E- Government Services in OIC Countries: A Catalyst for Good Governance

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No: 2018/2
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E- Government Services in OIC Countries: A Catalyst for Good Governance

CIHAT BATTALOGLU, SESRIC

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The Statistical, Economic and Social Research and Training Centre for Islamic Countries (SESRIC)
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Abstract / ملخص / Résumé

The objective of this report is to shed light on e-government services in the OIC countries and highlight the important impact of e-government services on good governance in member states. The report reviews the relevant literature on e-government and e-governance services and then analyses the trends in e-government indicators for the OIC member countries. This outlook report also discusses the e-government services in the OIC member countries to widen the understanding of a new form of good governance, involving efforts to broaden and deepen participation with the support of ICTs. Lastly, the report provides a comprehensive discussion and some key policy recommendations on how to improve the effectiveness of e-government and e-governance services in the OIC countries.

إن الهدف من هذا التقرير هو تسليط الضوء على خدمات الحكومة الإلكترونية في دول منظمة التعاون الإسلامي، وإبراز الأثر العام لهذه الخدمات في الحوكمة الرشيدة في الدول الأعضاء. ويستعرض التقرير الأدبيات المتعلقة بخدمات الحكومة الإلكترونية والحوكمة الإلكترونية، ومن ثم يتطرق بالتحليل لاتجاهات مؤشرات الحكومة الإلكترونية للبلدان الأعضاء. كما يناقش خدمات الحكومة الإلكترونية في البلدان الأعضاء في المنظمة لتوسيع الفهم حول شكل جديد من أشكال الحوكمة الرشيدة، بما في ذلك الجهود الرامية إلى توسيع وتعزيز المشاركة بالدعم من تكنولوجيا المعلومات والاتصالات. وفي الأخير، يوفر التقرير مناقشة شاملة وبعض التوصيات المتعلقة بالسياسات الرئيسية حول سبيل تحسين فعالية الحكومة الإلكترونية وخدمات الحوكمة الإلكترونية في بلدان منظمة التعاون الإسلامي.

L’objectif de ce rapport est de faire la lumière sur les services de gouvernement en ligne dans les pays de l’OCI et de souligner l’impact important de ces services sur la bonne gouvernance dans les États membres. Le rapport passe en revue la littérature sur le gouvernement en ligne et les services de gouvernement en ligne, puis analyse les tendances en matière d’indicateurs de gouvernement en ligne pour les pays membres de l’OCI. Ce rapport de perspectives examine également les services de gouvernement en ligne dans les pays membres de l’OCI afin d’accroître la compréhension d’une nouvelle forme de bonne gouvernance, impliquant des efforts dans le but d’élargir et d’approfondir la participation avec l’appui des TIC. Enfin, le rapport présente une discussion approfondie et quelques recommandations politiques clés sur la manière d’améliorer l’efficacité du gouvernement en ligne et de ses services dans les pays de l’OCI.
1 Introduction

Broadly defined, e-government includes the use of all information and communication technologies, from fax machines to wireless palm pilots, to facilitate the daily administration of government with the aim to increase efficiency, transparency and citizen involvement. Moreover, e-government facilitates and simplifies citizens’ access to government services, information and expertise. E-government provides the technological platform for the average citizen to interact with their government, and the foundation for different government agencies to increase their communication. Consequently, e-government is transforming political institutions into more efficient and increasingly decentralized horizontal structures. In short, the effects of e-government on the administration of government is becoming highly important in terms of intragovernmental relations as well as in government to citizen interaction.

In recent years, governments have acknowledged the transformative power of e-government services and have worked to improve them to cater to the needs of their citizens. In particular, e-participation systems are enabling citizens to access public institutions and have their voices heard with greater simplicity and efficiency. The various E-Systems expand governments’ toolbox in their aim to reach out to and engage with the public. In this respect, e-government is an overarching approach that drives profound transformations in the way that government processes are executed because of the employment of ICTs: while also affecting the way in which citizens and government relate to each other. The transformation brought by connecting government services electronically to citizens has naturally brought greater interaction between government units, citizens and the business world. Therefore, it has become critical that governments utilize e-government services in the 21st century to improve administrative efficiency as well as good governance.

The developed countries have been expanding and enhancing their e-government services in parallel with their public sector infrastructure, public sector reforms, and social and cultural factors. Whereas, the developing countries have started to embed, employ and enforce e-government services later than the developed countries and initially with much less enthusiasm. Even though this has created an imbalance in the E-Government Development Index between the developed and the developing countries, most of the OIC member states have considerably improved their e-government services over the last decade. A substantial number of the OIC countries have already progressed to be classified as either “very high” or “high” on the E-Government Development Index (EGDI) according to the 2018 United Nations E-Government Survey ranking.
The recent progress in e-government has provided an analogous platform for various forms of reforms to enhance governments’ institutional capacity, their governance methods and participatory approaches. In the OIC region, e-governance services, similar to e-government, have shown a remarkable improvement. Due to the advances in e-governance, the OIC countries have taken this opportunity by utilizing the transformative power of e-participation, e-decision-making and e-democracy to solidify government-citizen interaction that consists of three benchmarks, namely e-information\(^1\), e-consultation\(^2\) and e-decision-making\(^3\). Member countries have also started to enhance their level of participation with the use of technology by promoting blogs, citizen journalism, critical video postings, and confrontation of different opinions online. In addition, a number of new forms of electronic participation, such as e-petitions, e-consultations, e-deliberative forums, e-polling and e-voting have emerged within the framework of e-governance, which is being implemented in various countries.

The objective of this report is to examine e-government services in the OIC countries to highlight the importance of these services on the efficient administration of government and the way it can serve to enhance good governance policies and reforms. The report starts with a discussion on e-government and e-governance literature. Although this section will not be specific to the OIC region, the definitions and characteristics put forth will serve as the basis of discussion in the subsequent sections. It then proceeds to analyse the specific trends in e-government indicators for the OIC member countries. The indicators are examined from a comparative lens with groups of member countries analysed in light of their counterparts in the developed and developing world. The main indicators analysed in the third section include the E-Government Ranks, the E-Government Index, the Online Service Index, the Human Capital Index, and the Telecommunication Infrastructure Index. The fourth section of this outlook report aims to reveal the importance of E-Services for good governance. This section discusses E-Services in the OIC member countries to provide a wider understanding of this new form of good governance that involves the use of ICTs to complement traditional institutions and forms of governance structures. Thus, this section presents a discussion on the governance qualities of the OIC member countries, and how they can be improved through the employment of E-Services along with a discussion on the E-Participation Index of the member states. The outlook report concludes with policy recommendations on how to promote and facilitate e-government and e-governance services in the OIC countries based on the analyses made in the previous sections.

\(^1\) E-information that enables participation by providing citizens with public information and access to information upon demand
\(^2\) E-consultation by engaging people in deeper contributions to and deliberation on public policies and services
\(^3\) E-decision-making by empowering people through co-design of policy options and co-production of service components and delivery modalities.
2 Understanding E-Government/E-Governance

With the proliferation of the World Wide Web in the early 1990s, an intensification occurred in the use of information and communication technologies, which resulted in the breakdown of the economic, social and political barriers amongst states and between citizens and their governments. Corresponding to the rising technological trend, combined with the surge in government activities, obligations and duties to its citizens, e-government and e-governance services gained an increasing importance for both governments and citizens. By using electronic platforms, governments could meet the rising demands of its citizens in a more effective, costly and timely manner while at the same time improving its interaction with the public to enhance its policies on good governance.

A review of the literature on e-government reveals that a uniform definition for the concept has not been reached. Moreover, e-government is branded by its multiple meanings and contextual fluidity. The definitions of e-government are dependent on the specific context, regulatory environment, the diversity of actors and by the different strategies of governments. All these elements intersect and play a role in how e-government is defined and utilized by different governments. A consensus on e-government is that it employs information and communications technology to improve government administration.

In 2000, Gartner Groups conceptualized the term e-government as "the continuous optimization of service delivery, constituency participation and governance by transforming internal and external relationships through technology, the Internet and new media." Similarly, in 2002, Zhiyuan Fang defined the general boundaries of e-government as an innovative information and communications technological tool for governments to use to enhance their efficiency and relationship with the public. More specifically, Fang pointed out that e-government is a platform for governments to provide citizens and businesses access to government information and services; to improve the quality of pre-existing services; and to provide greater opportunities for the public to participate in democratic institutions and processes.

Moreover, Theresa A. Pardo (2000) conceptualized e-government with a broader definition. She defined the term e-government as a key strategy for improving government services and the effectiveness of public policies and programs. Theresa A. Pardo also outlined the six functions of e-government, which are:

- Citizen access to government information
- Citizen access to personal benefits
Simply stated, e-government is the use of technology to enhance the access to and delivery of government services to the benefit of its citizens, business partners and employees. It has the power to create a new mode of public service where all public organizations deliver modernised integrated and seamless services for their citizens (Silcock, 2001). When it comes to the question on how it brings citizens, business partners and employees closer to their governments, eight potential types or models of e-government can be found in the literature, as shown below:

- Procurement including bidding, purchasing, and payment
- Government-to-government information and service integration
- Citizen participation

<table>
<thead>
<tr>
<th>Government-to-Citizen (G2C)</th>
<th>Citizen-to-Government (C2G)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide the momentum to put public services online, in particular through the electronic service delivery for offering information and communications;</td>
<td>Provide the momentum to put public services online, in particular through the electronic service delivery for exchange of information and communication;</td>
</tr>
</tbody>
</table>

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<tr>
<th>Government-to-Business (G2B)</th>
<th>Business-to-Government (B2G)</th>
</tr>
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<tbody>
<tr>
<td>Actively drive E-transactions initiatives such as e-procurement and the development of an electronic marketplace for government purchases; and carry out Government procurement tenders through electronic means for exchange of information and commodities;</td>
<td>Actively drive E-transactions initiatives such as e-procurement and the development of an electronic marketplace for government purchases; and carry out government procurement tenders through electronic means for sale of goods and services;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Government-to-Employee (G2E)</th>
<th>Government-to-Government (G2G)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Embark on initiatives that will facilitate the management of the civil service and internal communication with governmental employees in order to make e-career applications and processing system paperless in E-office.</td>
<td>Provide the Government's departments or agencies cooperation and communication online base on mega database of government to have an impact on efficiency and effectiveness. It also includes internal exchange of information and commodities.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Government-to-Non-profit (G2N)</th>
<th>Non-profit-to-Government (N2G)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government provides information and communication to non-profit organizations, political parties and social organizations, Legislature, etc.</td>
<td>Exchange of information and communication between government and non-profit organizations, political parties and social organizations, Legislature, etc.</td>
</tr>
</tbody>
</table>
It is conceivable, based on the above, that e-government can bring significant benefits to governments, citizens, businesses, employees and other non-profit political and social organizations. More critically, e-government services enable governments to reduce costs, whilst promoting economic development and increasing transparency in government, improving service delivery and public administration, and facilitating the advancement of an information society. These services also serve to enhance the political, social and economic development of countries by specifically:

- **Reducing Costs**: Putting services on-line substantially decreases the processing costs of many activities compared with the manual way of handling operations. Efficiency is also attained by streamlining internal processes and by enabling faster and more informed decision making.

- **Promoting Economic development**: Technology enables governments to create positive business climates by simplifying relationships with businesses and reducing the administrative steps needed to comply with regulatory obligations. There is a direct impact on the economy, as in the case of e-procurement, which creates wider competition and more participants in the public-sector marketplace.

- **Enhancing Transparency and Accountability**: E-Government helps to increase the transparency of decision-making processes by making information accessible - publishing government debates and minutes, budgets and expenditure statements, outcomes and rationales for key decisions, and in some cases, allowing the on-line tracking of applications on the web by the public and press.

- **Improving Service Delivery**: government service delivery, in the traditional process, is time consuming, lacks transparency, and leads to citizen and business dissatisfaction. By putting government services online, e-government reduces bureaucracy and enhances the quality of services in terms of time, content and accessibility.

- **Improving Public Administration**: e-government administrative components, such as a computerized treasury, integrated financial management information systems, and human resource management systems, lead to greater efficiency in public administration. Features include the integration of expenditure and receipt data, control of expenditure, human resources management, intelligent audit through data analysis and the publishing of financial data.

- **Facilitating an e-Society**: One of the main benefits of an e-government initiative consists of the promotion of ICT use in other sectors. The technological and management capacities required for e-government administration encourage, in turn, the development of new training courses and modules in schools and universities trying to supply the required skills and capabilities to the market (Dash and Pani, 2016)
In sum, e-government can be defined as a way for governments to use the most innovative information and communication technologies, particularly web-based Internet applications, to provide citizens and businesses with more convenient access to government information and services, and to improve the quality of these services.

In terms of e-governance, the majority of the sources found in the literature employ the term e-governance synonymously or as interchangeably with the term e-government. Definitions of e-governance encompasses almost all of the same elements as those argues to be in the sphere of e-government.

Nonetheless, for some researchers e-governance is broader in scope: one that encompasses not only the function of public institutions but also private ones. (Bernhard, 2014). E-governance goes beyond providing one-way (government to citizen) electronic based services to citizens and incorporates a two-way communication between citizens and government via electronic platforms. In this manner, e-governance structures enable citizens’ access to direct participation in political activities through services such as e-democracy, e-voting and other forms of direct participation in online political processes and activities. Therefore, most broadly, the concept of e-governance integrates not only government activities and services but also expands to include functional processes such as citizens’ participation, activities of non-governmental organizations and judicial functions.

Following these discussion on e-governance, Blake Harris (2000) exerts that e-governance is not only about government websites and email functions or services delivery over the internet. Furthermore, it is not about the digital access to government information or electronic one-way services provided to citizens. E-governance is a functionality with the aid of information and communication technologies that transforms how citizens relate to government and even further how citizens relate to each other in society. These transformations consequently gives birth to new ways of conceptualizing about citizenship; both in terms of the needs and in terms of responsibilities of the state and the citizen. E-governance in this sense opens up spaces for citizens to communicate with their governments, participates in the government processes and policy formation and build platforms for citizen-to-citizen communication. The culmination of these activities result in the increased direct participation of citizens in the democratic process. In this sense, e-governance differs from e-government in terms of its functionality. Wile e-government provides government to citizen services through ICTs; e-governance provides a two-way communication platform between governments and citizens.

In summary, e-government and e-governance are strategic goals of governance modernization reflected in the growing need for public administration reforms in the 21st century. The technological developments have made it simpler and easier to overcome the traditional inefficiencies of governance structures and achieve optimal governance results. It also provides new opportunities for citizens, businesses and public institutions to interact in a transparent and clear manner. Thus, e-governance and e-government has gained great importance recently as governments aim to improved their governance structures and improve their administration technics and methods.
3 Implementation of the E-Government Services in OIC Countries

Over the last decade, e-government services have become increasingly common across the OIC region, propelled by efforts to modernize administrative bureaucracies, improve accountability, and raise the efficiency of public service delivery. Most of the OIC countries have initiated plans for restructuring their administrations in line with the requisites of the “information economy,” typically by creating national information portals and establishing agencies to coordinate the adoption of e-government among local authorities.

The degree of e-government readiness varies considerably across OIC countries, reflecting both supply conditions (e.g., different levels of enthusiasm in attempts to initiate it) and demand conditions (i.e., contrasting stances towards its use and adoption). Nonetheless, the 2018 United Nations E-Government Survey, which is the tenth edition of tracking e-government development, demonstrates that e-government has grown rapidly over the last decade in the OIC region. On the one hand, in the 2018 Survey, only 19.6% of OIC members scored with low e-government development index (EGDI) values less than 0.25. On the other hand, in 2018, 21 OIC countries scored “very-high” and “high”, with EGDI values in the range of 0.50 to 1.00. This is a marked improvement when compared to only six countries in 2008.

Over the last decade, all OIC countries have also delivered some form of online presence in OIC region. E-government is now ubiquitous in many more countries. Since 2008, the share of countries, which have “low-EGDI” or “medium-EGDI” values, have decreased around 30 per cent in OIC region.

Despite the considerable development in the OIC region, a disparity in e-government services exist between and within regions and sub-regions. In 2018, the average OIC e-government index is accounted 0.45, which is

![Figure 3.1: E-government Development Index](image-url)

*Source: United Nations E-Government Survey*
below the global average of 0.55 and the non-OIC developing and developed country groups (Figure 3.2).

Within the OIC region, there is also a huge gap between sub-regional groups. The regional average EGDI scores for countries in Sub-Saharan Africa (SSA) are significantly lower than the OIC average and other sub-regional averages. While the share of SSA with improved EGDI scores expanded in 2018, a number of OIC countries in SSA, namely Chad, Comoros, Djibouti, Guinea, Guinea-Bissau, Mali, Mauritania, Niger, Somalia and Sudan have very low EGDI scores. These are also countries, which face significant constraints in socio-economic development, creating additional pressure for prioritizing and allocating resources for e-government development.

At the country level, the overall progress in e-government development is slow but noticeable in the OIC region. In 2018, eighteen OIC countries scored above the world average EGDI. Over the last decade, 15 OIC countries rose from Middle- to High-EGDI, and UAE, Bahrain and Kazakhstan from High or Middle to Very-High-EGDI. When it comes to the top 10 OIC Member Countries ranked by the e-government global index five OIC countries improved their positions in the period 2016-2018. Brunei Darussalam is the only country in the Top 10 to move up 24 positions from its 2016 global rank. Brunei Darussalam appears to have put tremendous effort into developing its e-government programme. In the same period, Turkey and Malaysia showed somewhat similar performances. However, they still need to enhance their efforts to reach the level of United Arab Emirates, which scored 0.83 in the e-government index. Yet, even as the lead country in the OIC in e-readiness index, United Arab Emirates ranks 21st in e-government readiness on the global ranking index.
Achieving high rankings in the e-government index requires robust broadband network, high market penetration rates of mobile communication means and applications, well-trained human resources and consolidated administration of dispersed but attached e-government applications. Shortcomings faced in the fulfilment of those requirements cause the discrepancies between the regions.

When presenting the state of e-government in the OIC countries, it is not enough only to discuss the improvements in e-government indexes, but also their records in several measures, including online service delivery, the country’s technological infrastructure, and the human capital available to disseminate e-government service should also be considered. Thus, the following part of this chapter discusses the three components of e-government, namely the Online Service Index (OSI), the Telecommunication Infrastructure Index (TII) and the Human Capital Index (HCI).

### 3.1 Progress in online service delivery in OIC

The rise of the ‘digital society’ has heightened expectations from e-service delivery among citizens and businesses. They want services, which are better, faster, cheaper, and in many cases, they want more from their public administrations. E-government has now assumed a transformative role in public service design and delivery. As a part of e-government, online service provisions has become an important element for public service delivery. By integrating a range of online services and providing people with one-stop-shops, some governments have become more effective in delivering online services in economic, social or environmental areas.

As of 2014, all countries have an online presence, albeit with different degrees of development. Countries across the world have made substantial progress in online service delivery. This is measured by the Online Service Index (OSI) which reviews the national online presence of 193
Countries. The Online Services Index component of the E-Government Development Index is a composite indicator measuring the use of ICTs by governments in delivering public services at the national level. The Online Service Index assesses the technical features of national websites as well as e-government policies and strategies applied in general and by specific sectors in delivering services. As with the EGDI itself, the index values are not intended as absolute measurements. Rather, they capture the online performance of countries relative to each other at a particular point in time.

**Figure 3.4:** Online Service Index (2008-2018)

![Online Service Index Graph](image)

*Source: United Nations E-Government Survey*

Figure 3.4 shows that the average OIC Online Service Index almost doubled over the last decade as more OIC Member Countries invested in infrastructure development, citizen-friendly portals, online applications and back office integration. The OIC as a whole achieved the high index value leap between 2010-2012 and 2016-2018 with a 0.15-point and 0.12-point increase respectively. In 2018, OIC average reached over the global average OSI. However, OIC average in Online Service Index remains below the non-OIC developing countries and developed countries groups.

**Figure 3.5:** Online Service Index of the World (left) and OIC Sub-Regions (right) (2018)

![Online Service Index of the World and OIC Sub-Regions](image)

*Source: United Nations E-Government Survey*
At the OIC sub-regional level, it is important to note the positive trends in advancement of online services in all regions. The majority of countries moved upwards and changed their position in OSI level standing. Nevertheless, significant disparities have continued to exist in the sub-regional averages. In the OIC region, the highest average online service index score is observed in European and Central Asian countries, where it accounts for 0.64 points. On the other hand, the lowest OSI average is accounted in OIC countries in Sub-Saharan Africa, where it accounts for 0.31 point in 2018.

At the individual country level, online service index exhibits high variance among OIC countries. As the figure 3.6 shows, only 12 OIC countries is classified with “Very High” OSI in 2018. Among the OIC countries, UAE ranked first in online service delivery in 2018, followed closely by Malaysia, Turkey and Kazakhstan.

### Figure 3.6: OIC Countries with Highest Online Service Index

<table>
<thead>
<tr>
<th>Country</th>
<th>2016</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Qatar</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Kuwait</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Bahrain</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Tunisia</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Oman</td>
<td>0.6</td>
<td>0.6</td>
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<tr>
<td>Kazakhstan</td>
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<td>0.5</td>
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<tr>
<td>Turkey</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Malaysia</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>UAE</td>
<td>0.7</td>
<td>0.7</td>
</tr>
</tbody>
</table>

*Source: United Nations E-Government Survey*

### 3.2 Telecommunications Infrastructure in OIC region

Maximizing the potential of e-services demands appropriate telecommunications infrastructure. Selwyn and Brown emphasize that sound and reliable telecommunication infrastructure (or information/ICT infrastructure) is a critical determinant of e-government development, which in organizational sense is envisioned as encompassing “all computerized networks, applications and services that citizens can use to access, create, disseminate and utilize digital information” (Selwyn and Brown 2000, p. 662).

To measure the development of telecommunication infrastructure, the United Nations has generated the Telecommunication Infrastructure Index (TII). It is an arithmetic average composite of five indicators: (i) estimated Internet users per 100 inhabitants; (ii) number of main fixed telephone lines per 100 inhabitants; (iii) number of mobile subscribers per 100 inhabitants; (iv) number of wireless broadband subscriptions per 100 inhabitants; and (v) number of fixed broadband subscriptions per 100 inhabitants.
In recent years, the OIC region has witnessed significant improvements in telecommunication infrastructure. Thirty-one percent of individuals residing in the OIC Member Countries access the Internet on a regular basis (COMCEC, 2017). Telecommunication infrastructure has been growing at a fast pace since 2008 when the gap between these states and other developing countries has begun to narrow down. Concordantly, as shown in figure 3.7, the OIC average Telecommunications Infrastructure Index has increased dramatically and tripled during the last decade. Nevertheless, despite these improvements, the OIC average score remained behind the World average.

**Figure 3.7:** Telecommunication Infrastructure Index (2008-2018)

In recent years, the OIC region has witnessed significant improvements in telecommunication infrastructure. Thirty-one percent of individuals residing in the OIC Member Countries access the Internet on a regular basis (COMCEC, 2017). Telecommunication infrastructure has been growing at a fast pace since 2008 when the gap between these states and other developing countries has begun to narrow down. Concordantly, as shown in figure 3.7, the OIC average Telecommunications Infrastructure Index has increased dramatically and tripled during the last decade. Nevertheless, despite these improvements, the OIC average score remained behind the World average.

**Figure 3.8:** Telecommunication Infrastructure Index of the World (left) and OIC Sub-Regions (right) (2018)
At the OIC sub-regional level, the average TII varies significantly across the OIC Member Countries. In 2018, TII in Sub-Saharan African Countries reaches 0.17 point, while in OIC Member Countries in MENA; it is 0.45 surpassing the global average and average of Non-OIC developing countries.

At individual country level, the majority of OIC countries has also increased its TII tremendously during the last two years. UAE scored the highest TII within the OIC group in 2018; and ranked as the second globally. Since 2016, TII of Bahrain has also improved from 0.78 to 0.85, thanks largely to the development of a modern telecommunications infrastructure. In 2018, Bahrain exhibits “Very-high” on TII; ranked as the second in the OIC region and fifth globally.

### 3.3 Human Capital Index

The concept of human capital recognizes that education, experience and abilities of a citizen have a value for governments and for the economy as a whole. Experience of implementing e-government has shown that people are one of the critical success factors, which makes or mars the success of an e-government initiative. Considering that, to build a well-functioning e-government, countries need to strengthen investment in developing human capital.

The human capital index is a composite of the adult literacy rate and the combined primary, secondary and tertiary gross enrolment ratio, with two-thirds weight given to the adult literacy rate and one-third to the gross enrolment ratio. The Human Capital Index also helps us to see to what extent the citizens of the Countries are ready for e-transformation and how much the Countries invested in the education of their citizens to embrace the e-government transformation process in the fast-moving digital age.

Figure 3.10 shows the average of the OIC Member Countries in terms of their Human Capital Index in the OIC countries in comparison to other country groups and OIC’ sub-regions. In the OIC countries, the average HCI is accounted as 0.54 point, which is lower than the average of all other country groups.

At the sub-regional level, the average HCI is 0.75 in the OIC countries located in Europe and Central Asia; and this percentage is the highest among the OIC region. On the one hand, the second and third highest average HCI are found in the OIC countries located in Latin America (0.64) and the Middle East and North Africa (0.63). While on the other hand, the regional average
HCI scores for OIC countries in Sub-Saharan Africa are significantly lower than the world average and other country group averages, where it accounts for 0.35 point.

At the individual country level, 59% of the OIC countries ranked with “very high or high” HCI index. When looking at the top 10 OIC countries mostly located in ECA region, it seems that the issue of human capital is promising and the human capital development indices are quite high. Nevertheless, Human Capital development remains elusive for some of the OIC regions and countries in particular the African countries, where most have very low levels HCI and some of them scores less than 0.25 HCI points.

These numbers show that OIC countries, especially in SSA region, need to invest more for the development of human capital. Investment in human capital is important for many reasons, but primarily because it allows expanded access to online services for all of the population groups, including the most vulnerable, such as the poor, as well as people living in remote areas, women, older persons, and persons with disabilities, youth, and those with limited digital literacy.

Although there is notable improvement on average in e-government service index of OIC countries during the last decade, there remains to be much more done at the national level and OIC level to achieve better e-government services in the OIC region and to reach a level above the global average. Consequently, governments need to ensure that e-government is used effectively by government agencies, staff, citizens, and businesses. Moreover, to ensure sustainability of the e-government programs in the OIC countries, governments must develop policies that invest in human capital. This will also enhance the capacity of public agencies and enable public administrations to deliver e-government services to the citizens in a more efficient and timeless way.
Figure 3.11: Highest and Lowest Human Capital Index in OIC Member Countries (2018)

Source: United Nations E-Government Survey
4 E-Government for Improving Good Governance in OIC Countries

In recent years, the concept of Good governance has gained more and more recognition throughout the world, a number of governance indicators, testing data and links between good governance and its outcomes were employed, and widely used in research. These Indicators measure different aspects of the quality of governance, such as the severity of corruption, the extent of civil liberties, the bureaucratic efficiency, the rule of law, the predictability of policymaking, etc.

Citizens of both developing and developed countries are increasingly aware of the costs of poor governance, and they are demanding better performance on the part of their governments, they believe that good governance is a necessary condition for long-term growth and people’s welfare (Lan, 2003).

When it comes to the OIC region, good governance has also become a buzzword and a primary agenda item for all the members. In that regard, the OIC Charter (Article 1.15) calls upon all Member States to uphold and promote, at the national and international levels, good governance, democracy, rule of law, human rights and fundamental freedoms. The OIC has also launched several programs, initiatives to improve institutional, and governance quality. In this context, the OIC 2025 Plan of Action specifically addresses the necessity of good governance and accountability along with OIC institutional reforms. The OIC’s 2025 Plan of Action also underlines the importance of promoting knowledge and sharing experience about best practices in good governance, justice, due process, equality of opportunity, accountability, and rule of law. According to the OIC 2025 Plan of Action, “Good Governance” is:

“A sound legal framework is necessary for the achievement of durable peace and stability, which should inspire actions in different spheres. Efforts should be geared towards creating enabling environment for active participation of all relevant stakeholders and providing the legislative and judicial framework for the eradication of corruption in all its forms, as well as for proper dispensation of justice” (para 56.)
The OIC organs have also initiated a number of projects and programs to enhance institutional structure and good governance principles in the Member States. More specifically, the subsidiary institution, such as SESRIC and standing committees, i.e. COMCEC, carry out programs to advance institutional and governance quality, involving training programs in selected fields; fostering development and social progress of member countries; and extending consultancy and expertise services to Member States.

In the information age, governance needs technology basis; and good governance needs more advanced technology background or atmosphere. Thus, over the recent decades, the traditional governance paradigm has transferred into a new pattern characterized by the overwhelmingly use of digital technology, which may be called “Electronic Governance”, and from that, governments operating in the world for century’s and e-government services provide a number of advantages including:

**Improving services to citizens**

- E-government can offer numerous possibilities for improving a nation’s public sector responds to the basic needs of its citizens. People always want information or services delivered quickly and easily. Egovernment means people’s needs can be met in a more timely, tailored, and convenient ways, while maintaining their privacy and the security of their personal information, that is really great.

**Improving the productivity and efficiency of government agencies**

- Today, the governmental agencies are wanted to deliver “outcomes” and outputs, achieve better results for serving people’s various needs. This will involve agencies working more effectively across their traditional boundaries and collaborating with one another. E-government will satisfy this need by sharing information between departments (G2G), with businesses (G2B) and with citizens (G2C). Which will strengthen the integration of structures and processes of governmental bureaucracy, and make government agencies operate more efficiently.

**Strengthening the legal system and law enforcement**

- Governments are the largest purchasers in all economies, and for both moral and political reasons they should buy goods and services in the best way possible. One dollar paid in excess of the best possible price is a dollar less to provide health care, social security or public housing. By fostering transparency, and empowering people to participate in the political processes, e-government will strengthen the legal system and law enforcement; make policy processes more open and consultative.
E-government services can make a significant contribution to the achievement of good governance goals. They can make governance more efficient and more effective, and bring other benefits as well. It improves government performance, as well as transforming the traditional governance institutions and regimes globally.

Some internationally recognized governance related indicators can be used to assess the quality of governance and institutions in a society. Figure 4.1 presents the BTI governance index, evaluating the governance quality of a country’s political decision-makers, while taking into consideration the level of difficulty. According to this index, the OIC countries obtained lowest average in governance performance in 2018 when compared with the averages of the non-OIC developing countries, developed countries, and the world.
Although the average governance performance of OIC countries is not so promising, in many of the OIC countries, e-services including both e-government and e-governance use electronic means to support and stimulate good governance. As discussed in the previous chapter, e-government indexes in member countries has shown a remarkable development. This development has influenced the good governance indicators in the OIC countries in a positive way.

Evidence from the OIC countries, as shown in Figure 4.2, also supports the view that there is positive correlation between the e-government development and the improvement in e-governance. The OIC countries with a higher e-government development score (calculated based on last decade improvement in e-government index) tends to experience positive change in governance indicators in the same period. The figure 4.2 also reveals that good governance has a highly positive relationship with development in e-government index.

**Figure 4.1: Governance Performance**

![Governance Performance Chart]

**Source**: BTI Index

E-government is regarded as a powerful tool in the hands of governments for improving governance. E-government can also play a critical role in improving the quality of services delivered to its customers. E-government enables better outcomes, higher quality services and
greater engagement with citizens (Kalsi et al. 2009). Kettani (2009) also underlines the importance on e-government services on the components of good governance, involving participation, rule of law, effectiveness and efficiency, equitable and inclusiveness, responsiveness, transparency, accountability and consensus orientation.

In the OIC region, e-Government can fundamentally recast the relation between individuals and their governments. It therefore makes government far more responsive and accountable to the will of the people by enabling citizens to participate in the democratic process and be pro-active, leading to tangible improvements in the components of good governance.

In terms of accountability, effectiveness, inclusiveness, openness and trustworthiness, the countries with Very High EGDI level (see section 3) offer the most comprehensive websites and online services in keeping with these governance principles (UN, 2018). In their efforts to strengthen accountability and openness, they offer online tools for monitoring and evaluating governments’ projects and primary government expenditures. To foster inclusiveness and effectiveness, governments are also forging public-private partnerships offering more innovative public services online. They are also engaging in public e-consultations, organizing online deliberations on key strategic and policy issues, publishing the results of such e-consultations online, and creating targeted services for vulnerable groups (UN, 2018). E-government services are also helping to improve service delivery in many sectors crucial to sustainable development such as education, health, environment, social protection and welfare and finance.

Moreover, e-government services are aiming to ensure the universality of basic services to the people who remain on the margins—leaving no one behind. In that regard, the implementation of e-services can provide many opportunities to governments to enhance the level of participation as well as participatory approaches to the state. Participation entails more than merely holding elections at regular intervals; it must be lived in daily life, through institutions, through the provision of goods and services, through the transparent operation of rules and regulations. E-services can help in the

**Figure 4.3: Political Participation**

![Source: BTI INDEX 2018](image-url)
establishment of a participatory culture and, in parallel, the institutional framework needed to live democracy on a day-to-day level. As a part of the participatory approach, e-services can also contribute to strengthen the participation in the political process.

Political participation mainly reflects ability to form and join independent political parties or civil groups and the availability of free and fair elections. As shown in Figure 4.3, the level of political participation in the OIC countries is still weak when compared with other country groups. Nevertheless, the countries, which have strong e-government service capacity, offer alternative government portals to their citizens enhancing the political participation through e-participation. It is a concept that has opened a new space for giving a voice to individuals who are isolated, invisible, and without voice.

Box 4.1: President Communication Center (CIMER), Turkey

The President Communication Center (CIMER) is an important project that was launched as an electronic public service tool where the public can apply for the right to petitions and right to information from anywhere in the country. As known in today’s public administration literature, the concepts of “Governance” and “Participation” have come to the forefront.

The establishment of a fast and efficient system for citizens to easily communicate all requests, complaints and opinions related to administration is an indispensable requirement for the spread of democracy, as well as for the success of management. Applications are accepted all around the country and are delivered to the related public institutions rapidly. In addition, it aims to provide answers to the applicants as soon as possible, to warn the relevant units in case of delay, to receive statistical reports and to provide supervision from the center. Applicants, who want to make an electronic application, can apply via “https://www.cimer.gov.tr/” or can use the e-government system.

Applicants also can apply via ALO 150 telephone line; go to the application offices of the Ministry, the Governor’s Office and the District Governorships in person, or by letter or fax. Approximately 6,000 applications are submitted through BI MER every day, and about 80,000 public personnel are employed by this project throughout the country. Considering that, 92 per cent of the applications were received over the Internet and 60 per cent were made using mobile phones; CIMER provides significant financial savings to the public.

Source: https://www.cimer.gov.tr/

E-participation is defined “as the process of engaging citizens through ICTs in policy, decision-making, service design and delivery so as to make it participatory, inclusive, and deliberative” (UN, 2014). The UN Survey measures e-participation through the E-Participation Index (EPI) based on: (i) e-information – availability of online information; (ii) e-consultation – online public consultations, and (iii) e-decision-making – directly involving citizens in decision processes.

As shown in Figure 4.4, the average OIC-EPI increased dramatically over the last decade as more OIC Countries invested in implementing e-participation tools including e-information, e-consultation and e-decision-making for engaging citizens more. In the 2018 survey, 25 of the OIC
countries is ranked with “Very-high” or “High” e-participation index, 20 of them is also ranked over the global average.

According to the 2018 Survey, UAE and Malaysia ranked over the developed country average, also as the top OIC countries on e-participation; while Turkey, Kazakhstan and Oman followed closely behind (Figure 4.5). The countries that are leading in e-participation are implementing different initiatives. For example, in 2016, “The National E-participation Plan” was formed in the UAE. The plan aims to engage all sectors of the society in the decision-making, including the underprivileged. It also intends to increase the e-participation level and enhance proper governance.

In many of the OIC countries, e-participation expands a government’s toolbox for reaching out to and engaging with its people and improving good governance. Despite an overall trend towards progress in the past decade, the difference within the OIC sub-regions are stark. Many OIC members still need to invest more for e-service development and to work effectively to enhance formal and informal institutions for e-governance development. Further, in some of the OIC countries, constitutions, national bills of rights and other legislation may also need to be updated to cover the digital arena for the right for access to information, the right to petition, the right to take part in referenda, among other rights to participate in public affairs.

Overall, e-services assumed varying forms. E-governments impact also varies considerably, depending on its levels of implementation and success, reflecting the national and local political structures, levels of economic development, cultural practices, and the contingent, path-dependent characteristics of individual countries and regions. In some countries, e-government has successfully facilitated reductions in the size of the public sector and greater efficiency by limiting duplications in paperwork and streamlining bureaucracies; in others, it has reduced corruption through enhanced transparency and accountability (Warf, 2014).
While e-government services reflect a wide variety depending on regional, national and local contexts, one fact that is valid for all of the OIC countries is that e-government holds great potential to reform governmental bureaucracy, provide greater access to government information, offer developing opportunities to the people on equal terms and consequently empower them. In short, e-government can act as a catalyst to strengthen participatory approaches, accelerate social and economic development, and improve good governance. The OIC countries, therefore, should take pains to reach the e-government goal, turning the country into an advanced democratic, modern information society.

Box 4.2: Citizen Consultation in Morocco

Morocco’s regional leadership can be attributed to its comprehensive government portal. As part of the government’s effort to bring state of the art e-services to its citizens and include them in the decision making process, the government developed an e-consultation platform through the website of the Secrétariat Général du Gouvernement, where citizens can access legislative texts online, read and download them and post their comments and concerns.

In this way, the government presents to its citizens a transparent, inclusive and easy channel through which they can share their concerns and make their voices heard; hence enriching democratic governance processes in the country. The government also presents its responses to citizens’ comments and provides feedback; showing that they track the concerns and remarks of citizens, take them into consideration and deliver a response.

Source: http://www.sgg.gov.ma
5 The Way Forward

The origins of e-government stem from the usage of Internet as a platform for new organisational structuring and as a medium for public services dissemination. In recent years, the rapid technological revolution draws the attention of the decision-makers to improve the public-sector performance. E-services not only play a critical role in the lives of citizens, business community, government employees and government agencies by creating interaction among them, but also helps them benefit from government services in a transparent, efficient and a timely way.

Initiatives taken on e-government can be instrumental in preparing societies to adapt to the changes in the rapidly moving digital age. To benefit from the advance of technology on a broader scale, governments need to invest in human capital, implement e-government programs that are oriented towards promoting online services, enhance telecommunication infrastructure and create the necessary regulatory framework for employing next generation networks. This promotes the use of e-services and helps to create information societies, which participate more actively in a rapidly evolving local and global economy. It also contributes to the achievement of good governance goals; and supports good governance by increasing transparency, accountability and eventually helping to reduce the cost of government operations.

Over the last decade, e-government has become increasingly common across the OIC region, propelled by efforts to modernize administrative bureaucracies, improve accountability, raise the efficiency of public service delivery, and more critically to improve good governance. Most of the OIC countries have initiated plans to utilize e-government services in general, also to build and manage applications designed for long-term sustainable online service delivery; to improve telecommunication infrastructure; and to support the human development. Nevertheless, there remains a great disparity among the OIC countries and sub-regions to adopt and implement e-government services. For example, in all indexes discussed in section 3, the OIC countries located in sub-Saharan Africa fall behind the rest of the regional and country groups. This shows that much work is needed to help many member countries to figure out how to put the pieces together to develop strategies for e-service development.

The OIC Member States can achieve higher scores in the e-government index, by taking action in the delivery of critical public services; making public administrations more attuned to the needs of their citizens; improving transparency and accountability; and fostering citizen’s access to public and official information, which require using modern ICT technologies on a broader scale. Given this state of affairs, the following recommendations are suggested for developing the quality of the e-government services, and consequently good governance.
- **Focusing on Human Capital Development:**

  Human capital emerges as a priority area for development in most OIC Member Countries to prepare their nations for e-government transformation. Therefore, a legal and regulatory framework should exist to ensure that education attainment in schools include teachings on ICT use to ensure that future generations are adept with technological advancements.

- **Understanding the Needs of the Citizen:**

  When building e-government systems, great effort is needed to understand the needs of the users and to implement applications that work within their competencies. Governments have to provide services to all citizens, which adds great complexity to the design and functionality of online computer applications. The applications need to be easy to use and anticipate the diversity of citizen’s literacy levels, computer skills, and self-service competencies. Nevertheless, conditions are very different in many OIC countries, where the functionality of the e-government services would essentially alienate segments of the public from useful online services.

- **Creating a Learning Organization:**

  OIC countries need to build an organizational environment where employees actively create new knowledge derived from their experiences and share it with other employees. Since, a Learning Organization can create a culture where lessons learned from one project are shared with a new e-government project.

- **Developing Effective ICT Governance:**

  Effective e-Government requires strong ICT governance. ICT governance refers to the organizational capacity to control the formulation and implementation of ICT strategy. The goal of good ICT governance is to align ICT strategy with the organizational operations. ICT governance is implemented through the rules, policies and regulations governing ICT planning, resource allocation, system development, training and service provision.

- **Providing a Secure Experience for Web Visitors**

  By using the Internet as the communication medium to connect the public to government services, e-Government systems are exposed to security vulnerabilities. The Internet and wireless technologies extend the boundaries of government ministries, opening the way for computer viruses and attacks, fraud and computer crimes, hackers to threaten the security and reliability of computer systems. To provide appropriate ICT security for an e-Government system, government ministries should develop a security strategy. This strategy should be provided with affordable authentication technologies of electronic and/or mobile signatures for making online transaction in e-government portals more reliable for citizens.

- **Applying Performance Measures**

  OIC countries invest an unknown amount into e-government initiatives, yet there is little knowledge on the effects of these investments. OIC countries need to apply performance measures to ensure that e-government programs are implemented effectively and overcome
challenges in e-government through establishing dialogues among stakeholders at the national, regional and OIC levels.

- **Providing Opportunities for the Public to Learn and Engage with E-Government Services**

OIC countries need to build platforms where the public can engage with ICT services to see the benefits of it and to be able to learn how to use them. As these services are up and coming in most OIC countries, the public needs to be equipped with the proper knowledge and know-how to make e-government services more widely spread and accepted amongst society. Through this engagement a meaningful technological interaction may be formed between citizens and governments.
References


Blake Harris, E-government, 2000, accessed from http://www.iadb.org

COMCEC (2017), The Current Situation of Broadband Internet Penetration in the OIC Member States and Selected Case Studies.


This report looks at the state of people with disabilities and special needs in OIC Countries in comparative perspective. It discusses global as well as regional trends and elaborates on the implications for OIC Countries. As a group, OIC Countries host millions of people with special needs. These people are in need of basic healthcare services, specialized rehabilitation services and other community services from transport to education. Due to underinvestment into social security systems, insufficient number of trained health professionals and rehabilitation units, many people with disabilities in OIC Countries cannot reach such services easily. Addressing diverse needs of people with disabilities require to develop a holistic approach and an action plan at the OIC level that can guide OIC Countries to deliver these services more effectively.

Read more at
www.sesric.org/publications-oic-outlook.php