Electronic administration as a mechanism for improving the performance of university libraries "From the point of view of some of the library workers of institutions of higher education and scientific research"

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Abstract: The study aimed to determine the impact of applying electronic management on improving the performance of university libraries through an exploratory study from the point of view of Algerian university library workers. A questionnaire was designed and distributed to members of the study sample numbering (150) individuals, using (SPSS) to analyze the data. The study concluded that: The Pearson correlation coefficient between electronic management and improving the performance of university libraries was R = 0.342 at a significance level of 0.05 and degree of freedom (1, 149), and the value of the interpretation coefficient R2 = 0.117, which means that electronic management studies explained 11.7% of the changes that occur in improving the performance University libraries, and the remaining 88.3% is due to other factors, from which we reject the null hypothesis H0 and accept the alternative hypothesis H1, that is, electronic administration has a statistically significant effect on improving the performance of university libraries.

Keywords: electronic administration; university libraries; improving performance; Algerian universities.

JEL Classification Codes: M10, L25.

ملخص: هدفت الدراسة لمعرفة اثر تطبيق الإدارة الإلكترونية على تحسين أداء المكتبات الجامعية وذلك من خلال دراسة استطلاعية من وجهة نظر عمال مكتبة جامعات الجزائر، وتم تصميم استبانة وتوزيعها على أفراد عينة الدراسة البالغ عددهم (150) مفردة، باستخدام (SPSS) لتحليل البيانات وتوصلت الدراسة إلى ان معامل ارتباط بيرسون بين الإدارة الإلكترونية وتحسين أداء المكتبات الجامعية كان R = 0.342 عند مستوى دلالة 0.05 ودرجة الحرية (1 ، 149)) ، وقيمة معامل التفسير R2 = 0.117 ، مما يعني أن الدراسات الإلكترونية للإدارة أوضحت 11.7٪ من التغييرات التي تحدث في تحسين أداء المكتبات الجامعية ، والباقي 88.3٪ ترجع إلى عوامل أخرى، ومنه نرفض الفرضية الصفرية H0 ونقبل الفرضية البديلة H1 ، أي أن الإدارة الإلكترونية لها تأثير ذو دلالة إحصائية على تحسين أداء المكتبات الجامعية.

كلمات مفتاحية: الإدارة الإلكترونية، المكتبات الجامعية، تحسين الأداء، جامعات الجزائر.

تصنيفات JEL: M10، L25

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1. Introduction

At the beginning of the twenty-first century, management systems found themselves obligated to develop their methods and approaches to face the rapid changes and developments in the business environment. And possessing information and understanding the reality of its inevitability, as well as institutions began to suffer from constant and continuous pressure that forces them to enter this era and to express a reaction towards change with the help of what was provided to them with the necessary tools to remain at the forefront so that it can be said that information technology is the only means through which it is applied. Modern methods such as e-management, e-commerce, e-marketing, and e-government, and then finding reflections fast enough to gradually transform traditional administrative activities from regular activities to electronic activities that contribute to improving performance, raising work efficiency and effectiveness, increasing productivity, and achieving competitive excellence in institutions.

The shift to the adoption of electronic management focuses on a set of basic elements, without which it is not possible to achieve the various goals, objectives, and functions that the electronic management system can achieve. These elements are in the use of computers and their equipment, software, and information systems, in addition to relying on the use of various electronic communication networks in addition to the human element that designs and operates the electronic management system.

Today, electronic management touches all fields, such as libraries that want to digitize their work to develop and improve their services and improve their performance, by determining what is best for them and adopting it, identifying the bad part of it, and trying to leave it, and for university libraries to achieve this, they must work to improve Internal work methods. Improvement must pertain to every employee, department, and administration, to adopt electronic management applications and reach the desired level. Their application has become an urgent necessity to adapt to the changes of this era, given that education plays an important role in achieving progress and advancement for societies and providing it with the necessary scientific competencies to contribute to achieving comprehensive development.

Through all this, the following main problem can be raised:

What is the extent of the electronic administration's contribution to improving the performance of university libraries from the point of view of some workers in higher education and scientific research institutions?

The first topic: the theoretical framework of the study

The first requirement: the concept of electronic management

The Organization for Economic Co-operation and Development (OECD) defined e-governance as The use of information and communication technology, especially the Internet, as a tool that allows access to better management (OCDE, 2004, p. 11).

It has also been defined as: "The process of automating all the tasks and activities of the electronic administrative institution, relying on all media technologies to reach the goals of the new administration in reducing the use of paper, simplifying transactions, eliminating schedules and procedures, eliminating management procedures, processing plans, and the exact processing of tasks and transactions to prepare ready to link them with the electronic government." Work in an orderly and accurate manner Work in an orderly and accurate manner (JACOBS, p. 11)

It is also defined as: "It is the management capabilities based on the unique operations of the Internet and business networks in planning, organizing, directing, controlling the resources and basic capabilities of the organization without limits to achieve the goals of the organization. (Aljaidi, 2008, p. 29)"

The second requirement: is the concept of electronic performance

The electronic evaluation of performance is nothing but the use of information technology in conducting any evaluation related to a specific activity by following a set of steps, as it includes two types of evaluation, the first is computer-based evaluation without networking techniques, and the second is network-based evaluation (instant evaluation). The latter is done through computer networks. In addition, electronic evaluation has several methods, the most famous of which is electronic tests. Performing performance evaluation electronically through the use of information and knowledge helps (El-Naggar, 2008, p. 293):

- Knowledge and knowledge workers provide an effective competitive element in the contemporary economy.
- Personnel with knowledge functions in organizations provide intelligent information;
- Intellectual capital provides workers' participation in information to achieve wealth;
- Knowledge is called intellectual capital, which leads to performance;
- The productivity of knowledge and the productivity of workers with knowledge depends on:
    - competence with electronic computers;
    - The merit of the information.
- Electronic management is one of the practical applications for evaluating individual and institutional performance.

The third requirement: is electronic management in libraries

University libraries are among the scientific institutions that seek to provide information services and their sources to the community on which they are based, and the emergence of electronic technologies, including computers and their components, information, and communication networks, prompted university libraries to apply electronic management in them, i.e. the shift from traditional libraries to libraries that provide Its services electronically, to better use its resources and improve its level of performance. From this standpoint, this research comes intending to know all aspects related to the subject of applying electronic management in university libraries. Among the works carried out by the university library, we mention (Rafika, 2015, p. 27):

- Providing loan services and electronic lists electronically;
- The possibility of obtaining students' notes electronically and wherever they are;

Editing postal correspondence and e-books issued and received by the library;

- Electronic registration of all sources and references in the library in records, giving them serial numbers and arranging them in lists;

Preparing library loan forms and cards electronically, and preparing a database of books, periodicals, theses, and university theses linked to an electronic index for the library.

It can be said that electronic management in universities has many benefits, mainly represented in providing privacy, security, confidentiality, speed, and accuracy in storage, in addition to responding to the needs and desires of beneficiaries of the educational process efficiently and effectively, which leads to achieving beneficiary satisfaction and providing comprehensive services at the lowest costs, effort and time. And show transparency in the performance of work and get rid of bureaucracy and routine in the performance of work, and ensure continuity in the provision of services through the Internet without the need to attend the university constantly.

The second topic: planning and designing the field study

The first requirement: presenting the field study

Firstly. Information and sources of obtaining it: We knew the type of information that we would like to obtain through the main problem, as we found that the information required to answer this problem is preliminary information that is obtained through the workers of Algerian universities libraries, and this type of information is not available in Office books or previous studies as in the case of secondary information.

secondly. Study population and sample: The study relies mainly on a field survey of some 150 Algerian university library workers.

The second requirement: preparing the questionnaire

To evaluate electronic management as a mechanism for improving the performance of university libraries - from the point of view of some higher education and scientific research library workers, a model was relied on to study the dimension of electronic management in Algerian university libraries, as well as the contributions of electronic management to improving the performance of university library workers, to know The relationship between these components.

The questions in the questionnaire were designed based on these components, and to collect them to form electronic management as a mechanism for improving the performance of university libraries, Spss, and Excel programs were relied upon.

Firstly. Determining the objectives of the questionnaire list: There are a main objective and secondary objectives. The main objective is to know the relationship between the variables to confirm or deny the hypotheses and obtain answers that would answer the main problem represented in "**What is the extent of the contribution of the application of electronic management in improving the performance of university libraries in terms of The point of view of a sample of Algerian university library workers?"**

The secondary objectives are to know how the components contribute to indicating the level of electronic management and improving the performance of university libraries, as well as the most important elements in them that students pay great attention to.

secondly. Defining questions: The preparation of the questionnaire relied on tables, and the reason is due to the use of the five-point Likert scale, which is among the most widely used methods in measuring trends, as well as each component of measuring trends that contains a large number of variables associated with it.

The third requirement: are preliminary tests

To ensure the validity of the questionnaire or not, the researchers conducted a set of tests on it by resorting to arbitrators in addition to the necessary statistical tests.

Firstly. The validity of the questionnaire: To ensure the validity of the questionnaire and the appropriateness of its paragraphs, we presented the questionnaire to a group of arbitrators with expertise and specialization who are faculty members in the Faculty of Economic Sciences, Commercial Sciences, and Management Sciences at Yahya Fares University in Medea and Bouira, where they issued their judgment on the appropriateness of the questions. And the extent of the integrity and accuracy of the verbal and scientific formulation of the questionnaire phrases and the extent to which the questionnaire covers the problem of the study and the achievement of its objectives.

secondly. Stability of the resolution variables: In the study, we used the stability coefficient Cronbach Alpha to measure the stability of the resolution, so that the

Cronbach alpha value is acceptable if its value exceeds 0.60. The results indicated that the stability value was high, as shown in the following table:

Table 01: Cronbach Alpha to measure the stability of the resolution

Coefficient	alpha coefficient	Constancy
Questions	0.893	**0.844**

Source: Prepared by researchers based on the results of the Spss19 program

It is clear from Table (01) that the alpha coefficient was high by 0.893, and the stability value was also high, which indicates the stability of the resolution variables.

- **Test Distribution Normality**: The Smirnov-Kolmogorov test (S-K) was used to test whether the data followed a normal distribution, and the results were as shown in the following table:

Table 02: shows the results of the normal distribution test

Questionnaire themes	test value	Sig
Electronic management at the university	1.103	0.176
Contributions of electronic management in improving the performance of university libraries	0.950	0.328
the questionnaire as a whole	0.591	0.876

Source: prepared by the researcher based on the outputs of the SPSS program. V 19

The above table shows that the probability value (Sig) for all areas of the study is greater than the level of function 0.05 (0.876 > 0.05), and thus the distribution of data for these areas follows a normal distribution, whereby parametric tests used to answer the hypotheses of the study.

Third. The validity of the internal consistency: the validity of the internal consistency of the questionnaire periods. The internal consistency of the questionnaire items was calculated on the 150-item survey sample by calculating the arithmetic mean for each axis, then we calculated the correlation coefficient between the axis and its expression, so we will calculate the internal consistency for two parts of the questionnaire (electronic management and library performance University) so that the first axis includes electronic management at the university and the second axis contributes to electronic administration in improving the performance of university libraries.

1. The validity of the internal consistency of the items of electronic management in Algerian universities (Part One):

This axis consists of a group of paragraphs (from 01 to 08), and to know the stability of these axes as a whole, we touched on the use of the Pearson correlation coefficient to show the extent of internal consistency between its paragraphs.

Table 03: Pearson correlation coefficient for the first part of the study questionnaire

Electronic management at the university	correlation coefficient	Sig	The result
The college adopts the electronic library project and seeks to develop it	0.727**	0.000	**D**
The college library prepares an annual electronic guide on the studies and scientific research carried out	0.649**	0.000	**D**
Scientifically refereed research is published electronically	0.707**	0.000	**D**
The library has a service to inquire about modern scientific sources and references electronically	0.777**	0.000	**D**
The library provides students and researchers with a website to benefit from various scientific conferences and seminars, as well as providing a list of various specialized scientific research sites on this site.	0.637**	0.000	**D**
Forms for external loan forms are prepared, as well as automatic cards for loans inside and outside the library	0.596**	0.000	**D**
The books that have been loaned and the books that have been retrieved are identified daily, and those that have been booked electronically are identified	0.560**	0.000	**D**
Providing an automatic search service in the general catalog of the library and searching in ready-made databases of electronic books and periodicals and other electronic information sources available in the library, as well as providing a search service in the information network	0.586**	0.000	**D**

Source: Prepared by researchers based on the results of the 19spss program

Through the above table, we find that for each paragraph of the electronic administration in university libraries, the total number of its paragraphs is statistically significant, and from it, the paragraphs of the questionnaire are considered honest and internally consistent with what was set to measure them.

2. The validity of the internal consistency of the paragraphs of electronic administration contributions to improving the performance of university libraries (Part Two): This axis consists of a group of paragraphs (from 01 to 13), and to know the extent of stability of these axes as a whole, we touched on the use of the Pearson correlation coefficient until it is clear The extent of internal consistency between its paragraphs.

Table 04: Pearson correlation coefficient for the items of the second part of the study questionnaire

Contributions of electronic management in improving the performance of university libraries	correlation coefficient	Sig	The result
Electronic management helps reduce errors in work and increase the efficiency and effectiveness of the library's work	**0.358	0.000	**D**
Information systems are checked for compliance with security performance standards	**0.655	0.000	**D**
Employee performance is evaluated electronically	**0.687	0.000	**D**
The college adopts the ISO 27000 standards for the information security management system to protect information and use it in making decisions that in turn help improve performance.	**0.671	0.000	**D**
The college has a work environment that helps scientific research and is concerned with the quality of scientific knowledge that students obtain and seeks to improve it	**0.727	0.000	**D**
The college opens the door to external competencies and attracts them to benefit from their experiences and knowledge. It also takes advantage of successful foreign experiences in the field of electronic library services.	**0.757	0.000	**D**
The college encourages new initiatives and suggestions submitted by professors, students, and employees to improve the performance of the library	**0.721	0.000	**D**

Modern electronic programs are used in the library	**0.731	0.000	**D**
The technology used helps in providing information, improving the speed of business performance, and saving time	**0.665	0.000	**D**
The performance standards used by the library can measure employee performance effectively	**0.680	0.000	**D**
Electronic performance appraisal methods depend on objective models appropriate to the nature of the work	**0.703	0.000	**D**
Reliance on electronic management reduces the effort, time, and cost to implement library services electronically	**0.556	0.000	**D**
Providing electronic services to students and professors wherever they are as soon as possible	**0.598	0.000	**D**

Source: Prepared by researchers based on the results of the 19 spss program

Through the above table, we find that each of the paragraphs on improving the overall performance of university libraries for its paragraphs is statistically significant except for paragraph (03), and from it the paragraphs of the questionnaire are considered honest and internally consistent with what was set to measure them.

Fourthly. The validity of the structural consistency of the study tool: The validity of the structural consistency is one of the measures of the validity of the study tool, as it measures the extent to which the goals that the tool seeks to reach are achieved.

Table 05: **The validity of the structural consistency of the study tool**

Questionnaire axes:	**correlation coefficient**	**Sig**	**The result**
Electronic management at the university	**0.800	0.000	D
Contributions of electronic management in improving the performance of university libraries	**0.837	0.000	D

Source: Prepared by the researchers based on the results of the 19spss program

Through Table (05), we find the correlation coefficients between each axis and the total rate of the questionnaire items statistically significant, and accordingly, the axis is considered honest and consistent with what was set to measure it.

3.4 Data analysis tools: To analyze the data obtained from the survey process accurately, we used each of the frequency tables and percentages, as well as tables of arithmetic means and standard deviations to know the relationship between the

dependent variables and the independent variables, and we also used the T-Test analysis to test the validity of the hypotheses.

4. View the results of the study

In this section, we will discuss the presentation and analysis of the results of the questionnaire, by presenting and analyzing the results of the personal card of the respondent and presenting and analyzing the results of the questions

4.1. Description of the study sample: After collecting the necessary data from a sample of (150), it was coded, reserved, and processed on a computer based on Spss and Excel programs, which facilitate obtaining results in a short time. The results were obtained as shown in the used tables and figures. Presentation of results based on Spss and Excel programs.

Presentation of personal results: Before presenting the results of the content of the research, we first perform a descriptive analysis of the questions related to the respondent, which were included in the latter, to gain his trust.

Table 06: Presentation of personal results

PERSONAL RESULTS	Options	Repetition	The ratio
Gender	Male	97	64.7
	Feminine	53	35.3
Age	Less than 25 years old	03	02
	From 25 years to 35 years	59	39.3
	From 36 years to 45 years	57	38
	Older than 49 years old	31	20.7
Qualification	vocational institute	10	06.66
	Bachelor	98	65.33
	Master	34	22.66
	Magister	2	01.33
	Ph.D	6	04
Years of Experience	Less than 5 years	28	18.7
	From 5 years to 10 years	61	40.7
	From 11 to 15 years	35	23.3
	Older than 15 years old	26	17.3
Participation in training courses in the field of electronic management	I did not participate	102	68
	Once	27	18
	twice	13	08.7
	more than twice	08	05.3
Participation in training courses in the field of improving the performance of university libraries	I did not participate	102	68
	Once	27	18
	twice	10	06.7
	more than twice	11	07.3
The ability to handle a computer	High	86	57.3
	Medium	59	39.3
	limited	05	03.3
The score for each personal statement		**150**	**100**

Source: Source: Recent sources based on the results of the Spss 19. program

From the above table, we notice the following:

- The largest proportion in terms of sex belongs to men;

- As can be seen through the age of the respondents, the largest category was for workers between the ages of 25 and 35 with a rate of 39.3 percent, followed by the category between 36 and 45 with a rate of 57 percent, so the lowest percentage returned to workers under 25, and this, if anything, indicates the keenness of

universities in general And libraries, in particular, to employ young people who have a kind of awareness, seriousness, and the ability to keep up with the new and learn;
Concerning the educational qualification, the workers have a prestigious scientific level and higher certificates that enable them to work and improve it;
- The acquired professional experience plays a major role in employing electronic management and improving performance, and this was what was available in the category of respondents;
- Lack of participation in training courses in both electronic management and performance improvement, which negatively affected the digital transformation in libraries;
- The ability to deal with the computer is not good, so it must be improved.

4.2- Analysis of the first axis of the questionnaire: Through this part, we will analyze the results of the questions that represent the electronic administration in the university under study, but before that, we must clarify the scale that was used in the study, which is the five-point Likert scale.

Table 07: Likert Five Scale

Degree:	**Strongly Disagree**	**not agree**	**neutral**	**Agree**	**Strongly Agree**
the level	1	2	3	4	**5**
arithmetic mean	1.79-1	2.59-1.80	3.39-2.60	4.19-3.40	**5-4.20**

Source: Abdel-Fattah Ezz Hussein, Introduction to Descriptive and Inferential Statistics, Algorithm for Scientific Publishing and Distribution, Jeddah - Saudi Arabia, 2007, p. 237

Table 08: The degree of approval of the statements after the electronic administration

Electronic management at the university	**arithmetic mean**	**standard deviation**	**sample direction**
01	3.55	1.213	**agree**
02	3.63	1.156	**agree**
03	3.81	1.101	**agree**
04	3.71	1.096	**agree**
05	3.44	1.277	**agree**
06	3.27	1.209	**neutral**
07	3.51	1.174	**agree**
08	3.75	1.061	**agree**
Electronic administration in the university (the dimension as a whole)	**3.6433**	**0.68154**	**agree**

Source: Prepared by researchers based on the results of the SPSS 19 program

Through this table, it is clear that all the expressions related to the electronic administration dimension at the university were at a higher arithmetic mean than the peaceful arithmetic mean (3), and thus they express the Laborer's approval of these expressions, but there is a large discrepancy in the answers. This is what the standard deviation shows.

Based on the foregoing, we conclude that the level of electronic management among Algerian university library workers was high according to the study scale, as the average response of the respondents remotely to electronic management as a whole was (3.6433), and this indicates that university library workers enjoy the desire

to use new information technology, which is one of It will develop and improve the performance of universities.

The third requirement: the analysis of the second axis of the questionnaire

Through this part, we will analyze the rest of the results of the questions that represent the component of the electronic administration's contributions to improving the performance of university libraries from the point of view of library workers.

Table 09: Degrees of approval for the statements of electronic management contributions to improving the performance of university libraries for the study sample

Contributions of electronic management in improving the performance of university libraries	arithmetic mean	standard deviation	sample direction
01	4.03	0.867	**agree**
02	3.65	1.018	**agree**
03	2.99	1.248	**not agree**
04	2.93	1.199	**neutral**
05	3.15	1.252	**neutral**
06	2.99	1.351	**neutral**
07	3.13	1.302	**neutral**
08	3.30	1.098	**neutral**
09	3.63	1.084	**agree**
10	3.19	1.114	**neutral**
11	3.40	1.056	**agree**
12	4.03	0.948	**agree**
13	3.83	1.079	**agree**
the dimension as a whole	**3.4015**	**0.74669**	**agree**

Source: Prepared by researchers based on the outputs of the SPSS 19 program

Through this table, it is clear that most of the expressions were with an arithmetic mean greater than the peaceful arithmetic mean (3), and thus they express the agreement of the workers on these expressions, but there is a great discrepancy in the answers. This is what the standard deviation shows.

Based on the foregoing, we conclude that the performance level of university libraries from the point of view of its employees was high according to the study scale, as the average of the respondents' responses from remote performance as a whole was (3.4015), and this indicates that the workers have good performance that can be further improved through resorting to the digitization

The fourth requirement: testing the hypotheses of the field study

After the data has been collected and analyzed using appropriate statistical methods and in light of the hypotheses that this study aimed to test, we will discuss, through this part, the testing of hypotheses related to the field study and verifying their validity or not by reviewing the results of an analysis for each hypothesis.

First: Testing the first main hypothesis:

H0: There are no statistically significant differences for the electronic administration to improve the performance of university libraries due to the variables of participation in training courses and the ability to deal with the computer;

H1: There are statistically significant differences for the electronic administration to improve the performance of university libraries due to the variables of participation in training courses and the ability to deal with the computer.

Table 10: Results of the first major hypothesis test

	arithmetic mean	**standard deviation**	**standard error**	**F**	**Sig**
Electronic management as a mechanism to improve the performance of university libraries is attributed to participation in training courses in the field of electronic management	1.51	0.865	0.071	1.997	0.057
Electronic administration as a mechanism for improving the performance of university libraries is attributed to participation in training courses in the field of improving the performance of libraries	1.53	0.910	0.074	1.339	0.258
Electronic management as a mechanism to improve the performance of university libraries is attributed to the ability to deal with the computer	1.46	0.563	0.046	0.980	0.560

Source: Prepared by researchers based on data from Spss 19

The value of (F) is equal to 1.997 and the associated probability is 0.057 for the variable of participation in training courses in the field of electronic management, and the value of (F) is equal to 1.339 and the probability associated with it is 0.258 for the

variable of participation in training courses in the field of performance improvement, while the variable of the ability to deal with the computer has a value (F) is equal to 0.980, and the associated probability is 0.560, which is less than the level of significance (0.05), and from it we accept the null hypothesis H0, which says, "There are no statistically significant differences for the electronic administration to improve the performance of university libraries due to the variables of participation in training courses and the ability to deal with the computer" and the potential error Type of β.

secondly. Test the second main hypothesis

H0: There is no statistically significant effect between the use of electronic administration and the improvement of the performance of university libraries at the level of significance (0.05);

H1: There is a statistically significant effect between the use of electronic management and the improvement of the performance of university libraries at the level of significance (0.05).

To test this hypothesis, a simple linear regression analysis test was used, to verify the existence of a statistically significant effect of rejection or acceptance, as follows:

- accept the null hypothesis if: the calculated F value is smaller than the tabulated F value at the 0.05 significance level or the Sig value is greater than 0.05;

Accept the alternative hypothesis if: the calculated F value is greater than the tabulated F value at the 0.05 significance level or the Sig value is less than 0.05;

The mathematical model for the first sub-hypothesis:

Improving the performance of university libraries = A+B (electronic management)

Table 11: Results of simple linear regression analysis

		Regression	**The error**	**Total**
sum of squares		9.696	73.379	83.075
degrees of freedom		01	148	149
mean of squares		9.696	0.49	
total morale	**F value**	19.557		
	Sig	0.000		
Partial significance (regression coefficients)		**Constant**	**Electronic management**	
	B	2.038	0.374	
	T	6.497	4.422	
	Sig	0.000	0.000	
interpretive ability	**R**	0.342		
	R^2	0.117		

Source: Prepared by the researchers based on the outputs of the SPSS program

Through the results shown in the table above, we find that the Pearson correlation coefficient between electronic administration and improving the performance of university libraries was R = 0.342, which is significant at the level of significance of 0.05 and the degree of freedom (1, 149), and that the value of the interpretation coefficient R2 = 0.117, which means that administration Electronic studies have explained 11.7% of the changes that occur in improving the performance of university libraries, and the remaining 88.3% are due to other factors.

Significance test of multiple regression B, A.

Rule: If the probability value (Sig) is less than 0.05 corresponding to the calculated 'T' value, then the regression coefficient is significant.

Referring to the table above, we find:

For the significance test A: the value of the Sig error probability is 0.000, which is less than 0.05, so a=2.038 is significant.

For a significant B_0 test: the value of the Sig error probability is 0.000, which is smaller than 0.05, so the value of 0B is significant, and this means that an increase in one unit in performance leads to an increase in work in electronic management by a value of 0.374

Among them, the mathematical model is: improving the performance of university libraries = 2.038 + 0.374 (electronic management)

Conclusion: We reject the null hypothesis H0 and accept the alternative hypothesis H1, that is, there is a statistically significant effect of electronic management on improving the performance of university libraries.

Conclusion:

Digital transformation has become an urgent matter in all sectors to keep pace with the rapid developments and to facilitate and accelerate the implementation of work. The application of electronic management in university libraries has become an urgent matter, and since its implementation, performance has improved significantly.

Study results: Through this study, the following results were reached:

- Electronic management is a new alternative that reconsiders previous administrative practices, and the transition to virtual links, which improves the speed of response and increases the level of effectiveness of the administration and various institutions during the performance of their services;
- Pearson's correlation coefficient between electronic management and improving the performance of university libraries was R = 0.342, which is significant at the level of significance of 0.05 and the degree of freedom (1, 149), and the value of the interpretation coefficient R2 = 0.117. This means that electronic administration has explained 11.7% of the changes that occur in improving the performance of university libraries, and the rest 88.3% is due to other factors;

- There is a statistically significant effect between the use of electronic management and the improvement of the performance of university libraries at the level of significance (0.05).;
- There are no statistically significant differences for the electronic administration to improve the performance of university libraries due to the variables of participation in training courses and the ability to deal with the computer.

Recommendations:

- Work on developing the implementation of electronic management projects and programs per the specifications of the existing infrastructure in the university, and encourage this sector to participate in the implementation of some of these projects according to the specifications that are determined in advance and with high accuracy, and invest in information and communication technology;

_ The need to take care of the software that helps in providing adequate protection for the electronic administration sites used in the university;

- The need for the university to keep pace with the rapid changes in the field of electronic administration and the tools and means of information and communication technology;

_ Raising the level of cultural awareness of the importance of switching to electronic management and using its tools in the daily work of the employee at the university;

_ Encouraging individuals related to various institutions towards learning electronic knowledge and trying to keep pace with the development taking place in the universities of developed countries.

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