
13	Island	1.1832	.8165
14	Ireland	.6170	-.6138
15	Israel	.3369	-.1276
16	Italy	-1.3566	-1.7228
17	Latvia	-.4231	-.1042
18	Lithuania	-.5164	-.1475
19	Luxembourg	-.3565	-.7965
20	Mexico	-.8204	1.8471
21	Netherlands	2.1703	.0263
22	NZ	.7870	.2067
23	Norway	.8798	-.1788
24	Poland	-.8194	.3519
25	Portugal	-.8849	-.3537
26	SR	-.8074	-.1810
27	Slovenia	-.3222	.0709
28	Spain	-.9406	-1.1336
29	Sweden	.4115	-.1300
30	Switzerland	1.4021	.2696
31	Turkey	-1.9237	3.3247

As can be seen in the Stimulus Coordinates table are those countries which have a positive and are over 1 degree more dissimilar than others in the first dimension in terms of “youth, female, part-time employment and youth neither employed nor in education or training”. Due to this, these are the strongest dissociatives in the first dimension, such as the Netherlands. Countries such as Greece that have negative and are over 1 degree are not important in the first dimension. In the second dimension, the countries that have positive and are over 2 degrees are the strongest dissociative.

When the hypotheses were considered in terms of the test, the first, "cases in most of the countries are similar to one another in terms of variables", was confirmed as being clear from the table of coordinates and the analytical plane. Of the countries included in the research, those except for Turkey, Mexico, Greece, and Italy on a relative basis are similar to one another. From the analytical perspective, there is an area of focus rather than dispersion of countries across various spots. As performed with consideration for all the analysed variables among the countries, the quantitative data found for the position analysis are presented in the following table.

As can be seen in the matrix table, the difference between Turkey (31) and Italy (16) is 4.993, which is the highest figure. Hungary (12) and Slovenia (27) are the closest ones to one another as the associated difference is only 0.038. Hungary and Slovenia are similar with regard to the labour force factors that are discussed in the study. This may indicate that these countries have similar social-economic or employment policies. On the contrary, Turkey and Italy are the most dissimilar countries. Youth neither employed nor in education nor training and youth unemployment rates have quite different proportions in these countries, as we analyse these countries separately. This is thought to greatly affect to be the result of the high proportion of youths in Turkey's population and relatively high older population in Italy.

The second hypothesis of the research, that "Turkey is in the most distinctive position in terms of variables analysed compared to other countries", was confirmed based on the analytical data. Turkey has a rather young population compared to most countries. Thus, the youth unemployment rate in Turkey is higher than that of other countries. Part-time employment is common in many other countries and young people benefit considerably from this. The fact that this type of employment is not common in Turkey compared to other countries results in young people dropping out of school getting jobs where a conventional type of employment is common. The high level of young population may also lead to high unemployment rates depending on the socio-economic factors of the countries. The fact that there are few women in standard-hour employment because of their social roles makes it difficult for them take part in the typical labour force markets. A well-qualified female labour force manages to take part in professional life as it is highly profitable, while the population of women with poor employment qualities generally fail to find a place in the labour force as they cannot afford to spare any financial resources for other types of employment. In addition, the employment of women migrating from rural to urban areas for household chores and child/elderly care results in the associated labour force participation levels being low. It is believed that alternative types of employment would be extremely useful for women's employment once such approaches become commonplace.

Matrix Table Indicating the Distances of Countries According to Each Other

	1	2	3	4	5	6	7	8	9	10
1	,000									
2	,301	,000								
3	2,312	2,079	,000							
4	,580	,223	2,068	,000						
5	2,459	2,106	1,266	1,915	,000					
6	,214	,076	2,057	,376	2,180	,000				
7	1,271	,904	1,431	,725	1,140	,986	,000			
8	,994	,628	1,564	,475	1,415	,708	,199	,000		
9	1,792	1,519	,529	1,482	1,060	1,517	,834	,962	,000	
10	,479	,412	1,787	,649	2,112	,289	,982	,730	1,290	,000
11	4,661	4,368	2,804	4,218	2,388	4,416	3,514	3,757	3,102	4,295
12	1,939	1,578	1,222	1,388	,461	1,656	,601	,879	,785	1,607
13	,652	,530	2,560	,433	2,312	,655	1,188	,970	1,982	1,017
14	1,117	,936	1,152	1,031	1,695	,877	,826	,721	,693	,567
15	1,174	,836	1,286	,740	1,260	,881	,189	,202	,681	,794
16	3,364	3,146	1,046	3,126	1,848	3,125	2,463	2,627	1,627	2,857
17	1,939	1,587	1,087	1,417	,470	1,653	,618	,888	,658	1,576
18	2,035	1,686	1,046	1,520	,385	1,750	,722	,990	,668	1,662
19	2,066	1,791	,330	1,740	,956	1,792	1,047	1,210	,201	1,567
20	2,844	2,532	3,043	2,242	1,835	2,676	2,001	2,149	2,637	2,866
	11	12	13	14	15	16	17	18	19	20
11	,000									
12	2,895	,000								
13	4,563	1,806	,000							
14	3,802	1,256	1,511	,000						
15	3,578	,742	1,242	,557	,000					
16	2,140	2,077	3,591	2,242	2,360	,000				
17	2,872	,056	1,856	1,179	,714	1,962	,000			
18	2,776	,121	1,958	1,243	,807	1,882	,024	,000		
19	2,856	,825	2,233	,962	,933	1,374	,689	,659	,000	
20	3,375	1,815	2,250	2,866	2,261	3,646	1,947	1,973	2,681	,000
21	5,245	2,703	1,338	1,675	1,926	3,817	2,688	2,776	2,678	3,568
22	4,058	1,214	,674	,811	,508	2,903	1,229	1,330	1,508	2,277

	11	12	13	14	15	16	17	18	19	20		
23	4,085	1,340	,989	,454	,523	2,713	1,312	1,401	1,366	2,648		
24	2,641	,423	2,067	1,749	1,208	2,245	,525	,506	1,225	1,456		
25	2,382	,538	2,382	1,527	1,203	1,543	,466	,361	,654	2,164		
26	2,494	,361	2,232	1,500	1,103	1,742	,320	,219	,743	1,983		
27	3,004	,038	1,690	1,191	,646	2,160	,125	,218	,863	1,802		
28	2,320	1,302	2,895	1,617	1,623	,717	1,182	1,104	,625	2,997		
29	3,648	,821	1,190	,515	,000	2,408	,795	,887	,987	2,304		
30	4,629	1,888	,547	1,139	1,140	3,375	1,895	1,992	2,059	2,748		
31	3,900	3,674	3,986	4,684	4,148	4,993	3,787	3,788	4,417	1,964		
	21	22	23	24	25	26	27	28	29	30	31	
21	,000											
22	1,489	,000										
23	1,341	,350	,000									
24	3,098	1,595	1,788	,000								
25	3,131	1,748	1,774	,650	,000							
26	3,053	1,623	1,691	,460	,124	,000						
27	2,602	1,101	1,241	,491	,650	,479	,000					
28	3,292	2,192	2,049	1,523	,800	,993	1,384	,000				
29	1,848	,447	,443	1,284	1,280	1,182	,724	1,680	,000			
30	,840	,608	,635	2,260	2,392	2,281	1,777	2,730	1,065	,000		
31	5,152	4,142	4,484	3,265	3,849	3,719	3,683	4,547	4,188	4,492	,000	

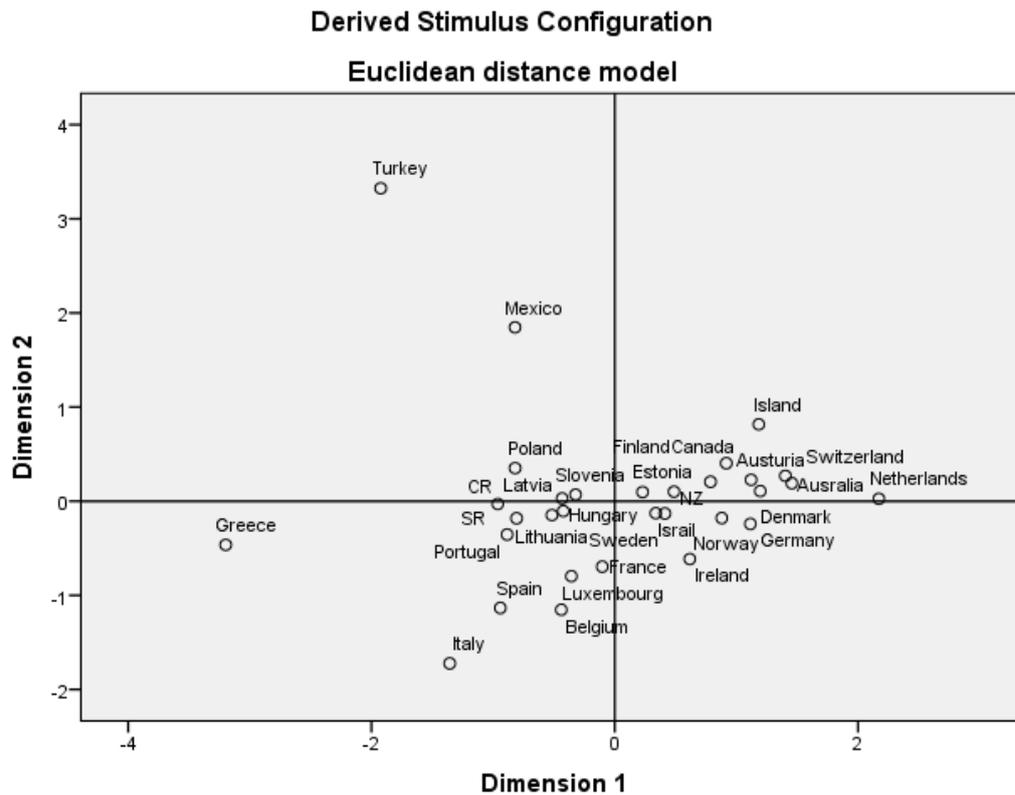


Figure 1: Euclidean distance model

Depending on the Stimulus Coordinates table, the countries that have negative and under 1 degree in two dimensions are the most dissimilar countries of the others. Turkey has the highest negative value in the second dimension. According to this, Turkey is the most dissimilar location in the area and the most dissimilar country in second dimension in terms of the variables included in the research as indicated above.

Conclusions

Today, social policies regarding employment are among the most important topics that are handled in detail at the national and international levels. Many macro-indicators of countries such as population structures, socio-economic conditions, etc., also have direct effects on unemployment and employment structures. While conducting research on labour markets, it can be seen that sub-variables offal under many of the main variables such as unemployment type, unemployment duration that includes short-term and long-term unemployment by qualification levels, or unemployment by social groups or participation in the labour force. Indicators of disadvantaged groups regarding the labour market are also addressed in many sub-categories. These categories are analysed in various studies in the literature, and comparative studies are carried out. In this study, the intention was to create a comparative study with the most up-to-date data and for as many OECD countries as possible. Since a comparative situation analysis on the basis of key indicators of disadvantaged groups such as women employment, youth unemployment, total unemployment rates has not been done before, we dealt with these variables in our study much more comprehensive analysis can be achieved by researching the subject with different and larger numbers of variables in the subcategories specified for subsequent research. There are many categories of disadvantaged people in the labour relations field such as women with and without children, women by level of education, young workforce by education level, retirees etc. Using these variables for subsequent studies will further deepen research. On the other hand, having many variables is a convenient situation for using multi-dimensional scale and also cluster analysis.

As a result of comparing the countries with each other, it was considered beneficial to identify the countries with good results and the positive and negative aspects of the differences in the countries and to focus on the practices followed in them. When the literature is analysed, it is seen that other studies on the employment of disadvantaged groups use the same methods. In this study unlike previous studies, multi-dimensional scale (MDS) analysis was used that it allows comparison with multiple variables. It is possible to state that the study is a unique in terms of method and the findings.

Turkey appears to be somewhat disparate compared to other OECD countries as the data containing employment indicators of disadvantaged groups. In this study, we are not forced to conclude whether the apparent circumstances are positive or negative. The aim of this study was not to put this known fact forward again, but rather to make the situation of being far from the norms of other

countries apparent. The research has been carried out for OECD countries to enable the collection of current and comprehensive data. It can be questioned whether the analysis is appropriate to the development levels of the countries and whether their socio-economic structures are sufficiently similar. In the labour relations literature, it is commonly known that some indicator of the Turkey individually different from other countries. Although differences are known on the basis of variables, what is not known differences between the level of other countries with Turkey. To help with this study, this gap in the literature was tried to be eliminated.

As a result of this study, the most dissimilar countries are Turkey with Italy. Also these countries are the most distant countries in terms of the variables handled. This indicates that countries have very different rates in the variables discussed. In fact, for two countries whose labour market structures are not so different, the results were surprising in this direction. For this reason, it is seen that the investigation of population structures is also important. When the population structures are investigated, Italy and Turkey are quite different, especially in terms of the average age of the population. The ratio of young population in Turkey is high and this gives rise to a higher unemployment rate of young labour force. In terms of women's participation rates in the labour force, social structures need to be examined in more detail.

Turkey is known that it's different from many European countries, USA, Canada, Japan in terms of population, employment and socio-economic factors. In the statistics, which contain the basic indicators of the labour market, high unemployment rates of especially disadvantaged groups attract attention for Turkey. However, in general, there is no study that looks at the level of this dissimilarity concretely. The study is considered to be unique in terms of the methods and results used in this regard.

For instance, as is known, women's full integration into the labor market has been a crucial indicator of the economic development and social welfare of each country. To this end, Institutional principles are been realized and sustained to raise up women's participation in business life. It is seen that the EU's rules are clear and concrete about the incorporation of the equal pay for equal work principle (Chappell & Guerrina, 2020). Countries such as Germany and France are accepted as developed countries with social policies in the labour market. Looking at the results, it is seen that many other countries are located close to these two countries In other means, especially in developed countries formal institutions benefit more opportunities and enabling equal rights for employment.

In order to understand the underlying effects on the gap in terms of employment indicators of disadvantaged groups, it is due to dear in mind also informal institutions. Previous studies have revealed that they have a strong impact on society's conducts and they can either alleviate or aggravate formal institutions' rules and practices (Azari & Smith, 2012). These informal institutions emerge with rituals, values and expectations embedded in social norms of the culture. Due to this informal institutions and cultures, the gap between different societies is still in sight. Although gender roles continue to change in a direction whereby men and women are seen as more equal, there are still gender differences in role expectations and role identities (Leslie, Manchester, & Kim, 2015). To our mind, it's believed that the scarcity numbers of flexible job practices in the Turkey context has also an aggravating effect on this gap.

Based on the analyses conducted, Turkey, being one of the most distant countries, needs much more investigation and open to constructive applications. The study can be identified as a starting point for deeper investigations. Further research can extend the literature related with this issue.

Cluster analysis focuses on similarities between the units discussed. Hierarchical cluster analysis will be determined the clusters that include the similar countries in terms of the variables. Thus, it can be clearly seen which countries are in the same cluster. these determinations may constitute an important starting point in terms of analyzing the current situation in more detail.

References

- Addati L., Cassirer N., Gilchrist K. (2014). *Maternity and Paternity at Work: Law and Practice Across The World*, ILO Publications, Geneva.
- Akkan, B., & Serim, S. (2018). Work and family reconciliation in Turkey: Young Women as a Vulnerable Group In The Labour Market, *Research and Policy on Turkey*, 3(2), 173-186.
- Aydn, D. & Başkan B. (2013). Bankaların 2012 Yılı Sermaye Yeterlilik Rasyolarına Göre Kümeleme Analizi ve Çok Boyutlu Ölçekleme Sonucu Sınıflandırılma Yapıları”, *BSAD Bankacılık ve Sigortacılık Araştırmaları Dergisi*, Cilt: 1 Sayı: 5-6, 29-47.
- Azari, J. R & Smith, J.K. (2012). Unwritten rules: Informal institutions in established democracies, *Perspectives on Politics*, 10(1), 37-55.
- Barrett, R. (2010). Disadvantaged Groups in the Labour Market. *Economic & Labour Market Review*, 4(6), 18-24.
- Chandra, R. (2004). *Social Development in India*, Gyan Publishing House, India.
- Chappell, L. & Guerrina, R. (2020). Understanding the gender regime in the European External Action Service. *Cooperation and Conflict*, 0010836719895296.
- Dean, D. (2008). Age, Gender and Performer Employment in Europe. *Industrial Relations Research Unit. UK: Warwick Business School University of Warwick*.
- Dedeoğlu, S. (2012). Equality, Protection or Discrimination: Gender Equality Policies in Turkey. *Social Politics*, 19(2), 269-290.

- Delsen, L. (1993). Part-Time Employment and the Utilisation of Labour Resources. *Labour*, 7(3), 73-91.
- Diop, A. (2007). Women and Work, Seminar for Members of Parliamentary Bodies Dealing with Gender Equality and Committees Addressing Labour Issues, ILO Publications, Geneva.
- Edelman, P. B., Holzer, H. J. (2013). Connecting the Disconnected: Improving Education and Employment Outcomes Among Disadvantaged Youth, IZA Policy Paper No. 56, IZA Publications.
- Floro M. S., Meurs M. (2009). Global Trends in Women's Access to "Decent Work", International Labour Organization, ILO Publishing, p. 18.
- Freedman, D. H. (2008), Improving Skills and Productivity of Disadvantaged Youth, Employment Sector Employment Working Paper No. 7, ILO Publications, Geneva.
- Gündüz, Z. Y. (2013). The Feminization of Migration: Care and the New Emotional Imperialism. *Monthly Review*, 65(7), 32.
- Ham, J. C. & Li, X. & Shore-Sheppard, L. D. (2016). The Employment Dynamics of Disadvantaged Women: Evidence from the SIPP. *Journal of Labor Economics*, University of Chicago Press, Vol. 34(4), 899-944.
- Heuvel, V. A. (1999). Mature age Workers: Are They a Disadvantaged Group in the Labour Market? *Australian Bulletin of Labor*, 25(1), 11-22.
- International Labour Organization. (2012). The Youth Employment Crisis: A Call for Action, Resolution and Conclusions of the 101st Session of the *International Labour Conference*, Geneva.
- Jaworska, N., & Chupetlovska-Anastasova, A. (2009). A Review of Multidimensional Scaling (MDS) and its Utility in Various Psychological Domains. *Tutorials in Quantitative Methods for Psychology*, 5(1), 1-10.
- Kazanoglu, N. (2019). Work and Family Life Reconciliation Policies in Turkey: Europeanisation or Ottomanisation?, *Social Sciences*, 8(2), 36.
- Kızıl, C. (2016). Turkey's Policy on Employment of Syrian Refugees and its Impact on the Turkish Labour Market. *Turkish Migration*, 164-70.
- Leslie, L.M.; Manchester, C.F. Flaherty, C. Dahm, P.C. (2016). Why and When Does the Gender Gap Reverse? Diversity Goals and the Pay Premium for High Potential Women, *Academy of Management Journal*, 60(2)
- Mayhew, K. & Rijkers, B. (2004). How to Improve the Human Capital of Older Workers or the Sad Tale of the Magic Bullet. *OECD Seminar on Human Capital and Labour Market Performance*, Brussels, p. 5
- Messenger J. (2018). Working time and the future of work, ILO Future of Work Research Paper Series, ILO Publications, Geneva.
- Nita, D. & Fleşer, A. (2011). Youngsters-Disadvantaged Group on the Labour Market - Alternative Employment. *Annals of the University of Petrosani, Economics*, 11(1), 179-186.
- O'Neill, J. E. & O'Neill, D. M. (2012). The Declining Importance of Race and Gender in the Labor Market: The Role of Employment Discrimination Policies, AEI Press, New York.
- Pagan, R. (2007). Is Part-Time Work a Good or Bad Opportunity for People with Disabilities? *A European Analysis. Disability and Rehabilitation*, 29(24), 1910-1919.
- Pagán-Rodríguez, R. (2009). An Empirical Analysis on the Incidence of Part-Time Work Among Women with Disabilities. *Disability and Rehabilitation*, 31(2), 73-83.
- Ustabaş, A., & Afacan Findikli, M. (2017). Being a Woman in Working Life: The Problems Faced by Women Managers in the Industrial Sector in Turkey, *Karadeniz Sosyal Bilimler Dergisi*, 9(9), 421-441.
- Vallejo, C., & Dooly, M. (2013). Early School Leavers and Social Disadvantage in Spain: from Books to Bricks and Vice-Versa. *European Journal of Education*, 48(3), 390-404.
- Wickelmaier, F. (2003). An Introduction to MDS, Wickelmaier Publications.
- ILOSTAT, Share of youth not in employment, education or training (youth NEET rate), https://www.ilo.org/ilostat-files/Documents/description_NEET_EN.pdf
- The World Bank. Women are less likely than men to participate in the labor market in most Countries. <http://data.worldbank.org/news/women-less-likely-than-men-to-participate-in-labor-market>