

Investment in Information and Communications Technology (ICT) in Saudi Arabia: Strategies and Vision 2030 Initiative

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Abstract: ICT is the cornerstone of the digital economy. It defines all the physical components of computers and software, as well as communications networks and other devices required to process, store, organize, display, transmit, and retrieve information. This paper discusses the main strategies and their impact on Saudi Arabia's economic services. The main objective of this research was to develop ICT in Saudi Arabia consistent with the 2030 vision. This study is based on data collected primarily from the United Nations 2016 e-Government surveys. The researcher collected data from these studies and compared Saudi Arabia's trend analysis with other GCC countries: Bahrain, United Arab Emirates, and Kuwait in the field of ICT to develop investments in Saudi Arabia and to meet the Strategy and Vision 2030 Initiative. The conclusion analysis for the GCC states, Bahrain occupies ranked (1) ICT 0.48556, Followed by the UAE ranked (2), ICT 0.47974, Kuwait occupies (3) ICT 0.42162, Saudi Arabia lags at (4), ICT 0.38038.

Keywords: Information technologies, Information and Communications Technology (ICT), E-government Development Index (EGDI), ICT, Vision 2030 Initiative.

1. INTRODUCTION

The ICT sector is the beating heart of today's advanced industries. Vision 2030 also aims to transform the Kingdom radically into an international center for information and communications technology, to be able to compete globally through modern technologies, and to enable an advanced information society [1].

The Kingdom of Saudi Arabia aspires to make multiple investments in the development of digital content, the advancement of the media, the expansion of communications systems, digital transformation systems, and the development of the information technology industry, and the government of the Kingdom is working side by side with the private sector to modernize the information technology infrastructure. Communications, strengthening the regulatory framework to enable new innovative investments, and building the ecosystem best suited to support entrepreneurs and digital talent [6].

Saudi Arabia ranks 19th on the list of the world's largest economies, where it is currently experiencing a period of strong economic expansion and is seeking to diversify its currently oil-dependent economy [2]. The concerned authorities in the Kingdom have given great importance to spreading the use of technologies between the public sector, the private sector, and individuals at all levels, in recognition of the ability of ICT to accelerate development. ICT is a key pillar of the transformation into a knowledge economy [3], the most important strategic objective of the

Kingdom's Vision 2030. Achieving this goal requires directing investments to the ICT sector [4].

This study is based on data collected primarily from the UN 2016 e-Government surveys. The researcher collected data from these studies and compared Saudi Arabia's trend analysis with other GCC countries: Bahrain, UAE, and Kuwait in the field of ICT to develop investments in Saudi Arabia and to meet the Strategy and Vision Initiative 2030.

2. RELATED WORK

Al-Maliki 2015, presented a proposal to take advantage of the advantages of ICT to build a knowledge society. The study was based on key countries. Egypt-Saudi Arabia The result was a focus on how information and communication technology could revolutionize scientific libraries and information centers, and recommendations [7].

Hamza said in 2014 that the development and development of ICT investment come from an interest in Saudi Arabia's gross domestic product, which, like many other countries, takes into account the social and economic impact of the ICT revolution. The main reason behind this revolution is the rapid development of ICT infrastructure and its use in Saudi Arabia. The vision of Kingdom 203 focuses on the development of ICT infrastructure, building and accommodating optimal utilization to cover or increase in the future [8].

Alsuraihi, 2013, focused on five questions related to the use and awareness of ICT, their positive and negative effects, as well as the relationship between some characteristics of households and the issues

raised. The sample was a cross-sectional sample, and the survey questionnaire was constructed and properly judged according to the study's questions and purposes [9].

Albugami 2015, explained the key success factors in the implementation of ICT in Saudi schools, through the compilation and review of relevant literature, focusing on the challenges or barriers that may impede the use of ICTs. The results of the study revealed that the successful implementation of ICT in education requires attention to some aspects. For example, providing and developing infrastructure, adequate administrative support, providing appropriate training courses for ICT teachers, clarity in the field of the educational process, and continuous assessment of staff [10].

3. INVESTMENT IN ICT IN SAUDIA ARABIA

The term ICT defines collecting, storing, processing and transmitting information, not only hardware or software but also the importance of the role of the human being and his or her goals in applying and using those technologies, values, and principles. To achieve his experience [5], moreover.

He explained that the Kingdom's 2030 vision is keenly interested in investing in modern technology and information technology, and a national transformation program has been launched that aims to automate information in all sectors of the country, which contributes to increasing the productivity of government institutions, making them more effective and competitive, and creating many Digital programs that have facilitated the work of more than 130,000 investment companies operating in the Kingdom, to serve the business sector and facilitate procedures for starting a business [11].

4. RESEARCH METHODOLOGY

In this study, the researcher used the analysis and investigation of the status of ICT in Saudi Arabia and compared it to the best performance in the GCC countries: Bahrain, UAE, and Kuwait. The researcher used external sources to support the search. From his point of view or excuse in academic work, according to Scott (2006), research and documentation, include the use of texts, documents, and materials Source

This study is based on secondary data on ICT in Saudi Arabia, and the United Nations' opinion polls for all countries this year. The researcher collected ICT data from 2005 to 2016 to compare with the results of the analysis of the Kingdom of Saudi Arabia with the best results for the GCC countries including Bahrain, UAE, and Kuwait. These indicators include the information and communication technology (ICT) ICT scale in Saudi Arabia with other best performance (GCC) efforts to achieve the initiative to achieve the strategies and vision of the Kingdom of 2030.

5. E-GOVERNMENT DEVELOPMENT IN WESTERN ASIA

The UN survey for most countries in West Asia showed marked changes in their respective E-government Development Index (EGDI) rankings. The following table shows EGDI development in selected countries in West Asia. Bahrain has emerged as the new 24-figure leader to change the rankings in 2014-2016 (-6) and ranked the world in 2016. It offers its citizens a wealth of information and e-services, links to national websites, and a ministry. Saudi Arabia in 2016, ranked 44th in the world with a value in 2014, and the United Nations' position of the Saudi 36th e-Government in the world with the change of rankings 2014-2016 (-8). In West Asia, Iraq falls behind with 141 (-7), as shown in Table 1.

Table 1: E-government development Index (EGDI) in Western Asia

Country	2005	2008	2010	2012	2014	2016	Change Ranking (2014-2016)
Kuwait	75	57	50	63	49	40	+9
Bahrain	53	42	13	36	18	24	-6
UAE	42	32	49	28	32	29	+3
Saudi Arabia	80	70	58	41	36	44	-8
Qatar	62	53	62	48	44	48	-4
Oman	112	84	82	64	48	66	-18
Jordan	68	50	57	98	79	91	-12
Iraq	118	151	136	137	134	141	-7

telecommunications and IT services. The strong growth in the economy continues Saudi Arabia to increase the level of economic activity and the increasing flow of investments to the Kingdom, in light of its launch of Saudi Arabia’s 2030 Economic Vision. Several major initiatives are being implemented within the initiative towards diversification of the economy, the implementation of major expansion works in various parts of the

while many government agencies are planning to provide services The through electronic e-Government Program pleased therefore, prepared ICT strategic sectors in 2016 to contribute to the achievement of the vision of the Kingdom of Saudi Arabia Economic 2030.

6. COMPARISON OF ICT IN SAUDI ARABIA WITH OTHER BEST-PERFORMING GCC

Within the GCC, in Figure 1 Bahrain occupies ranked (1) ICT 0.48556, Followed by the UAE ranked (2), ICT 0.47974, Kuwait occupies (3) ICT 0.42162, Saudi Arabia lags for (4), ICT 0.38038, as shown in table 2. Saudi Arabia continued to achieve significant upward growth in the adoption and use of country and the Saudi government attaches great importance to developing communications and information technology, as past years have witnessed a commitment that is not Unprecedented by the government to occupy an advanced position in providing electronic services at the global level,

Table 2: Comparing the ICT of Saudi Arabia with the best-performing GCC

Index	2008	2010	2012	2014	2016	Average	Rank
Kuwait	0.2777	0.0833	0.4179	0.5862	0.7430	0.42162	3
Bahrain	0.3346	0.1932	0.4183	0.7055	0.7762	0.48556	1
United Arab Emirates	0.3813	0.1793	0.5568	0.5932	0.6881	0.47974	2
Saudi Arabia	0.2110	0.1330	0.4323	0.5523	0.5733	0.38038	4

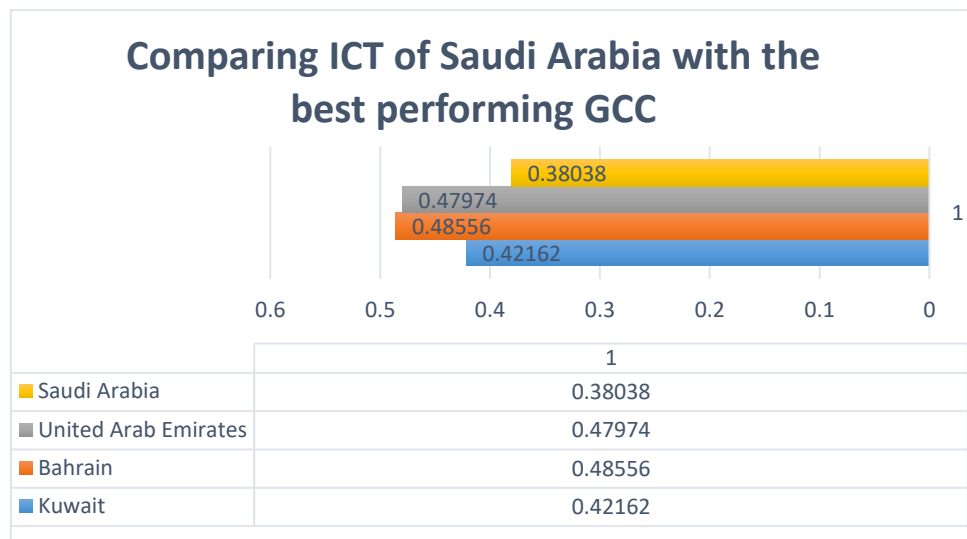


Figure 1: Comparing the ICT of Saudi Arabia with the GCC

7. DISCUSS RESULTS OF STUDY

Bahrain has continuously emerged in the (ICT) sector in the average of the period 2008-2016 it has emerged as one of the best-performing companies in the GCC countries (1) ranked (1) in information and communications technology 0.48556, followed by the UAE in the rank (2), And information and communications technology emerged 0.47974 because Kuwait occupies 3 information and communications technology 0.42162, Saudi Arabia

lags behind 4, information and communications technology 0.38038, shown in Figure 1. Through these statistics, we see this arrangement as being in line with the strategic goals and the Kingdom's 2030 vision Provide the main sources for ICT, as shown in Table 2. Likewise, the increased interest and expansion in the geographical coverage of the Internet with a distinctive speed that includes all the population and with high quality, as the percentage of cities covering the Internet reached more than 90% and 66% in other governorates [11].

Table 2: Strategic objectives for ICT in the Saudi Arabia will achieve vision 2030 Initiative [12]

	Objective	Domain
1	Increase the productivity and efficiency of all sectors, disseminate government, E-Commerce, social and EHR	Services and productivity.
2	Regulate the ICT sector in a fair, stimulating and attractive manner.	Sector regulation.
3	Building a strong ICT industry locally and globally through scientific research, innovation and development in strategic areas, and regional and international cooperation, to become a major source of revenue.	Telecommunications and Information Technology Industry.
4	Optimal recruitment of ICT in education and training at all levels.	Education and training.
5	All segments of the community across the country are empowered to deal with ICT to effectively bridge the digital divide.	Digital divide.
6	Optimal recruitment of ICT in the service of national identity, national affiliation, and Arabic language, and promote the message of civilizational Islam.	Islam, the homeland and the Arabic language.
7	To provide qualified and trained capacities of both sexes in various fields of communication and information technology, through the preparation of national cadres, and attracting international expertise.	Human capacity.

8. ICT IN SAUDIA ARABIA VISION 2030 INITIATIVE

The Vision 2030 of Saudi Arabia is to develop ICT infrastructure to build advanced industrial activities, this will be through the partnership with the private sector. The objective of the Kingdom's vision is to reach coverage of more than 90% of homes in high-density cities and 66% in other regions. To this end, we will stimulate investment in broadband technologies in densely populated areas, develop a new partnership framework with the private sector, and set building standards that facilitate the expansion of the broadband network. We will

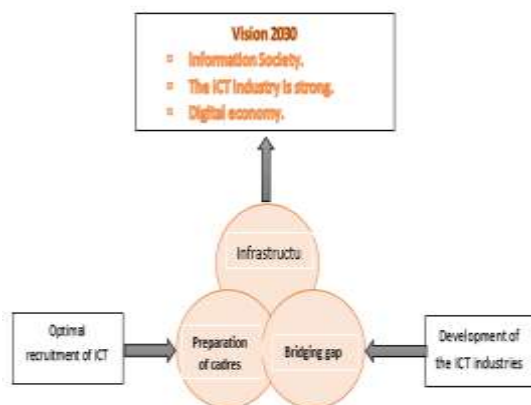


Figure 2: Investment in ICT in Saudi Arabia [12]

The vision 2030 initiative of ICT in the Kingdom aims to: transform the information society, build a strong ICT industry, and acquire the digital economy. The future vision is based on key and supporting pillars. The construction of the ICT industry. The supporting axes are the regulation of the ICT sector, the processing of infrastructure, the preparation of

strengthen the governance of digital transformation through a national council that oversees this process and will support this transformation at the government level as well [11].

Vision 2030 represents the destination or place to be reached in the field of ICT in the Kingdom. Achieving this vision requires the development of a number of "general objectives" that have been identified based on the study, assessment, and analysis of the current situation, international experiences, future prospecting, gap analysis, and planning for ICT sector development. At the same time, Integrated with five-year development plans [12].

qualified cadres, and the bridging of the digital divide between the community. The integration of these efforts is an imperative to reach the future vision, and each axis must be given the utmost importance so that none of them impedes the implementation of the other theme [12]. Figure 2 related to these themes and future vision.

9. CONCLUSION

Investment in ICT is one of the most important factors contributing to sustainable development in Saudi Arabia since these technologies affect all economic, social, and environmental aspects. Thus increasing the efficiency of the private sector and providing high-quality services to people and investments.

With the development of information and communications technology, the United Nations, from 2008 to 2016, launched the survey of Member States in ICTs, and the United Nations conducted history surveys. ICT is a complex measure of ICT comparison in Saudi Arabia with other GCC countries.

The conclusion analysis for the GCC states, Bahrain occupies ranked (1) ICT 0.48556, Followed by the UAE ranked (2), ICT 0.47974, Kuwait occupies (3) ICT 0.42162, Saudi Arabia lags at (4), ICT 0.38038, and this paper provides an investment in ICT in Saudi Arabia Strategies and Vision 2030 Initiative and the extent to which it has been used in the field of ICT. Reports of the ICT survey by the UN as a major source of comparison.

10. RECOMMENDATION

There are many areas in which the ICT sector can be developed and increased investments, such as: enhancing access to qualified technical personnel and supporting ICT activities between SMEs.

Provides multiple opportunities to invest in them, especially in the manufacture of call centers, development of electronic content, and modernizing the communication infrastructure of broadband channels and fixed telephone networks and replacing them with advanced networks that serve the largest number of subscribers such as the optical fiber network in addition to other fields such as support for equipment and programs, their distribution and training and education in the use of information technology travel services, entertainment publishing services on the Internet, mobile and e-learning services, etc.

Innovation systems can be improved in balance with the development of systems, policies, infrastructure, finance, and education. For example, simplifying the process of company registration, improving the regulatory framework, increasing public spending allocated to research and development to reach the limits of international levels, establishing a fund that invests in emerging risk capital funds, and setting up forums and workshops on motivating Entrepreneurial spirit in the programs of faculties of communications and information technology, facilitating the marketing of research conducted by public research centers and universities, and increasing interest in business and e-commerce and expanding its scope in various fields of business too.

11. REFERENCES

- [1] Alami, Hussein The role of ICT investment in achieving sustainable development A comparative study between Malaysia, Tunisia, and Algeria, Farahat Abbas Setif University, Algeria (2013).
- [2] The Saudi Ministry of Economy and Planning, the Ninth Plan for Economic Development (2010-2014), 2010.
- [3] World Bank, World Development Indicators.
- [4] Faisal Dalio, New Media, and Communication Technology, First Edition, Dar Al-Thaqafa, Amman, 2010.
- [5] Hussein Mohamed Ahmed Abdel Basset, Successful Applications and Methods of ICT Use in Teaching and Learning Geography, Journal of Internet Education, Society for Technological and Human Development, 5th Issue, March 2005.
- [6] Qwaider, Q. Walid. E-Government Services Quality (EGSQ) in Saudi Arabia: Strategies and Vision 2030 Initiative, Qassim conference. 13-14 / 4/1438 AH corresponding to 11-12 / 1-2017m Qassim University.
- [7] Malki, Zohair, Investment ICT Role in Developing Electronic Libraries and Information Centers, Journal of Theoretical and Applied IT 20th, Vol.71 No.2, January 2015.
- [8] Hamza, Mohammad Abdulgahni, Tauseef Ahmad, Mahmood Salah, The current growth of ICT in Saudi Arabia, Wulfenia Journal, Vol 21, No. 9; Sep 2014.
- [9] Alsuraihi D. Muna; Heba Bashraheel, Omar, ICT in the Saudi Household, Journal of Asian Scientific Research, 3(3):286-307, 2013.
- [10] Communications and Information Technology Commission, ICT Report, Investments in ICT in Saudi Arabia, 2015.
- [11] Saudi Arabia's vision 2030.
- [12] Ministry of ICT, Saudi Arabia National Plan for ICT, Vision for Building the Information Society, 2006.