

## Analyzing the performance of E- government in Jordan in the period 2008 – 2016

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**Abstract:** E-government means the use of information and communication technologies to promote and streamline the activities of public organizations. The past ten years have witnessed a tremendous development in the field of communications and information technology, which has made the presence of e-government an urgent necessity to increase government efficiency and effectiveness. In the last decade the government of Jordan has invested heavily in E-government projects to deliver efficient services to populations. However the global rank of E-government of Jordan is still in low rank according to the global countries. The purpose of our research is to study and analyze the factors affecting the development and progress of e-government in Jordan from 2008 to 2016. In this research we gathered our data about E-government of Jordan from the United Nations e-government surveys. The research shows that despite the development of infrastructure in the field of communications and information technology, the weakness of electronic services provided, and the lack of funds to build integrated electronic governments is what led to the weakness and decline of e-government performance in Jordan. The provision of more electronic services and the improvement of the quality of these services in addition to providing the necessary capital will play an indispensable role in improving the performance of e-government in Jordan and thus get a high ranking compared to global countries. This study allows e-government officials to know the reasons for the decline in the performance of e-government despite the efforts made. Thus developing radical solutions to these problems if possible.

**Keywords:** E-government, Jordan, Obstacles, ICT

### Introduction

We can say that E-government means providing official information and services to people using ICT rapidly and minutely, with lowest cost, less effort and all the day long. E-Government as a huge program seeks to achieve greater efficiency and effectiveness in government performance, through enhancing the performance of services for individuals, institutions, businesses, and societies<sup>10</sup>. Depending on this definition, the government works to apply the concept of e-government to refresh itself in the performance of its jobs efficiently to its inhabitant by simplifying procedures and presented in a clear and transparent through the internet<sup>1</sup>. E-Government has been recognized as a tool for radically improving the way governments interact with their citizens<sup>6</sup>. The United Nations defined E-government as the use of Information and Communication Technology (ICT) and its application by the government for the provision of information and public services to the people<sup>12</sup>. The main target of e-government is to establish an e-relationship between government officials and inhabitants, such that citizens can access

government information and services smoothly any time and from any location in the universe, emboldening citizens taking part in government affairs by enabling inhabitants to interact more smoothly with government officials, such as by requesting government service and filing required documents through website; increasing government accountability by making its operations more transparent<sup>9</sup>.

## **Literature Review**

Information Technology (IT) played a significant role in enhancing the efficiency, effectiveness, transparency, and responsibility of public governments<sup>3</sup>. Studies related to e-Government initiatives in Jordan provide a malformed view of measures of success for an e-Government project; whether it be transparency; time and cost savings; bridging the digital divide; accessibility of e-Government programs ; economic returns ; effectiveness; partnership with non-governmental organizations ; process reforms , and infrastructural framework<sup>5</sup>. Alateyah mentioned in his research that the recent studies indicate that most countries have not been quite successful in achieving the expected benefits through e-Government initiatives and the results have been disappointing<sup>2</sup>. As one of the developing countries, the Jordanian Government has made an initial effort to define e-Government as the ability to submit governmental transactions on-line and make payments electronically where they are required<sup>7</sup>. Digital gap between communities, absence of national policies regarding science and technology, shortage of organizational and legislation laws, shortage of sufficient ICT applications, the existence of technological illiteracy, lack of proper funding, and lack of experienced workforce are the main barriers that facing e-government development in Jordan<sup>4</sup>. Majdalawi provided trend analysis in E-government indicators in Jordan and found that the key challenges affect E-government services adoption in Jordan can roughly categorized under four heading; political factors, social factors, organizational factors, and technological factors<sup>8</sup>. Bin Bishr addressed the challenges that faced the E-government initiatives in Dubai. She found that no clear and standardized performance measures being used as well as the lack of technological knowledge and education initiatives for department staff led to the weakness in improving the efficiency and effectiveness of the E-government Initiative<sup>6</sup>.

## **E-Government Performance Analysis**

The United Nations Department of Economic and Social Affairs (UNDESA) issued every two years a report measuring the development of E-government of 193 member states by calculating the E-government development Index value (EGDI). It is a composite index that takes in consideration three factors: online service index (OSI), telecommunication infrastructure index (TII), and human capital index (HCI) as in equation (1). Eight United Nations e-government surveys have performed from 2003 until now<sup>11</sup>. These surveys give better understanding for the status of E-government all over the world to

governments, the private sectors, and the researchers. In my research I will discuss only the last five UN surveys (2008 to 2016).

The United Nations E government development index EGDI Equation

$$=1/3*(OSI_{normalized}+TII_{normalized}+HCI_{normalized}) \quad (1)$$

In our study we based mainly on UN E-government Surveys to gather data and to analyze the present status of E-government in Jordan. Figure 1 shows that the best performance of E-government in Jordan was 2008 and 2010, to know the reason of this growth we can see in figure 2 that Jordan achieved in 2008 0.6054 in online service index, 0.1693 in telecommunication infrastructure index, and 0.8677 in Human capital index, that led to gain 0.5475 in EGDI as shown in figure 3. Although the telecommunication infrastructure index was the lowest but the reasons of this improvement in the e-government performance were the understanding of the importance of E-government websites and service from the society .In 2012 it is clear from figure 3 the drop in the EGDI it became 0.4884 and the with rank was 98 which means Jordan ranking



Figure 1. E-government development world ranking for Jordan.

decreased 47 points. It is obvious that the drop in ranking is mainly return to the lateness in introducing e-services to the public. The shortage of fund for E-government services is negatively affecting the progress in this regard. In 2014 EGDI for Jordan was 0.5168 and the rank rose 19 points.

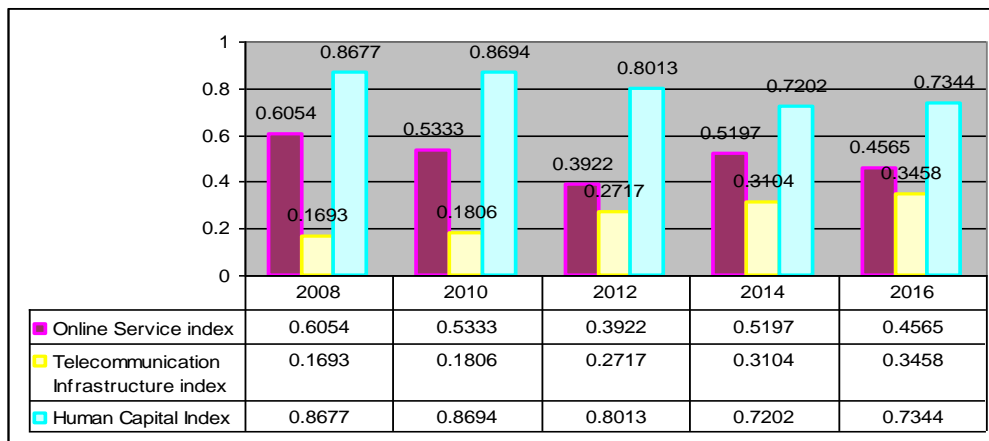


Figure 2. Telecommunication infrastructure, online services, and human capital indices of Jordan.

In 2016 the rank dropped 12 points and the EGDI was 0.5122. The reason of the drop is the sluggishness in introducing e-services to the public. The lack of fund for E-government services is negatively affecting the growth in this regard. The lack of necessary funds is also affecting the upgrade of infrastructure required for introducing additional E-government services.

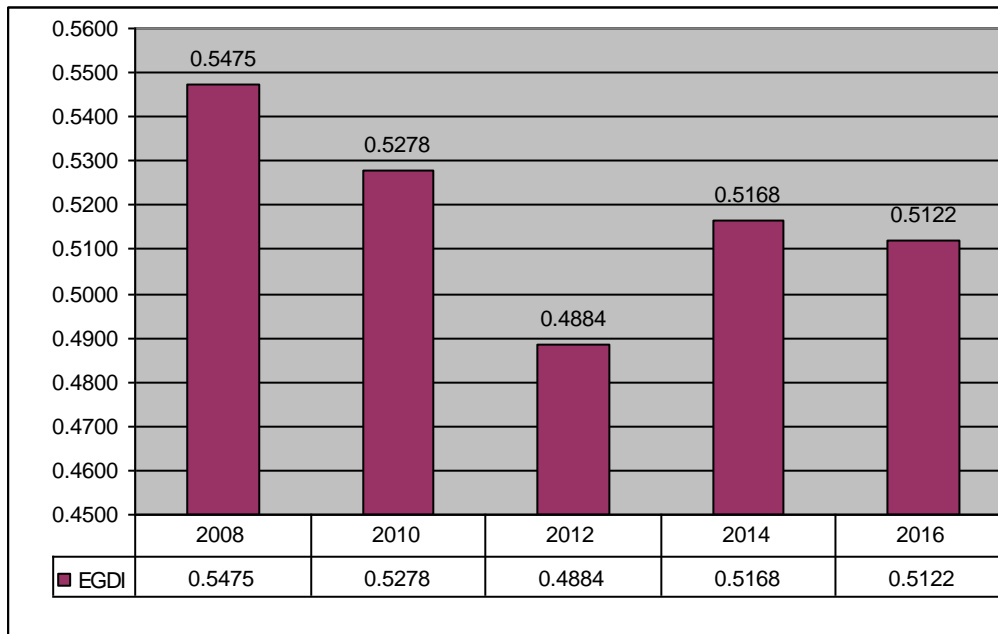


Figure 3. E-government development index of Jordan

## Conclusions

Jordan is one of the first countries that started with implementing of e-government in the belief that it is the best solution to provide government services to citizens easily and transparently. Despite the important steps taken by successive governments to make e-government in Jordan successful, as well as the remarkable development in the field of communications and information technology, the weakness of e-services and the lack of funding have led to the low efficiency of e-government in Jordan.

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## تحليل أداء الحكومة الإلكترونية في الأردن في الفترة 2008 - 2016

الملخص: الحكومة الإلكترونية تعني استخدام تكنولوجيا المعلومات والاتصالات لتعزيز وتبسيط أنشطة المنظمات العامة. شهدت السنوات العشر الماضية تطوراً هائلاً في مجال الاتصالات وتكنولوجيا المعلومات، مما جعل وجود الحكومة الإلكترونية ضرورة ملحة لزيادة كفاءة الحكومة وفعاليتها. في العقد الأخير، استثمرت الحكومة الأردنية بشكل كبير في مشاريع الحكومة الإلكترونية لتقديم خدمات فعالة للسكان. ومع ذلك، لا تزال الرتبة العالمية للحكومة الإلكترونية في الأردن في مرتبة متدنية وفقاً للبلدان العالمية. الغرض من بحثنا هو دراسة وتحليل العوامل التي تؤثر على تطور الحكومة الإلكترونية وتقديمها في الأردن من 2008 إلى 2016. في هذا البحث، جمعنا بياناتنا عن الحكومة الإلكترونية في الأردن من مسوحات الأمم المتحدة الإلكترونية الحكومية. أظهر البحث أنه على الرغم من تطور البنية التحتية في مجال الاتصالات وتكنولوجيا المعلومات، فإن ضعف الخدمات الإلكترونية المقدمة، ونقص التمويل لبناء حكومات إلكترونية متكاملة هو ما أدى إلى ضعف وتراجع أداء الحكومة الإلكترونية في الأردن. إن توفير المزيد من الخدمات الإلكترونية وتحسين جودة هذه الخدمات بالإضافة إلى توفير رأس المال اللازم سيلعب دوراً لا غنى عنه في تحسين أداء الحكومة الإلكترونية في الأردن وبالتالي الحصول على مرتبة عالية مقارنة بالدول العالمية. تتيح هذه الدراسة لمسؤولي الحكومة الإلكترونية معرفة أسباب تراجع أداء الحكومة الإلكترونية على الرغم من الجهود المبذولة. وبالتالي تطوير حلول جذرية لهذه المشاكل إذا كان ذلك ممكناً.

الكلمات المفتاحية: الحكومة الإلكترونية، الأردن، المعايير، تكنولوجيا المعلومات والاتصالات