THE FUTURE OF FINTECH

SMART, SCALABLE, COLLABORATIVE

MIDDLE EAST AND TURKEY

October 2022

INTRODUCTION

The future of fintech is collaborative. And everyone's invited

Some of the best innovations come from recognizing pain points and having the resolve to alleviate them. The scope of fintech became visible over a decade ago, when the success of mobile money brought into sharp focus the potential inherent in the combination of finance and technology – with innovation and empathy.

The system was simple, scalable, accessible, and made possible by unlikely partnerships. It enabled real-time transactions, converting cash into electronic value and vice versa, and brought millions of unbanked individuals into the financial mainstream, switching on all the benefits that a digital economy brings with it, including financial mobility, planning, and access.

This triumph of inclusion fired our collective imagination as a heartening cross-sector success story. Fintech transforms the ecosystem in which it operates. The ability to make and accept digital payments can help a micro, small, or medium-sized enterprise (MSME) to scale and source from a variety of markets. Planning their financial future can put young people in control of their financial lives and power better decisions. Access to reliable, regulated, and safe blockchain transactions can make cross-border commerce more accessible. When fintech companies have access to the technology they need to reach scale and democratize finances, it leads to collective benefits for the community.

This diversity of sectors that fintech covers is represented in companies that have now become a part of Mastercard's suite, from cryptocurrency and open banking to data intelligence and identity solutions.

With agility at the heart of solutions, fintech companies partner with others so they can play to their strengths while relying on others to do what they are good at, thereby rounding out an innovative solution. These fintech solutions are made possible on the back of robust technologies, payment rails, security systems, and compliance frameworks, because everyone brings their best work to the table.

At Mastercard, we are committed to help fuel fintech acceleration by offering access to our expertise, network, and technology. Fintech companies harness our strengths, be it a portfolio of technology solutions, APIs, developer tools, partner network, startup programs, and a community experience for every fintech company and payments developer, helping turn their bold ideas into reality.

The themes that emerge out of the future of fintech – which begins now! – are solutions that are digital-first, user-centric, and collaborative. Whether it is in introducing banking as a service, or working on super-apps, the user experience is intuitive, seamless, and immediate – the consumer of today won't accept any less. Technology, then, is not to dazzle, but to solve real-life problems.

In the fintech ecosystems of the Middle East and Turkey, there is as much localization as there is room for pan-regional or global solutions. The inherent variance in factors such as smartphone penetration, financial inclusion, and digital payments acceptance, has resulted in solutions that are clearly not one-size-fits-all.

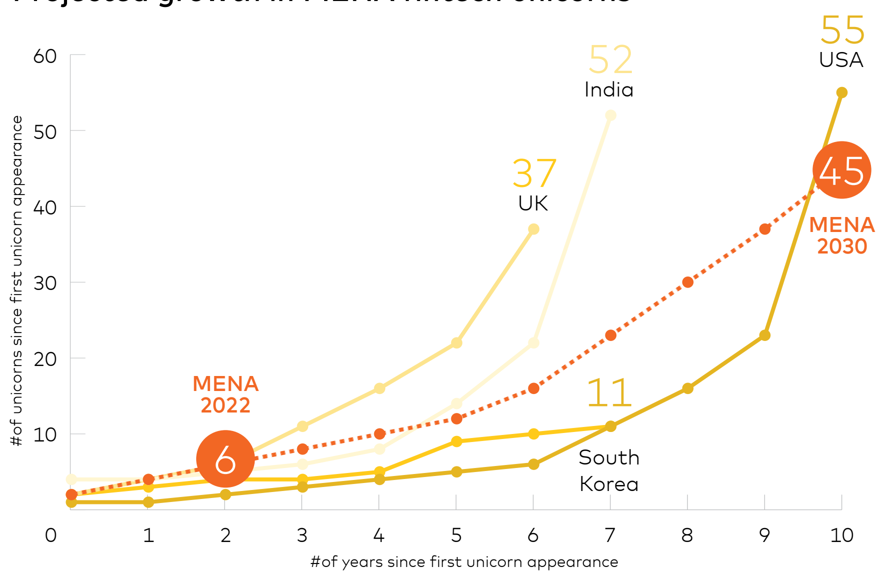
For fintech companies to succeed, partnerships need to transform into multilateral collaborations to innovate, facilitate, accelerate, scale, and, yes, regulate. All stakeholders come together to work on solutions that address actual needs. Proactive regulators are working together to create pan-regional frameworks, which protect the consumer while developing an ecosystem in which entrepreneurs can thrive and succeed.

The themes that emerge out of the future of fintech – which begins now! – are solutions that are digital-first, user-centric, and collaborative

KEY FINDINGS

- A collaborative approach lifts all boats in the fintech sector of the Middle East and Turkey.
- Expansion of the fintech sector and companies relies on scaling from localized to regional and global solutions and operations.
- Policymakers and regulators reinforce expansion by establishing more collaborative partnerships with other jurisdictions, enabling companies from one country to operate seamlessly in the other.
- Partnerships with global corporations enable a fintech company to resolve several cross-border issues related to customer acquisition, regulation, payments, and funding rounds.
- The fintech ecosystem relies on identifying and connecting with the most relevant stakeholders to successfully navigate local, regional, and global growth.

Projected growth in MENA fintech unicorns



Source: From startup to IPO: Unlocking a USD 100 billion-plus opportunity, STV Insights, 2022

Funding

- Fintech startups in MENA recorded a 183% growth in funding in 2021, the highest rate over the past five years.
- Most of the fintech funding deals (32%) and funding capital (49%) across MENA in 2021 was focused on the UAE[4].
- In Turkey, 2021 was a record year for fintech deals and funding. The highest ever fintech round in Turkey was closed in 2021 and one startup announced its acquisition[4].

Size and growth

- The global fintech market is valued at USD 112.5 billion in the year 2021 and is projected to reach USD 332.5 billion by 2028, a CAGR of 19.8%[1].
- There are more than 470 fintech unicorns globally, with 40 of them added in Q1-2022[2].
- The Middle East and North Africa (MENA) region is expected to have 45 fintech unicorns by 2030[3].

Market dynamics

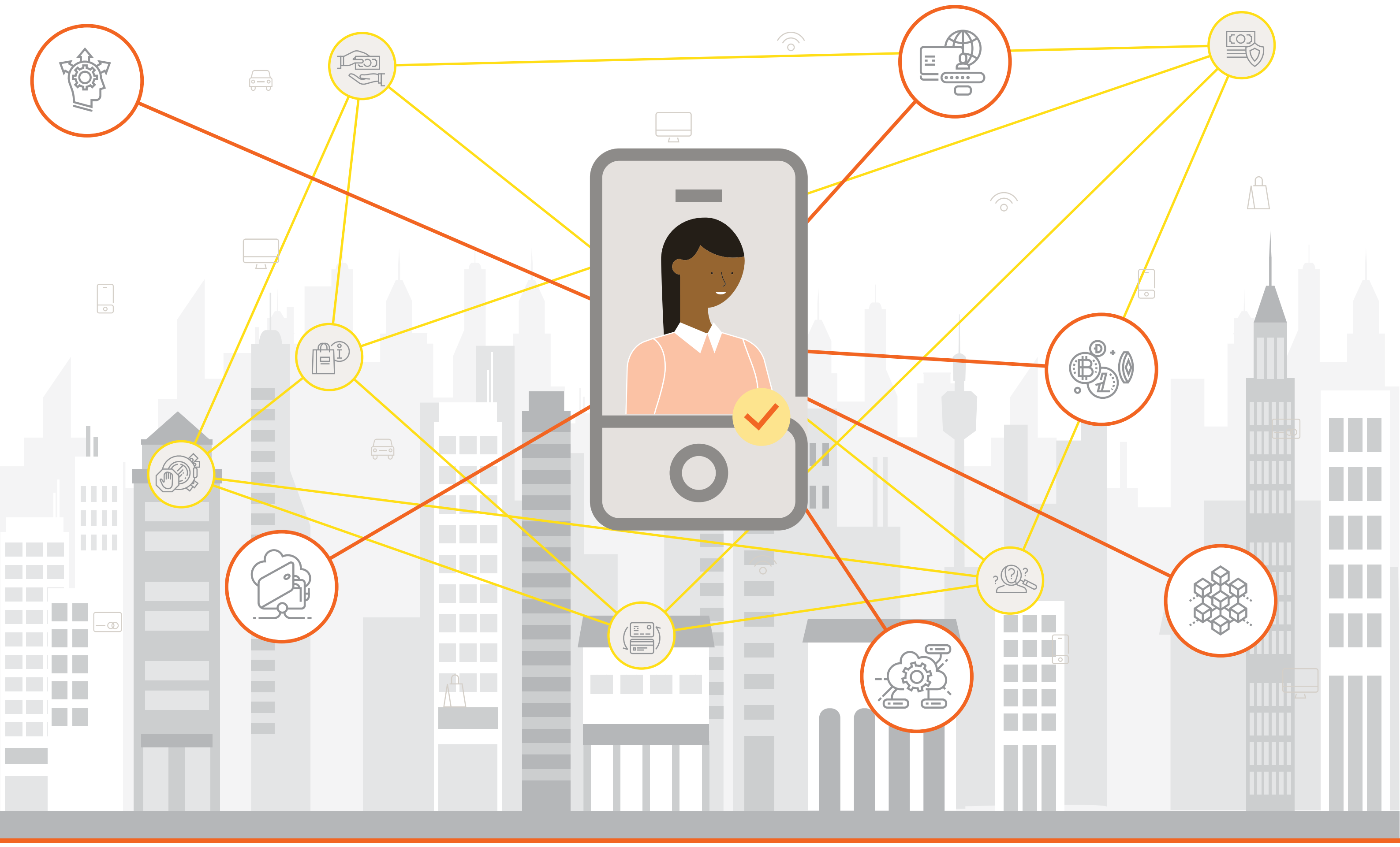
- Data analytics and artificial intelligence are expected to be the top technologies driving the growth of fintech[5].
- Payments and fund transfers are expected to be the top applications or functions driving fintech growth[5].
- Banking and insurance will continue to lead the end-user lists for fintech[5].

Regulation

- Regulation of the fintech sector in the Middle East and Turkey includes the regulation of multiple facets, such as:
  - Payments
  - Remittances
  - Equity crowdfunding
  - E-money
  - P2P lending
- The UAE (with regulations for all 5 facets) leads in this aspect, followed by KSA and Bahrain, which regulate 4 out of 5.
- Egypt and Turkey have regulations in place for 3[6].
- Qatar has soft-launched its regulatory sandbox and is planning to have a full launch in the near future. The four areas in focus are payments, regtech, Islamic finance, and SMEs[7].

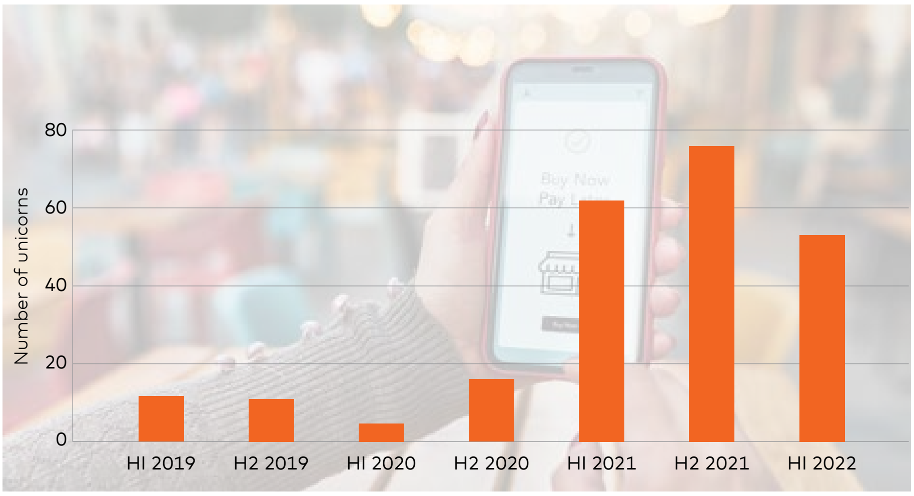
CHAPTER 1

State of fintech



- The sector that set the pace: accelerated growth in global and regional fintech startup scene
- The Middle East has seen growth as a fintech hub both for investors and tech-savvy innovators
- Enabling digital infrastructure powers growth
- Stakeholders collaborate to deliver financial services across segments

Growth in fintech unicorns over the years



Source: The Global Startup Ecosystem Report Fintech Edition, Startup Genome, 2022

The sector that sets the pace: An overview

Combining finance and technology with innovation and creativity has resulted in the financial technology, or fintech, sector witnessing accelerated growth on the global and regional startup scene in the past five years. Fintech, which the International Monetary Fund (IMF) calls the "brave new world for the financial sector," comprises "products, developers, and operators of alternative financial systems."[1]

A faster rate of digitization drove the adoption of neobanks and digital payments. Cryptocurrency, non-fungible tokens (NFTs), and blockchain-backed technologies came into the mainstream, often backed by dynamic regulation that support the growth of more affordable financial services.

However, much before that, financial innovation has seen many fintech success stories across the spectrum of peer-to-peer lending, high-frequency trading, big data, and robotics. With use cases such as mobile money in Kenya and China, fintech has been a vehicle for financial inclusion, bringing millions of previously unbanked people into the financial mainstream, creating data footprints that can streamline financial lives, provide access to finance, and introduce predictability. This has remained one of the crucial factors in regulators and central banks facilitating fintech.

20%

is the share of fintech in the total technology unicorns value in 2021

Globally, fintech funding jumped to a record USD 131.5 billion in 2021. The number of fintech unicorns reached 235 with 34 born in Q4-2021 alone. Fintech companies in 2021 represented more than 20% of total tech unicorn value, compared to 15% a year ago. There are now more than 470 fintech unicorns globally, with 40 of them added in Q1-2022[2,3].

On the demand side, the role of micro, small, and medium-sized enterprises (MSMEs) has been crucial. MSMEs use fintech and e-commerce solutions to scale, source, and reach. The growth in alternative payment rails and emerging platforms are shaping the commercial landscape.

Buoyed by demand, fintech has seen products based on multi-faceted innovation in emerging and mature economies. Providing scalable financial services using the internet, blockchain, and algorithms, fintech companies have widened the reach of the financial services offered by traditional banks, including loans, payments, investments, and wealth management. Data shows that the number of global fintech unicorns was 6.5% more in 2021, compared to 2020. Globally, USD 287 billion was collectively raised across 534 fintech exits in 2021[4].

In the wider Middle East and North Africa region, fintech startups recorded a 183% year-on-year growth in funding in 2021 – the highest yearly growth rate over the past five years. UAE emerges as the center of fintech activity accounting for 32% of deals and 49% of funding in the region. The year 2021 proved to be a landmark one for Turkey as well, which saw the highest-ever funding round[5].

30%

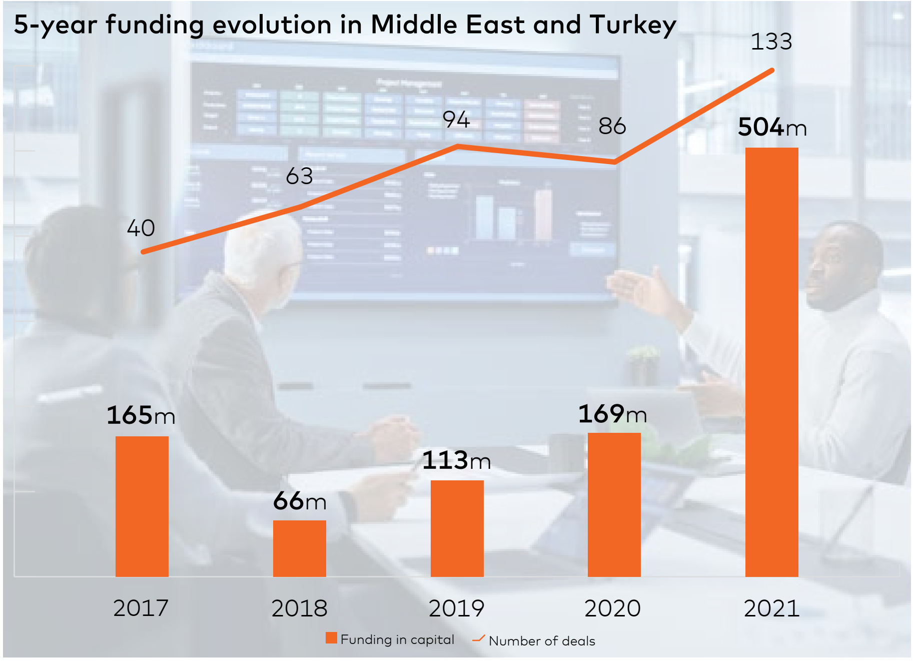
the CAGR at which the fintech sector is growing in Middle East and Turkey

The fintech sector in the Middle East and Turkey is growing rapidly with a compounded annual growth rate (CAGR) of 30%. By 2022, it is forecast that 465+ fintech companies from sub-segments including remittances, payments, open banking, regtech and compliance, smart lending, insurtech, blockchain, and cybersecurity solutions for the financial industry (such as anti-money-laundering, anti-fraud, identity theft, identity management, and others) will raise over USD 2 billion in venture capital funding[6].

Since 2017, when only 30 regional fintechs raised less than USD 80 million, the Middle East has seen significant growth as a fintech hub both for investors and tech-savvy innovators[6].

Fintech funding in Middle East and Turkey, 2021 (growth over previous year)

Source: 2022 Fintech Venture Investment Report, MAGNiTT



Source: 2022 Fintech Venture Investment Report, MAGNiTT

With almost half of the 400 million people in the region under the age of 25, the push for digital-first solutions across sectors like payments, banking, and lending will continue to surge[6].

The infrastructural advantage

Within an enabling fintech infrastructure, the ecosystem thrives. Regulatory sandboxes that power innovation provide a playing field for emerging fintech talent. Widespread use of broadband and smartphone penetration enables digital fintech services. In the UAE alone, non-cash payments are estimated to grow to comprise 73% of transaction volume by 2023, compared to 39% in 2018, across all payment types including B2B, B2C, and B2G, among others[7].

73%

of transaction volume is expected to comprise non-cash payments in the UAE by 2023

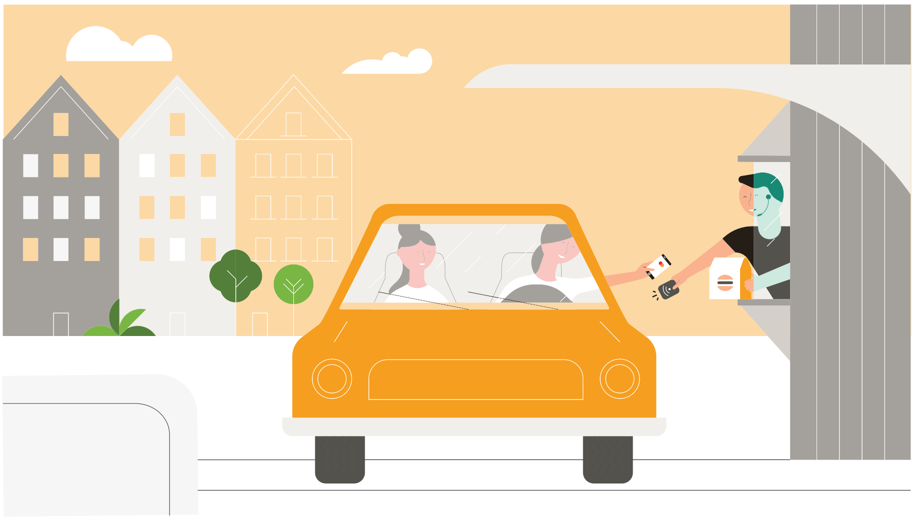
Countries in the Middle East and Turkey have some of the best ICT infrastructure, which paves the way for fintech solutions. The percentage of individuals using the internet ranges from 57.3% in Egypt[8], to 78% in Turkey, 94% in KSA, 95% in the UAE, and 97% in Qatar[9]. A significant number of people already use digital finance to make or receive payments – ranging from 23% in Egypt to 61% in KSA, 63.8% in Turkey, and 84% in the UAE[9].

Within the region, GCC countries are driving fintech adoption due to a combination of factors, including digital banking readiness, availability of financial capital, and proactive regulators. Availability of human capital is also crucial, with locations such as Dubai and Abu Dhabi proving to be talent magnets within the region.

Supportive policy

Policymakers globally have included fintech into their plans for economic growth and inclusion, particularly during the COVID-19 pandemic. Regulators have been tasked with ensuring that business frameworks and licensing support the safe use of innovative technologies, while minimizing risk.

Increased use of payment methods in the last 12 months



- 50% Tappable smartphone mobile wallet
- 48% Paying directly from bank account (Acct. to Acct.)
- 51% Instant payment service (Money transfer)
- 50% Digital wallet
- 39% QR Code
- 48% Cash
- 33% Buy now pay later/ installment plan
- 52% Digital money transfer app
- 45% Cryptocurrency
- 58% Contactless card
- 44% Biometric payment technologies

89% **of users in the wider region have used at least one digital payment method in the last year**

Among users, % selecting ranked by last year usage

Source: Global New Payments Index, EEMEA Mastercard, May 2022

The IMF has noted that regulators across countries have recognized the need to adapt their approaches to strike the right balance between enabling financial innovation and addressing the challenges and risks to financial integrity, consumer protection, and financial stability. The way forward includes international agreements on data privacy, cybersecurity, digital identification, cross-border digital currencies, and the regulation of big tech[10].

Regulators in the Middle East and Turkey have identified the beneficial role played by fintech, with research showing they consider fintech to be supportive in market development. Many jurisdictions have introduced new measures relating to Know Your Customer (KYC), Anti Money Laundering (AML), and digital identity during the pandemic period. Payments, e-money, international remittances, P2P lending, and crowd-funding all find a place in the regulatory infrastructure[11].

Private sector efforts, whether by global companies or by regional players, play a crucial role in filling gaps in the fintech ecosystem. Unlike, say, the US or European markets, which are characterized by uniformity, the Middle East is not unified in regulatory terms, which poses challenges in scaling. However, there are efforts in play to develop unified regulatory regimes in the region.

A favorable macroeconomic context, particularly in the GCC, has ensured relatively easier access to capital, including increased venture capital funding

The favorable macroeconomic context, particularly in the GCC, has ensured relatively easier access to capital, including increased venture capital (VC) funding[12].

A collaborative value chain

The fintech ecosystem, simply put, is the value chain of stakeholders that collaborate towards a common goal of innovation and adoption of new technologies to deliver financial services. These include governments, regulators, financial institutions, payment and technology companies, funders, and entrepreneurs.

A collaborative approach enables fintech companies to partner with other stakeholders, with the aim of scaling, standardization, and increasing market share via access to a wider customer base and partner network.

INTERVIEW | **Navneet Dave**
Managing Director, Network International

"Closer engagement between regulators and fintech firms can result in a more nurturing environment for fintech"

Network International is a payment solutions provider in the Middle East and Africa (MEA). It has enabled over 200 financial institutions to deliver payment services to 16 million card holding consumers and serving over 150,000 merchants. In 2019, Network listed on the London Stock Exchange.

Headquartered in the UAE, Network has operational centers and offices in Egypt, South Africa, Nigeria, Ghana, Kenya, Jordan, and Saudi Arabia. It operates in 50 countries across the MEA region.

Which trends are playing into the regional and global fintech sector?

Among the main influencers are human capital, regulation, financial capital, infrastructure, and demand. The Arabian Gulf countries have made great strides in nurturing fintech adoption thanks to a growing preference for digital banking, the availability of funding, and more regulatory focus on supporting the sector.

Other countries in the region face significant challenges in terms of capital, infrastructure, and regulation although there are pockets of growth in digital adoption that will hopefully gain momentum.

What factors have played a role in the growth of your company?

I would say the faster shift towards digital payments in markets where cash remains dominant, the rapid expansion of e-commerce, and the fast growth in alternative payments have influenced our growth.

In response, we've been strengthening our services and products to facilitate the digital payments experience – expanding our online payment services, including faster onboarding for customers, and introducing new types of payment acceptance such as mobile money wallets and Buy Now Pay Later.

Looking ahead, we intend to deliver on the areas where the MEA financial industry needs help the most, such as simpler, faster, and broader financial services as well as secure and trackable transactions.

How is regulation responding to the growth of fintech?

In the UAE, where we have our HQ, fintech businesses are required to have a local presence and be licensed to serve UAE customers. Supportive governmental policies are in place, complemented by attractive programs – both onshore and in free zones – to sustain the country's fintech leadership in the Middle East.

On a MENA scale, the pandemic has influenced the acknowledgment of fintech's important role in supporting competitiveness, market development, financial inclusion, and the adoption of digital financial services among regulators. MENA regulators are actually more supportive of fintech than their global counterparts, particularly in terms of competition and market development.

What is your wish-list for regulation?

Let's agree that fintech companies digitize economies, add to tax reporting, solve for customer convenience, and create growth in employment and GDP. So, I would assume that a progressive government would create the right balance and the right incentives for the fintech sector to grow. This could include forums to discuss ideas, promote investment in the sector, and adopt fintech solutions in government. Reforms that facilitate the business model of fintech companies – such as having a KYC database, ensuring that the source of funds is secure, implementing cybersecurity protocols, etc. – would also support growth in the sector.

The dream would be for closer engagement between regulators and fintech firms, which results in a more nurturing environment for growth of the fintech sector. I'd like to see smoother approval processes and faster go-to-market for fintech companies that can really make a difference on the overall payments landscape.

Do fintechs in your region benefit from partnerships with global companies like Mastercard?

Behind every successful fintech is a story of picking the right market partner. Over the years, fintech companies from across the world have counted on companies like Mastercard and Network International to help them make an impact when entering this dynamic region.

We are happy to share our years of on-ground payment, legal, and regulatory expertise to help our fintech partners overcome any complicated barriers to entry, enabling them to focus on what they do best – innovating for customers.

Mastercard and Network share the same vision, which is to digitize the economy. Mastercard provides a set of comprehensive regulation, product capability, governance, and interconnectivity capability. This complements our skill set and helps us accelerate.

CHAPTER 2

Market dynamics

- Young, tech-savvy, informed consumers drive the demand for fintech products and services
- Fintech activity takes a different iteration depending on the catchment being served
- The pace of technological growth fuels customer aspirations and drives fintech development
- Research shows that the market may show readiness for and even demand super-apps

Consumer expectation drives innovation and partnerships

Young, technologically savvy, and informed consumers drive the trend for fintech products and services across the Middle East and Turkey. The metaverse, artificial intelligence (AI), 5G, and data analytics are making possible hyper-personalized experiences for consumers, which in turn fuel the demand for a 24/7 digital experience. Real-time payments and a variety of digital channels across domestic and cross-border transactions are widely available.

Post-2020, access to entrepreneurial fintech apps, portals, and streamlined websites have enabled numerous consumers to optimize their financial health using just their smartphone. Mastercard research has shown that once they adopt digital tools for any reason, consumers continue to use them. Mastercard's Economic Outlook 2022 estimates that 20% of the digital shift in the retail space will continue[1]. Recent studies also show that 61% of Middle East and North Africa (MENA) consumers say they would avoid businesses that do not accept electronic payments of any kind[2].

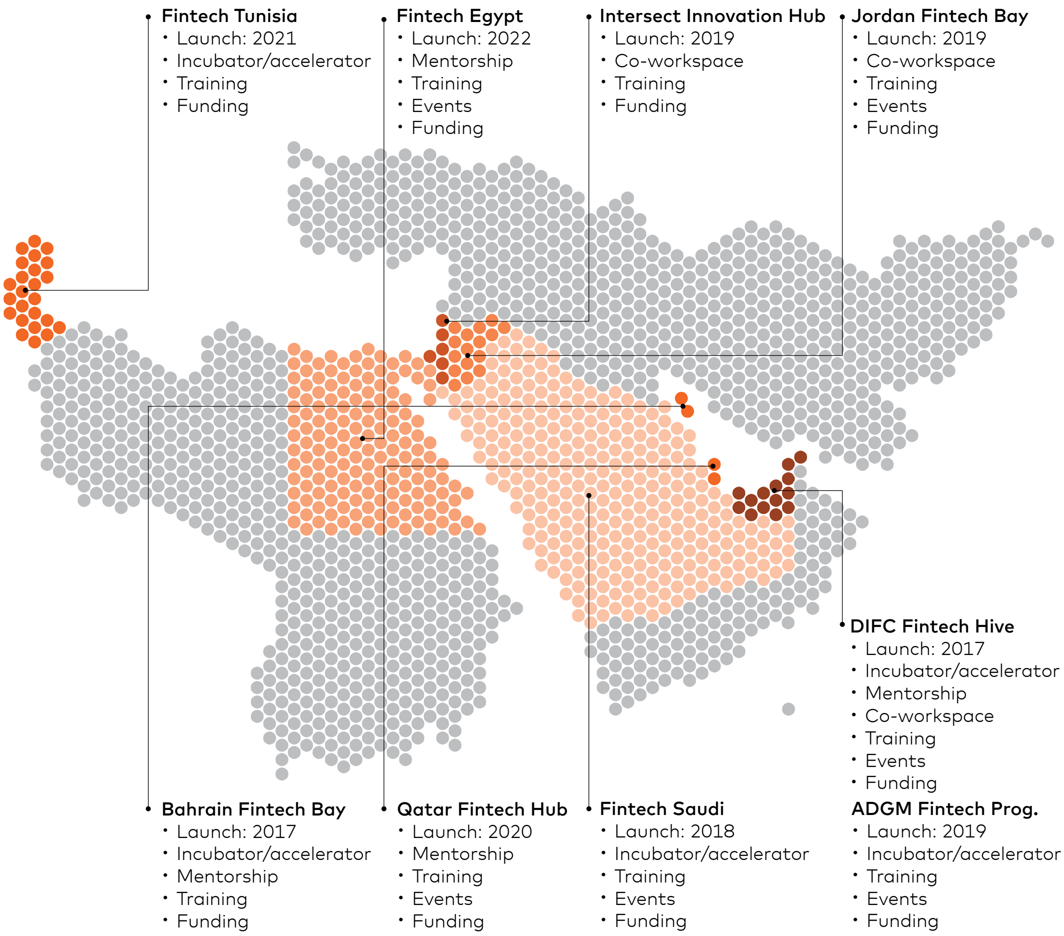
61%

consumers say they would avoid businesses that do not accept electronic payments of any kind

While financial inclusion remains a crucial goal, many fintech startups are focusing on pain points that they can identify and empathize with, leading to a diverse pool of entrepreneurial opportunity.

Fintech activity takes a different iteration depending on the catchment being served.

Fintech hubs have spread in the Middle East and North Africa



Source: Fintech in the Middle East, PWC's Strategy&

Consumers turn to fintech for everyday finance needs

57% see making a payment as the most beneficial use case

86% use digital tools for at least one financial task

74% connect their bank account to other platforms to pay bills

76% know at least a little about open banking

91% know at least a little about A2A (when payments go from consumer's bank to the merchants)

75% have connected their accounts for banking activities

68% are comfortable paying directly from bank account

74%

would like to be able to make purchases and pay bills direct from their bank account to merchants / utility providers without inputting card details or writing a cheque

Source: Global New Payments Index, EEMEA Mastercard, May 2022

In Egypt, for instance, Kashat, launched in 2020, functions as an entry point to financial inclusion by enabling the unbanked and underbanked to create and cultivate a financial identity. Smartphone users can apply for small, short-term productive loans instantly from the mobile application licensed by the regulatory authority[3].

In December 2021, Kashat doubled its serviceable market to 67 million Egyptians, after expanding its operations to cover 14 governorates. Its agreement with Mastercard, in February 2022, will digitize the onboarding, disbursement, and collection processes for MENA's first nano financial service provider. Kashat will be able to issue prepaid cards to users so they can withdraw money and repay their loans using Mastercard's technology and payment rails[3].

In the UAE, where C2G payments have been one of the first to be digitized, Noqodi champions the cashless economy initiative. The company announced a partnership with Mastercard in September 2022, which will enable its digital omni-channel payments, including Tap on Phone, to be powered by Mastercard Payment Gateway Services (MPGS)[4].

$36b

the potential market for blockchain by 2028 based on applications in the payments, clearing and settlement, and identity management fields

In KSA, HyperPay, which is connected to the largest network of banks across the MENA region, is instrumental in enabling internet businesses to accept and manage payments online[5].

Papara, based in Turkey, began in 2016 by making domestic money transfers more accessible. It describes itself as "not a bank," which enables 24/7 money transfers, bill payments, and instant cashback. For merchants, it packs in the ability to send commissions and rewards to both banked and unbanked partners, based on phone number, e-mail address, or ID number[6].

The fintech ecosystem essentially works collaboratively, with companies integrating other specialists into their offering to ensure that solutions serve specific needs. Checkout.com, for instance, serves as a gateway, processor, acquirer, and fraud manager through a single API integration. It powers additional payment options, increased acceptance rates, and quicker settlement of funds. The modular payments platform enables businesses to better integrate with payment solutions[7].

Fintech influences its ecosystem

1. **Tech-led:** Technology used to play a secondary role in product development. Today, technology drives product development. For instance, blockchain, which was jokingly referred to as a "solution looking for a problem,"[8] is estimated to reach USD 36.04 billion by 2028, at a CAGR of 59.9% between 2021 and 2028 based on potential applications in the payments, clearing and settlement, and identity management fields[9].

2. **User-led:** User experience at every level, right from imagining products and services, is at the core of fintech. It drives and is, in turn, driven by customer expectation for the solution to be at their fingertips, immediately and effortlessly.

End-user targeted fintech

B2B or B2C fintech companies that embed financial services.

These include:

- Challenger banks
- Digital wallets
- Super-apps
- Alternative lenders
- Wealth management apps
- Crypto wallets
- Brokerages

The enablers of fintech

These solution providers build connectivity and infrastructure for end-user fintech companies.

These include:

- Data aggregators
- BaaS providers
- Issuer processors
- Systems integrators
- Credit scoring providers
- Digital onboarding providers
- Loyalty providers

Subsectors within the fintech spectrum

- **Payment Service Provider / Gateway:** Fintech companies, such as payment aggregators that enable merchants to accept payments from a variety of methods, with the ability to hold funds during the settlement process.
- **E-wallet provider:** Fintech companies, including licensed e-money issuers, that accept and return currency to account holders. E-money issuers allow for the payment execution and transfer of funds for Person-to-Person, Person-to-Merchant, and Bill Pay.
- **Fintech enabler:** Intermediaries that provide financial products and services to downstream fintech companies, banks, and merchants to serve their end-users. These include technology providers, payment facilitators, card issuance processors, and digital wallet facilitators, among others.
- **Paytech provider:** Fintech companies that offer either single or multiple services to customers – remittances, B2C offerings, value-added services, and crypto exchange houses, among others.
- **Digital banks:** Operate exclusively online without traditional physical branch networks.

3. **Banking as a service (BaaS):** The dual role played by technology and consumer expectation leads to embedded services, where banks and non-banks work together towards a common cause, offering products and services as part of an experience.

The focus on fintech activity is likely to transform emerging markets that remain underserved

4. **Regulator-led:** As financial innovation results in new products being delivered by non-regulated entities, regulatory awareness and intervention are expected to increase, with a focus on accountability and dispute resolution for consumer protection[10].

5. **Deals and unicorns:** The focus on fintech activity is likely to transform emerging markets that remain underserved. This brings into focus geographies such as Africa, Southeast Asia, Latin America, and the Middle East[10].

6. **Super-apps:** Research shows that the market may show readiness for and even demand super-apps. Consumers who already use a variety of apps for everything from ride hailing to e-commerce, money transfers, and education, would accept a proposition that goes even further: super-apps that combine many functions in a single application[11].

INTERVIEW | **Nadeem Ladki**
Executive Director – Business Development and Strategic Partnerships, Binance

"A cross-regional borderless experience would be a very unique proposition"

Binance is a blockchain ecosystem and cryptocurrency infrastructure provider with a financial product suite that includes the largest digital asset exchange by trading volume. It features a portfolio of crypto products and offerings, including crypto trading, education, research, decentralization and infrastructure solutions, and more.

Binance has seen a surge in user growth with a 49% year-to-date increase in users in the MENA region in 2022. The company recently obtained a Minimal Viable Product (MVP) license from Dubai's Virtual Asset Regulatory Authority (VARA), which allows it to offer a range of approved virtual asset related services to qualified retail and institutional investors in Dubai.

Which trends are playing into the regional and global fintech sector?

In the MENA region, three things are driving fintech adoption and growth: innovative and forward-thinking regulation; strong expansion in user demand; and acquisition of the right talent and knowledge. The regulators in the region provide not just clarity but also a safe space and infrastructure to test and grow fintech businesses.

At the same time, you are witnessing strong growth in demand from an affluent generation that wants to use technology to enable and improve the way they do business. This encompasses everything from digital banking to payments and remittances, and of course virtual assets and crypto. Most of the countries in the region are extremely welcoming of global talent, which bring a lot of ideas and knowledge.

How important are collaborations and partnerships in this?

Everyone is a stakeholder, right? At the end of the day, this is a community-driven business, which I think is quite exciting. Regulators play a key part in that; they enable us to do the business we do in a safe and regulated environment and provide protection to our users. Businesses are clear partners – these could be anywhere from corporates to financial institutions – because we are building with and for them. We also listen to our users and communities, and take their advice. We do what we do best and we let our partners do what they do best. We are not a payment scheme. We are not a bank. We are not a traditional financial institution. Letting our partners do their jobs lets us really focus on our business – which is blockchain infrastructure and crypto exchange. We work very closely with partners like Mastercard, financial institutions, and payment companies to develop products that our market needs.

What type of fintech needs define the demand in this region?

I think remittances are an interesting example, because this is one of the biggest corridors of sending money back to Asia and Southeast Asia. Crypto and blockchain can lower costs and enhance the reliability, speed, and efficiency of a remittance business. That is a good example of how fintech will evolve, because you are going to see technology lower barriers. A lot of people in the region have invested in crypto and they are looking for ways to use their crypto. Being able to offer them day-to-day usage and utility is critical in helping them unlock the value and the potential of what they have.

How robust is the seed and venture funding ecosystem for fintech?

Some countries like the UAE have done a good job in building innovation hubs – like the ones at the Dubai International Financial Center and the Abu Dhabi Global Market. These accelerators have helped attract new companies. We, for example, have Binance Labs. All of these have enabled the platform to create VC and seed companies. That said, I still think there is a long way to go. It is great to attract talent and bring companies, but it's really the longevity of those companies that is relevant. There is some catching up to do to more mature places like Europe and US.

How mature is the regulatory environment?

The MENA region can try to think about how to encourage businesses that do start here to have a global focus, not just regional or country specific. The regulators would play a key role here, talk to each other and create a wider ecosystem. If you have some kind of a cross-MENA collaboration with borderless experiences, that would be a very unique proposition. Something on the lines of the EU experience.

The UAE is again ahead. For example, the Virtual Assets Regulatory Authority is custom-built for virtual assets. This is an example of innovative and forward-thinking regulation. ADGM too has specific crypto framework regulations.

What would you say are the top challenges to growth?

Challenge number one is speed. The speed at which our industry evolves does not always match the speed at which regulators and other companies evolve. The second is education, because this is a new space. We have set up the Binance Academy, where we provide free education. The more you understand about this space, the more you know how to protect yourself.

INTERVIEW | **Nuha Hashem** and **Alok Kumar**
Co-Founders, Zywa

"A MENA-wide open regulatory sandbox can expand the market"

Zywa is the first banking platform tailored for Gen Z in the MENA region. It is inspired by the founders' experiences in the Gulf region, where they primarily used cash or their parents' cards to make payments. They are solving the problem of more than 100 million teenagers in the region who are forced to use cash, by providing a gamified community-based app and card to make it possible for Gen Z to receive money, manage it, and make payments.

Zywa is the winner of Mastercard's inaugural 'Collaborate to Innovate Challenge', designed for fintech startups across the EEMEA region that aims to spark new ideas, encourage thought-provoking dialogues, address market gaps, and inspire promising business talent to dream, create, and deliver extraordinary outcomes.

Which trends are playing into the regional and global fintech sector?

Fintech-friendly regulation, access to capital, and ecosystem support networks are the three factors that are fostering homegrown entrepreneurship in the region and attracting global players.

What factors have played a role in the growth of your company?

The three factors that have contributed to Zywa's growth are:

1. Access to global and local strategic capital: We are very fortunate to be backed by prestigious VCs, even prior to launch.

2. Increased partnership opportunities: The regulated entities that can enable fintech growth in the region have opened up to partnering with fintechs, something that was rare prior to 2020. They have recognized the revenue opportunities as well as access to strategic segments that can be tapped through these collaborations. We have secured BIN sponsorship, payment processor partnership, as well as scheme support from Mastercard due to this very reason.

3. More fintech-friendly regulations in the region: Regulators in the region are incentivizing the adoption of fintech (open banking, BaaS, payments, lending, among others) which helps fintech companies to launch and scale with minimal timelines and capital requirements.

What are the main sources of fintech demand in your region?

When it comes to consumer fintech, there are a lot of gaps in payment services, which the existing service providers are not addressing well compared to similar economies globally. Gen Z is a very unique generation and they have different needs when it comes to banking. They're a digital-first generation who are fluent with social media, so they need someone who is able to speak their language to be able not only to acquire them as customers, but also to retain them as loyal users. This is where digital-only banks that are niche-focused can add value and disrupt this space. At Zywa, this is exactly what we are focusing on – we are Gen Z building for Gen Z, and our vision is to grow our product as they grow, to be the only financial services platform they will ever need.

How robust is the seed and venture funding ecosystem for fintech?

It's booming. Fintech ranks in the top three industries by both funding and deals across the Middle East, Africa, and Pakistan. Fintech accounted for 21% of all VC deals and 31% of startup capital deployed in 2021. There is local and global appetite for the sector in the region. Zywa was able to attract top-tier VCs globally such as Goodwater Capital, and locally such as the Dubai Future District Fund at a very early stage.

How is regulation responding to the growth of fintech?

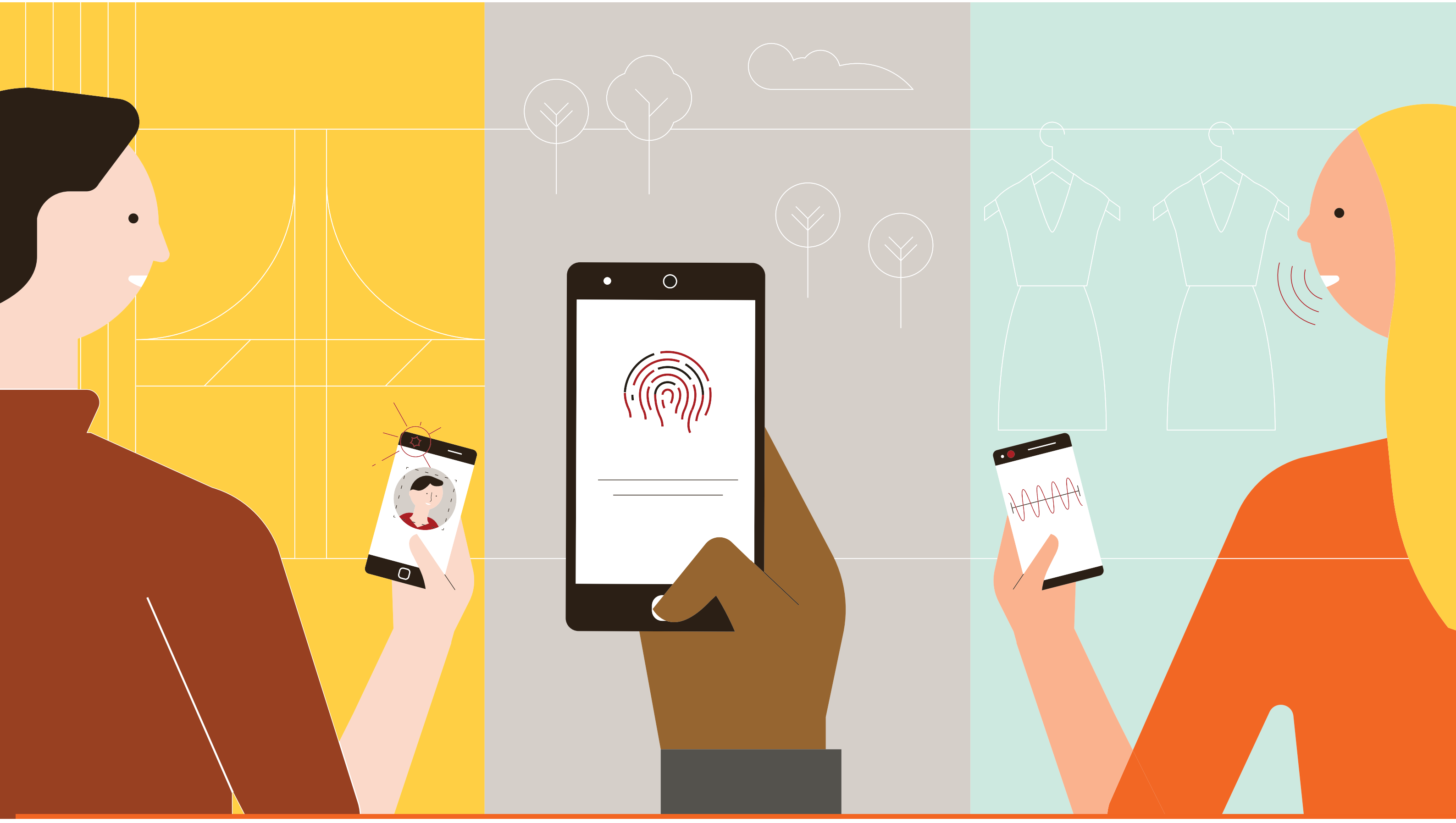
UAE, Egypt, and KSA have frameworks in place to support various fintech services and products on an aggregate basis. The Central Bank of the UAE is continuing to prepare the country for digital payments with regulation that licenses retail payment services. Egypt has also made great strides in enabling fintech by having regulations for them (including robo-advisory, nano-finance, insurtech, and consumer finance, among others). Saudi regulators are also making great leaps in alignment with Saudi's Vision 2030; taking fintech-friendly approaches and bringing more fintech firms into the market. The region is still in the early phases, where the regulators are collaborating with fintech companies to develop solutions.

What's your wish-list from governments and regulators?

As a startup, two critical things are: go-to-market timeline and capital requirements. Regulators need to understand fintech, incentivize sandboxes or similar approaches to enable fintechs to test their product at a faster rate (in a controlled environment), and have lower capital requirements so that fintech firms can allocate more resources to serve their target segment and grow. The MENA region has a population of about 580 million, distributed among 20 countries, with each country having a different regulatory approach. This poses a threat of slowing down growth and creating barriers to entry for innovative technologies. While sandboxes provide leeway for startups to test the products in a less regulated environment with fewer capital requirements, it is important that this freedom is extended throughout the region. The MENA region as a whole needs an open regulatory sandbox that tests innovation cross-border and creates a market big enough for startups to grow and scale.

CHAPTER 3

Regulation, private sector participation, and economic impact



- Regulators in the Middle East and Turkey consider fintech as a tool to bolster digital finance
- Various subsectors within the fintech space have different levels of regulation
- Regional collaborations among regulators can help achieve scale and minimize fragmentation
- Open banking is seeing increasing consumer acceptance and is transformative in fintech adoption

A collaborative regulatory environment supports expansion

Regulators in the Middle East and Turkey largely consider fintech as a tool to bolster their efforts to digitize finance, thereby enhancing financial inclusion and economic growth. However, there is disparity in how the various jurisdictions approach financial technology regulation. On one hand are proactive regulators who take their lead from the government's overall technology-friendly, early-adopter approach. On the other are regulators putting in place a framework for fintech. Common across jurisdictions is the aim of achieving the right balance between fostering innovation and protecting consumers.

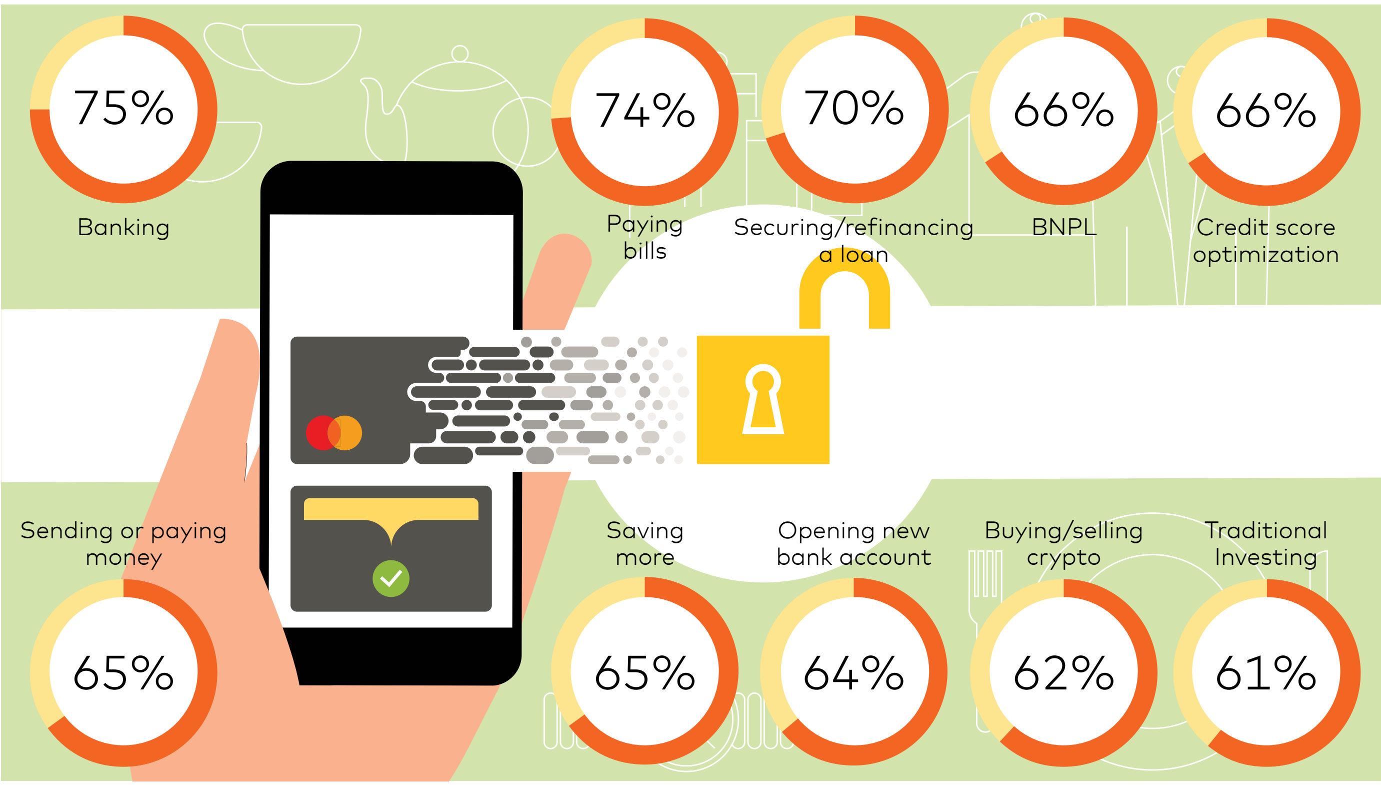
51%

consumers say faster transactions are the biggest benefit of using open banking

With a proactive and supportive regulatory framework, the growth of fintech is tied to increased entrepreneurial activity, which in turn promotes job growth and economic expansion. In mature ecosystems, the role of the government is limited to setting policy and regulation, allowing the private sector to take the lead. In emerging fintech environments, the government is likely to be involved across the entire ecosystem via its funding of co-working hubs and accelerators or even providing seed finance and grants. The government may also set up or support funds to encourage investment in fintech startups[1].

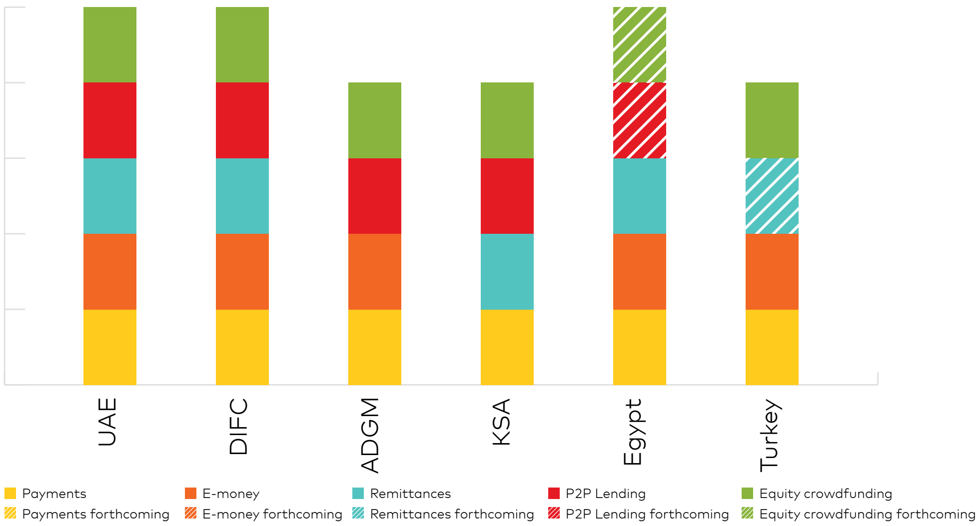
Some of the emerging markets of the Middle East and Turkey behave like mature economies, allowing private sector companies to have a large role to play in setting best practice and applying global standards. The private sector works alongside a proactive government to ensure that the fintech sector is sustainable and competitive. Market maturity is often correlated with the existence of a regulatory framework. For example, the UAE is one of the largest markets in P2P lending – worth USD 62 million in 2020 – because it has a bespoke P2P framework[2].

Top financial activities users are willing to connect to their bank account



Source: Global New Payments Index, EEMEA Mastercard, May 2022

Regulatory frameworks in selected MENA jurisdictions



Source: CCAF (2021) FinTech Regulation in the Middle East and North Africa, Cambridge Centre for Alternative Finance at the University of Cambridge, Judge Business School, Cambridge

Achieving scale via cross-border expansion

Regional collaborations among regulators can help achieve scale and minimize fragmentation to increase cross-border activity. Regulators do this by recognizing other similar jurisdictions. For example, already in 2022, the Digital Cooperation Organization (DCO) announced that Bahrain, Nigeria, and Saudi Arabia would provide a "startup passport" that facilitates the entry of entrepreneurs in one DCO member country into other member countries[3]. Qatar has announced an initiative that seeks to create an economic corridor including India, Kuwait, Oman, Pakistan, and Turkey, which will develop trade finance[4]. Regulators also create provisions for companies overseen by recognized regulators in, for instance, data storage and sovereignty.

$1.2b

is the size of KSA's pledge to improve the digital skills of 100,000 young Saudi nationals

Funding is another focus area for the right fintech growth atmosphere, along with ensuring talent. National programs in UAE and KSA are both focused on digital skills. The KSA has pledged USD 1.2 billion to improve the digital skills of 100,000 young Saudi nationals by 2030[5], with a focus on cybersecurity, programming, artificial intelligence, and gaming. The UAE's Coder HQ works in partnership with more than 40 companies in the UAE and globally, and also provides residency options that attract talent[6].

During the COVID-19 pandemic, regulators across the region accelerated regulatory innovation. Digital infrastructure was prioritized, along with regtech solutions, which support innovation offices and regulatory sandboxes in providing solutions uniquely suited to local needs[2].

Variances in regulation

Various subsectors within the fintech space have different levels of regulation. Globally and in the region, a vast majority of fintech companies are involved in payments and remittance activity. Consequently, payments enjoy a robust regulatory framework, with at least one regulator/ agency with a mandate/ authority for payments in each jurisdiction. A general regulatory framework, by and large, covers digital payments as well, with licensing being mandatory before commencing any payments activity.

40%

customers are concerned with security of finances and personal identity — concerns which can be addressed by an effective regulatory framework

E-money is also one of the more active fintech sectors, with central banks being charged with its regulation. In some cases, such as Egypt, the Central Bank of Egypt (CBE) has a joint mandate with the National Telecom Regularity Authority (NTRA) over mobile money[2]. Licensing of P2P lending is primarily regulated by empowered securities and capital markets regulators.

Overarching industry-wide regulations protect fintech companies and consumers. For instance, data protection is at various stages of implementation. Cybersecurity is also in focus. Examples include the National Cybersecurity Authority of Saudi Arabia, which established cybersecurity resources including communication channels to provide support and guidance for business owners during the pandemic. The UAE launched cybersecurity initiatives such as 'Cyber C3' to provide guidance and safeguards to help improve consumer awareness, literacy, and access to help them combat the threat of cyberattacks[2].

Open banking invites participation

Open banking, which refers to the process by which banks and other traditional financial institutions give customers and third parties easy digital access to their financial data, often facilitated by APIs and communication protocols, has been a topic for discussion. It enables third-party providers to enter and service the market. Regulators are aware of the potential of open banking in developing innovative solutions aimed at underserved populations.

Open banking is used by both Payment Initiation Service Providers (PISPs), who are authorized to make payments on behalf of the customer, and Account Information Service Providers (AISPs), who use account information and data to personalize services or provide insights[2].

Open banking frameworks govern the protocols by which information is accessed, in line with consumer protection and cybersecurity guidelines. The Mastercard New Payments Index 2022 shows that consumers are using open banking for many tasks, including bill payments, loans, Buy Now Pay Later payments, credit score optimization, remittances, saving, trading cryptocurrency, paying off loans, and financial planning, among other things. Over 50% consumers across the region want to link their accounts to automate payments, because transactions are faster. Almost 50% find it more convenient to track and manage bill payments, transactions between accounts, and general financial management. However, about 40% are concerned with the security of their finances and personal identity, which is where an effective regulatory environment comes in[7].

Abu Dhabi Global Market (ADGM) has launched a framework for open finance[8]. UAE regulatory authorities - Central Bank of the UAE (CBUAE), Securities and Commodities Authority (SCA), Dubai Financial Services Authority (DFSA) of the Dubai International Financial Center (DIFC), and the Financial Services Regulatory Authority (FSRA) of ADGM - jointly issued guidelines on adopting enabling technologies in November 2021[9]. KSA has put in place plans to mandate open banking and intends to roll out regulations in phases in 2022 and 2023[10,2].

INTERVIEW | **Ngozi Megwa**
Senior Vice President Digital Partners and Enablers, EEMEA, Mastercard

"It is possible to learn from shared experiences"

Which trends are playing into the regional and global fintech sector?

We are seeing three main segments that are growing and dominating the funding space in the region. The first one is payments. That is by far the largest segment of the fintech space at this time. The second is crypto, and it is emerging very quickly, growing at an enormous rate. The third piece is lending, via BNPL payments or alternative lending methods. Those are primarily the three main segments that are growing across the markets in which we operate.

How robust is cross-border growth for fintech companies in the region?

There are both local and regional factors at play. Cross-border payments, for instance, are particularly important in the Middle East, especially in the GCC market, because remittances form a major component. There are significant opportunities to develop products that save costs as well as transaction time for end-users. When it comes to localization, the nature of fintech is such that it needs to adapt to everything, including the local regulations, consumer behavior, internet penetration rates, etc. Even in markets where internet access is high, internet banking penetration may not be high. The levels of financial literacy vary – Egypt, for instance, has really high levels of financial literacy. Localization includes being aware of cultural factors and incorporating them. There are both public and private sector attempts to work across markets in the form of fintech associations and regulatory corridors, so that it's possible to learn from shared experiences. There is a positive approach towards collaboration, which is very encouraging for all stakeholders.

How robust is the seed and venture funding ecosystem for fintech?

We have seen a tremendous amount of investment coming into the fintech space, specifically around payments, across all markets in Eastern Europe, Middle East, and Africa. This peaked during 2021, when there was accelerated growth in the sector. However, there is still room for growth.

What are the regional variations in the types of fintech companies being set up – e.g. enablers, PSPs, gateways, e-wallets, paytech providers, among others?

There is growth across categories. Enablers are fulfilling a great need across categories. We see a lot of enablement on B2B enterprises based on providing access or an API, which enables multiple capabilities.

Are there regional variances in the maturity of infrastructure?

Certain markets are significantly ahead, others are catching up. But one of the big stories about fintech is cooperation, collaboration, and partnership. If there is a missing piece, they partner with someone and integrate it into the solution. It is simple and it is growing. So there are cases of fintech companies partnering with each other to solve for certain pain points and enabling crucial use cases.

How does a global company like Mastercard fit into a largely startup-driven fintech ecosystem?

We are digital first. The system is symbiotic and constantly evolving. We know that our customers today look very different than they did a few years ago. Today, we're in a multi-segment business, in which fintech companies are a very important segment. As Mastercard, it is very important that we embrace this change.

We are a partner of choice for fintech companies because of the solutions and services they get access to. They have key requirements – to grow their customer base and business, obtain higher valuations, and receive endorsements. From a global perspective, we provide our expertise and our solutions, and we partner with fintech companies to co-create the solutions that help them build, launch, and grow.

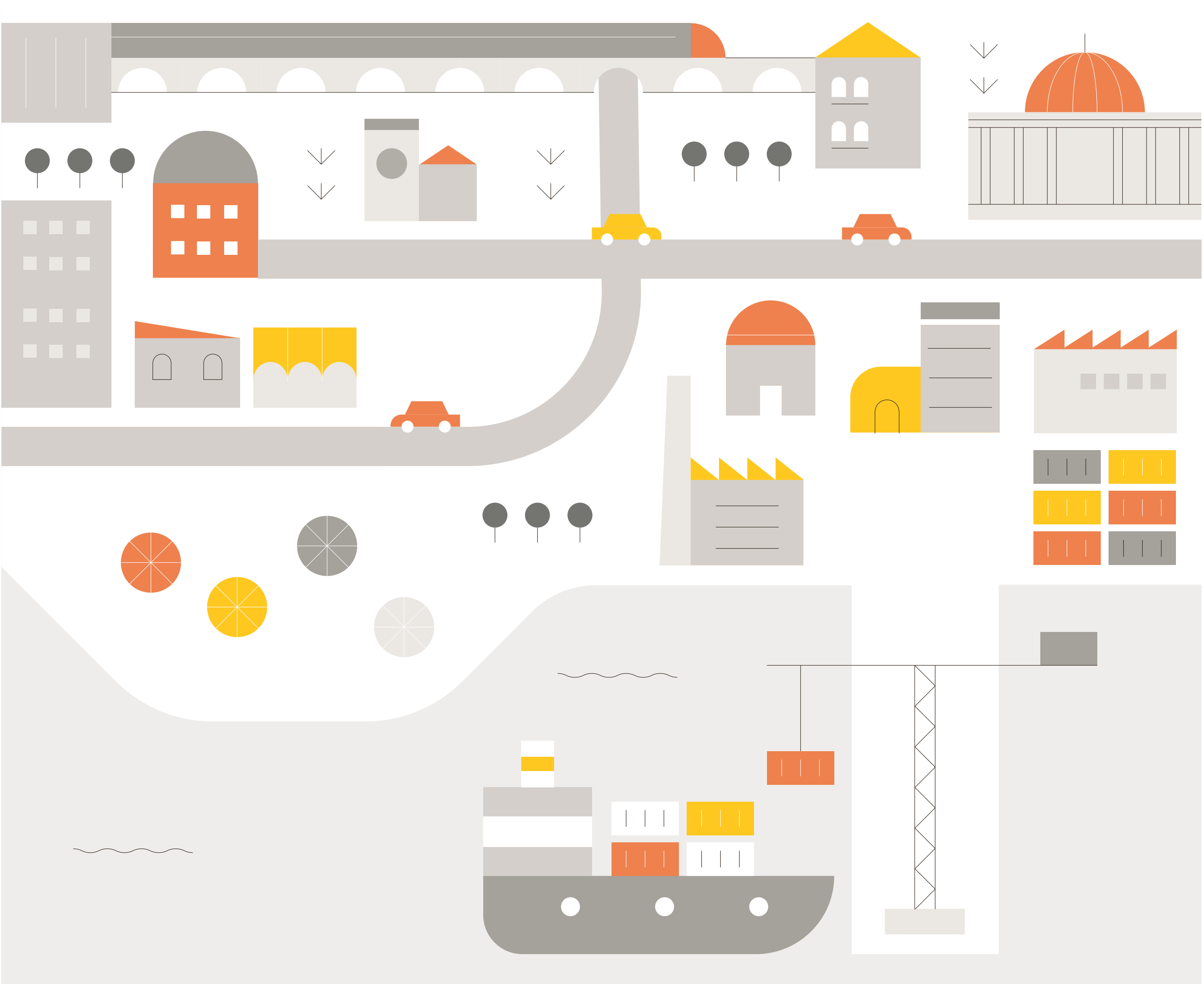
How symbiotic are Mastercard's relationships with customers?

Fintech companies have become an increasingly important segment for us. They are channels for innovation and growth, as well as partners for co-creation. They come in different shapes and forms. Some fintech companies engage in issuing and acquiring activity and are, therefore, our direct customers. Others are "enablers" that help our customers digitize and innovate, often specializing in segments or flows that are not yet serviced. Still others are small startups, pushing the boundaries of financial services. They preview innovation and offer us the opportunity to explore new use cases. Startups help us learn more about areas that we are already focused on and highlight areas we should focus on. As we imagine the future, these aspects become critically important.

Which payments use cases are supporting future growth?

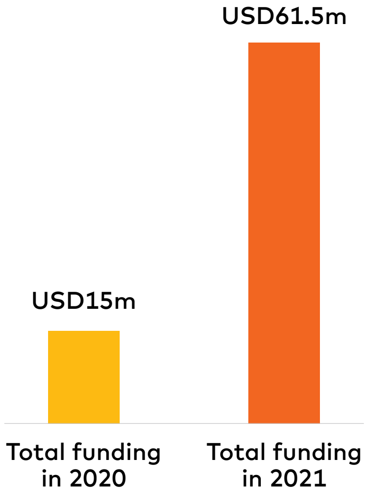
From a payments flow perspective, each market is nuanced. We try to ensure that we provide capabilities across all use cases. Bill payments, for instance, are very important. Similarly, B2B is an important stream, along with peer-to-peer networks, which are growing across the GCC. Lastly, government disbursement is obviously something very important for us. So the full payment picture is very important.

Country profiles



- UAE continues to prepare the country for digital payments with regulation that licenses retail payment services
- KSA is taking fintech-friendly steps in in alignment with the Kingdom's Vision 2030 plan
- Qatar is developing an economic corridor with five other countries to develop trade finance
- Egypt is enabling fintech by having regulations for aspects like robo-advisory, nano-finance, and insurtech
- Turkey witnessed its highest-ever funding round in fintech in the year 2021

EGYPT



+311%

HIGHLIGHTS

- **60% of the workforce struggles to save money**
- **57% internet penetration is supported by the highest number of smartphone users in MENA**
- **24.6 years is the median age of the young, tech-savvy population**
- **800,000+ POS machines**

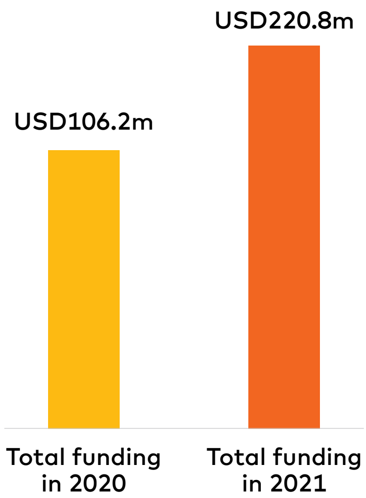
ECOSYSTEM

- The Central Bank of Egypt (CBE) launched a fintech sandbox in 2019.
- Its latest initiative is FinTech Hub in central Cairo.
- Digital banking was approved in 2020 and the first such bank was launched in 2021.
- CBE has optimized infrastructure for digital onboarding.
- In March 2022, it adopted the Instant Payment Network — an inter-bank operating system — and the associated app InstaPay, which enables instant electronic transactions between banks and their customers.
- It also has plans for APIs allowing fintech startups to connect to the open banking infrastructure.

FUNDING

- In March 2022, Egypt's three largest national banks, in partnership with a VC firm, launched a USD 85 million fund to support fintech innovation.
- In H1-2022, fintech startups reaped a record USD 167 million in 31 VC deals, with five clocking in above USD 10 million.
- That compares with USD 159 million raised during all of 2021.

UAE



+108%

HIGHLIGHTS

- **Fintech's growth in the country has been a result of numerous strategies, including the UAE Vision 2021 National Agenda and the UAE National Innovation Strategy.**
- **UAE remained the headquarters of choice for fintech startups in 2021.**
- **Payment companies dominate the fintech industry in the UAE, representing about a quarter of all fintechs**
- **Blockchain, insurtech, open banking, and data/AI are growing sub-sectors.**

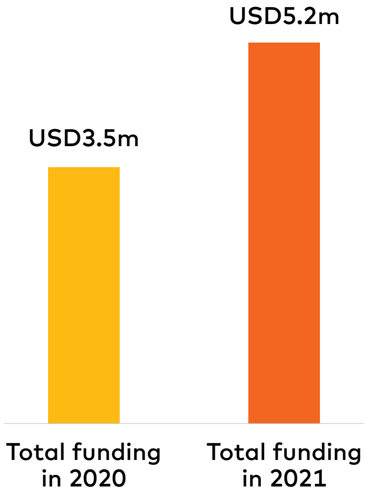
ECOSYSTEM

- The Dubai Digital Authority and the Virtual Assets Regulatory Authority are path-breaking responses to the growth of fintech.
- In October 2021, the Central Bank of the UAE (CBUAE) signed an agreement with Dubai International Financial Center (DIFC) to enhance collaboration under their co-sandbox program for fintechs.
- In September 2021, DIFC launched a series of events as part of DIFC Blockchain Week.
- The UAE has also launched other regulatory sandboxes like the ADGM RegLab and the innovation testing license.
- In December 2020, CBUAE launched its fintech office and facilitated the establishment of a UAE-wide regulatory framework.
- In April 2019, the UAE Cabinet adopted the National Artificial Intelligence Strategy 2031.
- In April 2018, the UAE government launched the Emirates Blockchain Strategy 2021.
- A special crypto zone has been set up at the Dubai World Trade Center (DWTC), where cryptocurrencies and other virtual assets are regulated.
- Binance and FTX Exchange have been granted licenses to operate in the UAE, with Binance also developing an industry hub dedicated to digital innovation and cryptocurrency.

FUNDING

- Most of the fintech funding deals closed (32%) and capital deployed (49%) into the industry was focused in the UAE in 2021.
- UAE-based fintech startups closed 22 more deals than KSA-based startups in 2020 and eight more in 2021.
- The ADGM has put together Abu Dhabi Catalyst Partners, a VC-led effort backed by Mubadala Investment Company.
- The Innovation Hub in DIFC allocated about USD 100 million in October 2021 to helping startups grow through its 'Fintech Fund Accelerator Program'.

QATAR



+51%

HIGHLIGHTS

- **Qatar's fintech startup ecosystem has been growing steadily in recent years.**
- **To achieve Qatar's 2030 vision of diversifying the economy away from reliance on hydrocarbons, the government has invested in founders and innovators.**
- **Qatar University's QU Innovation and Entrepreneurship Strategy (2018–2023) aims to support the ecosystem's development.**
- **The Research to Startup program was created by Qatar Science and Technology Park (QSTP) to support the research community by bridging the gap between academia and industry. It provides a pathway to commercialize intellectual property and launch startups.**

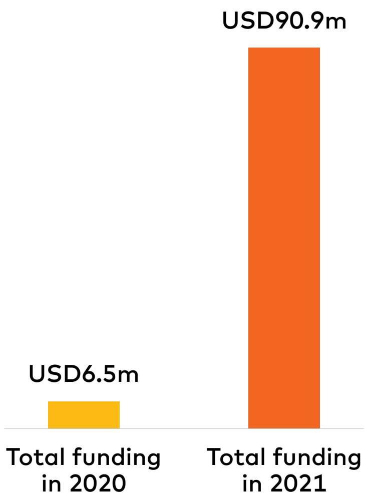
ECOSYSTEM

- Qatar Development Bank (QDB) provides financial and advisory services, as well as acceleration and incubation programs through affiliated entities including Qatar Business Incubation Center.
- In March 2021, QDB launched Scale 7, the first business incubator for fashion, film, and other cultural entrepreneurs.

FUNDING

- 2021 marked the second consecutive year of growth of Qatar's VC ecosystem.
- Funding grew by 92% compared to 2020, to reach a record high.
- Startups graduating from accelerator programs accounted for 46% of the 24 deals in Qatar in 2021.
- Ithmar, a seed-funding program from QDB, provides entrepreneurs with equity capital and is Shari'a-compliant.
- QSTP's Product Development Fund provides up to 50% of the total budget of local high-tech startups and has awarded grants to 26 companies.

KSA



+1294%

HIGHLIGHTS

- **Young and tech savvy population.**
- **Integrated regional ecosystem.**
- **GDP accounts for about a third of MENA's total GDP.**
- **The stock exchange has size and depth, which can be a preferred exit gate.**

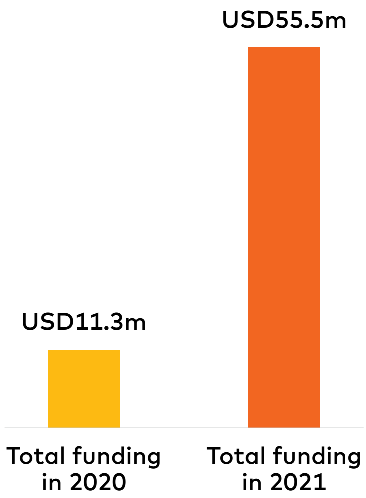
ECOSYSTEM

- Saudi Vision 2030 continues to nurture an entrepreneurial culture with the aim of diversifying the economy.
- The Financial Sector Development Program (FSDP) has achieved major reforms in public markets, including the inclusion of the Tadawul in international indexes and the launch of derivative products.
- FSDP also resulted in the licensing of 3 digital banks, the launch of fintech sandboxes under the Saudi Arabian Monetary Authority (SAMA) and the Capital Markets Authority (CMA).
- The Open Banking Policy outlined by SAMA in late 2021 will require banks to adopt API policies.
- The 5th batch of the FinTech ExPermit by CMA, the 2nd edition of the Fintech Accelerator Program by Fintech Saudi, and the Technology Growth Funding initiative by the National Technology Development Program are supporting growth.
- Established institutions like Fintech Saudi, Monsha'at, Mohammed Bin Salman Foundation are also contributing significantly.

FUNDING

- Saudi Arabia witnessed its largest ever fintech funding in 2021. It was also the largest year-on-year increase among the most active MENA markets.
- KSA startups went from accounting for 4% of all fintech funding in MENA in 2020, to 20% in 2021.

TURKEY



+393%

HIGHLIGHTS

- **Turkey is home to nearly 42 million digitally savvy young people.**
- **The percentage of adults making or receiving digital payments has risen from 48% to 64% over four years**
- **In a vibrant landscape, two in 10 startups are fintechs.**
- **68% of adults bank at a financial institution, compared to the upper-middle-income-country average of 73%**
- **39% of adults have savings accounts compared to upper-middle-income-country average of 46%**

ECOSYSTEM

- Istanbul hosts various startup events, including pitching competition Take-Off, aerospace festival Teknofest, and international gaming exhibition Gaming Istanbul.
- Following the legalization of equity-based crowdfunding, six new platforms are set to begin operations.
- A thriving investor landscape where the proportion of local investors in fintech startups (65%) is higher than all other Emerging Venture Markets.

FUNDING

- Istanbul Development Agency's USD 30 million regional venture capital fund expands funding opportunities, retaining Development and Investment Bank of Turkiye's USD 95.5 million fund of funds.
- The Turkish VC ecosystem crossed USD 1 billion in funding for the first time in 2021.
- USD 1.8 billion was deployed in Turkey-based startups. A record high USD 55.5 million was deployed into fintech startups, 11 times more than in 2020.
- Q3-2021 alone saw more funding in fintech startups than the last three years combined.
- Deal number in Q2-2022 was nearly 50% higher than the same figure from Q1-2022.
- The largest funding deal in Q2-2022 was the USD 40 million acquisition of Volt Lines, a transportation startup, by UAE-based Swvl.

Country profiles have been compiled from various sources, including: Fintech 2022 Venture Investment Report by MAGNiTT; Turkish Startup Investments Review Q2-2022, by KPMG; and The Global Startup Ecosystem Report – Fintech Edition, by Startup Genome.

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Authorship

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