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# The Role of e-Government on Corruption and its Impact on the Financial Performance of the Government: An Empirical Analysis on the Iraqi Government

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**Abstract:** This study aimed to provide a conceptual model for the use and benefits of the e-Government as related to administrative fraud and financial corruption. The study also looked into their concepts, forms, dimensions and types and the role of e-Government on fraud reduction, corruption in administration and finance and its impact on the government performance. From the result, it is revealed that there is need for electronic government for implementation in order to curb the rate of fraud and administrative and financial corruption and improve the quality of service provision for better performance.

Key words: e-Government, financial performance, Iraq, corruption, financial, administrative

### INTRODUCTION

It is common to hear and experience the occurrence of corruption in the management of public money, this phenomenon leads to disastrous consequences on the economy and social status of the country. Notably, the development and growth of any country depend more on the good management and exploitation of the resources rather than the degree of possession of natural resources. The inappropriate deviations in the management of public resources are as a result of lack of effective and efficient control systems and lack of accountability (Ibrahim *et al.*, 2017).

The dependence on government institutions remain the main source of providing job opportunities for the various population despite the Iraqi government's approach to an open market economy after the elimination of the socialist regime of the former regime in 2003. The public sector in Iraq achieved higher percentage in employment of the population more than the private sector due to the weakness of the private sector, their internal and external investment. The increase in the unemployment rate is also due to laundering of funds by many civil servants, forced displacement and the loss of most infrastructure cities and aggravation and continuation of the war with the Takfiri gangs. These

have led to incurring public debt and transitioning into consumer's country for various products imported from abroad. Similarly, the main element in the financing of the general budget revenues which is the oil continues to fluctuate in prices.

Contrarily, the international reports have unveiled the fact that the administrative and financial corruption and fraud are the main challenges of the most departments in Iraqi government units. A rise in this problem has also been revealed by several studies in the local environment such as the reports from the governmental regulatory institutions of the legislative executive authorities. The act of corruption in form of exploitation of some employees always takes place from fraud and corruption and financial administrative, federal and the integrity of the offices of inspectors and the general existence of fraud in many of the government units in order to influence their functions. This has provoked the government to take necessary control measures. In order to tackle this menace, the government launched the e-Government project linked to various government departments of the state to reduce the administrative and financial fraud and corruption. Nevertheless, there is still a question if the bodies set up as the e-Government can still contribute and reduce the administrative and financial fraud and corruption. Does e-Government contribute to

the terms and condition and means to ensure the administrative and financial fraud or corruption are not carried out and to know whether electronic government enhance the financial performance of the country. This study will therefore, contribute to the ocean of knowledge by outlining the concept of e-Government, administrative and financial corruption and fraud and tier effect on the government performance.

Literature review: According to the first survey in the recent year and the study of Bhatnagar (2003), there was an attempt to determine the rate of corruption by the Transparency International (TI) in different countries. The study and survey aimed to determine where there is most occurrence of corruption and proffer solution and state the reasons why the corruption exists in the first place in the governmental department. The perceived immunity against prosecution and very low rate of corruption discovery are the two major factors that lead to increase in the level of corruption. Similarly, low chance of discovery can be due to excessive regulations and rules, secrecy in the government, limited access to information by the citizens, ill-defined and complicated procedures and media. The perpetrators of fraud can cover-up their track and make unveiling the corruption to become difficult due to absence of transparency in the government system and agency. The immunity against prosecution and problem of corruption are further facilitated by the weak power of the institutions that are created to investigate the corruption charges and discipline the culprit and the existence of corrupt or inefficient judiciary. Recently, there has been more focus on the implementation of e-Government as one of the elements to combat corruption. This is believed to be achieved by enabling great public access to information and creating access to information by opening government processes.

The study of Pathak and Prasad (2006) stated that projects on e-Governance has led to total elimination of corruption in many government sectors and significantly reduces corruption in other sectors. Thus, a societal peace and tranquillity is achieved as the corruption is reduced to have positive impact on the society. The study reiterates that e-Government can be a powerful tool to achieve peaceful society and tackle corruption in developing countries.

This present study substantiates the study of Monga (2008) on e-Government through theoretical assumption by analysis of the activities in the Indian local, state and federal level of the government. The study of Kim *et al.* (2009) evaluated and documented a system called OPEN suitable for the development of anti-corruption system in

the Seoul Metropolitan of South Korean government by integrating three distinguished measures institutionalization (such as: normative, cognitive/mimetic regulatory/coercive) and four strategies for anti-corruption incorporated in the system. The study examined the effect of e-Government on anticorruption has evolved in local government and become an example for the same purpose in national system. The result showed that implementing the anticorruption system called OPEN, the strong leadership and the regulatory dimensions are crucial and most effective to its success. For better improvement, the enactment of the rule of law is clearly the best method to fight corruption.

The study of Ramaswamy and Selian (2009) opined that introducing e-Government plays significant role in the financial performance of any country as many processes are automated. In contrast, countries like Armenia which is known as post-communist transitioning has exclusive challenge. These countries are facing challenges related to their legacy transformation on the administrative and bureaucratic systems. Additionally, majority of the post-soviet countries have adopted corruption from the existing systems that are built in to the Modus Operandi of both the private and public sectors. For the purpose of feasibility, the formation of planning and good policy leveraging the present capacity of institution to produce public service in a more efficient and transparent manner cannot be achieved without some critical concepts such as assessment, categorization and modification of the existing administrative process. No result will be yielded with a defection in the automation of the existing bureaucratic processes. Therefore, this study proposed a method to tackle the rampant corruption employing Information and Communication Technology (ICT) which comprises restructuring process.

Furthermore, Bertot et al. (2010) mentioned that in several nations, the electronic government has been specially implemented in many comprehensive and prominent transparent efforts while considerable attention has been given to some of these individual efforts such as the issue of ICT-enabled efforts which is capable of creating substantial social change in action towards transparency. The possible effect of ICT and information as regards social media and e-Government on transparency cum cultural attitude is explored in this study. Also, Mistry and Jalal (2012) examined the association between corruption and e-Government in developing and developed countries. The study specifically investigated two issues: the first one is the effect of e-Government on corruption considering many countries in the world and secondly to know the effect of e-Government on corruption in developing and developed

countries through compare and contrast. Some empirical models are developed and tested in order to determine and investigate the relationships. The study found that corruption reduces as the use of ICT-related e-Government increases. Also, it is revealed that for the period of 7 years between 2003 and 2010, the effect of e-Government is lower in developed countries than in the developing countries.

The administrative corruption is focused on in the study of Ahmad et al. (2013) in order to answer many question related to e-Government. The study found that there is favouritism and bias in favour of certain individual and group which are at the forefront and responsible for the prevalence of corruption in government with firm agreement with the nature of the Kuwaiti organizations. From the previous study, it is found that the patterns and features of corruption are configured by a tribal society, then, this study showed that the transitioning to e-Government has led to limitation of individual intervention. Therefore, this finally reduces or eliminates some kind of corruption that is connected with individual emotions through bribery, nepotism and favouritism. Abu-Shanab (2013) examined the association between development of e-Government and transparency using secondary data from international report. Transparency is measured in two ways: the Open Budget Index (OBI) and the corruption perception index. Both indexes are regressed to know their power of prediction for e-Government Readiness Index (EGRI). relationship is significant and showed that the power of prediction is high for the development level of the e-Government. At the end of this study, the analysis of data, discussion, conclusion and recommendation for future research are explained.

In the same vein, Elvis (2014) revealed that there is possibility of e-Government to eliminate administrative corruption from the public service in African developing countries. This study recommended the development of e-Government as anti-corruption tool for the developing countries in sub-Saharan Africa in order to reduce the level of poverty and administrative corruption and to increase rate of growth in the economy. Similarly, Lupa and Lazar (2015) explored the association between e-Government and corruption in a period of years: 2004 (2007) and 2012 in countries under European Union (EU) and non-European Union, respectively. In order to determine if the accession of EU has improved anti-corruption with e-Government an analysis is performed on two classes of countries working practically towards the effect of e-Government on the changes in corruption level.

In other word, Khakbaz-Poor and Zarandi (2015) investigated the role of e-Government establishment on the measures of administrative corruption from the perspective of the students using state university. Following the reports of the laws on administrative violation, six dimensions of corruption were recognized. All the students at the state university are the population used for the statistical analysis of the study. The sample of the population contained 196 participants and all the questionnaires distributed out were collected back to analyse the hypothesis of the study. The data collected was analysed using Structural Equation Modelling (SEM). The findings revealed that the creation of e-Government in the state university has a significant negative impact on the dimensions business behaviour, hypothyroidism, inappropriate violations of relevant regulations and laws and other errors caused by naivety. Also, the hypothesis on the relationship between significant e-Government establishment and development of abuse, dissatisfaction and discrimination of customers were rejected.

Mahmoodzadeh and Shahpar (2015) in their study used data from a research library, international data and econometric method. The research hypotheses were tested using Panel data model. From the conclusion and summary of the study, it can be found that the number of internet users and the degree of openness of economy have a significant and positive effect on the corruption. The increasing of the number of internet users and the increasing of the degree of openness has led to increase in the corruption of the variable of information technology employed that are not related to corruption and the studied countries. Similarly, Lee (2017) concentrated on the several e-Government projects that are useful for corruption reduction. The study concluded that the level of corruption in different states decreased on the project execution.

This present study therefore, aimed to show the effect of e-Government on administrative and financial corruption and fraud and the effect of financial performance on the economy of the country in this case as a contribution.

## Theoretical framework

The concept of e-Government: The integration of electronic commerce (e-Commerce) and electronic business (e-Business) in the private sector has opened a way for more interest in information and communication technology. The present paradigm is to redevelop areas of the government activities to welfare interventions to the public procurement using algorithm of information and communication technology. The awareness of the public

sector is important on the impacts of e-Government project on the service nature to the citizens as provided by the government. The current and most popular literature, so far has considered e-Government as the next move to rationalize the activities of the government in accordance to the new public management (Cordella, 2007).

An e-Government is believed to be an effective tool for an organization. A basis of an electronic government is provided through the use of web provided to form a new technology of electronic communication. The concepts and dimensions of the electronic government are provided through this study's theoretical framework. This is achieved through the emphasis on the strategic role and approach of achieving effective and efficient performance of organization in the new file to attain transaction in various forms (Karim, 2016).

The delivery of the government services and information online via internet or any digital means is referred to as the e-Government. The delivery system of internet is two-way, available every day, non-linear and non-hierarchical, unlike the traditional structure which is one-way, linear and hierarchical. The non-hierarchical nature of the internet delivery allows the users to get information at their own convenient time but not just when the government office is opened. Sending and receiving information by the bureaucrats and citizens is allowed through the interactive aspects of e-Government. Electronic governance has been approved as a way to enhance service responsiveness and delivery to the citizens by facilitating a two-way interaction leading to greater confidence in public government at the long run (West, 2004).

The acknowledgement of corruption in an organization or administration means that the law in the organization is not effective, thus, this allows individual to abuse the main aim and objective of the organization. The main adversary of corruption is transparency, therefore, corruption can be prevented by any tool that encourages transparency. New technologies are considered by many countries as a way to increase and improve transparency. For this reason, Khakbaz-Poor and Zarandi (2015) stated that the researchers consider e-Government as a possible way of reducing corruption through employee and public communication. Table represents e-Government.

Advantage of e-Government: The source of information and services is the e-Government philosophy. The citizens, business holders and various units want to benefit from the source of information and services which will lead to fundamental change in the cultural

implementation of the service and government and the attitude of the citizens and business towards the implementation. To simplify and support the service of the government for all the parties involved in the governance is the strategic goal of the electronic government whether its citizen or business institutions. The three parties are strengthened in the process and activities together in order to be linked with the help of information and communication technology. Similarly, electronic method is supported by the e-Government and it contributes to support the quality of business performance of the governmental organization it provides to the concerned parties. In accordance with the e-Government objectives, the objectives of the internal process can be distinguished using the external business provided to the clientele (Karim, 2016).

e-Government is a renowned effective tool for any organization. The fundamentals of e-Government are provided through the implementation of the available web with the modern technology of the electronic communication. Thus, conceptual framework of the dimension and concept of the electronic government are provided in this study. This is achieved by making emphasis on the strategic role of the approach to gain effective and efficient organizational performance with this new paradigm to achieve several business transactions (Cordella, 2007).

According to Khakbaz-Poor and Zarandi (2015), the following are provided by the dependent of e-Government:

Improving the quality of government services and providing faster services for citizens. Increase in the satisfaction of the government and citizen agencies and reduction of cost for citizens.

Improving mental image of governmental services; less mistakes by the employees and more customized approach to service delivery.

Minimizing the inter sector duplications. Intimate relationship between the government and citizen to creating more user friendly environment for work.

Providing reliable and smart government for more transparency, better communication and engagement and more reliable services.

Regular provision of information and services, fast and reliable information and services; reception of information and services without physical presence, reducing costs of government and increase in efficiency and effectiveness.

The concept of administrative corruption and fraud: In the last two decades, the term financial or administrative corruption has become one of the most controversial issues in international organizations as in the case of United Nations. According to the publications of this organization, administrative and financial corruption is the main reason for the backwardness of the growth economically, socially and politically in the third world countries. Recently in Iraq, attention has been given to the issues surrounding administrative and financial corruption through the intervention of external bodies such as the creation of high commission for integrity, supportive work of the Financial Control Bureau and establishment of departments for the Inspector General. These bodies are meant to provide external oversight independently and effective performance of economic units in order to efficiency and adequacy of the use of economic resources and management that are available. According to Transparency International, Iraq remains one of the last countries on the list of countries which is free of financial and administrative corruption despite all these measures; the report says, it is ranked 161 out of 167 (Ibrahim et al., 2017).

As anyone is liable to falling victim of a fraud, the crime of economy is on the increase. The survey on fraud by the global price water house cooper (2009) recently showed that in 54 countries, 30% of the 3, 000 respondents have fallen victim of fraud. While some industries are vulnerable to fraud than others, the emerging economies are highly liable to risk. At the turn of the 21st century, fraudulent scandals due to fraudulent financial performance activities and greed had led to increase in public dishonest and investor's confidence in the auditor's services and the annual report (Flayyih, 2016).

The occurrence of fraud and corruption in the public fund management has become a general challenge in every nooks and cranny. Serious repercussions are always accompanied the country's economy and social status in this phenomenon. Specifically, the development or growth of any nation is not dependent on the level of which natural resources are possessed but rather on the exploitation and good management of the these resources. Inappropriate deviations in the management of public resources are caused due to lack of accountability and effective and efficient in the control systems. In the last two decades, the word or term financial and administrative corruption has become a concern by the international organizations and a subject of great controversy in the United Nations (Ibrahim et al., 2017). Different categorizations of administrative corruption are provided by different researchers and international organizations with each category a particular base. Therefore, this study pursues the representation of different categorizations. The administrative corruption is

divided into three categories by a political scientist called Hiedenhimer as following (Khakbaz-Poor and Zarandi, 2015):

Black administrative corruption: This is defined in terms of how the political elites and masses are offended and a punishment is laid on the culprit who committed the offense. For instance, accepting bribe to forgo criteria and safety standards for house building must be mentioned.

**Gray administrative corruption:** In this case, corruption is considered objectionable while the masses are indifferent about it. For instance, low awareness among the employees on the implementation of laws which are uncommon among the people but only the political elites believes in its benefit and necessity.

White administrative corruption: This are procedures that are clearly against the law but the majority of ordinary people, the political elites and most members of the society do not see it as a big deal to oppose. Regulation role is ignored in many cases where the importance has been lost due to cultural and social change.

# MATERIALS AND METHODS

Methods of practicing corruption and fraud: According to Hammood (2015), fraud is practiced in three ways:

**Financial statement fraud:** This is when the management interferes in the financial reporting process and then fraud occurs in the financial statements. Influence then occurs on the economic activity of the company in order to cause confusion on the users of accounting information.

**Asset misuse:** The misuse is carried out through altering the fixed assets of the company. Generally, the state asset has hostile view. The state-owned assets such as the cars and furniture are used by most government employees illegally and incorrectly.

**Corruption:** According to the report of International Monetary Fund, corruption is the use of public authority to gain a special benefit in the form of solicitation, extortion by an official, request or bribe.

The concept of financial performance: One of the most comprehensive and administrative concepts is generally the concept of performance or financial performance. Due to it relation with important aspects of the life of any kind of company, it involves many fundamental issues related

to the success or failure. Therefore, in the field of administrative and accounting studies, the concept of performance is not new. Abbas (2009) argued that financial performance is a wide area of study that comprises success, failure, capacity and effectiveness. Management faces a fundamental issue as the organizations change in order to adjust the means of its strategic options. The objective of this amendment is to proceed with the control and evaluation of the financial performance. Therefore, financial performance is a tool to identify financial position of companies at a given moment of time at a particular point of the performance or share performance on the market day. The result is maximized by improving the return. This is obtainable by maximizing revenues or reducing expenditure on a daily basis to the long and medium term in order to achieve stability of performance and wealth accumulation.

In order to measure the extent to which the objectives are achieved, the financial performance focuses on the use of financial indicators through the availability of financial resources, the financial performance of the company and the provision of investment opportunities in the various fields of performance which meets the requirement of the stakeholders in order to achieve their objectives. The evaluation of the financial performance is done by the government agencies in the government institutions in order to know the institution's performance in the best investment of financial allocations and resources as placed by the state. This is placed by the state in the hands of those institutions to execute mandated activity which is public service provided consequently to the people. Therefore, the government is responsible for the welfare of the community and implementation of its program (Zuhairi, 2015).

### RESULTS AND DISCUSSION

The descriptive statistics tools such as arithmetic mean, standard deviation and coefficient of variation are used to analyse the result of the field by following the conventional Likert scale (Fully agreed = 5, agree = 4, neutral = 3, disagree = 2, fully disagree = 1). Using the arithmetic mean to determine where all the classes belong, this study determined the level of the response. Thus, the mean hypothesis was calculated on that basis. The effect of the explanatory variable in the response variable is measured by the methods of instrumental analysis. The presidency of the University of Baghdad is selected as the unit of analysis while the questionnaire consisted of 94 items to be answered. Three variables are mentioned in the questionnaire: there are ten items for the first variable, e-Government. The administrative and financial corruption

Table 1: Scientific achievement of the study's population

Certificate	No.	Percentage
Preparatory	2	2.13
Diploma	8	8.51
BSC	64	68.09
MSC	16	17.02
PHD	4	4.26
Total	94	100

Table 2: The service year for the selected population

Years of service (year)	No.	Percentage		
<5	27	28.72		
From 5-10	28	29.79		
From 11-15	22	23.40		
More than 16	17	18.09		
Total	94	100		

which is the second variable has eight items. There are also eight items for financial performance which is the third variable.

The highest percentage of the sample of the holders of the Bachelor's degree is shown in Table 1 which is 68.09% of the total sample. This is followed by the Master's degree holder which is 17.02% of the total population, then the holders of the diploma certificate and doctoral degree amounted to 8.51 and 4.26%, respectively. The final holders of the preparatory class accounted for 2.13% of the total population.

Table 2 indicates that the percentage of years of service from the selected population is within 5-10 years with 29.79% of the total population. This is followed by the years of service of 5 years or less which is 28.7% of the total population, then the years of service from eleven to 15 years amounted to 23.40%. The final service of 16 years and over accounted for 18.09% of the total population. This study is developed from to main assumptions:

- H<sub>1</sub>: there is a significant relationship between the statistical significance of electronic government and administrative and financial corruption
- H<sub>2</sub>: there are positive effects of e-Government on financial performance

Following the hypothesis of this study and adoption of the questionnaire, the hypothesis were tested under the simple linear regression equation. The independent variables of the study are the electronic government and administrative and financial corruption. The efficiency of financial performance will be enhanced with the reduction of administrative and financial corruption while the dependent variable is the financial performance. The following section accounts for the analysis of the results of this study.

**The descriptive analysis:** The results of descriptive analysis of the three variables are presented in Table 3.

Table 3: The results of descriptive analysis

	N				
Variables	Valid	Missing	Mean	SD	
e-Government	94	0	3.3	1.05	
Fraud and administrative and financial corruption	94	0	3.5	0.75	
Financial performance	94	0	3.3	0.79	

Table 4: The relationship between the electronic government and fraud and administrative and financial compution

	e-Government				
Variables	t-test	$\mathbb{R}^2$	β	p-value	F-values
Measures					
Financial and administrative fraud	3.31	0.01	0.23	0.001	11.01

Table 5: The results of the e-Government and its impact on financial performance

performance						
	e-Government					
Variables	t-test	$\mathbb{R}^2$	β	p-value	F-values	
Measures						
Financial performance	3.03	0.15	0.29	0.000	17.27	

For the results of the questionnaire, no account for missing values. The results of the arithmetic mean for e-Government, fraud, administrative and financial corruption and financial performance is 3.3. This result is greater than the mean value of 3 while the results for the standard deviation are 105, 75 and 79%, respectively. The high dispersion in the results of the standard deviation is due to the respondents of e-Government.

The relationship between the electronic government and financial and administrative fraud: The results of the relationship between the electronic government and the reduction of fraud and administrative and financial corruption are presented in Table 4.

From the Table 4, the value of R<sup>2</sup> is 0.01. This shows that 10% of the changes in fraud and administrative and financial corruptionare accounted for by the e-Government while the other contributions contributed for the remaining 90% that is not covered by the study. The result (23%) of beta coefficient shows that any increase in the use of electronic government leads to a change in fraud and administrative and financial corruption by 23%. The value of calculated F is 11.01 which are greater than the periodic value of 4.19. The result shows that the reduction of fraud and administrative and financial corruption is affected by the electronic government. The value of t-test is 3.31 and the morality level of the teacher is 0.001 which is statistically significant as it is less that the moral level 0.05.

Implications of the electronic government on financial performance: It is shown in Table 5 that the value of  $\mathbb{R}^2$  is 0.15. This shows that 15% of the

changes in financial performanceare accounted for by the e-Government while the other contributions contributed for the remaining 85% that is not covered by the study. Reaching the value of 29% indicates that a change in financial performance by 29% is achieved with any increase in the use of electronic government. The values of the calculated F are 17.27, this value is greater than the periodic value of 4.19. This shows that the financial performance is affected by the electronic government. The value of t-test is 3.03 and the morality level of the teacher is 0.000 which is statistically significant as it is less that the moral level 0.05.

The results above show that the hypothesis of the study are accepted. Reduction in the fraud and administrative and financial corruption and enhancement of financial performance is achieved by the direction of government units in Iraq towards the application of electronic government.

#### RECOMMENDATIONS

This study aimed to provide a theoretical framework for the concept of e-Government, the fraud and administrative and financial corruption and to unfold the importance and role of e-Government in reducing fraud and administrative and financial corruption and its impact on financial performance. Similarly, this topic has attended to one of the serious challenges in Iraqi economy which suffers from the problem of administrative and financial fraud and corruption. This is as a result of decline in the quality of the performance of the work of government unit which has a negative effect on the financial performance. The budget is affected as it relies on the funding from the state budget as the simplest requirement is not provided. Therefore, this study recommends implementation of electronic system by the government in order to minimize the rate of fraud and administrative and financial corruption and promote the quality of services in order to enhance financial performance

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