


# Corporate Services And Employees' Business Satisfaction: A Study of the Libyan Oil Sector<sup>1</sup>

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## Abstract

Changes with modern technologies lead to the decrease in the role of oil and seriously threaten the well-being of oil exporting countries. The oil and gas industry, in particular, ranks high in the Libyan economy, and is one of the factors that could affect the country's future and enable its development. The idea of enterprise quality of service has gained popularity, particularly as a result of its impact on both consumers and employees (internal customers) in terms of behavioral factors. Is there a relationship between the perception of the quality of service at Mellitah Oil and Gas Company in Libya and the level of employment satisfaction of employees? Does the sub-dimensions of corporate quality of service at the Mellitah Oil and Gas Company in Libya have an impact on workers' job satisfaction levels? The research included four hundred (400) participants actively working in the company. Two scales have been selected to measure main variables, the scale of service quality and the scale of business satisfaction. The results revealed that employees' perceptions of quality of service are at lower levels. Employees at the Mellitah Oil and Gas Company in Libya have found that their work satisfaction perceptions are high. Statistically significant and positive relationships between quality of service perception and level of business satisfaction have been concluded. Research also found that higher levels of internal service, in the working environment, increased employee satisfaction. The most effective demographic variables include gender and education variables. Female participants received higher average scores on both scales than male participants. One of the study's key recommendations is that Libya's Mellitah Oil and Gas Company (LMOGC) should focus on not only material factors, but on factors of quality of service. This will enable the company to be sustainable, sustained, competitive.

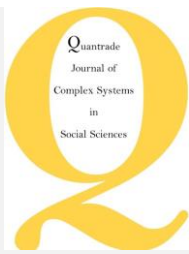
**Keywords:** Business Service, Employee Fulfillment, Quality of Service, Libyan Mellitah Oil and Gas Company

## Introduction

The objective of this study is to examine the relationship between business services and employee satisfaction. In this case, employees can express it using social media and other means of communication when they are not satisfied, which could damage the credibility of the institution. For this reason, private industry organizations, policymakers, should be aware of the factors that can affect employee satisfaction and should be aware of how it can affect the institution. To address this, the study seeks to discover the relationship between reliability, solidity, responsiveness, empathy and assurance factors, and employee satisfaction and loyalty known as quality of service. It is important to keep in mind that the concept of job satisfaction is understood as a feeling that can positively or negatively impact employee roles and responsibilities, and that there is no single way to satisfy all employees involved in the workplace. Job satisfaction can also be described as an emotional response to a range of business-related factors, including an employee's assessment of pleasure, convenience, trust, reward, personal development and upward mobility, recognition and monetary value, and a value of merit (Robbins et.al., 2007). Every society needs a variety of jobs to maintain continuity. These needs have existed for centuries and will continue to exist in the future. Employee satisfaction is a key component of organizational sustainability and stability. Some theorists describe employee satisfaction or job satisfaction as positive perceptions and

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attitudes about a person's job. Work satisfaction differs from the quality of work life, which is interpreted as one of many consequences of work quality. Business quality is not only affected by business satisfaction (Chakrabarty et.al., 2008). It has been found in many studies that a high-level employee can be a productive and loyal employee. It has a significant impact on the quality of business life, organizational identity, job satisfaction, partnership, job search, job performance and organizational change response. The quality of work life depends on the desirability of the individual's workplace and his feelings about what exists in that place. It is also about an individual's experience in the field of work. Employees' satisfaction is encouraged and sought to improve. Meanwhile, job satisfaction increases productivity. Thus, the relationship between business-quality components and business satisfaction plays an important role in identifying effective factors in improving service delivery.

### **The Problem of Research**

The research problem has been identified as identifying the relationship between the quality of service and the level of employment of employees operating in the organization.

This work feature is intended to answer the following questions;

Is there a relationship between the quality of the business services of the Libyan Mellitah Oil and Gas Company and the employment satisfaction of the workers?

Does the institutional quality of service dimensions of the Libyan Mellitah Oil and Gas Company have any effect on workers' business satisfaction?

What sub-dimension of the quality of business services prevails in the Libyan Mellitah Oil and Gas Company?

Are there statistically significant differences between the sub-dimensions of the quality of the business services and the demographic data of the employees at the Libyan Mellitah Oil and Gas Company?

Are there statistically significant differences between the employment satisfaction of workers at LMOGCand the demographic data of those employed?

Based on all these questions, the fundamental problem of the research is that there is a relationship between the employment satisfaction of employees of the Libyan Mellitah Oil and Gas Company and the quality of the company's corporate services? In addition, the study attempted to determine whether there is a relationship between quality of business services and business satisfaction.

### **Research Hypotheses**

The following hypotheses were developed based on the objectives and problem of the study.

H<sub>1</sub>: There is a correlation between the quality of the institutional services provided by LMOGCand the employment satisfaction of the employees.

H<sub>2</sub>: Subdimensions of the quality of business services provided by the Libyan Mellitah Oil and Gas Company are effective on employee satisfaction.

H<sub>2.1</sub>: There is a statistically significant relationship between physical specifications and the workers' work satisfaction variables.

H<sub>2.2</sub>: A statistically meaningful relationship exists between reliability and those variables of employee satisfaction.

H<sub>2.3</sub>: There is a statistically meaningful relationship between enthusiasm and the workforce satisfaction variables.

H<sub>2.4</sub>: There is a statistically significant relationship between trust and employee job satisfaction variables.

H<sub>2.5</sub>: There is a statistically significant relationship between empathy and the workers' job satisfaction variables.

H<sub>3</sub>: The subdimensions of the quality of business services provided by the Libyan Mellitah Oil and Gas Company are equally prevalent.

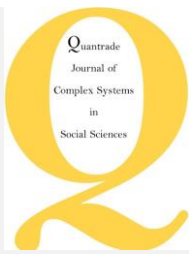
H<sub>4</sub>: There is a statistically significant difference between the quality of the business services of the Libyan Mellitah Oil and Gas Company and the demographic data of the employees.

H<sub>5</sub>: There is a statistically significant difference between the employment satisfaction of employees of the Mellitah Oil and Gas Company of Libya and the demographic data of those employed.

### **Purpose of Research**

In general, the aim of this study is to determine the relationship between the quality of institutional services at the Libyan Mellitah Oil and Gas Company and the satisfaction of employees in their work. Various quality factors of service will be discussed and analyzed. It is intended to identify the relationship between service quality dimensions (concrete, sensitive, reliability, empathy and security, quality of service) that contribute the most to the employment satisfaction level of workers involved in the Libyan Mellitah Oil and Gas Company. There are three main objectives of the study;

Qualifying the relationship between the quality of institutional services at LMOGCand the level of employment satisfaction of employees.



Identification of the relationship between the subdimensions of the quality of the business service and the subdimensions of the business satisfaction levels at Libya's Mellitah Oil and Gas Company.

Establishing the dominant quality of corporate service that exists in the Libyan Mellitah Oil and Gas Company.

### **Limitations of Research**

This work is restricted to the Libyan Mellitah Oil and Gas Company. For this reason, results can be generalized on behalf of similar organizations in question. In addition, the principal employees in this study are employees involved and involved in the company, but other employees may have differing opinions because they have a different work environment, different management and a different social environment. Work satisfaction in work is one of the variables. It may differ from day to day depending on the events that may occur in working life. Other demographic features, such as age, culture, education level and job position, should be taken into account in future research as well. Enterprise quality of service has been widely accepted as a precedent for business satisfaction. This is why neglect can compromise the competitiveness of organizations with regard to the service, as the level of satisfaction and competitiveness of those organizations are related to it. Thus denying or neglecting the importance of quality of service is tantamount to putting the sustainability and competitiveness of organizations at risk.

Research, like most other research, has a certain time and budget limit. The work has been completed within the required time. There is a limited budget for this study as there is no research funded by the researcher. The research is limited to the Mellitah Oil and Gas Company, which is limited to the Libyan branch, and is not included in the research of the entire company.

### **Importance of Research**

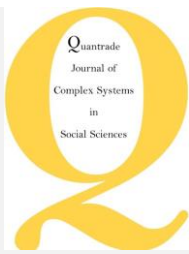
Many satisfactory theories have been worked out to explain the nature of employees' work attitudes and how they can be motivated to improve employee performance. Theories have been greatly interested in understanding the factors that influence the concept of job satisfaction, and in showing factors that motivate workers to increase their performance. But there are still many aspects to explore and many things to learn. In developing countries, such as Libya, the motivation for higher levels of labor is driving high levels of satisfaction and reducing labor returns for employees. One of these theories is the business properties theory of Hackman and Oldham (1975), which provides a set of implementation principles to enrich business in corporate environments with a high level of institutionalism. Given the above-mentioned, this study is primarily intended to identify five sub-dimensions of business satisfaction and to identify the relationship between five sub-dimensions of enterprise quality of service. Second, the proposed model aims to help oil companies achieve their corporate goals by improving the relationship between their managers, managers and employees. Employees' work satisfaction is important in assessing the quality of business services. This study also aims to provide useful information, results and advice to Mellitah Oil and Gas in Libya. Business satisfaction plays a key role in the success of business quality of service. With today's attention, companies in this era care most about quality-of-service behavior. This is because the employee factor is also considered a determining factor in business success. The study is also important for basing on final references. Furthermore, the study is important in that it is the first study that, according to the researchers, discusses work satisfaction levels and business quality variables together.

### **Research Method**

Under this heading, the research model selected for the purpose of this study and the reasons for this selection are discussed in detail. The tools used for collecting data and the procedures followed during the study are outlined. Also, the methods used to analyze the data are addressed in subheadings. Finally, the ethical issues followed.

The approach that will be determined is of great importance to the study. The approach is the basis for determining concepts, data collection tools, study population, and sample. The study preferred a descriptive-analytical approach to the subject of research, describing facts and events. Employees of the Mellitah Oil and Gas Company of Libya are the main universes of this work. To achieve more accurate and reliable results, the focus is on investigating the impact of business quality of service on employee satisfaction levels.

In particular, the data collection process involved in field studies refers to the researcher collecting information about the relevant variables and measuring the data. Participation in the data collection process and evaluating the results are important on behalf of the data collection process. The data collection process is an important part of the research process in all areas of study including science, social sciences, and humanities. Even if data collection methods differ, it is



important to collect accurate and accurate data. The main purpose of the data collection process is the ability to obtain qualified evidence for the defense of the information and hypotheses obtained by the analysis.

The study involves two main variables: institutional quality of service and workers' job satisfaction. The selected scales were approved by the consultant of this study, and translated into Arabic by the authoritative translation agency. A cover page has been prepared to explain the procedures involved in responding to the two scales. In addition, five demographic variables are provided to participants in order to identify employee gender, age interval, education levels, current job positions, and experience times.

The quality of service scale, also known as SERVQUAL, was developed by Parasuraman, et.al. in 1988. Scale is in the literature as one of the most effective ways of evaluating the quality of services available to consumers. The relevant scale is already used today for measuring quality service offerings in a number of services industries, including mobile banking, health management, telecommunications, online education, tourism. Survey forms are distributed to company employees through the directors of various departments within the organization. A text of information has been included in the surveys to familiarize people with research, so that participants do not feel a sense of doubt or distrust about the research. This information text is intended to motivate participants to participate in the study, answer questions, and explain how to complete questionnaires.

The scale used to measure responses to participants consists of 22 substances in total and five sub-dimensions. These sub-dimensions are physical traits, reliability, enthusiasm, trust and empathy. Responses were asked to be given on the Likert scale of five (1= Duly Disagree, 2= Disagree, 3= Undecided, 4= Agree, and 5= Strictly Agree).

### **Research universe**

The Libyan Mellitah Oil and Gas Company employs a total of 1,800 Libyan national staff, including men and women (Access Address: <https://mellitahog.ly/en/employee-login/>, 19.01.2022). The research universe is made up of all of these employees.

### **Sampling process and socio-demographic variables**

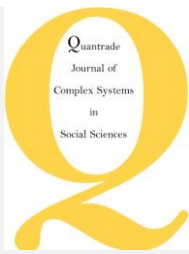
The example is described as a subset of the main mass that attracts the researcher's attention. Saunders. (2012) argued that the greater the sample size, the less likely the universe is to generalize errors. They also argued that a researcher should pay attention to the following aspects of choosing sample size; first, the level of trust that the researcher attaches to the data, second, the margin of error that can be ignored in a particular study, third, the analysis techniques that will be favored by the researcher and finally the total size of the universe in which the sample is determined. In literature, it should discuss how to determine the appropriate sample size in field research (Khine, 2013; Westland, 2010). Some researchers, such as Singh (2006), argue that there is no agreed rule on how to determine the appropriate sample size, while other scientists, including Pallant (2000), argue that the greater the sample, the more consistent results can be achieved.

The study included 400 individuals, including executives and general manager of the company from which the research was carried out in the study specification, as part of the description of the universe. A total of three meetings have been held with two senior executives of LMOGC to explain the objectives and obtain permission. An article explaining the purpose of the study and specifying that the data generated will be used only for this work name is also presented to administrators. The 95% trust level, 0.5% standard deviation, and +/- 5% margin of error (confidence) are preferred to detect the sample.

Four-hundred (400) surveys were distributed to participants using a face-to-face polling technique in 20/5/2021-30/6/2021, together with two company employees. With this method, the entire data collection tool has been deployed and collected without loss of data. The number of specimens is thus determined to be 400, while the study has the power to represent 22.2% of the total universe.

### **Data Analysis**

The defining statistical method is preferred to be able to present and summarize the data obtained by the study. The research mainly preferred inference statistics, particularly correlation matrix and multiple regression analysis. According to Cooper and Schindler (2009), the method allows researchers to understand the vast amount of data achieved and effectively communicate the results of the study. The Statistical Package for Social Sciences package program is used to analyze the data. The resulting Intel data has been analyzed using content analysis. The data is primarily organized into categories, sorted for interpretation of responses.



The SPSS package program also facilitated discussion and provided necessary frequencies. Analyzed through open-ended qualitative responses, data demotion and result generation, the findings are summarized. The defining statistics are used to simplify and provide comfortable understanding of the information obtained.

### **Mellitah Oil & Gas Company**

The company Mellitah Oil and Gas was founded in accordance with the General People's Committee resolution 253, published on 04/12/2008, as the basis of the agreement between the NOC. Implementation of the INI North African Company was launched on 16/10/2007, incorporating the assets and activities of the Eni Oil Company and the Mellitah Gas Company.

NOC signed a shareholders' contract with INI North Africa on 30.10.2008, under which the Mellitah Oil and Gas Company was assigned to manage and operate oil operations of the contracting fields signed on 12/6/2008. The agreement was agreed to produce about 600,000 barrels of oil per day (crude oil, natural gas, propane gas condensates, butane and nafta) and about 450 tons of sulfur per day.

The company manages a number of land oil fields, three offshore platforms, and offshore fields represented by a floating tank, scattered across parts of Libya. A network of land pipelines of various sizes extending over thousands of kilometers is operated by the firm. Some of the processed natural gas from this is exported by the Mellitah Industrial Corporation via a marine pipeline (32 inches in diameter and 516 km in length) connecting the sea. Mellitah Oil and Gas Company is located on the southern coast of Italy. It is managed by the company "Green Stream". This is the first link between Libya and Europe.

The Mellitah Oil and Gas Company also contributes to the supply of a large portion of the domestic consumption needs of the natural gas and citizens that feed the power plants.

Mellitah Oil and Gas Company is located about 22 km east of Zorah. The company owns an area of about 355 hectares, including oil and gas processing plants as well as crude oil and other liquid products storage tanks, export facilities (SPMs). It also has all the necessary facilities, including scaffolding, steam and gas turbines, in order to manufacture.

The Mellitah Oil and Gas Company is a facility capable of natural refinement of gas extracted from the city of Ghadames from two different fields, Al Wafa and the Sabrata plateau in the Mediterranean. The company exports most of its gas through the Green Stream pipeline (gas contract with Italy). The rest of the gas is used to meet local market needs.

The company is headquartered in Tripoli, Libya. This central location of the company offers many advantages in terms of well-managed, accountable management services, security, legal matters, comfortable use of communication tools, and logistics as mentioned. The company's key growth components can be in the form of concentrating on key markets, creating effective and efficient labor, manpower supplies, materials resources and time utilization. Effective and efficient use of these resources includes economic optimization. The company focuses strongly on and pays attention to the principles of quality assurance and the international standard criteria in all of its processes and services. This focus has allowed the company to grow internationally and to be sustained.

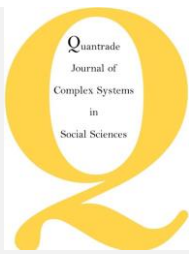
The combination of all these basic principles in the company ensures that the enterprise can survive on its own, participate in projects at the public or private level, implement multi-level engineering services, implement maintenance projects, conduct construction, supply and business acquisitions at the national and international level. It also makes it easier for them to accept the company on a global level, to continue to operate in an institutional way.

The Mellitah Oil and Gas Company activities include:

**Abu Al-Tefel oil field production capacity:** Despite security challenges and logistical constraints, the Mellitah Oil and Gas Company recently made significant gains in the Abu Al Tafel oil field. On October 13, 2018, the company completed work tests of the TC5 solar and gas turbines in the region, increasing the amount of low-pressure well gas production, and then becoming part of a low-pressure burn project that was moved to the gas liquidation station (NGL). Through all of these projects, the company managed to increase its condensate supply to about 2,000 barrels, bring total output to 9,500 barrels per day, and reduce the percentage of gases emitted to zero.

**Mullet oil field production capacity:** The Mellitah Oil and Gas Company announced that it had successfully completed drilling an oil well at the Albury site using smart control equipment technology located at the bottom of the oil rigs. Mellitah Oil and Gas Company's off-shore platform number 52-52 began production on September 25, 2018 in the well





which had a daily production capacity of 1,850 barrels. This project also marks the beginning of a new era for the development and expansion of production capacity at the Albury site where this modern technology was applied to stimulate the oil industry and in the wells that are planned to be opened in the future.

**Loyalty oil field production capacity:** The area involved is about 540 km southwest of Tripoli, about 160 km south of Ghadames under the NC-A16 concession. It is also a border area along the Libyan-Algerian border. The southern portion of the site was discovered by Shell Corp. D1 well drilling in 1964, while the most northern part was discovered by Sirte Gas Company in 1991 by A1 well drilling. Development of the Wafa site requires drilling for 37 oil and gas wells that entered production in September 2004. The average daily production from the Wafa field is 37,290 barrels of crude oil and 22,503 barrels of LNG.

**Sabratha oil platform production capacity:** The Sabratha Platform is located on the site of Bahr El Salam, one of the largest oil and gas installations installed at sea, 110 km from the coast of Libya, at a depth of 190 meters. The platform has all the facilities necessary for the disassembly and initial processing of the generated gas, as well as equipment for the maintenance of wells (FMWR). It has 120 capacity habitats and a dock for the helicopter.

**Elephant oil field production capacity:** It is an oil field in the N-174 parcel in the Murzuq Basin in southwest Libya. By 2007, it was the largest oil field in the Murzuq basin, with more than 1.2 billion barrels of reserves. Management of the site is a joint venture between NOC and Italian INI. On 3 April 2008, the Italian company INI gave a third stake in the oil field associated with Russia's Gazprom. Thus, management of the oil field was given to a structure that included shares of the three states and their rights of words.

### Research Findings

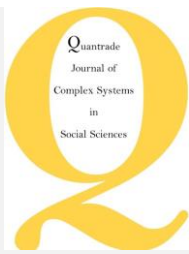
The assessment of the findings of the research is based on the determination of hypotheses, one of the first stages of research. The work's hypotheses were created based on the relationships and interactions between the variables in the study. During the study, each hypothesis was tested by different methods of statistical analysis. It is important which direction the interchangeable connections are in, or whether there are statistically significant differences between them. In this study, different methods were chosen for the use of hypotheses. First, it took advantage of the analysis of correlation and regression in order to determine the direction of relations between variables. It was then used for T-Test and ANOVA testing to determine whether the relationship between the two variables was meaningful. The Tukey test from Post-Hoc analyzes was then preferred to understand which variables had meaningful relationships in case of meaningful relationships.

### Testing the First Hypothesis

Scales have been scaled between 1 and 5. The average of the scale is 3 points. The lower dimensions of the Quality of Service Scale show that the highest average (3,005) belongs to the physical properties sub-dimension, while the lowest average is 2,564 to the reliability subdimension. Based on the entire scale, the average was 2,701. It is important to note that this value is less than the average of 3. This analysis may lead to the conclusion that employees at LMOG Cassessed the quality of service at a slightly higher than average. Averages are higher, one might say, based on the scale that determines the level of Employee satisfaction. On a business satisfaction scale, colleagues belong to the lower size, with a peak average of 3,483, while the lowest average size of 2,741 is lower than the wage. The average score for the scale is 3,182. One can interpret the fact that workers at LMOGCare satisfied with their jobs.

Pearson Correlation analysis is preferred to identify the relationship between service quality and job satisfaction variables. The stated analysis aims to determine the level and direction of the relationship between the two variables. Related analysis is often preferred in the literature in order to explain the relationship between two variables without offering any cause and effect relationships.

Pearson Correlation analysis has been applied to identify the relationship between the quality of the institutional service offered by LMOGC and the work satisfaction variables of the employees. The meaningfulness level of all correlation coefficients, other than the correlation coefficient (0.061) between worker's business satisfaction and lower-dimension Business/Business Activities and quality-of-service scale subdimension (0.061), is meaningfully determined at level 0.05. In addition, all five sub-dimensions of the service quality scale are found to be meaningful among themselves and to have positive correlation, the scale of quality of service has exactly positive correlation, and are statistically significant. Additionally, the five sub-dimensions involved in the workplace-measuring scale have positive correlation between them and the full scale of job satisfaction.



The positive outcome of all correlation coefficients is an indication of the increase or decrease in the total scores of both scales, or change in equilibrium. It is important to note that correlation values must be minimized in order to be told that this change will be counterproductive. In line with the results, the first hypothesis was supported, "There is a correlation between the quality of institutional services provided in the LMOGC" and the workers' job satisfaction.

### Testing the Second Hypothesis

"The sub-dimensions of the quality of business services provided by the LMOGC have an impact on employee employment satisfaction".

### Testing the first sub-hypothesis

"There is a statistically significant relationship between the physical specifications and the workers' employment satisfaction variables."

The simple linear regression method, one of the methods of statistical analysis, was used to test the corresponding hypothesis. Statistical analysis shows a statistically meaningful relationship between Physical Values and Employee Job Satisfaction variables. It is important to note that this relationship is at ( $p < 0.05$ ) level. The value of the  $R^2$  coefficient is 0.116, which means that the argument (physical values) explains 11.6% of the total variance caused by the dependent variable (business satisfaction). It should be said that the  $f = 53.361$  derived from the results of the ANOVA test is statistically significant. A 7,305 value derived from the T-test indicates that the argument is meaningful. A 1-unit change in physical values subsize will also result in a 217-unit co-directional movement on the scale of business satisfaction. This result supports the first sub-hypothesis that "physical assets have a significant impact on the employment satisfaction of employees".

### Testing the second sub-hypothesis

Data shows a statistically significant relationship between Reliability and Employee Job Satisfaction variables. It is important to note that this relationship is at ( $p < 0.05$ ) level. The value of the coefficient  $R^2$  is 0.049, which means that it accounts for 4.9% of the total variance caused by the argument (reliability) over the dependent variable (business satisfaction). It should be said that the  $f = 21.765$  derived from the results of the ANOVA test is statistically significant. A 4,665 value derived from the T-test indicates that the argument is meaningful. A 1-unit change in reliability sub-dimension will also result in a 154-unit co-directional movement on the scale of business satisfaction. This result supports the second subhypothesis that "Reliability subdimension has a significant impact on employee satisfaction." Reliability, on the other hand, can be interpreted as increasing employee satisfaction.

### Testing the third subordinate hypothesis

"There is a statistically significant relationship between eagerness and workers' work satisfaction variables."

According to the data, a statistically meaningful relationship has been detected between the Variables of Enthusiasm and Employees Job Satisfaction. It is important to note that this relationship is at ( $p < 0.05$ ) level. The value of the  $R^2$  coefficient is 0.114, which means that it accounts for 11.4% of the total variance caused by the argument (enthusiasm) over the dependent variable (work satisfaction). It should be said that the  $f = 52.365$  derived from the results of the ANOVA test is statistically significant. A 7,236 value derived from the T-test indicates that the argument is meaningful. A 1-unit change in reliability sub-dimension will also result in a 230-unit co-directional movement on the scale of business satisfaction. This result supports the third subhypothesis that "the lower dimension of enthusiasm has a significant impact on employee satisfaction."

### Testing the fourth sub-hypothesis

"A statistically meaningful relationship between trust and employee job satisfaction variables has been detected in a statistically meaningful relationship between the variables of Trust by Data and Employee Employment Satisfaction. It is important to note that this relationship is at ( $p < 0.05$ ) level. The value of the  $R^2$  coefficient is 0.190, which means that it describes 19% of the total variance caused by the argument (trust) over the dependent variable (work satisfaction). It should be said that the  $f = 94.783$  derived from the results of the ANOVA test is statistically significant. A value of 9,735 derived from the T-test indicates that the argument is meaningful. This result supports the fourth subhypothesis that "Trust sub-dimension has a significant impact on employee satisfaction."

### Testing the fifth subordinate hypothesis

"There is a statistically meaningful relationship between empathy and employee job satisfaction variables." According to data, a statistically significant relationship has been detected between Empathy and Employee Job Satisfaction variables. It is important to note that this relationship is at ( $p < 0.05$ ) level. The value of the  $R^2$  coefficient is 0.152, which means

that it accounts for 15.2% of the total variance caused by the argument (trust) over the dependent variable (work satisfaction). It should be said that the value  $f = 72.430$  derived from the results of the ANOVA test is statistically significant. An 8,511 value resulting from the T-test indicates that the argument is meaningful. This result supports the fifth subhypothesis that "Empathy subdimension has an important impact on employee satisfaction."

Data shows a statistically significant relationship between the parameters of Enterprise Quality of Service and Employee Job Satisfaction. It is important to note that this relationship is at ( $p < 0.05$ ) level. The value of the  $R^2$  coefficient is 0.452, which means that the argument (trust) explains 45.2% of the total variance caused by the dependent variable (work satisfaction). It should be said that the  $f = 129.801$  derived from the results of the ANOVA test is statistically significant. The value of 11,393 resulting in the T-test indicates that the argument is meaningful. This result supports the hypothesis that "There is a statistically meaningful relationship between Quality of Service for Business and Employee employment satisfaction".

### Analysis results of the second hypothesis

"The sub-dimensions of the quality of business services provided by the Libyan Mellitah Oil and Gas Company have an impact on workers' job satisfaction."

A complete subset of the enterprise service scale has been included in the analysis of multiple regression so that the conceptual framework can be analyzed accurately in statistical terms. These sub-dimensions are physical things, dependability, enthusiasm, assurance and empathy. In brief, the model shows how much of the variance in work satisfaction of workers who are dependent variables is described by the model. According to the data, a value of  $R^2 = 283$  indicating that 28.3% of the variance explains it. Durbin-Watson was found to be  $d = 2.124$ , indicating the average impact of Quality of Service on Employee Job Satisfaction and expected to be in the range of  $1.5 < d < 2.5$ . Therefore, no first degree linear correlation has been detected in multiple linear regression data. A 32,427 value derived from the F-test indicates a statistically significant relationship exists. With all these analysis results, Employee Job Satisfaction can be explained by dependent variables and a relationship can be said to exist between the subdimensions of the scale of enterprise quality of service. Also, when strong correlations were detected between two or more of the procedure variables, the multilink appeared. In other words, one prediction variable can be used to predict the other.

The data has been enabled by the multi-linear regression model to check for multiple connections between variables. For all variables accepted in the literature and contained in the model, the corresponding VIF value is expected to be between  $> 0.1$  (or  $VIF < 10$ ). The study shows that all values are within accepted ranges.

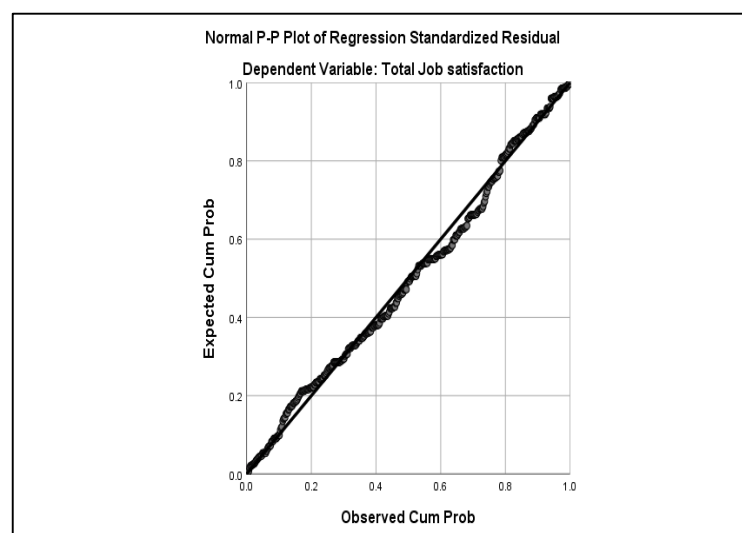
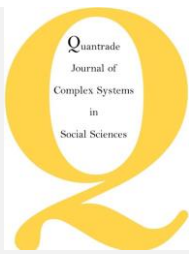


Figure 1: The normality distribution of the workers' work satisfaction scale

In addition to the data obtained in the study, the normal P-P chart now examines the normality of the data. Figure 1 shows that points typically follow a straight (diagonal) line, but have no sharp or strong deviations. So you can say that the data has normal distribution.





Analyses have shown that t-test values for Reliability sub-dimension (1,056) and Sentiment sub-dimension (.851) are trivial and related sub-dimensions have no significant impact on workers' business satisfaction. However, three other variables, physical self, have been identified with meaningful t-test values for trust and empathy. Depending on the beta and t-test values, the effective forces of the three variables can be sorted by empathy, physical self, and trust. These results demonstrate that not all five sub-dimensions of the scale of enterprise quality of service have a statistically meaningful impact on employee satisfaction.

### Testing the Third Hypothesis

"The sub-dimensions of the quality of business services provided by the Libyan Mellitah Oil and Gas Company are equally prevalent".

Each expression of the scale is rated from 1 to 5, hence the average (middle score) is represented by 3. The average score of only one subdimension is shown to be nearly equal to the midpoint of the scale (Physical Equity). =3,005). The average of the other four sub-dimensions was less than 3 points. Participants are understood to have not assessed the quality of service by those employed at the Libyan Mellitah Oil and Gas Company on the basis of their average scores for five sub-dimensions. These values gave an overview of the quality of service provided by the Libyan Mellitah Oil and Gas Company.

T testing has been used to determine whether the differences between average scores of participants and midpoint of the scale (3.0) are meaningful or not. An analysis found that the average score (3,005) of participants was measured in relation to the physical self sub-dimension and the midpoint of the scale (3,000). The T-Test result was found to be meaningless as a result of the .138 value ( $P > .05$ ).

For the other four sub-dimensions, the average scores of participants are less than the midpoint (3.00) and all corresponding t-test values have been statistically meaningfully detected at the  $P < .05$  level. Therefore, the sub-dimensions of Reliability, Enthusiasm, Assurance and Empathy are lower than average levels based on the assessments of the participants in the study. The results are not equally dominant among employees in the Institutional Quality of Service components of the Libyan Mellitah Oil and Gas Company. Thus, the third hypothesis was rejected.

### Testing the Fourth Hypothesis

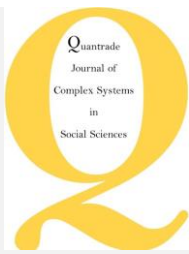
"There is a statistically significant difference between the quality of institutional services at LMOGCand the demographic data of the employees."

T-test has been used for independent averages to understand the meaningful differences between participants' perceptions of gender and enterprise quality of service. The results show that women have a higher average across all five sub-dimensions. However, the t-test found a meaningful relationship between gender and perception of corporate services in terms of reliability, enthusiasm, and subscale itself. For this reason, it is "one can say that there is a statistically meaningful relationship between the gender of the workers at the Libyan Mellitah Oil and Gas Company and their perceptions of the quality of the institutional service.

The average of responses given by participants in the survey in five sub-dimensions and the average of responses to all of the scale are relatively close to each other. The ANOVA test is used to determine whether there are meaningful differences between the quality of business services perception and age variables. Test values show that only in two sub-dimensions age groups differ statistically in the argument of perceived corporate service. Related sub-dimensions can be sorted as Physical Properties ( $F=2.848$ ,  $P < .05$ ) and Empathy ( $F=4.115$ ,  $P < .05$ ). Tukey was analyzed to determine the age of this differentiation.

Turns out that the Tukey test was used in Post-Hoc analysis to determine what groups of meaningful differences between variable groups. Given the physical specifications, the average scores of participants under the age of 25 and those on average scores between 25-34 and 45-54 years of age have been found to be statistically significant differences. Participants under the age of 25 have a lower average than participants aged 25-34 and 45-54. For the empathy sub-dimension, statistically significant differences have also been detected between average scores of participants under the age of 25 and average scores of participants aged 35-44 and over 55. Participants under the age of 25 have a higher average than participants aged 25-34 and 45-54.

The ANOVA test was used to examine the average score and relationship between participants' institutional quality of service perceptions and training levels. In general, it shows that participants at the Ph.D. level have a higher average than other participants with higher education levels. Participants with low education also have a low average. However,



the values of the ANOVA test were found to differ significantly in four sub-dimensions, including Physical specifications ( $F=2.467$ ,  $P<.05$ ), Reliability ( $F=6.940$   $P<.05$ ), Sentiment ( $F=4.672$ ,  $P<.05$ ), Trust ( $F=6.277$ ,  $P<.05$ ), and in all of the Quality of Service Scale ( $F=5.038$ ,  $P<.05$ ). A Tukey test has been conducted to determine which groups these meaningful differences can occur between.

The Tukey HSD test from post hoc analyzes has been preferred to determine the direction of differences in the sum of reliability, enthusiasm, confidence and scale. In the reliability sub-dimension, participants with secondary school-level education may be found to have the lowest average. Statistically significant differences have been detected between the average scores of participants with secondary school-level instruction and the average scores of participants with high school, bachelor's and doctoral degrees. Additionally, participants with bachelor's degrees can be found to have higher averages than participants with master's degrees and differ significantly.

Enthusiasm has a lower mean than participants with primary education level training at the bachelor's and doctoral levels, and is statistically different. In addition, participants with graduate-level training have significantly higher average than those with graduate-level education. Statistically significant differences have been detected between the average scores of participants with graduate-level training and the average scores of participants with doctoral-level instruction. Participants with Ph.D.-level training should also be told that they have a higher average and differ significantly.

Regarding trust subsize, participants with doctoral-level training have been found to have significantly higher averages. In addition, participants with graduate-level training can be said to have higher averages than participants with graduate-level training and to differ statistically significantly. Finally, participants with secondary school-level instruction appear to have lower scores and differentiated significantly from participants with post-graduate, bachelor's and doctoral degrees in relation to the full scale of the quality of service. Attendees with graduate-level training are found to have lower averages than their peers with Ph.D.-level training.

ANOVA testing is used to examine the senses of the scale of enterprise quality of service and the meaningful differences between the participants' in-business positions. The F-test values indicate significant differences in three sub-dimensions, only physical properties ( $F=4.112$ ,  $P<.05$ ), reliability ( $F=2.980$ ,  $P<.05$ ) and empathy ( $F=4.03$ ,  $P<.05$ ). The Tukey Test was conducted to determine which groups these meaningful differences were in.

Physical characteristics are found to differ statistically between the workers in position in relation to the sub-dimension of the workers, and it is understood that the workers place a greater emphasis on physical competence. In the reliability sub-dimension, meaningful differences have been detected between the response averages of the administrators and the response averages of the senior managers. It may be said that senior executives place a greater emphasis on credibility in a significant way. As for the size of empathy, workers appear to have lower averages than managers. Managers are among the most highly empathetic groups.

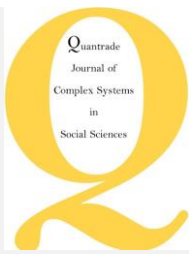
ANOVA testing is used to examine the understanding of scale of enterprise quality of service and the meaningful differences between the participants' uptime in the institution. F-test values can be trusted only ( $F=2.846$ ,  $P<.05$ ), Answer. ( $F=3.785$ ,  $P<.05$ ) and trust ( $F=4.971$ ,  $P<.05$ ) indicate significant differences in all three sub-dimensions and service quality scale ( $F=3.629$ ,  $P<.05$ ). The Tukey Test was conducted to determine which groups these meaningful differences were in.

The meaningful differences in reliability sub-dimension have been identified between participants with 3-5 years experience and participants with 16 years and more experience. Responses to participants with little working experience have been found to have a higher average. In addition, participants who have 0-2 years working experience in the collection of enthusiasm, confidence, and quality of service can be found to differ statistically from other participants and to have lower average responses.

### Testing the Fifth Hypothesis

"H<sub>5</sub>: Statistically significant differences exist between employment satisfaction of workers at the Mellitah Oil and Gas Company of Libya and demographic data of those employed."

T-test is used to investigate meaningful differences between the gender variable and employee employment satisfaction perceptions. When the results are examined, women generally have higher averages across all five areas. However, the t-test showed that the test values are statistically significant only on business activities and wages.



Therefore, when participants' gender and work satisfaction perceptions are evaluated, it can be said that meaningful differences remain confined to two sub-dimensional levels.

The study found that participants' responses for five sub-dimensions are relatively close to each other, given their average and their age variability. However, the ANOVA test was used to investigate meaningful differences between participants' ages and perceptions of job satisfaction. Related analyzes have found only statistically significant differences in business activities ( $F=3.059$ ,  $P<.05$ ) and control ( $F=3.261$ ,  $P<.05$ ) subdimensions. Of these age groups

The Tukey HSD test from Post-Hoc analysis is used to examine the direction of meaningful differences in the average score of participants. Significant differences in business activity were identified between participants under the age of 25 and participants aged 45-54. On the subsize of the audit, the mean scores of participants aged 25-34 were found to be significant differences between average scores of participants aged 35-44. Participants under the age of 25 have been found to have more perceptions of job satisfaction than participants aged 35-44.

ANOVA testing has been used to identify meaningful differences between participants' work Satisfaction Perceptions and relationships based on training levels. In general, participants with lower education levels may find that they have lower perceptions of job satisfaction than those with higher education levels. However, significant differences have been detected in the four sub-dimensions of the ANOVA test values, business activities ( $F=4.478$ ,  $P<.05$ ), wages ( $F=2.508$ ,  $P<.05$ ), promotion ( $F=2.808$ ,  $P<.05$ ), colleagues ( $F=4.065$ ,  $P<.05$ ), and work satisfaction scale ( $F=3.405$ ,  $P<.05$ ).

The Tukey HSD test has been used to identify statistically significant differences in the four-horse size and business satisfaction scale. In the lower size of Business Activities, participants with secondary school-level education levels were found to have lower averages and differentiated significantly from those who had higher education levels than those who had undergraduate or higher education levels. There are meaningful differences in the promotion sub-dimension between the average responses of participants with secondary school level education and those with high school level education levels, and the responses of participants with doctoral level education. As for the colleague subsize, high school graduates differ statistically from graduate graduates. Taking into account the overall scale of business satisfaction, participants with a Master's degree level of education have more perceptions of job satisfaction than those with a high school level of education.

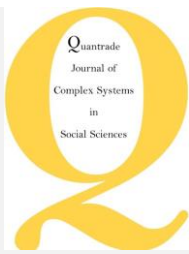
The ANOVA test was used to examine the meaningful differences between participants' work satisfaction perceptions and in-business positions. The F-test values were found to be only statistically significant differences in the entire scale of the promotion sub-dimension ( $F=6.989$ ,  $P<.05$ ) and work satisfaction ( $F=3.507$ ,  $P<.05$ ). The Tukey Test, a Post-Hoc analysis, is preferred to identify the significant differences between which groups.

There are statistically significant differences between the average score of workers and the average score of managers and the average scores of senior managers, and those of employees who are principal, regarding the promotion sub-dimension. Executives and senior executives received lower average scores than managers. On the job satisfaction scale, statistically significant differences have been identified only between workers and those in the executive position.

The ANOVA test was used to examine the meaningful differences between participants' work satisfaction perceptions and their working time. F-test values were found to be only statistically significant differences in the wage subsize ( $F=4.246$ ,  $P<.05$ ) and colleagues subsize ( $F=7.363$ ,  $P<.05$ ). The Tukey Test, a Post-Hoc analysis, is preferred to identify the significant differences between which groups.

It was found among participants with 10 years of experience. Participants with 2 years or less experience appear to be valuing the wage subsize more. In addition, employees with the same subsize, 3-5 years experience differ statistically from those with 16 years and more experience. Workers with a 0-2 year experience in their colleagues' sub-size have a higher average than participants with 11-15 years and 16 years and more experience. Additionally, employees with 6-10 years experience have a statistically high average compared to those with 11-15 years and 16 years and more. Beyond these meaningful differences, no meaningful differences have been detected.

The main goal of the study is to assess the relationship between employee perceptions of corporate quality of service and work satisfaction in the Mellitah Oil and Gas Company of Libya. Also, it is one of the other research objectives to determine to what extent enterprise quality sub-dimensions impact business satisfaction, whether there is a relationship between them. Based on the results of the analysis, employees have been found to have lower than average responses to the scale of enterprise quality of service, but greater than average responses to the scale of business satisfaction. Those



results show that the enterprise is lacking in quality of service, but above average in satisfying its employees. Statistically meaningful positive relationships are detected between quality of service and all child dimensions of business satisfaction. Other results include the improved quality of business satisfaction on the scale of all sub-dimensions of the enterprise service.

In addition to these analyzes, multiple linear regression analysis revealed that not all five sub-dimensions have a meaningful effect on employee satisfaction perceptions. Only empathy, physical properties and sub-dimensions of assurance have been found to have a statistically significant effect on business satisfaction perceptions. Enthusiasm and reliability are found to have no effect in increasing or decreasing business satisfaction. The most important aspects that empathy sub-dimension impacts job satisfaction may be in the ranks of peer-to-employee relations, management strategies, employee motivation, and individual lifestyles. These include working as sub-dimensions of the work satisfaction scale. Training and performance of customer service representatives should include relational aspects that enable them to understand and communicate their customer needs. Balinado, J.R. (2021), discovered that reliability and empathy sub-dimensions are strongly linked to customer satisfaction in Toyota Dasmarinas-Cavite, a Philippine company implemented by the SERVQUAL scale. Surprisingly, he found that physical traits, enthusiasm, and precision have no statistically meaningful relationship between them with business satisfaction.

The result of this study was found to be statistically significant differences between gender and the perception of corporate quality of service. Although the responses of women and men were lower than the average of the scale, female participants were found to have higher perceptions of institutional quality of service than male participants. Female participants outnumbered male participants in only the lower dimensions of accountability and enthusiasm. Female participants have a more positive outlook than their male counterparts. Women's expectations were found to be very different. This can be explained because management reactions to employee requests differ according to their gender. Furthermore, results showed that female employees have higher levels of employment satisfaction but that differences do not make statistical sense. In view of this information, the results of our study may be interpreted as evidence that male and female employees may have different expectations and value certain things differently.

Employee perceptions of education, quality of service, and job satisfaction are recognized as the most important considerations that differentiate significantly between participants. Many previous studies have found that as employees' levels of education increase, their job expectations go up. This is why an increase in the level of education of employees can give them a sense of dissatisfaction with their work (Günes, 2002). This study shows that participants with bachelor's, master's and PhD levels of education have significantly diverged in expectation. So having a higher level of education can make a significant difference in how employees perceive their work.

Other analyzes have shown significant variations in the age variable related to employee perceptions of enterprise quality of service and job satisfaction. However, these differences may not generally be regarded as having an effective role. This can be attributed to a similar working environment in which participants of different ages work. Also, it is important for senior management in the company to treat all employees equally, given that older employees can contribute to their work experience.

## Results

When the study analyzes the data through the relevant programs, the following results have been achieved. These results are sorted as follows:

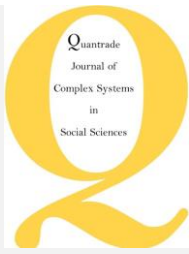
The perceived levels of the quality of business services offered in the company specification studied have fallen below the average score of the lickert scale of 3. Employees, in fact, are unhappy with the quality of their corporate services.

Employees of the Libyan Mellitah Oil and Gas Company, who were surveyed in the study's case, expressed a high level of understanding of business satisfaction. Employees may be satisfied or satisfied with their work.

Statistically meaningful and positively oriented relationships have been detected between Quality of Service and Scale of Business Satisfaction. The bottom line here is that quality of service has impacted the level of job satisfaction.

The five sub-dimensions of the Quality of Service scale (concrete things, reliability, responsiveness, assurance and empathy) are significantly positive in relation to the work satisfaction levels of employees. This relationship is also statistically significant.

The five sub-dimensions of the Quality of Service scale (concrete things, reliability, responsiveness, assurance, and empathy) are each in a positive way affecting the work satisfaction levels of the individual workers.



The analysis of multiple linear regression results in these sub-dimensions with a statistically meaningful effect only of empathy, embodiment, and assurance subdimensions.

The service quality scale sub-size, which implies the tangible, has the highest average compared to other sub-dimensions.

As employee-perceived internal service climate increases, it is determined that employees at the institution receive higher levels of work satisfaction than their working environment.

Given the perception of job satisfaction and the quality of service, the most effective demographic variables are identified as gender and education variables. Female participants received higher average scores on both scales than male participants. And the way female participants viewed those two things is that they've evolved a lot more. Based on the higher level of education variable, employees are more concerned with quality of service and business satisfaction perceptions.

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