The super-app model in the Middle East and Africa

Partnering with incumbents, harnessing new technologies



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About this report

The super-app model in the Middle East and Africa: Partnering with incumbents, harnessing new technologies is a report written by Economist Impact and supported by Mastercard. This is the second report in a two-part series exploring the rise of super-apps in the Middle East and Africa. The first report examined the enabling environment for super-apps in the region, from changing consumer behaviour to the supporting regulatory framework, and took a closer look at the business model of super-apps and the factors shaping their growth trajectory.

This report's findings are rooted in a programme of in-depth interviews with experts alongside desk research. Economist Impact would like to thank all participants for their time and insights, including the following interviewees (listed alphabetically):

- Nejoud Al Mulaik, director, FinTech Saudi
- Sameer Hirjii, executive director, Selcom
- Nameer Khan, founding board member, MENA FinTech Association
- Reuben Lai, senior managing director, Grab
- Adeoye Ojuroye, chief financial officer, Providus Bank
- Karen S Puah, president FinTech Association of Malaysia
- **Miguel Rio Tinto**, group chief information officer and chief digital officer, Emirates NBD
- Armstrong Takang, special adviser (ICT) to the minister of finance, Nigeria
- Shadab Tayibi, president, Singapore Fintech Association
- Tino Waked, head of Middle East and Africa, Uber

Executive summary

The emergence of the next generation of digital challengers—super-apps—has presented a conundrum to incumbent companies, both within and outside the financial sector. Tracing the evolution of super-apps in China shows that their disruptive impact is evident. In this report we ask what lessons this holds for the Middle East and Africa, not just for technology firms poised to become super-apps but also for the incumbents themselves, particularly those in the financial services industry. We explore the partnerships which have been forged and which are propelling the development of super-apps and the technological advances that could shape the next stage of growth.

The key findings of the report include:

1. Trust, a large consumer base and local expertise are key competitive advantages for super-apps. Super-apps come in various shapes and sizes, and the major players in the region have each found their own competitive edge. Some players pursue an aggressive international scaling strategy, while others prioritise local expertise. Some super-apps choose to enter into partnerships with other firms, while others go their own way. What their strategies have in common, however, is an emphasis on developing a large user base and trust as a key enabler for ensuring customer loyalty and the uptake of new offerings.

- 2. So far, super-apps and traditional financial institutions need each other and are choosing to partner up. The Middle East and Africa (MEA) region has seen a healthy number of partnerships between incumbent businesses and superapps, which need access to the payment infrastructure that only licensed financial institutions can provide, while financial institutions can in turn gain access to new customer segments by partnering up with super-apps. This partnership currently produces a win-win situation for each player, but changes in licensing regulations, as well as the emergence of cryptocurrency could alter this dynamic.
- 3. Some banks and financial services providers are taking the fintechs and digital start-ups (including super-apps) on at their own game. In particular, institutions that have launched since the arrival of mobile banking some 15 years ago are in a position to develop a hybrid strategy. Their approach includes mixing the advantages of a physical branch network with the agility and reach of a mobile-first offering. Where a bank can offer mobile digital services under its own brand, it can compete with the digital start-ups on its own terms and retain the primary relationship with its customers.

 $^{^{1}\} https://www.marketdataforecast.com/market-reports/mea-fintech-market$



4. The next wave of transformative technological innovation, which could determine growth prospects for superapps, has already started. There are a number of emerging technologies that market players are watching closely. They include some that are already established in mature markets but have yet to become widespread in the MEA region. Open banking is one of these. There are also more distant technological prospects that promise to sweep through the business world just as the internet and mobile devices have done. Blockchain technology and quantum computing are two examples.

5. Partnership is key to the emergence of super-apps in the MEA region.

Collaboration is at the heart of the development of wide-reaching service platforms that can evolve into super-apps. Partnerships press down on operational costs, bringing together expertise from areas such as payments, financial services and technological innovation that are needed to bring superapps to life.

Introduction

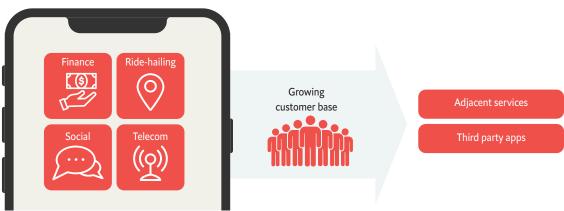
Digital technology and the near-ubiquity of affordable mobile devices have shifted the marketplace for goods and services away from the physical world and onto the mobile devices in consumers' pockets. Companies are delivering a host of services—from ride hailing to e-commerce and money transfers to education—directly through mobile phones, accessing consumers who had previously been hard to reach. These newcomers are disrupting established business models, presenting both threats and opportunities to traditional brands while also creating a complex environment for regulators and policymakers to oversee.

Super-apps—apps that combine many functions in a single application—are taking the proposition even further. They are complicating the picture for incumbents, which have to face competition from players outside their sector, as well as for regulators, because these firms no longer fall into neat sector categories. In this new world a company that offers ride-hailing services can also offer loans, while another one that offers groceries can also enable money transfers.

Super-apps tend to emerge when a specialist app gains enough traction in its market to diversify into adjacent fields. An app that has built a large and loyal user base in ride hailing, for example, is well placed to integrate additional mobility services such as grocery deliveries, meal ordering or cash transfers, expanding the suite of services offered under its own brand. A logical next step is to open up its platform to third-party vendors, allowing them to appear as providers under its brand. The pull of a trusted name and the convenience of a single platform swells potential customer numbers for vendors that might struggle to make an impact on their own.

The first shoots of this super-app phenomenon appeared in China. WeChat, which began in 2011 as an instant messaging service, now hosts more than 1m third-party services on its platform, and Alipay, which started in online payments, has taken a similar route. Although digital payments sit at the heart of most super-app services, it is evident that they can emerge from within or outside the financial services industry. Since its inception over a decade ago, the concept has spread beyond China's borders.

FIGURE 1. Super-app pathways



Source: Economist Impact.



Super-apps made in MEA

The MEA region has a range of digital offerings that can either be counted as super-apps or are heading in that direction. Careem, launched in 2012 as a ride-hailing app, is leading the field from its base in Dubai. In 2019 the service was acquired by Uber Technologies Inc, the US-based mobility pioneer, for US\$3.1bn, and it has since expanded its platform to offer food ordering and payments. Its company mission has expanded too: now it promises to facilitate "the mobility of people, the mobility of things, and the mobility of money". The next step, following a well-trodden path for super-apps, is to open the platform to third-party service providers.

Halan, based in Egypt, also started out as a ride-hailing app, connecting passengers with rides in tuk-tuks and on motorbikes. The company has since launched a closed-loop wallet (in which users deposit money to pay for services on Halan's platform but cannot use it to pay for services from other providers). It hopes to develop demand for digital payments in Egypt's cash-based society and is approaching the Central Bank of Egypt for an open-loop licence, under which customers can use money deposited with the company's app to pay for services from other providers.

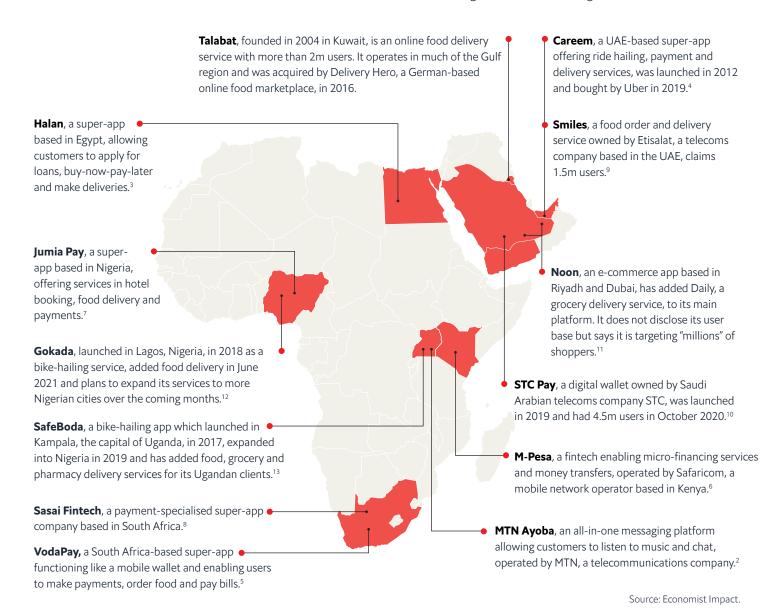
Elsewhere in Africa, telecommunications (telco) companies are becoming prominent players in the superapp space. In 2021 Safaricom, a mobile network operator based in Kenya, launched its M-Pesa super-app, offering bill payments, e-commerce and international money transfers. Vodacom, a South Africa-based telco, has launched VodaPay in partnership with China's Alipay, offering online shopping, financial services, food ordering and other lifestyle tools. Ayoba, a super-app backed by MTN, a South African mobile telco, has over 10m monthly active users and offers instant messaging, voice and video calling, games, music, news and other services.

The MEA region has many more companies that can be considered super-apps or have the potential to develop into one (see Figure 1). But even if they wanted to, could all of these become super-apps? What are the essential characteristics of the super-app business model and what are the factors that will shape their trajectory, particularly in the region? How are incumbents in the space, particularly in the highly regulated and critical financial services sector, responding to non-traditional firms on their turf? The rest of this report will explore these questions, the answers to which will define the future of super-apps in the Middle East and Africa.

 $^{^1\,}https://www.wamda.com/2020/06/building-super-app-middle-east$

FIGURE 2. Poised for super-app success in the Middle East and Africa

A number of companies across the region are poised to become super-apps, attracted by the scale, competitive market advantage and command of customer data that the super-app structure offers. Some examples, based on their customer reach and the ease of diversification from their initial service offering, include the following:



 $^2 \text{ https://www.mtnonline.com/ayoba/#:$$\sim$ text=ayoba%20\%2D\%20MTN\%20Online,play%2C\%20and\%20 listen%20to%20 music.\&text=Users\%20who%20do%20not%20 have,user's%20chat%20in%20the%20app.$

³ https://halan.com/

⁴ https://www.careem.com/

⁵ https://vodapay.vodacom.co.za/vodapay/personal/home

⁶ https://www.safaricom.co.ke/personal/m-pesa

⁷ https://pay.jumia.com.ng/

⁸ https://sasaifintech.com/

⁹ https://global.techradar.com/en-ae/news/etisalat-opens-smiles-uae-app-for-all-uae-residents#:~:text=Etisalat%20claims%20that%20more%20than,300%20million%20worth%20of%20savings.

¹⁰ https://www.analysysmason.com/research/content/articles/stc-pay-performance-rdrk0-rdmy0/

¹¹ https://www.arabnews.com/node/1766671/business-economy

¹² https://www.bloomberg.com/news/articles/2021-06-01/nigeria-ride-hailing-startup-gokada-launches-e-commerce-business

The super-app model

As the potential super-apps in the Middle East and Africa grow in number and size, there are numerous factors and competitive advantages that could make the difference between winners and losers in this arena.

The trust factor

Having a large and trusting user base is critical to succeeding in the transition from single service to super-app. Clients who have already been won over by the initial service are more likely to embrace a new offering provided within the same app. Among Careem's biggest advantages in its transition to a super-app is its large customer base, which includes millions across the 14 countries in which it operates who use the app on a daily basis. In Africa, MTN's Ayoba app has a base of over 4m users.¹⁴ Similarly, M-Pesa leverages Safaricom's customer base and now has over 30m customers in Kenya.¹⁵ Indeed, for super-apps this willingness to transfer trust is a key competitive advantage, since start-ups as well as traditional banks that are competing for the same market must build that trust from scratch.

Super-apps are going to great lengths to ensure that trust in their apps remains. Many super-apps

provide a layer of security to their services that allows consumers to feel reassured that personal data and transactions are kept safe. MTN, for example, provides a rigorous fingerprint and face unlock function, in addition to requiring transaction authentication.¹⁶

Maintaining this trust is integral to the super-app business model. Trust ensures continued access to data on the preferences and behaviours of their consumers, which can be used to enhance service delivery across verticals. There are greater prospects to capitalise on data gathered within super-apps, by harnessing advanced technologies such as artificial intelligence (AI); we will explore this in the final section of this report.

The local advantage

While some super-apps, such as Careem, have been determined to scale up internationally, others have made a geographical or local specialisation their USP. The UAE's home-grown e-commerce platform Noon is focused on deepening its operations in three markets (Saudi Arabia, the UAE and Egypt) with a full understanding of local cultural norms and preferences. In Nigeria, Gokada

¹³ https://techcrunch.com/2021/05/11/the-motorcycle-ride-hailing-wars-in-nigeria-and-uganda-is-safebodas-to-lose/?guccounter=1&guce_referrer=aHR0cHM6Ly-93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAAICtDNnp8t3rCJgfYDh0oJVbkQK4lg2LBCkRKxQFurGo2yHTeOCMkMBFgafySrtVWZGnoSXwRcimSQ_zH-1maAeqbuaHmdnA-LUrAKo5adFMDIXlogz6PgKzB07FriMC3Bpdlv3JMd7d0xQDcfevB0Jt8r1_gbhfZGADvYLHtc0a1

¹⁴ http://www.connectingafrica.com/author.asp?section_id=761&doc_id=771695

¹⁵ http://www.connectingafrica.com/author.asp?section_id=761&doc_id=770425

¹⁶ http://www.connectingafrica.com/author.asp?section_id=761&doc_id=770425

became widely known for launching ride-hailing in Lagos but has preferred to stay local rather than pursuing rapid international expansion.¹⁷ "So far we've not ventured outside Lagos, and the reason for that has been that we wanted to remain focused on our new business here," explains its CEO, Nikhil Goel, in an interview with TechCrunch.¹⁸

By cultivating this deep knowledge of local circumstances and dynamics, super-apps can more easily identify gaps in local markets and provide unique solutions that benefit local customers. This approach has also served MTN Ayoba well. With their local insight they were able to identify user illiteracy as a major challenge. In response,

they spearheaded local initiatives providing educational content on math and science as well as entrepreneurial skills.¹⁹

But even for those with international ambitions, localisation must not be overlooked. At Careem, for example, understanding the local context is a part of the business model. In an interview in 2018 Karl Magnus Olsson, founder and managing director of the company, explained the importance of regional understanding: "Careem works with city-by-city gains: the ways of operating changes depending on the location as regulations are different, patterns are different, drivers and consumers. Solving local needs, collaborating with local taxi companies, and integrating with local partners is the way to grow."²⁰



¹⁷ https://techcrunch.com/2021/06/01/gokada-to-launch-ride-hailing-service-in-two-nigerian-cities-as-part-of-super-app-plans/

¹⁸ https://techcrunch.com/2021/06/01/gokada-to-launch-ride-hailing-service-in-two-nigerian-cities-as-part-of-super-app-plans/

¹⁹ https://www.mtn.com/african-super-app-ayoba-reaches-10-million-monthly-active-users/

²⁰ https://techcrunch.com/video/fireside-chat-with-magnus-olsson-careem/

Deciding between scaling up internationally versus localising has different implications for superapps in terms of investment and risk. Scaling up internationally requires large investments not just in terms of expanding operations—by putting boots on the ground, opening up new offices and working through infrastructural and regulatory environments—but also in terms of brand building, which requires adapting to local tastes and context and capturing the hearts and minds of a new customer base. This point remains of crucial importance since, as discussed above, obtaining the trust of the consumer remains one of the key competitive advantages. A focus on the local market may have a smaller capital outlay but limits the potential for growth. Localisation may be an effective strategy in the early stages as a super-app could expand across verticals (across deliveries, entertainment and money transfers, for example) and optimise synergies between them.

Other emerging super-apps have sought to gain an edge by focusing on specific target groups and adjusting their services based on their needs. VodaPay, for example, focuses on previously

"Solving local needs, collaborating with local taxi companies, and integrating with local partners is the way to grow."

Karl Magnus Olsson, Careem's founder and managing director

unbanked customers by providing a platform that is characterised by ease of use and lower costs, thereby contributing to the region's financial inclusion.²¹

Hurdles to growth

Despite the many advantages that apps with a large user base may enjoy, as they transition to a super-app there are many regulatory and operational hurdles to overcome.

Chief among these is the difference in the regulatory environment across countries as they try to secure licences to operate across a range of services. In the case of MTN Nigeria, for example, the company obtained a licence to improve its Mobile Money operations after a two-year wait. Other companies, such as Gokada²² or Careem, have been investing in "appropriate licensing, regulatory confirmations and attaining licences, regulatory approvals, integration of services like SMS to overcome the fragmented regional market" and have ultimately been able to provide the same user experience irrespective of whether consumers are in "Morocco or Pakistan".²³

In addition, with growing concerns around data privacy, the regulations on how consumer data are collected, stored and shared are tightening.²⁴ However, the region's data governance frameworks are far from being harmonised. Some countries, such as South Africa, have restrictions regarding crossborder data transfers in place,²⁵

²¹ https://www.vodafone.com/news/inclusion/vodapay-launch

²² https://techcrunch.com/2021/06/01/gokada-to-launch-ride-hailing-service-in-two-nigerian-cities-as-part-of-super-app-plans/

²³ https://www.wamda.com/2019/09/headlines-careem-regulatory-hurdles-saudisation

²⁴ https://iapp.org/news/a/slowly-but-surely-data-protection-regulations-expand-throughout-africa/

 $^{{}^{25} \}text{https://www2.deloitte.com/content/dam/Deloitte/za/Documents/risk/za_Privacy_is_Paramount-Personal_Data_Protection_in_Africa.pdf}$



others have far laxer consumer data provisions, allowing super-app companies to do more in terms of data mining and analysis. This is a very different environment from the one in which the early Chinese super-apps flourished. The success of those apps rested in part on obtaining deep pools of customer data in order to understand users' preferences. For super-apps seeking to expand across the MEA region today, these limitations on data access represent a significant hurdle akin to a cold-start problem: although they possess the necessary technology, they lack the data to exploit this to their best advantage.

Finally, although many super-apps provide an array of payment options, non-finance players are still relatively new to the world of payments—which forms the backbone of super-apps. As such, this may be the most critical challenge non-financial firms face in their evolution to super-apps. Gokada, for example, mainly offers a debit card and wallet option for payment, as opposed to Alipay, which offers a much larger suite of payment options. ²⁶ This puts non-finance players at a disadvantage vis-à-vis traditional finance players, which have decades of experience in facilitating secure payments both within as well as across countries.

The way in which non-traditional financial services companies have sought to approach this challenge has been by partnering up with financial firms and fintechs able to provide the essential payment infrastructure. For example, MTN has partnered with Ubank and Vodacom with Alipay. This co-operation extends beyond the payment infrastructure, where super-apps such as VodaPay allow third parties to develop apps via their platform, enabling users to transfer money or pay bills via one platform.

Given the importance of getting the payments component right, companies vying for super-app status in the Middle East and Africa must have a deep understanding of the existing financial services landscape and the perspectives of incumbents. We explore this in depth in the next section of this report.

²⁶ Gokada to launch ride-hailing service in two Nigerian cities as part of super app plans | TechCrunch

Navigating financial services incumbents

With super-apps progressing rapidly, traditional businesses, including banks, must choose how to respond. For incumbents in the MEA region, China's experience shows the potential for a complete overhaul of financial services with the rise of superapps. There, WeChat and Alipay offer users a fully mobile banking experience that requires no visits to branches and integrates seamlessly with the vast array of services available through their apps (more than 3m on WeChat alone).²⁷

In the MEA region mobile payment systems usually involve a partnership between super-apps and a licensed traditional financial institution—at least so far. This model brings both advantages and challenges to the region's traditional financial services companies and super-apps.

For both, it extends their market reach into market segments they could otherwise not service profitably. For non-financial services companies, it can equip them with the capabilities and essential infrastructure needed to make money transfers, which would otherwise have been impossible. For banks, on the other hand, these partnerships help them to access remote consumers (in areas where they lack physical branches) or consumer segments they had chosen not to serve (such as low-income customers). These partnerships can also allow banks to experiment with innovative digital offerings without the up-front investment and associated risk. Moreover, banks can use these

technology firms as a pool of specialised skills that they would find challenging and expensive to assemble on their own account.

However, these advantages come at a cost. Before the digital era, local branch managers would frequently have a personal relationship with clients and could make an intuitive judgement on credit worthiness or imminent needs. When clients are instead transacting through an app provided by a third party, whether fintech or a super-app, the traditional bank loses much of this insight. The newcomer "owns" the customer, and while the brick-and-mortar bank may handle the plumbing that allows money to circulate, it is the start-up that has the relationship—and the upper hand—in increasing the revenue they can derive from that customer by offering additional services through a super-app.

The position of traditional banks is vulnerable to further erosion where online services win banking licences of their own. Both Alipay and WeChat have operated profitable licensed banking units since 2015, siphoning off customers and deposits from China's established banking giants. Many of these are state-owned, and the Chinese state is indeed taking a greater interest in the extent of the dominance of the two super-apps. Recently the state has begun to limit the super-apps' banking operations, but this may come as poor comfort to the country's traditional banks, which offer very



little that cannot be obtained on one of the mobile platforms and are therefore at risk of seeing their businesses hollowed out by the move to mobile. This includes staff: Chinese banks were estimated to be employing 500,000 bank tellers in 2017, many of whom were soon expected to be seeking alternative employment.²⁸

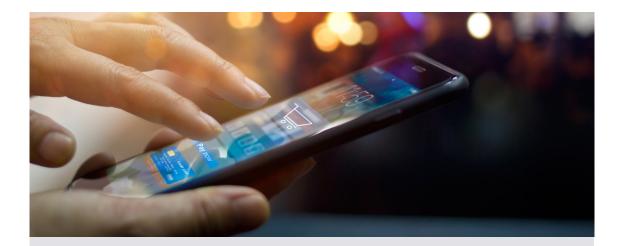
For well-established, large incumbents it can be tempting to think that they can co-exist with the upstarts simply by doing more of the same, but Adeoye Ojuroye, chief financial officer at Providus Bank, a Nigerian commercial bank, cautions against this approach. He sees many banks focused too closely on performing payment functions behind the scenes for fintechs and super-apps, cashing in on the additional business those services are bringing into the market. But this, he says, misses the fundamental challenge the banks are facing: "In our view it doesn't go far enough, because the real problem is not about more payments and ease

of payments." Instead, it is about winning customer loyalty and trust, an element super-apps are focused on.

However they choose to respond, the message from China for financial industry incumbents in the MEA region is clear: complacency can be fatal. In 2020 around 90% of banking transactions in China were completed online or by mobile. In 2010 the figure was 45%.²⁹ Faced with this outlook, there are two ways in which traditional institutions can avoid being gradually displaced by digital incomers. One is to play to their strengths by allying with the start-ups to the advantage of both. Another is by extending their business models to confront the fintechs and super-apps on their own ground. Although a few banks, such as Emirates NBD in the UAE, seem to be venturing into this space (see Case Study box), so far the former strategy is winning in the region.

 $^{^{28}} https://www.bloomberg.com/news/articles/2018-10-09/china-s-banking-showdown-wechat-vs-3-million-bank-tellers$

²⁹ https://www.bloomberg.com/news/articles/2018-10-09/china-s-banking-showdown-wechat-vs-3-million-bank-tellers



CASE STUDY: Branching out

Banks were once defined by the size and prominence of their networks. Stolid institutions occupied imposing buildings throughout a country's towns and cities and farmers and workers would wear a tie for a visit to the branch. Now, banks everywhere are economising on their branch networks and introducing increasing degrees of automation in those branches that survive. But this will not secure a bank's survival over the coming decades. Reaching out to customers online and through their mobile devices has become indispensable, and banks have invested heavily in websites and apps that can bring their full range of services to their customers' pockets.

But even this may not be enough. As we have seen, digital start-ups, fintechs and super-apps are threatening to take ownership of the customer, consigning banks to anonymity in the background, custodians of the financial plumbing on which the emerging brands operate. Some banks are fighting back and launching their own forays into niche financial technology markets and stepping beyond finance altogether to offer diverse services. At Emirates NBD the focus is on retaining the lead relationship with the customer by taking on the digital disruptors at their own game. At least, this is the strategy. "The question is," says Miguel Rio Tinto, group chief information officer at Emirates NBD, "how do I bring them to my app?"

The problem for traditional banks that have simply transferred their services online or onto an app is that people don't engage with their bank often enough for the app to become a natural launch pad for additional services. The average WeChat user spends 82 minutes a day on the app. No bank can expect anything near this level of engagement for its standard financial services. According to Mr Rio Tinto, the question then becomes: "What is it I need to put into my app to bring customers to my mobile real estate more often and allow me to have a relationship with them?"

The answer, he says, may be a super-app, embracing all elements of a customer's financial life, "from your current account to payments to online purchases to equity trading" and many other services. The bank is now looking at expanding beyond financial services to increase engagement with its customers (and tempt them away from non-financial service providers travelling the other way).

The first step was to build the technological infrastructure to take its products digital. This was no easy task. "There's not one silver bullet," says Mr Rio Tinto. "You have to bring cloud-native infrastructure into your premises. You have to work towards being more agile, with small crossfunctional teams. You have to change the IT/ business interface so that business is much more inside the IT teams and does not have this 'throw over the wall' culture. No more 'waterfall', much more blended IT and business working together."

With the technological infrastructure and updated business practices in place, the bank was ready to look at new markets that were under-represented in its legacy customer base. It focused on young adults, those turning 18 and looking at financial services for the first time. To capture this mobile-native demographic, in 2018 the bank launched a stand-alone mobile banking service called Liv. Operating under Emirates NBD's banking licence, it is "to all intents and purposes a stand-alone value proposition for millennials".

Launching Liv, which now has 600,000 users, as an independent digital-first brand allowed Emirates NBD to rethink the customer experience. Instead of coming to a bank and being sold add-on services, Liv draws users in with discounts and promotions as well as games that offer small cash rewards. "It doesn't seem like a banking app," says Mr Rio Tinto, "but I can see my balance, do a transfer, make a payment. Everything that I do in the main bank, I can do there as well."

The app now onboards more new customers each day than Emirates NBD's entire UAE network of 100 physical branches. The next challenge is to increase engagement with the app and broaden its services beyond the traditional financial offering (Mr Rio Tinto cited plans to extend Emirates NBD's digital offering to include a service for booking theatre tickets, which were stalled by the onset of Covid-19 restrictions). "I have to find a way to get customers to my app five times a day," says Mr Rio Tinto. "What is going to make him or her do that? That's what we're cracking our heads to do."



If you can't beat 'em...

Both super-apps as well as traditional financial services providers have relied on partnerships as a strategy for supporting their business growth. Super-apps are seen by some as a threat to the market share of traditional businesses and singleservice mobile offerings alike, but they can also be facilitators, providing routes into markets that would otherwise remain out of reach. Among banks, regulators and super-apps there is more willingness to talk about collaboration than competition. For now, many banks see the startups less as competitors and more as enablers. Fintechs and super-apps have reached customers previously neglected by the financial system and brought them into the market. While the digital innovators are leading the charge to service these new markets, the banks stand to gain by providing the payment backbone.

Grab, Indonesia's super-app that started as a ride-hailing service but has since branched out into a range of verticals, has leant heavily on the partnership model. "We believe in working with leading companies to scale our impact in the shortest time," says Reuben Lai, senior managing director at Grab. The company has more than 60 partnerships with financial institutions across the Southeast Asia region, including Citi, Maybank, Mitsubishi UFJ Financial Group (MUFG) and Krungsri.

Partners are chosen for the complementary functions they can offer. "Many collaborate with us to reach underserved customer segments that they cannot reach on their own," says Mr Lai, "such as gig workers and MSMEs [micro, small and medium enterprises]". In 2020 Singapore's Grab acquired Bento, a retail wealth management app. The addon, rebranded GrabInvest, allowed Grab to extend its offering to the unbanked and underbanked, bringing financial products usually reserved to the affluent and professional investors. Grab also points to its partnership with Chubb and National

Trades Union Congress (NTUC) income to develop microinsurance policies, which are, according to Mr Lai, "accessible and simple enough to be rolled out at scale". There were more than 130m microinsurance transactions conducted on the platform between April 2019 and March 2021.

The MEA region has seen its own share of partnerships. Uber's 2020 acquisition of Careem is one example, but tie-ups between fintechs and traditional brands are becoming increasingly commonplace. For instance, Uber found that many markets in the region were still tied to cash payments, and as Tino Waked, head of Middle East and Africa at Uber explains, to move its drivers and riders towards a cashless relationship it sought "synergies and partnered with financial networks to help us build on the millions of merchants and access points around their payment capabilities, crossborder functionalities and security." In practice this means that Uber drivers can receive payment in a mobile wallet and then spend their income throughout the global network of merchants accepting payments from their financial partners.

Among banks in the Middle East there is still understandable reticence when it comes to sharing the crown jewels with upstart fintechs. Research by Deloitte, a professional services network, found that only 5% of traditional banks were "partnering to win" with fintechs, i.e. embedding the digital firms within their strategy. By contrast, 15% were using a more limited form of partnership, which the report calls "deploying to differentiate", i.e. incorporating a fintech's features to enhance the customer experience. This pattern puts the Middle Eastern banks sharply behind the curve compared with more mature markets, according to Deloitte.

Mr Lai of Grab sums up the importance of partnership as follows: "Super-apps and traditional financial institutions play complementary roles. There are many opportunities for win-win partnerships to benefit the consumers and merchants."

The next turn in the digital revolution

Innovation comes in waves. In 1837, the inventors Samuel Morse and Alfred Vail used electrical pulses encoded into dots and dashes to send information down a copper wire. Six years later Rothschilds and Behrens, two Hamburg-based banks, used the system to exchange information on stock prices. By 1866, when telegraph wires were laid across the Atlantic, the disruptive new technology had transformed finance (and many other things).

Most of the time technology advances by the inch, but occasionally it leaps forward by a mile. A century-and-a-half after Morse's innovation, communications once again performed a quantum leap with the digital revolution, creating a new wave of disruption for finance and the wider business world. This technology innovation has spawned the rise of a host of digital services, including superapps. What, then, is the next shock that technology has in store, and how will it shape the trajectory of super-app growth?

Can the centre hold?

CCryptocurrencies could offer super-apps a new way for processing payments, reducing their reliance on external payment infrastructures.

Many participants in the sector are keeping a close eye on blockchain technology for the next great transformation. The blockchain, a technology that decentralises record-keeping away from a single commanding register, could revolutionise the way in which money is distributed and transactions are recorded. Private cryptocurrencies, such as Bitcoin and Ethereum, have hogged the headlines, taking investors on wild rides as their prices gyrate. But the technology is more likely to make a substantial impact in the form of government-sanctioned digital currencies, issued and controlled by central banks.

The Bank of England has spoken of plans to launch its own digital currency (informally dubbed "Britcoin") by 2025. Sweden may launch a digital krona a year later.³¹ China is already trialling a digital yuan across a number of provinces, potentially creating competition for the mobile payment systems of WeChat and AliPay.³²

In the case of digital currencies, there are still technical challenges that need to be overcome, such as their interoperability between platforms. But the big barriers are in regulation and trust. A digital currency issued by a central bank could give the state a window into the day-to-day transactions of its citizens, allowing nosy officials to exploit unprotected purchasers, or an interventionist regime to veto the consumer preferences of its people. On the other hand, digital currencies might give governments and

³¹ https://www.cnbc.com/2021/11/12/central-bank-digital-currencies-are-moving-slowly-but-not-in-china.html

 $^{^{32}\,}https://www.cnbc.com/2021/03/05/chinas-digital-yuan-what-is-it-and-how-does-it-work.html$

monetary authorities a direct route for placing funds in the hands of their citizens, making transfers direct to mobile devices rather than through commercial banks, with profound implications for those currently excluded from financial services.

Nejoud Al Mulaik of Fintech Saudi tempers the optimism: there is still a lot of work to be done before this technology can be fully exploited, she advises. "We've seen blockchain testing in insurance, trade finance, digital currencies by central banks, but we need to understand more about blockchain implementation as we move forward." Ms Mulaik suggests that, to really take off, blockchain technology will need to be implemented more broadly than in a single sector such as finance. "The use case needs to go into the financial sector, the government sector, real estate... and there are the required changes to laws and regulations."

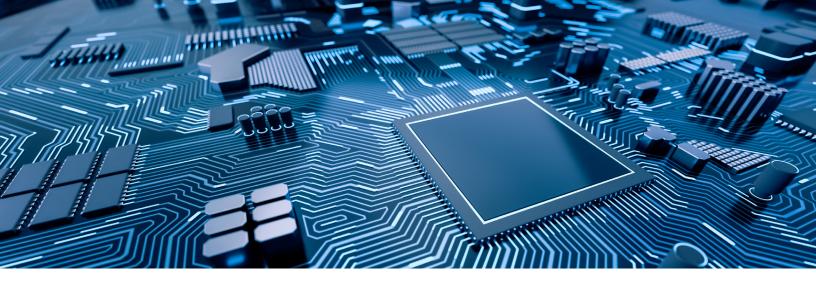
But few doubt that the technology is coming, and that it will have profound implications for financial transactions. "I was driving in California, and we passed a gas station that accepts digital currency as a form of payment," says Armstrong Takang, special adviser (ICT) to the minister of finance in Nigeria. "It just tells you where the world is going."

The coming data dividend

The confluence of developments in AI, big data, rising processing capacity and regulatory convergence on data-sharing standards may transform the way digital services can exploit silos of customer data to tailor their offerings. As we set out in the first report of this series, 'From online bazaar to one stop shop: The rise of super-apps in the Middle East and Africa', data collection and analysis are key advantages for those companies that have access to the right data flows. China's super-apps are examples of the extraordinary richness that gaining a glimpse of the lifestyle preferences, consumer choices and financial situation of a billion people (WeChat has 1.2bn registered users) can provide.

For the MEA region it will be some time before any operator has access to such a rich data mine. The region boasts plenty of people, 1.5bn at the last count, but they are scattered across 72 national jurisdictions with varying levels of digital penetration and contrasting data protection laws, so forming the kind of pools available to China's apps is impractical. But this makes the advantage super-apps enjoy in exploiting data more critical.





Super-apps benefit from being able to gather behavioural data from their users across the range of activities their component apps cover. A superapp may know where its clients travel and how often, what movies, television shows and music they prefer, what and when they eat and how much they pay for it, the content of their supermarket trolley, the state of their bank account and even of their health. "Understanding how much your customer is spending and where, coupled with your data insights of where your customer is, what they do and their state of mind: it's just an immense wealth of information," says Nameer Khan of the MENA Fintech Association.

Combining and analysing this data gives the operator invaluable intelligence about what to sell next and what additional functions might be added profitably to the super-app's stable. Specialised apps can do some—but not all—of this. As regulatory and number-crunching challenges are overcome, improved tools for analysing these data could fuel a new age in personalised digital services.

The next leap in data analytics may come with the commercialisation of quantum computing, which uses the quantum characteristics of sub-atomic particles to perform calculations much more rapidly than conventional processors. All operating on quantum chips could draw deeper insights from silos of big data, and more quickly than the current technology allows. Where data analytics provides an edge, quantum computing could deliver a decisive advantage.

Full-scale quantum computers remain some distance away. In 2018 Intel, a chip maker, thought the technology was a decade away,³³ but in early 2021 Goldman Sachs, an investment bank, announced that they could be using quantum algorithms for pricing securities within five years.³⁴ In the meantime, research into quantum programming is already helping developers to improve AI and data analytics, so benefits may be closer to hand.

Quantum computing and the blockchain are transformative, but both must overcome substantial technological and regulatory hurdles before their potential can be realised. Furthermore, increasingly stringent data privacy laws may curtail some of the benefits of harnessing vast amounts of data (discussed in more detail in the first report in this series).³⁵ Other innovations based on technology are closer to hand and, in some cases, already well established in mature markets.

Open all hours

Another potential game-changer is the idea of open banking, which relies on secure, efficient and seamless communications networks to share information between stakeholders in the financial sector. Understandably, traditional banks have been guarding the information they collect on their customers jealously over the years. Indeed, privacy is a key selling point—and in some instances the very raison d'être of financial institutions. However, while this secures the privacy of clients

³³ https://www.scientificamerican.com/article/how-close-are-we-really-to-building-a-quantum-computer/

³⁴ https://www.ft.com/content/bbff5dfd-caa3-4481-a111-c79f0d38d486

 $^{^{35}\} https://impact.economist.com/perspectives/sites/default/files/ei-mastercard-super_apps-report-v11.pdf$

and erects barriers to entry that protect incumbent institutions, it also throws sand into the gears of innovation. The open banking movement aims to change that. Under strict regulatory oversight it creates a pool of common data that incumbent banks, fintechs, super-apps, other digital innovators and indeed customers themselves can use to extend financial services into new markets and transform the user experience. Super-apps or developers of third-party apps could make use of these data in order to create new products and services that are tailored to their customers' preferences.

The UK and the EU have had open banking regulation in place since 2018. The US has yet to provide a comprehensive regulatory framework, but few doubt that it is on the way. In the MEA region the concept is in its infancy, but in countries where financial exclusion is frequently combined with high mobile penetration, this is perhaps where it has the most to offer. The regulatory picture is patchy, with Saudi Arabia and Bahrain leading the way.

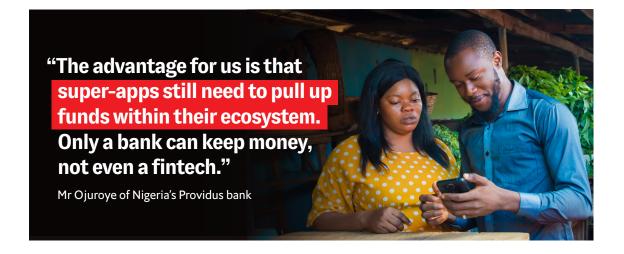
However, in the absence of a clear regulatory framework the industry itself is taking the lead.

Mr Ojuroye of Nigeria's Providus Bank is a convert:

"We've been early adopters of open banking," he says. "The advantage for us is that super-apps still need to pull up funds within their ecosystem. Only a bank can keep money, not even a fintech." In effect, without a banking licence a digital service provider, whether fintech or super-app, needs an account with a licensed entity. "We make sure that they can be successful with what they do, and we can enjoy keeping the money, which is what a bank does"

Mr Waked at Uber recognises the impact open banking could have in the region, where it is "key in building financial inclusion". He acknowledges the challenges but is optimistic: "A lot of regions are still ahead of where we are [but] I'm sure we'll get to it."

More broadly, the open banking example shows that for the MEA region revolution can come as incipient technologies arrive from elsewhere. "There are huge forces at play that are changing the playing field," says Mr Rio Tinto of Emirates NBD. "You've seen how in the last ten years these cloud companies like Amazon are coming. These companies that are technical in their core are influencing everything. And of course, they're also playing a role in how we get pushed to innovate as well."



Conclusion

The digital transformation of business and society has found fertile ground in the Middle East and Africa region. A combination of factors has spawned a blossoming of digital services that is still gathering pace. The main drivers include the abundant availability of low-priced smartphones; disbursed populations often shut off from convenient access to commercial and public services; enthusiastic policymakers keen to exploit the opportunities of digital technology for rapid development; and international investors searching for promising new markets.

Among the business models that have shown early promise in the region are the super-apps—mobile digital platforms that offer a suite of proprietary and third-party functions under a single brand. The model was first established in China with WeChat and Alipay, but it is beginning to emerge as an attractive model in the Middle East and Africa, where it is advancing faster than in more mature markets such as the US and Europe.

Super-apps tend to follow a common evolutionary path, as specialised apps with a large, engaged and loyal audience launch adjacent services within the same app. As they become established, the next move for super-apps is to allow third parties to use the platform they have established to reach a wider consumer base than they could achieve on their own. For the MEA region's nascent apps services still tend to be limited in number and scope, but China's Alipay, with more than 1m services on its platform, shows the potential for aggregation that the model permits.

Super-apps are distinguishing themselves by their local knowledge and experience in key markets. But non-financial super-apps, in particular, struggle with access to essential payment infrastructure. Thus far, partnerships have been the way forward for many non-financial super-apps, which have teamed up with financial services incumbents, such as banks or other institutional financial organisations, to enable digital payment services. But an easing of regulations on this front may open up the playing field and enable a greater share of non-financial players to participate.

Governments and public entities are thus playing a key role in the expansion of digital markets: regulators are providing legal frameworks that can facilitate business transactions while protecting consumers; state sandboxes and accelerators are providing forums and financing to bring market participants together and facilitate innovation; public agencies are investing in digital mobile technology to improve access for underserved populations; and public services are collaborating with private innovators to remove friction from customer transactions in areas such as mobility.

While the Middle East and Africa region gets to grips with the technologies and business models that have transformed global business over recent decades, it must also prepare for the next waves of innovation. In the longer term, technologies such as quantum computing and the blockchain will present new challenges and opportunities, while technologies such as open banking, already gathering speed in other markets, will bring profound change to the growth trajectory of super-apps in the region too.

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