



Measuring the Impact of E-governance on the ERP System: A Case study of Palestinian Institutions

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Abstract

The study aimed to measure the impact of e-governance on the enterprise resource planning in Palestinian institutions. The study sample was 150 individuals who work in different Palestinian institutions in a random manner. A data analysis test was conducted using the SPSS program. Frequencies and simple linear regression analysis were used, where it was found that there was an effect. The impact of e-governance on the benefits of the enterprise resource planning application system, and the percentage of this impact on the benefits of the enterprise resource planning system amounted to 39%, which means that electronic governance in the enterprise resource planning system works to improve performance, and this is reflected positively in increasing the benefit from the enterprise resource planning system. E-governance in the enterprise resource planning system works to adopt the correct methods, which will affect the increase in the percentage of benefits of the enterprise resource planning within institutions. This indicates that governance has a moderate effect and that specialists working on the enterprise resource planning system know that when following e-governance will lead to an increase in the efficiency of implementing the enterprise resource planning.

Keywords : E-governance, Enterprise resource planning, Institutions, Palestine.

I. Introduction

Institutions are witnessing rapid development in the process of developing work performance within them through adopting modern systems in order to organize work and increase efficiency and effectiveness, such as enterprise resource planning systems and how e-governance affects them.

At this time, the strategic role and necessity of information systems is increasing. This necessity, which takes away from the importance of information, is a valuable resource for every institution and is an indispensable tool for the institution in order to have a competitive advantage and manage operations efficiently and effectively.

The ERP system is one of the latest systems used by organizations, which appeared during the sixties of the last century. The enterprise resource planning system provides a single system that links all the organization's operations to a central information base, which contributes to improving and speeding up the exchange of information between users of this system. Technology institutions Modern companies in their various fields (Industrial, commercial, and services) work on using the ERP system as software designed to create integration between activities. This system aims to unify financial and other operations and increase operational efficiency and effectiveness (Aqdi Abdullah, Issawi Abdul Ghani, 2021), It is necessary to know the extent to which E-governance affects the effectiveness and efficiency of the enterprise resource planning, negatively or positively, through studies of many of the variables found in the research.

II. Literature review

The study conducted by Khassawneh (2010), to evaluate the government control procedures in the context of electronic governance in the Jordanian Audit Bureau found that the Audit Bureau lacks control procedures that align with the planning process of government control and the government control model. The study concluded that the control procedures followed by the Jordanian Audit Bureau do not align with the implementation procedures of government control in the field of electronic systems.

The study conducted by Al-Zahra (2017), on the impact of institutional governance implementation on improving the performance of Algerian banks reveals a positive effect on enhancing the financial performance of Algerian banks. However, there are still some indicators of improvement among private banks. This can be attributed to the fact that these mechanisms are not being implemented at the desired level. Additionally, there is a negative relationship between ownership structure as an internal mechanism of governance and financial performance. The study concludes that the lack of activation of institutional governance mechanisms in Algerian banks necessitates significant efforts to adopt institutional governance, which poses significant challenges for Algerian banks.

In a study conducted by Niyazi Kurnaz and Ali Kestane (2020), on the impact of enterprise resource planning (ERP) applications on the performance of internal auditing in the context of corporate governance, it was found that the structure and functions of internal auditing have shifted towards information technology after the implementation of ERP applications. With the improvement of auditors' capabilities and professional competencies, the structure of internal auditing has expanded and evolved, leading to a positive impact on its performance. It is also noted that improving business processes and examining efficiency enhancements cannot be achieved without identifying weaknesses in the operations. Therefore, the effects of ERP applications on the internal auditing process have become essential.

In another study by Othman (2015), on the principles of implementing electronic governance in sports institutions in the Arab Republic of Egypt, it was found that the important principles of electronic governance in sports institutions include compliance with electronic governance rules, the presence of a clear hierarchy in these institutions, adherence to the principles of disclosure and transparency, an effective risk management system, and a compensation and rewards system characterized by transparency and fairness. Additionally, sports institutions should adopt high ethical and behavioral standards.

The results of Nazhfiyani KS, Rita Rahayu, and Rayna Kartika, (2022), study show the impact of corporate governance and diversification on the financial performance of companies that apply enterprise resource planning (ERP), in which the study used company size as a control variable, and the sample was 33 manufacturing companies that met the criteria. The results of the study showed that corporate governance has a positive impact on the financial performance of manufacturing companies that implemented enterprise resource planning and that diversification has a positive impact on the financial performance of companies that implemented the enterprise

resource planning system. This indicates that the presence of ERP technology in companies with many business lines will lead to better company performance because good technology will provide significant benefits to the company.

When studying the impact of applying corporate governance and the efficiency of human resources on the financial shortfall, it was found that companies must make efforts to organize the company to avoid a decline in the financial situation and that the application of good corporate governance has a negative impact on the financial shortfall, and the efficiency of human resources also has a negative impact on the shortfall. Financial, and also based on the results of this analysis, a significant value of 0.148 and $0.308 > 0.05$ was obtained, so at the same time, it can be concluded that the implementation of good corporate governance (X1) and human resource efficiency (X2) together have a negative impact on finance.

In the study of Obaid et al. (2020), on the success factors in adopting e-governance in Palestine, the study proposes a conceptual framework for adopting e-governance mainly by applying it in government and private agencies in Palestine. The researchers in this study believed that it would be important for future researchers and decision-makers, and the study also It will help determine the benefits of governance and enhance the process of its implementation in the Palestinian reality.

It is clear from the research article by Obaid and others (2022), in their study on the factors contributing to the effective adoption of e-government in Palestine, that this depends on the desire of individuals to use it, and yet only little attention has been paid, and the study concludes that the factors Technology, personality, and reliability affect the intention to use e-governance, and they also greatly affect the actual adoption of e-governance services in Palestine, provided that the government takes the initiative to develop a comprehensive planning model for e-governance based on demographic factors. The study came out with a set of proposals that will be important for decision-makers and a basis for future research.

When studying the electronic governance of information services in Algerian university libraries, the study concluded that the first step in applying electronic governance is university libraries, taking into account electronic readiness and infrastructure, but taking into account the existing administrative structures, electronic, organizational, legal, executive, and evaluative readiness of university libraries, and attention Electronic portals and all these requirements are among the basic requirements for promoting and implementing electronic governance. Mesbahi, Saghiri, (2022).

In Obaid's study (2023), on the electronic governance system and the challenges of implementation in Iraqi local governments, he found the lack of the necessary infrastructure for the success of implementing this system, which indicates a severe reluctance that reflects on the government system in general and the electronic system in particular. I also found that it aims to Provide public service to local residents through administrative agencies and affiliated units. In order to adopt governance, there must be an integrated system of technical and information components.

III. Material and method

In this research, we relied on the descriptive analytical method, as the research relies on a set of research procedures that measure the impact of governance as an independent variable on the resource planning system in Palestinian institutions as a dependent variable, (Al-Obre, 2023) where the data was collected through a questionnaire form.

The data was processed using some statistical methods for the purpose of describing the frequencies and the impact of governance on the resource planning system in Palestinian institutions. When analyzing the data, SPSS

statistical analysis was used for seven variables to measure the degree of agreement using a Likert scale, where strongly agree (5), agree (4), and neutral were given. (3), disagree (2), and strongly disagree (1), in order to repeatedly measure the extent of the impact, and simple linear regression was used to measure the degree of impact.

IV. Result and discussion

4.0 Frist: Indicators measuring the impact of e-governance on the ERP system

4.1 The results in table No. (1) indicate the following :

4.1.1 It is clear that the majority of respondents (79.3%) agreed (strongly agree and agree) with the indicator that electronic governance affects the resource planning system, “improving the competitiveness of economic units and increasing their value,” while a small percentage (7.1%) of respondents expressed their disagreement (disagree). and strongly disagree while (13.6%) expressed an opinion that they do not know or that they do not care. After the responses were analyzed, the average was calculated as 4.01, which is greater than the general average and with a standard deviation of 0.945 . This means that the respondents’ opinions support that they know the importance of governance in business and the resource planning system .

4.1.2. It turns out that (71.6%), or two-thirds of the respondents, expressed their agreement (strongly agree, agree) with the indicator that electronic governance is affected by “effective oversight of the performance of economic units and strengthening accounting accountability.” However, 8.9% of the respondents disagreed, and (19.5%) were of the opinion that they do not know about the impact of governance. While the average was 3.89, which is equal to the general average and a standard deviation of 0.991 .

4.1.3. % 76.3 (of the respondents expressed their approval (strongly agree, agree) on the indicator that electronic governance works “to ensure a review of the operational, financial and 4 5 monetary performance of the economic unit,” while (16.6%) expressed the opinion that they do not know or that they do not have the decision, and (7.1%)) Express their disagreement (disagree and strongly disagree). The average was 3.94, which is greater than the general average, with a standard deviation of 0.878.

This means that most of the respondents support adopting governance in their institutions in order to ensure a review of the operational and financial performance of the economic unit within the institution.

Table: 1 Table showing frequency, percentages, means, and standard deviation of the effect of e-governance On the implementation of the ERP system according to the five-point Likert scale.

Indictors		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
Improving the competitiveness of economic units and increasing their value	F	5	7	23	80	54	4.01	0.945
	%	3.0	4.1	13.6	47.3	32.0		
Imposing effective control over the performance of economic units and strengthening accounting accountability	F	5	10	33	72	49	3.89	0.991
	%	3.0	5.9	19.5	42.6	29.0		
Ensure review of operational and financial	F	2	10	28	85	44		

Financial performance and monetary unit economic	%	1.2	5.9	16.6	50.3	26.0	3.94	0.878
Deepening and strengthening the culture of compliance with agreed upon laws, principles and standards	F	4	12	25	86	42	3.89	0.941
	%	2.4	7.1	14.8	50.9	24.9		
It works to maximize the profit of the economic unit, achieve justice and transparency, and fight corruption	F	4	15	34	64	52	3.86	1.031
	%	2.4	8.9	20.1	37.9	30.8		
Increasing investor confidence in financial markets to strengthen investment citizenship	F	6	19	33	66	45	3.77	1.075
	%	3.6	11.2	19.5	39.1	26.6		
Obtaining the necessary and appropriate financing and forecasting the expected risks.	F	3	8	37	78	43	3.89	0.903
	%	1.8	4.7	21.9	46.2	25.4		
Total							3.89	

4.1.4 The data indicate that (9.5%) of the respondents expressed their disagreement (disagree, and strongly disagree) with the indicator of the impact of governance, “ensuring a review of the operational, financial, and monetary performance of the economic unit.” However, more than two-thirds of the respondents (75.8%) expressed an agreeing opinion that governance It affects, while (14.8%) of the respondents expressed their lack of knowledge. The mean was 3.89, which is equal to the general mean and has a standard deviation of 0.941. This confirms that governance works to create and strengthen a culture of respect for laws .

4.1.5- It is clear from the table that (68.7%) of the respondents expressed their approval (Agree, Strongly Agree) for the indicator, “It works to maximize the profits of the economic unit, achieve justice and transparency, and fight corruption,” and that 20.1% of the respondents did not know, while (11.3%) expressed their disagreement (Not Agree, strongly disagree). The average is 3.86, which is less than the general average, with a standard deviation of 1.031. This means that the respondents supported the application of the principle of governance in order to maximize profit and achieve the principle of reward and punishment within the institutions in which they work .

4.1.6 It is also clear that (65.5%) of the respondents expressed their agreement (agree, strongly agree) with the indicator “Increasing investors’ confidence in the financial markets to strengthen investment citizenship,” while (19.5%) of the respondents do not know, and this is considered a large percentage, meaning that awareness and qualification courses must be conducted about Enterprise resource planning system, and 14.8% disagreed (disagree, strongly disagree). While the average was 3.77, which is considered less than the general average, and the standard deviation was 1.075 .

4.1.7 The data showed that the majority of the respondents (71.6%) expressed their agreement (agree, strongly agree) with the indicator “obtaining the necessary and appropriate financing and predicting the expected risks,” and that 21.9% of the respondents did not know or did not care, but based on the results, intensive programs must be implemented, and 6.5% did not know. Agree (disagree, strongly disagree). The average was 3.89, which is equal to the general average with a standard deviation of 0.903

4.2 Second: E-governance has a positive effect on the benefits resulting from implementing the ERP system.

Table: 2 Regression to study the impact of e-governance in the ERP system on the benefits resulting from the implementation of the system.

Dependent Variable	Predictors	R	R Square	F	Sig.	B Unstandardize dCoefficients	Beta Standardized Coefficients	T	Sig.
Benefit	(Constant)	0.396 ^a	0.157	31.050	0.000 ^b	33.080		10.208	0.000
	e-governance					0.117	0.396	5.572	0.000

When analyzing the data for the impact of e-governance, the results are shown in Table (2): Indicators of the impact of implementing the e-governance system on the resulting benefits of the enterprise resource planning system. A simple linear regression model was used, in which the variable of the impact of implementing e-governance in enterprise resource planning is expressed as an explanatory variable and a benefits variable. From the resource planning system as a dependent variable. The results of the regression model show that the correlation between the independent (predictive) variable and the dependent variable reached 0.39, and this is considered an acceptable correlation. The percentage of variance in the dependent variable (benefits) that is explained by the independent variable (e-governance) is 0.15. This means that governance explains the variance of 39% of the benefits, given the coefficient of determination (r^2). As is evident from the F value of 31.050 and the significance of 000b, the regression model is statistically significant. This means that it can be used to predict the effect of the independent (explanatory) variable. On the dependent variable .

It is clear from the data of the same table (2) that the value of the constant factor is equal to 33.080, which is the size of the effect available when electronic governance is not applied within the organization. The non-standardized beta value of the regression coefficient is 0.117, and this value represents the role of electronic governance, which affects the application of the enterprise resource planning system in the regression equations. While the standard value for electronic governance is 0.396, this means that the percentage of the impact of electronic governance on the benefits that contributes to improving performance and quality of work on the enterprise resource planning system is 39%, since this value is an acceptable positive. This means that e-governance has an acceptable positive impact on the benefits, as the application e-governance within the organization and in the enterprise resource planning system leads to an increase in the percentage of benefits from the system. The significance of t 0.000 indicates that the impact of electronic governance on the resource planning system and the realization of benefits from this system has a statistically significant effect. The value of t was 5.572, which indicates that its value is greater than 2. This means that adopting the application of electronic governance works to increase the benefits resulting from Implementing a resource planning system.

V. Conclusions

By analyzing the impact of electronic governance on the enterprise resource planning system and from the data of the study results, it was found that there is an impact of electronic governance on the benefits of the enterprise resource planning application system and that the percentage of this impact on the benefits of the enterprise resource planning system reached 39%, which means that electronic governance in the system Enterprise resource planning works to improve performance, and this is reflected positively in increasing the benefit from the enterprise resource planning system, and electronic governance in the enterprise resource planning system works to adopt the correct methods, which would affect the increase in the percentage of benefits of the resource planning

system within institutions. This indicates that governance has a moderate effect and that specialists working on the enterprise resource planning system know that when following governance this will lead to an increase in the percentage of benefits from implementing this system. Any enterprise resource planning system must be accompanied by electronic governance in order to increase the effectiveness and efficiency of working on the system.

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