Effects of Unionization on Work Accidents: Türkiye Example

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ABSTRACT

Unions are one of the important non-governmental organizations that negotiate between employers and employees, such as providing protective equipment to employees and participating in joint health and safety committees. In this study, it is aimed to examine the relationship between the level of unionization and occupational accidents in Türkiye. The data were obtained from the Statistical Yearbooks of the Social Security Institution between the years 2014-2021 and the work life statistics book of the Ministry of Labor and Social Security. JAMOVI 2.3.28 software program was used in the statistical analysis of the data. The significance level was taken as 0.05. It has been determined that there is a linear increase in unionization rates and the number of insured workers from 2014 to 2021. While a positive, statistically significant and strong relationship was found between the number of unionized workers and the number of occupational accidents (r=0.952; p<.001), no statistically significant relationship was found between the total number of unionized workers and fatal occupational accidents (-0.398; p=0.239). In addition, it has been found that the number of unionized workers is dependent on occupational accidents and there is a linear relationship. As a result, it was concluded that unionization did not have a positive effect on occupational accidents.

Keywords: Occupational accident, occupational health and safety, union, worker.

Sendikalaşmanın İş Kazalarına Etkisi: Türkiye Örneği

ÖZ

Sendikalar çalışanlara koruyucu ekipman sağlanması, ortak sağlık ve güvenlik komitelerine katılmaları gibi çalışan ve işveren arasında pazarlık yapan önemli sivil toplum örgütlerinden biridir. Bu çalışmada Türkiye'de sendikalaşma düzeyi ile iş kazaları arasında ne denli bir ilişki olduğu incelenmek amaçlanmaktadır. Veriler, 2014-2021 yılları arasındaki Sosyal Güvenlik Kurumu istatistik yıllıkları ve Çalışma ve Sosyal Güvenlik Bakanlığının çalışma hayatı istatistikleri kitabından elde edilmiştir. Verilerin istatistiksel analizinde JAMOVI 2.3.28 yazılım programı kullanılmıştır. Anlamlılık düzeyi 0,05 olarak esas alınmıştır. 2014'den 2021 yılına kadar sendikalaşma oranları ve sigortalı işçi sayılarında doğrusal bir artış olduğu tespit edilmiştir. Sendikalı işçi sayısı ile iş kazası sayısı arasında pozitif yönde, istatistiksel olarak anlamlı ve güçlü bir ilişki tespit edilirken (r=0.952; p<.001), toplam sendikalı işçi sayısı ile ölümlü iş kazası arasında, istatistiksel olarak anlamlı bir ilişki tespit edilmemiştir (r=-0.398; p=0.239). Ayrıca sendikalı işçi sayısı bakımından yaşanan iş kazalarına bağımlı olduğu ve doğrusal bir ilişkinin olduğu bulunmuştur. Sonuç olarak sendikalaşmanın iş kazaları üzerinde olumlu etkisinin olmadığı sonucuna varılmıştır.

Anahtar Kelimeler: Çalışan, iş kazası, iş sağlığı ve güvenliği, sendika.

Introduction

In Türkiye, approximately three hundred thousand employees have work accidents for different reasons every year, and around fifteen hundred people lose their lives due to these accidents (Öztürk, Özge and Oral, 2021). While many insured people become disabled due to work accidents, many insured people also lose their lives (Karaahmetoğlu, 2021).

While the highest number of deaths due to work accidents in Türkiye in the last ten years occurred in 2017, the number of work accidents also occurred in 2021 (Social Security Institution Statistics Years). In Türkiye, various rights are granted to the insured who has a work accident or dies as a result of the accident. Law No. 5510 on Social Security and General Health Insurance clearly defines the rights of those who have suffered an occupational accident and these rights entered into force on May 31, 2006 (Social Insurance and General Health Insurance Law No. 5510). Accordingly, in the event that the insured person is temporarily or permanently incapacitated or dies in an occupational accident,

income and pension will be paid to his beneficiaries (Karaahmetoğlu, 2021). As a result, work accidents cause both employees, society and the state to face financial and moral difficulties. Therefore, removing this burden will be positive for the employee, society and the state.

Labor unions have an important place in business life because they provide employees with information about the hazards of the job, protect employees who refuse to accept hazardous tasks, assist workers with accident compensation claims, and represent employees against the state and employers.

When looking at the literature, it is stated that there may be an important relationship between unionization rates of employees and work accidents (Boal, 2009; Donado, 2015; Economou and Theodossiou, 2015; Morantz, 2013). Unions are one of the important non-governmental organizations that bargain between employees and employers, such as providing employees with protective equipment and participating in joint health and safety committees (Donado, 2015). This study aims to examine the relationship between the level of unionization and work accidents in Türkiye.

A. Unionization in Working Life

Obtaining trade union rights in the world was achieved through an intense struggle process and reached its current content with the developments over time (Karaca and Hoş, 2019). Today, unions are social institutions established to protect the interests of employees, eliminate wage inequality, improve personal rights, and protect disadvantaged groups such as disabled, children and female employees in working life. Additionally, unions build solidarity by defending employees who are mistreated in the workplace, bargaining to advance workers' interests, and protecting the collective interests of employees at the table through government on various terms and conditions of labor and employment of employees (Carriere, 2020).

The importance of trade unions is clearly stated in both the United Nations Declaration of Human Rights and the 1982 Constitution. Article 23 of the United Nations Declaration of Human Rights states that "Everyone has the right to form or join a trade union for the protection of his or her interests." (İnsan Hakları Evrensel Bildirgesi, 1999). Article 51 of the Constitution of the Republic of Türkiye recognizes the right to form trade unions for workers and employers and clearly states that no employee shall be subjected to compulsory membership or coercion to leave a trade union. Article 52 and Article 53 recognize rights related to trade union activities such as collective bargaining, the right to strike and lockout. In the event of a dispute during the collective bargaining process, employees have the right to strike (Constitution of the Republic of Türkiye, 1982).

Today, the functioning structure of confederations, employer and employee unions is regulated by "Trade Unions and Collective Bargaining Agreement Law No. 6356", which came into force in 2012. In article 2 of the law; "Union: Organizations with legal personality formed by at least seven workers or employers to operate in a business line in order to protect and develop the common economic and social rights and interests of workers or employers in their labor relations." (Diken and Ceylan, 2018). The Universal Declaration of Human Rights and the current Constitution and laws clearly state that trade unions are social structures established to protect the rights of workers. Today, occupational accidents are an important factor that adversely affects the material and moral interests of workers, society and the state. Therefore, minimizing occupational accidents should be one of the main objectives of trade union activities and in order to achieve this goal, employees should be made aware of this issue.

B. Work Accident

Various definitions are made regarding work accidents both at national and international levels. Generally, occupational accidents are linked to various risks inherent in the work environment or associated with specific work activities. Engaging in tasks involving heavy machinery operation, utilization of cutting and sharpening equipment, or working at elevated heights are common contributors to such incidents. However, additional factors such as occupational diseases stemming from work-related stress, physical or psychological strain, depression, musculoskeletal discomfort, and

cardiovascular conditions can also precipitate occupational accidents. Moreover, excessive workload, inadequate adherence to safety protocols, failure to utilize personal protective equipment, ergonomic deficiencies, and discomfort-related issues further amplify the likelihood of occupational accidents (Ferrari, Ossani, Souza, Leal and Galdamaz, 2023).

The International Labor Organization (ILO) delineates the concept of "Decent Work," as advocated to its member nations, encapsulating the entitlement to meaningful employment within an environment characterized by autonomy, egalitarianism, stability, and inherent human worth. Central to this framework is the assertion that work achieves the designation of "decent" solely when it is imbued with attributes of safety and wellness (Gonzalez-Delgado et al., 2015; Santurtún and Shaman, 2023). According to estimates by the World Bank, approximately 60% of the global population aged 15 and above is engaged in employment. This demographic constitutes the cohort necessitating allocation of resources and concerted efforts towards the attainment of objectives related to decent work, while concurrently facing potential susceptibility to occupational injuries and illnesses (Gonzalez-Delgado et al., 2015).

The prevalence of occupational accidents and injuries within the global workforce constitutes a significant and pressing issue. As per assessments conducted by the ILO, an approximate tally of 2.3 million workers across the globe succumb to work-related accidents or illnesses annually, translating to a staggering daily toll exceeding 6,000 fatalities. Furthermore, the ILO posits that there are approximately 340 million instances of occupational accidents and 160 million cases of work-related illnesses recorded on an annual basis worldwide (ILO, 2023). These figures, estimated by the ILO are worrying.

Work-related accidents exert adverse consequences not only on the affected individuals and their families but also pose substantial economic ramifications on society at large. According to estimations by the International Social Security Association (ISSA), expenses attributed solely to non-fatal workplace accidents contribute to roughly 4% of the global Gross Domestic Product (GDP) annually (Ferrari et al., 2023; Santurtún and Shaman, 2023). Another study states that occupational accidents cause an economic cost of 1.8-6% of GDP (Torres and Jain, 2017).

Nevertheless, work-related accidents precipitate employee absenteeism, diminished production capacity within workplaces, and inflict injuries, trauma, and even fatalities upon employees, thereby engendering implications for employability and contributing to the impoverishment of the workforce. Concurrently, the necessity for social security disbursements arising from sick leave imposes a notable strain on public healthcare expenditures (Ferrari et al., 2023).

By examining the impact of unionization on occupational accidents through the case of Turkey, this study both makes a unique contribution to the literature on occupational safety and provides a deeper understanding of the relationship between unionization and occupational accidents in a socio-economic context. This analysis, especially in the light of the existing union structures and legal regulations in Turkey, addresses an issue that has not been sufficiently examined in the national context before.

The problem statement of the research is formed as "As the level of unionization of employees increases, does the number of occupational accidents and fatal occupational accidents decrease?"

Method

This study employs a quantitative research method to examine the impact of unionization on occupational accidents. Secondary data analysis has been utilized to evaluate publicly available statistical data. The systematic analysis of the collected data has been conducted meticulously to ensure objective and reliable answers to the research questions.

Research Design

The research methodology employed herein involved the utilization of the relational survey method, which constitutes one of the quantitative research frameworks. Within the purview of the correlational survey model, the primary objective was to ascertain the presence or extent of associations between two or more variables (Karasar, 2005).

Population and Sample

The study population encompasses statistical data retrieved from the Social Security Institution (SGK) and the Ministry of Labor and Social Security, pertaining to the incidence of occupational accidents, fatal occupational accidents, and the presence of unionized workers across all sectors operating within Türkiye during the period spanning from 2014 to 2021 (Çalışma ve Sosyal Güvenlik Bakanlığı [ÇSGB]).

Data Collection Tools

The data utilized in this study were sourced from the annual statistical publications of the SGK and ÇSGB, as detailed in the working life statistics compendium.

Data Collection and Analysis

The data of the study were collected online via the internet. The variables and abbreviations of the data set are given in detail in Table 1.

Table 1
Variables and Their Abbreviations to be Used in the Research

Variable	Abbreviation
Total Number of Work Accidents	T_WAN
Total Number of Fatal Work Accidents	T_FWAN
Number of Workers	T_WN
Number of Unionized Workers	T_UWN
Unionization Rate	T_UR

The data used in the research were checked before being transferred to the database. The data transferred to the database was analyzed with JAMOVI 2.3.28 software program. The significance level was taken as 0.05.

Quantitative research methods, specifically correlation and regression analysis, were employed to examine the research inquiry. The Shapiro-Wilk test was utilized to assess the normal distribution of the variables under scrutiny. Notably, the Shapiro-Wilk test is recommended particularly when the dataset comprises fewer than 35 observations. A significance level (p-value) exceeding 0.05 in the Shapiro-Wilk test indicates adherence to normality assumptions (Demir, 2022). In correlation analysis, the selection of appropriate methodology depends on the distributional characteristics of the data. Specifically, when the data conforms to a normal distribution, Pearson Correlation Analysis is employed; conversely, if the data lacks normality, Spearman Correlation Analysis is preferred (Can, 2018). Correlation analysis serves to elucidate the nature and intensity of the association between two or more variables. Within correlation studies, the magnitude of the correlation coefficient, denoted as "r," serves as an indicator of the strength of this relationship. Moreover, the correlation coefficient assumes values ranging from -1 to +1, with the sign (+ or -) delineating the directionality of the correlation. A positive value signifies that as one variable increases, the other variable also tends to increase, or conversely, as one variable decreases, the other variable tends to decrease. Conversely, a negative value implies an inverse relationship, wherein an increase in one variable corresponds to a

decrease in the other, and vice versa (Demir, 2022). The correlation coefficient (r) is interpreted by Cohen as in Table 2 (Cohen, 2013).

Table 2
Correlation Ranges Specified by Cohen

0.10 to 0.29	Little relationship
0.30 to 0.49	Medium relationship
0.50 to 1.0	Great relationship

Regression analysis is the process of considering one of the variables that are related to each other as the predicted (dependent) variable of interest, and mathematically explaining the relationship between the other predictive (independent) variable or variables. In other words, regression analysis is used to test questions such as how much the independent variable or variables used in the data set affect the dependent variable (Can, 2018). Regression analysis using one independent and one dependent variable is called simple linear regression analysis. If the significance value tested as a result of regression analysis is less than 0.05, the model is considered significant (Demir, 2022).

Research Ethics

This study did not entail the involvement of human subjects or patient data. All data utilized herein are openly accessible on the Internet. Consequently, the study was not subjected to review by any ethics committee, as it did not involve human participants or sensitive personal information.

Results

The findings of the research consist of two parts: descriptive findings and statistical findings. Figure 1 shows the graph of the unionization rates of workers working in Türkiye between 2014 and 2021.
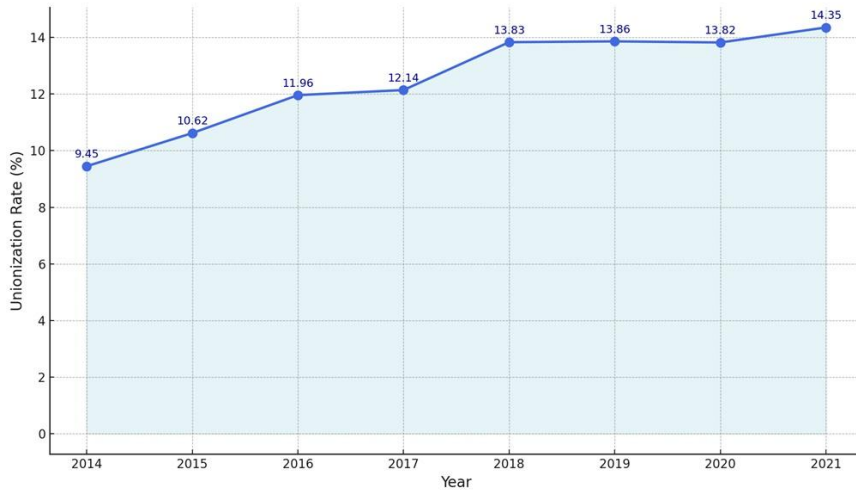

Figure 1. Unionization Rates of Workers Working İn Türkiye Between 2014 and 2021

There is a linear increase in unionization rates from 2014 to 2021 (Figure 1). From 9.45% in 2014, the unionization rate reached 14.35% in 2021. In the early years, especially between 2014 and 2016, the rate of increase is relatively low (from 9.45% to 10.62%). However, from 2017 onwards, the rate of increase became relatively more stable (from 12.1% to 14.35%). Between 2018 and 2020, rates changed little (between 13.83% and 13.86%). This period represents a relative slowdown in the growth of the unionization rate.
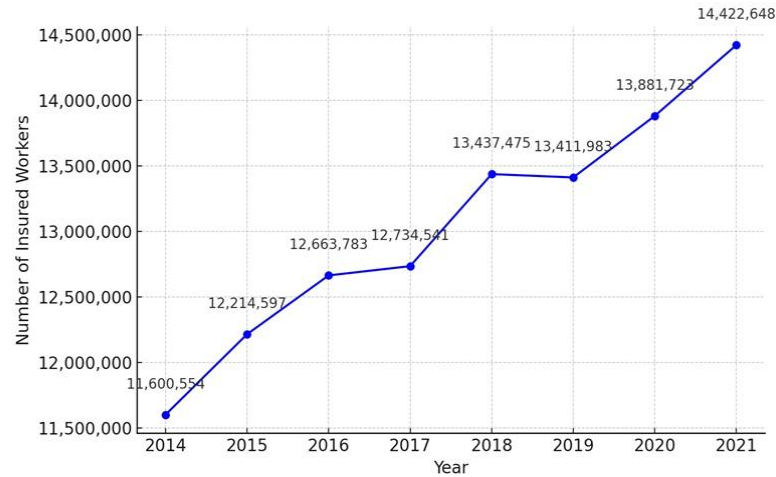
Figure 2. Number of İnsured Workers in Türkiye Between 2014-2021

According to Figure 2, there is a linear increase in the number of insured workers from 2014 to 2021. In 2014, the number of insured workers was around 11.6 million, increasing steadily until 2021, reaching 14.4 million. This points to a positive development in formal employment, with the rate of increase being more pronounced, especially since 2017. During this period, factors such as economic growth, employment incentives or the expansion of insurance coverage may have been effective. Although 2020 was a year affected by the COVID-19 pandemic, the number of insured workers continued to increase rather than decrease. This can be explained by the impact of policies such as economic support packages or insuring informal workers.

Table 3
Descriptive Statistics of Variables and Normality Test Results

	T_WAN	T_FWAN	T_WN	T_UWN
N	8	8	8	8
Mean	357179	1402	1.30e+7	1.65e+6
Median	371958	1394	1.31e+7	1.70e+6
Standard deviation	100718	185	918417	336940
Minimum	221366	1147	11600554	1096540
Maximum	511084	1633	14422648	2069476
Shapiro-Wilk p	0.767	0.462	0.974	0.583

The descriptive statistics and normality test results of the variables used in the research are given in Table 3. Since the research was obtained from data between 2014-2021, it was expressed as N = 8. Looking at the normality test results, it was observed that the p value of all variables was greater than 0.05, so Pearson Correlation Analysis was used because it met normal distribution conditions.

Table 4
The Relationship between the Total Number of Unionized Workers and The Number of Work Accidents and Fatal Work Accidents

		1	2	3
1. T_WAN	Pearson's r	-		
	p-value	-		
2. T_FWAN	Pearson's r	-0.205	-	
	p-value	0.626	-	
3. T_UWN	Pearson's r	0.952	-0.398	-
	p-value	<.001	0.329	-

Table 4 presents the findings of the Pearson Correlation Analysis, examining the interplay among the variables under investigation. A robust, positive, and statistically significant correlation was observed between the total count of unionized workers and the incidence of work accidents (r=0.952;

p<.001), indicating a pronounced association. Specifically, an escalation in the number of unionized workers correlates with a corresponding rise in the overall frequency of work accidents. Conversely, no statistically significant relationship was discerned between the total count of unionized workers and fatal work accidents (r=-0.398; p=0.239), suggesting a lack of significant correlation.

Table 5

Simple Regression Analysis Model Coefficients on the Number of Work Accidents in Terms of the Total Number of Unionized Workers

Independent variable	β	Standardize β	Standart hata	t	p
Fix	-111116.836		62339.3676	-1.78	0.125
Total number of unionized workers	0.285	0.952	0.0372	7.65	<.001
Dependent variable: total number of work accidents					

Table 6

Simple Regression Analysis Model Fit Measures for the Number of Work Accidents in Terms of the Total Number of Unionized Workers

Model	R	R²	Adjusted R²	General model testing			
				F	df1	df2	P
Independent variable (T_UWN) Dependent variable (T_WAN)	0.952	0.907	0.891	58.5	1	6	<.001

Tables 5 and 6 show that an increase in the total number of unionized workers is associated with an increase in the total number of work accidents (β = 0.285, p < 0.001). This shows that the number of unionized workers is an effective variable in the increase in occupational accidents. The positive regression coefficient can be interpreted as unionization may be ineffective in reducing occupational accidents or that more occupational accidents may be reported with an increase in formal employment.

The coefficient of determination of the model (R² = 0.907) is quite high. This indicates that 90.7% of the change in the total number of work accidents is explained by the total number of unionized workers. The high explanatory power of the model confirms that the effect of the independent variable is strong. The F test result (F = 58.5, p < 0.001) reveals that the regression model is generally significant.

Conclusion, Discussion and Recommendations

Unionization plays a pivotal role in advocating for the welfare and advancement of employees' material and ethical interests. Additionally, it serves as a conduit between employers or their representatives, mitigating adverse influences encountered by employees within the workplace environment, thereby safeguarding their welfare while facilitating stronger organizational cohesion with increasing membership. This study endeavors to ascertain whether the degree of unionization exerts an impact on the incidence of fatal and non-fatal work accidents in Türkiye. To elucidate this potential effect, correlations and simple regression analyses were employed to scrutinize the relationships between the number of unionized workers and the frequency of work accidents. Moreover, descriptive statistics about the number of insured workers and the rate of unionization in Türkiye spanning the years 2014 to 2021 are provided for contextualization.

There are serious differences between the unionization rate of the number of workers and the unionization rate of public officials in Türkiye. This difference is seen when looking at work-life statistics. While the unionization rate of public officials is 64.66% in 2021, the unionization rate of workers is 14.35%. Again, in the same year, while the number of public servants was 2 million 658 thousand 555, the number of workers was 14 million 422 thousand 648 (Work-Life Statistics, 2021). As can be seen, the number of insured workers is approximately seven times more than the number of public servants, but the unionization rate of insured workers is four times lower than the unionization rate of

public officials. Unfortunately, the large number of insured workers is inadequate in terms of union organization. There can be more than one reason to explain this situation. As a separate research topic, why the unionization levels of insured workers are low and the underlying reasons can be investigated in depth.

The primary objective of this study is to investigate whether there exists a negative correlation between the level of unionization among employees and the occurrence of work accidents, including fatal incidents. Contrary to the anticipated outcome, our statistical analysis revealed a robust, positive, and statistically significant association between the total count of unionized workers and the frequency of work accidents (r=0.952; p<.001). This finding suggests that an escalation in the number of unionized workers corresponds to an increase in the overall incidence of work accidents. However, this outcome diverges from the anticipated results outlined in the study's introduction and conceptual framework, which posited that unions, as entities established to safeguard employee interests, would potentially mitigate the occurrence of work accidents. Consequently, the anticipated finding of a reduction in work accidents with increasing levels of unionization was not supported by our study's findings.

No recent study has been found examining the effect of unionization on work accidents. However, research conducted in the past years shows that unionized workers are more likely to experience work accidents than their non-unionized colleagues (Robinson and Smallman, 2006; Smitha, Kirk, Oestenstad, Brown and Lee, 2001). A study conducted in 2015 predicts that unionized workers exhibit more courageous behavior due to their greater self-confidence, thus they tend to engage in risky behavior and increase the risk of experiencing work accidents (Donado, 2015). In a study by Altassane and others (2018), in which 26.462 workers were included, 18,955 (72%) were unionized and 7507 (28%) were non-unionized, and 3194 workers (16.9%) among unionized workers experienced injuries, while 618 workers (8.2%) among non-unionized workers experienced injuries (Altassan et al., 2018). In a study by Le and others (2021), it was found that the average perceived safety climate of unionized employees was lower than non-unionized employees (Le et al., 2021). While the lower perceived safety climate of unionized employees may lead to higher occupational accident rates, this may be due to higher levels of awareness and reporting transparency. On the other hand, a more favorable perception of safety climate among non-unionized employees may lead to lower visibility or underreporting of occupational accidents. These findings in the literature support the results of our study.

In our study, there was no statistical difference between the unionization rate and fatal work accidents (r=-0.398; p=0.239). However, when looking at the correlation coefficient, it is seen that there is a negative direction. This aspect indicates that an increase in the rate of unionization reduces the number of fatal work accidents. Although the finding in our study is not statistically significant, there is a negative effect between the unionization rate and fatal work accidents. A study conducted in 2013 found that unionization could lead to a 29% to 83% decrease in the rate of fatal work accidents (Morantz, 2013). This study conducted in previous years is partially compatible with our findings.

As a result of the findings of this study, it was concluded that unionization does not have a positive effect on work accidents. Union representatives should be ensured to participate in occupational health and safety committees in all workplaces, and they should guide employees by investigating work accidents or fatal work accidents. In addition, unions should not go beyond their missions and inspections should be increased by relevant ministries. It should be the first duty of unions to defend the rights of employees and build a bridge between employers and employees.

This study is a study based on all sectors. Researchers interested in this subject can make the current sample even more popular by comparing the work accidents that occur in sectors where unionization is strong and the work accidents that occur in sectors where union presence is weak.

Author Contribution Statement

The author contributed 100% to this article.

Conflicts of Interest

There is no conflict of interest in this article.

Kaynaklar

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Genişletilmiş Özet

Giriş

Ülkemizde, her yıl yaklaşık olarak üç yüz bin çalışanımız, farklı sebeplerle iş kazası geçirmekte ve bu kazalara bağlı olarak bin beş yüz civarında insanımız yaşamını yitirmektedir (Öztürk vd., 2021). İş kazası nedeniyle birçok sigortalı iş göremez hale gelmekle birlikte, birçok sigortalı da hayatını kaybetmektedir (Karaahmetoğlu, 2021).

Son on yıl içerisinde Türkiye'de iş kazası sonucu ölüm sayısı en çok 2017 yılında gerçekleşirken iş kazası sayısı da 2021 yılı içerisinde gerçekleşmiştir (Sosyal Güvenlik Kurumu İstatistik Yılları). Ülkemizde iş kazası geçiren ve kaza sonucu ölen sigortalıya çeşitli haklar tanınmaktadır. Bu haklar 31.05.2006 tarihinde yürürlüğe giren 5510 Sayılı Sosyal Sigortalar ve Genel Sağlık Sigortaları Kanunu'nda açık olarak belirtilmiştir (5510 Sayılı Sosyal Sigortalar ve Genel Sağlık Sigortaları Kanunu). Buna göre iş kazasına uğrayan sigortalının geçici veya sürekli iş göremez duruma gelmesi halinde veya iş kazasına uğrayan sigortalının ölmesi durumunda hak sahiplerine gelir ve aylık bağlanması söz konusudur (Karaahmetoğlu, 2021). Sonuç olarak iş kazaları hem çalışanı hem toplumu hem de devleti maddi ve manevi açıdan zorluklarla karşı karşıya bırakmaktadır. Bu nedenle bu yükü kaldırmak çalışan, toplum ve devlet için olumlu karşılanacaktır.

İşçi sendikaları, çalışanları işin tehlikesi ile ilgili bilgilerin sağlanmasını, tehlikeli görevleri kabul etmeyi reddeden çalışanların korunmasını ve kaza tazminat taleplerinde işçilere yardım edilmesini ve çalışanları devlete ve işverene karşı temsil edilme özelliklerinden dolayı çalışma hayatında önemli yere sahiptir.

Literatüre bakıldığında çalışanların sendikalaşma oranları ile iş kazaları arasında önemli bir ilişkinin olabileceği belirtilmektedir (Boal, 2009; Donado, 2015; Economou ve Theodossiou, 2015; Morantz, 2013). Sendikalar çalışanlara koruyucu ekipman sağlanması, ortak sağlık ve güvenlik komitelerine katılmaları gibi çalışan ve işveren arasında pazarlık yapan önemli sivil toplum örgütlerinden biridir (Donado, 2015). Bu çalışmada Türkiye'de sendikalaşma düzeyi ile iş kazaları arasında ne denli bir ilişki olduğu incelenmek amaçlanmaktadır.

Yöntem

Bu araştırmada, sendikalaşmanın iş kazaları üzerindeki etkisini incelemek amacıyla nicel araştırma yöntemi benimsenmiştir. Çalışmada, ikincil veri analizi yöntemi kullanılarak kamuya açık istatistiksel veriler değerlendirilmiştir. Elde edilen verilerin sistematik bir şekilde analiz edilmesi, araştırma sorularına nesnel ve güvenilir yanıtlar sağlayabilmek adına titizlikle gerçekleştirilmiştir.

Araştırma Deseni

Araştırmanın verileri Sosyal Güvenlik Kurumu (SGK) tarafından her yıl yayınlanan istatistik verileri ile Çalışma ve Sosyal Güvenlik Bakanlığının (ÇSGB) çalışma hayatı istatistikleri kitabından elde edilmiştir.

Araştırmanın Evreni

Çalışmanın evreninin Sosyal Güvenlik Kurumu (SGK) ve Çalışma ve Sosyal Güvenlik Bakanlığının (ÇSGB) istatistiksel verilerinde yer alan 2014-2021 yılları arasında Türkiye genelinde faaliyet gösteren bütün sektörlerde yaşanan iş kazaları, ölümcül olan iş kazaları ve sendikalı işçi sayılarına ait veriler oluşturmuştur.

Veri Toplama Araçları

Çalışmanın verileri Sosyal Güvenlik Kurumu SGK tarafından yıllık olarak yayınlanan istatistiki verilerden Çalışma ve Sosyal Güvenlik Bakanlığı ÇSGB'nin çalışma hayatı istatistikleri kitabından elde edilmiştir.

Verilerin Toplanması ve Analizi

Çalışmanın verileri internet üzerinden çevrimiçi olarak toplanmıştır. Araştırmada kullanılan veriler, veri tabanına aktarılmadan önce kontrol edilmiştir. Veri tabanına aktarılan veriler JAMOVI 2.3.28 yazılım programıyla analiz edilmiştir. Anlamlılık düzeyi 0,05 olarak esas alınmıştır. Araştırma hipotezinin test edilmesi için nicel araştırma yöntemlerinden korelasyon ve regresyon analizleri kullanılmıştır.

Araştırma hipotezinin test edilmesi için nicel araştırma yöntemlerinden korelasyon ve regresyon analizleri kullanılmıştır. Değişkenlerin normal dağılımlarının tespitinde Shapiro-Wilk testi kullanılmıştır. Veri sayısının 35'in altında olduğu durumlarda Shapiro-Wilk testi önerilmektedir. Shapiro-Wilk testinde p değerinin 0.05'ten büyük olması normalliğin sağlandığı anlamına gelmektedir (Demir, 2022). Korelasyon analizi iki ya da daha çok değişken arasındaki ilişkinin yönü ve gücü hakkında bilgi verir. Korelasyon araştırmalarında korelasyon katsayısının gücü "r" ile gösterilir. Ayrıca korelasyon katsayısı -1 ile +1 arası değer almaktadır. (-) ya da (+) değer alması korelasyon ilişkisinin yönünü belirtilmesi amacıyla değerlendirilir. + değer alması değişkenlerin birinin değeri artarken diğerininde artması ya da birinin değeri azalırken diğer değişkenin değerinde azalması olarak ifade edilir. – değer alması ise değişkenin birinin değeri artarken diğer değişkenin değerinin azalması veya bir değişkenin değeri azalırken diğer değişkenin değerinin artması olarak açıklanır (Demir, 2022). Korelasyon katsayısı (r) Cohen tarafından belirtilen korelasyon aralıkları referans alarak yorumlanmıştır (Cohen, 2013).

Regresyon analizi aralarında ilişki olan değişkenlerden birisinin ilgilenilen diğer bir ifadeyle yordanan (bağımlı) değişken olarak ele alınıp, diğer yordayıcı (bağımsız) değişken ya da değişkenlerin aralarındaki ilişkiyi matematiksel olarak açıklamaya denir. Yani veri setinde kullanılan bağımsız değişken ya da değişkenlerin, bağımlı değişkeni ne kadar etkilediği gibi soruları test etmek için regresyon analizi kullanılır (Can, 2018). Bir bağımsız ve bir bağımlı değişkenin kullanıldığı regresyon analizine basit doğrusal regresyon analizi denir. Regresyon analizi sonucu test edilen anlamlılık değeri 0.05'ten küçük ise model anlamlı olarak kabul edilir (Demir, 2022).

Bulgular

2014'den 2021 yılına kadar sendikalaşma oranları ve sigortalı işçi sayılarında doğrusal bir artış olduğu tespit edilmiştir. 2014 yılında %9.45 olan sendikalaşma oranı 2021 yılında %14.35 ile en yüksek seviyeye ulaşmıştır. Ayrıca sigortalı çalışan sayısına açısından bakıldığında 2014 yılında 1 milyon 160 bin 554 olan sigortalı işçisi sayısı 2021 yılında 14 milyon 422 bin 648 seviyesine ulaşmıştır.

Toplam sendikalı işçi sayısı ile iş kazası sayısı arasında pozitif yönde, istatistiksel olarak anlamlı ve güçlü bir ilişki tespit edilmiştir ($r=0.952$; $p<.001$). Sendikalı işçi sayının artması toplam iş kazası sayısını artırmaktadır. Toplam sendikalı işçi sayısı ile ölümlü iş kazası arasında, istatistiksel olarak anlamlı bir ilişki tespit edilmemiştir ($r=-0.398$; $p=0.239$). Ayrıca sendikalı işçi sayısı bakımından yaşanan iş kazalarına bağımlı olduğu ve doğrusal bir ilişkinin olduğu söylenebilir. Başka bir ifadeyle sendikalı çalışan sayısı artarsa yaşanan iş kazalarının arttığı tespit edilmiştir.

Sonuç, Tartışma ve Öneriler

Bu çalışmada sendikalaşmanın iş kazaları üzerinde olumlu etkisinin olmadığı sonucuna varılmıştır. Yapılan araştırmalar sendikalı işçilerin, sendikasız meslektaşlarına göre iş kazası yaşama

olasılığının daha yüksek olduğunu göstermektedir (Robinson ve Smallman, 2006; Smitha vd., 2001). 2015 yılında yapılan bir araştırmada sendikalı işçilerin kendine daha çok güvenmeleri ile ilgili olarak daha cesur davranışlar sergilemelerine dolayısıyla riskli davranış yapma eğilimi gösterdikleri ve iş kazası yaşama riskini arttırdığı öngörmektedir (Donado, 2015).

Çalışma hayatı istatistiklerine bakıldığında sigortalı işçi sayısı kamu görevlilerinin sayısından yaklaşık yedi kat fazla olduğu görülmekte ancak, sigortalı işçilerin sendikalaşma oranı kamu görevlilerinin sendikalaşma oranından dört kat daha düşüktür. Sayıları çok fazla olan sigortalı işçiler maalesef sendikasal örgütlenme konusunda yetersiz kalmaktadırlar. Bu durumu izah eden birden fazla neden sayılabilir. Ayrı bir araştırma konusu olarak sigortalı işçilerin sendikalaşma düzeylerinin neden düşük olduğu ve altta yatan sebepler derinlemesine araştırılabilir.

Bütün işyerlerinde sendika temsilcilerinin iş sağlığı ve güvenliği kurullarına katılmaları sağlanmalı ve yaşanan iş kazalarını veya ölümlü iş kazalarını araştırarak çalışanlara rehber olmalıdırlar. Ayrıca sendikalar misyonlarının dışına çıkmamalı ve ilgili bakanlıklar tarafından denetimler artırılmalı. Çalışanların haklarını savunmak ve işveren ile çalışan arasında köprü kurmak sendikaların birinci vazifesi olmalı.

Bu çalışma bütün sektörleri temel alarak yapılan bir çalışmadır. Bu konuya ilgi duyan araştırmacılar sendikalaşmanın güçlü olduğu sektörlerde yaşanan iş kazaları ile sendika varlığının zayıf olduğu sektörlerde yaşanan iş kazalarını kıyaslayarak mevcut örneklemi daha da popüler hale getirebilirler.