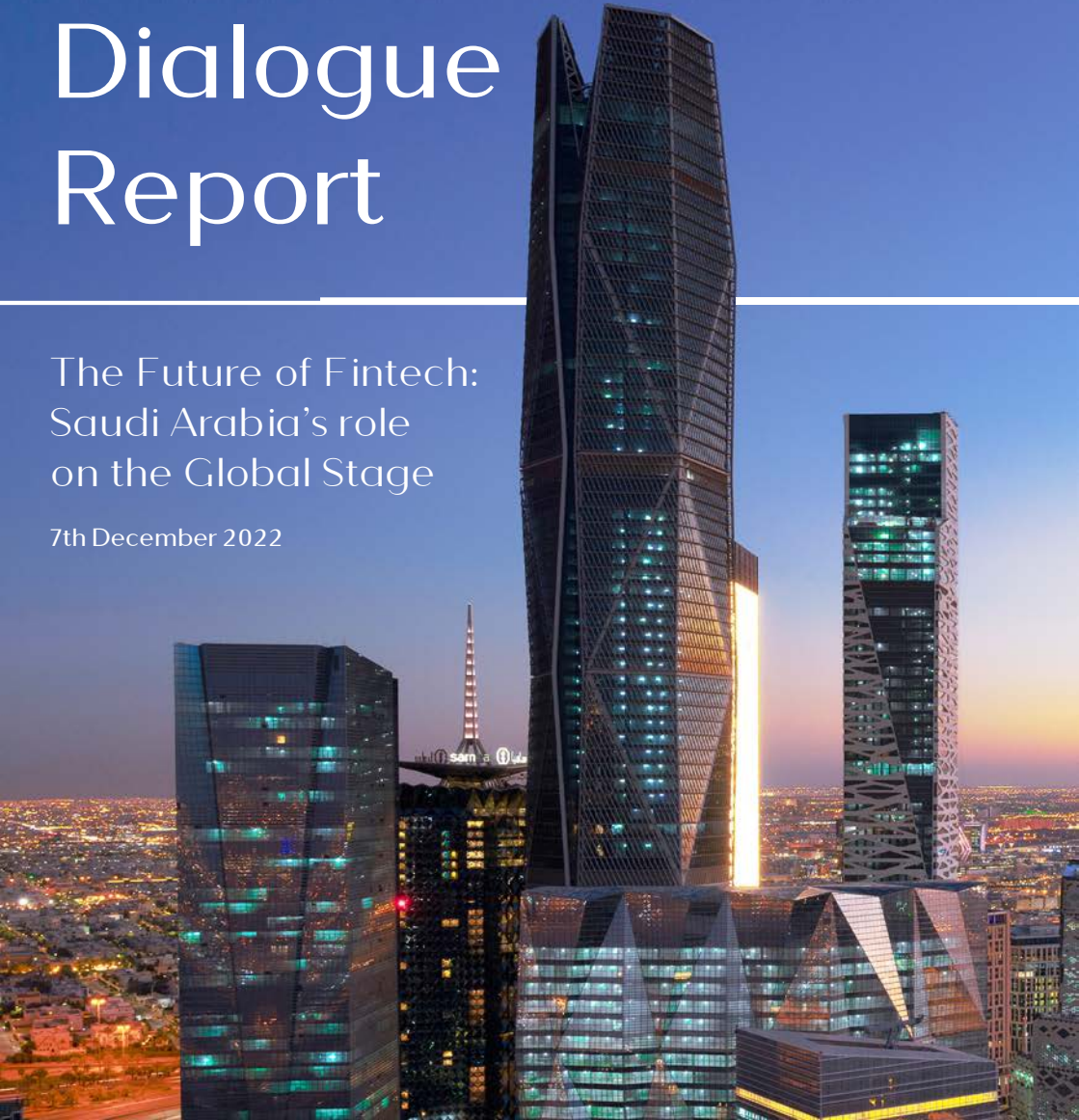


KAFD Dialogue Report

The Future of Fintech:
Saudi Arabia's role
on the Global Stage

7th December 2022



Introduction

KAFD Dialogues, a private quarterly series, aims to drive forward global discussion on the latest critical challenges facing businesses and their leaders. Its mission focuses on promoting honest and candid discussions between international and Saudi business leaders. The conversation aspires to enhance knowledge and understanding on how to navigate emerging opportunities and obstacles within the global business landscape.

The Second KAFD Dialogue, The Future of Fintech: Saudi Arabia's role on the Global Stage, took place on 7th of December 2022. Sharing their insights and outlooks, HE Khaled Al-Dhafer, Vice Governor for Supervision & Technology at the Saudi Central Bank (SAMA), and Nick Ogden, an early pioneer of fintech and founder of WorldPay, ClearBank, and most recently RTGS.global, participated in an off-the-record discussion moderated by Asia House Chief Executive Michael Lawrence. CEOs and senior executives representing over 40 leading Saudi and international businesses attended the Dialogue.

Despite the strict confidentiality of all discussions at the KAFD

Dialogues allowing participants the freedom to exchange highly useful and frank point of views, this Dialogue Report examines the key themes covered and provides focused analysis of the topics discussed. The report aims to increase knowledge and understanding of the issues at hand by the Saudi Arabian business community and the international business society. This document offers an in-depth look at the context in which the dialogue was held, emphasizing on the recent initiatives Saudi Arabia took to transform itself into a global fintech hub. It also offers recommendations to be taken into account for the development of regulators and businesses in the Kingdom's fintech sector.



Key findings of the Dialogue

1. Fintech can overcome 'financial friction' and boost economic growth

An important benefit that fintech can offer to the global economy lies in the reduction of 'financial friction,' and its associated costs. Financial friction relates to the time and costs incurred when making, receiving, and settling payments. The greater the time to settle transactions, the greater the uncertainty and risks for businesses, which imposes costs on the global economy.

Potential risks include foreign exchange rate movement and settlement risk - the danger that a bank liable for paying becomes insolvent just before a transaction is completed or fails to complete its end of the contract. Estimates suggest that financial friction could cost the global economy US \$15 trillion (SAR 56.38 trillion) per year.

Fintech can help overcome financial friction by enabling greater transparency and speed in settlement clearances. For example, in terms of cross-border payments, liquidity visibility can increase confidence in transactions between banks and Central Banks. Central Banks and regulators oversee liquidity within their markets, and as a result, greater transparency and visibility can increase their oversight. Liquidity visibility can also reduce systemic risk within the global economy by reducing the risk of speculative runs on global banks. Fintech can also increase the speed of financial transactions, in turn reducing risk in addition to labour and time deployed by Banks to clear transactions. Regulators have a role to play in creating new core financial structures that can reduce financial friction and move the market forward.

2. Fintech poses a challenge to traditional banks by giving consumers greater choice

Fintech has transformed and deepened the Kingdom's financial services sector, giving Saudis, SMEs, and corporations greater choice in terms of saving and borrowing solutions. While promoting greater competition within the Kingdom's economy, traditional banks must adapt to ensure they are not left behind. At the same time, the onset of digital banking in Saudi Arabia will further increase consumer choice, and pose a challenge to traditional banks - to adapt their operations for improved sustainability and with a more cost-effective approach as digital banks require less physical infrastructure and labour.

Moreover, payments in the Kingdom are increasingly digital. A recent SAMA study notes that electronic payments accounted for 62% of all payments in 2021, increasing

from 44% in 2019. The growing uptake of digital payments in Saudi Arabia is supporting the development of digital banks: there are now three digital banks licensed to operate in the Kingdom. In 2021, Saudi Arabia issued the first two digital banking licences to STC Bank and Saudi Digital Bank, and this was followed by a third licence being granted to D360 in February 2022. In fact, the KAFD Development & Management Company (KAFD DMC) has an MoU with STC Group which includes the joint development of STC Pay cards designed specifically for KAFD.

This is amplified by the growth in insure-tech and Buy Now Pay Later (BNPL) where the number of products available to consumers are expected to increase over the next decade, offering end customers greater choice and financial inclusion. In BNPL for example, services could expand from retail, into services relating to education and rental property.



Key findings of the Dialogue

3. Saudi Arabia's introduction of Open Banking will increase competition and efficiency

One important recent development has been the introduction of SAMA's Open Banking Framework. Introduced in November 2022, this framework includes requirements, guidelines, and best practices for both traditional banks and fintechs to introduce Open Banking.

Open Banking enables customers to share their data with third party financial service providers through APIs, allowing the development of bespoke services and products. This also increases competition within the financial services sector by

enabling both banks and non-banks to access customer accounts and data (provided customers give their consent) and offer new products and services.

Furthermore, Open Banking can raise efficiency within the economy by enabling frictionless transactions settled instantaneously and by providing real-time credit, in turn improving financial inclusion. Entrepreneurs and SMEs will likely benefit from the growth in Open Banking as it will boost cash flow through faster payment settlements and improve access to tailored loans. Saudi Arabia will soon begin to issue open banking licences and has already allowed several fintechs to test open banking in the regulatory sandbox.



4. Supportive regulation and sandboxes are crucial to fintech growth

Supportive regulation is crucial to facilitate fintech growth. Both SAMA and the Capital Market Authority (CMA) have been active over the last few years in terms of introducing regulations and granting licences for start-ups to operate in regulatory sandboxes. In the last three years alone, some of the regulations introduced include Payment Services Provider Regulations (PSPR) (January 2020), digital banking (February 2020), microfinance (Dec 2020), crowdfunding and crowdlending (2021), BNPL (October 2021), and Open Banking (November 2022).

In its capacity as both a regulator and a business development agency, SAMA occupies a unique position compared to other Central Banks. Balance is needed between these two roles, with financial stability being the regulator's most important consideration. Sandboxes offer regulators options to encourage entrepreneurship and innovation as they enable start-ups to live-test their products and platforms in a controlled environment. Sandboxes also benefit regulators by increasing confidence in the overall fintech ecosystem as they also highlight potential problems and errors that regulation can resolve. As of September 2022, there were 42 permitted firms operating under SAMA's Regulatory Sandbox and 30 companies in the CMA's FinTech Lab.

Key findings of the Dialogue

5. Saudi Arabia has several advantages that can assist fintech growth

Saudi Arabia's youthful population, where over two-thirds of its 35 million population are aged under 35, makes the Kingdom ripe for entrepreneurship and technology adoption, encouraging growth in the fintech sector. As such, fintech solutions already have a high level of penetration within the Kingdom, creating fertile ground for innovation. Today, 94% of Saudi payments are contactless – the highest rate in the MENA region, and higher than many advanced economies. For

example, the rate of contactless payments in the EU and Hong Kong is 80% and 79%, respectively. Saudi Arabia also has the highest proportion of e-commerce customers in the Gulf region, but there is room for growth in internet banking where the penetration rate stands at 41%, compared to 59% in the UAE. The steady growth has been amplified by the clear agenda set out under Vision 2030's Financial Sector Development Program (FSDP) that has assisted regulators, with fintech development being elevated to become a new pillar under the FSDP in May 2022.

6. Developing talent is crucial, particularly to encourage female participation in fintech

43% of Saudi fintechs say their biggest challenge is talent and recruitment, highlighting the importance of developing the necessary skills within Saudi Arabia's labour force. Fintechs do not just require financial services skills, but also skills in the suite of fintech-enabling technologies such as cloud computing, data storage and analytics, AI, APIs, blockchain, IoT, biometrics, and cybersecurity. Saudi Arabia has inaugurated several institutions to develop talent and encourage entrepreneurship, including Monsha'at and Fintech Saudi.

Headquartered at KAFD, Fintech Saudi was launched by SAMA in April 2018 and acts as an accelerator for fintech, organising short courses, bootcamps, internships, and workshops to upskill the labour force. Simultaneously, Fintech Saudi also supports entrepreneurs and start-ups on their growth journeys, producing policy papers on the Kingdom's fintech architecture while managing its own fintech accelerator and jobs portal. The Fintech Saudi hub at KAFD provides the basis for an ecosystem where fintech entrepreneurs, technical experts, investors, and clients can come together in a creative environment to develop new ideas, driven by the dynamic market for fintech in the Kingdom.





Key findings of the Dialogue

7. Saudi fintech growth will increase the necessity of effective data governance

As Saudi Arabia's fintech sector grows, so too will the volume of customer data. The onset of open banking will also increase the number of institutions that can access this data. This creates the need for Saudi Arabia to have robust data infrastructure that protects the integrity of rising volumes of consumer financial data. For the regulator, the key challenge is to ensure consumer privacy and protection, whilst ensuring any regulations are not so stringent that they hamper innovation and growth. Ultimately consumers need to have confidence their data is protected when utilising fintech platforms and that any data that is shared between institutions, for example, through

open banking, is adequately protected.

Another consideration for the regulator in terms of cross-border data exchanges lies in the need to maintain a balance between maintaining national competitiveness, and encouraging growth and innovation by enabling entities to share data beyond its borders. Saudi Arabia's forthcoming Personal Data Protection Law (PDPL) will come into effect on 17th March 2023 and will enhance data sovereignty in the Kingdom, while introducing new obligations on businesses for managing and processing data, as well as informing customers how their data is being used.

On the other hand, according to the International Labour Organization (ILO) female economic participation in Saudi Arabia has increased from 20% in 2017 to 31% in 2021. This can be mirrored and advanced in the fintech sector to further encourage its growth through dedicated mentorship and leadership programmes that develop female talent. One notable example of efforts in this regard is a training programme launched by Saudi fintech and payments platform, Geidea, in November 2022, in partnership with the London Institute of Banking and Finance. The resulting 'GeideAct' course is a part-time six-week programme which will begin in February 2023 and is open to women in tech, fintech, or financial services. Addressing the gender investment gap is another important means of increasing women's participation in Saudi Arabia's fintech sector. According to research conducted by the Boston Consulting Group,

women receive significantly less investment – on average US \$1 million - than men in early-stage funding, despite the fact that women-founded businesses realise higher revenue than male-founded businesses. There are numerous female-founded tech firms in the Kingdom today, with prominent examples being the holiday home booking app, Gathern; fashion styling app, Taffi; and recruitment tech start-up, Sabbar. Greater investment in female-founded firms can encourage further entrepreneurship and female participation in the economy. One promising venture is the Blossom Accelerator, Saudi Arabia's first female-focused accelerator that aims to provide female founders with a network, training, and curated investment opportunities out of its Jeddah offices.



8. Technology as a driver of fintech

Several technologies are crucial to fintech's development and growth. Cloud computing and data storage were identified as particularly important technologies, but Artificial Intelligence (AI), Application Programming Interface (API), blockchain, IoT, biometrics, and cybersecurity, also have a part to play in the fintech ecosystem. Following are short descriptors of these key developments and their impact:

Cloud computing

can reduce costs for fintech start-ups by providing IT services and data storage at a fraction of the cost required to build and maintain in-house infrastructure.

Data storage and analytics

is also fundamental for fintechs since it enables firms to understand their customers and tailor products to suit their needs. It is also necessary for credit scoring and compliance through 'Know Your Customer' (KYC) checks and Anti-Money Laundering (AML) regulations.

AI

can be used to interrogate fintechs' data and create actionable insights and bespoke products for customers. Financial institutions will need to adopt and prioritise AI within their operations in order to improve performance and compete with technology firms. As AI develops more banks will incorporate it into their offering through the automation of manual tasks, chat interfaces, and robo-advisors, in turn reducing headcounts and other labour costs. AI will also see the development of No-Code Development Platforms which will enable general users rather than software developers to develop apps. As a result, McKinsey estimates that AI can generate up to US \$1 trillion in additional value for the global banking industry annually.

APIs

are sets of protocols and definitions that allow applications, and their host devices, to connect and communicate with one another. They can help enhance user experience for customers and are enabling recent trends within fintech, such as open banking and embedded finance.

Blockchain

or Distributed Ledger Technologies (DLT) have several applications in fintech, including facilitating instant settlements, removing intermediaries from financial dealings to enable peer-to-peer transactions, distributed data storage, zero-knowledge proof, and issuing smart contracts that are implemented automatically when conditions are met. All this can help businesses save time and money. Blockchain is also key to several recent innovations in fintech including digital assets, digital wallets, and Decentralised Finance (DeFi). Similarly, DeFi can replace intermediaries, making it possible to obtain loans and trade without relying on financial entities under centralised management.

Biometrics

can enhance security by utilising customers' unique biological data, such as fingerprints and facial patterns, to verify users' identity, control access to banking platforms, and authorise transactions.

Cybersecurity

is crucial to protecting the computer systems, software, data and networks utilised across the entire fintech ecosystem.

Saudi Arabia is investing in these technologies through the creation of governing bodies to manage and encourage their development. These have been supplemented by important new entities: the Saudi Data and Artificial Intelligence Authority (SDAIA) was established in 2019 to develop big data analytics and upskill Saudi Arabia's population, whereas the Saudi Company for AI (SCAI) is a PIF-owned fund that invests in developing AI in the Kingdom. Most recently, SCAI announced a US \$206 million (SAR 774 million) investment with China's SenseTime to build an AI lab.



Biometrics

Founded in 2008 by entrepreneur Abdullah Al-Othman, Geidea today is one of the MENA region's largest fintechs. Introducing its first Point of Sale (POS) terminal in 2013, Geidea has capitalised on Saudi Arabia's digital payments boom and now boasts over 75% of the Kingdom's market share for POS terminals (over 700,000).

Geidea has demonstrated that to succeed in fintech, hardware must be complemented by software and commercial services. With a particular focus on the F&B sector, the company launched its 'Geidea Merchant Business' (GMB) in 2019, offering POS solutions for restaurants, as well as a platform that provides customer data analytics and tracks staff performance/payroll, in turn offering efficiency gains for Geidea's customers. Geidea currently services over 150,000 merchants, including international brands and local SMEs.

Today, Geidea processes over 5 million transactions daily, roughly one-sixth of Saudi Arabia's total transactions, and a number

that is likely to grow as Saudi Arabia's economy continues to digitise. Geidea has demonstrated the importance of securing investment in order to facilitate expansion. In 2018 it was acquired by leading private equity firm, Gulf Capital in a 1 billion SAR deal. 2021 saw Geidea begin its regional expansion into the UAE and Egypt - a market of over 100 million people with strong potential for digital payments growth.

In March 2021, Geidea became the only non-bank institution to be granted a license from SAMA to process end-to-end payment solutions, enabling the company to continue innovating. It was the first fintech in the region to develop an app-based contactless phone POS solution, enabling SMEs to quickly and securely take payments using their Android phones without the need for a terminal.

The rapid progress made by Geidea highlights the potential for growth within Saudi Arabia's fintech sector and the potential for Saudi fintechs to eventually expand into new regional markets.

9. CBDCs will be a part of the future, but the future for cryptocurrencies is less certain

Central Bank Digital Currencies (CBDCs) will likely be a feature of the global economy, but central banks will vary in terms of whether they produce retail CBDCs which can be used by everyone and wholesale CBDCs for financial institutions that hold reserves with a central bank. The People's Bank of China is an example of a central bank focused on developing retail CBDCs. Retail CBDCs can promote financial inclusion and reduce costs associated with the printing, transporting, and handling of cash. Saudi Arabia, with a good platform and infrastructure for payments, is focusing more on the development of wholesale CBDCs to underpin the financial system. Overall, wholesale CBDCs can improve efficiency and security in payments and securities settlement between Central Banks and financial institutions.

2022 has been a difficult year for cryptocurrencies, with the market losing around US \$2 trillion in 2022 and Bitcoin losing over 60% of its value. In May 2022,

stablecoin Terra failed to maintain its peg to the US dollar, leading to a 99.9% crash in Terra and its sister cryptocurrency Luna. Stablecoins are a vital component of the cryptocurrency ecosystem as they link cryptocurrencies to mainstream assets denominated in fiat currencies and allow traders to maintain their portfolio's value in between trades. This episode contributed to reduced investor confidence which coupled with Central Bank interest rate rises, put downward pressure on digital asset prices. The 2022 cryptocurrency market correction has reduced trading and fees, and forced digital asset firms to downsize or file for bankruptcy, including Three Arrows Capital, Voyager, BlockFi, and Celsius.

However, the highest profile bankruptcy has been of the world's second-largest cryptocurrency exchange, FTX. At the beginning of 2022, FTX was valued at US \$32 billion, but the firm eventually failed to maintain liquidity after concerns were raised over its governance and financial health, leading to its collapse. Turmoil in the digital assets space has undermined investor sentiment and confidence and increased calls for regulators to intervene and protect consumers.



Key findings of the Dialogue

10. Encouraging entrepreneurialism and the need for capital

Investment is critical to grow fintech start-ups. To achieve its goal of reaching SAR 12.2 billion (around US \$3.25 billion) in cumulative venture capital investment by 2030, the Kingdom needs to encourage greater venture capital liquidity, foreign investment, and more Saudi entrepreneurs to establish start-ups. It is important to note that fintech failures and bankruptcies are inevitable and are an important part of delivering innovation.

Investment in Saudi fintechs has grown significantly over the last few years. Between September 2021 and August 2022, SAR 1.5 billion (approximately US \$400 million) was invested into the sector, representing an increase of 11% from the previous year.

The largest recent investment was Western Union's US \$200 million investment into STC Pay for a 15% stake in 2020. This transformed the firm into the first unicorn in Saudi Arabia

and third in the Gulf, with a valuation of US \$1.33 billion. The largest funding rounds in 2022 have been for Foodics (SAR 637.5 million; US \$170 million), Tamara (SAR 375 million; US \$100 million), and Lean (SAR 123.75 million; US \$33 million).

Foodics is a cloud-based restaurant tech and payments platform with whom KAFD DMC signed an MoU in October 2022 to integrate its technology with KAFD's points of sale for F&B and retail. Payments are the most popular area of investment for start-ups, accounting for close to 93% of all venture capital invested in 2021. However, there is room for further growth. In 2021, the median deal size in Saudi Arabia stood at US \$2.7 million, compared to the global median deal size of US \$7.3 million.

But attracting investment will be made more challenging by the weak outlook for fintech investment at the global level.

Fintech funding slowed considerably in 2022. Fintech start-ups raised just US \$13.4 billion globally in Q3 2022, down 64% from the all-time-high in Q4 2021. As the global economic backdrop looks gloomier, valuations for fintechs are also down. Just 8 new fintech unicorns were created in Q3 2022, compared with 53 in the same period last year. But with lower valuations we may see an uptick in M&A activity as investors look to take advantage of low prices.

Saudi Arabia's vision for fintech growth can support the Kingdom's drive, under Vision 2030, to encourage entrepreneurship, the aim of which is to increase the contribution of SMEs to Saudi GDP from 20% to 35% by 2030. Fintech can offer SMEs more cost-effective financial solutions than traditional banks and alternative sources of lending and capital.

For example, Saudi Arabia's General Authority for SMEs (Monshaa'at) has noted an 884% increase in SME borrowing through

crowdfunding, with funding secured through Saudi fintechs such as Lendo and Tamweel Aloula.

As fintechs grow, there will be further opportunities for more investors and founders to sell shares and boost liquidity. The development of Saudi Arabia's Capital Markets will also help encourage more fintechs to eventually go public. For example, in October 2022, Sure Global Tech, which runs SurePay listed on Nomu, Saudi Arabia's parallel market. The company indicated it would allocate 1.28 million shares at US \$19 per share, representing a 25% stake in the firm.

In September 2022, the CMA approved a regulatory framework for equity crowdfunding, which will encourage more fintechs to operate in this area and will benefit SMEs looking for alternative means to raise finance.



Conclusion: The future of Saudi fintech

There is enormous potential for Saudi Arabia's fintech sector to grow over the next few years, provided talent continues to be developed and the Kingdom continues to attract investment. As of November 2022, there are 147 fintech companies operating in the Kingdom, a 79% increase since 2021. Fintech can increase innovation and competition within the financial services industry, encouraging productivity and growth. Saudi Arabia aspires to have 525 fintech companies in operation by 2030, aiming to attract SAR 12.2 billion (around US \$3.25 billion) in cumulative venture capital investment into the sector, and to create 18,000 fintech jobs. To achieve these goals, the Kingdom will need to introduce and hone regulations to facilitate fintech growth, develop talent and skills, encourage the adoption of technologies underpinning fintech, and attract more capital to support fintech start-ups.

Saudi Arabia currently has about 4.32 fintechs per million people. By comparison, in 2021 the US and UK had 21 and 26 fintechs per million, respectively. Saudi Arabia's ambitions to have 525 fintechs in operation by 2030 would mean around 15 fintechs per million people. There are several bright spots that should encourage growth in Saudi Arabia's fintech sector, including the onset of Open Banking, the creation of new institutions to encourage technology and fintech adoption, and the development of Saudi Arabia's Capital Markets offering more established fintechs the opportunity to raise funding. However, the negative global economic outlook may complicate the near-term future of fintech development in Saudi Arabia, and investment may have to originate from within the Kingdom.

One key future development on the horizon which Saudi fintechs will need to prepare for

is Saudi Arabia's new Personal Data Protection Law (PDPL) which will come into effect on 17th March 2023 and will be regulated by SDAIA. The PDPL will enhance data sovereignty in the Kingdom and introduces new obligations on businesses for managing and processing data, as well as informing customers how their data is being used.

There are implications for Saudi Arabia's broader economy as the fintech sector develops. Regulators have a crucial role in creating new core financial structures that can reduce financial friction and move the market forward. Fintech growth will not only increase competition within the financial services industry and benefit consumers, but it will also drive greater productivity and growth. In addition, the adoption of fintech will encourage greater financial inclusion within Saudi Arabia and boost SME growth. As Saudi fintech grows, there will be opportunities for local firms to expand into regional and international markets.

Recommendations

- The global economy requires new core financial structures to move the market forward and reduce financial friction through greater liquidity transparency. There is an opportunity for Saudi Arabia to take the lead.
- With global investment in fintechs slowing down, Saudi fintechs should look to secure funding from domestic sources.
- Saudi fintechs will need to prepare for Saudi Arabia's new Personal Data Protection Law (PDPL), to ensure they keep to their obligations under the new law.
- Support for Saudi fintechs is needed at every stage of the start-up process. This underlines the need for proactivity in the Kingdom's fintech space with incubators, investment matching, networking events, and tech competitions, all playing a critical role in attracting investment.
- For burgeoning Saudi fintechs, scaling up is crucial with the most important consideration being to instigate good systems and processes within their firms. At the same time, Saudi fintechs should also be prepared to scale down if an attempt to scale up is unsuccessful.
- Government policies that further encourage female economic empowerment should be championed by fintechs as a means of encouraging fintech growth. Saudi fintechs should also look at what programmes, training courses, and initiatives they can introduce to encourage female participation in the fintech sector.

If you would like to attend future dialogue sessions at KAFD please express your interest to the following email address: kafd.dialogue@kafd.sa

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