

# The role of ISO 45001 occupational health and safety Management system in promoting the psychological and physical health of workers in economic institutions

Ammari Samir<sup>1</sup>, Raki Ahcene<sup>2</sup>

<sup>1</sup>University of 20 August 1955 Skikda (Algeria), [ammarisamir@gmail.com](mailto:ammarisamir@gmail.com)

<sup>2</sup>University of 20 August 1955 Skikda (Algeria), [raki.ahcene@yahoo.fr](mailto:raki.ahcene@yahoo.fr)

Received: 01<sup>st</sup> March 2023

Revised: 19<sup>th</sup> March 2023

Accepted: 03<sup>rd</sup> April 2023

---

**Abstract:** This study aimed to highlight the role of the ISO 45001 occupational health and safety management system in improving the psychological and physical health of workers in economic institutions, as the urgent need for economic institutions for this system emerged as a result of recording many injuries and accidents related to occupational health and safety for workers, especially those related to occupational hazards such as physical and psychological diseases, accidents and work injuries, which often led to the loss of the human element.

The study reached a set of results, the most important of which is the need for economic institutions to apply the occupational health and safety management system ISO 45001, as its application achieves many advantages and positive results, the most important of which is: Enhancing the psychological and physical health of workers, which reflects positively on their performance or productivity at work on the one hand, and on the other hand achieves their job satisfaction.

**Keywords:** Occupational Health and Safety Management system, ISO 45001, Mental Health, Physical Health.

---

## Introduction:

In light of the rapid and continuous changes taking place in the current era, the interest of many countries, institutions, and associations has increased in the risks threatening the work environment and the working individual, and in response to this interest, many economic institutions have tried to commit to the application of what is known as the occupational health and safety management system, by working to adopt occupational health and safety standards set by the International Labor Organization and other organizations such as the International Standardization Organization ISO. The occupational health and safety management system is one of the most important global systems through which economic institutions seek to adopt it to facilitate the management of these occupational risks that threaten the mental and physical health of the worker in the work environment.

The application of the ISO 45001 occupational health and safety management system is due to several aspects, the most important of which is the protection of the working individual from the risks that threaten his health, such as accidents and injuries that the working individual may be exposed to are a source of difficulties and pressures that exceed the individual's abilities to deal with them, which causes him stress and negative events and effects on his psychological and physical health. Therefore, this study came to address this topic, as the occupational health and safety management system is related to ISO 45001. The human element, without which there is no economic institution, but despite the importance of this element, it is still the first victim of the risks and problems of the work

## **The role of ISO 45001 occupational health and safety Management system in promoting the psychological and physical health of workers in economic institutions**

environment, the latter which has become a source of many daily accidents and occupational diseases that affect the working individual, this is what prompted most economic institutions to search for ways and mechanisms to pay this damage that besets the worker and threatens his psychological and physical health and occupational safety, including what is known as the ISO 45001 occupational health and safety management system.

Based on the above, the problem of the study can be crystallized more clearly through the following main question:

**How can ISO 45001 Occupational Health and Safety management system contribute to improving the mental and physical health of workers in economic institutions?**

### **Sub-questions:**

To familiarize themselves with all aspects involved in the problem of the study, the following sub-questions were asked:

- What is meant by the ISO 45001 Occupational Health and Safety management system and what is its importance?
- What are the requirements for the application of ISO 45001 Occupational Health and Safety management system?
- What is meant by the mental and physical health of workers and what are its indicators?
- What is the relationship of ISO 45001 Occupational Health and Safety management system to the Mental and Physical Health of Workers in Economic Institutions?

### **The importance of the study:**

This study is important from the increasing importance of the topic it addresses, as the occupational health and safety management system is one of the topics that occupied and still occupy the thought of many researchers and specialists, as it is the first international standard concerned with the psychological and physical health of workers in economic institutions and in a way that contributes to the development of the performance of institutions and their superiority, as this system is suitable for all institutions in the world, and the importance of this study lies in raising awareness of the importance of adopting the occupational health and safety management system in economic institutions and benefiting from the results and recommendations of the study, including Contribute to the development of appropriate programs and mechanisms for the health of workers that would be capable of developing their performance for the better.

### **Objectives of the study:**

It lies in the following:

- Addressing some basic concepts about the occupational health and safety management system and mental and physical health;
- Identify how the occupational health and safety management system contributes to improving the mental and physical health of employees of economic institutions;
- Provide some recommendations regarding the importance of strengthening the occupational health and safety management system in economic institutions, in a way that positively affects the performance and health of employees.

### **1. ISO 45001 Occupational Health and Safety Management system**

Through this theme, the theoretical aspects of the ISO 45001 occupational health and safety management system will be familiarized, by introducing it and highlighting its importance, objectives, and requirements for its application in economic institutions.

#### **1.1. Definition and Importance of ISO 45001 Occupational Health and Safety Management system:**

It is the international standard that defines the requirements of the health and safety management system at work, with guidelines for its use, to enable the organization to proactively improve the performance of the occupational health and safety management system in terms of preventing injuries and health problems (ISO 2018).

It is a new international standard that describes occupational health and safety requirements, and this standard applies to organizations of all sizes, which aims to manage the prevention of accidents and injuries in the workplace, and work-related diseases and deaths (PECB 2018).

It is the international ISO standard for occupational health and safety management systems, a global international standard for occupational health and safety that provides a framework to increase safety, reduce workplace hazards and promote health and well-being at work, enabling an organization to proactively improve the performance of its occupational health and safety management system.

In general, ISO 45001 is an international standard for occupational health and safety management system that is not mandatory for institutions issued by the World Organization for Standardization, the ISO certificate in the field of occupational health and safety is granted to institutions that adhere to it, to reduce work accidents before they occur.

The importance of the ISO 45001 occupational health and safety management system for economic institutions lies in the fact that it enables them to manage the risks of health and operational projects and improve the performance of their occupational health and safety management system through the development and implementation of effective policies and objectives, and the most prominent potential benefits of using the standard include:

- ✓ reduce workplace accidents;
- ✓ low cost of insurance premiums;
- ✓ Establish a culture of health and safety, where employees are encouraged to take an active role in their health and safety;
- ✓ strengthening the leadership role;
- ✓ improve the performance of the occupational health and safety management system;
- ✓ enhance reputation;
- ✓ improve employee morale;
- ✓ Increasing organizational resilience through effective risk prevention, innovation, and continuous improvement (NSF, 2022).

## 1.2. ISO 45001 Occupational Health and Safety Management system Requirements

It consists of the following requirements:

- ❖ **General requirements:** The organization must establish, document, implement, maintain, and improve an occupational health and safety management system in accordance with the requirements of this standard and determine how it will meet these requirements. The organization must know the field of its occupational health and safety management system.
- ❖ **Occupational Health and Safety Policy:** The senior management of the institution must define and adopt the occupational health and safety policy, ensure that it conforms to the requirements of the occupational health and safety management system and is appropriate to the nature and magnitude of potential occupational health and safety risks, and works to make it available to the concerned authorities.
- ❖ **Planning:** The organization must establish, implement and maintain a procedure to identify sources of risk, assess risks, and determine the necessary controls.
- ❖ **Application and operation:**
  - **Resources, roles, and responsibilities:** Senior management must commit itself to specific responsibilities towards occupational health and safety management and

## The role of ISO 45001 occupational health and safety Management system in promoting the psychological and physical health of workers in economic institutions

demonstrate its commitment through a number of measures, the most important of which is to ensure that the necessary resources are available to establish, implement, maintain and improve the occupational health and safety management system;

➤ **Competence, training, and awareness:** The organization must identify appropriate training procedures for potential occupational hazards and ensure that employees are made aware of the consequences of random behaviors within the organization;

➤ **Communications, Participations, and Consultations:** The Foundation shall establish procedures to facilitate internal communications with the Foundation;

➤ **Documentation:** The OSH documents should include the occupational health and safety policy and objectives, the documents needed by the organization to ensure the effective planning, operation, and control of its operations related to safety risks;

➤ **Controlling processes:** The organization must identify processes and activities related to sources of risk that need to apply controls necessary to manage occupational health and safety risks.

### ❖ **Check:**

- ✓ Performance measurement and monitoring;
- ✓ Conformity assessment;
- ✓ Accident and non-conformity investigations;
- ✓ Record keeping;
- ✓ Internal audit.

❖ **Management review:** The senior management of the organization must review the occupational health and safety management system at specific intervals to ensure its continuity, appropriateness, efficiency, and effectiveness, and the review must include an assessment of the imposition of improvement and an assessment of the need to change the occupational health and safety management system, including policy and objectives.

### 1.3. Objectives of ISO 45001 Occupational Health and Safety Management system:

ISO 45001 aims to help the organization achieve the expected results of its occupational health and safety management system, the expected results of the occupational health and safety management system include a number of objectives (NSF, 2022):

- ✓ ISO45001 does not address product safety, property damage, or environmental impacts;
- ✓ Meeting the requirements of ISO45001 can support organizations striving for a culture of proactive and continuous improvement, and can lead to the effectiveness and efficiency of the organization in achieving the highest levels of performance of the occupational health and safety management system;
- ✓ The development and implementation of the Occupational Health and Safety Framework based on the ISO45001 standard demonstrates the ability of an organization to operate more efficiently and effectively.

## 2. Mental and physical health:

### 2.1. The concept of mental and physical health:

Mental health is an essential concept in the lives of individuals and society, as it creates a self-stable individual and his life is free of tensions and fears and gives him a permanent sense of calm, tranquility, and self-security, and it also increases the strength and cohesion of society among its members, in addition to that, the individual's enjoyment of mental **health** makes him more amenable to dealing positively with various problems and the possibility of overcoming them and taking responsibility

without escaping from them and withdrawing. It also makes the individual compatible with himself and adapted to his society and his behavior is sound and acceptable to others, as the mental health of individuals is reflected in the economic, productive, and social fields as the individual enjoying mental health can assume all his responsibilities and use his energies, abilities, and competencies to the maximum.

Mental health has also been defined by several definitions, the most prominent of which is that it is the prevailing and continuous state of the individual, in which the individual is stable and psychologically and socially compatible, as well as his sense of happiness with himself and others, which makes him able to achieve self-esteem and exploit self-skills and competencies to the maximum extent possible, that is, it is the positive feature that the individual's behavior enjoys towards himself and others so that he is a happy, balanced and well-mannered individual. (Abbas, 2019, p. 319).

**Physical health** has been defined as a state that is free from illness or injury, or a state in which an individual is fine or free from illness (Hassan, 2020, p. 575).

## 2.2. The importance of mental and physical health:

The importance of the mental and physical health of workers is evident in being a source of happiness, stability, and integration between individuals and societies, and their importance is summarized in the following elements:

- ✓ Mental and physical health makes the working individual compatible with himself and adapted to his society, as his behaviors are often sound, loved, and satisfactory to those around him, and mental and physical health is of great importance at the economic level and productive areas and achieving the principle of social development, as the integrated personality of the individual enjoying mental and physical health makes him more effective and productive;
- ✓ Mental and physical health creates stable and healthy individuals, just as parents enjoyed the appropriate amount of mental health, the possibility of raising psychologically healthy members was greater, as a psychologically stable family enjoys cohesion, synergy, and internal and external strength, and thus increases the strength and cohesion of society;
- ✓ Mental and physical health is effective for the individual, as it gives him the opportunity to open his horizons and the ability to understand himself and others around him, and makes him more able to control and control emotions, emotions, and desires, and to direct behavior properly away from abnormal responses;
- ✓ The enjoyment of the working individual mental and physical health makes him more amenable to deal positively with various problems and balance emotions when falling under various life pressures, overcoming them, and taking responsibilities without running away and withdrawing, as it generates self-stability for the individual, so his life is free of tensions, fears and a relatively permanent sense of calm, tranquility, and self-security (Al-Qussa, 2015, page 13).

## 2.3. Mental and physical health indicators:

According to the World Health Organization, mental and physical health indicators are divided into four indicators: (Al-Marei, 2021, pp. 168-169)

- **Feeling comfortable with oneself (psychological and physical compatibility):** It means the ability of the individual to reconcile his needs, motives, and desires to achieve harmony with environmental conditions, whether material or social and this axis includes the individual's ability to adapt to reality, face crises and endure failure;
- **Feeling comfortable with others (social compatibility):** This axis includes avoiding isolation, the ability to establish successful social relations characterized by cooperation, tolerance,

## The role of ISO 45001 occupational health and safety Management system in promoting the psychological and physical health of workers in economic institutions

altruism, mutual feeling of trust, love, belonging, and the ability to coexist with the values and standards of the group and accept them permanently or temporarily;

- **The ability to keep pace with the demands of life:** This axis includes that the personality of the individual enjoying mental and physical health is characterized by insight and objectivity when facing the demands of life, and the ability to solve problems through the ability to take responsibility, commit to duties, plan for the future, avoid randomness, and take the initiative to find appropriate solutions to problems;
- **Psychological and physical safety (freedom from diseases and injuries):** This axis focuses on the absence of the individual from the symptoms of mental or physical illness, which negatively affect his effectiveness and limit his abilities to play his role in life and achieve his goals in it.

### 3. The relationship of ISO 45001 Occupational Health and Safety Management system to the Psychological and Physical Health of Workers:

The implementation of the ISO 45001 Occupational Health and Safety management system will achieve many **positive** results for the economic institutions that apply it, and these results are described below.

#### 3.1. Consequences related to the mental and physical health of workers:

- ✓ ISO 45001 Occupational Health and Safety management system contributes to improving the physical health of the worker by combating pollution that used to cause organic diseases (respiratory diseases, skin diseases, eye diseases... etc.);
- ✓ ISO 45001 Occupational Health and Safety management system contributes to improving the mental health of workers by combating pollution that used to cause mental illnesses such as anxiety, depression, and boredom;
- ✓ The ISO 45001 Occupational Health and Safety management system provides a suitable working environment free of pollution, where air pollution is one of the largest pollutants that harm the health of workers, followed by ground pollution in second place;
- ✓ The ISO 45001 Occupational Health and Safety management system contributes through emergency response procedures to protect workers from various hazards, including fire ignition and dangerous gas emissions, by teaching employees what to do when these hazards occur;
- ✓ ISO 45001 Occupational Health and Safety management system contributes to reducing fatigue and fatigue for workers by reducing cleaning and waste handling tasks;
- ✓ Many studies have confirmed that many of the work risks that existed in economic institutions before the application of the occupational health and safety management system ISO 45001, which led to errors that harmed the health of workers (wounds, burns, bruises... etc) have disappeared immediately after applying this system.

#### 3.2. Results related to employee performance and productivity:

It is known that there is a positive relationship between the productivity of workers and their psychological and physical health, as the application of the ISO 45001 occupational health and safety management system would contribute to an increase in the productivity of workers in economic institutions, and this can be clarified through the following:

- ❖ The organization of training courses brought by the ISO 45001 Occupational Health and Safety management system will improve the productivity of workers after attending these courses, and this is due to one of the following reasons:
  - Benefit from the experience of the people joining these courses;
  - Training on new machines acquired within the framework of the application of the occupational health and safety management system ISO 45001.

It should also be noted that the standard (ISO 14001) obliges economic institutions to continuously organize training courses for workers.

- ❖ ISO 45001 Occupational Health and Safety management system contributes to improving real-time of production either by working in clean surroundings (certainly, the real-time of a worker working in a clean environment is better than the real-time of a worker working in a polluted and unhealthy environment) or by using the time that was allocated to remove pollutants and hazards after the end of the production process;
- ❖ Many studies have confirmed that the application of the ISO 45001 occupational health and safety management system contributes to reducing the percentage of defective products and this may be due to the increase in the concentration of the worker due to the cleanliness of his working environment;
- ❖ A decrease in periods of absence from work after the implementation of the ISO 45001 Occupational Health and Safety management system is due to one of the following reasons:
  - ✓ Going to treatment, especially since workers who are exposed to work hazards suffer greatly from health diseases;
  - ✓ Referral to sick leave after a certain illness caused by risks in organizations related to an unhealthy and unsafe work environment;
  - ✓ The psychology of the worker who hates working in an unsafe and unhealthy environment.
- ❖ The contribution of the ISO 45001 Occupational Health and Safety management system in reducing the effort spent at work may be due to the elimination of some related tasks that were the cause of uncleanness of the workplace;
- ❖ The implementation of the ISO 45001 Occupational Health and Safety management system contributes to improving the psychological state of employees, especially after the elimination of various pollutants and hazards, in addition to an improvement in both the physical health of workers and their working conditions;
- ❖ ISO 45001 Occupational Health and Safety management system contributes to providing a safe and comfortable working environment for employees of organizations by one of the following reasons:
  - ✓ Eliminate risks.
  - ✓ Acquisition of machines with cleaner production technology;
  - ✓ Health emergency response procedures.
- ❖ Getting rid of diseases caused by the manufacture of some products, which are the cause of many diseases (respiratory diseases, skin diseases.... etc) after the application of the ISO 45001 occupational health and safety management system, which previously reduced the productivity of workers.
- ❖ The contribution of the means introduced by the ISO 45001 Occupational Health and Safety management system to increase the productivity of workers, including:
  - ✓ Means of cleaning the working environment and returning lost materials to the production process;
  - ✓ Allocating means of protection for workers who deal with waste.

### 3.3. Results related to job satisfaction of employees:

Job satisfaction is one of the most important manifestations of mental health for workers in economic institutions, and the contribution of the ISO45001 occupational health and safety management system in improving job satisfaction of workers can be illustrated through the following:

## The role of ISO 45001 occupational health and safety Management system in promoting the psychological and physical health of workers in economic institutions

- The improvement of the mental and physical health of workers as a result of the implementation of the ISO 45001 Occupational Health and Safety management system leads to the saving of funds previously spent on the treatment of diseases resulting from work hazards that existed in economic institutions;
- The implementation of the ISO 45001 Occupational Health and Safety management system leads to an increase in the profits of economic institutions and thus an increase in the percentage of profits allocated to workers on the one hand, and on the other hand, workers benefit from the increase in the profits of economic institutions by improving material working conditions;
- Involving workers in the issue of maintaining the work environment would lead to a sense of job security for employees and economic institutions through emergency response procedures introduced by the ISO 45001 Occupational Health and Safety management system ;
- Benefit from the administrative procedures introduced by the ISO 45001 Occupational Health and Safety management system, such as training courses and posters that facilitate the performance of certain tasks;
- Improvement of the health status of workers due to the elimination of various hazards that caused diseases and infirmities to them;
- The contribution of ISO 45001 Occupational Health and Safety management system in improving physical working conditions through worksite cleanliness and the use of clean technologies for work.

#### 4. Conclusion:

Through the study of the subject of the Occupational Health and Safety management system ISO 45001, the following results were reached:

- ❖ The objective of the ISO 45001 Occupational Health and Safety management system is to reduce any risks that may affect workers in their health while ensuring the safety and well-being of everyone who participates in the activities of the economic enterprise;
- ❖ The ISO 45001 Occupational Health and Safety management system is one of the new standards that focus on workplace risk management that begins with identifying risks according to the scope, nature, and time of the hazard, ensuring that the process of identifying risks is proactive rather than reactive after the occurrence of damage or harm that may threaten the work environment or its employees;
- ❖ that the ISO 45001 occupational health and safety management system is valid for all institutions regardless of their size, type, or nature of activity, especially those that have different forms of health and safety risks for workers and their customers;
- ❖ ISO 45001 Occupational Health and Safety management system creates a healthy and safe working environment that prevents harm to the life and health of employees, ensures consistency with business continuity management rules, and provides a framework for risk management and occupational safety and health;
- ❖ The most important results of the ISO 45001 Occupational Health and Safety management system are to enhance the psychological and physical health of employees, which will positively reflect on their performance or productivity at work on the one hand, and on the other hand, achieve their job satisfaction.

#### Recommendations:

In light of the findings, this study recommends:



- ✓ Formulate the activities and practices of occupational health and safety activities carried out by the institution within a strategic framework, while bringing about a change in the vision and philosophy of the institution by considering the occupational health and safety management system as a must, and not just a routine system that economic institutions resort to at certain times;
- ✓ The need for institutions to organize workshops for those concerned with the implementation of the ISO 45001 occupational health and safety management system, including managers and supervisors of departments, workers in the occupational health and safety department, and all those responsible for the implementation of the health and safety management system to know the requirements of the application of ISO 45001 and its role in developing the efficiency of occupational health and safety and the performance of the activities of the economic institution;
- ✓ Giving more attention to the occupational health and safety management system, due to the great role that this system plays in preventing injuries and providing a safe and healthy working environment for workers;
- ✓ The organization shall work to build an organizational culture based on the principles and foundations of occupational health and safety;
- ✓ The need to diversify the occupational health and safety practices carried out by the economic institution, and that these practices are not limited to a specific activity alone;
- ✓ Organizing international forums and seminars for all those interested in the ISO 45001 system and those wishing to obtain the necessary skills for occupational health and safety efficiency to enable them to know and understand the ISO 45001 series.

#### **Bibliography:**

##### **References in Arabic:**

- Abbas, Nawal Qasim (2019), **Methods of Achieving Mental Health from an Islamic Perspective**, Journal of Educational and Psychological Research, Vol. 16, No. 63, pp. 317-334.
- Hassan, Haidar Fadel (2020), **Stress and its Impact on Mental and Physical Health**, Journal of Educational and Psychological Research, Vol. 17, No. 67, pp. 570-588.
- Al-Qussy, Abdel Aziz (2015), **Foundations of Mental Health**, 1st Edition, Arab Renaissance Library, Cairo, Egypt.
- Al-Marei, Amira Abdul Karim Maran Hussein (2021), **Measuring the Level of Mental Health among Basra University Students**, Maysan Journal for Academic Studies, Issue 41, pp. 164-181.

##### **References in a foreign language:**

- ISO (2018), **ISO 45001 NORME INTERNATIONALE : Systèmes de management de la santé et de la sécurité au travail – Exigences et lignes directrices pour leur utilisation**, récupéré 20 mars 2022, de <https://www.mediafire.com/file/3dlhrowfttu2hxb/ISO+45001>
- NSF, I. (s.d.). **ISO 45001(2022) , occupational health and safety Management system, information guide updated September**, <https://www.nsf.org/newsroom-pdf/isr-dis45001>.  
de <https://pecb.com/fr/education-and-certification-for-individuals/iso-45001>
- PECB (2018), **Formations ISO 45001 - Santé et sécurité au travail**, récupéré 28 mars 2022,