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THE FUTURE OF FINTECH IN THE MIDDLE EAST 2023

MIDDLE EASTERN AMBITIONS DRIVE THE DIGITAL GULF

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FINTECH IN THE MIDDLE EAST: ARE WE ENTERING A NEW ERA?

An expert view from Paymentology



Nauman Hassan, Regional Director, Paymentology

The Middle Eastern banking and payment landscape is in the midst of an evolution. The advent of new technologies such as artificial intelligence (AI), blockchain, big data and cloud computing, as well as the increasing demand for more convenient, secure, and faster payment methods, is spurring many established financial institutions to invest heavily in their digital capabilities.

By partnering with fintech firms to develop innovative solutions, the focus has shifted from an industry that

is driven by a network of branches, operations, and debt, to one that prioritises back-office transformation and takes a more customer-centric approach.

The era of simplified payments is upon us and the financial ecosystem — which, in 2023, is made up of telecommunications firms, retailers, and fintech firms, to name a few, are all competing for their share of the market. However, financial services providers must be as innovative and tech-savvy as their customers, ensuring that they are providing products that operate on digital-only models, are mobile-first, and focus on user experience.

Today's customers require digital-first, mobile-first, and UX-first financial services as non-negotiables. According to the OECD, 55% of the population in the Middle East and North Africa (MENA) are under the age of 30 – the age group that I like to refer to as the 'Instagram and Tiktok generation.' However, according to **The World Bank**, around 1.4 billion adults remain unbanked around the world, a dramatic figure given that 2.8 billion people reside in the MENA region.

A significant proportion of the Gulf Cooperation Council (GCC) population are expatriates, which may explain why a substantial number of remittances flow from this region to developing or emerging countries. With such a diverse group of potential customers with varying needs across the Middle East, fintech firms must work to leverage this untapped opportunity.

To stay ahead of the curve, many established banks are investing heavily in their digital capabilities and partnering with fintech companies to develop innovative solutions.

The world of banking is undergoing a rapid transformation, with telcos, retailers, and fintechs all competing for a share of the market. The rise of neo-banks, or digital-only banks, has been a significant driver of this trend, as they have disrupted traditional banking models and opened new possibilities for customers. As a result, many companies outside of the banking industry have started to explore opportunities in this space.

Al is shifting the retail payments ecosystem

Neobanks offer a clear success story for the fintech industry, proving rise of neo-banks, or digital banks have disrupted traditional banking models and opened new possibilities for customers. Beyond intuitive interfaces, faster services and personalized offerings, the increased use of AI and machine learning tools are helping neobanks to set themselves apart from competitors.

For instance, AI/ML tools can refine and enhance data analysis across the retail payments sector, allowing nimble neobanks to rollout expedited and customised services at a pace that is often not feasible for legacy incumbents.

Early adoption of AI/ML tools will allow financial institutions to position themselves effectively for a mobile-first digital world, which will place the user's specific needs and desires at the heart of its online ecosystem.

These trends explain why neobanks are gaining popularity among retail customers in the Middle East, as the ability to offer a range of digital banking services such as account opening, online payments, and money transfers through a seamless customer experience immediately sets neobanks apart. Notable neobank players in the region include UAE-based Wio and the Saudibased D360.

Recently, the Middle East has become a hotbed for digitisation and an ideal location for expansion by those in the payments sphere. There is a massive effort to shift economies away from heavy reliance on government spending

and the energy sector, and toward economies spurred by diversified private sector investments leading to lower volatility and increased sustainability. This has helped to foster healthy FinTech ecosystems in the region.

Al and cloud regulations are emerging

The adoption and usage of AI is part of several national visions across the Middle East and in my view, the region is ahead of the game and companies based in the region are trendsetters, rather than followers. There are multiple entities that have been formed to specifically deal with technologies such as AI, and even cloud.

In Saudi Arabia, for instance, we have the Saudi Data and Artificial Intelligence Authority which was established to oversee the eight AI initiatives and development policies. These authorities are responsible for promoting regulations, launching tools, and granting licenses to fintech firms.

As far as AI is concerned, this is very clear cut. However, with blockchain, while the likes of the UAE central bank launching its own cryptocurrency, it's more in line with working shoulder to shoulder with the rest of the world. In this case, business ventures are being considered, as well as providing sandbox environments to those fintech firms that create solutions to contribute to the economy.

More skilled IT people are needed for emerging technology to thrive

With the Middle Eastern population being mostly made up of expatriates, the region has been lucky regarding IT talent. However, it is a very competitive environment, but understanding payments is a niche skill and what I regard as a science. Hiring fintech experts is a challenge because fintech itself is always evolving.

Compared to five years ago, the skill set of those in the payments desert of the Middle East has drastically improved due to government-led initiatives. In addition to this, as greater talent emerges, just by being around these skilled employees, those without that foundational knowledge will learn new skills. With each new startup that is established, more people will want to experience the status of working for a company that creates technological solutions to long-standing problems. While a lot of investment is going into various private sectors, I could see the region gradually tilt the balance to become the hub of all payments activity. There's a lot of scope and a focus on reshaping the way the entire digital payment system is set up.

02 INTRODUCTION

In 2020, a research paper was released titled 'Statistical models and stochastic optimisation in financial technology and investment science' by Tze L. Lai, Shih-Wei Liao, Samuel P. S. Wong and Huanzhong Xu. This report explored how after the global financial crisis of 2008, the utilisation of technologies such as artificial intelligence (AI), blockchain, cloud and data resulted in the fintech industry boom. These technologies are now referred to as the "cutting-edge" or "ABCD" of fintech.

A growing number of players within fintech are benefitting from automation, particularly those that ensure that these technologies are a central part of processes and operations. The report read: "AI is assuming an increasingly important role in traditional banking as it provides technologies such as voice recognition, natural language processing, and computer vision for user-account management and fraud detection, machine learning methods and deep learning networks for anti-money-laundering and credit modeling."

While AI is used for a number of uses, financial institutions and fintech firms alike must be constantly reviewing how best they can use AI to provide an efficient customer service, and whether consumers trust the products they are using. The report continued to comment on how "financial systems have long operated on the basis of trust, for which banks and governments have served to provide top-down control of monetary value.

"Now, however, bottom-up 'trust-machines' are emerging through blockchain technology to provide immutable shared ledgers to exchange information digitally and determine value by consensus, as exemplified by bitcoin and other cryptocurrencies." While trust is the cornerstone of the fintech industry, there are still reservations around the use of particular technologies. Blockchain, for instance, could be used to establish a sharing economy, new online marketplaces or to simply optimise transactions and improve efficiency and security.

Cloud, on the other hand, has seen accelerated uptake and fintech firms are migrating processes to the cloud to achieve efficiency, security, agility, and

scalability. In line with this, the report furthered that "mobile and internet payment systems are closely connected to cloud computing. The past ten years have witnessed increasing adoption of cloud computing by financial institutions around the globe. As a highly regulated industry, there are many challenges for the financial industry that handles sensitive personal information to use cloud computing for core business processes such as credit risk management and customer services."

Further to this, for digital banking, digital payments, personal finance, lending, and investment – the fintech industry as a whole – data is the most important source for the analysis of financial products and services, bridging the gap between security and satisfaction. Many companies, countries and regions have forged ahead in leveraging data, cloud, blockchain and AI. One such region is the Middle East, which has seen exponential growth with an influx of fintech startups being established, the Islamic banking industry boom and increasing internet and mobile phone usage.

Statista projections revealed that there would be 465 fintech companies established in the Middle East by the end of 2022. Alongside this, the United Arab Emirates (UAE) is leading the charge in regard to fintech in the region with 30 companies as of 2015, followed by Egypt with 17 and Jordan and Lebanon with 15 fintech startups each. Within the Middle East, digital payment was the most direct service used by banking customers in the region and the fintech adoption rate is especially high amongst younger people and has increased steadily due to the increased usage of smartphones.

This surge of innovation also encouraged the traditional banking sector to push forward with full scale digital transformations or launch digital banks that can operate under established bank's licenses. To name a few, these include lia by Bank ABC, Liv by Emirates NBD, meem by Gulf International Bank, Neo by Mashreq and Now by CBS. The opportunity across fintech in the Middle East is vast, but certain niches are also increasing in popularity.

For instance, in 2017, there were 1,389 sharia-compliant financial firms worth a combined \$2.4 trillion in assets in 56 countries and the Islamic finance industry grew 11% YOY because of fintech growth in the Middle East, according to **Reuters**. The article continued to reveal that Islamic banks continue to retain the lion's share of the industry, accounting for 71% of total assets, but growth remained muted at 5%, with consolidation pressures mounting in the Gulf and Southeast Asia.

Statista also found that while the majority of Islamic fintech companies are based in the United Kingdom, followed by Malaysia and the United Arab Emirates, only nine Islamic fintech companies are based in Saudi Arabia.

Saudi Arabia has the largest market for fintech services with \$17.9 billion, while the net largest market for Islamic fintech services was in Iran worth \$9.2 billion.

If the Middle East leverages technologies such as AI, blockchain, cloud and data, the region's fintech firms will only prosper across the digital banking, digital payments, personal finance, lending, and investment sectors. This report which compiles expert insights from a range of firms, including: provides predictions for the future of fintech in the Middle East.



THE MIDDLE EAST AIMS TO BECOME AN AI TECHNOLOGICAL HUB

The Middle East has seen rapid technological advancement and digitalisation over the past couple of decades. The region has blossomed into a tech hub, with Gulf nations establishing sophisticated technological frameworks. In the development of AI innovations, the Middle East is rising on the global scale, yet governance is localised and growth in concentrated in a few countries.

The Middle East as a region is laser-focused on becoming the next AI hotspot. **PwC** predicts that the Middle East will amass 2% of the global benefits of AI by 2030, which is around \$320 billion. The study estimates that Saudi Arabia will contribute most from the region at \$135.2 billion. The predicted annual growth for in the contribution of AI per year is 20-34% for the region.

The rapid adoption of AI technology in gulf economies is seen in the technological growth of the UAE, Saudi Arabia, and Qatar. Other Middle Eastern countries are in process of building up AI frameworks but are operating at a slower pace. Both Saudi Arabia and the UAE are in the top 50 countries ranked in the Global Innovation Index. The diagram below displays the AI strategies that have been laid out in gulf nations.



Source: **Deloitte**

Al initiatives highlight national priorities

The International Data Corporation (IDC) found that the greatest area for growth in the AI sector in the Middle East is in the financial sector. Following the financial sector, other large areas for AI adoption include education and healthcare, followed by the manufacturing industry.

Abdulla Almoayed, founder and CEO of Tarabut Gateway, remarks that Saudi Arabia and the UAE are leaders in the region. He adds: "AI has the potential to support operational growth in various sectors, such as healthcare, education, transport and energy. Clear upsides include improving productivity, enhancing efficiency, and enabling cost savings."

The UAE is a space of rapid innovation, having formed an AI strategy for growth in AI technology and talent, the 'National Artificial Intelligence Strategy 2031'. The UAE is predicted to see AI contributing \$100 billion to its economy by 2023, nearly 14% of its GDP. Omar Sultan Al-Olama, UAE minister for AI stated that the UAE has formed an agreement with Oxford University to send executives and officials for an 8-month course to learn the value of AI.

Within the UAE, Dubai is making strides towards AI adoption in its **initiatives** to ensure digital transformation such as the Smart Dubai strategy, Dubai Autonomous Transportation strategy, and the Dubai 3D Printing strategy. All of these initiatives aim to build on implementation of AI in the public sector and using technology to construct a more efficient and sustainable city.

Nameer Khan, chairman of the MENA Fintech Association and founder at FIL, notes that the UAE is utilising AI to address sustainability and climate change issues. Khan cites the UAE's National Program for AI and Digital Transformation as an initiative to apply AI strategies to safeguard the environment.

AI in the Middle East is largely focused on robotics and customer communication through banking assistants. The first AI banking assistant in the region has been developed by Emirates NBD, a chatbot called Eva. Robo-advisory has seen growth in the region, with more UAE-based banks developing chatbot technology and looking for financial solutions through behavioral science and artificial intelligence.

Jayesh Patel, CEO of Wio Bank, states that his institution is in the process of employing data and digital algorithms to simplify operations, such as opening bank accounts and customer service.

He refers to ChatGPT as an inspiration and a push to evolve their chatbot technologies: "Although ChatGPT is still in its infancy, it has the potential to revolutionise industries by automating the code-building process, simplifying customer journeys, and adding value to the national economy. As AI continues to evolve, it has the potential to unlock even more commercial benefits and add value across a wide range of sectors."

Middle East governments are making moves towards AI regulation

AI regulation in the Middle East is still catching up to the rapid development of AI technologies. Noting that there is not an international standard for AI governance, the Middle East, similar to other regions, is still in the process of gaining its bearings in the area of AI regulation and enforcement.

Almoayed remarks: "Measured AI regulation needs to keep up with technological development and investment levels, without stifling innovation. Given the lack of rapid movement in the world's most powerful countries on AI regulation, there is definitely scope for the Middle East, with its very technology-savvy countries, to draft its own sensible regulations and lead the way."

However, similar to AI adoption, Saudi Arabia and the UAE are currently ahead in terms of establishing governance. In 2020, Saudi Arabia launched the National Strategy for Data and AI to boost AI research. In the UAE, the Dubai International Financial Centre has collaborated with the UAE Council for AI to launch an AI and coding license. Abu Dhabi also established an AI Centre of Excellence in 2022 to drive AI-based solutions and bolster business partnerships and government participation.

Dhriti Nath, product manager at NOW Money, notes on regulatory progress: "Governments in the Middle East are taking steps to support the growth of the fintech payments ecosystem. For example, the Central Bank of the UAE launched a regulatory framework for digital payment service providers, and the Saudi Arabian Monetary Authority introduced a regulatory sandbox for fintech startups."

Almoayed goes on to observe how the UAE and Saudi Arabia are making notable progress in the area, and that Bahrain is also establishing AI regulatory guidelines.

Patel states: "The UAE have proactively encouraged businesses, inventors, and educators to become early adopters of AI through their policies and initiatives such as Mohamed bin Zayed University of Artificial Intelligence (MBZUAI) and the UAE AI & Robotics Award for Good. As the AI sector matures and the UAE strives to meet their goal of becoming a world leader in this area as part of the of the National AI Strategy 2031, I would expect regulations to keep a pace."

The Middle East needs a customer-focused retail payments agenda

There are a wide range of areas in which AI tools can be used, but in the retail payments sector financial institutions are focused on enhancing customer service and protecting transactions. The greatest benefits from adopting AI strategies in Gulf countries are determined to be improving decision-making within public services and resource industries and enhancing customer services in the retail and banking sectors.

A research paper by **Deloitte** found that while Gulf countries are eager to integrate AI into their economies, they are struggling to implement it. It stated that line managers are finding difficulties in understanding AI mindsets and deploying new models. Patel states: "It is still in the nascent stages, but AI tools have the power to shift the narrative in the customer's favour."

Saeed Albuhairi, CEO of Tweeq, explains that there are several ways in which AI is being implemented in the Middle Eastern retail payments ecosystem:

- **1.** "Fraud prevention: AI algorithms can analyse large volumes of data to identify fraudulent transactions and prevent them from being processed;
- 2. Personalised marketing: AI can analyse customer data to provide targeted marketing campaigns, which can increase customer engagement and lead to more sales; and
- **3.** Payment security: AI-powered security systems can help to secure online transactions and detect potential threats before they become a problem."

He continues that a whole wave of new possibilities for AI application are presented through chatbots such as ChatGPT which could offer customised consumer recommendations, interactive financial planning, constant customer support, and automated account management.

Financial institutions are focused on streamlining their services in the Middle East, with heavy investment in predictive analytics, fraud prevention, customer personalisation, and chatbot services. AI spending in the MENA region is estimated to reach \$3 billion in 2023.

Khan cites statistics from a report released by the MENA Fintech Association, stating: "95% of consumers in MENA are considering emerging payments such as wearables, biometrics, digital wallets and currencies, and QR code (in addition to contactless) and 65% of consumers have tried new payment methods in the last year. Furthermore, in the next year, 55% plan to use QR codes, 49% plan to use biometrics, 52% plan to use cryptocurrency, and 66% plan to use digital wallets. In fact, 61% of surveyed consumers said they would avoid businesses that do not accept electronic payments of any kind."

Digital payments have seen massive growth in the region, with digital payments transactions in the UAE increasing 9% between 2014 and 2019 annually, and Saudi Arabia seeing a 70% boost in card payments between 2019 and 2020, in part due to the pandemic.

The young, tech-savvy population in the Middle East contributes to the rapid adoption of new technologies and the integration of digital payment methods. The payments ecosystem in the Middle East is seeing a surge in fintech adoption, collaborations between fintechs and banks, and smartphone penetration.

Commenting on the new payment schemes emerging in the region, Jorge Camarate, partner with Strategy& and the leader of the Financial Services practice in the Middle East, and Dr. Antoine Khadige of Strategy& Middle East and part of the PwC network, observe: "By 2030 financial transactions are projected to grow annually at double digit rates therefore commending advanced capabilities spanning from fraud detection systems to advanced credit decisioning systems. The region's leading processors are already investing in use cases such as predicting customer credit card behavior and defaults, reducing false debit and credit card declines and machine learning based fraud detection."

Their remarks indicate that the retail payments industry is picking up in the region, and AI is a vital cog in the machine.

As a region, the Middle East is becoming more prevalent in the global AI industry and moving towards becoming an innovative technology powerhouse. Nath sums up the trajectory retail payments sector: "Overall, the fintech payments ecosystem in the Middle East is dynamic and rapidly evolving, driven by a range of factors including the region's large and youthful population, increasing digitalisation, and supportive regulatory environment."

While governance is still in process of being developed and many technologyforward initiatives are still in their early stages of implementation, the region is expected to become a key player in the global AI industry and is looking to integrate more AI technologies throughout Middle Eastern societies.



OPPOSING PRESSURES DOVETAIL TO SPUR BLOCKCHAIN GROWTH IN THE MIDDLE EAST

There is an interesting two-pronged dynamic at play which is arguably giving the Middle East's blockchain market a unique edge. On one hand, in certain countries across the region, cryptocurrency has seen strong appeal from users looking to access anti-government money. With a large number of authoritarian regimes, sanctioned countries and untamed inflation, it's clear to see why crypto would gain a strong foothold in the region. On the flip side, certain governments are actively creating innovative regulatory frameworks that aim to reinvigorate and modernise financial markets – attempting to evolve the market into a legitimate hub for crypto firms to thrive.

Abu Dhabi, UAE and Bahrain, for instance, have been welcoming of blockchain technology, going above and beyond to work with crypto companies and to build regulatory frameworks that are assisting to usher in the technology. Saudi Arabia, though initially opposed to the uptake of the technology, appears to be taking a more favourable stance.

John D'Agostino, a senior adviser to Coinbase, was quoted by **Politico** in 2022 explaining this pressure: "Where you see less trust in government you see more aggressive blockchain adoption, where you see more trust you see less[...]The exception is the UAE, in that you have a very trusted, respected government that is being extremely progressive about installing blockchain solutions at the government level."

Nameer Khan, chairman at MENA Fintech Association and founder of FIL, agrees that Middle Eastern governments have played a crucial role in driving blockchain adoption. "For instance, Saudi Arabia and the UAE led the way in the MENA region's AI and blockchain revolution, with a joint \$1.1 billion fund for AI and blockchain projects. Saudi Arabia's Vision 2030 highlighted how important blockchain was for economic diversification and technological advancement. When governments lead from the front it is a strong indicator towards the economic potential ahead."

Meaningful interest around blockchain adoption seems to have first taken hold in Gulf states during 2016. At the time, Bahrain was focused on assessing the legal implications of blockchain technology, and building the required supervisory frameworks it would need within financial services. The UAE was focused on the current and future uses of blockchain across government, commercial and financial services.

Middle Eastern governments give blockchain the green light

By 2018, the UAE launched the Emirates Blockchain Strategy 2021, which aims to transfer 50% of government transactions to blockchain by 2021. In 2016, Dubai's government established the **Global Blockchain Council**, aiming to research current and future blockchain applications and transaction systems. The Council has already succeeded in establishing new firms that specialise in blockchain platform design for smart contracts development, digital asset exchanges and digital document transfers.

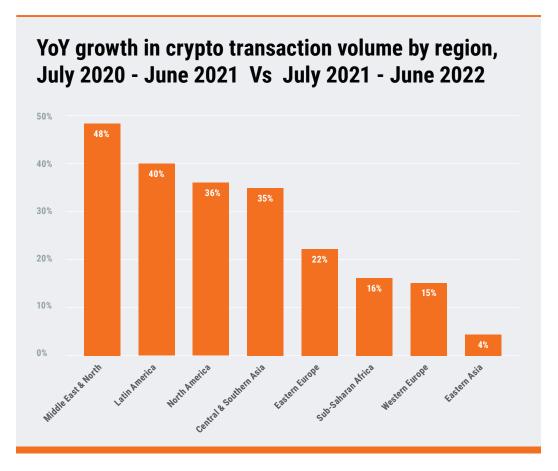
Jayesh Patel, CEO of Wio Bank, explains that "with the support of governments across the region who are openly experimenting with the technology and sharing the benefits it can provide over traditional technology processes, we're likely to see more and more sectors implement the technology soon." Patel adds that governments in the MENA region are increasingly leveraging blockchain technology to improve and streamline public services, as well as in the private sector, whether it's in real estate or banking, to optimise business processes.

The UAE has been a global leader in blockchain innovation since they established the Emirates Blockchain Strategy in 2018, and the UAE Central Bank recently announced plans to launch its own digital currency, central bank digital currency (CBDC). Saudi Arabia has also been an early adopter as part of the Saudi Vision 2030 national programme, with plans to integrate blockchain technology in the country.

However, increasing crypto uptake hasn't been seen by all as a positive evolution. The **UN Trade and Development Body (UNCTAD)** has called for action to curb cryptocurrencies in developing nations. The agency has warned that while the use of some digital currencies has been beneficial for some individuals and institutions, they are an unstable asset which can bring social risks and costs. It went even further as to say that their benefits are overshadowed "by the threats they pose to financial stability, domestic resource mobilisation, and the security of monetary systems."

Rapid crypto growth attracts private and public investment

Jorge Camarate, partner at Strategy& and leader of the Financial Services practice in the Middle East, states that the Middle East may be one of the smaller crypto markets by size, however, recent data from Chainalysis suggests that the region exhibited the fastest growth rates in 2022. The Chainalysis data Camarate is referring to can be seen in the graph below, which shows strong year-on-year growth in crypto transaction volume in the Middle East and North Africa.



Camarate elaborates that Middle Eastern regulators have extensively leveraged "lessons learned" to introduce regulations that strike the right balance between promoting innovation and protecting consumers. "In fact, the Emirate of Dubai has adopted its first crypto law and formed the first independent virtual asset regulatory body.

"More recently, in April 2023, the Central Bank of the UAE launched its Central Bank Digital Currency implementation in partnership with R3 and G42. Earlier this year, Saudi Arabia's Capital Market Authority announced that regulations for Security Token Offerings (STO) will be out in 2023. Also, NEOM Tech & Digital, a subsidiary of the \$500 billion signature Saudi megacity NEOM, has rebranded itself as Tonomus as it plans to invest more than \$1 billion into the metaverse."

According to Patel, what makes the Middle East such an attractive option for blockchain firms and investors is that governments across the MENA region have introduced initiatives and legislation to support growth, enable innovation, and protect investors in the industry. A clear of this example is the Dubai Virtual Asset Regulation law, Patel explains, which was passed last year to protect investors in the space and act as a global benchmark for others to govern the virtual asset industry. "Continuous efforts like this to build a stable regulatory environment are likely to boost investor confidence in the region and help to promote long-term growth in the crypto and blockchain sector."

The Middle Eastern financial services industry and fintech is embracing blockchain

Financial institutions in the region embraced blockchain for various applications, explains Khan, with cross-border payments, trade finance, and identity verification a handful of examples.

"Some of the fintech startups made remittances more efficient using blockchain, cutting costs and streamlining processes. The booming crypto market in the region also spurred further blockchain adoption in the financial services industry."

The Central Bank of UAE as a part of the recently announced Financial Infrastructure Transformation (FIT) programme, has said a digital currency was one of a list of nine projects, which also includes the country's first card payment platform - an instant payments system.

Khan explains: "Plus, cross-collaboration between Middle Eastern governments have been establishing initiatives to push towards a cashless society. For example, the central bank of the UAE is working with the Saudi Arabian Monetary Authority (SAMA) to issue a joint digital currency accepted in cross border transactions between two countries, using blockchain and distributed ledger technology."

Demographics and geography set the scene for blockchain adoption

The strategic location, growing digital economy, and supportive regulatory environment play a huge part in making the Middle East attractive to blockchain/crypto firms and investors. Khan states that the fact that the region was also the fastest-growing crypto market in the world caught the attention of investors and businesses alike. "The MENA region topped the world in crypto adoption, with an incredible 500% growth add \$566bn in volume by crypto users between 2020 and 2021."

Research from the **OECD** shows that young people constitute over half (55%) of the population across MENA, compared to 36% of the population in OECD countries. In fact, across most of the Middle East and North Africa (MENA) region, people from 15-29 years of age constitute nearly one-quarter (24%).

As the region boasts a comparatively young and tech savvy population, Camarate argues that its state of art digital infrastructure and increasingly progressive regulators will position it as the go-to-hub for blockchain-based financial innovation. He adds that use cases around savings and remittances have emerged in countries with fluctuating currencies, such as Egypt and Turkey, where devaluations are strengthening the appeal of crypto for savings preservation.

It is a "unique blend of factors" that make the Middle East an attractive option for startups and investors looking to grow their businesses and tap into new and emerging markets according to Dhriti Nath, product manager, NOW Money. "Along with its strategic location it is home to a growing market of over 400 million people with a business-friendly environment with favourable regulations, tax incentives and low barriers to entry for startups and investors." Nath also points out that the Middle East is a home to a growing number of high-net-worth individuals and sovereign wealth funds, providing startups with access to capital to fuel their growth.

The Middle East's blockchain landscape presents a unique and promising opportunity. Cryptocurrencies have gained popularity in the region for distinctively contextual reasons, in parallel, governments in countries including the UAE, Bahrain, and Saudi Arabia have actively embraced blockchain technology and established innovative regulatory frameworks.

The region's strategic location, growing digital economy, and supportive regulatory environment make it an attractive destination for blockchain firms and investors, and financial institutions and fintech startups are increasingly finding ways to leverage blockchain in their offerings.

With young and tech-savvy populations, advanced digital infrastructure, and government support, the region is poised for further advancements in blockchain adoption. As the Middle Eastern blockchain market continues to evolve, it has the potential to become a prominent player in the global blockchain landscape, attracting increased investment and fostering innovation.



CLOUD CONNECTIVITY IS AT THE CENTRE OF MIDDLE EASTERN FINTECH INFRASTRUCTURE INNOVATION

Alongside Dubai and Bahrain, Saudi Arabia has repeatedly been highlighted as a digital banking leader in the Middle East, with 76% of banking customers using online or mobile applications. According to McKinsey, top Saudi digital banking offerings include loyalty programmes (53%), mobile discount coupons (51%) and virtual prepaid debit cards (50%). Gartner also highlights that banking and security firms will invest \$12 billion into technology over the next 10 years, important to note due to recent launches of public cloud data centres in the region. However, the Middle East market has been a cloud laggard in comparison to other regions. While the area is known to play catch up quite efficiently, recent developments could accelerate this drive and put the Middle East back on the cloud map.

Digital transformation has become a formidable, yet necessary task – particularly for legacy players in the fintech industry, but neobanks and challenger banks need to ensure they keep pace with everchanging technology trends in order to meet the needs of the underserved or unbanked. Digital upstarts that provide branch-less digital and mobile application functionality, budgeting and saving tools, quicker and easier loan approval for businesses, low-cost international transfers and ATM withdrawals can serve a range of underserved consumers, from the expat community to the migrant worker.

To achieve this, financial services providers either need to be born in the cloud or place cloud connectivity at the centre of their infrastructure innovation. While most neobanks and challenger banks were well equipped when lockdowns and social distancing was implemented across the Middle East, the Covid-19 pandemic increased interest in the cloud and paved the way for rapid implementation of the technology.

Financial services providers – banks and fintech firms - need to be able to pivot, fail and expand at the speed of need, but also, generate revenue and become profitable, particularly because investment is directed into companies that can transition from proof of concept to mass-market growth. Fintech companies have proved that mass-market growth is achievable and are now providing other financial service entrants with a blueprint of how to scale exponentially.

Unburdened by traditional banking technology and physical branch networks, Middle Eastern neobanks and challenger banks are flourishing within the startup industry by offering digital alternatives. Furthermore, with a high millennial population, these offerings are highly anticipated, especially as these institutions are considering cultural differences and launching community-based digital banks, rather than focusing on the individual.

Regional cloud providers still have opportunity to succeed across the Middle East

In addition to the impact of the pandemic, government spending on smart city and public administration projects as well as increased access to data centre and managed service providers have contributed to the Middle East's growing use of cloud. While regional technology vendors and fintech companies are looking to expand to meet the demand for cloud services, global cloud providers such as Microsoft Azure, Amazon Web Services, Oracle, and IBM have set up across the Middle East and are supporting the likes of Alibaba and SAP.

Nameer Khan, chairman at MENA Fintech Association and founder at FIL references 2021 IDC data and explores how regional and hyperscale providers are keeping up with demand. "IDC projected that public cloud services investments in the Middle East and Africa region would reach \$1.4 billion by 2024. Providers like Injazat have partnered with global tech giants like Microsoft, which announced a \$1 billion investment in the UAE's cloud services ecosystem to accelerate digital transformation and address the growing demand for cloud services."

Jayesh Patel, CEO of Wio Bank, added that there are still opportunities for local and regional cloud providers to succeed. "The growth and adoption of cloud computing in the future will be driven by data privacy and security, which will play a significant role. As countries continue to adopt more AI technologies and keep up with the digital revolution, citizen privacy is becoming an increasingly critical issue. This presents an opportunity for local and regional cloud providers to better serve their customers.

"The long-term cost benefits of running on the cloud still need to be clearly understood, which is another opportunity for local and regional cloud providers to provide more cost-effective services. However, as the needs of businesses differ, they will opt for different providers. More scalable global companies might prefer global players, but companies with more consumer data or those that require more localisation might prefer local reputable players who understand the local landscape better."

Cloud regulation could support cloud computing across Middle Eastern borders

The cloud's affordable processing power and extensive data storage options is a necessary option for the developing nations across the Middle East. However, challenges persist for both banks and fintech firms such as the time and subsequent downtime needed when migrating to the cloud, security enhancements required for cloud to be efficient, as well as the legality of cloud use across borders.

In some cases, hosting data outside of national borders is prohibited and in future, regulation may be needed before innovation can occur at scale. Steps are being taken in the right direction. For example, initiatives like Bahrain's cloud-first policy, the UAE Vision 2021, Saudi Arabia's Vision 2030, and the New Kuwait Vision 2035 encourage governments to utilise cloud. In addition to this, after adopting the Cloud First Policy in 2019 to promote cloud adoption throughout the public and private sectors, Saudi Arabia has seen a 16% increase in the use of cloud services. By 2030, there might be a \$10 billion market for cloud services in the Kingdom.

In Khan's view, "regulation can support cross-border cloud computing in the Middle East by harmonising data protection laws, ensuring data privacy, and promoting open standards for interoperability. The UAE's National Program for AI and Digital Transformation, for example, works to set regulations to encourage digital transformation in the country."

Patel has a similar perspective and advises that "regulations should ensure that the cloud infrastructure is up to par and always available to the required standards. Secondly, clear, and consistent guidelines can reduce barriers to entry for cloud service providers, foster competition, and promote innovation. However, one of the most critical areas where regulators can help is with data privacy. Regulatory frameworks can ensure the security and privacy of data, which is vital for building trust in cloud computing solutions."

He continues: "As more countries develop regulations around data privacy, hosting data locally becomes critical. This situation could result in data being hosted in every country or creating partnerships where data is located in one or two countries. Regulators will need to collaborate with regional counterparts to develop a viable commercial model that enables data to be resident regionally as well as locally in some cases."

IT talent and skills availability is a major obstacle for cloud adoption across the Middle East

According to **IDC**, the Gulf's lack of IT talent and skills availability is a major challenge for 45% of organisations when it comes to cloud management. Dhriti Nath, product manager, NOW Money states that the lack of IT talent and skills availability can be a major challenge for organisations when it comes to cloud management. "It can lead to inefficiencies, security risks, and an inability to take full advantage of the benefits of cloud technology. To address this challenge, organisations may need to invest in training and development programmes or consider partnering with third-party service providers with the necessary expertise to manage their cloud environments."

Patel adds that there is a global surge in demand for qualified IT talent. "However, the UAE has invested heavily in building its technology talent pool. We have two sources of talent: locally grown talent that is emerging from the universities in the region, and those who are attracted to the UAE's favorable social, entrepreneurial, and commercial opportunities. While the global demand for technology talent is high, the UAE has done a good job of building talent organically and creating an environment that attracts global talent to the country. I believe that investing in local talent development, providing training opportunities, and creating an environment for growth at workplaces, is critical to building a sustainable digital economy in the UAE."



ACCESS TO INCREASED DATA CAN ENHANCE CUSTOMER EXPERIENCE ACROSS THE MIDDLE EAST

Data plays an important role for the growth of fintech in any region. It can help financial services participants understand their customers' needs and is used to protect users from bad actors. Access to better data can also improve customer interactions because of increased analysis capabilities. As regions like the Middle East begin to develop their payments capabilities, the ways in which data is leveraged need to be protected. Increased amounts of customer data require increased levels of data privacy and greater protection of customer data from security risks.

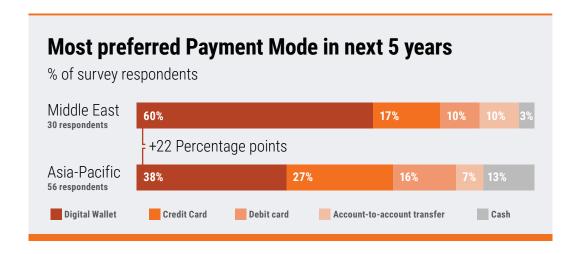
The Middle East is a region with rich fintech potential. Many countries in the region are pursuing more open data initiatives like open banking. As these progress and develop, they will offer plenty of opportunities to the fintech market, but there will also need to be vigilance over data security and privacy.

Data can support the Middle East's underserved and unbanked

The region has seen some recent developments in payments patterns brought on by the Covid-19 pandemic. An example of this is the UAE, where a **YouGov** poll found that 63% of residents viewed it as positive for the country to be cashless.

Jayesh Patel, CEO, Wio Bank comments on this move towards the digital: "Since the onset of the Covid-19 pandemic, there has been a significant global shift from cash to digital money. This shift has opened up opportunities for fintechs to serve markets that were previously underserved. Some of these FinTechs are smaller start-ups while others are larger, more established players like e-money that can provide better financial inclusion."

Many areas in the Middle East are still reliant on cash, which raises concern for financial inclusion. However, Abdulla Almoayed, founder and CEO of Tarabut Gateway, argues that "the region's regulators are implementing various digital initiatives to improve financial inclusion, given the heavily cash-focused society. One approach is introducing digital payments across the public and private sectors; allowing better payment tracking and an improved understanding of the banked and unbanked populations."



Additionally, digital wallets are proving to be an area of growth, as shown in the diagram from research conducted by McKinsey. This progress in digitalisation is something noted by Nameer Khan, chairman at MENA Fintech Association and founder at FIL: "To improve financial inclusion in the cash-focused Middle East, governments and financial institutions are promoting digital financial services, mobile banking, and digital wallets. Saudi Arabia's Financial Sector Development Program aimed to increase non-cash transactions to 70% by 2030 (Saudi Vision 2030). Moreover, organisations like the Central Bank of the UAE are focusing on financial literacy programs and leveraging new technologies like blockchain to extend financial services to underserved populations."

Jorge Camarate, partner at Strategy& and the leader of the financial services practice in the Middle East and Dr. Antoine Khadige, Strategy& Middle East, part of the PwC network jointly comment on this: "Regulators and governments in the region are pursuing several initiatives to promote financial inclusion. Some of the initiatives focus on increasing accessibility and reducing the cost of conventional banking accounts. Others look to promote alternative 'store of value' and payments solutions such as electronic wallets operated by telcos, retailers and fintechs, among others. Finally, some governments have looked to accelerate the transition to cashless by mandating the adoption of electronic payments solutions by all qualifying merchants."

The Middle East will need to ramp up data sharing

As it stands, the Middle East is in the early stages of data sharing. For example, the **Global Data Barometer** gave the UAE, Jordan, and Oman overall data scores of 26.7, 34.5, and 14.1 respectively. This is compared to a country like the UK which received a score of 64.5, or Estonia which received a 67.4.

The lower rates of data penetration and openness is noted by Almoayed. "We can take open banking, and data sharing, as clear examples of data's importance. Access to financial data in the MENA region is still in its early stages. This has prompted the introduction of open banking, which stresses the importance of opening up financial data. Traditionally, banks have been custodians of such data, but via open banking, customers now own their data. They provide consent on whom they choose to share their data with, and what data they want to share."

Khan shares this position: "Fintech companies can bridge their data gap by collaborating with various stakeholders, including governments, financial institutions, and technology partners. According to a MAGNiTT report, the MENA region witnessed a 48% annual growth in AI funding in 2022. By sharing data securely and ethically, fintech companies can leverage advanced analytics and AI technologies to gain insights and deliver better financial services. Initiatives like open banking can help accelerate this process and ensure a level playing field for all market participants."

Open banking can be seen as an area with great potential within the Middle East, but more must be done in regard to the sharing of data so these initiatives can flourish. Almoayed continues: "Building an open banking infrastructure platform which enables a regulated sharing of data, can help bridge the data gap. This platform would connect a network of banking institutions across the region, for fintechs and other businesses to access financial data consensually. Secure sharing of such data allows banks and fintechs to learn more about the customer and their needs, helping them build more personalised products and services."

Indeed, currently many countries within the Middle East have begun their steps towards open banking. Bahrain launched its Open Banking Framework in October 2023. In March 2023, Qatar's Central Bank issued a Fintech Sector Strategy Summary, of which open banking architecture was a key highlight. Jordan also released its Open Finance Framework in November 2022, and the UAE launched its Financial Infrastructure Transformation Programme (FIT Programme) to be fully implemented by 2026.

However, Almoayed warns that open banking generally does not go far enough: "open banking is limited to current accounts, savings accounts, and credit cards. Open finance is the next step in the open banking evolution - expanding to a full suite of financial products; mortgages, insurance, investments, and pensions. The ultimate goal is achieving open data, which makes even more data sources accessible."

The future of fintech in the Middle East is through open finance and open data

Opening up data does come with a range of risks which legislators and customer need to be aware of and prepared for. One of these is the general protection of customer data. Patel argues: "it's important to recognise that the data belongs to the consumer, and they must have control over what data is shared. As new regulations, such as open banking, become available, consumers will have more options for allowing access to their data.

"Fintechs must prioritise the protection of consumer data and respect the data sharing permissions provided by the consumer. While this process continues to evolve, it's crucial for fintechs to focus on data governance and privacy. Additionally, fintechs can leverage advanced analytics and AI to extract insights from data and create better solutions and products for their customers, further bridging the data gap."

However, there is also the ever-prominent risk of data breaches as noted by a number of commentators noted. Khan pointed to a study conducting the University of Cambridge which "found that the global cost of data breaches could reach \$6 trillion annually by 2023. Financial institutions need to invest in robust cybersecurity measures and access control mechanisms to protect sensitive data and maintain trust with their customers."

Patel comments: "While big data presents many benefits, it also poses security risks to financial institutions. Financial institutions in the Middle East, like those around the world, have access to a vast amount of confidential and private information. It is critical that they prioritise the security and protection of this information. Fortunately, financial institutions have a strong track record of doing so. Even with the introduction of open banking, investments in security layers, data security, and sharing rights, help ensure that data privacy and governance continue to be upheld as they always have been by financial institutions."

Dhriti Nath, product manager, NOW Money also adds: "Big data presents both opportunities and challenges for financial institutions in the Middle East. While big data analytics can help financial institutions in the region gain valuable insights into customer behaviour, identify potential fraud and make more informed business decisions, it also poses significant security risks."

Another risk which should be considered within the move to more open data is how financial data can be used by authoritarian governments on their populations. Many of the Middle Eastern countries have lower rankings on the **Global Democracy Index**, making this more relevant here. Improved data penetration offers the Middle East plenty of opportunity for growth within its financial services and fintech sector. The groundwork for this growth is already being put in place through open banking and open finance legislation. However, there are areas of risk which need to be considered moving forward.



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