Council of Arab Central Banks and Monetary Authorities Governors

Fintech Index in the Arab Countries "FinxAr" (Methodology and Results)

Dr. Nouran Youssef

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مجلس محافظي المصارف المركزية ومؤسسات النقد العربية
OUNCIL OF ARAB CENTRAL BANKS AND
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Introduction

The growth of the Fintech industry has accelerated over the course of the past three years due to providing access to finance opportunities and a range of digital financial products and services at a lower cost and effort designed to suit the needs of the different segments of society. It also gained great international momentum during 2020 in general and in the Arab region in particular, in the wake of the COVID-19 pandemic, in terms of regulations and legislation development, transactions volume, services and products that were developed under the requirements for contactless transactions, and the growing need to conduct transactions remotely.

In the same context, Arab countries have adopted many policies and reforms, in terms of strengthening the institutional framework, developing the Regulatory Sandboxes, establishing Fintech hubs, in addition to developing regulatory frameworks, whether in terms of creating or modifying the legislative structure for the development of financial innovations in a balanced framework that maintains the integrity of the financial industry.

Thus, the Arab Monetary Fund launched today, April 27th, 2021, on the occasion of Arab Day for Financial Inclusion, the Fintech Index in the Arab Countries "FinxAr". The Index launch comes within the framework of the Fund's efforts to support the trend of Arab countries towards promoting the Fintech industry and financial digital transformation, in a manner that serves to enhance inclusiveness, financial stability and opportunities to achieve sustainable development.

Index Purpose

The index aims to identify the efforts of Arab countries in developing the Fintech industry and supporting its growth. It also contributes to creating a vision for the Fintech industry in the Arab countries and how to support the Fintech ecosystem,

by shedding light on the challenges facing the development of the Fintech industry in the Arab countries, and capitalizing on the available opportunities and enablers, to help formulate appropriate national policies aiming to improve the growth of Fintech opportunities as well as the utilization thereof, and fostering the ecosystem for digital financial services.

The index also sheds light on the developments of the Fintech industry and digital financial services in the Arab countries for the period (2018-2020) through a questionnaire prepared for this purpose. The Index results reflect the interest and efforts made by Arab governments in cooperation with the private sector over the past three years to improve the growth opportunities of Fintech and its adoption, as evident in the noticeable and continuous improvement in the digital financial services ecosystem and the implementation of national programs and activities for digital financial transformation during 2020 compared to 2018 and 2019.

In this context, the index will be calculated and published regularly, bearing in mind that the Arab Monetary Fund is on the verge of issuing an annual report on the Fintech industry in the Arab countries, which contains a chapter detailing the results of FinxAr.

The index aims to provide a tool for decision-makers, regulatory and supervisory authorities in the Arab countries, and all the stakeholders to the development of the Fintech industry.

Index Calculation Methodology

The General Index for Fintech in the Arab region "FinxAr" consists of six main indices that represent the main pillars of the Fintech ecosystem, including policies, laws and regulations, the demand side, funding, financial markets infrastructure, talent development to support innovations, and finally collaboration and partnerships. FinxAr index is considered the first of its type in terms of its pillars

and domains of Arab countries' interventions and monitoring their efforts to enhance the Fintech ecosystem. Therefore, the index represents an effective tool in identifying domains that need more attention and efforts, and the appropriate policies it requires.

The general index consists of one hundred percentage points, ranging from zero (the lowest level) to one (the highest level), divided into six main pillars representing the Fintech ecosystem, weighted by the following weights:

Main Indices	Weights (%)
Policies, Laws and Regulations Pillar	25
Demand side Pillar	14
Funding Pillar	14
Talents Pillar	14
Financial Markets Infrastructure Pillar	20
Collaboration and Partnerships Pillar	13
General Index	**100**

Fintech General Index "FinxAr" is calculated via the following equation:

$$FinxAr = \sum_{n=1}^{6} ([AVGSUB]_n * W_n)$$

Where:

$FinxAr$: Fintech General Index.

$[AVGSUB]_n$: average value of the **"n"** pillar.

W: weight of the "**n**" pillar.

n: Pillars (policies, laws and regulations, the demand side, funding, financial markets infrastructure, talents, as well as collaboration and partnerships).

It should be noted that the total points for each country in each pillar range from zero (the lowest value) and one (the highest value), based on the average total score of the questionnaire answers in each pillar. This average is then weighted by the weight of each pillar, to obtain the aggregate score of each country in the general index.

The general index FinxAr represents 100 percentage points that reflects the average scores of Arab countries in each of the six pillars, weighted by the pillars' weights in the general index. Therefore, the percentage for each country represents the sum of the simple average weighted by the six pillars' weights.

Fintech General Index in the Arab Countries "FinxAr"

The index results showed the growing efforts of Arab countries in building an enabling ecosystem for Fintech and digital financial services, especially in supporting remote financial transactions in the wake of the COVID-19 pandemic during 2020, reflecting the efforts of Arab countries in developing national strategies for Fintech and digital transformation that enabled outlining a roadmap to build solid pillars for the activities of Fintech and digital financial services, and hence digital financial inclusion. However, the index highlights some challenges that require more efforts, particularly in terms of facilitating access to finance for Fintech service providers, entrepreneurs and start-ups, in addition to following up the development of conducive legislation.

Fintech Index in the Arab Countries "FinxAr"
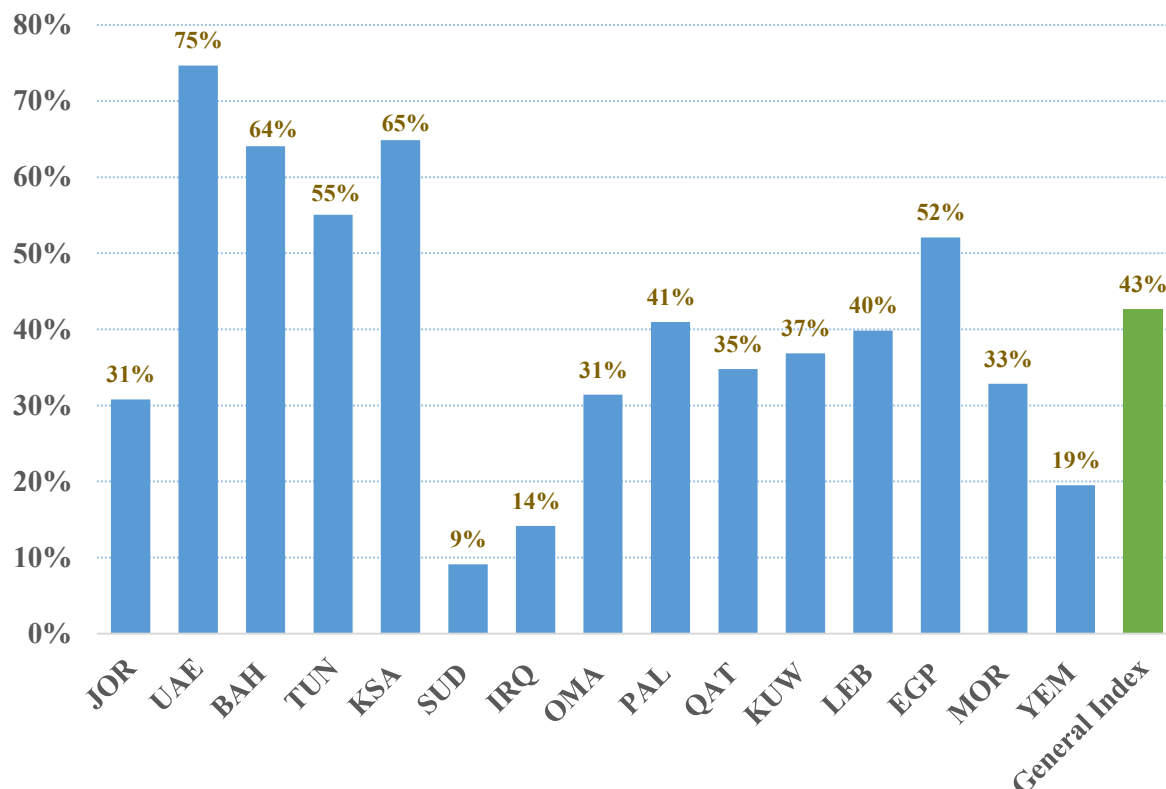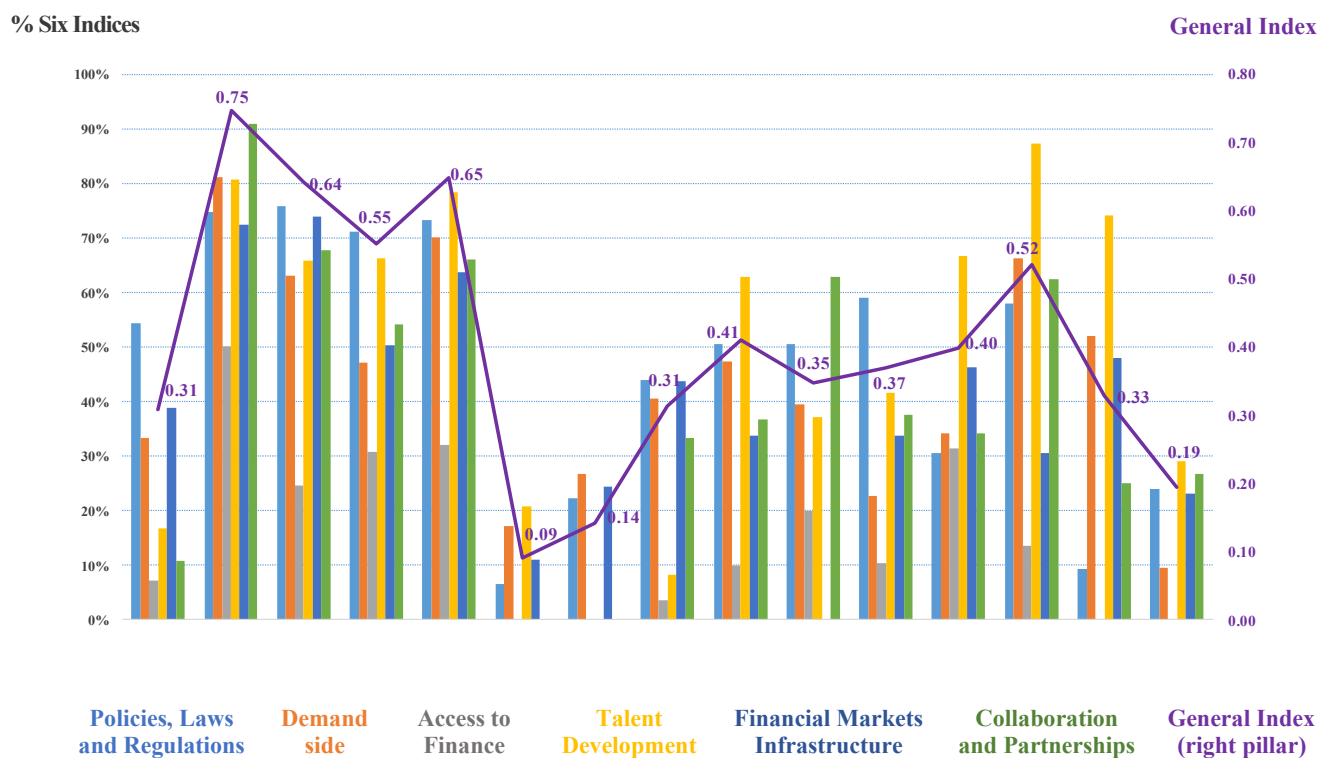## (Methodology and Results)

Figure (1): FinxAr

Figure (2): The General Index "FinxAr" Average and the Six Main Indices

Policies, Laws and Regulations | Demand side | Access to Finance | Talent Development | Financial Markets Infrastructure | Collaboration and Partnerships | General Index (right pillar)
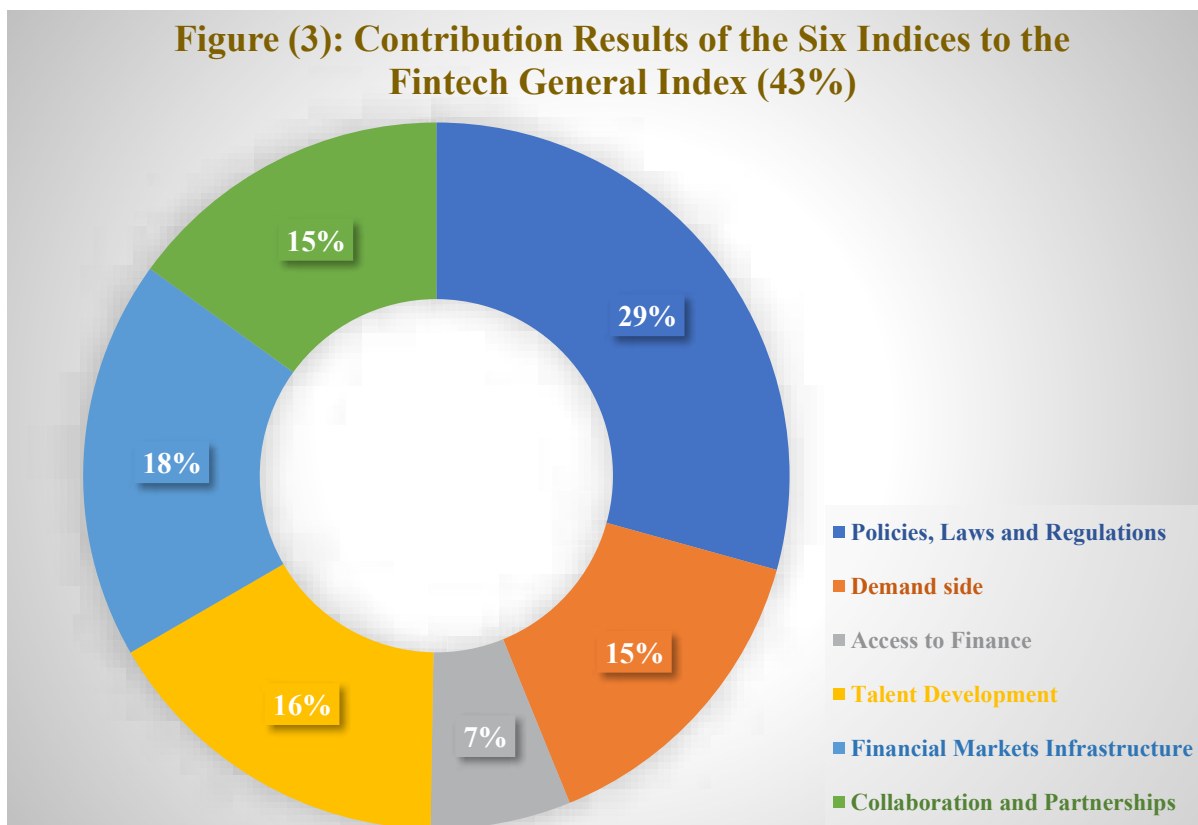
Table (1): The General Index "FinxAr" and the Six Main Indices

Country	Policies, Laws and Regulations	Demand	Funding	Talents	Financial Markets Infrastructure	Collaboration and Partnerships	General Index
JOR	0.545	0.334	0.071	0.167	0.388	0.108	0.308
UAE	0.748	0.810	0.500	0.807	0.725	0.909	0.747
BAH	0.758	0.631	0.246	0.658	0.739	0.678	0.640
TUN	0.711	0.472	0.307	0.662	0.503	0.542	0.550
KSA	0.732	0.700	0.320	0.783	0.636	0.660	0.649
SUD	0.065	0.172	0.00	0.208	0.109	0.00	0.091
IRQ	0.223	0.267	0.00	0.00	0.243	0.00	0.142
OMA	0.439	0.406	0.036	0.083	0.436	0.333	0.314
PAL	0.505	0.474	0.100	0.629	0.336	0.366	0.410
QAT	0.505	0.394	0.200	0.372	N/A	0.629	0.348
KUW	0.591	0.227	0.103	0.417	0.338	0.375	0.369
LEB	0.305	0.341	0.314	0.667	0.464	0.342	0.398
EGP	0.580	0.661	0.136	0.872	0.305	0.625	0.521
MOR	0.093	0.520	0.00	0.742	0.480	0.250	0.328
YEM	0.239	0.096	0.00	0.292	0.232	0.267	0.195
Average	0.44	0.44	0.18	0.50	0.39	0.49	0.43

The general index scored 43 percent, with main contributions from the talents, and collaboration & partnerships indices that came in the forefront with 50 percent and 49 percent respectively, then the demand and policies & regulations indices by 44 percent each. Whereas the results highlighted the need to devote more attention to the finance pillar which scored 18 percent, in addition to continuing exerting efforts to support financial market infrastructure, as it scored 39 percent.

As for the contribution of the six indices (weighted) to the general index amounting to 43 percent, figure (3) shows that the contribution of the Policies, laws and regulations index to the general index reached approximately 29 percent, while the contribution of financing amounted to 7 percent, which confirms the necessity to pay attention to financing.

Figure (3): Contribution Results of the Six Indices to the Fintech General Index (43%)

- Policies, Laws and Regulations
- Demand side
- Access to Finance
- Talent Development
- Financial Markets Infrastructure
- Collaboration and Partnerships

The results showed that the United Arab Emirates ranked first among the Arab countries in the general index with a percent of 75 percent, as an outcome to the multiple efforts to enhance the diverse fintech activities, and the various initiatives

employing the latest Fintech and providing the requirements that would improve their adoption. The level of digital financial transformation, in addition to enhancing financial awareness and education, providing financing to support innovation, as well as promoting collaboration and partnerships, whether at the national level within stakeholders or on both regional and international levels.

The Kingdom of Saudi Arabia came in second place with a general index rate of 65 percent, benefiting from its acquisition of the second place at the level of the main indices for the demand side and the financing, due to the various initiatives sponsored by the authorities in assisting technology centers in supporting digital financial products and solutions in the Kingdom, and to enhance financial education. This is in addition to the various awareness programs, enabling the access to finance for small and medium enterprises. It also ranked third at the level of the leading indices of policies & regulations, financial market infrastructure, and talents.

As for the third place at the level of the general index, was dedicated to the Kingdom of Bahrain reaching approximately 64 percent; which reflects the Kingdom's progress in terms of legislations and financial market infrastructure, where it stands at the first rank in the indices of policies & regulations, and the financial market infrastructure. Thanks to the adoption of comprehensive policies to build a conducive regulatory framework for the Fintech industry at the national level, and creation of a conducive legislative infrastructure for various Fintech activities.

 The fourth rank in the general index went to the Republic of Tunisia with a rate of 55 percent as a result of its progress in the main indices related to policies & regulations, and financial market infrastructure, reflecting the efforts of the multiple authorities in these aspects.

The Arab Republic of Egypt ranks fifth in the general index with a rate of 52 percent, due to Egypt's acquisition of the first place in the talents pillar, as a reflection of the various initiatives at the national and universities level. Moreover, thanks to the efforts made to boost the demand side, in terms of financial education and increasing the digital solutions and services provided, Egypt came the third in this pillar.

First: Policies, Laws and Regulations Index

The policies, laws and regulations pillar covers the various initiatives taken by Arab countries at the laws, regulations and policies level for fostering the Fintech sector, through a package of programs, including national strategies for Fintech or digital transformation, and the provision of the institutional framework through which initiatives to enhance the financial innovations ecosystem are managed and directed, and the extent of regulatory sandboxes existence, as well as the regulatory framework available for various Fintech activities, the supervisory authorities responsible for these activities and the pertaining governance framework. This is in addition to the legislative structure that the country is developing to promote innovation while preserving the integrity of the financial sector.

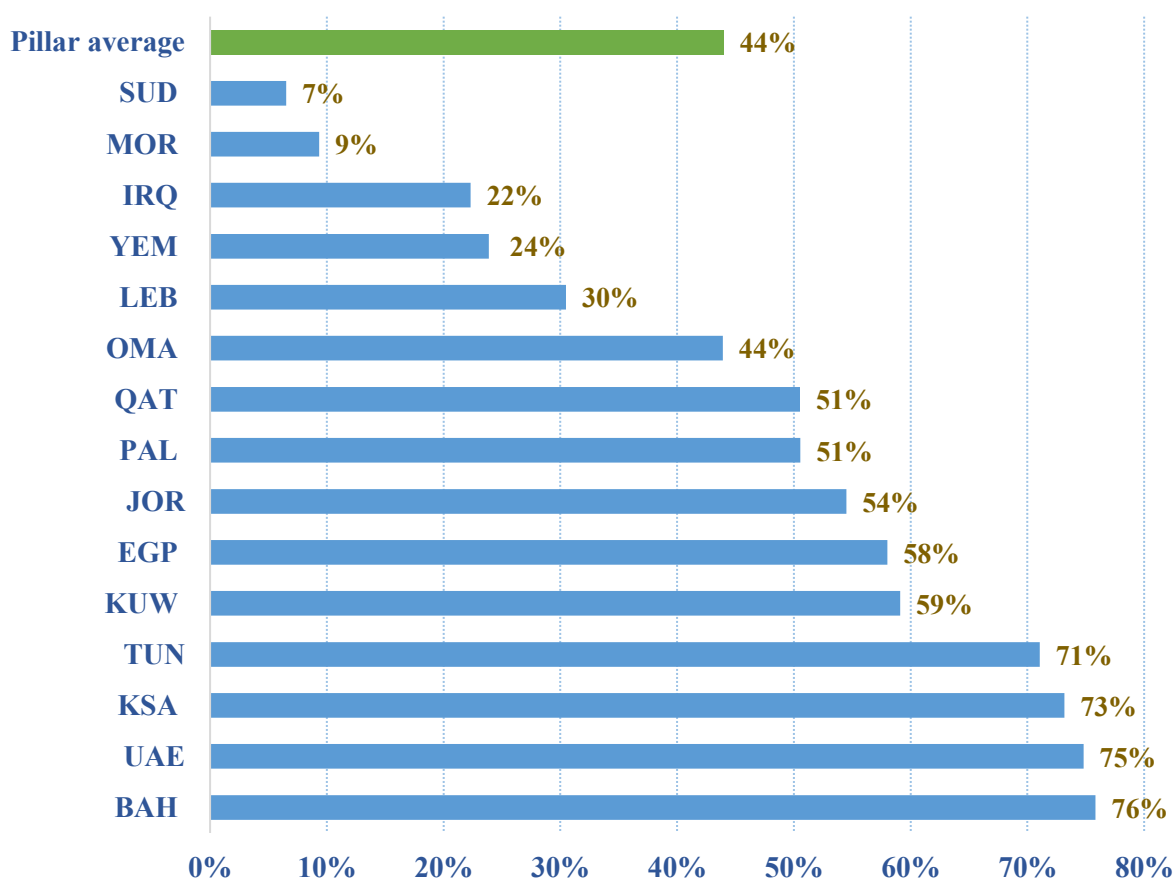**Figure (4): Policies, laws and regulations pillar in the FinxAr index**

Figure (4) above shows Bahrain, UAE, Saudi Arabia and Tunisia occupying the top four ranks in the policies, laws, regulations index respectively, which can be attributed to Bahrain's comprehensive regulatory framework for all Fintech activities, Bahrain and UAE's share the existence of a digital regulatory sandbox, as well as Saudi Arabia's initiatives to deploy innovative financial solutions and services. All four top ranked countries maintained various approaches to regulate the Fintech industry, such as capitalizing on the current legislative structure, introducing new legislation, and recognizing regulatory sandboxes outcomes in drafting new legislation or amending current texts. This is in addition to setting rules to regulate Fintech companies' activity, as well as an institutional framework for managing initiatives to enhance the Fintech ecosystem. Moreover, both UAE and Tunisia use of modern Regtech/Suptech tools.

Kuwait, Egypt, Jordan, Palestine and Qatar respectively succeed the top four. Whereas these countries' rank can be attributes to regulatory sandboxes which support financial innovations and strengthen the legislative structure, in addition to the institutional framework for managing Fintech initiatives. All the group countries are working to update the current legislative frameworks or introduce new legislation to regulate the Fintech industry. The group is also distinguished by following more than one approach in licensing Fintech companies, whether through the current legislative structure or licensing, or licensing through the regulatory sandbox. Egypt is acclaimed, since 2019, as the only country with a National Fintech Strategy that sets work programs for specific pillars to promote the Fintech industry, along with a higher coordination committee for cooperation between the overlapping authorities in regulating Fintech activities.

Second: Demand side Index

This pillar focuses on the country's initiatives to enhance the demand side of individuals and the business sector alike, in terms of the availability of digital financial services and products and promoting financial education and digital financial awareness. Whereas the pillar deals with the various initiatives of the country in employing various business models, services, digital financial products, as well as the access and use of the Internet and smart devices indices. In addition to, digital payments, the country's strategies in promoting digital payments and financial education, Fintech hubs and Fintech associations within the country, the size of tech companies that joined the Fintech field and the incentives provided to them.

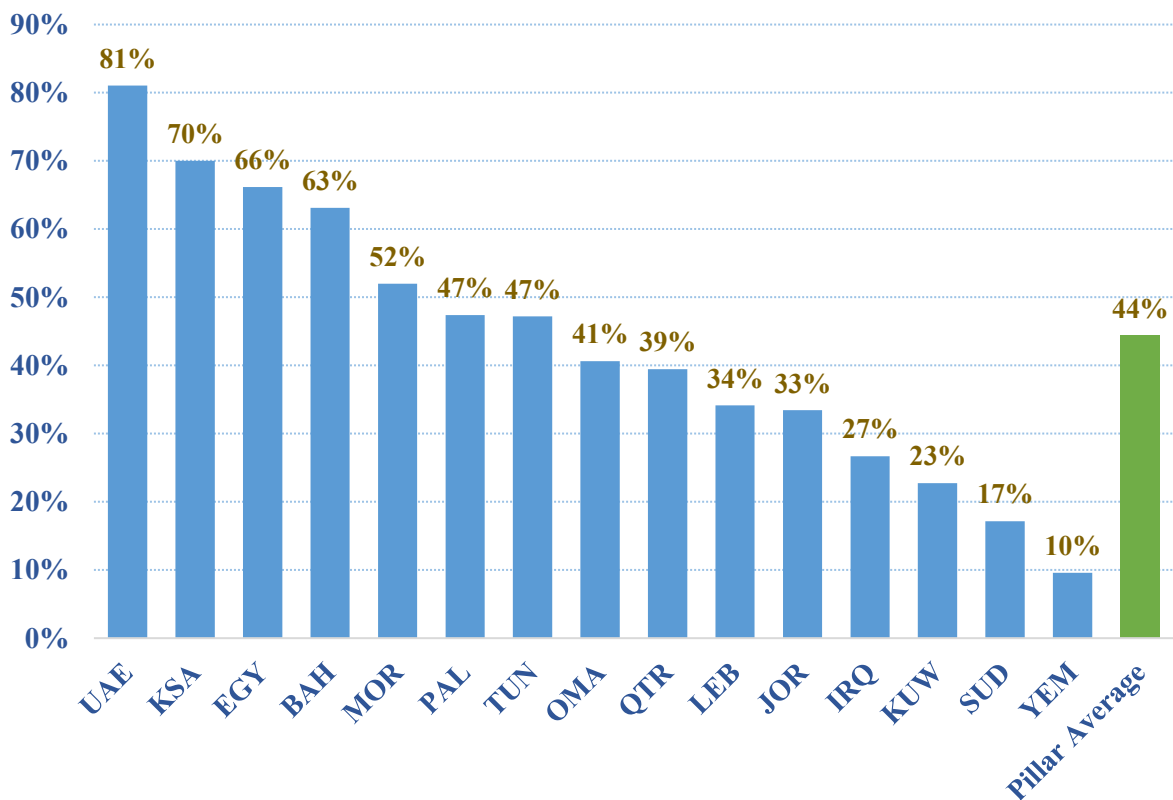**Figure (5): Demand side pillar in FinxAr index**

Figure (5) shows the UAE and Saudi Arabia topping the group ranks, as the UAE is characterized by utilizing several initiatives to promote the employment of digital financial services and the accompanying technologies thereto. Saudi Arabia is characterized by the increased access to finance and the number of the global information network users, and mobile phones and smart devices users' ratio as a percent of the population. Both the UAE and Saudi Arabia have Fintech hubs at the national level, which act as accelerators or incubators for financial innovations, as well as awareness programs about digital financial services. In addition to the increase in the number of Fintech companies that entered the Fintech field over the past three years (2018-2020).

The UAE is also characterized by incentives for Fintech companies, such as tax incentives and reduced expenses, in addition to an increase in the number of initiatives aimed to employ innovative financial products and services such as

business facilitators, strengthening the financial, information, and communication technology infrastructure, innovations in payment services, and updating the legislative structure to encourage financial innovations.

Egypt succeeds the UAE through launching an initiative to promote youth innovations in financial products and services, the national strategy for digital financial education, awareness campaigns on digital financial services, and the provision of a Fintech association that enhances the role of awareness, education and cooperation within the stakeholders in the Fintech industry. In addition to initiatives in the field of innovations in payment services to promote the demand for digital financial services.

Bahrain is also characterized by an increase in the number of Fintech companies that entered the field over the past three years (2018-2020), as well as an increase in the number of initiatives aimed to employ innovative financial solutions, in terms of creating a digital regulatory sandbox that can be deployed at the regional and international levels, employing Digital ID, and a national level Fintech hub. In addition to strengthening the financial, information and communication technology infrastructure, innovations in payment services, and modernizing the legislative structure to encourage financial innovations.

Morocco follows with a regulatory institutional framework responsible for the national financial education program within a clear framework of governance. In addition to awareness programs on mobile payments, and support for digital payments innovations, and tax privileges and reduced expenses for emerging Fintech start-ups.
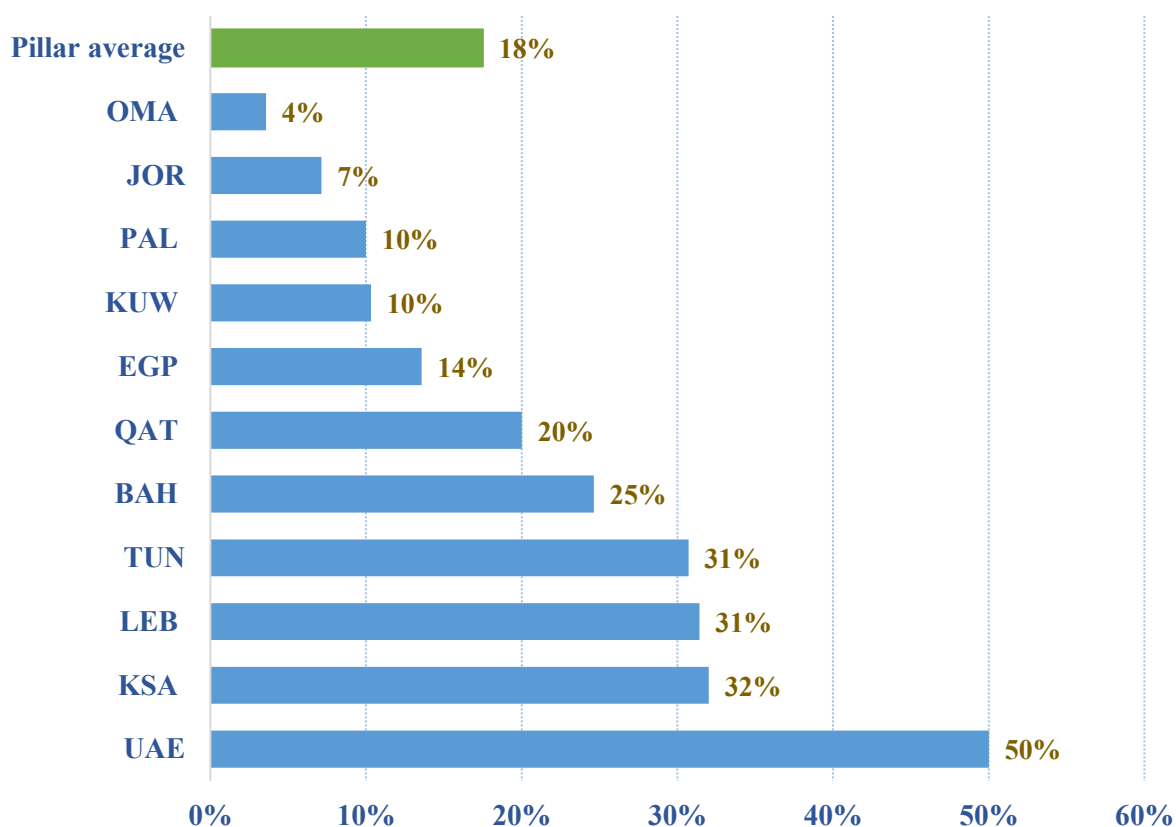
Third: Funding Index

This pillar pivots on the country's initiatives to support providers of innovative financial solutions and services in accessing financing, including new Fintech

companies and emerging start-ups, as well as the extent of funding received by the Fintech sector from banks, the amount of lending by financial institutions and banks to Fintech companies, and the incentives for financial institutions to lend to these companies. In addition to the volume of investments directed to the Fintech sector in general, and to Fintech companies in particular.

Figure (6): Funding Pillar in FinxAr index

The UAE is clearly distinguished from the rest of the Arab countries in the finance index with a 50 percent score that can be attributed to the increase in the number of initiatives for financing the Fintech sector in general, and start-ups and entrepreneurs in particular, through funds established by both national official authorities such as the Ministry of Finance, or global financial hubs located within the country. In addition to the increase in the volume of investments directed to the Fintech sector and the start-ups therein to approximately between $30 and $44 million during 2018 and 2019.
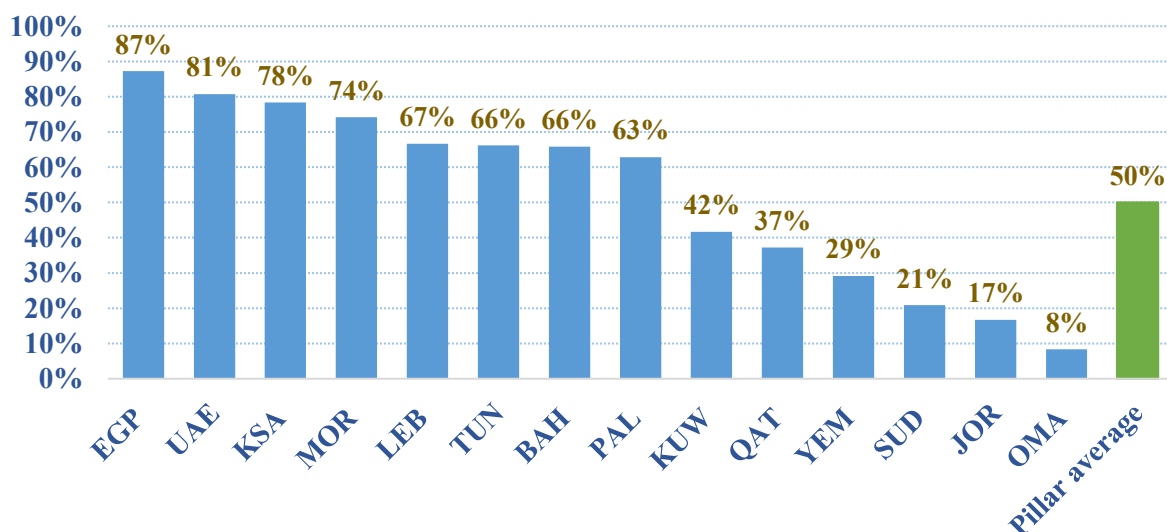
Saudi Arabia succeeds the UAE with 32 percent, followed by Lebanon and Tunisia with 31 percent each. Saudi Arabia is characterized by a number of initiatives to attract investors, including a program to promote investments in Fintech start-ups and accelerate their innovations. Whereas Lebanon has as an initiative by the Banque du Liban with an amount of $600 million, to encourage banks to invest in emerging Fintech companies and start-ups, as well as business incubators and accelerators with a 75 percent guarantee by the Banque du Liban. Whereas the initiatives in Tunisia are focused on establishing funds at the national level to finance start-ups operating in the Fintech sector.

Fourth: Talents Index

The talent development pillar covers countries' efforts to develop the capabilities of talents, whether entrepreneurs or students, in addition to capacity building of the regulatory and supervisory authorities' cadres. This pillar deals with the various country initiatives in this regard, and various events and competitions, including competitions and hackathons, whether at the national or the universities' level, to generate financial innovations. This is along with the training and capacity development programs received by the cadres of regulatory and supervisory authorities, at both the international and regional levels.

Figure (7): Talents Pillar in FinxAr index

Egypt ranks first in the talent development index with 87 percent, followed by the UAE in second place with 81 percent. This can be attributed to the launch of the FinYology initiative that is inclusive of entrepreneurs, as one of the national Fintech strategy programs, sponsored by the Central Bank of Egypt and in cooperation with universities, and from which several other initiatives have emerged, e.g., Fintech educational curricula. In addition to supporting the capabilities of the supervisory and supervisory authorities' cadres through vocational training programs, in cooperation with regional and international institutions. Whereas the UAE launched a hackathon at the national level for various topics, including Fintech issues, and training programs sponsored by regulatory authorities.

Saudi Arabia and Morocco succeed the said countries with 78 and 74 percent rates, respectively. The efforts in the Kingdom of Saudi Arabia are characterized by an annual training program to develop capabilities and attract the best talents to work in the Fintech field of the financial sector.

The common denominators of the group of countries leading this index are organizing competitions at the national level to promote financial innovations and raise the capabilities of digital financial solutions and products owners, in addition to organizing several events to develop capabilities and raise awareness across various Fintech fields.

Fifth: Financial Markets Infrastructure Index

This index pivots on the efforts and initiatives of Arab countries in upgrading the financial market infrastructure and the extent of progress thereof. The pillar reviews the current financial markets infrastructure systems and the requirements for compliance thereto, as well as the initiatives of different countries to enhance the infrastructure of information and communication technology (ICT) in general and digital payments in particular. This is in addition to efforts to digitalize government payments, the

interoperability between systems and networks, and the enabling infrastructure for remote customer onboarding, as well as identifying the extent to which Fintech is employed in settlement, clearing, trading, alternative financing platforms, and the accompanying regulatory framework.

Figure (8): Financial Markets Infrastructure Pillar in FinxAr index
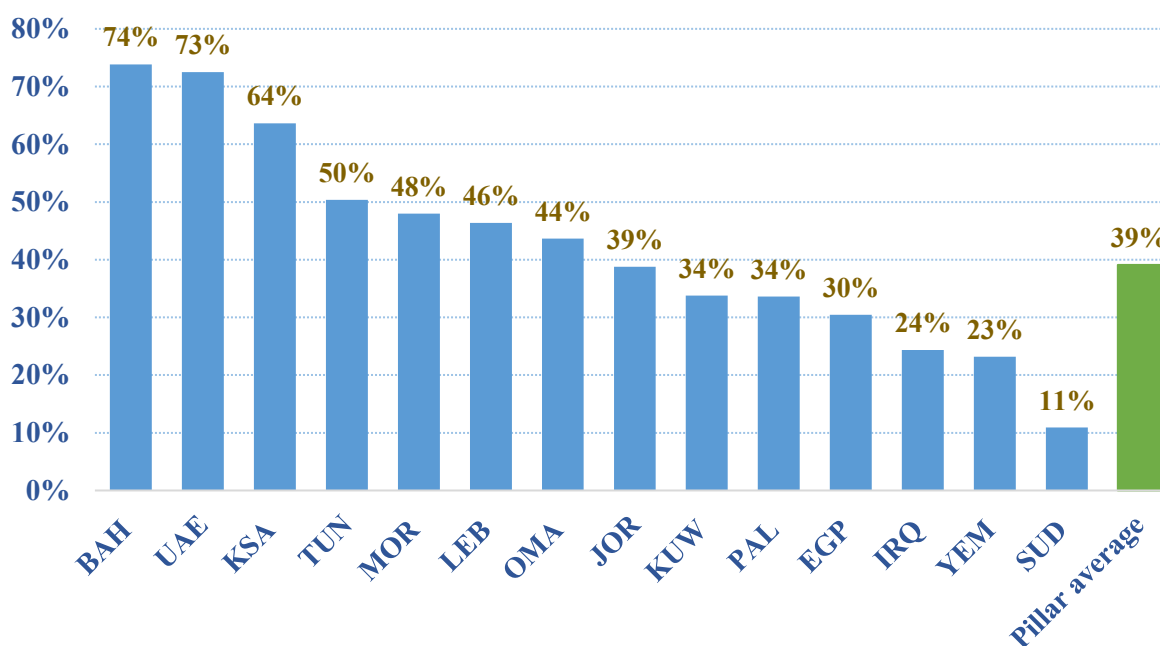

Figure (8) shows Bahrain and the UAE once again leading the financial markets infrastructure pillar with 74 and 73 percent rates, respectively, which can be attributed to Bahrain's increase in the number of current payment infrastructure systems, the employment of a national platform for electronic know-your-customer (eKYC) linked to Digital ID, in addition to the digitalization of the government payments system, whether between the government and individuals or from the business sector to the government. Whereas the UAE is distinguished in its initiatives of financial market infrastructure and information and communication technology, through adopting initiatives and platforms for financing trade, supply chains, and digital enrolment of bank customers. Both countries share an increase in the number of financial technologies used in trading,

payments, and settlement, i.e., APIs-DLT-AI- Cloud, in addition to interoperability between payment systems and networks, the applicable standards, and regulations governing alternative financing platforms.

Saudi Arabia ranked third with 64 percent benefiting from the accomplishment of the government payments system between the government, individuals and the business sector. This is along with the increase in the number of financial technologies used in trading, payments, and settlement, the interoperability between payment systems and networks, as well as the applicable standards, and regulations governing alternative financing platforms.
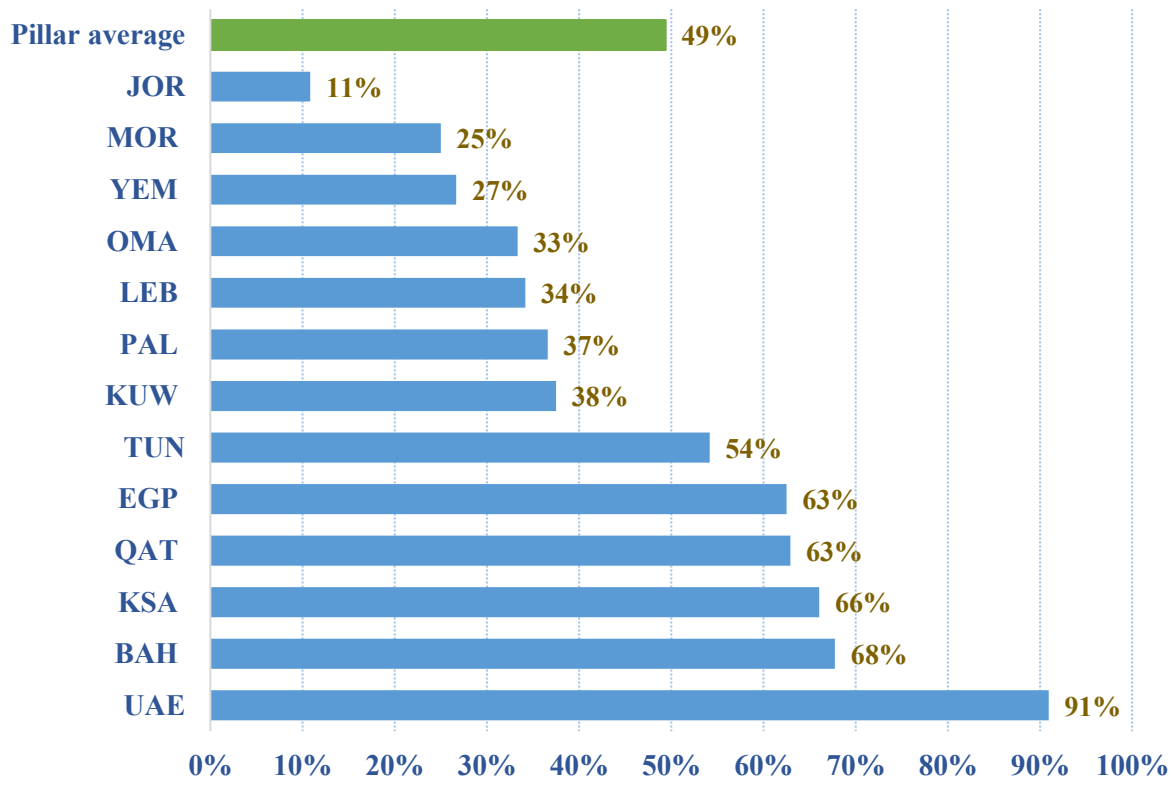
Tunisia ranked fourth with 50 percent, which reflects the distinguished Tunisian experience in the field of legislation related to the citizens' digital ID and the related technical specifications, in addition to the digital platform for customer due diligence rules.

Sixth: Collaboration and Partnerships Index

This index underscores on cooperation at the local level within Fintech industry stakeholders, and between stakeholders and similar bodies at the regional and international levels. It also includes partnerships between financial institutions and Fintech companies.

Figure (9): Collaboration and Partnerships Pillar in FinxAr index

The UAE ranked first in the cooperation and partnerships index, as shown in Figure (9), benefiting from the cooperation between regulatory authorities and their counterparts at the regional and international levels and with international institutions, in initiatives related to the Central Bank Digital Currency (CBDC) or global Fintech hubs, to test various solutions, especially those based on blockchain or Distributed Ledger Technology (DLT), as well as unifying efforts at the national level to consolidate the current regulatory tests. Furthermore, supporting partnerships between financial institutions and Fintech companies, and raising their number in various areas, i.e., know your customer digital rules, digital ID, SME financing platform, trade finance using DLT, CBDCs, and regulatory and Regtech/Suptech solutions. Also, the establishment of business accelerators within financial institutions to provide innovative financial solutions. In addition to a partnership between local authorities to use DLT in enforcing contracts.

Bahrain, Saudi Arabia, Qatar, and Egypt followed in the second to fifth ranks, respectively, with descending rates ranging between 68 percent and 63 percent. The common factors of these countries are their efforts to enhance the partnership between financial institutions and innovative financial solutions providers, in particular, digital payment platforms, electronic know-your-customer regulations, and Regtech/Suptech solutions, in addition to cooperation with central banks at the regional and international levels on some of the Fintech issues.

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