

# International SOCIAL SCIENCES STUDIES JOURNAL

SSSjournal (ISSN:2587-1587)

SOCIAL SCIENCES

STUDIES JOURNAL

	DDDJ04						
Economics and Administration, Tourism and Tourism Management, History, Culture, Religion, Psychology, Sociology, Fine							
Arts, Engineering, Architecture, Langu	age, Literature, 1	Educational Sciences, Pedagogy &	Other Disciplines in Social Sciences				
Vol:5, Issue:50	pp.6691-6700 2019						
sssjournal.com	I	SSN:2587-1587	sssjournal.info@gmail.com				
Article Arrival Date (Makale Geliş Tarihi) 01/10/2019 The Published Rel. Date (Makale Yayın Kabul Tarihi) 23/11/20							
Р	ublished Date (N	Iakale Yayın Tarihi) 23.11.2019					

# **OCCUPATIONAL HEALTH AND SAFETY IN BUSINESSES**

İŞLETMELERDE İŞ SAĞLIĞI VE GÜVENLİĞİ

# Dr. Leyla ŞENOL

Ali Rıza Veziroğlu Meslek Yüksekokulu, Emlak ve Emlak Yönetimi, TURKEY ORCID ID: https://orcid.org/0000-0002-5780-9690 Merve FERHATOĞLU

Fen Bilimleri Enstitüsü, İş sağlığı ve Güvenliği Anabilim Dalı, Kocaeli/TURKEY

Article Type	: Research Article/ Araștırma Makalesi
Doi Number	: http://dx.doi.org/10.26449/sssj.1915
Reference	: Şenol, L. & Ferhatoğlu, M. (2019). "Occupational Health And Safety In Businesses", International Social
Sciences Studies J	fournal, 5(50): 6691-6700.

# ABSTRACT

The importance of occupational health and safety, which occupies an important place in the world and is on the agenda, is given great importance in our country. Efforts are being made to prevent occupational accidents and occupational diseases that may occur in all large and small enterprises. Making work environments comfortable and free from hazards for employees is important in order to prevent unwanted incidents in advance. Occupational health and safety is one of the key issues in working life and generally has three objectives. These objectives are to protect employees, businesses and production. It is aimed to provide a good working environment while protecting employees. Ensuring a good working environment and reducing risks and risks are among the main issues. In this context, the psychological support, motivation and management factor given to the employees gain importance. In this study, in order to evaluate occupational health and safety in enterprises, considering the age and working time of employees, a questionnaire was applied to evaluate the work experience, psychological attitudes of the employees, the training given and the efficiency of the management. Application results were analyzed by using spss program. In the study, it was concluded that management and education had an impact on the employees.

Keywords: Occupational health, safety, work accidents, occupational diseases

# ÖZ

Dünyada ve ülkemizde iş sağlığı ve güvenliği konusu büyük bir önem taşımaktadır. Büyük, küçük tüm işletmelerde meydana gelebilecek olan iş kazalarını ve meslek hastalıklarını önlemek için çaba harcanmaktadır. Çalışma ortamlarının çalışanlar için rahat ve tehlikelerden uzak hale getirilmesi, istenmeyen olayların da önceden önlenmesini sağlaması açısından önemlidir. İş sağlığı ve güvenliği çalışma hayatında temel konulardan birisidir ve genellikle üç amacı bulunmaktadır. Bu amaçlar çalışanların, işletmenin ve üretimin korunmasıdır. Bir yandan çalışanlar korunurken diğer yandan iyi bir çalışma ortamının sağlanması amaçlanmaktadır. İyi bir çalışma ortamının sağlanması tehlike ve risklerin azaltılması temel konular arasında yer almaktadır. Bu bağlamda çalışana verilen psikolojik destek, motivasyon ve yönetim faktörü önem kazanmaktadır. Bu çalışmada, işletmelerde iş sağlığı ve güvenliğinin değerlendirilmesi amacıyla, çalışanların yaşı ve çalışma süreleri ile iş kazaları, psikolojik tutumları, verilen eğitimler, yönetim ve verimlilik faktörleriyle arasındaki ilişki değerlendirilmek üzere uygulama yapılmıştır. Uygulama sonuçları spss programı kullanılarak analiz edilmiştir. Yaş ile verimlilik arasında ve çalışma süresi ile psikoloji arasında anlamlı bir fark bulunmuştur

Anahtar Kelimeler: İş Sağlığı, güvenlik, iş kazaları, meslek hastalıkları.

# **1. INTRODUCTION**

In the course of production, due to any reason, the problems that cause the employee to be harmed and the scientific studies that reveal the factors that cause the employee's damage are called Occupational Health and Safety (Özgüler et all, 2013a: 24-45). Occupational Health and Safety is one of the most fundamental issues in business life and has three main objectives. These are the protection of the employees, the protection of the enterprise and the protection of production. While ensuring the protection of the health of employees, providing a good working environment, reducing the dangers and risks in the working environment, detecting undesirable events before they happen and preventing them from occurence. In terms of production, it means ensuring continuity of work and increasing productivity. Reducing occupational diseases, preventing occupational accidents, protecting from danger, creating a more secure and prosperous work environment is the most important aim. In our country, regulations related to occupational health and safety started to be made in the middle of 19th century regarding mining. In 1865, the Dilaver Pasha Regulation is accepted as the first written legislation in the history of occupational health and safety. Especially the improvement of working conditions shows the importance given to occupational health and safety. Although it is aimed to increase production, it is important because it is the first legal document with occupational health and safety. The second important written document is the Maadin Nizamnamesi which came into force in 1869. It has a more comprehensive content on work safety issues than the previous one. For example, it is obligatory to provide job security, to pay compensation after work accident, and to have a physician and pharmacy. Law numbered 114 dated 28 April 1921 and Law numbered 151 dated 10 September 1921 were entered into force. With these laws, work accidents and occupational training issues, insurance and entry-related systems have been established. As a result of the need for the Labor law, in 1936 the Labor Law numbered 3008 came into force and was repealed after 31 years. In 1945, the Ministry of Labor made arrangements regarding business life; hence it was put into practice. Important steps have been taken regarding the health and safety of the employees until today and important studies have been carried out to establish a safety culture with regulations. In 1967, the second labor law numbered 931 came into force but was repealed after 39 months. After the ministry, General Directorate of Occupational Health and Safety was established. In 1969, the Occupational Health and Safety Center (OHSC) was established under the General Directorate. In 1971, Law numbered 1475 became valid. It has remained in force for 32 years with some changes and developments. The Law numbered 4857, which entered into force in 2003, has created a significant difference due to the fact that it has a separate section on occupational health and safety. The Law numbered 41947, which entered into force in 2003, is the basis of today's occupational health and safety studies. In 2012, Law numbered 6331 on Occupational Health and Safety has been a factor in gaining a modern perspective. (Ministry of Labor and Social Security [ESMR], 2016). With this law, the duties, powers, responsibilities, rights and obligations of the employees and employees are determined in order to ensure occupational health and safety in the workplace and to regulate and improve the working environment. ISO 9001 and ISO 14001 Standards are focused on the environment and quality. Therefore, a new standard on occupational health and safety was needed. OHSAS 18001 Standard, on the one hand, ensures the compliance of the organizations with the legal standards, on the other hand it aims at increasing the productivity and efficiency through continuous improvement of business environments. OHSAS 18001 is the standard for occupational health and safety rather than the safety of organizations' products and services. [OHSAS],18001:2007).

# 2. CONCEPTUAL FRAMEWORK

#### **2.1. Occupational Health And Safety**

Within the scope of occupational health and safety, it is expected that the health and safety of the employees as well as the working conditions and physical environments will be healthy and safe. As a result of occupational accidents and occupational diseases, both employees and employers are subjected to material and moral losses. While risk can be vital for employees, productivity, loss of competition; hence profitability are directly affected for the employer. The level of knowledge about occupational health and safety of vocational high school students was investigated. However, it was determined that they did not have sufficient information (Özgüler et all, 2013b). In the study performed for the same purpose among the students of the engineering faculty, it was concluded that the students did not have enough knowledge either (Özgüler et all, 2016). In the Report of Labor and Social Security Training and Research Center, seven factors affecting occupational health and safety have been examined. These factors are individual responsibility, safety standards and objectives, personal participation, management commitment and

- Being an engineer, architect or technical staff,
- To have work safety certificate,

In order to raise the occupational health and safety to the level of the EU countries, it is imperative that employees, executives, experts and technical staff fulfill their responsibilities (B1y1kç1, 2010).

# 2.2. Security Culture

In order to achieve its objectives, the organization should strive to ensure that the code of ethics is included in the structure of business processes and is transformed into an organizational culture. In order to be successful in the application, it should ensure that the senior management of the business is subject to the issue and that the requirements are met. Culture is the ideas, emotions and behaviors that express social structures of groups of people and are expressed by symbols that are created and transmitted (Kroeber & Kluckhohn, 1952). The basis of culture is formed of traditional views and the values that are loaded on them. Safety is the condition where the work is protected from existing risks or the work environment is devoid of any dangers. Security needs to be performed in enterprises and it must be consistent which means it should become a culture. Security culture was first mentioned in the reports of the Chernobyl Nuclear Accident which happened in 1986. The security culture is shared by all groups of organizations, it concerns security issues and affects the behavior of employees in their work. It also reflects the willingness regarding taking a lesson from an accident and mistake and improving it. According to Cooper, the security culture is the product of interaction for many purposes between the individual, business and organization (1998). Security culture has two dimensions (Tokuç, 2016). The first one is the belief in their security by the members of the organization or the organization itself, as well as the attitude and values they exhibit. And the other one is the reformative structures, practices and periodic controls of safety that the organization has attained. The common point in defining security culture is the beliefs, attitudes, mentality and norms for the employees to do and continue their work. These views play important roles in occupational accidents. Work safety culture should be shared by all employees. It is a situation that requires the participation of employees. In order for a culture to be established and to be adopted, a period of time is required. In this period of time, some attitudes should be placed. This means, business management must act as a leader against any kind of attitues regarding work safety of the people who work under themselves and they must stick to them. If while the senior staff are giving orders the employee to wear protective equipment, the person in the administration does not wear it work area, then the employees might think that this is not a significant prohibition, it is just a necessity, and I do not have to wear it. It will take a long time to create work safety culture at work. However, it should be known that effort and concern should never be left. It is often not possible to catch this culture in the short term. Therefore, the administration should not give up this purpose. In this respect, regulatory written policies for work safety should be established. These policies should be implemented from the lowest level employee to the highest level. Employees need to be actively involved in situations, decisions and practices that concern them in terms of occupational safety. Otherwise they may show resistance. Employees should be continuously trained. These trainings should be carried out in a remarkable manner, addressing the actual event and circumstances. Trainings must be repeated in certain periods. In the trainings, drills must be done, and effective, catchy and expressive methods should be chosen in terms of dealing with risks. If all these goals are reached correctly, a culture of work safety will be created and work accidents, work diseases will be reduced, job satisfaction, and quality of life of employees will increase. It was determined that the security culture was directly affected by the culture of the workplace (Zopcuk, 2015). In order to prevent occupational diseases and work accidents, safe conditions should be established in the work environment. Hence, employees, employees and the state must fulfill their duties in this issue (İşsever, 2017).

# 2.3. Causes Of Work Accidents And Principles Of Protection

Implementation of laws and regulations on occupational health and safety, the sensitivity that executives would show and the trinings to be given may minimize the work accidents and occupational diseases. Among the studies done for the reduction of work accidents, the most important one is minimizing the unsafe works. It is important to do the job carefully and to show the necessary attention (New Era in Occupational Health and Safety, 05/11/2018). Businesses which can create occupational health and safety culture can be successful in this subject. It is important that the employees receive training on occupational

health and safety before starting their working life. It has been understood that in our country, experts and technical staff do not have enough information about the occupational health and safety (Özgüler et all, 2013c). Work accidents are often caused by the inadequate use of the environment and equipment by employees. According to medical staff, causes of occupational accidents are work intensity, long working hours, lack of personal protective equipment, inattention and inexperience. It has been concluded that the state, employer and employee are responsible (Bayılmış, & Taş, 2015). The physical conditions of the work environment, work equipment, insufficient training on occupational health and safety considerably increase the likelihood of work accidents. In order to prevent occupational accidents, all hazards and risks must be determined. In terms of the danger and risk, all the requirements must be performed. No expenses for protection should be avoided. WHO (World Health Organization) and ILO (International Labor Office) define work accident in their own way. For WHO, work accident is the undesigned incident causing individual injuries, machines and equipments to be damaged and production to be stopped. Whereas according to ILO, it is the unexpected and undesigned incident causing certain damage and injury. Occupational health and safety workers should be protected from accidents and occupational diseases, or the damage should be minimized. The expenses for occupational health and safety do not increase the cost; instead they decrease it. (Akıllı & Aydoğdu, 2016: 150-172).

# 2.4. Work Psychology

Psychology is an important factor in occupational health and safety. Employees, managers and experts base the causes of occupational accidents on internal and external influences. Therefore, the attitudes and behaviors of people after occupational accidents also play a decisive role (Seçer, 2012). In addition to the physical protection of the employees in terms of occupational health and safety, a psychologically good working environment should be provided (Aytekin, 2010).

# 2.5. Occupational Diseases

There are many risks in the workplace depending on the type of work. Diseases caused by these dangers in the workplace can be defined as occupational diseases. In other words, occupational disease can be called work-specific diseases. The concept of health is defined by the World Health Organization as the state of not only being sick or disabled but also being physically, mentally and socially well. To ensure that the worker is physically and psychologically good and to make this permanent are among the most fundamental issues of occupational health and safety. Work accidents are based on two important reasons. One is unsafe behavior and the other is insecure work environment; in other words unprotected working conditions. Unsafe behaviours can be listed as not taking precautions, not using personal protective equipment, not doing the maintenance and controls at the right time etc. Occupational disease is not caused by exposure one or two times but by exposure for many years. International Labor Organization in our country takes general occupational diseases under the section of mental and behavioral problems. In recent years, strong steps need to be taken to prevent occupational accidents and occupational diseases (Tan & Çalışkan, 2018)

# 2.5.1. Protection from Occupational Disease

Occupational diseases can be precisely prevented. The work done is clear and the results are explicit. Taking these precautions into account, taking personal precautions can protect the employee from occupational diseases. The most fundamental principle in the prevention of occupational diseases is the elimination of the substance or factor causing the disease. But often this is not possible and the worker may have to work with those substances and factors. It is then necessary to keep under control the effective substance or factor that will cause this disease. In this way the disease can be prevented. These precautions can be performed with a number of engineering calculations. It may also be another way of precaution from occupational diseases that the person works in a job which is suitable for themselves. It is possible to prevent occupational diseases by early diagnosis through the employee's periodic examination.

# 2.6. Education

The periodic trainings to be given to the employees by the senior management and the support to be taken from the experts of the subject are important. The small steps to be taken will make a significant contribution to the success of occupational health and safety through awareness-raising and education. In the study analyzing the role of occupational health and safety in the prevention of work accidents and occupational diseases in Turkey, it has been concluded that the level of participation regarding occupational health and safety training, the level of labour inspectors is higher than the level of the employees and employers, and the employee's level of participation is higher than the employer's level (Aydın et all 2013). Occupational safety education should be concentrated on in accordance with laws and regulations. Information about risky behaviors and outcomes should be given in the main subjects of education. Training on personal protective equipment is a must for the employees. The responsibility of the training belongs to the employer. If the working unit or PPE changes, a new training should be given (Demirbilek and Çakır 2008a:188). With the "Regulation on the Procedures and Principles of Occupational Health and Safety Training of the Employees" which came into practice by being published in the newspaper dated 15 May, 2013, the responsibility to give training to the employees was given to employer. The activities carried out in relation to education encourage employees to work more cautiously and carefully (New Era in Occupational Health & Safety, 05.11.2018).

# 2.7. Management

It is significant to emphasize that the most important date in management is knowledge. It is possible to reach the most accurate information faster in terms of analysis, implementation, and planning. The information obtained is easily provided to be up to date. In the study that examines the approach of the management regarding the safety of the managers, it has been realized that the answers given to the statements 'managerrs try to have the job done as safe as possible" and 'managers are only interested in having the job done in a fast and cheap way' have the same percentages. It was determined that 74% of the respondents gave importance to occupational health and safety. Managers' taking the necessary care about occupational health and safety has been an encouraging factor for employees. (Demirbilek & Cakir, 2008b). Business ethics is considered as individual-organization, individual-society, business-society and it analyzed the ethical problems resulting from conflicts of interest in this context. In terms of management ethics, the principles of justice, righteousness, honesty, impartiality, respect for human rights, commitment to the organization, effective in internal and external relations, giving value for labor, and effective use of resources are examined. As a result, it has been concluded that there are deficiencies in the responsibilities of managers towards the environment (Çevik, 2007). In the process of achieving the objectives of the enterprise, the ethical rules should strive to make them adopted in the business processes and become an organizational culture. In order to be successful in the application, it is necessary for the senior management to ensure that the issue is fulfilled and the requirements are met.

#### 2.8. Productivity

Productivity can be defined as the ratio of the raw material used in production to the product (Artar, 1992:505). In other words, it is the ration of how well the objectives are met (effectiveness) to how effectively the resources are used (efficiency). Within the scope of occupational health and safety, it is expected not only to protect the employees' health and safety but also to ensure a healthy and safe working conditions and work environment. Occupational accidents and occupational diseases cause both physical and moral losses for employees and employers. While hazardous environments can be vital for the employees, productivity and competition loss may be the result for the employer. This situation directly affects the profitability and causes damage to the enterprises. In order for the employees to work efficiently, the temperature of the environment must be suitable for human beings (Dedeler, 2008). Generally, productivity decreases after 27<sup>o</sup> C for humans. The effect of temperature physically and spiritually starts from 30<sup>o</sup> C. While at 30 degrees loss of productivity is %5, at 32 degrees it is %30. After %30, it is more common to see work accidents (Dedeler, 2008). Compliance with the rules on occupational safety in work life leads to increased efficiency. It makes a positive contribution to employees, organization and the national economy (Karamik & Şeker, 2015). Each business must establish its own principles and standards in line with its structure and objectives.

# **3. PURPOSE OF THE RESEARCH**

The aim of this study is to evaluate the relationship between age, working time, occupational accidents, psychology, productivity, education and management variables in terms of occupational health and safety. The research problems created in this context are given below;

Problem Statements and Hypothesis of Research

- Is there a meaningful relationship between age and working time and occupational accidents?
- Is there a significant relationship between age and working time and psychology?

sssiournal.com	Social Sciences Studies Journal (SSSJournal)	sssjournal.info@gmail.com

• Is there a significant relationship between age and working time and productivity?

• Is there a significant relationship between age and working time and education?

• Is there a significant relationship between age and working time and management?

Hypothesis:

H<sub>0</sub>: There is no significant relationship between the age of employees and occupational accidents.

H<sub>0</sub>: There is no significant relationship between the age of employees and psychology.

H<sub>0</sub>: There is no significant relationship between the age of employees and productivity.

H<sub>0</sub>: There is no significant relationship between the age of employees and education.

H<sub>0</sub>: There is no significant relationship between the age of employees and management.

 $H_0:$  There is no significant relationship between the working time of the employees and occupational accidents.

H<sub>0</sub>: There is no significant relationship between working time of the employees and psychology.

H<sub>0</sub>: There is no significant relationship between working time of the employees and productivity.

H<sub>0</sub>: There is no significant relationship between working time of the employees and management.

H<sub>0</sub>: There is no significant relationship between the working time of the employees and education.

# 3.1. The Universe and Sample of the Research

The population of the study consists of randomly selected enterprises in Kocaeli. A questionnaire was applied to 225 people working in these enterprises.

# **3.2. Data Collection Tools**

The aim of the study is to determine the relationship between age and working time of the employees and work accident, productivity, education, management and psychology variable. For this purpose, a literature research was conducted and the occupational health and safety scale was prepared and applied in enterprises. The scale items are numbered from the lowest to the highest between 1 and 5. '1' refers to 'strongly disagree', '2' stands for 'disagree', '3' means 'less agree', '4' refers to 'agree', '5' stands for 'absolutely agree'. The questions asked to the participants were related to their personal information, age and the the time they worked in the enterprise.

# 4. ANALYSIS OF THE DATA

SPSS20 program was used in our analysis. As a result of the analysis, it was determined that the data were distributed normally and T-test and Anova test were performed. As a result of the reliability analysis, the reliability of the scale was found to be 0.920. The explained variance ratio is 0.514. The KMO and Barlett test results showed that the KMO value was 0.897 P 0.000.

# 4.1. Finding

Statistical significance was accepted as 0.05. Findings related to the problems of the research are given in the tables below.

# Average Age of Employees

	Table 1: Employee Age Percentages						
Value	Frequency	Percentage (%)	Value Percentage (%)	Cumulative Percent (%)			
20-30	87	38,7	38,7	38,7			
30-40	87	38,7	38,7	77,3			
40-50	45	20,0	20,0	97,3			
50-60	4	1,8	1,8	99,1			
60+	2	,9	,9	100,0			
Total	225	100,0	100,0				

Table 1 shows the average age of the surveyed employees. %38.7 of the respondents covers the ages between 20-30, %38.7 covers the ages between 30-40, %20 covers the ages between 40-50, %1.8 covers the ages between 50-60, and %0.9 covers the ages 60 and more.

# Working Time Averages

	Table 2: Working Time Percentages					
Value	Frequency	Percent (%)	Value Percentage (%)	Cumulative Percent (%)		
1-5	111	49,3	49,3	49,3		
5-10	63	28,0	28,0	77,3		
10-15	51	22,7	22,7	100,0		
Total	225	100,0	100,0			

Table 2 shows the working time percentages of the surveyed employees. Between 1 and 5 years take %49.3, 5 to 10 years take %28.0, between 10 and 15 years take %22.7 of the total.

# Findings of Age and Working Time in relation to Work Accidents

The results of age and the relationship between working time and work accident are given in Table 3 and Table 4.

Table 3: Relationship between age and work accidents							
	Sum of squares	df	Average of squares	F	Sig.		
Between Groups	,654	4	,163	,367	,832		
In groups	98,028	220	,446				
Total	98,682	224					

#### ....

#### Table 4: Relationship between working time and work accidents

	Sum of squares	df	Average of squares	F	Sig.	
Between Groups	,284	2	,142	,321	,726	
In groups	98,397	222	,443			
Total	98,682	224				

It can be seen that in Table 3 P is 0.832 and in Table 4 P is 0.726. There was no significant relationship between working time and age and work accidents since P > 0.05 was found in both tables.

# Findings on the relationship between age and working time with psychology

Table 5 and 6 show if there is a significant relationship between the age and working time of the employees and their psychology.

	Sum of squares	df	Average of squares	F	Sig.
Between Groups	1,395	4	,349	,523	,719
In groups	146,812	220	,667		
Total	148,207	224			

Table 5. The Deletionship Detween Age and Developer

Table 6: The Relationship Between Work Time and Psychology							
	Sum of squares	df	Average of squares	F	Sig.		
Between Groups	1,900	2	,950	1,442	,239		
In groups	146,307	222	,659				
Total	148,207	224					

It can be realized that in Table 5 P is 0.719 and in Table 6 P is 0.239. In Table 5, there was no significant relationship between age and psychology as P > 0.05. In Table 6, there was a significant relationship between psychology and work time since P < 0.05.

# Findings related to the relationship of age and working time with education

Table 7 and Table 8 show if there is a significant difference between the ages and working time of the employees and the training provided.

Sum of squares Average of squares F Sig. df ,134 Between Groups ,537 4 ,261 .903 220 113,150 ,514 In groups

Table 7: Relationship Between Age and Education

sssjournal.com	Social Sciences Studies Journal (SSSJournal)

sssjournal.info@gmail.com

pp: 6691-6700

Issue:50

Vol:5

Table 8: Relationship Between Work Time and Education

	Sum of squares	df	Average of squares	F	Sig.	
Between Groups	,577	2	,289	,567	,568	
In groups	113,110	222	,510			
Total	113,687	224				

It has been found that in Table 7 P is 0.903 and in Table 8 P is 0.568 There was no significant relationship between work time and age and education since P> 0.05 was found in both tables.

# Findings related to the relationship between age and management

Table 9 and Table 10 show if there is a significant relationship between the employees' ages and working time and management.

	Sum of squares	df	Average of squares	F	Sig.
Between Groups	,737	4	,184	,279	,891
In groups	145,028	220	,659		
Total	145,765	224			

# Table 0. Deletionship Detwoon Age and Management

#### Table 10: Relationship Between Working Time and Management

	Sum of squares	df	Average of squares	F	Sig.
Between Groups	,121	2	,060	,092	,912
In groups	145,644	222	,656		
Total	145,765	224			

Table 9 shows P as 0.891 and Table 10 shows P as 0.912. There was no significant relationship between study duration and age and management since P > 0.05 in both tables.

# Findings on the relationship between age and working time with productivity

Table 11 and table 12 show if there is a significant relationship between employees' ages and working time and productivity.

	Sum of squares	df	Average of squares	F	Sig.			
Between Groups	2,439	4	,610	1,483	,208			
In groups	90,460	220	,411					
Total	92,899	224						

# Table 11. Pelationship Between Age and Productivity

Table 12: The Relationship Between Working Time and Productivity								
	Sum of squares	df	df Average of squares		Sig.			
Between Groups	In groups	2	,040	,095	,910			
In groups	Total	222	,418					
Total	92,899	224						

able	12:	The	Relat	ionship	p Between	Working	Time	and I	Productivity	V

P is 0.208 in Table 11 and P is 0.910 in Table 12. In this case, there is a significant relationship between age and productivity. However, there is no significant relationship between work time and productivity.

# 5. CONCLUSIONS AND RECOMMENDATIONS

In the light of the data obtained from the study, the relationship between work accidents, psychology, workplace training, management and productivity variables and age and working time of the employees were analyzed. As a result of the analysis, it was seen that there was no significant relationship between work accidents and age and working time. However, if an employee work more than the certain work period determined by law, it is inevitable that work accidents will occur as the workers will feel fatigued and their performance will decrease. It was observed that the age factor did not have much effect on psychology. However, it is understood that working time creates a great psychological pressure on employees. There is no significant relationship between education factor and age and working time. Nevertheless, it should be emphasized that the training provided in the workplaces is highly beneficial. In the studies conducted on the subject, Sivrikaya and Üzüm (2018), it was observed that the students did not find a significant difference with the demographic variables that they think affect the perception of

sssjournal.com Social Sciences Studies Journal (SSSJournal) sssjournal.info@gmail.com

occupational health and safety. There is a significant difference between age and productivity. It is observed that the productivity decreases as the age grows. There is no significant difference between working time and productivity. It was observed that the management had an impact on the employees, the training given to the employees was important. Besides, it was also found out that the pressures on the working environment, the attitude of the management towards the employees, and the order of the working environment were effective on the employees. This situation plays a role in the increase or decrease of work accidents. The laws and regulations on occupational health and safety indicate the importance given to the subject. However, efforts for practicising these policies should be increased, working environments should be provided according to the law and regulations, occupational health and safety units should be formed in all organizations and institutions, rights and wrongs should be determined and monitored, and all enterprises should create their own principles and standards in accordance with their structure and purposes. It can be said that the social and cultural developments in our country affect indivudals' lives to a large extent. The more effective use of new technologies will provide organizations with a significant advantage in terms of occupational health and safety.

# REFERENCES

- Adan, O.&Tas, Y. (2015). "Health Workers' Occupational Health and Safety Evaluation: Sakarya Case Business", Power Industrial Relations and Human Resources Journal Volume: 17- Number: 1 ISSN: 2148-9874
- Akıllı, H. and Aydoğdu, Ö. (2012). "The Importance of Occupational Health and Safety", MTA Bulletin of Natural Resources and Economy, (16): 245-250.
- Artar, A. (1992). Productivity in Manufacturing Sub-Sectors and Intercompany Comparisons, National Productivity Center Publications, 505.
- Aydın, U., Karaca, NG, Özgüler, VC, Karaca, E., Yücesoy, Y. & Demir, M. (2013). "Occupational Health and Safety Education in the Prevention of Occupational Accidents and Occupational Diseases", Cement Industry Employers Association, 27 (4): 24-45
- Aytekin, F. A. (2010). "Effects of Occupational Health and Safety on Exhaustion Levels of Nurses", Master Thesis, Dokuz Eylul University, İzmir.
- Bıyıkçı, E.T. (2010). "Occupational Health and Safety in ensuring Occupational Safety Expertise", Master Thesis, Uludag University, Bursa
- Cooper, D. (2001)." Improving Safety Culture: A Practical Guide (Improving)", john
- Wiley & Sons, Chichester, BSMS ISBN: 0-471-95821-2
- Çevik, H. (2007). "Investigation of Managers' Business Ethics Approaches: An Application in Kütahya Organized Industrial Zone", Master Thesis, Dumlupinar Üniversitesi, Sosyal Bilimler Enstitüsü, Kütahya.
- Dedeler H. (2008). "Determination and Evaluation of the Effect of Workplace Physical Risk Factors on Employees' Health", Master Thesis, Trakya University, Sağlık Bilimleri Enstitüsü, Trakya.
- Demirbilek, T. & Cakir O. (2008). "Individual and Organizational Variables Affecting the Use of Personal Protective Equipment, Journal of the Faculty of Economics and Administrative Sciences", Dokuz Eylul University Volume: 23 Issue: 2, p: 173-191.
- İşseven, H. (2017). "Occupational Health and Safety Culture", Turkey-Special Topics Public Health Clinics 3, 3 (3): 128-33.
- Karamik, S. & Şeker, U. (2015). " Evaluation of the Effects of Work Safety on Productivity", Gazi University Journal of Science, 3 (4): 575-584.
- Kroeber, A.L., Kluckhohn, C.(1952). "Culture: A Critical Review of Concepts and Definitions" Harvard University Peabody Museum of American Archelogy and Ethnology Papers 47
- Labor and Social Security Training and Research Center, (2017). "Occupational Health and Safety Perceptions in Turkey", Yayın No: 58 ISBN : 978-975-455-276-8.
- Ministry of Labor and Social Security, (2016). The Changing and Emerging Face of Occupational Health and Safety The Last 15 Years of ISGM

sssjournal.com Social Sciences Studies Journal (SSSJournal) sssjournal.info@gmail.com

- "New Era in Occupational Health and Safety", http://yasinpekeroglu.com/yasin-pekeroglu-is-sagligi-veguvenligi-applications-new-donem.html (05/11/2018)
- OHSAS18001: 2007. "Business And Safety", www.kascert.com/goster.aspx?metin\_id=268,

(05.11.2018)

- Özgüler, A. T. & Koca T. (2013). "Necessity of Occupational Health and Safety Training in Vocational Schools", Electronic Journal of Vocational Colleges.
- Özgüler, A. T., Kaya, K., Kağızmanlı & B., Altuğ M. (2016)." The Role of Occupational Health and Safety Training in the Prevention of Occupational Accidents and Occupational Diseases", Cement Industry Employers' Association, 27(4), 24-45
- Seçer, B. (2012). " A Psychological Approach in Occupational Health and Safety: Citation Theory", Volume / Vol: 14, Number / Num: 4, Page: 29-46 ISSN: 1303-2860, DOI: 10.4026 / 1303-2860.2012.0209.x
- Tan, F.Z. & Suat Çalışkan, S. (2018). " A Research on the Analysis of Managers' Perceptions of Occupational Health and Safety Practices", Karaelmas Occupational Health and Safety Journal, 2 (1), 31-44
- Tokuç, B. Security Culture (2016). "Trakya University Faculty of Medicine Public Health", http://www.skb.gov.tr/wp-content/uploads/2016/02/doc.dr\_.burcu-tokuc-guvenlık-kulturu .pdf
- Zopcuk, O. (2015). "Ministry of Labor and Social Security, Directorate General of Occupational Health and Safety", Measurement of Security Culture in Enterprises: Small and Large Scale Textile and Metal Workplaces Application, Expertise Thesis, Ankara