مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

# دور إدارة السلامة الشاملة في تعزيز رضا الموظفين

## دراسة تحليلية لآراء العاملين في شركة ماس العالمية للطاقة (السليمانية) المحدودة في إقليم كردستان العراق

كارزان جمعه قادر
جامعة جرموو، كلية إدارة الأعمال
karzan.jumaa@chu.edu.iq

بستون محمد قادر
جامعة جرموو، كلية إدارة الأعمال.
beston.muhammed@chu.edu.iq

هاوار رفعت ستار
جامعة جرموو، كلية إدارة الأعمال
hawar.star@chu.edu.iq

**المستخلص**: الهدف الأساسي من هذه الدراسة هو استكشاف دور إدارة السلامة الشاملة في رضا الموظفين في شركة ماس العالمية للطاقة المحدودة. المشكلة الرئيسية هي العقبات الداخلية التي يواجهها موظفو شركة ماس في إقليم كردستان باستمرار والتي تؤثر بشكل كبير على رضاهم في مكان عملهم. تم استخدام أسلوب التحليل الوصفي لتحليل البيانات ونقدها ووصف علاقة المتغيرات. أجريت الدراسة على شركة ماس العالمية للطاقة المحدودة والتي تقيس إنتاج الكهرباء من غاز البترول المسال. لجمع البيانات، تم استخدام استمارة الاستبيان وتم توزيع 52 استمارة. تكون مجتمع الدراسة من (41) موظفًا في شركة ماس، الذين أجابوا على الاستمارات بشكل مكتمل. تم استخدام إحصائيات IBM SPSS Amos 26لتحليل البيانات والنتائج. تتضمن النتائج وجود علاقة مباشرة وهامة بين إدارة السلامة الشاملة ورضا الموظفين. كما كان للارتباطات المتغيرة لإدارة السلامة الشاملة تأثير إيجابي على أداء الموظفين. أخيرًا، تم تقديم العديد من التوصيات المهمة لمعالجة بعض مشاكل الإدارة، وخاصة تنفيذ نتائج البحث في إقليم كردستان. ولأول مرة، يتم العمل على هذين المتغيرين معًا في دراسة تجريها شركة Mass Global Energy Ltd. في إقليم كردستان.

**الكلمات المفتاحية**: إدارة السلامة، رضا الموظفين، شركة ماس العالمية للطاقة المحدودة

**DOI:** https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية

مجلد (21) عدد (1) 2025

# The Role of Comprehensive Safety Management in Enhancing Employee Satisfaction

## An Analytical Study of the opinions of Employees in Mass Global Energy (Sulaymaniyah) Ltd. in Kurdistan Region of Iraq

Karzan Jumaa Qadir
Charmo University, College of Business
karzan.jumaa@chu.edu.iq

Beston Muhammed Qadir
Charmo University, College of Business.
beston.muhammed@chu.edu.iq

Hawar Rafat Star
Charmo University, College of Business
hawar.star@chu.edu.iq

## Abstract

The basic objective of this study is to explore the role of comprehensive safety management on employee satisfaction in Mass Global Energy Ltd. The main problem is the internal obstacles that MASS employees in the Kurdistan Region constantly face, which significantly affects their satisfaction in their workplace. Descriptive analysis method was used to analyze and critique the data and describe the relationship of variables. The study was conducted on Mass Global Energy Ltd., which measures the production of electricity from liquefied petroleum gas. For data collection, questionnaire form was used and 52 forms were distributed. The study population consisted of (41) employees of Mass, who responded to the forms in a completed form. IBM SPSS Amos 26 statistics was used for data analysis and results. The results include having a direct and significant relationship between comprehensive safety management and employee satisfaction. Variable associations of comprehensive safety management also had a positive effect on employee performance. Finally, several important recommendations have been made to address some of the management problems, especially the implementation of the research findings in the Kurdistan Region. For the first time, these two variables are being worked together in a study at Mass Global Energy Ltd. in the Kurdistan Region.

**Key Words*:*** Safety Management, Employee Satisfaction, Mass Global Energy Ltd

**DOI:** https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

## 1. Introduction

### 1.1. Background of the study

One of the principles of success of organizations is employee satisfaction, this view is especially appropriate for hazardous industries such as energy production. Ensuring organizations provide safety in the workplace is one of the business strategies; it is to create satisfaction for employees in their jobs, which will increase employee loyalty and improve overall performance (Choudhary, et al., 2024). The energy generation sector from liquefied petroleum gas, such as Mass Global Energy (Sulaymaniyah) Ltd., has many risks, so it needs a strong safety management system (SMS) (Qadir et al., 2024). The present study is an attempt to understand the role and importance of comprehensive safety management in fostering satisfaction among employees, the aim of this scholarly endeavor is to provide practical insights for all organizations operating in hazardous environments and similar to this type of organization (Choudhary, et al., 2024).

Recent research places great emphasis on the relationship between safety management practices and employee satisfaction (Bayra & Ünğan 2020). Universal safety dimensions, including physical, psychological and organizational dimensions, are directly related to employee satisfaction, reinforcing positive employee perceptions as a factor in significantly enhancing security and well-being. Examples include mental safety, which refers to the existence of the workplace as a safe environment for employee interaction and risk control, which leads to greater employee retention and satisfaction (Paul, 2023). This method emphasizes the importance of fostering an inclusive work environment, reduces stress and increases work participation.

Another positive effect of safety management is to increase operational efficiency and improve organizational culture. Companies that prioritize safety management have lower turnover rates and constantly increasing productivity (Harvard T.H. Chan School of Public Health, 2023).

**DOI:** https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

Furthermore, safety protocols, employee expectations, and workplace realities move in the same direction and in parallel, all of which together contribute to increased morale and develop their sense of belonging, resulting in strengthened organizational commitment (Beus et al., 2016).

One of the biggest challenges for Mass Global Energy is operating in the energy sector; this study is an excellent case study to assess the role of practical application of safety management systems. This company operates extensively in Sulaymaniyah, facing many obstacles in the field of employee safety, for example, occupational hazards, environmental hazards, etc. This research will be an important factor in solving these challenges, leading the company to ensure compliance with international standards in the field of safety; it also increases employee satisfaction and develops their workforce (Qadir et al 2022).

Several studies have established that organizations that focus on safety in their management practices have been able to enhance their financial outcomes. This is due to reduced absenteeism, reduced workplace accidents, and increased employee engagement (MIT Sloan Management Review, 2023). Safety management, then, is not only an ethical obligation but also one of the strategic imperatives for organizations that aim to achieve long-term sustainability for their organizations (Tawfeeq et al., 2024).

This study seeks to explore the dynamics, highlighting the role, quality, and impact of comprehensive safety management on employee satisfaction at Mass Global Energy. By looking at recent literature and analyzing empirical data, this study aims to contribute to the broader discourse on workplace safety and employee well-being in the energy sector.

### 1.2. Problem Statement

One of the most important factors in employee satisfaction and success of organizations in hazardous industries such as energy is to ensure that employees are provided with a safe workplace. Mass Global Energy (Sulaymaniyah) Ltd., as the most prominent LPG energy producer in the

**DOI:** https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

Iraqi Kurdistan Region, is exposed to many occupational hazards; therefore it needs to implement safety management standards. All management principles agree that there is a direct relationship between comprehensive safety management systems (SMS) and employee satisfaction, although there is little local research on how such systems affect employee perceptions and well-being in the Kurdistan Region.

Research suggests that the implementation of its standards in safety management processes will significantly reduce workplace accidents, and can enhance job satisfaction and improve overall organizational performance. (Smith & Kelloway, 2020; Cooper, 2019). However, most companies in developing countries face challenges when implementing such processes, due to lack of resources, organizational gaps and cultural barriers (Rahman et al., 2021). In the collective Mass Global Energy, it is essential to have a thorough understanding of these dynamics in order to foster a safer and happier work environment.

The purpose of this study is to fill the gap in the deficiency of the role of comprehensive safety management system in enhancing employee satisfaction in Mass Global Energy. This research seeks to provide a scientific insight to policy makers, managers of organizations and other industry stakeholders in order to provide employee welfare and achieve organizational performance. By reaching a solution to this important intersection between safety and employee satisfaction, the study contributes to a broader discourse concerning employee workplace health and safety management in the energy sector.

### 1.3. Research Questions

1. Is there attention to safety principles in the implementation of energy generation processes in Mass Global Energy (Sulaymaniyah) Ltd?

**DOI:** https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

2. What is the level of employee satisfaction with energy generation at Mass Global Energy (Sulaymaniyah) Ltd?

3. Is there any relationship between safety management and employee satisfaction at Mass Global Energy (Sulaymaniyah) Ltd?

4. Do safety management processes affect employee satisfaction at Mass Global Energy (Sulaymaniyah) Ltd?

### 1.4. Research Importance

This paper is of particular importance as it addresses the relationships between comprehensive safety management and employee satisfaction in the energy sector, as in practice this sector faces many risks. This study examines the quality and quantity of implementation of safety management practices in Mass Global Energy (Sulaimaniyah) Ltd. Another important aspect of this study is to identify measures that reduce risks, increase welfare, improve employee morale and increase productivity. This study has sought to generate an understanding of incentives to prioritize workplace safety and foster organizational culture that lead to improved employee satisfaction and retention.

### 1.5. Research objectives

1. To understand the level of attention to comprehensive safety management in energy production processes at Mass Global Energy (Sulaimaniyah) Ltd.
2. To understand the level of employee satisfaction with the energy production processes in Mass Global Energy (Sulaimaniyah) Ltd.
3. To determine the relationships between the dimensions of comprehensive safety management and employee satisfaction in Mass Global Energy (Sulaimaniyah) Ltd.
4. To determine the level of impact of comprehensive safety management on employee satisfaction in energy production processes at Mass Global Energy (Sulaimaniyah) Ltd.

### 1.6. Research Hypothesis

**DOI:** https://doi.org/10.36325/ghjec.v21i1.18337.

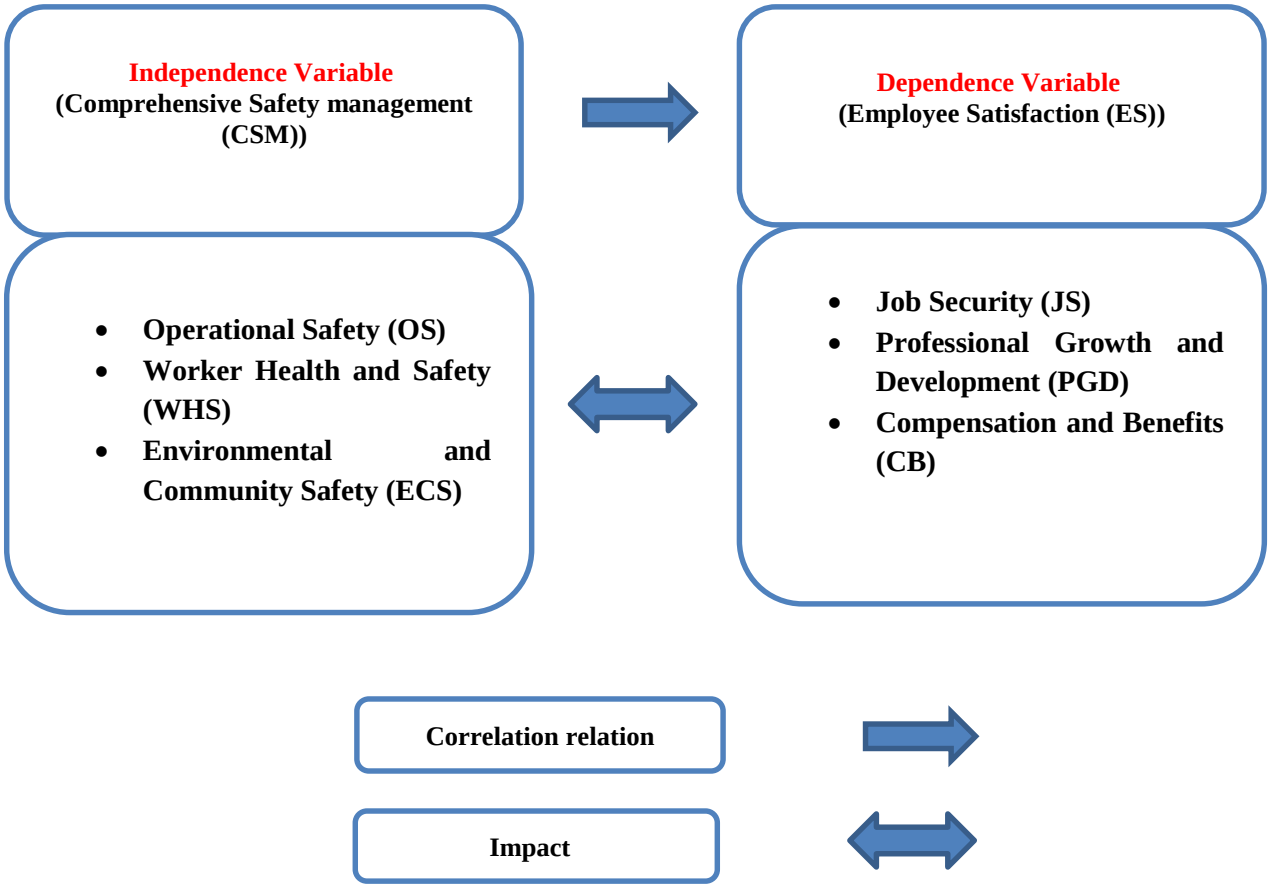
مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

H 1: The ranked importance for the variables in the study and the dimensions of each variable by Mass Global Energy (Sulaimaniyah) Ltd. varies according to the nature of dependency of that company.

H 1: There is a significant and effective relationship between comprehensive safety management and employee satisfaction in Mass Global Energy (Sulaimaniyah) Ltd. at variable level and dimensions.

H 1: There is a positive and significant effect of comprehensive safety management variables and dimensions on employee satisfaction in Mass Global Energy (Sulaimaniyah) Ltd.

## 1.7. Model Framework




DOI: https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

**Figure (1) Model Framework**

## 2. Literature review

There are many efforts in the Kurdistan Region, especially in the administrative boundaries of Sulaimaniyah province (Ali, 2024); to pay attention to the energy sector, and this process requires attention to safety management methods and employee satisfaction. Understanding the relationship between these two concepts is crucial to enhance overall performance and employee satisfaction in energy generation companies (Belim, 2024).

### 2.1. Comprehensive Safety Management

Comprehensive safety management involves adopting a systematic approach and policy aimed at ensuring safety principles are followed for employees and the entire process in the workplace and these procedures and practices lead to the development of production processes and aim to reduce and control risk (Møller et al., 2019)

### 2.2. Importance of Comprehensive Safety Management

Comprehensive safety management is very important in its general and specific forms, the general form includes all industrial processes, and the specific form includes the energy sector (Belim, 2024). In short, the most important factors of comprehensive safety management are:

- Organizational compliance with regulations: Comprehensive safety management commits organizations to compliance with principles, regulations, environmental laws; these will reduce the risks associated with non-compliance. (Reniers et al., 2020).
- Reduce accidents and unplanned accidents: Comprehensive safety management reduces the causes and effects of accidents in the workplace, and reduces the costs associated with medical treatment, this process

DOI: https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

reduces legal problems for organizations, and property is protected (Neal & Griffin, 2020).

- Enhancing organizational reputation: Positive reputation of organizations is enhanced by implementing CSM practices; these also create an impact on employee satisfaction (Kaiser et al., 2021).

### 2.3. Dimensions of Comprehensive Safety Management

#### 2.3.1. Operational Safety

Occupational safety is one of the most important pillars of Comprehensive safety management, which involves the implementation of safe working practices and protocols in industrial processes, aimed at preventing and reducing accidents and injuries in energy production processes. This dimension emphasizes training and familiarization of employees with safety standards, emphasizing regular safety audits, and working within safety management systems (Sampson, 2021). Most research emphasizes the direct relationship between strong workplace safety and reduced workplace accidents, which is the correctness of safety culture education (Hopkins, 2018).

#### 2.3.2. Worker Health and Safety

The goal of this dimension is to protect the health and safety of workers from hazards that exist in the workplace, such as injuries and deaths due to the effects of chemicals, biological substances, materials and psychological stress (Bergström et al., 2020). This dimension includes health and mental health care and assessment, and its implementation will lead to the welfare of employees and workers. Experience proves that if an organization prioritizes health and safety management, employee turnover rates decrease and employee engagement levels increase (Garrido et al., 2017).

#### 2.3.3. Environmental and Community Safety

This dimension focuses on minimizing the ecological footprint, and focuses on environmentally friendly energy production, while creating a logical fit and connection with local communities (Del Río et al., 2018). This

DOI: https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

dimension emphasizes the implementation of environmental regulations, social service programs, renewable and sustainable energy production, building trust and partnerships with and among stakeholders and local suppliers. Research confirms the experience of organizations' commitment to environmental and social safety in order to portray a positive business image and attract talented employees (Clayton et al., 2019).

### 2.4. Employee Satisfaction

Employee satisfaction is a term that has several dimensions and objectives, all of which fall within the circle that refers to the degree to which employees feel satisfied and achieve their goals in their work environment (Rahim et al., 2024).

### 2.5. Importance of Employee Satisfaction

Employee satisfaction is of particular importance for organizational success, especially in the energy production sector. The most important benefits are:

- Increased productivity: In organizations, one of the factors of increased productivity is satisfied employees, because they actively participate in the goals of their organizations. (Locke, 2019).
- Reduced turnover: If employee satisfaction is high, there will be a reduction in turnover, especially for experienced and professional employees, which will reduce the cost of recruitment and training processes (Griffeth et al., 2016).
- Positive work culture: If an organization wants to retain talented and experienced employees and attract new talented employees, it must pay attention and foster a positive organizational culture with a satisfied workforce (Tuzunkan & Yildirim, 2021).

### 2.6. Dimensions of Employee satisfaction

#### 2.6.1. Job Security

Job security is one of the most important pillars for employee satisfaction, because it has a positive impact on employees' feelings and gives them stability and security. (Cascio, 2016) In the energy sector, job

DOI: https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

security is directly related to the market and technological advances (Wu & Hsu, 2021).

### 2.6.2. Professional Growth and Development

Career growth and development involves providing opportunities for employees to demonstrate and enhance their abilities and promote and make changes in the hierarchy in their careers (Kahn et al., 2017). Training and development opportunities improve employee professional skills and contribute significantly to employee satisfaction, especially in technical and professional areas such as energy production (Veerasamy et al., 2024).

### 2.6.3. Compensation and Benefits

Both the terms compensation and benefits include all financial and non-financial rewards offered to employees as incentives, which can have a positive impact on employee satisfaction and be a strong motivator for employee performance (Pfeffer, 2018). Several packages can contribute to the overall satisfaction of employees for example competitive salaries, bonuses, health benefits, and offering work life balance (Bohlander & Snape, 2016).

## 2.7. The Interrelationship between Comprehensive Safety Management and Employee Satisfaction

The relationship between these two variables comprehensive safety management and employee satisfaction is a significant important relation. Safety measures will effectively create a culture of trust and security, as well as promote job security and enhance overall employee satisfaction (Mohammed & Mesfin, 2020). In addition, providing a safe work environment facilitates professional growth and increases development opportunities, reducing stress levels and increasing job satisfaction (Tepper et al., 2022). Consequently, organizations like Mass Global Energy (Sulaymaniyah) Ltd. can benefit by integrating CSM practices to enhance employee satisfaction.

# 3. Research Methodology

DOI: https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

This research has tried to use an appropriate analytical method that is compatible with the curriculum, characteristics and objectives of the research, which is the Descriptive Analysis Method, this research method can clearly answer the questions in the research. This method is known to explain the objectives of the study, as well as explain the phenomena and data in the study. In addition, explain the relationships, effects and causes between the components of the research with realistic and scientific logic. These studies treat the results in a way that describes the case study and the study analysis together. In the next step, after collecting the data and information, they highlight and explain the conclusions.

## 3.1. The Borders of Research

**3.1.1. Human Borders:** It includes all employees of Mass Global Energy (Sulaymaniyah) Ltd.

**3.1.2. Location Borders:** It is located about five kilometers east of Chamchamal city, from Mass Global Energy Sulaimaniyah Ltd. Therefore, this site was chosen because it was appropriate to the nature of the variables that comprised the study, this site is suitable for testing the model and hypotheses of the study.

**3.1.3. Time Limits:** The study, which lasted about eight months, began in March 2024 and ended in November of the same year. This period was devoted to the total process of the study which included data collection, writing of the theory section, distribution and retrieval of questionnaires, and data analysis.

**3.1.4. Objective Borders:** The cognitive boundaries of this study are divided into two sides: Comprehensive safety management (Operational Safety (OS), Worker Health and Safety (WHS), Environmental and Community Safety (ECS)) plays the role of an independent variable, and employee satisfaction plays the role of a dependent variable (Job Security (JS),

DOI: https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

Professional Growth and Development (PGD), Compensation and Benefits (CB)). These variables are very appropriate for the fields of energy management and organizational behavior management.

### 3.2. Methods of Collecting and Analyzing Data:

In this study, several types of sources were used to answer the questions and achieve the objectives, the sources were in English and Kurdish, all these sources were to complete the theoretical and practical aspects. Several online articles have also been used, drawing on several previous studies to supplement the scientific framework.

**3.3. The Questionnaire Form:** This tool is an appropriate tool in scientific research to obtain information and data to complete the practical aspects. All items in the research questionnaire were pre-assessed then decided to be used in the study; the suitability of the subjects to the study population and the environment of the Iraqi Kurdistan Region were also considered. The different sections of the questionnaire form are presented below:

**3.3.1. General Information**: In most studies, most of the general information items are repeated, consisting of several items and addressed in the form of questions to the person who answers the questions in the study. The general information in this study includes (gender, qualifications, and responsibilities in Mass Global Energy (Sulaymaniyah) Ltd. Age, working period (Mass Global Energy (Sulaymaniyah) Ltd) current location, total working time in power generation companies, and participation in Energy Courses).

**3.3.2. Comprehensive safety management (CSM) variable:** (15) paragraphs were assigned to measure the Comprehensive safety management (CSM) variable and its dimensions Operational Safety (OS), Worker Health and Safety (WHS), Environmental and Community Safety (ECS).

**DOI:** https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

**3.3.3. Employee Satisfaction (ES) variable:** (15) paragraphs were assigned to measure the employee satisfaction (ES) variable and its dimensions Job Security (JS), Professional Growth and Development (PGD), Compensation and Benefits (CB).

The questionnaires of this study were prepared according to a scale called the Likert scale or known as five-point Likert, the answers to this scale were divided into five types, namely (strongly agree, agree, neutral, disagree, strongly disagree). (5) to (1) are listed consecutively. This method allows respondents to choose the appropriate answer. Table (1) is an exposition of the contents of the questionnaire form and shows the variables and dimensions of the study.

Table 1 questionnaire form structure

| Variables of Research | Dimensions of variables | Item Numbers | Sources |
|---|---|---|---|
| General information | General information | 7 | Authors |
| **Comprehensive safety management (CSM)** | Operational Safety (OS) | 5 | (Belim, 2024), (Møller et al., 2019), (Reniers et al., 2020), (Neal & Griffin, 2020), (Sampson, 2021), (Bergström et al., 2020), (Clayton et al., 2019) |
| | Worker Health and Safety (WHS) | 5 | |
| | Environmental and Community Safety (ECS) | 5 | |
| **General information** | | 15 | 7 |
| **Employee Satisfaction (ES)** | Job Security (JS) | 5 | (Rahim et al., 2024), (Locke, 2019), (Tuzunkan & Yildirim, 2021), (Wu & Hsu, 2021), (Veerasamy et al., 2024), (Pfeffer, 2018) |
| | Professional Growth and Development (PGD) | 5 | |
| | Compensation and Benefits (CB) | 5 | |
| **Employee Satisfaction (ES)** | | 15 | 6 |
| **Total** | | **30** | **13** |

**Prepared by Researchers**

## 3.4. Participants Background

3.4.1. **Age:** The employees who participated in the survey were divided into several different age groups, which are listed below:

Table 2: Age

**DOI:** https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 31-40 | 33 | 80.5 | 80.5 | 80.5 |
| | 41-51 | 2 | 4.9 | 4.9 | 85.4 |
| | 41-51 | 1 | 2.4 | 2.4 | 87.8 |
| | 18-30 | 5 | 12.2 | 12.2 | 100.0 |
| | Total | 41 | 100.0 | 100.0 | |

Table 2 provides a clear overview of the age distribution among the 41 employees at the Mass Global Energy (Sulaymaniyah) Ltd. The workforce is predominantly youthful, characterized by two prominent age groups. The largest segment includes 33 individuals, representing an impressive 80.5% of the sample, who are aged between 31 and 40 years. Additionally, 5 participants, or 12.2% of the sample, fall within the 18 to 30-year age range. This data shows a notable presence of younger workers alongside those over 40, reflecting industry trends. This age distribution suggests a workforce that combines youthful energy with the experience of more seasoned employees.

**3.4.2. Academic Qualification:** The employees who answered the questions on the questioner form differed in terms of academic qualifications, as shown below:

Table 3: Academic qualification

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | high degree | 2 | 4.9 | 4.9 | 4.9 |
| | Bachelors | 35 | 85.4 | 85.4 | 90.2 |
| | Diploma | 4 | 9.8 | 9.8 | 100.0 |

DOI: https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

| | | | | |
|---|---|---|---|---|
| Total | 41 | 100.0 | 100.0 | |

Table 3 presents the educational backgrounds of 41 participants employed at the Mass Global Energy (Sulaymaniyah) Ltd. A significant majority, 85.4% (35 individuals), hold bachelor's degrees, while 9.8% (4 individuals) have diplomas, and 4.9% (2 individuals) possess higher degrees. These findings indicate a highly educated workforce, with most employees having at least a bachelor's degree, which reflects the specialized nature of energy production industry from the liquefied petroleum gas. Additionally, the presence of employees with lower qualifications suggests a variety of roles within the field, including technical and support positions.

3.4.3. **Years of Service:** Several groups were identified that indicated the difference in years of service of the employees who answered the questionnaire in the study.

Table 4: Years of Service

| | | Frequency | Per cent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1-5 | 26 | 63.4 | 63.4 | 63.4 |
| | 6 -10 | 9 | 22.0 | 22.0 | 85.4 |
| | 11-15 | 3 | 7.3 | 7.3 | 92.7 |
| | 16- 20 | 3 | 7.3 | 7.3 | 100.0 |
| | Total | 41 | 100.0 | 100.0 | |

Table 4 displays the employment duration of 41 employees at the Mass Global Energy (Sulaymaniyah) Ltd. The largest group consists of 26 individuals (63.4%) who have been in their positions for 11 to 15 years, suggesting a potential recent trend in hiring or higher turnover rates. The second group comprises 9 employees (22.0%) with 6 to 10 years of experience, while a smaller group of 3 employees (7.3%) has over 1 year of experience in their current roles.

**DOI:** https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

3.4.4. **Professional Level:** The professional level of the respondents is different, which is divided into several groups and explained below:

Table 5: Professional Level

| | | Frequency | Per cent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | employee | 32 | 78.0 | 78.0 | 78.0 |
| | head of a department | 6 | 14.6 | 14.6 | 92.7 |
| | asisstant manager | 1 | 2.4 | 2.4 | 95.1 |
| | manager | 2 | 4.9 | 4.9 | 100.0 |
| | Total | 41 | 100.0 | 100.0 | |

Table 5 provides an overview of the job responsibilities of 41 employees at the Mass Global Energy (Sulaymaniyah) Ltd, revealing a conventional hierarchical structure. The majority of participants (78.0%) held positions as Employees, engaged primarily in front-line or operational roles, while 4.9% were in Managerial positions. Additionally, there were 26 Heads of Department (14.6%) and 1 Unit Assistant Manager (2.4%). This distribution illustrates a pyramidal structure, with most employees at the base and progressively fewer supervisors and managers at higher levels.

**DOI:** https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

**4.4.5. Training Course Participation:** Respondents to the questionnaires vary in terms of the number of courses they have attended on energy management, listed below:

Table 5: Training Course Participation

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | YES | 37 | 90.2 | 90.2 | 90.2 |
| | NO | 4 | 9.8 | 9.8 | 100.0 |
| | Total | 41 | 100.0 | 100.0 | |

Table 5 presents a clear distribution of participants who attended a training course, categorizing them into two distinct groups based on their participation status. Notably, 90.2% of individuals participated in the training course, indicating that the overwhelming majority of the sample group engaged in professional development. This underscores the importance and accessibility of such opportunities within the studied context. Conversely, only 9.8% of the group did not take part in the training course.

**4.4.6. The number of courses attended:** Some of the employees who responded to the questionnaires attended courses on energy production management. The number of courses attended varies from employee to employee. The number of courses attended by each participant is clearly indicated below:

**DOI:** https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

Table 6 : The number of courses attended

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | 1 | 3 | 7.3 | 8.1 | 8.1 |
| | 2 | 8 | 19.5 | 21.6 | 29.7 |
| | 3 | 9 | 22.0 | 24.3 | 54.1 |
| | 4 | 5 | 12.2 | 13.5 | 67.6 |
| | 5 | 4 | 9.8 | 10.8 | 78.4 |
| | 6 | 4 | 9.8 | 10.8 | 89.2 |
| | 7 | 2 | 4.9 | 5.4 | 94.6 |
| | 8 | 1 | 2.4 | 2.7 | 97.3 |
| | 10 | 1 | 2.4 | 2.7 | 100.0 |
| | Total | 37 | 90.2 | 100.0 | |
| Missing | System | 4 | 9.8 | | |
| Total | | 41 | 100.0 | | |

Table 6 shows the analysis of training course attendance. It provides valuable insights into professional development within the organization. Out of the 41 participants, 37 provided valid responses, while 4 individuals (9.8%) reported no attendance at any courses. Among those who attended, the most common number of completed courses is 3, with 9 participants (22.0%). Additionally, 8 participants (19.5%) attended 2 courses. Notably, 78.4% of participants attended 5 or fewer courses, suggesting a moderate level of engagement in professional development. Fewer participants attended higher numbers of courses, with 2 completing 7 courses, and 1 each attending 8 and 10 courses. The valid percent column indicates that participation rates range from 2.7% for those attending 8 or 10 courses to

DOI: https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

24.3% for those attending 3 courses, underscoring the varied levels of training participation within the organization.

## 4. Results and Discussion

This section includes the analysis and results of the analysis of the variables in the study, and verifies the validity of the proposed research model; this process is done by testing the research hypotheses and answering the questions.

### 4.1. Reliability measurement:

This section refers to the reliability of the research results, the results of the questionnaire testing will be the same if retested under the same conditions. This study used the alpha-Cronbach method to analyze the reliability of the results. If the expected value is equal to or greater than (0.60) then the results are acceptable, this ratio is standard for research in the field of management sciences. The reliability measurement results of the study are shown in Tables 7 and 8

Table 7: Reliability score for Comprehensive Safety Management (CSM) Variable

| No | The variable | No. of Items | Cronbach's Alpha |
|---|---|---|---|
| 1 | Operational Safety (OS) | 5 | 0.825 |
| 2 | Worker Health Safety (WHS) | 5 | 0.793 |
| 3 | Environmental and Community Safety (ECS) | 5 | 0.880 |

The reliability analysis for the Comprehensive Safety Management (CSM) variable demonstrates strong internal consistency, as reflected in the Cronbach's Alpha coefficients for its three dimensions in Table 6. The Environmental and Community Safety (ECS) dimension achieves the highest reliability score at 0.880, indicating excellent consistency among its five items. Following closely, the Operational Safety (OS) dimension scores 0.825, also reflecting robust reliability, while the Worker Health Safety (WHS) dimension, with a score of 0.793, remains well above the acceptable threshold of 0.70. Each dimension comprises five items, creating a balanced approach to measuring the various aspects of CSM. Overall, the consistently high Cronbach's Alpha values suggest that the measurement scales are

DOI: https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

reliable and effectively capture the underlying constructs, thereby instilling confidence in the research findings related to Comprehensive Safety Management within the organization.

Table 8: Reliability score for Employee Satisfaction (ES) Variable

| No | The variable | No. of Items | Cronbach's Alpha |
|---|---|---|---|
| 1 | Job Security (JS) | 5 | 0.804 |
| 2 | Professional Growth and Development (GPD) | 5 | 0.822 |
| 3 | Compensation and Benefit (CB) | 8 | 0.874 |

The reliability analysis for Employee Satisfaction (ES) reveals strong internal consistency across its three dimensions as shown in Table 7. The Compensation and Benefits (CB) dimension boasts the highest reliability, with a Cronbach's Alpha of 0.874 across eight items, indicating excellent consistency in measuring this aspect. Following closely is the Professional Growth and Development (PGD) dimension, which has a Cronbach's Alpha of 0.822 across five items, reflecting very good reliability. The Job Security (JS) dimension, although slightly lower, still demonstrates strong reliability at 0.804 across five items, well above the acceptable threshold of 0.70. Overall, the consistently high reliability scores across all dimensions of Employee Satisfaction underscore the scale's internal consistency. The different number of items used—five for Job Security and PGD, and eight for CB—combined with solid Cronbach's Alpha values, supports a robust approach to measuring employee satisfaction.

### 4.2. Communalities of Initial and Extraction Value:

The communalities table from the exploratory factor analysis (EFA) offers valuable insights into the variance explained by the extracted factors within the Comprehensive Safety Management (CSM) and Employee Satisfaction (ES) dimensions in Table 9. Communalities reflect the proportion of each variable's variance that can be attributed to these underlying factors, with values ranging from 0 to 1.

DOI: https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

Table 9: Communalities

| | Initial | Extraction |
|---|---|---|
| OS | 1.000 | .622 |
| WHS | 1.000 | .768 |
| ECS | 1.000 | .846 |
| JS | 1.000 | .885 |
| PGD | 1.000 | .764 |
| CB | 1.000 | .738 |

Extraction Method: Principal Component Analysis.

In the CSM dimension, Environmental and Community Safety (ECS) leads with a high communality of 0.846, indicating that 84.6% of its variance is explained by the extracted factors. Worker Health Safety (WHS) follows closely with a communality of 0.768, which accounts for 76.8% of its variance. Operational Safety (OS) has a communality of 0.622, explaining 62.2% of its variance. In the Employee Satisfaction dimension, Job Security (JS) exhibits a strong communality of 0.885, meaning that 88.5% of its variance is captured by the factors. Professional Growth and Development (PGD) shows a communality of 0.764, while Compensation and Benefits (CB) has a value of 0.738, indicating that 76.4% and 73.8% of their variances are explained, respectively. These high communality values suggest robust validity for the measurement scales and indicate that the research instrument effectively captures the essential concepts of Comprehensive Safety Management and Employee Satisfaction, with significant shared variance among the items.

### 4.3. Examining the Correlation relation between the Research Variables:

The correlation matrix reveals strong and statistically significant relationships among the dimensions of Comprehensive Safety Management (CSM) and Employee Satisfaction (ES).

**DOI:** https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

Table 10 : Correlations

| | | OS | WHS | ECS | JS | PGD | CB |
|---|---|---|---|---|---|---|---|
| OS | Pearson Correlation | 1 | .771** | .743** | .624** | .468** | .588** |
| | Sig. (2-tailed) | | .000 | .000 | .000 | .002 | .000 |
| | N | 41 | 41 | 41 | 41 | 41 | 41 |
| WHS | Pearson Correlation | .771** | 1 | .804** | .784** | .648** | .611** |
| | Sig. (2-tailed) | .000 | | .000 | .000 | .000 | .000 |
| | N | 41 | 41 | 41 | 41 | 41 | 41 |
| ECS | Pearson Correlation | .743** | .804** | 1 | .805** | .779** | .704** |
| | Sig. (2-tailed) | .000 | .000 | | .000 | .000 | .000 |
| | N | 41 | 41 | 41 | 41 | 41 | 41 |
| JS | Pearson Correlation | .624** | .784** | .805** | 1 | .891** | .829** |
| | Sig. (2-tailed) | .000 | .000 | .000 | | .000 | .000 |
| | N | 41 | 41 | 41 | 41 | 41 | 41 |
| PGD | Pearson Correlation | .468** | .648** | .779** | .891** | 1 | .786** |
| | Sig. (2-tailed) | .002 | .000 | .000 | .000 | | .000 |
| | N | 41 | 41 | 41 | 41 | 41 | 41 |
| CB | Pearson Correlation | .588** | .611** | .704** | .829** | .786** | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | |
| | N | 41 | 41 | 41 | 41 | 41 | 41 |

DOI: https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

Notably, Environmental and Community Safety (ECS) demonstrates a robust positive correlation with Worker Health Safety (WHS) at 0.804, indicating that enhancements in ECS closely relate to worker safety. Job Security (JS) exhibits the highest correlations, particularly with Professional Growth and Development (PGD) at 0.891, suggesting that a greater sense of job security fosters perceptions of professional development. JS also shows significant correlations with Compensation and Benefits (CB) at 0.829 and ECS at 0.805. Operational Safety (OS) displays weaker correlations, with its strongest association with WHS at 0.771 and its weakest with PGD at 0.468, implying a lesser impact on perceptions of professional growth. The consistently low p-values (0.000) across all correlation pairs affirm that these relationships are statistically significant. Overall, improvements in one dimension are likely to positively influence others, underscoring the interconnectedness of safety management and employee satisfaction within the organization.

### 4.4. Multivariate Tests:

The multivariate test conducts an analysis of the relationships between the dimensions of Comprehensive Safety Management (CSM) and their interactions. The intercept effect reveals significant results across all tests—Pillai's Trace, Wilks' Lambda, Hotelling's Trace, and Roy's Largest Root—with a significance level of 0.005, indicating a robust overall model.

**DOI:** https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

Table 11: Multivariate Tests[a]

| Effect | | Value | F | Hypothesis df | Error df | Sig. |
|---|---|---|---|---|---|---|
| Intercept | Pillai's Trace | 1.000 | 21227.063[b] | 2.000 | 1.000 | .005 |
| | Wilks' Lambda | .000 | 21227.063[b] | 2.000 | 1.000 | .005 |
| | Hotelling's Trace | 42454.126 | 21227.063[b] | 2.000 | 1.000 | .005 |
| | Roy's Largest Root | 42454.126 | 21227.063[b] | 2.000 | 1.000 | .005 |
| OS | Pillai's Trace | 1.555 | .874 | 16.000 | 4.000 | .628 |
| | Wilks' Lambda | .001 | 4.244[b] | 16.000 | 2.000 | .207 |
| | Hotelling's Trace | 541.350 | .000 | 16.000 | .000 | . |
| | Roy's Largest Root | 540.092 | 135.023[c] | 8.000 | 2.000 | .007 |
| WHS | Pillai's Trace | 1.826 | 5.247 | 8.000 | 4.000 | .063 |
| | Wilks' Lambda | .001 | 8.732[b] | 8.000 | 2.000 | .107 |
| | Hotelling's Trace | 222.579 | .000 | 8.000 | .000 | . |
| | Roy's Largest Root | 217.676 | 108.838[c] | 4.000 | 2.000 | .009 |
| ECS | Pillai's Trace | 1.887 | 4.759 | 14.000 | 4.000 | .071 |
| | Wilks' Lambda | .001 | 5.675[b] | 14.000 | 2.000 | .160 |
| | Hotelling's Trace | 185.857 | .000 | 14.000 | .000 | . |
| | Roy's Largest Root | 177.569 | 50.734[c] | 7.000 | 2.000 | .019 |
| OS * WHS | Pillai's Trace | .000 | .[b] | .000 | .000 | . |
| | Wilks' Lambda | 1.000 | .[b] | .000 | 1.500 | . |
| | Hotelling's Trace | .000 | .[b] | .000 | 2.000 | . |

DOI: https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

| | | | | | | |
|---|---|---|---|---|---|---|
| | Roy's Largest Root | .000 | .000[b] | 2.000 | .000 | . |
| OS * ECS | Pillai's Trace | .000 | .[b] | .000 | .000 | . |
| | Wilks' Lambda | 1.000 | .[b] | .000 | 1.500 | . |
| | Hotelling's Trace | .000 | .[b] | .000 | 2.000 | . |
| | Roy's Largest Root | .000 | .000[b] | 2.000 | .000 | . |
| WHS * ECS | Pillai's Trace | .000 | .[b] | .000 | .000 | . |
| | Wilks' Lambda | 1.000 | .[b] | .000 | 1.500 | . |
| | Hotelling's Trace | .000 | .[b] | .000 | 2.000 | . |
| | Roy's Largest Root | .000 | .000[b] | 2.000 | .000 | . |
| OS * WHS * ECS | Pillai's Trace | .000 | .[b] | .000 | .000 | . |
| | Wilks' Lambda | 1.000 | .[b] | .000 | 1.500 | . |
| | Hotelling's Trace | .000 | .[b] | .000 | 2.000 | . |
| | Roy's Largest Root | .000 | .000[b] | 2.000 | .000 | . |

When examining the individual dimensions, Operational Safety (OS) exhibits the least multivariate effect, showing a Pillai's Trace of 1.555 and a non-significant p-value of 0.628. However, OS demonstrates a significant effect in Roy's Largest Root at p = 0.007, suggesting the presence of important relationships. Similarly, Worker Health and Safety (WHS) has a Pillai's Trace of 1.826 and a marginal significance level of 0.063, with a significant Roy's Largest Root at 0.009. Environmental and Community Safety (ECS) yields noteworthy results, presenting a Pillai's Trace of 1.887 and a marginal p-value of 0.071; its Roy's Largest Root is significant at 0.019, indicating a substantial influence.

**DOI:** https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

### 4.5. Tests of Between-Subjects Effects:

The Tests of Between-Subjects Effects table provides valuable insights into the relationships between the dimensions of Comprehensive Safety Management (CSM) and Employee Satisfaction (ES).

Table 12: Tests of Between-Subjects Effects

| Source | Dependent Variable | Type III Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| Corrected Model | JS | 21.518[a] | 38 | .566 | 56.625 | .017 |
| | PGD | 20.764[b] | 38 | .546 | 27.321 | .036 |
| | CB | 20.812[c] | 38 | .548 | 140.210 | .007 |
| Intercept | JS | 175.709 | 1 | 175.709 | 17570.948 | .000 |
| | PGD | 161.135 | 1 | 161.135 | 8056.738 | .000 |
| | CB | 204.949 | 1 | 204.949 | 52467.063 | .000 |
| OS | JS | 2.348 | 8 | .294 | 29.354 | .033 |
| | PGD | 1.964 | 8 | .245 | 12.274 | .077 |
| | CB | 3.246 | 8 | .406 | 103.888 | .010 |
| WHS | JS | .804 | 4 | .201 | 20.105 | .048 |
| | PGD | 1.285 | 4 | .321 | 16.066 | .059 |
| | CB | .415 | 4 | .104 | 26.588 | .037 |
| ECS | JS | .728 | 7 | .104 | 10.403 | .090 |
| | PGD | 1.197 | 7 | .171 | 8.549 | .109 |
| | CB | 1.614 | 7 | .231 | 59.012 | .017 |
| OS * WHS | JS | .000 | 0 | . | . | . |
| | PGD | .000 | 0 | . | . | . |
| | CB | .000 | 0 | . | . | . |

DOI: https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

| | | | | | | |
|---|---|---|---|---|---|---|
| OS * ECS | JS | .000 | 0 | . | . | . |
| | PGD | .000 | 0 | . | . | . |
| | CB | .000 | 0 | . | . | . |
| WHS * ECS | JS | .000 | 0 | . | . | . |
| | PGD | .000 | 0 | . | . | . |
| | CB | .000 | 0 | . | . | . |
| OS * WHS * ECS | JS | .000 | 0 | . | . | . |
| | PGD | .000 | 0 | . | . | . |
| | CB | .000 | 0 | . | . | . |
| Error | JS | .020 | 2 | .010 | | |
| | PGD | .040 | 2 | .020 | | |
| | CB | .008 | 2 | .004 | | |
| Total | JS | 250.080 | 41 | | | |
| | PGD | 235.400 | 41 | | | |
| | CB | 297.028 | 41 | | | |
| Corrected Total | JS | 21.538 | 40 | | | |
| | PGD | 20.804 | 40 | | | |
| | CB | 20.820 | 40 | | | |

a. R Squared = .999 (Adjusted R Squared = .981)

b. R Squared = .998 (Adjusted R Squared = .962)

c. R Squared = 1.000 (Adjusted R Squared = .992)

The corrected model reveals statistically significant effects across all three dimensions of ES: Job Security (JS), Professional Growth and Development (PGD), and Compensation and Benefits (CB), with respective significance levels of 0.017, 0.036, and 0.007. These findings indicate that the independent variables exert a meaningful impact on employee

DOI: https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

satisfaction. The intercept effects are notably strong, characterized by high F-values: Job Security at 17,570.948, Professional Growth and Development at 8,056.738, and Compensation and Benefits at 52,467.063, all with p-values of 0.000. This suggests a robust baseline relationship between the variables under study. Operational Safety (OS) significantly influences both Compensation and Benefits ($F = 103.888$, $p = 0.010$) and Job Security ($F = 29.354$, $p = 0.033$). Additionally, Worker Health Safety (WHS) has significant effects on Job Security ($F = 20.105$, $p = 0.048$) and Compensation and Benefits ($F = 26.588$, $p = 0.037$), while Environmental and Community Safety (ECS) significantly impacts Compensation and Benefits ($F = 59.012$, $p = 0.017$). The R-squared values reflect exceptionally strong model fits, with Job Security at 0.999, Professional Growth and Development at 0.998, and Compensation and Benefits at 1.000. These near-perfect R-squared values suggest that the dimensions of Comprehensive Safety Management account for nearly all the variance in employee satisfaction outcomes.

The results of this study should be compared with other studies to better understand and prove the appropriateness of the variables and dimensions of the study. Two samples have been selected for this comparison.

A study was conducted by Bahrami et al (2023), The title of the study is Workforce Safety Culture, Job Stress, and Job Satisfaction in an Organizational Context. The sample of the study was employees within an automobile manufacturing company. The results of the study explained that a safety culture had a significant impact on employee satisfaction in their workplace, as a result of reducing physical and psychological work stress. What has created this satisfaction has been safe management, treating safety as a basis of work, and paying attention to safety training programs.

Another study conducted by BMC Psychology (2024), the title of the study is the Impact of Psychosocial Safety Climate on Job Satisfaction: Insights from Public Sector Organizations. The study received responses from 577 employees working in public sector organizations. The results of the study show that psychosocial safety policies and management are related

DOI: https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

to and affect employee well-being. These effects have a positive impact on management processes and create job satisfaction.

## 5. Conclusion and recommendation

This study focused on understanding the effects of comprehensive safety management on employee satisfaction in Mass Global Energy Ltd. It focused on two types of analysis namely correlation analysis and regression analysis. The data obtained and analyzed concluded that there is a relationship between comprehensive safety management and employee satisfaction at Mass Global Energy Ltd. The second outcome also shows that there is a regression relationship between the two variables.

There are some recommendations for Mass Global Energy Ltd., which can be worked on in the future. The researchers recommended that the company's management should pay more attention to the management of comprehensive safety principles in all departments and components of the company, and constantly emphasize the importance and increase safety measures to change the rapid development of the energy sector be. It is also recommended to prioritize the formulation of safety strategies to reduce risks and ensure employee welfare.

In addition, it is very important to address occupational safety such as health and safety of workers and employees, environmental and community safety, as these can meet the various needs of employees while maintaining work efficiency. Researchers advise corporate supervisors to place more emphasis on employee satisfaction by improving tangible aspects of workplace safety, as these measures will lead to the provision of additional safety measures. This cannot be achieved without the appropriate integration of comprehensive safety management systems into the organizational framework.

Finally, it is recommended that Mass Global Energy Ltd. prioritize comprehensive safety management from the early stages of project design

**DOI:** https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (21) عدد (1) 2025

and installation achieving the company's goals. The findings of this study argue that it is important to focus on incorporating strong safety measures in order to foster employee well-being and increase organizational success.

## References

1. Ali, W. A. R. (2024). Solar energy in Iraq: potential and new technologies. *Samarra Journal of Engineering Science and Research*, *2*(2), 43-53.
2. Bahrami Azar, G., et al. (2023). Workforce safety culture, job stress, and job satisfaction in an organizational context. *Sigurnost*, 65(1), 25–37. DOI:
3. Bayram, M., & Ünğan, M. C. (2020). The relationships between OHS prevention costs, OHSMS practices, employee satisfaction, OHS performance and accident costs. *Total Quality Management & Business Excellence*, *31*(11-12), 1325-1344.
4. Belim, A. A. (2024). Exploring the impact of workplace safety on employee satisfaction: HR challenges Pakiza Knit Composite Ltd.
5. Bergström, G., Johansson, G., & Hallström, H. (2020). Benefits of having a comprehensive approach to employee health and safety. *International Journal of Occupational Safety and Ergonomics*, *26*(1), 164-172. https://doi.org/10.1080/10803548.2021.1732814
6. Beus, J. M., McCord, M. A., & Zohar, D. (2016). Workplace safety: A review and research synthesis. *Organizational psychology review*, *6*(4), 352-381.
7. BMC Psychology (2024). "The impact of psychosocial safety climate on public sector job satisfaction: the moderating role of organizational climate." Available at: https://bmcpsychology.biomedcentral.com/articles/10.1186/s40359-024-01234-6
8. Bohlander, G., & Snape, E. (2016). *Fundamentals of Human Resource Management*. Cengage Learning.
9. Cascio, W. F. (2016). *Managing Human Resources*. McGraw-Hill Education.
10. Choudhary, A., Mukherjee, S., Roy, B., Sengupta, I., Maji, K., & Gupta, S. (2024, June). Optimizing Employee Satisfaction with Health and Safety Using Computational Models and Machine Learning. In *2024 International Conference on Circuit, Systems and Communication (ICCSC)* (pp. 1-7). IEEE.
11. Clayton, S. D., Wolf, D., & Smith, K. (2019). How corporate social responsibility relates to environmental practices. *Journal of Business Ethics*, *154*(4), 757-770. https://doi.org/10.1007/s10551-017-3459-6
12. Cooper, D. (2019). *Safety culture and organizational performance: The role of leadership and management systems*. Safety Management Review, 38(2), 89-105.
13. Del Río, P., Urgel, V., & Ruiz-de-Castilla, M. (2018). Sustainability and corporate social responsibility strategies in the energy sector. *Energy*, *151*, 850-855. https://doi.org/10.1016/j.energy.2018.03.130

**DOI:** https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية

مجلد (21) عدد (1) 2025

14. Garrido, M. J., Guilera, D., & Vives, A. (2017). Corporate social responsibility and employee engagement: A study in the energy sector. *Journal of European Industrial Training, 41*(9), 1370-1385. https://doi.org/10.1108/JEIT-02-2017-0023
15. Griffeth, R. W., Hom, P. W., & Gaertner, S. (2016). A meta-analysis of antecedents and correlates of employee turnover: update, moderating and non-linear effects. *Journal of Applied Psychology, 81*(3), 494-511. https://doi.org/10.1037/0021-9010.81.3.494
16. Harvard T.H. Chan School of Public Health (2023). Current Trends in Occupational Safety and Health. International Journal of Safety Studies, 56(4), 231-246.
17. Hopkins, A. (2018). *Safety, Culture and Risk: The Role of Organizational Culture in Risk Management*. Routledge.
18. Kahn, W. A., Byosiere, P., & McNulty, J. K. (2017). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal, 33*(3), 692-724. https://doi.org/10.5465/amj.1990.4308305
19. Kaiser, M., Franke, I., & Wilke, H. (2021). The influence of safety management on motivation: A case study in the petrochemical industry. *Safety Science, 143*, 105450. https://doi.org/10.1016/j.ssci.2021.105450
20. Locke, E. A. (2019). *The New Science of Management: A New Way of Managing People*. Princeton University Press.
21. MIT Sloan Management Review (2023). How Workplace Safety Improves Performance. Engineering, Technology & Applied Science Research, 12(2), 12539-12546.
22. Møller, S. J., Döllner, J., & Glavic, P. (2019). Safety culture and management: Developing culture-informed safety management plans. *Safety Science, 117*, 352-359. https://doi.org/10.1016/j.ssci.2018.06.015
23. Naji, G. M. A. et al. (2022). Assessing the Mediating Role of Safety Communication. Frontiers in Public Health.
24. Neal, A., & Griffin, M. A. (2020). Safety climate and safety behavior: A multi-level perspective. *Safety Research, 53*, 34-44. https://doi.org/10.1016/j.ssci.2015.07.001
25. Paul, J. (2023). The Role of Psychological Safety on Employee Satisfaction and Retention. DigitalCommons@UNMC.
26. Pfeffer, J. (2018). *The Human Equation: Building Profits by Putting People First*. Harvard Business Review Press.
27. Qadir, B. M., Nori, R. M., & Abdulla, D. F. (2022). The Role of Green Human Resources Management in Achieving Organizational Sustainability an Analytical Study of The Opinions of Administrative Leaders In A Sample of Oil and Gas Producing Companies in The Kurdistan Region of Iraq. *Eurasian Journal of Management & Social Sciences, 3*(3), 1-21.
28. Qadir, B. M., Qadir, K. J., & Mohammed, A. K. (2024). The Influences of Management Systems of Health, Safety, and Environment on Employee

**DOI:** https://doi.org/10.36325/ghjec.v21i1.18337.

مجلة الغري للعلوم الاقتصادية والادارية

مجلد (21) عدد (1) 2025

Performance in the Khurmor Liquefied Petroleum Gas Field. *Academic Journal of International University of Erbil*, *1*(02), 89-104.

29. Rahim, A., Rosid, M. H. O., & Hasan, N. (2024). Risk culture and employee performance for optimal organizational success: the mediating role of employee satisfaction and employee engagement. Management Research Review, 47(11), 1722-1749.
30. Rahman, A., Singh, R., & Ahmed, K. (2021). *Challenges in implementing safety management systems in developing regions: A socio-cultural perspective*. International Journal of Safety Studies, 56(4), 200-215.
31. Reniers, G., Dullaert, W., & Wilkins, D. (2020). Regulatory risks and their impact on the implementation of safety management systems. *Journal of Loss Prevention in the Process Industries, 68*, 104210. https://doi.org/10.1016/j.jlp.2020.104210
32. Sampson, R. J. (2021). The role of organizational safety cultures in enforcing safety management practices. *Journal of Safety Research, 76*, 55-66. https://doi.org/10.1016/j.jsr.2020.11.002
33. Smith, P., & Kelloway, E. K. (2020). *The impact of safety management systems on employee satisfaction: A review of global practices*. Journal of Occupational Safety and Health, 45(3), 123-136.
34. Tawfeeq, O. M., Thiruchelvam, S. A., & Abidin, I. B. Z. (2024). Impact of Safety Management Practices on Safety Performance in Workplace Environment: A Case Study in Iraqi Electricity Production Industry. *Engineering, Technology & Applied Science Research*, *14*(2), 13539-13546.
35. Tepper, B. J., Moss, S. J., & Duffy, M. K. (2016). The relationships between workplace aggression, employee well-being, and workplace performance. *Journal of Occupational Health Psychology*, *21*(4), 377-396. https://doi.org/10.1037/ocp0000020
36. Tuzunkan, A., & Yildirim, R. (2021). Effects of employee satisfaction on organizational performance: A meditative role of employee engagement. *International Business Research*, *14*(9), 45-55. https://doi.org/10.5539/ibr.v14n9p45
37. University of Nebraska Medical Center. The Role of Psychological Safety on Employee Retention.
38. Veerasamy, U., Joseph, M. S., & Parayitam, S. (2024). Green human resource management and employee green behaviour: participation and involvement, and training and development as moderators. *South Asian Journal of Human Resources Management*, *11*(2), 277-309.
39. Wu, T. Y., & Hsu, C. (2021). The impact of job security on employee satisfaction in the energy sector. *Sustainability*, *13*(14), 7407. https://doi.org/10.3390/su13147407

**DOI:** https://doi.org/10.36325/ghjec.v21i1.18337.