



The Impact of the training on the Employees performance in Sudanese educational institutions in the state of Khartoum

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Abstract ;

The study aimed to determine the impact of training on the performance of employees in Sudanese educational institutions. The study population consisted of workers in educational institutions. 180 questionnaires were distributed, and 120 valid questionnaires were retrieved for analysis. The study concluded that there is no effect of training on the quality of work completed, and there is no effect of training on commitment, and there is also no effect of training on the quantity of work completed. The study draws the attention of officials to the importance of paying attention to training and designing appropriate programs for working in educational institutions.

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1. Introduction

Performance is the final outcome of all the activities carried out by the organization, and the excellence of the performance of the employees of the organization leads to it being more lasting, stable and distinguished. Accordingly, the organization's interest in raising the level of performance is usually more than the interest of its employees, as the organization's ability to advance in the various stages of its life cycle depends primarily on its performance levels. Therefore, we find that all those responsible for organizations with their various names, sizes and goals care greatly about the performance of workers in their organizations, because performance, as is clear, is not only a reflection of each individual's abilities, motivation, and the amount of work completed by him, but rather it is a reflection of the performance of these organizations, the degree of their effectiveness, and the evaluation of his work. One of the main approaches to improving the level and quality of employees' performance is the strategies adopted and followed by the human resources department in these organizations (Cascio which necessarily requires finding workers capable of keeping pace with this change, (2018 and dealing with customer satisfaction, especially when the workers in this are distinguished With skills, abilities, and knowledge that are consistent with the nature of the work they practice in the organization (Smiley and Amara, 2017). Training has now become an investment in human capital, as it is considered one of the most important basic ways to create adequate human resources in terms of quantity and quality because it works to provide individuals with the information and administrative and technical skills necessary to perform their work efficiently and effectively, and this therefore reflects positively on the work and performance of organizations in a way. general

1-1 The Problem

We find that the lack of qualified and trained human resources capable of adapting to all changes and challenges will lead to a weak ability of organizations to compete globally and regionally. Hence, training must be viewed as achieving the organization's goals by raising the performance of employees. The accelerating pace of the era and the development of technology in the field of technology has imposed on business organizations the necessity of keeping pace with this development and progress. Otherwise, these organizations will find themselves outside the modern system. Therefore, it is necessary for these organizations to keep pace with this amazing development, especially the technical one, by preparing and qualifying the human cadre to accommodate these changes. The problem of the study lies in trying to answer the following question: "To what extent do educational institutions apply training and the impact of this on the level of performance of their employees?" Hence, this study attempts to reach the desired results by answering the following sub-questions

Is there a relationship between the degree to which educational institutions apply training.1
?and the level of performance of their employees

Is there a relationship between training in educational institutions and the dimensions of .2
employees' performance (quality of work completed, commitment, quantity of work
?(completed

1-2 :Research hypotheses

:There is a correlation between training and employee performance. It branches out from

.There is a positive relationship between training and the quality of work performed .1

There is a positive relationship between training and the degree of commitment among .2
.employees

There is a positive relationship between training and the amount of work completed .3.

1-3 :research importance

- ☐ The importance of this research lies in the human element and its leading role in the survival and progress of service organizations by training, developing, and preserving it .until it becomes like the organization's other resources
- ☐ Training highlights the important role in developing human resources and improving and .developing performance
- ☐ .Training represents a long-term investment in service organizations

1-4 :research aims

:This study aims to

- ☐ Highlighting the importance of investing in the human element through training by .creating a stable and productive general force
- ☐ .Knowing the relationship between training and employees' performance dimensions
- ☐ Providing some recommendations and proposals related to training and employee performance

1-5 :Research Methodology

In this study, we will follow the descriptive-analytical approach due to its precise and detailed description, in addition to the case approach due to its distinctiveness in defining the .characteristics and content of the case in a specific, detailed and precise manner

2.Theoretical framework and previous studies:

2.1 Training:

2.1.1 Training concept:

Training - whether administrative or technical - is considered one of the most important administrative activities and practices in any organization or institution, regardless of the nature or type of its work and its specializations. In fact, it represents one of the important activities of human resources management in the facility. (Hussain, 2005). Training is also defined as “preparing and qualifying individuals technically, professionally and administratively and giving them capabilities and

skills that increase their productive capabilities in industrial, service and administrative units to fill a quantitative deficiency that requires the completion of transformation plans or to meet the needs of these units in terms of trained human elements” (Al-Sunbul, 1988).

2.1.2 The importance of training and its benefits:

The importance and benefits of training lie in three main aspects: (Abbas, Ali, 2003)

- a. Increasing productivity and organizational performance through clarity in goals, methods and work flow, informing workers of what is required of them, developing their skills to achieve the required organizational goals and contributing to linking the goals of individual workers to the goals of the organization.
- b. It contributes to creating positive internal and external trends towards the organization and contributes to the organization's openness to the external community. This is with the aim of developing its programs and capabilities and updating the information it needs to formulate its goals and implement its policies.
- c. It leads to clarifying the organization's general policies, developing leadership methods, rationalizing administrative decisions, and building an effective base for internal communications.

2.2 Employee performance

2.2.1 Performance concept:

The word performance means completed, accomplished, or performed, and it is an English word. Performance can be defined as completing work as it should be done. This is consistent with the tendency of some researchers to focus on the individual's contributions to achieving the organization's goals through the degree of achieving completion of his job tasks, as performance expresses the behavior that is measured. The individual's ability to contribute to achieving the organization's goals. Performance refers to the degree of achieving and completing the tasks that make up an individual's job, and it can be said that performance is: behavior in which the individual contributes to expressing his contributions to achieving the organization's goals, and this behavior must be supported by the organization's management in a way that ensures awareness and quality through training. (Hassan, 2004), it is worth noting here some concepts related to performance, such as efficiency and effectiveness. Efficiency refers to the ratio between inputs and outputs. The higher the outputs are than the inputs, the higher the efficiency, while effectiveness refers to the real goals set by the organization. The concept of performance is a broad concept that includes many terms related to success and failure. It reflects the status of organizations or individuals working in them in various fields. It is the interaction between behavior and achievement to produce valuable outputs that help maintain and continue work at the level of individuals or organizations within what is planned and required by both parties (Shields et al., 2015). It is defined procedurally as data that would help in analyzing and evaluating the performance of employees and their actual achievements in light of the tasks, duties and responsibilities assigned to them, which constitute the nature and nature of the work required.

2.2.2 Dimension of job performance:

2.2.2.1 Quality of work performed:

It is an expression of an essential element of growth and progress for workers, and it requires the individual's desire and ability to work, so that he can master his work. On this basis, the two elements of desire and ability are the determinants of the quality of the work performed, because ability requires skill and knowledge, and desire is linked to the material and social working conditions and the needs of individuals. The physical aspects are no longer the only determinant of the quality of work, but the psychological and social needs of individuals also play an important role in it (Roman & Brandler, 2015). It is defined procedurally as the extent of the employee's proficiency in his work and the extent to which the actual performance matches the planned performance, taking into account the work rules and conditions. And the capabilities available in the company.

2.2.2.2 Commitment:

It is a set of formal rules that frame and obligate employees to specific behaviors that are consistent with the laws, contexts, and goals of the organization in which they know, and define what is permissible and what is not permissible in terms of job behavior. And in a way that gives an impression and connotations of a character or feature specific to that organization. (Boubakar, 2016). It is defined procedurally as the extent to which employees adhere to work dates and timings, and the extent to which they follow the company's policies, systems and regulations and the specific job behavior it imposes on them.

2.2.2.3 Quantity of work completed:

The final result of the interaction represents the group of efforts exerted by workers, estimated in a specific unit of time and at a specific time. It is determined by a number of objective and personal factors to lead to the best use of resources in achieving the specified goals (Roman & Brandler, 2015). It is defined procedurally as the amount of work that an employee can accomplish in the company under normal circumstances and the speed of this accomplishment, taking into account the available working conditions and the suitability of the tasks assigned. The employee with his abilities and capabilities.

2.3 Previous studies

2.3.1 Study (Nashash 2020) This study aims to attempt to shed light on the role that training plays in improving the performance of employees by identifying the concept of training, its most important objectives and steps, in addition to the elements and methods it contains and its impact on the employees' performance and their commitment to improvement and training. To occupy their jobs, this was done by posing the following problem: To what extent can training ,contribute to developing skills and gaining experience among workers? To answer the problem the following questions were raised: How can training affect the development of skills and gaining experience among workers? Do training activities have a role in developing capabilities and raising the level of productive efficiency among employees? To achieve this goal, we relied on a questionnaire form on a sample of (61) employees within the institution under study. We

relied in analyzing the questionnaire on the Statistical Packages for the Social Sciences (SPSS) program, and finally The study reached the following results: Training makes a real and effective contribution to improving the performance of employees, and training also has effects .in developing skills and gaining experience among employees

2.3.2 Study (Daou and Al-Misrati, 2020), this study presented a theoretical framework on the concept of electronic training in all its aspects, the most important strategies that must be followed, and the extent of its contribution to developing the educational process in Libya. This study relied on the inductive and deductive approach by presenting and analyzing previous studies related to the variables of the study. Finally, the study reached a set of results, the most important of which are: that electronic training is considered an advanced method that works to achieve a number of goals, such as raising and building capabilities and developing applied skills, which is reflected in the development of the educational process. Also, the study recommended the necessity of adopting a clear strategy to shift from traditional training to electronic training, as well as creating an electronic training unit in the Ministry of Higher .Education that will supervise, follow up, and provide all requirements for its use

2.3.3 Habiba and Farida's study (2018): The study aimed to identify the effectiveness of the training activity in light of the spread and widespread application of information technology in two banking institutions in Skikda, and to analyze the nature of the relationship between the variables of the study. This study relied on the method of comprehensive inventory of (40) individuals, and concluded To many results, the most important of which is the presence of a significant impact of information technology on electronic training activity. The study suggested greater investment and wider application of information technology so that it becomes a more effective means of achieving and developing electronic training through reducing costs and providing access to training programs at the appropriate time and place in line with the needs .of the trainees

2.3.4 A study (Shayeb, 2019), which aimed to know the role of electronic training in improving job performance for two years in Algerian industrial institutions. The study sample was (60) individuals, and the study reached results, the most important of which are: that there is a relationship between electronic training and job performance in the institution, and that This institution relies on electronic training as a means of developing its products, and not as a method .for developing and raising the efficiency of employees and improving their performance

By reviewing previous studies that were conducted in different environments, it becomes .clear that some of them dealt with the variables of the current study, but from different angles We note that this study coincides with some studies that dealt with the subject of training with the performance of workers, but they differed in dimensions, and those who follow these studies will find that there are It is an urgent necessity to recognize the role of training in the Sudanese

environment. Therefore, what distinguishes this study from other previous studies is that it is considered the first study in the Sudanese environment, to the researchers' knowledge, that deals with training with the dimensions of the performance of workers in Sudanese educational institutions.

3. Method and procedures & :Testing the validity of the tool

In order to answer the questions of the study and clarify its objectives, the descriptive analytical approach was adopted. This approach is considered one of the appropriate approaches in giving a clear and accurate picture in interpreting and clarifying the problem of the study. It also helps in understanding this study through the knowledge and facts it enriches, which are tagged in knowing the impact of training in The performance of workers by testing the training model and the extent of its impact on the quality of work completed, commitment, and quantity of work completed by workers in Sudanese educational institutions.

3.1 Method and procedures:

3.1.1 :Study community

The study population represented workers in Sudanese educational institutions, which numbered members. The number of questionnaires distributed was (180), and (120) questionnaires (260) were retrieved, all of which were valid for statistical analysis at a rate of (66.67%), and the number of unrecovered questionnaires was (60) Questionnaire

3.1.2 :Study tool

The study tool (the questionnaire) was developed in a way that allows studying the study variables based on the studies of (Davis, (1989), Al-Khashali and Al-Tamimi, (2009), Ababneh and Hatamla (2013), and Park, (2009). The study tool was judged by a group of academic professors in the Department of Business Administration at the Sudan University of Science and Technology and the University of Karary to verify its credibility. This study also relied on the analysis scale for the average answers of the study population members to the variables of the study model, as shown in Table No(1).

Table No. (1): Standard analysis scale

Arithmetic mean	Degree of approval
From(1) to (2.33)	Weak
From (2.34) to (3.67)	Meduim
From (3.68) to (5)	high

Source: Prepared by researchers from field data 2023

3.1.4 :Statistical methods

Since the appropriate method of analysis depends mainly on the type of data to be analysed, a number of statistical methods have been relied upon using (AMOS) software in order to employ

the data obtained to achieve the objectives of the study and test its hypotheses, and in light of the nature of the study variables and measurement methods. For the purposes of analysis, the following statistical methods were used

- Testing the degree of credibility and reliability of the study tool data
- Frequencies, arithmetic means, standard deviations, and percentages, to analyze the answers of sample members
- Conducting factor analysis to ensure the global validity of the study tool
- Chronbach's Alpha coefficient to verify the stability of the study tool and its application
- Pearson correlation coefficient matrix to determine the relationship between independent variables
- Multiple Regression Test: To identify the effect of the independent variable represented by training on the dependent variables represented by the quality of work performed, commitment and quantity of work performed

Tests for the study tool were also conducted to ensure that the study tool that was used has the ability to measure what should be measured. It also aims to identify the degree of reliability of the sample's answers, and among the tests that were used in this study is to test the validity of the tool and the stability of the tool

3.2 :Testing the validity of the tool

3.2.1 :The validity of the study tool - Face Validity

In order to achieve apparent honesty, the content of its paragraphs and the extent of its suitability, comprehensiveness, and coverage of the subject of the study under research were reviewed. It was also presented to (5) arbitrators with specialization in the field of business administration at the Sudan University of Science and Technology and Karary University to express their opinions, suggestions, and amendments, with the aim of verifying the clarity and ease of the expressions used, their comprehensiveness and their ability to achieve the objectives of the study. The observations and opinions expressed by the arbitrators were taken into account, especially the observations on which the opinions were unanimous

3.2.2 :Validity of the study tool - confirmatory factor analysis

For the purposes of ensuring the confirmatory factor validity of the CFA study, AMOS software version No. (22), was used, as it is known that the quality of the data collected is considered very important in verification because it reflects the extent of reliance on the study tool in collecting data. It is also known that the indicators for judging the quality of the model presented by the program are many and many, and four indicators have been adopted for this purpose, which are adopted by most studies, and these indicators are

- Pearson Chi-Square test: It is one of the most important and powerful nonparametric tests that measure the quality of the model and is used to show the extent to which the observed frequencies

match the theoretical frequencies expected for them in the population, meaning that the drawn sample belongs to the population under study. However, this test is considered sensitive to two points. The first is the degrees of freedom, which are related to the number of variables, and the second is the sample size, as the value of the significance level is greatly affected by these two points. Also, there is no statistically significant effect at the significance level ($0.05 \geq \alpha$), meaning that this is evidence of the quality of the data of the proposed model

- Goodness of Fit Index (GFI): (General Fit Index): It is a general statistical indicator and is considered second place after the Chi-square, as its value ranges between (0-1), so that if it equals one, this indicates a perfect fit, which is the ideal case
- Comparative Fit Index: Its value ranges between (0-1), so if the value equals one, this indicates a perfect match
- Root Mean Square Error Approximation (RMSEA) indicator: This indicator depends on the amount of the squares of the differences between the two models (current and default), so that the validity of the model is evaluated if the values come within the limits (0.00 and 0.08).

Based on the above, there are multiple indicators for judging the quality of the model, and it is not permissible to rely on only one indicator to judge the quality of a particular model. Therefore reading these indicators, linking them together, and relying on at least two of them to judge the quality of the model data may help in making an appropriate decision. To judge. Table (2) displays the results of the AMOS program for the factor analysis model consisting of four dimensions through which training is expressed as an independent variable and the quality of work completed commitment, and quantity of work completed as dependent variables

Table (2): Indicators for testing the quality of the confirmatory factor analysis model

	Chi square	Significance level	GFI	CFI	RMSEA
Indicators resulting from the study model	609.480	0.000	0.758	0.928	0.061
Optimal benchmark value for indicators	0.000	1.00	(1.00 –0.90)	(1.00–0.90)	– 0.00) (0.08)

Source: Prepared by researchers from field data 2023

Table No. (2) shows that the chi-square value reached (609.480) with a significance level of (0.000), which is a value that indicates the presence of statistically significant differences, meaning that there is no correspondence between the study data model (real) and the hypothetical model. As for the GFI index, its value reached (0.758), which is a value that does not fall within the acceptable range in which the values of this index are accepted, while it is noted that the value of the CFI index reached (0.928), which is a high value that indicates the quality of the current model because it is closer to the correct one, either in relation to the value of The RMSEA index

reached (0.061), which is a value that is considered not small and falls within the acceptable range. Hence, since there are two indicators that indicate the quality of the study data model, it can be judged that the data of this model indicates a good quality of fit

Table (3) displays the results of the AMOS program for confirmatory factor validity (standard saturations of the items on their dimensions) for the items of the study dimensions, which are training as an independent variable and the work performance as dependent variables. Confirmatory factorial validity aims to test factorial theoretical models to verify their compatibility with the data. The quality of the data collected is very important in verification because it reflects the extent of reliance on the study tool in collecting data.

Table (3): Confirmatory factor validity results for the items on the study's dimensions
(standard saturations of the items on their dimensions)

symbol	(training)	quality of work) (performed)	(commitment)	amount of work) (completed)
a1	0.718			
a2	0.834			
a3	0.865			
a4	0.855			
a5	0.818			
b1		0.749		
b2		0.666		
b3		0.741		
b4		0.626		
b5		0.854		
c1			0.724	
c2			0.795	
c3			0.805	
c4			0.518	
c5			0.671	
d1				0.739
d2				0.907
d3				0.814
d4				0.782

Source: Prepared by researchers from field data 2023

Table (3) shows the saturation values of each item on the dimension (factor) to which it belongs in what is known as construct validity, which are the standard saturation values between each item and the dimension that includes it. The saturation value was accepted if it explained at least

(6 of the variance between this item and the dimension to which it belongs (since the total (%0 standard variance equals one true). Accordingly, a percentage of(6 of the variance was (%0 determined as a minimum for accepting saturation values, and accordingly it is noted The lowest saturation value between the paragraphs and the dimension to which they belong was between the fourth paragraph (C4) in the Commitment dimension, where it reached (0.518) while the , largest saturation value reached was between the nineteenth paragraph (D2) in the Quantity of .Work Done dimension, where it reached (0907). The rest of the saturations varied between these two values. Therefore, through these results, the structural validity of the items of the study tool .is confirmed and that they are consistent with the names of its dimensions

3.2.3 :Validity of the study tool - Pearson matrix

Pearson correlation coefficients were calculated to determine the relationship between the study variables, with the aim of revealing the presence of a linear relationship between the study variables. Table (4) shows the results of the inter-correlation coefficients between the dimensions .of the study

Table (4): Inter-correlation coefficients between the dimensions of the study

hefactor	Training	quality of the work performed	commitment	The amount of work completed
aining	1			
he quality of the work performed	0.170 (0.060)	1		
he commitment	0.159 (0.084)	0.572 *(0.000)	1	
he amount of work ompleted	0.011 (0.891)	0.426 *(0.000)	0.621 *(0.000)	1

(.The values in parentheses are the significance levels)

Source: Prepared by researchers from field data 2023

The table shows the values of Pearson correlation coefficients between the dimensions of the study. By reviewing these values, it is clear that they ranged between (0.011and 0.62 1) It . is clear that the relationship between training and the amount of work completed was (0.011), meaning that it is a weak relationship, while the relationship was stronger between commitment and the amount of work completed, with a value equal to (0.621) These values indicate that the . ,inter-correlations between the dimensions of the study were weak and moderate to some extent as the correlation coefficients did not exceed the barrier (0.70), so it can be said that these dimensions overlap in a reasonable way, and thus a conclusion can be reached that the dimensions under study are considered independent and valid dimensions to be adopted. In conducting the .required statistical analyses

3.2.4 :Validity of the study tool - discriminant validity and constructive validity

- Discriminant validity: the ability of the test to distinguish between different dimensions
- Structural validity: refers to the values of standard saturations between each item and the dimension that includes it

Table (5): Results of discriminant validity and construct validity for each dimension

The dimension	No.	Discriminate) (Validity	Construct) (Validity
training	5	69.700	0.961
the quality of the work performed	5	54.592	0.903
the commitment	7	54.155	0.877
the amount of work completed	4	64.642	0.865

Source: Prepared by researchers from field data 2023

The data in Table (5) indicate that the discriminant honesty values, which indicate the percentage of shared variance of the factor between the items that make up it, where discriminant honesty values are usually accepted if they are greater than or equal to (50.0%), as it is noted that the values ranged between (54.155 in The third factor (commitment) and ((69.700 for the first factor (training). As for the values of construct validity, which shows the relationship and correlation of each dimension to the total score of the dimensions, the values show that they ranged between (0.865 for the fourth factor (amount of work completed) and (0.96 (1 for the first (factor .(training). These values show the extent to which these dimensions relate to the overall score

3.2.5 :Tool stability

To test the reliability of the questionnaire and its reliability in testing hypotheses and achieving the objectives of the study, the internal consistency measure (Cronach Alpha) was used to measure the degree of credibility of the study population's answers to the questionnaire questions Alpha values can be interpreted as the internal consistency coefficient between answers, and the statistically acceptable value for this measure is (60%) or more (Sekaran, 2003)

Table (6): Reliability results of the study's dimensions using Cronbach's alpha method for each dimension

The dimension	No.	(Cronbach's Alpha)
The training	5	0.963
The quality of the work performed	5	0.914
The commitment	5	0.885
The amount of work completed	4	0.871

= Cronbach alpha value for all dimensions(0.929).

Source: Prepared by researchers from field data 2023

The data of the table above shows that the reliability coefficient of the study for all study variables was greater than the acceptable percentage, which indicates that there is a high degree of internal consistency between the paragraphs of each of the variables, as the reliability value for the

training variable reached (0.963) and the reliability value for the quality of work performed , variable reached (0.914),The reliability value for the commitment variable was (0.88 5) and the , reliability value for theamount of work completed variable was (0.871) This indicates that the . reliability of the items was acceptable, which confirms the possibility of relying on the .questionnaire in testing hypotheses

4. :Study results (analysis and discussion)

4.1:Analysis

Arithmetic means and standard deviations for the study dimensions were extracted with the aim of identifying members of the study sample about applying the training model in develop ing the performance from the point of view of faculty members at the Sudan University of Science and .Technology and Karary University

4.1.1:Training

Arithmetic means and standard deviations were extracted for each paragraph ofTraining and arranged in descending order, as shown in Table (7), with the aim of identifying the opinions of .the study sample about training

”Table (7): Arithmetic means and standard deviations for the “Training] items

N	factor	SMA	standard deviation	Relative importance	the level	Rank
1	The university administration encourages faculty members to acquire knowledge in modern .methods and technologies	3.68	1.08	73.50	Medium	1
2	The university administration holds seminars and meetings to develop the knowledge of faculty .members	3.56	1.16	71.10	Medium	2
3	The university administration seeks to develop the cognitive abilities of faculty members in .creative thinking	3.47	1.09	69.30	Medium	3
4	The university administration encourages employees to exchange experiences among .themselves	3.40	1.29	68.00	Medium	4
5	The university trains university faculty members to complete .work on time	3.36	1.07	67.100	Medium	5
	Training	3.49		69.70	Medium	

Source: Prepared by researchers from field data 2023

It is noted from Table (7) that the level of training was rated to a moderate degree according to the approved classification scale, as the arithmetic average reached (3.49 with a relative (importance of (69.70 and the level of the field items was moderate, as the arithmetic averages ,(% ranged between(3.36-3.68) Paragraph (1) came in the first rank, which is: “The university

administration encourages faculty members to acquire knowledge in modern methods and technologies,” with an arithmetic average of (3.68 and a relative importance of ((73.50%). Paragraph (5) came in the last rank, which is: “The university trains university faculty members to complete work on time..” “With an arithmetic mean (3.36with relative importance (6 (7.10%). After reviewing the results of the answers of the study sample members, it becomes clear that educational institutions seek to use modern technology methods and their applications to develop creativity among their employees in addition to meeting the needs of the beneficiaries and working to employ the highest levels of modern technologies and communications with the aim of adapting to the world of informatics and the Internet and thus motivating the beneficiaries of this technology to exploit its resources from Information and data with the aim of increasing the effectiveness and efficiency of employees. This means that the institution’s management has an interest in the field of creativity through careful follow-up and adoption of modern technological methods and methods represented by research, investigation, and monitoring of its environment to achieve its goals, confront technological changes, and exploit the abundance of information and adopt it in the educational process. This requires the institution’s management to carry out training operations. Continuous development of workers to keep pace with the requirements and modernity of the times by preparing training programs by specialists and training workers to deal with this technology and design and prepare their work electronically

4.1.2:Quality of work performed

In order to identify the opinions of the study sample about the quality of the work performed, the arithmetic mean and standard deviation of the items of the first dependent variable (quality of work performed) were extracted and arranged in descending order as shown in Table No(8).

Table: (8): Arithmetic means and standard deviations for the items “Quality of work ”performed

N	factor	SMA	standard deviation	Relative importance	the level	Rank
6	Improving the quality of .work	4.16	0.77	83.20	high	1
7	Doing the required work on time	4.11	0.75	82.20	high	2
10	Carrying out daily work	4.06	0.73	81.20	high	3
8	Integrating learning with .work	4.05	0.81	81.00	high	4
9	Improve performance level	3.88	0.77	77.60	high	5
	Quality of work performed	4.02		80.40	high	

Source: Prepared by researchers from field data 2023

It is noted from Table (8) that the level of quality of the work completed was rated highly, as the arithmetic average reached (4.02) with a relative importance of (80.40%), and the level of the field items was high, as the arithmetic averages ranged between (4.16 - 3.88), and came in The first rank is paragraph (6), which is “improving the quality of work” with an arithmetic average of (4.16) and a relative importance of (83.20%), while the last rank is paragraph (9), which is improving the level of performance” with a arithmetic average of (3.88) and a relative“ importance of(77.60%)

From here it is clear that the respondents realize that the benefit from the quality of the work completed comes through improving the quality of work in addition to doing the required work on time, and it also plays an important role in achieving the quality of the work completed. These results are due to the fact that improving the quality of work is the top priority for employees and .they give it the greatest attention

4.1.3 :Commitment

To measure respondents’ perceptions of commitment, the arithmetic mean and standard deviation of the items of the second dependent variable (commitment) were extracted and arranged in .descending order as shown in Table No. (9)

Table: (9): Arithmetic means and standard deviations for the “Commitment” items

N	factor	SMA	standard deviation	Relative importance	the level	Rank
11	Work is performed with the required efficiency and effectiveness	4.10	0.68	82.00	high	1
12	New ways and methods of doing work are being developed	3.90	0.77	78.00	high	2
13	Remember how to perform .desired tasks well	3.89	0.76	77.80	high	3
14	Job tasks are completed according to the required quality standards	3.84	0.94	76.80	high	4
15	Employees adhere to work rules and procedures	3.72	0.9	74.40	high	5
	Commitment	3.91		78.20	high	

Source: Prepared by researchers from field data 2023

It is noted from Table (9) that commitment was rated to a high degree according to the rating scale, as the arithmetic average reached (3.91) with relative importance (78.20%), and the level of the domain items was high, as the arithmetic averages ranged between (4.10-3.72), and came in The first rank is paragraph (11), which is “The work is performed with the required efficiency .and effectiveness” with an arithmetic average of (4.10) and a relative importance of (82.00%)

The last rank is paragraph (15), which is “The employees adhere to the work rules and .procedures” with an arithmetic average of (3.72) with a relative importance(74.40%).

After reviewing the results of the answers of the study sample members, the researchers found that there is a tendency on the part of employees to commit to performing work with the required efficiency and effectiveness, in addition to devising new methods and methods for performing work because of its impact on creating innovation, innovation, knowledge, and improving the .level of performance

4.1.4:Quantity of work completed

To reveal the amount of behavioral intention to use the system, the arithmetic mean and standard deviation for each item of this variable were extracted and arranged in descending order, as shown in Table No. (10) with the aim of identifying the opinions of the study sample about intention to use the e-learning system by faculty members at the University. Sudan Science and Technology .University, Karary

Table (10): Arithmetic means and standard deviations for the items “Amount of work ”completed

N	factor	SMA	standard deviation	Relative importance	the level	Rank
16	The university is growing in a steady and stable way	4.28	0.79	84.90	high	1
19	University students are more than students of other universities	4.25	0.74	84.30	high	2
18	The university meets all student requests	4.17	0.67	82.70	high	3
17	Faculty members deal with students with the highest professionalism	4.11	0.82	81.50	high	4
	Quantity of work completed	4.20		83.30	high	

Source: Prepared by researchers from field study data 2023

It is noted from Table (10) that the amount of work completed was rated highly, as the arithmetic .average reached (420.with relative importance (83 (30%) and the level of the field items was , high, as the arithmetic averages ranged between(4.11 - 4.28)and it came in the first rank is paragraph (16), which is “The university is growing in a steady and stable way, with an arithmetic average of (4.28.and a relative importance of (84 (90%) The last rank was paragraph (17), which . is, “The faculty members deal with students with high professionalism” with an arithmetic .average of (411.and a relative importance (81 (50%).

4.2 :Results of testing the study hypotheses

Table (11) shows the results of the direct effect, the indirect effect, and the total effect of the .relationship of the independent variable (training) with the dependent variable (job performance)

Table (11): Testing the study hypotheses (direct, indirect, and total impact)

N	<u>hypotheses</u>	Direct impact		Indirect impact	Total impact
		Impact value	Significance level		
H ₀₁	Training → quality of work performed	0.053	0.261	0.060	0.113
H ₀₂	Training → Commitment	0.105	0.063	-	0.105
H ₀₃	Training → amount of work performed	0.101	0.222	-	0.101

Source: Prepared by researchers from field study data 2023

4.2.1 First hypothesis: (H01) :

There is a statistically significant effect at the level of significance ($0.05 \geq \alpha$) of training on the .quality of work performed

Based on the data shown in Table (11), it is clear that the direct effect of training on the quality of work completed reached (0.053) and that this effect is considered statistically insignificant , because the significance level value of (0.261 was greater than 0.05. The table also shows that (the indirect effect of training on the quality of the work completed, it reached (0.060), and therefore the total effect of training on the quality of the work done becomes (0.113) ,Accordingly . with this result, the null hypothesis is accepted, meaning that there is no effect of training on the .quality of the work done

4.2.2 Second hypothesis: (H02) :

There is a statistically significant effect at the significance level ($0.05 \geq \alpha$) of training on .commitment

Based on the data shown in Table (11), it is clear that the direct effect of training on commitment reached (0.105) and that this effect is considered statistically insignificant because the , significance level value of (0.063 was greater than 0.05. The table also shows that the indirect (effect of training on commitment was It reached (0.000), and therefore the total effect of training on commitment becomes (0.105). With this result, the null hypothesis is accepted, as it turns out .that there is no effect of training on commitment

4.2.3 :Third hypothesis: (H03)

There was a statistically significant effect at the significance level ($0.05 \geq \alpha$) of training on the .amount of work completed

Based on the data shown in Table (11), it is clear that the direct effect of training on the amount of work completed reached (0.101 and that this effect is considered statistically insignificant (because the significance level value of (0.222 was greater than (0.05). Accordingly, with this (result, the null hypothesis is accepted, meaning that there is no effect of training on the amount .of work completed

4.2.4:Results

There is no statistically significant effect at the significance level ($0.05 \geq \alpha$) of training on the .1 quality of the work performed: the direct effect of training on the quality of the work accomplished reached (0.053) and this effect is considered not statistically significant because , the significance level value is (0.261). It was greater than 0.05. The table also shows that the indirect effect of training on the quality of the work accomplished reached (0.060) and therefore , the total effect of training on the quality of the work accomplished becomes (0.113) ,Accordingly .with this result, there is no effect of training on the quality of the work accomplished

There is no statistically significant effect at the significance level ($0.05 \geq \alpha$) of training on .2 commitment: the direct effect of training on commitment reached (0.105 and this effect is (considered not statistically significant because the value of the significance level of (0.063 was (greater than 0.05. The table also shows that the indirect effect of training on commitment reached and therefore the total effect of training on commitment becomes (0.1 ,(0.000)05) and therefore , .there is no effect of training on commitment

There was no statistically significant effect at the level of significance ($0.05 \geq \alpha$) of training .3 on the amount of work completed: the direct effect of training on the amount of work completed reached (0.101 and this effect is considered not statistically significant because the value of the (level of significance reached (0.222) ,It was greater than (0.05). Accordingly, with this result .

4.2.5. :Conclusion

In light of the previous findings of the study, a number of recommendations can be made that :could contribute to improving employees' performance through training, as follows

The study recommends paying attention to training because it improves the performance of-1 employees

Support and increase interest in measuring the impact of training on the trainee and its -2 relationship to developing his performance, work, and practical skills

.The need to raise the training budget-3

.Follow up with the trainees to determine the extent of their benefit from the training course -4

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