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Digitization Levels and Measures of the MENA Region

Light Version

*This Light Version is the free synopsis of Arab Advisors Group full reports entitled
“Digital Index in the Arab World 2018” and “Digitization of Cellular Operations
Index 2018.”*

*Subscribers to Arab Advisors Group’s Strategic Research Service receive the report,
and many others, as part of their paid subscription.*

*Non-subscribers can purchase the report entitled “Digital Index in the Arab World
2018” for US\$ 3,000.*

*Non-subscribers can purchase the report entitled “Digitization of Cellular Operations
Index 2018” for US\$ 2,500.*

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Section I: Introduction

In an era of digital adoption, countries are required to enhance their infrastructure and services. The enhancement leads to higher levels of digitization. Initially, telecom operators and vendors monopolized digital transformation. At a later stage, traditional sectors and governments acknowledged the importance of the transformation. Governments initiated revolutionary national plans to facilitate digital transformation in their countries. These plans reflected on the countries' digitization levels. Today, traditional sectors, along telecom providers, push for digitized offerings and solutions.

According to Arab Advisors Group's **Digital Index 2018** report, which rated and ranked the digital levels of the Arab countries, UAE ranked first with a score of 84.21%, followed by Qatar with a score of 82.59%. Qatar and the UAE also scored the highest levels of digital readiness. The telecom operators in these countries scored the highest in terms of affordability of fiber optics and mobile broadband services among the analyzed MENA countries. The cellular operators in Qatar and the UAE made sure to keep up with major trends of the industry. They offered a vast number of technologies and carried out several demonstrations and trials on the latest technologies such as 5G.

Nowadays, with Internet invasion and digital transformation, customers favor and demand for digitized services. Telecom digitized solutions reduce operators' operational and maintenance cost. On the subscribers' front, digitized services provide a better usage experience. This will increase subscribers' satisfaction and loyalty levels, resulting in lower churn rates.

According to Arab Advisors Group's **Digitization of Cellular Operations Index 2018**, by April 2018, 80.77% of the cellular operators in the MENA region offered digitized services. Cellular operators in the GCC countries topped the Digitization of Cellular Operations Index. du and Viva Bahrain had the highest score among the analyzed operators which offered digitized services in the MENA region. Du and Viva Bahrain scored an index of 74% each. Zain KSA and Etisalat UAE followed with an index of 64% each. Section VII provides additional details on Arab Advisors Group's Digitization of Cellular Operations Index.

Section II: Arab Advisors Group Digital Index 2018

Arab Advisors Group created the **Digital Index** to rate and rank the digitization levels of the Arab markets. The Digital Index consists of four main pillars. Each pillar relies on a number of indicators, to help measure the competitiveness levels of the Arab countries, and rank each country based on the level of digital awareness and adoption. The Digital Index pillars are: Smart Government pillar, Digital Readiness pillar, Electronic and Mobile Payment pillar, and Economic and Education pillar. The assigned weight for each of the aforementioned pillars depends on the importance of the pillar in the Digital Index intensity, while the allocated indicators for each pillar add up to 100%.

- **Smart Government:** the weight assigned for the Smart Government pillar is 40%.
- **Digital Readiness:** the weight assigned for the Digital Readiness pillar is 30%.
- **Electronic and Mobile Payments:** the associated weight for the Electronic and Mobile Payments pillar is 20%.
- **Economic and Education:** the associated weight for this pillar is 10%.

Exhibit 1 and **2** below illustrate the rank of the Arab countries based on the Digital Index score it received. It should be noted that a total of five countries were excluded from this section due to the lack of one or more indicators for each country. The countries are: Palestine, Yemen, Libya, Syria and Sudan. However, these countries are listed in any of the pillars or indicators where the information is available.

The UAE ranked first in the Digital Index rankings with a score of 84.21%, followed by Qatar, Kuwait and Bahrain, with scores of 82.59%, 79.68% and 76.93%, respectively. Mauritania scored the least in the Digital Index ranking, standing at a score of 30.31%.

Exhibit 1: Digital Index Score

Country	Digital Index Score %
UAE	84.21%
Qatar	82.59%
Kuwait	79.68%
Bahrain	76.93%
Oman	72.62%
Saudi Arabia	71.91%
Jordan	63.82%
Tunisia	58.89%
Morocco	58.60%
Lebanon	58.04%
Egypt	56.40%
Iraq	52.41%
Algeria	49.44%
Mauritania	30.31%

Note: Sudan, Syria, Libya, Yemen and Palestine, were excluded from the Digital Index rankings exhibit, due to the lack of one or more indicators

Source: Telecom operators, Ministries, Regulators, Departments of Statistics, Central banks, e-Government portals, World Bank, Arab Advisors Group

Exhibit 2: Digital Index rankings per pillar

Country	Smart Government Score %	Digital Readiness Score %	Electronic and Mobile Payment Score %	Economic and Education Score %	Total Digital Index Score %
Weight%	40%	30%	20%	10%	100%
UAE	39.16%	23.36%	15.58%	6.12%	84.21%
Qatar	39.94%	22.71%	13.20%	6.74%	82.59%
Kuwait	39.88%	21.30%	13.47%	5.02%	79.68%
Bahrain	39.34%	17.76%	14.16%	5.67%	76.93%
Oman	38.68%	15.98%	13.37%	4.59%	72.62%
Saudi Arabia	34.98%	17.69%	12.53%	6.71%	71.91%
Jordan	35.04%	14.11%	9.67%	5.01%	63.82%
Tunisia	34.02%	13.27%	9.60%	2.00%	58.89%
Morocco	33.66%	12.90%	8.59%	3.45%	58.60%
Lebanon	35.28%	11.06%	10.65%	1.06%	58.04%
Egypt	32.58%	10.53%	9.07%	4.21%	56.40%
Iraq	35.82%	5.30%	8.30%	2.99%	52.41%
Algeria	30.26%	10.74%	3.07%	5.37%	49.44%
Mauritania	19.76%	6.05%	1.61%	2.89%	30.31%

Note: Sudan, Syria, Libya, Yemen and Palestine, were excluded from the Digital Index rankings exhibit, due to the lack of one or more indicators

Source: Telecom operators, Ministries, Regulators, Departments of Statistics, Central banks, e-Government portals, World Bank, Arab Advisors Group

Section III: Smart Government Pillar

The definition of the smart government is the implementation of innovative solutions, which aim to simplify the lives of residents, through facilitating a better approach toward adopting such concept.

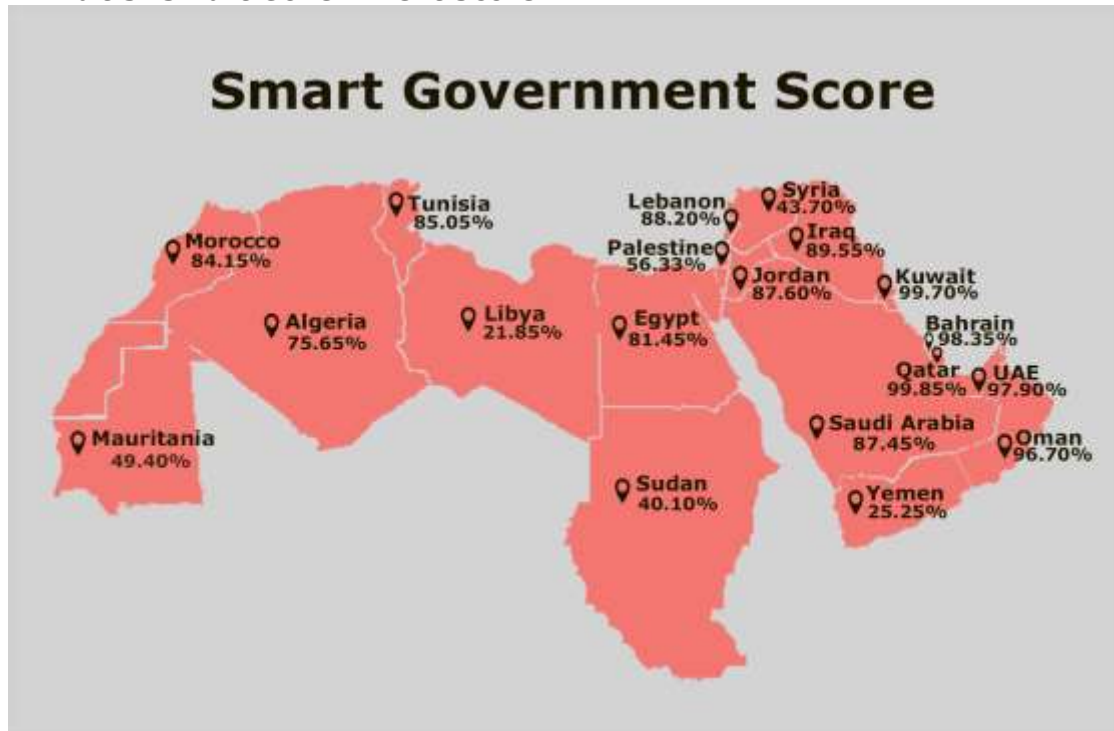
The concept of smart government extended over years to include the latest adopted technologies in the information and telecommunications sectors, which rely on the communication factor across multiple domains, in addition to the speed required to carry the data and the latency allocated with the data transmission process.

The smart government pillar relies on four indicators, namely:

- **Status of e-Government - 40%**
- **The governmental support to the ICT Sector and the deployment of connected solutions in the country - 25%**
- **Incubation and seed funding for technology start-ups indicator - 20%**
- **percentage of urban areas in each country -15%**

The exhibit below represents the smart government pillar indicators total score. Qatar had the highest smart government score standing at 99.85% followed by Kuwait with a 99.70% score. Yemen and Libya had the lowest scores standing at 25.25% and 21.85%, respectively.

Exhibit 3: Smart Government Score



Source: Arab Advisors Group, World Bank, United Nations, and regulators and ministries

Section IV: Digital Readiness Pillar

The Digital Readiness pillar measures the state of preparations and initiatives conducted in the MENA region, toward implementing an innovational network that connects residents with government services and applications. This pillar relies on eight indicators with different weight for each indicator:

- **The affordability of the Internet services (Fiber Optics) - 10%**
- **The affordability of the Internet services (Mobile broadband) - 10%**
- **Fixed Internet penetration% - 15%**
- **Mobile Internet penetration% -15%**
- **Fiber optics coverage - 15%**
- **Preparations and trials for the 5G mobile broadband technology - 15%**
- **The availability of Internet technologies - 10%**
- **The percentage of the mobile data revenues out of the total cellular revenues % - 10%**

In the digital readiness pillar, the UAE ranked first with a score of 77.86%. Qatar followed with a percentage of 75.7%. The exhibit below lists the Digital Readiness score.

Exhibit 4: Digital Readiness Score



Note:

-Sudan, Libya, Yemen and Syria were excluded from this section, due to the fact that the aforementioned countries lack one or more indicator.

Source: Telecom operators, World Bank, Arab Advisors Group, Regulators, Internet Service Providers, the Fibre to the Home Council Middle East and North Africa

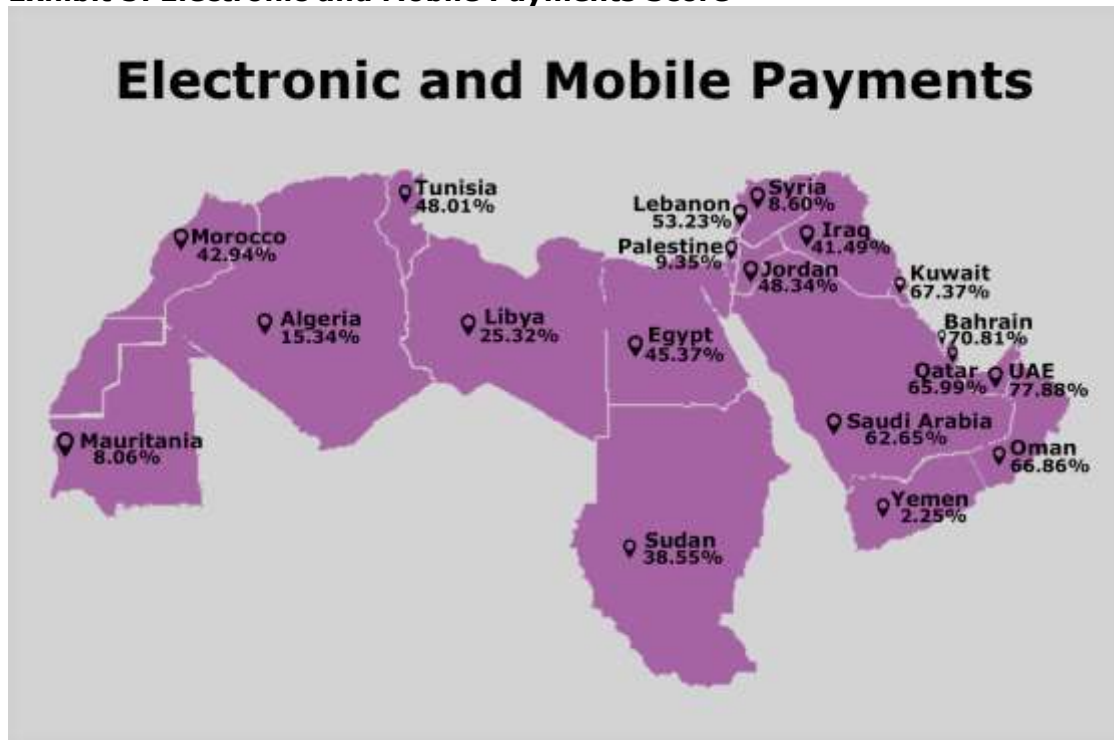
Section V: Electronic and Mobile Payments Pillar

Arab Advisors Group analyzed the electronic and mobile payments availability in the countries understudy. The electronic and mobile payments indicators break down into the following:

- **Credit card penetration – 33.3%**
- **Banking account penetration – 33.3%**
- **Mobile money service availability – 33.3%**

The UAE ranked first in the electronic and mobile payments' pillar, standing at a score of 77.88%, followed by Bahrain and Kuwait, with total scores of 70.81% and 67.37%, respectively.

Exhibit 5: Electronic and Mobile Payments Score



Source: Arab Advisors Group, World Bank

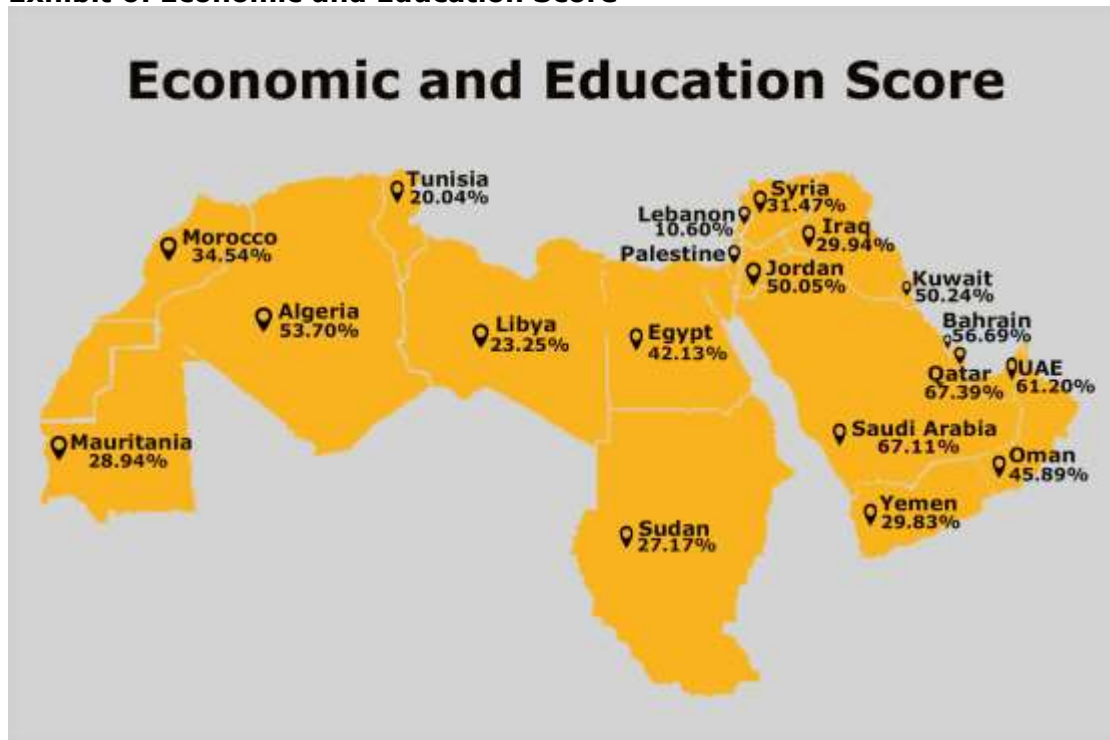
Section VI: Economic and Education Pillar

The Economic and Education pillar relies on three main indicators, namely: the GDP per Capita, number of science parks and the percentage of residents below 45 years of age. The weights allocated per each indicator are as follow:

- **The total number of science parks (University research parks) per country by March 2018 - 40.00%**
- **The percentage of residents below 45 years of age by yearend 2016 - 40.00%**
- **The latest available GDP per Capita for each country - 20.00%**

Qatar had the highest economic and education score among the analysed countries, where it scored 67.39%. Saudi Arabia followed with a score of 67.11%.

Exhibit 6: Economic and Education Score



Note:

-Palestine was excluded from this section, due to the lack of one or more indicators.

Source: Arab Advisors Group, World Bank

Section VII: Arab Advisors Group Digitization of Cellular Operations Index 2018

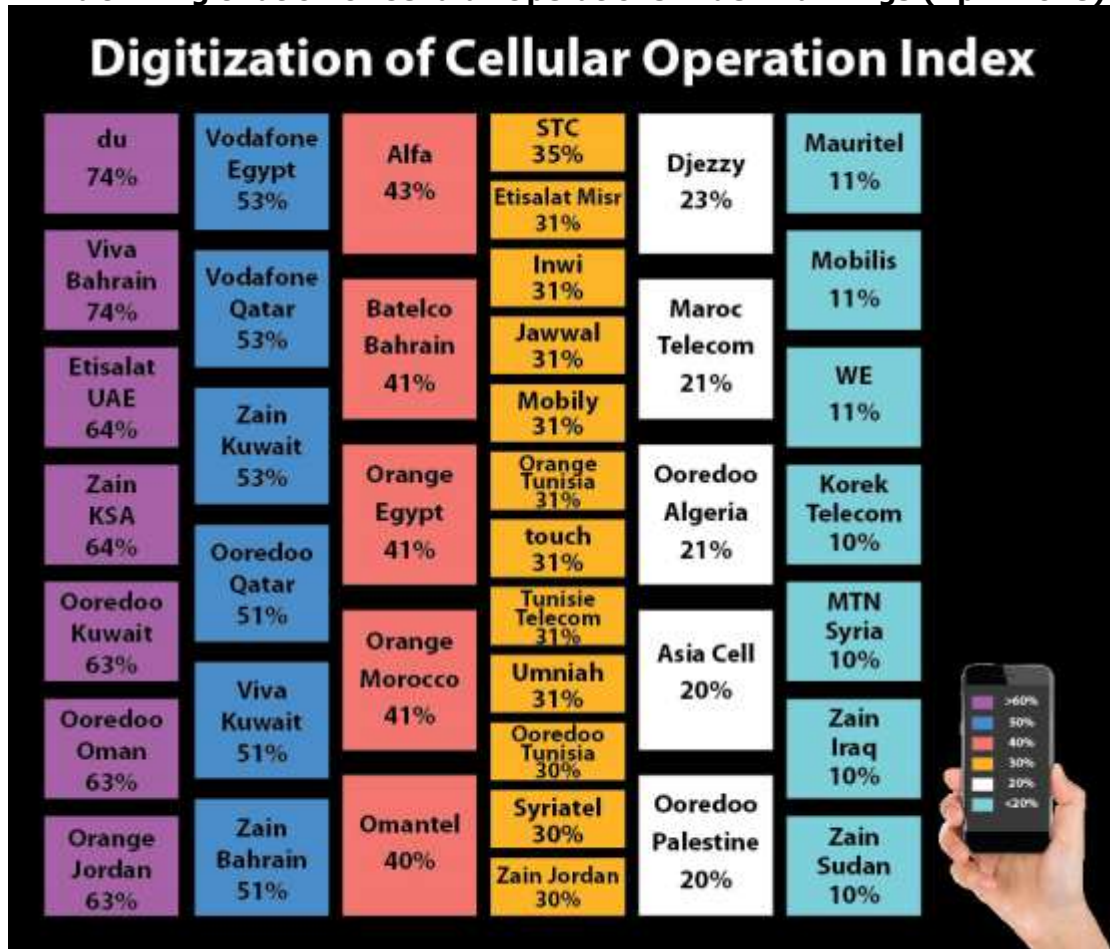
Arab Advisors Group created the **Digitization of Cellular Operations Index** to rate and assess how digitized the cellular operators are, in terms of services offered to their subscribers. The Digitization of Cellular Operations Index relies on a number of indicators that reflect services offered by the operators with minimal human interaction and which the subscriber can do on their own directly through the Internet.

In order to calculate the Digitization of Cellular Operations Index, Arab Advisors Group takes into account multiple indexes. The index takes into account the payment methods offered to the subscribers electronically, self-services offered in the form of applications, portals, or kiosks, online shops for handsets and accessories offered by the operators, and an all-digital brand. Each category is assigned a weight based on its importance as an indicator of digitization. More specifically, the categories (and weights) include the following:

- **Payment index – 45%**
- **Self-service index – 40%**
- **E-shop index – 10%**
- **Digital brand index – 5%**

The weights assigned by Arab Advisors Group add up to 100%, which is the maximum score any country can receive in terms of digitization of services. Viva Bahrain and du scored the highest digitization of cellular operations index among the analyzed 42 cellular operators, which offer digitized services. Zain KSA and Etisalat UAE followed with an index of 64% each.

Exhibit 7: Digitization of Cellular Operations Index Rankings (April 2018)



Source: Operators, Arab Advisors Group

The payment index includes all payment methods offered to the subscribers electronically, that does not require visiting the operators' branches or contacting the operator. Subscribers can use such methods to pay their monthly bills or recharge their prepaid balance. Arab Advisors Group considered several indicators in order to calculate the payment index. The indicators and corresponding weights include:

- **Quick recharge/payment through operator's website – 25%**
- **Autopay – 25%**
- **Social media payments – 25%**
- **Bill through email – 25%**

The self-service index includes self-services offered in the form of applications, portals, or kiosks. Arab Advisors Group considered several indicators in order to calculate the self-service index. The indicators and corresponding weights include:

- **Self-service application – 25%**
- **Self-care through the operator's website – 25%**
- **Self-service kiosks – 25%**
- **Digital assistance tool – 25%**

The e-shop and the digital brand indexes are measured by assigning the operator a full percentage points if the operator offers the services, and zero percentage if the operator does not offer the services.

The **49-page “Digital Index in the Arab World 2018” report**, which contains **23 detailed exhibits**, rates and ranks the Arab World countries according to their digital index score, based on a methodological approach. **Please contact Arab Advisors Group to get a copy of the report’s Table of Contents.**

The **49-page “Digitization of Cellular Operations Index 2018” report**, which contains **24 detailed exhibits** provides an analysis of the digital services and operations offered by the cellular operators in the MENA region to their subscribers. The Digitization of Cellular Operations Index relies on a number of indicators that reflect digitized services. Arab Advisors Group calculated the Digitization of Cellular Operations Index by taking into consideration several indicators provided by each operator in each of the 19 MENA countries. **Please contact Arab Advisors Group to get a copy of the report’s Table of Contents.**

