

The Effect of Quality of Work Life on Employee Engagement in the Egyptian Electricity Transmission Company (An Applied Study)

Dr. Marwa Mohamed Abd Elghany Abd Rabo
Lecturer in the Department of Production Management
Sadat Academy for Management Sciences

Abstract:

Purpose: Quality of Work Life (QWL) is a philosophy, a set of principles, which holds that employees are the most important resource in the organization, as the basis underlying QWL is the humanization of work which means developing a work environment that ensures dignity to the employees, stimulates their creative abilities, and facilitates self-growth. The purpose of this study therefore is to demonstrate the influence of QWL on Employee Engagement (EE) in Egyptian Electricity Transmission Company (EETC).

Design/methodology/approach: The present study is an empirical study which is based on descriptive analytical method. Particularly, the research offers a holistic approach that takes human nature into account, presenting a proposed theoretical framework for the logical relationship between the research variables. The research population is represented in the electricity sector, while; the research sample is represented in EETC. In order to collect data effectively; the study follows the method of a comprehensive survey across all managers at higher, middle and executive management levels in the research sample under investigation.

Findings: There are various results for this study, most important of which is decreasing in the degree of employee-organization alignment, as the results of the study reveal that QWL in the EETC needs to be improved, where the analysis

showed the declining of all dimensions of QWL in the EETC. The findings also identify the important relationship between QWL and EE in the EETC, as there is a direct strong relation between QWL and EE. Thus, the more engaged employee in each dimension of QWL, the higher their personal engagement will be.

Research limitations/implications: The limitations of this research are recognized, in particular the sample of this study was derived from managers' of public sector in Egypt, thus the findings of the study cannot be generalized until we include private sector. Nevertheless, the research is intended to identify the important relationship between QWL and EE, shed the light for the need for further researches. Consequently, the study offers a number of significant findings that contribute more broadly to QWL literature.

Conclusions: Overall, results support the effect of QWL on EE, and the study recommends creating an organizational culture that put more focus on strategies that enhance QWL dimensions for the purposes of quality of life in the work place, to reach highly EE scores that a business hopes to achieve.

Keywords: Quality of Work Life, Employee Engagement, Egyptian Electricity Transmission Company.

Introduction:

Countless factors play role in development and improvement of efficiency, but most experts believe that workforce is the most valuable and most prominent factor in achieving goals of the organization (Maleki and Hasanmoradi, 2017:979). Rajshekhar (2011:1) points out that workforce are the most important assets an organization has and their effective management is the key to its success. Additionally, Gilaninia (2017:44) states that waste of human resources has a negative effect on other sources and the amount of waste generated in the supply chain of production and service will take multiplier. Accordingly, Vijayabaskaran (2013:34) clarifies that QWL

approach considers people as an ‘asset’ to the organization rather than as ‘costs’. Moreover, Gilaninia (2017:44) argues that the philosophy of improving the QWL based on eliminating waste of human resources, which improves the productivity and overall performance. According to Walter (2017:99), QWL is a wide-ranging concept that includes the individual’s perception of where he stands in life in terms of job culture with respect to an individual’s value systems. Mishra (2013:76) mentions that QWL aims to healthier, more satisfied, and more productive employees thus more adaptive, efficient and profitable organization. Thus, Sanjeev *et al.*(2016:876) and SheeMun *et al.*(2013: 44) state that QWL is a holistic approach that offer better work life quality and supportive work environments that are supported by a range of factors that influence the level of EE found in work places and organizations. So, QWL is a driver of EE which reflects how involved and enthusiastic an employee is on his work.

As the Electricity Sector is considered an important and vital sector that produces, transmits and distributes electricity to all governorates of the country, and plays an important role in the development of all sectors in Egypt, the researcher has chosen the Egyptian Electricity Sector to be the domain of study, where the importance of QWL rises as an approach to improve EE.

The study, therefore, is divided into 5 sections as follows: The first section focuses on reviewing the literature on QWL and EE. The second section introduces the methodology and the scales and measurement tools to study the two concepts in the Egyptian Electricity Sector. The third section presents the model framework. The fourth section includes the applied part of the study that tests the model through the use of the K- Means cluster method, Structural Equation Model (SEM), and the simple and Stepwise Multiple Regression Model (SMRM) by

using IBM SPSS and AMOS 25.0 Software. In the last section multiple results and recommendations are presented.

First: Literature Review:

The first section will focus the light on Quality of Work Life and Employee Engagement.

1. Quality of Work Life:

Work is an important economic, social and psychological ingredient of human life. Valiukaite and Ruzevicius (2017:77) mention that for most people, work is not just a source of income, it meets the needs of the people and higher—the desire to realize themselves, to develop their capabilities, career advancement, or to communicate with colleagues. It provides satisfaction and a sense of accomplishment, achievement and success for workforce. Also Kohont and Zajc (2017: 209) clarify that in today's rapidly changing world, and due to the current prevailing focus on work economic effects, further underlined with the recent economic crisis, work is becoming ever more intensive and this can result in negative effects, like dissatisfaction. Accordingly, Sanjeev *et al.*(2016: 876) state that the issue of work life quality has become vital in the last two decades due to increasing stress of day to day business environment, as businesses are getting bigger, more integrated and more complex in this era. Furthermore, Valiukaite and Ruzevicius(2017:77) argue that the rapidly growing number of scientific evidence, saying that the organization's results and success depends on how much workers are feeling happy in work. Therefore, organizations progress is directly related to the QWL.

According to Walton (1974), QWL means identifying the human needs and aspirations of employees (Walter, 2017:135). Maleki and Hasanmoradi (2017:979) pinpoint that QWL is a comprehensive concept which represents the employees' perceptions of their physical and psychological health in relation

to their work and the ability of employers to satisfy their important personal needs based on their experiences in the organization. While Gupta and Hyde (2014:8) state that QWL is a philosophy, a set of principles, which holds that people are the most important resource in the organization as they are trustworthy, responsible and capable of making valuable contribution and they should be treated with dignity and respect. Walter (2017:5) defines QWL as an extent to which an employee is satisfied with personal and working needs through participating in the workplace while achieving the goals of the organization.

According to John and Mohan (2014:4), QWL is a multidimensional concept concern for the members of an organization; they mention that the basis underlying QWL is the humanization of work which means developing a work environment that ensures dignity to the employees, stimulates their creative abilities and facilities self-growth. Also Valiukaite and Ruzevicius (2017:78) state that according to the English researcher G. James, QWL can be defined as a target to improve the workplace, make the work environment more comfortable, as a process to combine the needs of the employees and the goals of the organization, as a philosophy which valued the individual as an asset that can be nurtured through knowledge, experience. Accordingly, they define QWL as synthesis of work place strategies, processes and environment, which stimulates employee's job satisfaction.

Gupta and Hyde (2014:9) clarify that the basic purpose of QWL is to develop work environment that are excellent for employees as well as for organization. Accordingly, QWL is essential for the following reasons: support recruitment (Mishra, 2013:77; Ghaljahi *et al.*, 2017:1405), encourage employee commitment (Gilaninia, 2017:49; Gupta and Hyde, 2014:9; Saufi *et al.*, 2013:269), encourage retention (Mishra, 2013:77; Ghaljahi *et al.*, 2017:1405; John and Mohan, 2014:4),

enhance productivity (Saufi *et al.*, 2013:269; Gupta and Hyde, 2014:9; Jain and Thomas, 2014:145), reduce absenteeism (Gilaninia, 2017:44; Mishra, 2013:77), increase overall organizational effectiveness (Sanjeev *et al.*, 2016:876; Gupta and Hyde, 2014:9; Gilaninia, 2017:44), increase employee's job satisfaction & consequently the job aspirations of the employees (Vijayabaskaran, 2013:33; Gupta and Hyde, 2014:9; Jain and Thomas, 2014:145).

A number of researchers and theorists have tried to identify the kinds of factors that determine quality of life in the work place, Sanjeev *et al.*(2016: 876) and Mishra (2013:77) point out that the key factors observed in QWL include: job security, physical environment, better reward systems, work load and job stress, higher pay, challenging work and opportunity for growth. Also Lee *et al.* (2017:439), Gupta and Hyde (2014:10) and Vagharseyyedin *et al.* (2011: 786) identify and study the following factors of QWL and found them to be important predictors of overall organizational effectiveness: work environment, job satisfaction, salary and fringe benefits, relationship with colleagues, quality of supervision and job security. Furthermore, Pranee (2002:127) mentions that the factors that influence QWL in public organizations include: employees development through training, occupational hazards ,safety, participative and welfare schemes, as well as rewards and recognition, also John and Mohan (2014:4) state that employees who possess worthwhile and meaningful work, who experience good working conditions and are well paid can create a total quality situation which enables them to develop and use all their capabilities. Accordingly, Maleki and Hasanmoradi (2017:979) classify the factors affect an employee's QWL into physical factors such as working conditions, economic factors such as wages and salary, psychological factors such as worthwhile and meaningful work.

While Walter (2017:135) and Gupta and Hyde (2014:9) state that Walton's theory of quality of work-life (1975) proposed eight major conceptual categories relating to QWL including: adequate and fair compensation, safe and healthy environment, development of human capacities, growth and security, social integration, constitutionalism, total life space, and social relevance. Therefore, QWL is essential to an organization's success as it is seen as a basic tool which boosts working conditions from an employee's perspective, so employees will report higher levels of performance and job involvement which provides great organizational productivity, thus QWL is a valuable tool for more adaptive, efficient and profitable organization.

2.Employee Engagement:

In present time more and more organizations are recognizing the importance of their workforce considering it as the most important assets an organization has and viewing it as the investment in capital assets (Rajshekhar, 2011:1-2). Maleki and Hasanmoradi (2017:979) mention that employees are the human embodiments of an organization; EE is arguably the most critical metric for organizations in the 21st Century. Most if not all, of the other key measures that reflect and drive organizational performance (profitability, productivity, innovation, loyalty and quality) are products of engaged committed employees (Kaur, 2013:1). Academic literature presents a couple of definitions of engagement, engagement as suggested by Barbera *et al.*(2011:2) and Dovalienea *et al.*,(2015:660), is the individual's involvement and satisfaction with, as well as enthusiasm for work. They state that engagement can be described as the degree of employee-organization alignment. According to Sakovska (2012:6) and Schweyer (2010:4), engagement is an employee's decision to apply his discretionary effort to the goals of the organization, to accept those goals as his own and

whole heartedly commit himself to achieving them. Fleming and Asplund (2007:128,160) describe engaged employees as loyal and psychologically committed to their job and the organization, they also mention that engaged employees want their organization to succeed because they feel connected emotionally, socially and even spiritually to its mission, vision and purpose. Accordingly, Barbera *et al.*(2011:2) and Zweifel (2010:24) define EE as a state of mind in which employees feel a vested interest in the organization's success and are both willing and motivated to perform to levels that exceed the stated job requirements. Supported by (Sakovska ,2012:6) and (Zainol *et al.*, 2016:1), EE is defined as the positive attitude held by employees or their commitment and involvement level towards the organization and its value, they state that engaged employees are more likely to remain with its current organization. Furthermore, SheeMun *et al.* (2013:43-44) states that EE is a management concept that determines how involved and enthusiastic an employee is on his work, they also consider EE as a process supported by a range of factors including communication, empowerment to make decision and supervisory support and not just the tangible reward factors.

Southard (2010:8) argues that highly engaged employees are directly affects the quality of their organization. Therefore, when employees are engaged, they positively commit to their organization, willingly make changes, trust their organization, possess self-efficiency, and aspire to achieve improvements within the organization. On the other hand, Schweyer (2010:1-5) and Sutton (2015:307) state that actively disengaged employees are physically present but psychologically absent and these employees insist upon sharing their unhappiness with others. Accordingly, Zweifel (2010:11) and Schweyer (2010:15) state that after

many studies, Gallup, the global research-based consultancy specializing in employee and customer management, has created the Q12 engagement survey (the Q survey) that serves as an indicator of an organization's degree of EE that derived from millions of interviews and extensive data sets. Sutton (2014:28) clarifies that this instrument asks employees to answer 12 questions to determine whether they fall into the engaged, non-engaged or actively disengaged categories. As Schweyer (2010:1-5) and Sutton (2015:307) explore that for organizations, the difference between an engaged and disengaged workforce can ultimately mean success or failure, so organizations need engaged employees that are willing go beyond expectations in order to meet market pressures and run as efficiently as possible.

Second: General Framework of the study:

The second section deals with the methodology of the study and the scales and measurement tools as follows:

1.The Methodology Study:

Research problem:

Electrical energy is the backbone of modern civilization because of its direct impact as a key element in all areas of life, which prompt the Egyptian Electricity Transmission Company (EETC) to develop many integrated plans and short and long-term projects to develop and strengthen the electricity transmission network and reduce technical loss in extra and high voltage grids, so as to meet the fast growing electricity demand and the steady increase in loads resulting from the rapid leaping in industrial, agricultural and constructional development projects (Egyptian electricity holding company annual report, 2015/2016:13). In this context, the first Undersecretary of the Ministry of Electricity and Renewable Energy pointed out the need to confront the

challenges facing development projects and clarified the importance of determining the state of transport networks and plans required to meet expansions. Also He stated that these challenges include human resources (Ali, 2017), as it was found through the exploratory study, many human competencies were leaked from the Ministry of Electricity to the Arab countries with no preparation of a second row at the required level.

Accordingly, The President of the Egyptian Electricity Holding Company (EEHC) issued decree No. 147 of 2015 - to face this challenge - stipulating not to renew the special leave without pay to work abroad up to a maximum of five consecutive or separate years for the need of the work to the employees, and in case of exceeding the specified period, the necessary termination is taken. As the result, the number of the special leave without pay for the employees working abroad in the EETC decrease from 580 employees in 2014/2015 to 485 employees in 2017/2018 with a decrease of 16.3% (Annual statistics for employees vacations, 2014/2015-2017/2018), this decrease obviously came as a result of the administrative decree that force the employees not to renew special leave without pay in case of reaching the maximum limit mentioned above, as the aim of this decree is to form a stable and engaged work force to carry out the tasks of the sector in general and its subsidiaries in particular. Accordingly, the Research problem is represented as: "Decline in Employee Engagement in the Egyptian electricity sector which led to the leakage of many human competencies to the Arab countries with no preparation of a second row at the required level"

Research Hypothesis:

The research examines the following set of hypotheses:

H1: There is a statistically significant relationship between Training and Development and Employee Engagement.

H2: There is a statistically significant relationship between Rewards and Recognition and Employee Engagement.

H3: There is a statistically significant relationship between Feedback and Internal Communication and Employee Engagement.

H4: There is a statistically significant relationship between Empowerment and Career Development and Employee Engagement.

H5: There is a statistically significant relationship between Relationship with Peers and Supervisors and Employee Engagement.

H6: There is a statistically significant relationship between Physical Work Environment and Employee Engagement.

H7: There is a statistically significant relationship between Quality of Work Life and Employee Engagement.

Research Objectives:

This research aims - in addition to test its hypothesis -to meet the following underlying objectives:

1. Provide a scientific and academic conceptual framework about Quality of Work Life.
2. Examine the extent to which Quality of Work Life dimensions are implemented within the Egyptian Electricity Transmission Company.
3. Present Employee Engagement dimensions that serve as indicators of an organization's degree of Employee Engagement.
4. Enhance the understanding of Quality of Work Life, Employee Engagement through a theoretical framework

that constitutes the effect of Quality of Work Life on Employee Engagement.

Research Methodology:

The research study is an empirical study based on descriptive analytical method, and the research population is represented in the electricity sector, which is considered the main sector of the research because of its vital role in the development of all sectors in Egypt. The electricity sector is represented by the Egyptian Electricity Holding Company (EEHC) and Subsidiaries, which include six companies for electricity production, the Egyptian Electricity Transmission Company (EETC) and nine companies for electricity distribution, so as to produce, transmit and distribute electric power in all governorates of the country, whereby the Hypothesis are tested through the research sample which is represented in the EETC, which is considered the only company responsible for the transmission and control of electricity through the transmission networks of electric power on the extra and high voltage grids all over the country (Egyptian electricity holding company annual report, 2016/2017:43). In order to collect data effectively, a comprehensive survey was conducted across all managers at higher, middle and executive management levels, a number of 307 questionnaires was developed and distributed across Chief Executive Officer (CEO), General managers, Departments managers and Sections managers at the three administrative levels mentioned above, and a total of 259 valid and complete questionnaires were returned at a rate of 84.4% showing that they took keen interest in the study as they are the direct beneficiaries of the study in their work.

To ensure the accuracy of the content of the questionnaire, it was reviewed by Professors before the questionnaire was distributed. The questionnaires were distributed through field visits among a period of five months to investigate the effect of QWL on EE.

2. Scales and Measurement Tools:

a. Quality of Work Life

The QWL assessment tool is built based on Purdy(2017), Maleki and Hasanmoradi (2017), Sanjeev *et al.*(2016), Mishra (2013), Vagharseyyedin *et al.* (2011) and Gupta and Hyde (2014) questionnaires that are built based on Walton's theory (1974) that is the premise upon which QWL was built and recognized in today's organizations and was used as a foundation for employers to focus on the effects of the workplace on employees' health and wellbeing (Walter, 2017:18). The QWL questionnaire contains a scoring set of 21 questions based on 5-point likert-type scale, related to six dimensions including: (1) Training and Development, (2) Rewards and Recognition, (3) Empowerment and Career Development, (4) Feedback and Internal Communication, (5) Relationship With Peers and Supervisors, and (6) Physical Work Environment.

b. Employee Engagement

The EE assessment tool is built based on Sutton(2015), Sutton(2014), Schweyer(2010), Zweifel(2010), Sherman (2008), and Fleming and Asplund(2007) questionnaire that is built based on Gallup, the global research-based consultancy specializing in employee management, which identified the Qsurvey that serves as an indicator of an organization's degree of EE, so the EE questionnaire contains a scoring sets of 12 questions based on 5-point likert-type scale, related to four dimensions including: (1) Employee Ability, (2) Employee Willingness, (3) Employee Commitment, and (4) Employee Retention. Thus, the more engaged employee in each dimension, the higher their personal engagement will be.

Third: The Proposed Model:

Based on the previous literature review, this research argues the effect of QWL on EE through a proposed theoretical framework for the logical relationship between the research variables as illustrated in figure (1) as follows.

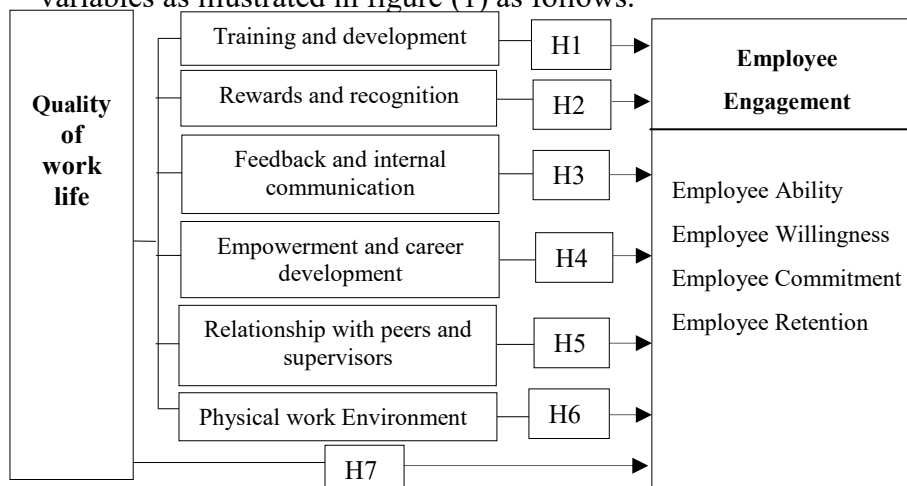


Figure1: Theoretical Framework between research variables.

1. Quality of Work Life:

The above model illustrates 6 dimensions to measure QWL, which represent the independent variables of the study, including: (a) Training and Development, (b) Rewards and Recognition, (c) Empowerment and Career Development, (d) Feedback and Internal Communication, (e) Relationship with Peers and Supervisors, and (f) Physical Work Environment. This model follows the views of Lee *et al.* (2017:439), Gupta and Hyde (2014: 10), Vagharseyyedin *et al.* (2011: 786), Maleki and Hasanmoradi (2017:979), and Walter (2017:135) that argue that QWL is essential for the smooth running of organization and success of its employees, this is because if an employee's expectations are met, they have a clear and concise perception toward their work contributing to long-term career.

a- Training and Development:

According to Rajshekhar (2011:7), training is a continuous process by which employees learn skills, knowledge, abilities and attitudes to further organizational and personnel goals. While AL-Jabari (2017:133) states that development is the process of improving, changing and developing the skills, knowledge, creative ability, aptitude, attitude, values and commitment based on present and future requirements both at the individual's and organization's level. Additionally, Zainolet *al.*(2016:4) define Training and Development as specific efforts made to develop the skills of the employees by the employers so that new knowledge and skills can be utilized in performing their jobs. Furthermore, Sakovska (2012:35) points out that Training and Development have two meanings for the employees, it can be perceived as an intrinsic motivator, as they support employees' growth, learning and development, it can also be an extrinsic motivator, because they give employees more tools they can use during their work for achieving their goals.

Accordingly, Gilania (2017:51) and Vijayabaskaran (2013:36) mention that proper Training and Development are the best weapon to change and improve the employee's knowledge and skills. In addition, Chang *et al.* (2004:456) clarify that organizations must supply their employees a healthy environment for learning and growing and offer more opportunities for career development. Zainol *et al.* (2016:3) and AL-Jabari (2017:133) support this view, pointing out that if employees are satisfying with the Training and Development in the organization, they will be more engaged in the organization and more likely to stay within the organization.

b- Rewards and Recognition:

Recognition is a process which makes employees feel rewarded for their contribution to the organization (Sakovska, 2012:32). Some literatures suggest that many employees like to

be distinctively rewarded and recognized for the outstanding work they do (walter, 2017; Zainol *et al.*, 2016; Babich, 2014; Rajshekhar, 2011). According to Barbosa *et al.* (2014:7) and Walter (2017:120), rewards are all of the monetary, non-monetary benefits an employee receives from an organization. Additionally Zainol *et al.* (2016:4) and Baumgartner (2014:48) mention that rewards can be extrinsic or intrinsic, extrinsic rewards, representing Maslow's lower level needs, such as payment, security, and promotion that are granted by the organization and often do not directly relate to actual performance, while intrinsic rewards, representing Maslow's higher level needs, such as the feeling of being able to accomplish something meaningful, make the employees more motivated, excited, interested and ready to positively influence the organization's goals and objectives.

Additionally, Sakovska (2012:25) and Rajshekhar (2011:36) state that the inadequate Rewards and Recognition can lead to dissatisfaction and burnout. SheeMun *et al.* (2013:44) support this idea and show that the level of Rewards and Recognition is an important part of work experience and a strong predictor of engagement. Accordingly, Zainol *et al.* (2016:4) and Sakovska (2012:26) point out that Rewards and Recognition have a great influence on EE as they are determinants towards an increase in EE.

c- Empowerment and Career Development:

AL-Jabari (2017:135) describes empowerment as the process of distribution of power that allows the employees greater capacity for decision-making and greater autonomy over their work. As noted by Tsaur *et al.* (2004:445), empowerment is the extent to which organization supports an environment that leads to encourage employees taking initiative to improve process and to take action in performing their work. According to Baumgartner (2014:12), empowerment is an alternative strategy to the traditional way of promoting development.

Accordingly, Tsauro *et al.* (2004:456) state that organizations must supply employees a healthy environment for growing and offer more opportunities for career development. Chinomona (2017:693) supports this view, pointing out that organizations that offer employees career growth and development opportunities by way of empowerment will possibly gain more benefits by ensuring that employees truly recognize how to proactively manage their own career. Thus, SheeMun *et al.* (2013:44) mention that if employees are empowered and offered more opportunities for career development, they will be more motivated and more likely to engage in their organization.

d- Feedback and Internal Communication:

Internal Communication is an integral part of any organization which ensures smooth transition of information Rajshekhar (2011:50). According to Zainol *et al.* (2016:4), internal communication is an internal organizational process that provides and shares information to create a sense of community and trust among employees. Additionally, Sakovska (2012:35) and Rajshekhar (2011:41) state that feedback is communication in the organization that helps employees understand how their work contributes to the success of the team and organization. Furthermore, Sherry (2016:19) and Sakovska (2012:35) clarify that clear internal communication provides support for growth, as the access to information increases the chances that the task at hand will be completed successfully and that work goals will be achieved.

Accordingly, Maleki and Hasanmoradi (2017:986) and Prasad (2016:200) mention that feedback and good internal communication create a balanced working life that definitely helps in taking out the stress of an employee to a substantial level, gives employees the power of creativity, commenting and sense of comfort which in turn are effective for improvement of EE. Baumgartner (2014:27) and Sakovska (2012:35) support

this view, pointing out that receiving ongoing feedback and sharing information can be seen as basis for successful engagement initiatives.

e- Relationship with Peers and Supervisors:

An interpersonal relationship is a strong, deep, or close association between employees and their supervisors/peers that may range in duration from brief to enduring (Sherry, 2016:16). Researches support the positive relationships between employees, their supervisors, and their peers (Maleki and Hasanmoradi, 2017; AL-Jabari ,2017; Zainol *et al.*, 2016; Babich, 2014), Gupta and Hyde (2014:12) state that strong positive relationship between employees and their supervisors/peers is an important predictors of the overall organizational effectiveness and is an indicator of a healthy work organization. According to Maleki and Hasanmoradi (2017:986) and Mazerolle and Goodman (2013:669), supportive relationships between employees and their supervisors/peers give employees the power of creativity, commenting and sense of comfort, which are effective for achieving business goals and the fulfillment of work–life balance. Furthermore, AL-Jabari (2017: 39-40) highlights the importance of creating supportive interpersonal relationship between employees and their supervisors/peers, which allows employees to try new ideas or strategies without fear of the consequences of failure.

Accordingly, AL-Jabari (2017:3), Sherry (2016:16), and Zainol *et al.* (2016:5) note that workplace environment that values positive workplace relationships creates a healthy environment that support employee work engagement. Additionally, AL-Jabari (2017:40) points out that when the relationship between employees and their supervisors/peers are positive, employees feel valued, which in turn have a strong positive effect on EE.

f- Physical Work Environment:

Physical Work Environment has been widely studied since it contributed a considerable concern on employee's job performance (Gupta and Hyde, 2014:12; Abd Hamid and Hassan, 2015:846). According to Vijayabaskaran (2013:34), organizations realize that their true wealth lies in their employees and so providing a healthy Physical Work Environment for employees is their primary objective. As Parveen *et al.* (2013:5) state that Physical Work Environment is the interrelationship that exists between the employees and the environment in which the employees work. Additionally, Gilaninia (2017:45,49) mentions that creation of appropriate adaptation between employees and the physical conditions of the workplace, convenient tools and equipment, clean and refreshing work environment leads to higher efficiency of human resources. Furthermore, Oswald (2012:5) argues that Physical Work Environment that comprises the comfort level (presence of office building and working tools) influences employees' productivity and competence. Also Leblebici (2012:39) and Imran *et al.* (2012:1456) clarify that the physical layout of the workplace plays a major role in improving organizational performance. Leblebici (2012:39) points out that physical work environment is a tool that can be leveraged both to improve business results and employee well-being.

Accordingly, Parveen *et al.* (2013:99) state that it is important for organization to pay more attention to make sure that the ergonomic environment is properly maintained. As John and Mohan (2014:6) clarify that QWL cannot be high unless the work environment is free from all hazards detrimental to the health and safety of employees. Parveen *et al.* (2013:97) and Leblebici (2012:38) support this view, pointing out that better physical work environment will boost the employees' productivity, reducing the number of complaints and

absenteeism, which in turn affect employee's engagement, morale, and comfort level.

2. Employee Engagement:

Based on the above model, EE represents the dependent variable of the study that is measured by 4 dimensions including: (a)Employee Ability, (b)Employee Willingness, (c) Employee Commitment, and (d)Employee Retention.This model followsthe views of Kaur (2013:1), Fleming and Asplund (2007:128,160), Sakovska (2012:6) and Zainol *et al.*(2016:1) that argue that engaged employees are positively commit to their organization, possess self-efficiency, willingly make changes, and aspire to achieve improvements within the organization.

a- Employee Ability:

Employee Ability is a complex concept which represents social, mental, and physical capabilities of the employees in the workplace and describes the interactions between mental and physical resources of individuals (Ghaljahi *et al.*, 2017:1405). Oswald (2012:12) defines Employee Ability as the personal characteristics used to perform work. According to Richardson (2014:30), Employee Ability is the possibility of the employees to perform different works within the work environment, he mentions that the required amount of employees to perform each task is not only important, but attention is focused on the physical and mental capabilities of the workforce that make them capable of performing the work and help them to achieve high performance levels.

Additionally, Pramila (2015:7) stresses the need to adapt the work to suit the worker instead of forcing the worker to adapt to the work, asthe main objective of the modern management is to focus on the QWL by creating a workforce that is capable of performing the work. Accordingly, Pranee (2002:130) and Ghaljahi *et al.* (2017:1404) clarify that QWL is considered as a key factor related to Employee Ability, which is an index of job satisfaction,which in turn createcompetent

workforces who possess the knowledge and necessary skills necessary to effectively perform their work.

b- Employee Willingness:

Willingness is one of the most important and essential factor for employees' achievement, it refers to the employees' elevated levels of energy and desire to invest effort in the workplace (Muda *et al.*, 2014:75). Archer (2013:33) states that Employee Willingness is a sense of need arises from the person himself. According to Pickl and Block (2014:3), Employee Willingness is the driving force of human behavior, that's because the individual directs his energies towards satisfying the needs that he wants to satisfy according to the degree of importance of these needs. Additionally, Reed (2016:23-25) describes Employee Willingness asa human characteristic that reflects the tendency of the human being towards something, whether it is obtained or disposed of. Furthermore, Muda *et al.* (2014:75) and Reed (2016:46) mention that the term Employee Willingnessrepresents the complex forces and needs which provide the energy for an individual to perform a particular task.

Accordingly, Employee Willingness serves as an essential component of business operations, which enhances performance and productivity. Thus in order to achieve the best performance of human resources, Gupta and Hyde (2014: 13)and Leblebici (2012:40) point out that it is imperative for modern management to understand the human behavior and how to influence it, and to try to achieve compatibility in the relationship between the human nature and the work environment through creating a QWL that positively affects the continuity of work performance and form a work force characterized by being willing to perform the workwith the highest degree of efficiency and effectiveness.

c- Employee Commitment:

Commitment is an essential factor for an organization to function well, it has been given considerable attention, most likely because the concept of a committed employee holds many implications for organizations (Gupta and Hyde, 2014:12). As a result, research between the 1960s and 2017 focused on commitment within organizations, defined and measured it in many different ways (Steers, 1977; Bateman and Organ, 1983; Baba and Jamal, 1991; Lum *et al.*, 1998; Garbarino and Johnson, 1999; Gupta and Hyde, 2014; Walter, 2017). Chinomona (2017:695) defines Employee Commitment as the one's attitude towards one's profession. According to Walter (2017:46), Employee Commitment is the degree to which an employee identifies with a particular organization and wishes to maintain membership in the organization. As indicated by Gupta and Hyde (2014: 13), committed employees are characterized as those individuals who attend work daily, protect organizational assets, share organizational goals, and remain with an organization through both good and bad times. Additionally, Walter (2017: 18) clarifies that Employee Commitment is based on three factors: (a) strong belief in, and acceptance of the organization's goals and values, (b) willingness to exert considerable effort on behalf of the organization, and (c) a definite desire to maintain organizational membership.

Gupta and Hyde (2014:14) state that Employee Commitment is important because high levels of commitment lead to several favorable organizational outcomes. It reflects the extent to which employee has identify with organization and is committed to its goals. Accordingly, Chinomona (2017:693,697) mentions that lack of Employee Commitment is associated with poor job performance, low morale and lower job satisfaction, so it requires an environment which is positively nurtures a more flexible, loyal, and motivated workforce, an environment in

which this commitment can flourish and produce positive organizational results.

d- Employee Retention:

Employee Retention is the most critical workforce management challenges of the 21st Century (Walter, 2017:82; Sherry, 2016:8). As Al-Jabari (2017:3) states that retaining employees is critical for building human capital in an organization, and today's global economic conditions have made retention of skilled workers vital to an organization's human resource management objectives including increasing employee productivity and organizational profitability. According to Sherry (2016:5), Babich (2014:6), and Tornikoski (2011:215), Employee Retention is the employee's desire to stay with the organization. Additionally, Al-Jabari (2017:3) mentions that Employee Retention is the employee's intention to remain employed within the organization up to 5 years, up to 10 years, and through retirement.

Accordingly, Babich (2014:6) clarifies that employees who believe that they are supported by their organization are more satisfied both personally and professionally, which support Employee Retention. While Mazerolle and Goodman (2013:674) and Rajshekhar (2011:75) point out that social support, especially coworker support, also will lead to increase Employee Retention and will reduce the absenteeism and stress levels. Additionally, Babich (2014:6) mentions that the increased morale will have a positive impact on Employee Retention. Thus, to increase Employee Retention it is important to understand and address employee needs through the foundation of a successful work life environment that boosts retention, as Al-Jabari (2017:58) suggests that employee's expectations are fundamental to the employee's decision to remain with an organization, and if these expectations were not being met, the individual would become dissatisfied and leave.

Fourth: Statistical Results and Analysis:

The extent to which concepts of study were correctly defined in the measures was a major consideration. According to Veal (2011), the questionnaires are pilot tested on a small sample of participants randomly picked from the EETC in order to check whether the questions are clear and easy to respond, whether accurate data will be gathered from the field data collection. The questionnaire is accompanied by an introduction about the purpose of the questionnaire and some of the main definitions with assuring the confidentiality for any information given.

Reliability analysis is performed to test the internal consistency reliability. Cronbach's Alpha coefficient is chosen, as suggested by Hair *et al.* (2017) as it is the most commonly used for assessing the reliability of a construct, also they argue the recommended level of 0.70 as the minimum acceptance standard of internal consistency reliability, while Anderson *et al.* (2010) mention that 0.60 is generally viewed as the minimum acceptance level. Furthermore the quality of questionnaire design by three types of validity criteria constructs validity: internal validity, external validity and reliability. The Cronbach's alpha of each construct and validity in the research model is presented in Table (1).

Table (1): The Cronbach's alpha and validity in the research model

variables	Cronbach's Alpha	Spearman-Brown Coefficient	Friedman's Chi-Square	sig
Quality of work life	0.901	0.826	597.9	0.000
Employee Engagement	0.906	0.852	386.9	0.000
Total	0.933	0.748	1007	0.000

Source: From the results of running data on a spss program.

As indicated in Table (1), all the Cronbach's alpha and the Spearman-Brown Coefficient for all constructs exceeds 0.70, satisfying the general recommended level of 0.70 for the research indicators. The significance of Friedman's Chi-Square

test is 0.000 (p value <0.01) which indicates the validity of the constructs.

Test the research hypotheses

The research examines the following set of hypotheses:

H1: There is a statistically significant relationship between Training and Development and Employee Engagement.

- **Study the variable " Training and Development"**

The research evaluate Training and Development from all managers' point of view at higher, middle and executive management levels as shown in table (2) as follows.

Table (2): The Descriptive measures of Training and Development and its dimensions

Variables	Mean	agree %	Std. Deviation	C.V.%
The company concerned with training as a process for continuous improvement of performance.	2.9073	58.1500	1.19718	41.2
Training courses meet the actual training needs.	2.5907	51.8100	1.19854	46.3
There is a continuous follow-up and constant evaluation of the impact of training on the behavior and performance of employees.	2.4942	49.8800	1.15259	46.2
Training and Development	2.6641	53.2800	1.04753	39.3

Source: From the results of running data on a spss program.

As shown in Table (2), decreasing in the percent of agree for Training and Development to 53.28%, where only 51.81% of the respondents agree that training courses meet the actual training needs, also 49.88% only of the sample size agree that there is a continuous follow-up and constant evaluation of the impact of training on the behavior and performance of employees, which indicates the declining of Training and Development policy in

the EETC, which needs to develop to satisfy the employees important personal needs in relation to their work.

Also as shown in Table (2), the values of coefficient of variation (C.V.%) is high in range 39.3% and 46.3%, which means there is dispersion in response for Training and Development. So, we need to classify our respondents by using k- Means cluster to achieve homogenous groups for Training and Development, the results from SPSS are as follows:

Table (3): Results of k- Means cluster classification for Training and Development

Training and Development	Frequency	Percent
Low	151	58.3
Middle	108	41.7
Total	259	100.0

Source: From the results of running data on a spss program.

As shown in Table (3), 58.3% of our respondents have low Training and Development, while 41.7% have middle Training and Development. To test if this classification for Training and Development is significance or not, we do t- test and get the following results:

Table (4): Test the significance difference between Training and Development Categories

Training and Development Categories	Mean	agree %	t	sig.
Low	1.8698	37.4000	32.788	0.00000
Middle	3.7747	75.4900		

Source: From the results of running data on a spss program.

As indicated in Table (4), the sig. of t- test is 0.000 which is less than 0.05 (p-value < 0.05), which means there is a significant difference between the two groups concerning Training and Development, this indicates that Training and Development policy in the EETC needs a continuous follow-up, taking into consideration the employees who have low Training and Development which represent 58.3% of our respondents - as shown in Table (3).

- **Study the variable " Employee Engagement "**

The research evaluates the EE from all managers'point of view at higher, middle and executive management levelsas shown in table (5) as follows.

Table (5): The descriptive Measures of EE and its dimensions

Variables	Mean	agree %	Std. Deviation	C.V %
The training gives employees additional skills that make them capable of performing the work better.	2.517	50.35	1.136	45.11
Employees perform the assigned work right from the first time and every time.	2.487	49.73	1.129	45.39
Employees perform the assigned work on the right time.	2.595	51.89	1.23	47.41
Employee Ability	2.533	50.66	1.006	39.7
Employees receive praise and recognition for their progress in doing their work well.	3.255	65.1	1.266	38.88
Employees always meet changing work requirements quickly.	2.911	58.22	1.31	45.01
The degree of Employee Engagement in their work is significantly increased when talking to them about their progress in their work.	3.259	65.17	0.98	30.07
Employee Willingness	3.142	62.83	1.019	32.42
All employees in the company are fully aware of what is required of them.	2.602	52.05	0.977	37.53
All employees perform their work perfectly.	2.429	48.57	1.137	46.81
Employees exert more effort to achieve the vision and mission of the company.	2.471	49.42	1.115	45.11
Employee Commitment	2.501	50.01	0.923	36.9
The company's mission and goals make the employees feel the importance of their work.	2.707	54.13	1.11	41
Frequent absence of employees as a result of feeling fatigue and stress during work.	3.922	78.45	1.214	30.94
Loyalty and belonging to work are the feeling of all employees in the company	2.56	51.2	1.207	47.15
Employee Retention	2.448	48.96	0.878	35.87
EE	2.656	53.11	0.81	30.49

Source: From the results of running data on a spss program.

As shown in Table (5), the respondents' percent of agree for EE is 53.11%, where the dimension "Employee Willingness" occupy the highest score percent of agree by only 62.83%, while the dimension "Employee Retention" occupy the lowest score percent of agree by 48.96%, whereas Employee Ability and Employee Commitment occupy 50.66%, 50.01% respectively, which means decreasing in the degree of employee-organization alignment.

Also as shown in Table (5), the values of coefficient of variation (C.V %) is high in range 30.49% and 58.46%, which means there is dispersion in response for EE. So, we need to classify our respondents by using k- Means cluster to achieve homogenous groups for EE, the results from SPSS are as follows:

Table (6): Results of k- Means cluster classification for EE

EE	Frequency	Percent
Low	141	54.4
Middle	118	45.6
Total	259	100.0

Source: From the results of running data on a spss program.

As shown in Table (6), 54.4% of our respondents have low EE, while 45.6% have middle EE. To test if this classification for EE is significance or not, we do t- test and get the following results:

Table (7): Test the significance difference between EE Categories

EE Categories	Mean	agree %	t	sig.
Employee Ability	Low	1.8345	18.777	0.00000
	Middle	3.3672		
Employee Willingness	Low	2.5130	14.7	0.00000
	Middle	3.8927		
Employee Commitment	Low	1.8676	18.257	0.00000
	Middle	3.2571		
Employee Retention	Low	1.8818	15.984	0.00000
	Middle	3.1243		
EE	Low	2.0242	26.344	0.00000
	Middle	3.4103		

Source: From the results of running data on a spss program.

As shown in Table (7), the sig. of t- test is 0.000 which is less than 0.05(p-value <0.05), which means there is a significant difference between the two groups concerning EE and its dimensions, this indicates that EETC should exert more effort to increase EE, through increasing the ability, willingness, commitment, as well as retention of the employees, taking into consideration the employees who have low EE which represent 54.4% of our respondents - as shown in Table (6).

By measuring the correlation between Employee Engagement and its dimensions, the results were as follows:

Table (8): The correlation between EE and its dimensions

variables		Employee Ability	Employee Willingness	Employee Commitment	Employee Retention
EE	Pearson Correlation	0.845**	0.836**	0.870**	0.836**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000

Source: From the results of running data on a spss program.

As shown in Table (8), there is very strong direct correlation between EE and its dimensions in the EETC.

- **By measuring the correlation between Training and Development and Employee Engagement at its four dimensions, the results were as follows:**

Table (9): Correlation Matrix between H1 Variables

Variables		Employee Ability	Employee Willingness	Employee Commitment	Employee Retention	EE
Training and Development	Pearson Correlation	0.764**	0.583**	0.634**	0.613**	0.767**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000

Source: From the results of running data on a SPSS program.

As shown in Table (9), there is a direct high correlation between Training and Development and EE at its four dimensions in the EETC.

- **To test the hypothesis "There is a statistically significant relationship between Training and Development and Employee Engagement.", the Structural Equation Model**

(SEM) was used to test all the hypothesized relationships. SEM has numerous advantages in data analysis as it allows the evaluation of the complex and multidimensional relationship among variables; in addition, it has the ability to represent unobserved concepts in these relationships and account for measurement error in the estimation process (Levy *et al.*,2017). Figure (2) below shows SEM for the relationship between Training and Development and EE at its four dimensions in the EETC.

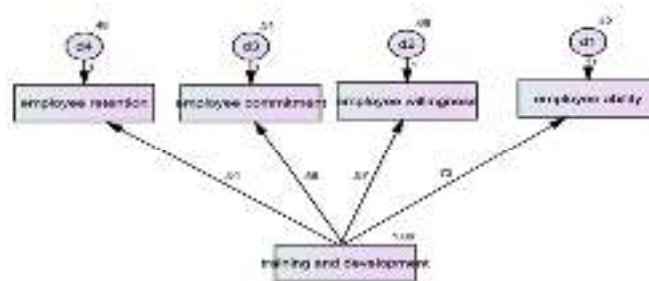


Figure (2): Relationship between Training and Development and Employee Engagement at its four dimensions.

Source: From the results of running data on a SPSS Amos 25 program.

The results of the full SEM (structural and measurement models) by using IBM SPSS Amos 25 for the EETC, are determined among the many measures of fit; the most popular measures are: Chi-square (χ^2), normed chi-square (χ^2 / df), the Comparative Fit Index (CFI), Goodness of Fit Index (GFI), Tucker-Lewis Index (TLI), Root Mean-Square Error of Approximation (RMSEA) (Holmes-Smith *et al.*, 2004) which indicate fit measures as follows: Chi-Square = 180.748 with sig 0.000 which is less than 0.05 (p-value <0.05) , CMIN/df = 30.125 , CFI = 0.075, GFI= 0.769, TLI=0.616 and RMSEA = 0.336. All proposed paths are significant for the relations between Training and Development and the four dimensions of the EE: Employee Ability, Employee Willingness, Employee Commitment, and Employee Retention. This means that there is

a reasonable relationship between the hypothesis' variables, which suggests that Hypothesis 1 is supported.

The results of the evaluation of each individual path of the model are summarized in Table (10) as follows:

Table (10): Results of Path Analysis for the relationship between Training and Development and EE at its four dimensions

Paths	R-square	parameter estimate	p-value
Training and Development → Employee Ability	0.584	0.734(19.029)	0.000
Training and Development → Employee Willingness	0.340	0.567(11.518)	0.000
Training and Development → Employee Commitment	0.401	0.558(13.155)	0.000
Training and Development → Employee Retention	0.375	0.514(12.453)	0.000
Training and Development --→ EE	0.589	0.593(19.214)	0.000

Source: From the results of running data on a SPSS Amos 25 program.

As shown in Table (10), all p-values < 0.05 for all paths in the EETC. The value of R-square, which indicates the effect of the independent variable " Training and Development " on the dependent variable "EE" is 0.589, which means that Training and Development policy can affect by 58.9% in changing EE. Additionally, Training and Development can affect in all EE dimensions as: Employee Ability by 58.4%, Employee Willingness by 34%, Employee Commitment by 40.1%, and Employee Retention by 37.5%.

All results support the hypothesis (H1) that: "There is a statistically significant relationship between Training and Development and Employee Engagement."

H2: There is a statistically significant relationship between Rewards and Recognition and Employee Engagement.

• **Study the variable " Rewards and Recognition"**

The research evaluate Rewards and Recognition from all managers' point of view at higher, middle and executive management levels as shown in table (11) as follows.

Table (11): The descriptive Measures of Rewards and Recognition and its dimensions

Variables	Mean	agree%	Std. Deviation	C.V.%
The financial return and the additional benefits received are Proportional to the work done and the extra exerted effort.	3.2973	65.95	1.12427	34.1
The rewards are given in a declared way.	3.4517	69.03	1.08575	31.5
There is a continuous follow-up and a constant assessment of the performance and behavior of employees before and after giving rewards.	2.8147	56.29	1.18306	42
Rewards and Recognition	3.1879	63.76	0.81852	25.7

Source: From the results of running data on a spss program.

As shown in Table (11), the respondents' percent of agree for Rewards and Recognition is 63.76%, where 69.03% of the respondents agree that rewards are given in a declared way, which makes employees feel rewarded for their contribution in the EETC, while only 56.29% of the respondents agree that there is a continuous follow-up and a constant assessment of the performance and behavior of employees before and after giving rewards, which indicates that the follow up of the Rewards and Recognition policy in the EETC needs more concern and development.

Also as shown in Table (11), the values of coefficient of variation (C.V.%) is high in range 25.7% and 42%, which

means there is dispersion in response for Rewards and Recognition. So, we need to classify our respondents by using k-Means cluster to achieve homogenate groups for Rewards and Recognition, the results from SPSS are as follows:

Table (12): Results of k-Means cluster classification for Rewards and Recognition

Rewards and Recognition	Frequency	Percent
Low	120	46.3
Middle	139	53.7
Total	259	100.0

Source: From the results of running data on a spss program.

As shown in Table (12), 46.3% of our respondents have low Rewards and Recognition, while 53.7% have middle Rewards and Recognition. To test if this classification for Rewards and Recognition is significance or not, we do t- test and get the following results:

Table (13): Test the significance difference between Rewards and Recognition Categories

Rewards and Recognition Categories	Mean	agree %	t	sig.
Low	2.4389	48.78	26.076	0.00000
Middle	3.8345	76.69		

Source: From the results of running data on a spss program.

As indicated in Table (13), the sig. of t- test is 0.000 which is less than 0.05 (p-value <0.05), which means there is a significant difference between the two groups concerning Rewards and Recognition, this indicates that Rewards and Recognition policy in the EETC needs a continuous follow-up, taking into consideration the employees who have low Rewards and Recognition which represent 46.3% of our respondents - as shown in Table (12).

• **By measuring the correlation between Rewards and Recognition and Employee Engagement at its four dimensions, the results were as follows:**

Table (14): Correlation Matrix between H2 Variables

Variables		Employee Ability	Employee Willingness	Employee Commitment	Employee Retention	EE
Rewards and Recognition	Pearson Correlation	0.121	0.333**	0.094	0.116	0.200*
	Sig. (2-tailed)	0.052	0.000	0.129	0.063	0.001

Source: From the results of running data on a SPSS program.

As shown in Table (14), there is a direct weak correlation between Rewards and Recognition and Employee Willingness in the EETC, while there is no relationship between Rewards and Recognition and Employee Ability, Employee Commitment and Employee Retention which p-values > 0.05, as a result, there is a direct weak correlation between Rewards and Recognition and EE which p-values < 0.05.

• **To test the hypothesis " There is a statistically significant relationship between Rewards and Recognition and Employee Engagement "**, SEM was used as shown in Figure (3) below, that shows the relationship between Rewards and Recognition and EE at its four dimensions in the EETC.

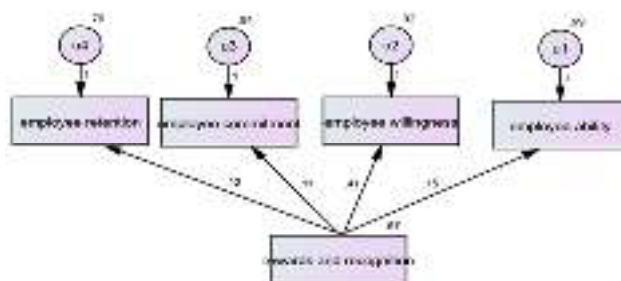


Figure (3): Relationship between Rewards and Recognition and Employee Engagement at its four dimensions.

Source: From the results of running data on a SPSS Amos 25 program.

The results of the full SEM (structural and measurement models) by using IBM SPSS Amos 25 for the EETC are determined among the many measures of fit as follows: Chi-

Square = 505.713 with sig 0.000 which is less than 0.05 (p-value <0.05) , CMIN/df = 84.285 , CFI = 0.067, GFI= 0.517,TLI=0.555 and RMSEA = 0.568. The path for the relationbetween Rewardsand Recognitionand the dimension "Employee Willingness"of the EE is significant; this means that there is a reasonable relationship between the hypothesis' variables, which suggests that Hypothesis 2 is supported.

The results of the evaluation of each individual path of the model are summarized in the following Table (15) as follows:

Table (15): Results of Path Analysis for the relationship betweenRewards and Recognitionand EE at its four dimensions

Paths	R-square	parameter estimate	p-value
Rewards and Recognition-→Employee Ability	0.15	0.148(1.952)	0.051
Rewards and Recognition-→Employee	0.111	0.414(5.666)	0.000
Rewards and Recognition-→Employee	0.009	0.107(1.525)	0.127
Rewards and Recognition-→Employee	0.013	0.124(1.868)	0.062
Rewards and Recognition--→EE	0.04	0.198(3.285)	0.001

Source: From the results of running data on a SPSS Amos 25 program.

As shown in Table (15), p-values < 0.05 for Employee Willingness and EE paths in the EETC.The value of R- square, which indicates the effect of the independent variable "Rewards and Recognition" on the dependent variable "EE" is 0.04, which means that Rewards and Recognition policy can affect by 4% in changing EE,also Rewards and Recognition can effect only in Employee Willingness by 11.1%, while the P-value > 0.05 for the other dimensions, so there is no effect on each of:Employee Ability, Employee Commitment and Employee Retention.

All results support the hypothesis (H2) that: "There is a statistically significant relationship between Rewards and Recognition and Employee Engagement".

H3: There is a statistically significant relationship between Feedback and Internal Communication and Employee Engagement.

• **Study the variable " Feedback and Internal Communication"**

The research evaluate Feedback and Internal Communication from all managers' point of view at higher, middle and executive management levels as shown in Table (16) as follows.

Table (16): The descriptive Measures of Feedback and Internal Communication and its dimensions

Variables	Mean	agree%	Std. Deviation	C.V.%
There is an effective feedback system from and to all employees in the company.	3.3089	66.18	1.06148	32.1
The feedback system corrects errors and improves performance permanently and continuously.	3.0541	61.08	1.09481	35.9
Regular meetings are held between management and employees to identify work problems.	2.2162	44.32	1.11350	50.2
The feedback system creates a stimulating work environment that leads to employee engagement to their work.	3.2085	64.17	.87768	27.4
Feedback and Internal Communication	2.9469	58.94	0.76285	25.9

Source: From the results of running data on a spss program.

As shown in Table (16), the respondents' percent of agree for Feedback and Internal Communication is 58.94%, where the respondents agree by 66.18% for there is an effective feedback system from and to all employees in the company, which occupy the highest score percent of agree, while regular meetings are held between management and employees to

identify work problems occupy the lowest score percent of agree by 44.32%, which means that inspite of having a smooth transition of information from and to all employees in the company, the work problems are not permanently discussed, which indicates that Feedback and Internal Communication policy in the EETC needs more concern and development.

Also as shown in Table (16), the values of coefficient of variation (C.V.%) is high in range 25.9% and 50.2%, which means there is a dispersion in response for Feedback and Internal Communication. So, we need to classify our respondents by using k- Means cluster to achieve homogenate groups for Feedback and Internal Communication, the results from SPSS are as follows:

Table (17): Results of k- Means cluster classification for Feedback and Internal Communication

Feedback and Internal Communication	Frequency	Percent
Low	153	59.1
Middle	106	40.9
Total	259	100.0

Source: From the results of running data on a spss program.

As shown in Table (17), 59.1% of our respondents have low Feedback and Internal Communication, while 40.9% have middle Feedback and Internal Communication. To test if this classification for feedback and internal communication is significance or not, we do t- test and get the following results:

Table (18): Test the significance difference between Feedback and Internal Communication Categories

Feedback and Internal Communication Categories	Mean	agree %	t	sig.
Low	2.425	48.5	23.221	0.00000
Middle	3.701	74.01		

Source: From the results of running data on a spss program.

As indicated in Table (18), the sig. of t- test is 0.000 which is less than 0.05(p-value <0.05), which means there is a

significant difference between the two groups concerning Feedback and Internal Communication, this indicates that Feedback and Internal Communication policy in the EETC needs to be improved to give employees who have low Feedback and Internal Communication-which represent 59.1% of our respondents as shown in Table (17) - more concern in order to perform their work properly.

- **By measuring the correlation between Feedback and Internal Communication and Employee Engagement at its four dimensions, the results were as follows:**

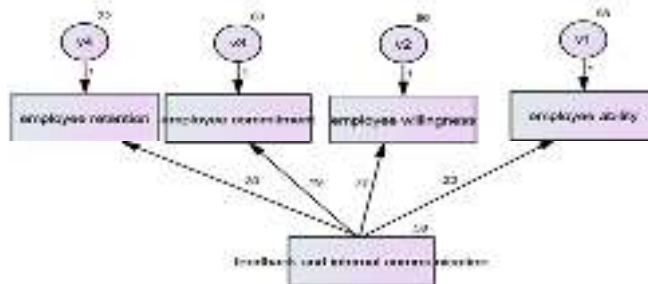
Table (19): Correlation Matrix between H3 Variables

Variables		Employee Ability	Employee Willingness	Employee Commitment	Employee Retention	EE
Feedback and Internal Communication	Pearson Correlation	0.165**	0.275**	0.154*	0.262**	0.253**
	Sig. (2-tailed)	0.008	0.000	0.013	0.000	0.000

Source: From the results of running data on a SPSS program.

As shown in Table (19), there is a direct weak correlation between Feedback and Internal Communication and EE at its four dimensions in the EETC.

- **To test the hypothesis "There is a statistically significant relationship between Feedback and Internal Communication and Employee Engagement "**, SEM was used as shown in Figure (4) below, that shows the relationship between Feedback and Internal Communication and EE at its four dimensions in the EETC.



Figure(4): Relationship between Feedback and Internal Communication and Employee Engagement at its four dimensions.

Source: From the results of running data on a SPSS Amos 25 program.

The results of the full SEM (structural and measurement models) by using IBM SPSS Amos 25 for the EETC are determined among the many measures of fit as follows: Chi-Square = 485.192 with sig 0.000 which is less than 0.05 (p-value <0.05) , CMIN/df = 80.865 , CFI = 0.091, GFI= 0.528, TLI=0.515 and RMSEA = 0.556. All proposed paths are significant for the relations between Feedback and Internal Communication and the four dimensions of the EE: Employee Ability, Employee Willingness, Employee Commitment, and Employee Retention. This means that there is a reasonable relationship between the hypothesis' variables, which suggests that Hypothesis 3 is supported.

The results of the evaluation of each individual path of the model are summarized in the following Table (19) as follows:

Table (19): Results of Path Analysis for the relationship between Feedback and Internal Communication and EE at its four dimensions

Paths	R-square	parameter estimate	p-value
Feedback and Internal Communication -- →Employee Ability	0.027	0.218(2.691)	0.007
Feedback and Internal Communication -- →Employee Willingness	0.075	0.366(4.587)	0.000
Feedback and Internal Communication -- →Employee Commitment	0.024	0.186(2.509)	0.012
Feedback and Internal Communication -- →Employee Retention	0.069	0.302(4.369)	0.000
Feedback and Internal Communication -- →EE	0.064	0.268(4.197)	0.000

Source: From the results of running data on a SPSS Amos 25 program.

As shown in Table (19), all p-values < 0.05 for all paths in the EETC. The value of R- square, which indicates the effect of the independent variable " Feedback and Internal Communication" on the dependent variable "EE" is 0.064, which means that Feedback and Internal Communication policy can affect by 6.4% in changing EE. Additionally, Feedback and Internal Communication can affect in all EE dimensions as: Employee Ability by 2.7%, Employee Willingness by 7.5%, Employee Commitment by 2.4%, and Employee Retention by 6.9%.

All results support the hypothesis (H3) that: "There is a statistically significant relationship between Feedback and Internal Communication and Employee Engagement".

H4: There is a statistically significant relationship between Empowerment and Career Development and Employee Engagement.

- Study the variable " Empowerment and Career Development "

The research evaluate Empowerment and Career Development from all managers' point of view at higher, middle and executive management levels as shown in Table (20) as follows.

Table (20): The descriptive Measures of Empowerment and Career Development and its dimensions

Variables	Mean	agree%	Std. Deviation	C.V.%
Employees are independently taking decisions concerning their work.	2.4556	49.11	1.05698	43
The management implements the employees' suggestions after discussing them and making sure of its verification.	2.9035	58.07	1.16902	40.3
Career promotion opportunities are fair and objective.	2.3707	47.41	1.14190	48.2
Empowerment and Career Development	2.5766	51.53	0.87876	34.1

Source: From the results of running data on a spss program.

As shown in Table (20), decreasing in the percent of agree for Empowerment and Career Development to 51.53%, where the variable which indicates that the management implements the employees' suggestions after discussing them and making sure of its verification occupy the highest score percent of agree by only 58.07%, while the variable which refers to career promotion opportunities are fair and objective, occupy the lowest score percent of agree by 47.41%, which indicates that Empowerment and Career Development policy in the EETC needs more concern to supply employees a healthy environment for growing and offer more opportunities for career development by way of empowerment.

Also as shown in Table (20), the values of coefficient of variation (C.V. %) is high in range 34.1% and 48.2%, which means there is dispersion in response for Empowerment and Career Development. So, we need to classify our respondents by

using k- Means cluster to achieve homogenate groups for Empowerment and Career Development, the results from SPSS are as follows:

Table (21): Results of k- Means cluster classification for Empowerment and Career Development

Empowerment and Career Development	Frequency	Percent
Low	169	65.3
Middle	90	34.7
Total	259	100.0

Source: From the results of running data on a spss program.

As shown in Table (21), 65.3% of our respondents have low Empowerment and Career Development, while 34.7% have middle Empowerment and Career Development. To test if this classification for Empowerment and Career Development is significance or not, we do t- test and get the following results:

Table (22): Test the significance difference between Empowerment and Career Development Categories

Empowerment and Career Development Categories	Mean	agree %	t	sig.
Low	2.0276	40.55	26.743	0.00000
Middle	3.6074	72.15		

Source: From the results of running data on a spss program.

As indicated in Table (22), the sig. of t- test is 0.000 which is less than 0.05(p-value <0.05), which means there is a significant difference between the two groups concerning Empowerment and Career Development, this indicates that Empowerment and Career Development policy in the EETC needs to be developed to make employees who have low Empowerment and Career Development-which represent 65.3%of our respondentsas shown in Table (21) -truly recognize how to proactively manage their own work.

- **By measuring the correlation between Empowerment and Career Developmentand Employee Engagement at its four dimensions, the results were as follows:**

Table (23): Correlation Matrix between H4 Variables

Variables		Employee Ability	Employee Willingness	Employee Commitment	Employee Retention	EE
Empowerment and Career Development	Pearson Correlation	0.364**	0.453**	0.371**	0.395**	0.468**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000

Source: From the results of running data on a SPSS program.

As shown in Table (23), there is direct middle correlation between Empowerment and Career Development and EE at its four dimensions in the EETC.

• **To test the hypothesis "There is a statistically significant relationship between Empowerment and Career Development and Employee Engagement",** SEM was used as shown in Figure (5) below, that shows the relationship between Empowerment and Career Development and EE at its four dimensions in the EETC.

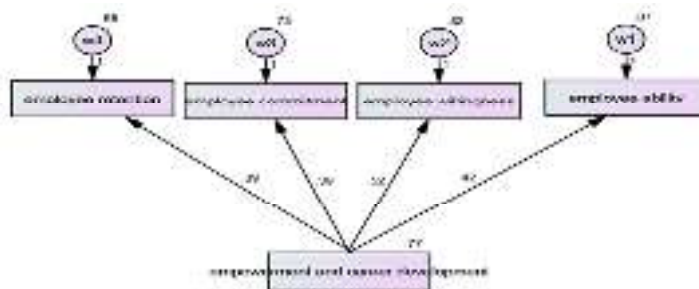


Figure (5): Relationship between Empowerment and Career Development and Employee Engagement at its four dimensions.

Source: From the results of running data on a SPSS Amos 25 program.

The results of the full SEM (structural and measurement models) by using IBM SPSS Amos 25 for the EETC are determined among the many measures of fit as follows: Chi-Square = 398.666 with sig 0.000 which is less than 0.05 (p-value <0.05) , CMIN/df = 66.444, CFI = 0.307, GFI= 0.572, TLI=0.155 and RMSEA = 0.504. All proposed paths are significant for the relations between Empowerment and Career

Development and the four dimensions of the EE: Employee Ability, Employee Willingness, Employee Commitment, and Employee Retention. This means that there is a reasonable relationship between the hypothesis' variables, which suggests that Hypothesis 4 is supported.

The results of the evaluation of each individual path of the model are summarized in the following Table (24) as follows:

Table (24): Results of Path Analysis for the relationship between Empowerment and Career Development and EE at its four dimensions

Paths	R-square	parameter estimate	p-value
Empowerment and Career Development -- →Employee Ability	0.132	0.416(6.267)	0.000
Empowerment and Career Development -- →Employee Willingness	0.205	0.525(8.153)	0.000
Empowerment and Career Development -- →Employee Commitment	0.138	0.390(6.424)	0.000
Empowerment and Career Development -- →Employee Retention	0.156	0.395(6.910)	0.000
Empowerment and Career Development --→EE	0.219	0.431(8.510)	0.000

Source: From the results of running data on a SPSS Amos 25 program.

As shown in Table (24), all p-values < 0.05 for all paths in the EETC. The value of R- square, which indicates the effect of the independent variable "Empowerment and Career Development " on the dependent variable "EE" is 0.219, which means that Empowerment and Career Development policy can affect by 21.9% in changing EE. Additionally, Empowerment and Career Development can affect in all EE dimensions as: Employee Ability by 13.2%, Employee Willingness by 20.5%, Employee Commitment by 13.8%, and Employee Retention by 15.6%.

All results support the hypothesis (H4) that: "There is a statistically significant relationship between Empowerment and Career Development and Employee Engagement ".

H5: There is a statistically significant relationship between Relationship with Peers and Supervisors and Employee Engagement.

• **Study the variable " Relationship with Peers and Supervisors "**

The research evaluate Relationship with Peers and Supervisors from all managers' point of view at higher, middle and executive management levels as shown in table (25) as follows.

Table (25): The descriptive Measures of Relationship with Peers and Supervisors and its dimensions

Variables	Mean	agree%	Std. Deviation	C.V.%
Spirit of participation and cooperative teamwork exist among employees during doing their work.	3.4556	69.11	1.04221	30.2
Interaction between employees and their supervisors during work performance leads to employee engagement with their work that associated with their enthusiasm towards its success.	2.9884	59.77	1.09077	36.5
Interpersonal relationship between employees and their supervisors during work performance is likely to keep that relationship in the future.	2.7876	55.75	1.26877	45.5
Relationship with Peers and Supervisors	3.0772	61.54	0.98833	32.1

Source: From the results of running data on a spss program.

As shown in Table (25), the respondents' percent of agree for Relationship with Peers and Supervisors is 61.54 %, where the respondents agree by 69.11% for spirit of participation and cooperative teamwork exist among employees during doing

their work, which occupy the highest score percent of agree, while the variable which refers to the interpersonal relationship between employees and their supervisors during work performance is likely to keep that relationship in the future occupy the lowest score percent of agree by 55.75%, which means that in spite of having a positive relationships between employees, their supervisors, and theirpeers, the duration of this interpersonal relationship is brief.

Also as shown in Table (25), the values of coefficient of variation (C.V. %) is high in range 30.2% and 45.5%, which means there is dispersion in response for Relationship with Peers and Supervisors. So, we need to classify our respondents by using k- Means cluster to achieve homogenate groups for Relationship with Peers and Supervisors, the results from SPSS are as follows:

Table (26): Results of k- Means cluster classification for Relationship with Peers and Supervisors

Relationship with Peers and Supervisors	Frequency	Percent
Low	133	51.4
Middle	126	48.6
Total	259	100.0

Source: From the results of running data on a spss program.

As shown in Table (26), 51.4% of our respondents have low Relationship with Peers and Supervisors, while 48.6% have middle Relationship with Peers and Supervisors. To test if this classification for Relationship with Peers and Supervisors is significance or not, we do t- test and get the following results:

Table (27): Test the significance difference between Relationship with Peers and Supervisors Categories

Relationship with Peers and Supervisors Categories	Mean	agree %	t	sig.
Low	2.2030	44.06	35.307	0.00000
Middle	4.0000	80		

Source: From the results of running data on a spss program.

As indicated in Table (27), the sig. of t- test is 0.000 which is less than 0.05(p-value <0.05), which means there is a significant difference between the two groups concerning Relationship with Peers and Supervisors, this indicates that Relationship with Peers and Supervisors policy in the EETC needs to be improved to make employees who have low Relationship with Peers and Supervisors -which represent 51.4% of our respondents as shown in Table (26) - have strong positive workplace relationships.

- **By measuring the correlation between Relationship with Peers and Supervisors and Employee Engagement at its four dimensions, the results were as follows:**

Table (28): Correlation Matrix between H5 Variables

Variables		Employee Ability	Employee Willingness	Employee Commitment	Employee Retention	EE
Relationship with Peers and Supervisors	Pearson Correlation	0.542**	0.659**	0.561**	0.548**	0.684**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000

Source: From the results of running data on a SPSS program.

As shown in Table (28), there is direct high correlation between Relationship with Peers and Supervisors and EE at its four dimensions in the EETC.

- **To test the hypothesis "There is a statistically significant relationship between Relationship with Peers and Supervisors and Employee Engagement "**, SEM was used as shown in Figure (6) below, that shows the relationship between Relationship with Peers and Supervisors and EE at its four dimensions in the EETC.

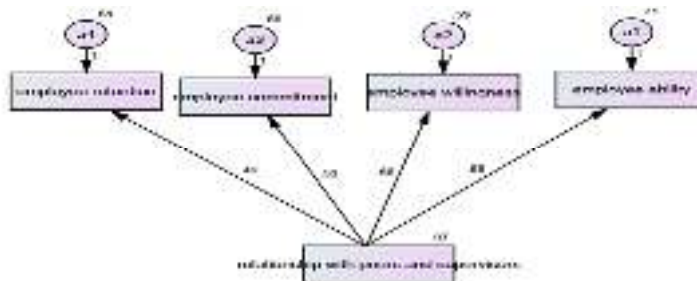


Figure (6): Relationship between Relationship with Peers and Supervisors and Employee Engagement at its four dimensions.

Source: From the results of running data on a SPSS Amos 25 program.

The results of the full SEM (structural and measurement models) by using IBM SPSS Amos 25 for the EETC are determined among the many measures of fit as follows: Chi-Square = 256.526 with sig 0.000 which is less than 0.05 (p-value <0.05) , CMIN/df = 42.754 , CFI = 0.628, GFI= 0.679, TLI=0.379 and RMSEA = 0.402. All proposed paths are significant for the relations between Relationship with Peers and Supervisors and the four dimensions of the EE: Employee Ability, Employee Willingness, Employee Commitment, and Employee Retention. This means that there is a reasonable relationship between the hypothesis' variables, which suggests that Hypothesis 5 is supported.

The results of the evaluation of each individual path of the model are summarized in the following Table (29) as follows:

Table (29): Results of Path Analysis for the relationship between Relationship with Peers and Supervisors and EE at its four dimensions

Paths	R-square	parameter estimate	p-value
Relationship with Peers and Supervisors ----- →Employee Ability	0.294	0.552(10.362)	0.000
Relationship with Peers and Supervisors ----- →Employee Willingness	0.434	0.679(14.057)	0.000
Relationship with Peers and Supervisors----- →Employee Commitment	0.315	0.524(10.885)	0.000
Relationship with Peers and Supervisors ----- →Employee Retention	0.300	0.487(10.524)	0.000
Relationship with Peers and Supervisors--→EE	0.468	0.560(15.057)	0.000

Source: From the results of running data on a SPSS Amos 25 program.

As shown in Table (29), all p-values < 0.05 for all paths in the EETC. The value of R- square, which indicates the effect of the independent variable "Relationship with Peers and Supervisors" on the dependent variable "EE" is 0.468, which means that Relationship with Peers and Supervisors policy can affect by 46.8% in changing EE. Additionally, Relationship with Peers and Supervisors can affect in all EE dimensions as: Employee Ability by 29.4%, Employee Willingness by 43.4%, Employee Commitment by 31.5%, and Employee Retention by 30%.

All results support the hypothesis (H5) that: "There is a statistically significant relationship between Relationship with Peers and Supervisors and Employee Engagement ".

H6: There is a statistically significant relationship between Physical Work Environment and Employee Engagement.

• **Study the variable "Physical Work Environment"**

The research evaluate Physical Work Environment from all managers' point of view at higher, middle and executive management levels as shown in table (30) as follows.

Table (30): The descriptive Measures of Physical Work Environment and its dimensions

Variables	Mean	agree%	Std. Deviation	C.V.%
The existence of an appropriate physical work environment to meet work needs.	2.9073	58.15	1.21326	41.7
The workplace environment is healthy and safe which helps to connect employees to their work and to achieve better work.	2.8958	57.92	1.23606	42.7
The physical layout of the workplace is appropriate with human needs and helps in good interaction between employees and their working environment.	2.8610	57.22	1.22790	42.9
Physical Work Environment	2.8880	57.76	1.13813	39.4

Source: From the results of running data on a spss program.

As shown in Table (30),the respondents' percent of agree for Physical Work Environment is57.76%, where the respondents agree by only 58.15%for the existence of an appropriate Physical Work Environment to meet work needs, which occupy the highest score percent of agree, while the variable which refers tothe physical layout of the workplace is appropriate with human needs and helps in good interaction between employees and their working environment occupy the lowest score percent of agree by 57.22%, which indicates the presence of poor physical work environment in the EETC that needs more attention to provide ergonomic environment for employees.

Also as shown in Table (30), the values of coefficient of variation (C.V.%) is high in range 39.4% and 42.9%, which

means there is a dispersion in response for Physical Work Environment. So, we need to classify our respondents by using k- Means cluster to achieve homogenate groups for Physical Work Environment, the results from SPSS are as follows:

Table (31): Results of k- Means cluster classification for Physical Work Environment

Physical Work Environment	Frequency	Percent
Low	127	49
Middle	132	51
Total	259	100.0

Source: From the results of running data on a spss program.

As shown in Table (31), 49% of our respondents have low physical work environment, while 51% have middle Physical Work Environment. To test if this classification for Physical Work Environment is significance or not, we do t- test and get the following results:

Table (32): Test the significance difference between Physical Work Environment Categories

Physical Work Environment Categories	Mean	agree %	t	sig.
Low	1.8163	36.33	39.163	0.00000
Middle	3.9192	78.38		

Source: From the results of running data on a spss program.

As indicated in Table (32), the sig. of t- test is 0.000 which is less than 0.05(p-value <0.05), which means there is a significant difference between the two groups concerning Physical Work Environment, this indicates that Physical Work Environment in the EETC needs to be improved to create an appropriate adaptation between employees who have low Physical Work Environment -which represent 49% of our respondents as shown in Table (31) - and the physical conditions of the workplace.

- **By measuring the correlation between Physical Work Environment and Employee Engagement at its four dimensions, the results were as follows:**

Table (33): Correlation Matrix between H6 Variables

Variables		Employee Ability	Employee Willingness	Employee Commitment	Employee Retention	EE
Physical Work Environment	Pearson Correlation	0.180**	0.418**	0.224**	0.164**	0.295**
	Sig. (2-tailed)	0.004	0.000	0.000	0.008	0.000

Source: From the results of running data on a SPSS program.

As shown in Table (33), there is direct weak correlation between Physical Work Environment and EE at its four dimensions in the EETC.

- **To test the hypothesis " There is a statistically significant relationship between Physical Work Environment and EmployeeEngagement "**, SEM was used as shown in Figure (7) below, that shows the relationship between Physical Work Environment and EE at its four dimensions in the EETC.

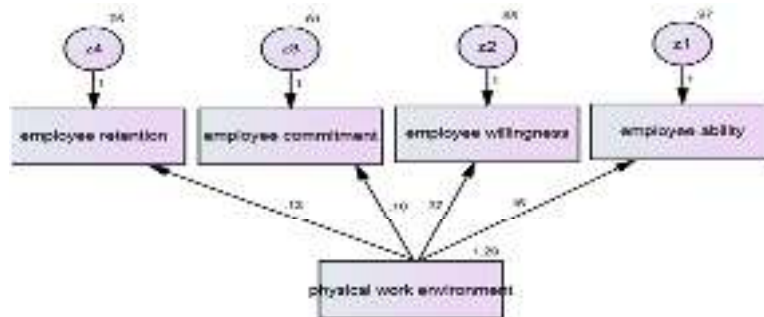


Figure (7): Relationship between Physical Work Environment and Employee Engagement at its four dimensions.

Source: From the results of running data on a SPSS Amos 25 program.

The results of the full SEM (structural and measurement models) by using IBM SPSS Amos 25 for the EETC are determined among the many measures of fit as follows: Chi-Square = 480.720 with sig 0.000 which is less than 0.05 (p-

value <0.05) , $CMIN/df = 80.120$, $CFI = 0.135$, $GFI = 0.522$, $TLI = 0.441$ and $RMSEA = 0.552$. All proposed paths are significant for the relations between Physical Work Environment and the four dimensions of the EE: Employee Ability, Employee Willingness, Employee Commitment, and Employee Retention. This means that there is a reasonable relationship between the hypothesis' variables, which suggests that Hypothesis 6 is supported.

The results of the evaluation of each individual path of the model are summarized in the following Table (34) as follows:

Table (34): Results of Path Analysis for the relationship between Physical Work Environment and EE at its four dimensions

Paths	R-square	parameter estimate	p-value
Physical Work Environment-----→Employee Ability	0.032	0.159(2.931)	0.003
Physical Work Environment -----→Employee Willingness	0.175	0.374(7.388)	0.000
Physical Work Environment-----→Employee Commitment	0.050	0.181(3.688)	0.000
Physical Work Environment -----→Employee Retention	0.027	0.127(2.673)	0.008
Physical Work Environment -----→EE	0.087	0.210(4.967)	0.000

Source: From the results of running data on a SPSS Amos 25 program.

As shown in Table (34), all p-values < 0.05 for all paths in the EETC. The value of R- square, which indicates the effect of the independent variable "Physical Work Environment" on the dependent variable "EE" is 0.087, which means that Physical Work Environment can affect by 8.7% in changing EE. Additionally, Physical Work Environment can affect in all EE dimensions as: Employee Ability by 3.2%, Employee

Willingness by 17.5%, Employee Commitment by 5%, and Employee Retention by 2.7%.

All results support the hypothesis (H6) that: "There is a statistically significant relationship between Physical Work Environment and Employee Engagement ".

H7: There is a statistically significant relationship between Quality of Work Life and Employee Engagement.

• **Study the variable " Quality of Work Life"**

The research evaluate QWL from all managers' point of view at higher, middle and executive management levels as shown in table (35) as follows.

Table (35): The descriptive Measures of QWL

Variable	Mean	agree%	Std. Deviation	C.V.%
QWL	2.8945	57.89	0.65260	22.6

Source: From the results of running data on a spss program.

As shown in Table (35), the respondents' percent of agree for QWL is only 57.89%, which indicates that QWL needs to be improved to create a work environment that ensures dignity to the employees, stimulates their creative abilities and facilities self-growth as a basis for successful engagement initiatives.

By using k- Means cluster as shown in Table (36), we can classify our respondents to achieve homogenous groups for QWL, the results from SPSS are as follows:

Table (36): Results of k- Means cluster classification for QWL

QWL	Frequency	Percent
Low	136	52.5
Middle	123	47.5
Total	259	100.0

Source: From the results of running data on a spss program.

As shown in Table (36), 52.5% of our respondents have low QWL, while 47.5% have middle QWL. To test if this classification for QWL is significance or not, we do t- test and get the following results:

Table (37): Test the significance difference between QWL Categories

QWL Categories	Mean	agree %	t	sig.
Low	2.3627	47.25	26.828	0.00000
Middle	3.4824	69.65		

Source: From the results of running data on a spss program.

As indicated in Table (37), the sig. of t- test is 0.000 which is less than 0.05(p-value <0.05), which means there is a significant difference between the two groups concerning QWL, this indicates that QWL in the EETC needs to be improved to provide employees who have low QWL - which represent 52.5% of our respondents as shown in Table (36) -better work life quality and supportive work environments, to be more motivated and morelikely to engagein their organization.

- **By measuring the correlation between Quality of Work Lifeand Employee Engagement at its four dimensions, the results were as follows:**

Table (38): Correlation Matrix between H7 Variables

Variables		Employee Ability	Employee Willingness	Employee Commitment	Employee Retention	EE
QWL	Pearson Correlation	0.504**	0.648**	0.477**	0.481**	0.627**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000

Source: From the results of running data on a SPSS program.

As shown in Table (38), there is direct correlation between QWL and EE at its four dimensions in the EETC, where the correlation coefficient of theindependent variable "QWL" on the dependent variable "EE" is 0.627, which indicates that there is a direct strong relation between the hypothesis' variables.

- **To test the hypothesis "There is a statistically significant relationship between Quality of Work Life and Employee Engagement "**, we use the Regression Model and get the following results:

Table (39): The Regression Model for the relation between QWL and EE

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R square	F	sig
	B	Std. Error	Beta					
(Constant)	0.405	0.179		2.262	0.025	0.393	166.4	0.000
QWL	0.778	0.060	0.627	12.899	0.000			

Source: From the results of running data on a SPSS program.

As shown in Table (39), the sig. of t- test is 0.025, and the sig. of F test is 0.000 which is less than 0.05 (p-value <0.05), which means the significance of the Regression Model for the relation between the independent variable "QWL" on the dependent variable "EE". Furthermore, R- square is 0.393 which means that 39.3% of the change in EE is due to the independent variable "QWL", and 60.7% of variations are due to random error and other variables don't included in the model.

- **To test the effect of Quality of Work Life dimensions on Employee Engagement , we use Stepwise Regression and get the following results:**

Table (40): The most effective dimensions of QWL on EE

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R square	F	sig
	B	Std. Error	Beta					
(Constant)	0.485	0.107		4.55	0.000	0.589	184.5	0.000
Training and Development	0.437	0.033	0.565	13.17	0.000			
Relationship with Peers	0.271	0.037	0.330	7.25	0.000			
Physical Work	0.060	0.027	0.084	2.22	0.027			

Source: From the results of running data on a SPSS program.

As shown in Table (40), The sig. of F test is 0.000 which is less than 0.05 (p-value <0.05), which means the significance of our model for the relation among the dimensions of QWL and EE, and to determine the most effective dimensions of QWL "independent variables" in EE "dependent variable", Stepwise Regression model is used, where the R square of the independent variable "Training and Development" in the dependent variable "EE" reached 58.9%, which is ranked the first dimension that has an impact in EE, while Relationship with Peers and Supervisors is the second dimension that has an impact in EE by 8.9%, then Physical Work Environment by 0.6%, where the dimensions: Rewards and Recognition, Feedback and Internal Communication, and Empowerment and Career Development are excluded from the Stepwise Regression model due to multicollinearity and correlations between these independent variables.

All results support the hypothesis (H7) that: "There is a statistically significant relationship between Quality of Work Life and Employee Engagement ".

Fifth: Results and Recommendations:

The last section introduced multiple results and recommendations, presented the major managerial implications and the limitations of the study, and suggested further researches as follows:

1. Results:

The hypotheses test confirms the proposed model as follows:

- a. An investigation of the research findings, indicates that the respondents' perception of QWL in the EETC reveal that QWL needs to be improved, as the respondents' percent of agree for QWL is only 57.89%, where the analysis showed the declining of all dimensions of QWL policy in the EETC, as it is shown: decreasing in the percent of agree for Training and Development to 53.28%, 63.76% for Rewards and Recognition, also 58.94% only of the sample size agree for Feedback and Internal Communication, 51.53% percent of agree for

Empowerment and Career Development, 61.54 % for Relationship with Peers and Supervisors, and 57.76% percent of agree for Physical Work Environment. Taking all these dimensions into consideration, an employee's perceptions of QWL reflects how involved and enthusiastic an employee is on his work.

b. Decreasing in the degree of employee-organization alignment, as the respondents' percent of agree for EE is only 53.11%, where the dimension " Employee Willingness " occupy the highest score percent of agree by only 62.83%, while the dimension "Employee Retention" occupy the lowest score percent of agree by 48.96%, whereas Employee Ability and Employee Commitment occupy 50.66%, 50.01% respectively, and the analysis showed that EE was strongly, positively correlated with all its dimensions in the EETC, this indicates that ability, willingness, commitment, as well as retention of the employees have been indicated by respondents as a significant antecedent to improve EE.

c. The findings also identify the important relationship between QWL and EE in the EETC, as the analysis showed the significance of the Regression Model for the relation between QWL and EE, and the significance of the model for the relation among the dimensions of QWL and EE, R of the independent variable "QWL" on the dependent variable "EE" is 0.627, which indicates that there is a direct strong relation between QWL and EE. Accordingly, QWL has a strong influence on how the employees view their organization.

d. Overall, an investigation of the research findings, indicate that different dimensions of QWL were the appropriate set of predictors of EE. Accordingly, this study has introduced a model which is valid and reliable, that takes human nature into account to yield the desired higher EE.

2. Managerial Implications:

The results of this research is intended to identify the important relationship between QWL and EE in the electricity sector, assist managers and HR specialists to put more focus on the factors that enhance QWL to achieve excellence for employees as well as for organization. The results emerging from the present research have

several practical implications that help managers to recognize, create, and manage high quality of working life which in turn create highly engaged workforces who produce positive organizational results.

3. Limitations:

Although there are prominent contributions from this research, there are several limitations including: (1) The study was restricted to six factors only that determine quality of life in the work place; namely Training and Development, Rewards and Recognition, Empowerment and Career Development, Feedback and Internal Communication, Relationship with Peers and Supervisors, and Physical Work Environment, (2) The desire to keep the questionnaire simple and brief may limit the nature of the research questions, (3) The research population was limited in electricity sector and thus may not be generalizable to different industry sectors, (4) The sample of this study was derived from managers' of public sector in Egypt, thus the findings of the study cannot be generalized until we include private sector, (5) Managers were too busy, which have affected their ability to complete the questionnaire in a timely fashion, (6) The managers were hesitated when asked to participate.

4. Further Researches:

The limitations emerging from the study shed the light for the need for further researches that should (1) include various industries as airline, nursing, and hospitality for understanding the roles and the degree of the relationship between QWL and EE, (2) explore the positive effects of more factors of QWL on EE as worthwhile and meaningful work, work load and job stress, work family balance, and work experience,(3) study and compare between the level of QWL in different industries including private sectors, and (4) use of another statistical method to test the dimensions of QWL and see which of them will be more important to EE.

5. Recommendations

After reviewing the results of the research, there are some key recommendations that could improve the QWL to strengthen the degree of employee-organization alignment as follows:

- a. Creating an organizational culture that put more focus on strategies that enhance QWL dimensions through allocating organizational resources for the purposes of quality of life in the work place.
- b. Managers should take an active role in building engagement plans by identifying barriers to engagement and find opportunities to affect positive change on EE.
- c. Measuring and evaluating QWL has to be a strategic priority because of its vital role in reaching highly EE scores that a business hopes to achieve.
- d. Boost the concept of QWL for the foundation of a successful work environment that fulfills work–life balance, increasing the likelihood that the employee will be highly engaged to long term career.
- e. Organizations should create workplace environment in which employees can share opinions and clarify expectations, improve skill development and career growth, improve working relations and environment,also receive reward and encouragement which ultimately make themfeel valued, which in turn have a strong positive effect on EE.
- f. Organizations should value not just processes and duties but also the ‘heads and hearts’ (or the social psychology) of employees to meet their ever changing expectations,to reach highly engagement scores that a business hopes to achieve.

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