

## E-Government as an Anti-Corruption Tool in Yemen: Citizens' Perspective

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### ABSTRACT

Corruption is one of the main challenges in government in developing countries. , it has been considered as one of the most prevalent and persistent Obstacles in improving economic growth and enhancing the quality of life of citizens across the globe. Not only the corruption hinders economic growth, but it also threatens good governance. E-government is growingly being used to improve transparency, and combating corruption. The objective of this paper is to attain a better understanding about the relationship of e-government and corruption from the point of view of citizens. This paper achieved its objectives by adopting the descriptive analytical

approach in addition to using a quantitative method in the form of structured questionnaire. The research samples consisted of 120 of citizens who are using the government bodies' services. The results of this research suggest that the use of ICT in the form of e-government can make important headway to reduce corruption.

**KEY WORDS:** Corruption, ICT, E-government, Combating Corruption, economic growth, Yemen.

### 1- INTRODUCTION

E-government may offer a weapon against corruption. Recent studies in information and communication technology (ICT) and scholars [1][2][3][4] have given hope to the idea that new technologies in the form of e-government systems can be used as a tool to fight corruption in the public sector in many countries. Corruption is

considered as a complicated issue. Although we recognize there to be cases of corruption in all types of organizations, but this research focuses exclusively on administrative corruption due to its adverse effect, and it being likely to have more influence on society. Corruption most possibly will occur in the interaction between citizens and the government sector in Yemen, and it is generally practiced by public officials who have

direct responsibility to deliver service to the public. There is not clear definition of corruption; this makes it hard to investigate what corruption exactly is and how to research it properly. Nevertheless, the research adopted Transparency International (TI)'s definition which defined corruption as the abuse of entrusted power by political leaders or bureaucracy for personal gain or specific group interest. Along the line with the Yemeni government's willingness to fight corruption, and increasing the realization to need for e-government in order to reduce corruption, this study contributes citizens' perspective for assessing e-government as a tool to fight corruption. Nevertheless, the aim of this paper is to examine the role of e-government in combating corruption in the public sector in Yemen from the point of view of citizens.

## 2- BACKGROUND OF THE PROBLEM

Corruption is considered a strong constraint on growth and development .High levels of corruption and bureaucratic delays by inhibiting inward investment are one of the most important challenge facing developing countries. According to the United Nations, "Corruption undermines human development and democracy". It reduces access of public services by diverting public resources for private gain" [5]. With corruption on such a large-scale, the government can't afford to pay for essential services, infrastructure, nor get the international support to develop the economy and reduce aid dependency.

Corruption in Yemen is not a new phenomenon.

Corruption in Yemen ranges from financial and political, to the petty corruption. For example, there is money that given to policemen to avoid the penalties and fines or to government employees to process paperwork quickly. Considering that influence peddling, embezzlement of public funds, favoritism and bias to groups and individuals are the most common patterns of corruption in the government sectors in Yemen [6].

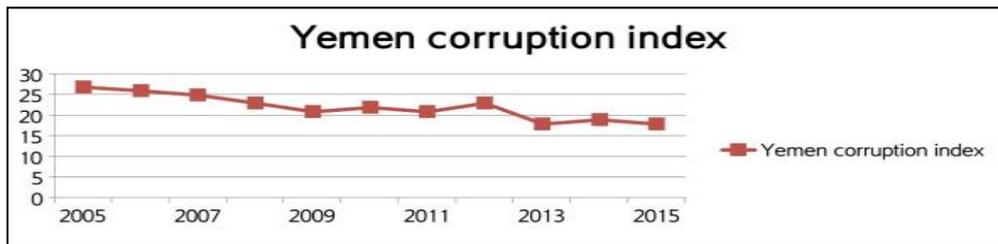
According to the USAID report about corruption, Yemen has examined both administrative corruption and grand corruption. Grand corruption in Yemen is the most dangerous and covert type of corruption, it found where public officers work in high positions, and routinely asking bribes for ensuring that tenders or contracts are awarded to specific contractors[7]. In addition, administrative corruption is the most common form in Yemen. It has become something common in popular culture; it is no longer shameful for individual to be corrupted. Usually Administrative corruption involves relatively small amounts of money, including bribery, and the public official abuses his/her position by accepting a benefit or gift.

In 2005, Yemen ratified in the united nation regulation for corruption fighting. Important laws and rules have been formulated to fight corruption; including the financial ownership laws, the bids & offers law .In 2006, the Supreme National Authority for Combating Corruption has been

established. In the following year, the Higher Authority for Bids and Offers Control has established as well. All of that was a first step on the right path. However, the existing regulatory and corruption-fighting bodies are weak, and do not cover all forms of corruption, for instance; Practices such as Bribery and gifts are excluded, which are widespread practices in Yemen.

In spite of this remarkable progress, many challenges still persist; Yemen still suffers from

weak institutions with under skilled and under-paid employees. It can be seen from figure 1 that corruption in Yemen has increased remarkably between 2005 and 2015. In 2013, corruption reached to the lowest corruption score in the last 11 years which is 18 point out of 100. While in 2014, the score increased one point, but in 2015, the score decreased again to the same level of 2013.



**Figure1:** corruption reception index. Source: available on: <https://www.transparency.org/country/YEM>

Developing countries are facing difficulties in applying successful e-government projects. Yemen is considered as one of the least developed countries tends to improve its e-government development index which is 0.22 in 2016[8].

Furthermore, some researches show that there are positive indicators for e-readiness for e-government in Yemen [9].

### 3-LITERATURE REVIEW

#### 3.1 Economic Growth in the developing countries

There is doubtlessly that the utilization of ICT is seen as a helper for economic

development, and it is integrally correlated to sustainable development and offered a chance for development and advancement. Studies on economic development distinguish ICT as a requirement for economic growth and the enhancing of social conditions. As Economic development is the expanding capacity of a country to create more merchandise and enterprises [10], the usage of ICT empowers the generation of products in a short measure of time with the help of computerized system. Moreover, ICT provides information to producers and consumers in order to help them make efficient choices, so, technology improves the functioning

of the markets according to the economic reasoning [11].

In today's world economy, one of keys factor that has a strong impact on economic development both in short and long term is technology, and ICT has been credited for enhancing productivity in the business world and changing the way of living for citizens. Technology has changed modern life in many ways especially in the work environment, where the report on the 'networked world' begins with the statement that "the Internet and other ICT has essentially changed the way the world works" [12]. The business world was changed by the invention of computers, Internet and the development of communication. It has seen some of the greatest advancements due to technological development. It is similarly crucial for organizations to realize that an expanded in profitability must be accomplished if fuelled by relentless and quick enhancements in ICT execution [13], where technological advancements have helped businesses and organizations save time, cost of production, and conduct work successfully and effectively. In fact, ICT investment promotes economic growth and labor productivity. Contrasts in economic performance between developed countries and developing countries are largely explained by their levels of ICT investment. The lack of ICT is realized to be an important factor contributing to the widening of the gap between 'developed' and

'developing' countries.

### 3.2 The Concept of Corruption

Corruption is a word-wide phenomenon notable throughout history. The vague definition of corruption is one major aspect of the problem. Definitions and perspectives vary from country to country and society to society in accordance with cultural, legal or other factors and the nature of the problem as it happens in each country. Transparency International (TI), the most cited source in corruption discussions, defined corruption as the abuse of entrusted power by political leaders or bureaucracy for personal gain or specific group interest [14]. Some researchers defined corruption as an act in which the misuse of public power, office, or authority for private benefit. While others defined corruption to describe a variety of activities like Joseph S. Nye [15] who stated that "behavior which deviates from the formal duties of a public role because of private-regarding (personal, close family, private clique) wealth or status gains; or violates rules against the exercise of certain types of private-regarding influence". This includes such behavior as bribery, nepotism and misappropriation of public resources for private uses. In addition, corruption is generally connected with the activities of the government and especially with the monopoly and discretionary authority of public officials.

### **3.3 Corruption- An Obstacle to Economic Development**

Corruption and poor governance can have largely harming impacts on a country's growth rate and development potential. According to Transparency International's 2009 report, corruption has specified as a growing challenge for the business field both in the developing and developed countries [14]. Economies in any countries are not able to function properly because corruption prevents the natural laws of the economy from functioning freely; also rising of corruption causes to increase the migration of economic competencies due to lack of appreciation; and the emergence of nepotism and favoritism in the occupancy of public offices positions. Some scholars stressed the negative impact of corruption on economic growth. Econometric researcher [16] revealed that "corruption increases public investment because public investment projects lend themselves easily to manipulations by high-level officials to get bribes, and reduce the productivity of public investment and of a country's infrastructure". Corruption can waste resources because of the overlap of personal interests with public development projects, and fail to obtain foreign aid as a result of the poor reputation of the political system. Scholars on corruption in the past decade [16][17] have indicated that corruption discourages investment, alters the composition of government spending, hinders economic growth,

and disrupts improvement in the quality of life. Also, Tanzi [17] noted that "corruption inclined to be more spread in poorer countries and in economies in transition than in rich countries". It damages a country's development by reducing trust in government, increase costs for businesses, and discourage both foreign and domestic investments.

Corruption hinders sustainable development, justice, and undermines the rule of law and international security. Corruption has been considered as one of the most prevalent and persistent Obstacles in improving economic growth and enhancing the quality of life of citizens across the world. These challenges include weak institutions, high unemployment, poor infrastructure, corruption, and unsuitable laws and regulations.

### **3.4 The Concept of E-government**

There is no standard definition of e-government that clearly explains what it really represents. In the existing literature, there are a number of definitions which explain the main concepts of e-government according to their research perspectives. E-government refers to the delivery of government services through the Internet; also e-government is understood as a government's use of ICT as a tool, particularly web- Based internet applications, to enhance the access to and deliver of government information and services to citizens, business partners,

employees, and other agencies. To confirm, Silcock [18] explains e-government as the usage of technology to enhance access to and delivery of government services to citizens, business partners, and employees. World Bank [19] defined e-government as utilizing ICT for changing and improving the relationship among government, citizens, businesses, and other government entities.

### **3.5 Relationship between E-government and Combating Corruption**

E-government may offer a weapon against corruption. Combating corruption considered to the extent that increased transparency, accountability and predictability (of rules and procedures) are made priorities. Many researches has also suggested that the main rationale for the use of e- government is to minimize costs and delays in processing, expand citizen's access to public sector information, delivering services, increase transparency and public accountability [20].

The institutional regulations ,the taxation system, public expenditure, provision of goods and services, financing of political parties, level of public sector wages, penalty systems are factors of government that contribute directly and indirectly to corruption. Scholars [17][1][3] have found that recent years have seen trends toward using e-government for greater access to information and for promotion of transparency, accountability, and anti-corruption goals .

Along same line, e-government may help to increase the transparency of procurements system, make public services more accessible and clear [21]. Besides all these cost-efficiency benefits, it is believed that e-government can decrease corruption levels through increased transparency and accountability and strengthen good governance [22].

### **3.6 How E-government can combat Corruption?**

There are different actions can be taken by e-government to reduce corruption, these actions are as follow:

- E-government should put the entire departments online like customs, income tax, sales tax, and property tax. Every services of government must be delivering online to every citizen all over the country. The use of computers and online transactions makes the delivery systems more efficient, and reduces abuse of discretion and other opportunities for corruption. According to Kaur [23], while exploring the five e-governance projects in India, the services of government should become online. In fact, if services are put online, procedu5res will be streamlined and taken less time, and there will be no need to bribes for speed up the process.

- E-government also can help monitor corruption by tracking action and decision. This needs to be complemented with the development of institution, laws and regulations that protect whistleblowers,

impose powerful disincentives for corruption, and punishes those involved in corruption [5].

- E-government should automate administrative processes that will diminish discretionary power, and monitor government officials on operations by using algorithms to track, control, and save every process that have done to the public. Tracking government employee's transactions, monitoring, and controlling their official activities are made easier through e-government applications .E-government tools can not only track various events and illegitimate actions that have already taken place but also proactively detect suspicious behavior before any crime has been committed. If decisions and transactions will be documented and easily tracked to officials, officials will think twice before committing a corrupt behavior. Bhatnagar [2] stated that "by automation of processes, it is possible to significantly reduce opportunities for corruption by removing public officials at data collection and service delivery points, when people engage in e-banking, there is no need to bribe".

- E-government will reduce the individuals' intervention to a minimum scale. In fact, the process of constructing electronic services entails transferring information into electronic platforms, and presenting it to users in forms that defined by laws and process regulations. Because this is done automatically, there is no room for individuals to influence by manipulating or withholding

information as long as the user has direct access to the electronic service .To confirm, Karv [24] pointed out that e-government limit the individuals' intervention.

- Publishing of government information online and giving citizens convenient access to government information and services from everywhere anytime, via multiple channels will substantiate citizens' complaints against corrupt practices. Access to information concerning governance of the state allows individuals to exercise their political and civil rights in election processes, monitor the quality of public spending, and demand accountability. Aucoin and Direnzio et al [25] [26] affirmed that e-government is important to bridge the gap between public officials and citizens, thus it leads to increase trust between government and citizens, and it will lead to a greater accountability

- Activating a complaints handling system through e-government portals which is fundamental to delivering quality public services. In fact, the improvement in the complaints handling system would increase the public's trust in government; it may result in reduction of corruption. As complaints are valuable opportunities to obtain feedback from the citizens and identify the need for service and policy improvement. Complaints handling goes to the heart of this; each department should establish a complaints and enquiries handling regime that fits its needs and customers'

needs. Complaint channels should be clearly advertised to both the public and staff. Thus, citizens can complain about the way in which a policy is implemented or service is delivered, and revealing any corrupt behavior.

- Simplifying and facilitating rules and procedures, and re-engineering processes and systems. That leads to help citizens in learning how public systems are supposed to work (citizen-service-providers). Kligaard [27] stated that It became harder for public officials to trick a citizen because the rules and processes of the systems were simplified and available online.

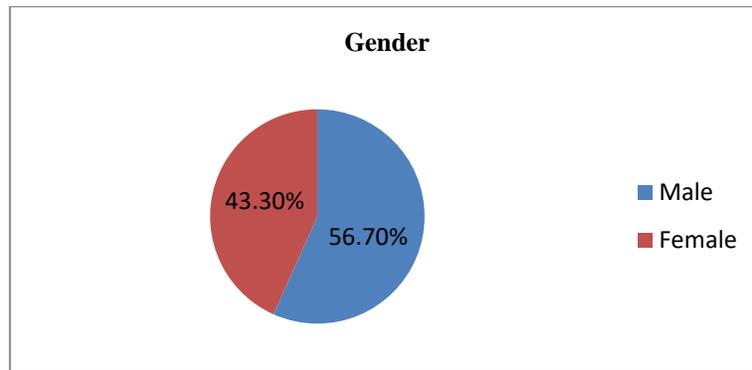
- Decreasing monopoly power through e-government means distribution of power and responsibilities and devolution of powers and authority to lower levels of administration. And the absence of this condition makes the governmental structure vulnerable to exploitation and an abuse of public power for personal gain.[28] Also reducing monopoly power means enabling competition, whereby should put all government contracts and procurement plans online, so plans, prices and winners will be known for public.

#### 4- METHODOLOGY

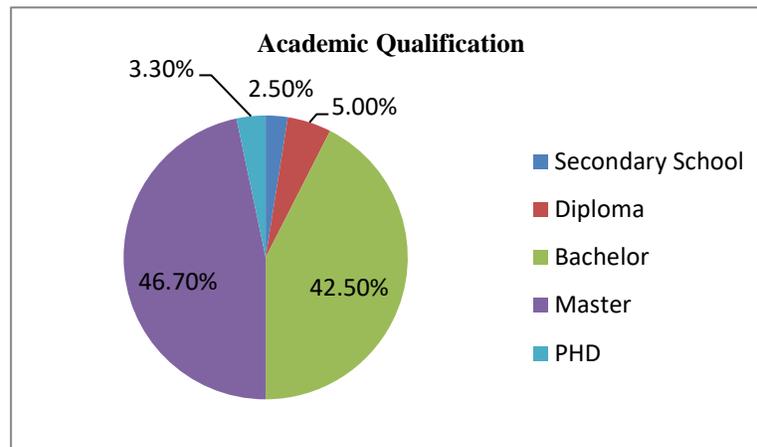
To determine the objective of this paper, the researcher uses the questionnaire. In detail, the questionnaire of 8 items was examined and the

respondents were asked to rate these variables using a 5-point likert scale, which ranged from strongly disagree to strongly agree. Firstly, the internal consistency of the item was checked using cronbach's alph. The cronbach's alpha value came to 0.892 for the entire scale of 8 items which was considered to be excellent. The questionnaire was distributed to a sample of 120 of citizens who are using the public sector's services. Respondents were selected using stratified random sampling technique. . 120 respondents returned the questionnaire figure2 and figure 3 presents the demographic profile of the 120 respondents (N=120) selected for the study. Frequencies showed that out of 120 respondents, approximately 43.3% was Female (n=52) and 56.7% of the sample was Male (n=68) as presented in table 1.

As demonstrated in in figure 2 below, frequency results for the academic qualification revealed that approximately 46.7 % of the respondents (n=56) earning Master Degree, 42.5% (n=51) having Bachelor Degree, 5% (n=6) with Diploma Degree, 3.3 % of the sample (n=4) having PHD Degree , and finally, only .25 % (n=3) earning Secondary School.



**Figure2:** Sample Distribution according to gender



**Figure 3:** Sample Distribution according to Academic Qualification

## 5-DISCUSSION:-

### 5.1 Testing hypothesis:

**Hypothesis 1:** *Higher level of e-government practices reduces significantly corruption in the public sector in Yemen from (the point of view of citizens).*

The majority of participants 73% believe that

e-government decreases significantly corruption in the government sector, with Mean value of 3.6479, and Std. Deviation of 0.90532. This result indicated that e-government significantly reduces corruption in the public sector organizations as preserved by majority of citizens. Therefore, Hypothesis 1 was accepted. Table 1 provides means and std. deviation analysis between the factors under study.

In fact, the employees of public sector in Yemen confirm that there is a negative relationship between e-government and corruption [29]. In the same line, there is a high

consensus about that e-government reduces corruption between citizens' perspective and the point of view of employee of the public sector of Yemen.

**Table 1:** Means and Std. Deviation

| Means and Std. Deviation                                       |     |        |                |                 |          |
|--|-----|--------|----------------|-----------------|----------|
|  | N   | Mean   | Std. Deviation | Std. Error Mean | Percent% |
| Combating Corruption By E-government(citizens' point of view ) | 120 | 3.6479 | 0.90531        | .08264          | 73%      |

A summary of the results presented in the table 2 are below:

- 1- The majority of the samples of citizens agreed (61.7%) that e-government helped to reduce accepting commissions in return for personal deals and contracts in government sector with a 3.75 mean value.
- 2- 61.7 % of participants indicated that the use of e-government helped to reduce asking gifts and favors from the users of government services in government sector, with a mean value of 4.57.
- 3- 70.8 % agreed that the use of e-government reduces blackmailing users of government services in government sector, with a mean value of 3.75.
- 4- 70.8% of participants revealed that the use of e-government restricts using the position

in public office to achieve personal interests in government sector with a mean value of 3.81.

- 5- With a mean value of 3.73, 69.2% of participants believed that they benefited from e-government when employees of government sector started respecting laws and regulations in public organizations.
- 6- 64.2% of samples of citizens believe that e-government reduces Bias and favoritism for groups and individuals in public organizations, with a mean value of 3.36.
- 7- 66.7% of participants agreed that e-government contributed to reduce citizen abuse and inequality in
- 8- dealing with them in government sector, with a mean value of 3.74

**Table 2:** Distribution and Relative Means for the Impact of E-government on Reducing Corruption in the Government Sector of Yemen (n= 120)

| Means   |          |          |         |       |                |      |           |
|---|----------|----------|---------|-------|----------------|------|-----------|
| E-government  | Strongly | Disagree | No View | Agree | Strongly Agree | Mean | Direction |
|   | No.      | No.      | No.     | No.   | No.            |      |           |
|   | %        | %        | %       | %     | %              |      |           |
| 1-e-government helped to reduce accepting commissions in return for personal deals and contracts in the organizations that you deal with  | 5        | 28       | 13      | 38    | 36             | 3.60 | Positive  |
|   | 4.2%     | 23.3%    | 10.8%   | 31.7% | 30.0%          |      |           |
| 2-e-government helped to reduce asking gifts and favors from the users of government services in the organizations that you deal with     | 5        | 29       | 12      | 41    | 33             | 3.57 | Positive  |
|   | 4.2%     | 24.2%    | 10.0%   | 34.2% | 27.5%          |      |           |
| 3-e-government helped to reduce blackmailing users of public sector services in the organizations that you deal with                      | 5        | 18       | 12      | 52    | 33             | 3.75 | Positive  |
|   | 4.2%     | 15.0%    | 10.0%   | 43.3% | 27.5%          |      |           |
| 4-e-government helped to reduce using the position in public office to achieve personal interests in the organizations that you deal with | 4        | 19       | 12      | 46    | 39             | 3.81 | Positive  |
|   | 3.3%     | 15.8%    | 10.0%   | 38.3% | 32.5%          |      |           |
| 5-e-government helped to increase respecting laws and regulations in the organizations that you deal with                                 | 4        | 20       | 13      | 51    | 32             | 3.73 | Positive  |
|   | 3.3%     | 16.7%    | 10.8%   | 42.5% | 26.7%          |      |           |
| 6-e-government helped to reduce Bias and favoritism for groups and individuals in the organizations that you deal with                    | 7        | 20       | 16      | 45    | 32             | 3.63 | Positive  |
|   | 5.8%     | 16.7%    | 13.3%   | 37.5% | 26.7%          |      |           |
| 7-e-government contributed to reducing citizen abuse and inequality in dealing with them in the organizations that you deal with          | 7        | 13       | 20      | 44    | 36             | 3.74 | Positive  |
|   | 5.8%     | 10.8%    | 16.7%   | 36.7% | 30.0%          |      |           |
| 8-e-government helped to reduce asking bribery in the organizations that you deal with  | 11       | 25       | 19      | 39    | 26             | 3.37 | Positive  |
|   | 9.2%     | 20.8%    | 15.8%   | 32.5% | 21.7%          |      |           |

## 6 - CONCLUSION

Combating corruption in countries across the globe has proven very difficult, regardless of various administrative reforms. E-government has shown promise in this regard, and in many instances it has delivered by eliminating or at least reducing corruption in public services delivery. In addition, the focus on the role of e-government in combating corruption is timely in the current global context of increased interest in attenuating the economic divide within and across countries, which lead to do promotion of good governance and social responsibility. E-government, however, does not guarantee the end of corruption. The purpose of this research is to examine the role of e-government in combating corruption in the public sector in Yemen from the perspective of citizens.

Based on the result from the analysis of this research, it could conclude that e-government has an important role to combat administrative corruption in the public sector in Yemen. Also, this research informs public administrators, policymakers, and politicians regarding the usefulness of online public services and its impact on saving huge sums of money that is lost through corrupt practices in public institutions. Clearly, the findings also revealed that ICT in the form of e-government offered a promising glimpse of the power of ICT in developing countries to mitigate corruption, and live up to their promise of offering

transparency.

It is unquestionable that the conditions for successful e-government as anti-corruption tools in Yemen are the commitment of higher leaders, the legal environment, and the growing ICT sector. Without these factors, it would be impossible to create the comprehensive e-government services. Although, the majority of participants in questionnaire believe that their organizations have a modern network of communications and information of technology (ICT), but there is a weakness in the exploitation of this technology to combat corruption. Also, there are no developed legislations and regulations to simplify the processes and provide the requirements of electronic work through Internet networks in the government sector. Actually, still there are no nation-wide government efforts to fight corruption through e-government practices in Yemen

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