



CFA Society
Pakistan

FINTECH 2020

A Report on Technological
Innovations in the Financial
Services industry



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BROAD OBJECTIVES OF FINTECH 2019-2020

This report highlights a handful of innovators from across the globe. These organisations may help to inspire, engage, and activate both individual members and organisations to think about ways to harness the growing breadth of innovation across financial services technology (fintech) to create value for their stakeholders.

- Define the fintech landscape for the novice reader. Provide additional colour around many of the fintech and adjacent areas of innovation in financial services for the more experienced practitioner.
- Help the reader to understand recent trends in APAC fintech better. Present case studies that highlight fintech startups from around the world using a modified business model canvas.
- Focus on the status of fintech in Islamic Finance and its potential scope for growth. An area of interest is the expansion of fintech startups in Islamic Finance from North America to South East Asia.

CFA Society Pakistan is a member society of CFA Institute which administers and awards the prestigious certification of CFA® charterholder, globally considered as the gold standard in investment management. CFA Institute Asia-Pacific Research Exchange (ARX) serves the Asia-Pacific (APAC) community by spurring research and information exchange with a core focus on fintech. ARX has actively supported the production of this report to facilitate not only charterholders but the broader APAC community to integrate smoothly and grow in this new era of technology disruption. This paper is a first glance at the dynamic world of fintech as it revolutionises how the world does business.

To produce this report, CFA Society Pakistan partnered with Erly Stage Studio (ESS), a specialist research organisation that has been authoring reports in the technology and startup space since 2013.

Our heartfelt thanks to our partners in this endeavour, which we believe has merely touched upon the fintech explosion we are witnessing. It provides the reader with an understanding of where the world is heading, how to become a part of the change and, most importantly, how to benefit from this revolution.

Project Lead
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DISCLAIMER This report is not intended to provide any type of financial services or investment related advice to its reader.

WHAT IS FINTECH?



The word 'fintech' has been created by melding two well-understood words: 'Fin' refers to financial services and 'tech' pertains to technology and the specialised software or hardware designed for a particular use. Fintech itself is the application of technology for the delivery of financial services across any channel. Financial applications now run on all forms of hardware, ranging from mobile phones, computers or tablets, kiosks, and even smartwatches. The deployment of technology in the delivery of financial services has been revolutionary and has increased access to services, reduced operating costs, improved efficiency, and delivered customer ease and convenience at a fraction of the previous price.

Today, fintech incorporates a broad spectrum of technology that is being used to deliver services ranging from digital banking, online insurance, crowdfunding, cryptocurrencies, and the online trading of financial instruments, to name a few. This landscape continues to evolve across the globe and is seeing unprecedented innovation, as regulators create a safe environment for experimentation. If one word can describe how fintech has impacted traditional financial services, it is 'disruption'.

APAC consumers have experienced fintech innovation at the hands of large banks in the first wave of technology adoption, where significant developments in payments increased the velocity of money around the world. This was followed by the rise of fintech startups that looked to innovate mostly around new channels for distribution and engagement. While fintech startups have continued to mushroom across the APAC region, there remains significant scope for fintechs to take on many traditional areas of financial services that have not yet experienced disruption. New technology may, at times, also come with new business models. There is much that APAC fintech practitioners can learn from one another, but also from implementable ideas that are scaling around the world.

Some examples of areas impacted by fintech include (but are not limited to):

- Payments
- Crowdfunding by various startups working with investors
- Digital banking
- Peer-to-peer lending
- Real-estate investment
- Insurance cryptocurrency (application of blockchain)

• FINTECH IN ISLAMIC FINANCE

Islamic Finance, which is dominated by more traditional and domestic financial institutions, has begun to adopt fintech solutions and started a transformative journey that will likely grow the global fintech market. Fintech in Islamic Finance does, however, have a long journey ahead as many consumers or potential customers have yet to discover or sign-up for the innovative solutions that are making their way into the market.

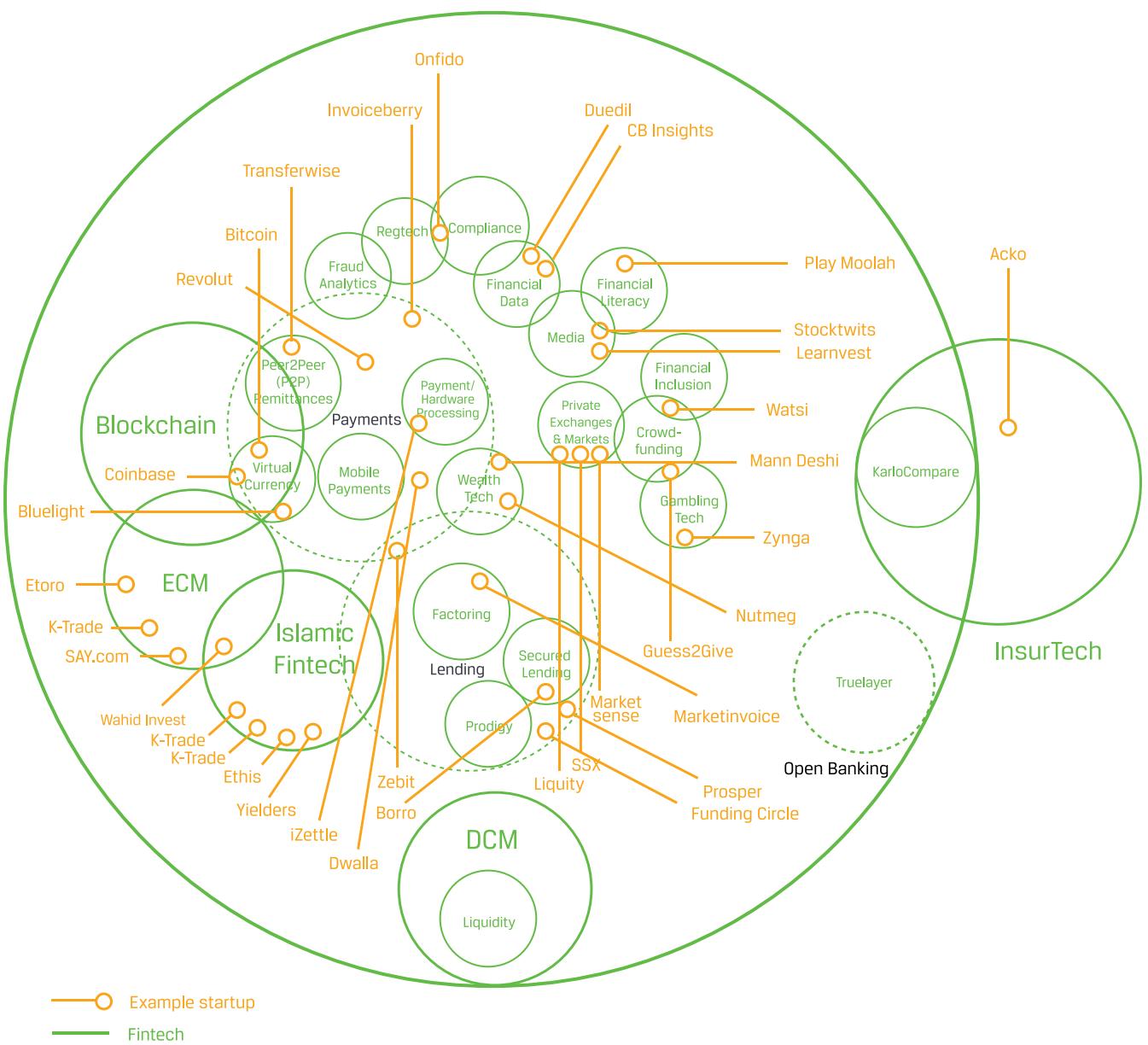
Fintech is an enormous enabler for more traditional Islamic finance providers, as digital distribution makes Islamic finance products available at the touch of a button and allows for greater access to capital for the Islamic fintech market overall.

Fintech startups in Islamic Finance have focused on complying with Shariah rules. As shown below, many of the prohibited areas are in line with Environmental, Social and Corporate Governance (ESG) earmarked investment areas, which are hallmarks of better-run businesses. This makes Islamic finance more attractive for a broader potential customer base.

The salient features of fintech in Islamic Finance that distinguish them from traditional fintechs include:

- The prohibition of investing in businesses that are not Shariah compliant. This includes a ban on dealing in alcohol, pork, the adult entertainment industry, and highly leveraged instruments, etc.
- Takaful (Shariah-compliant insurance procedures).
- Sukuk (Islamic bonds).
- Shariah Advisory Board, which decides if a fintech is Shariah compliant.

GLOBAL FINTECH LANDSCAPE – EXAMPLES OF COMPANIES WITHIN EACH SPACE



WAHED INVEST

CASE STUDY: THE SCOPE OF WAHED AS A MULTINATIONAL FINTECH IN ISLAMIC FINANCE

Wahed is a US-headquartered, online investment platform for those focused on Halal and Shariah-compliant investment opportunities. The startup is a Robo-advisor that provides advice and helps investors make educated investment decisions that fit with the principles of Shariah (i.e. Islamic values and guidelines).

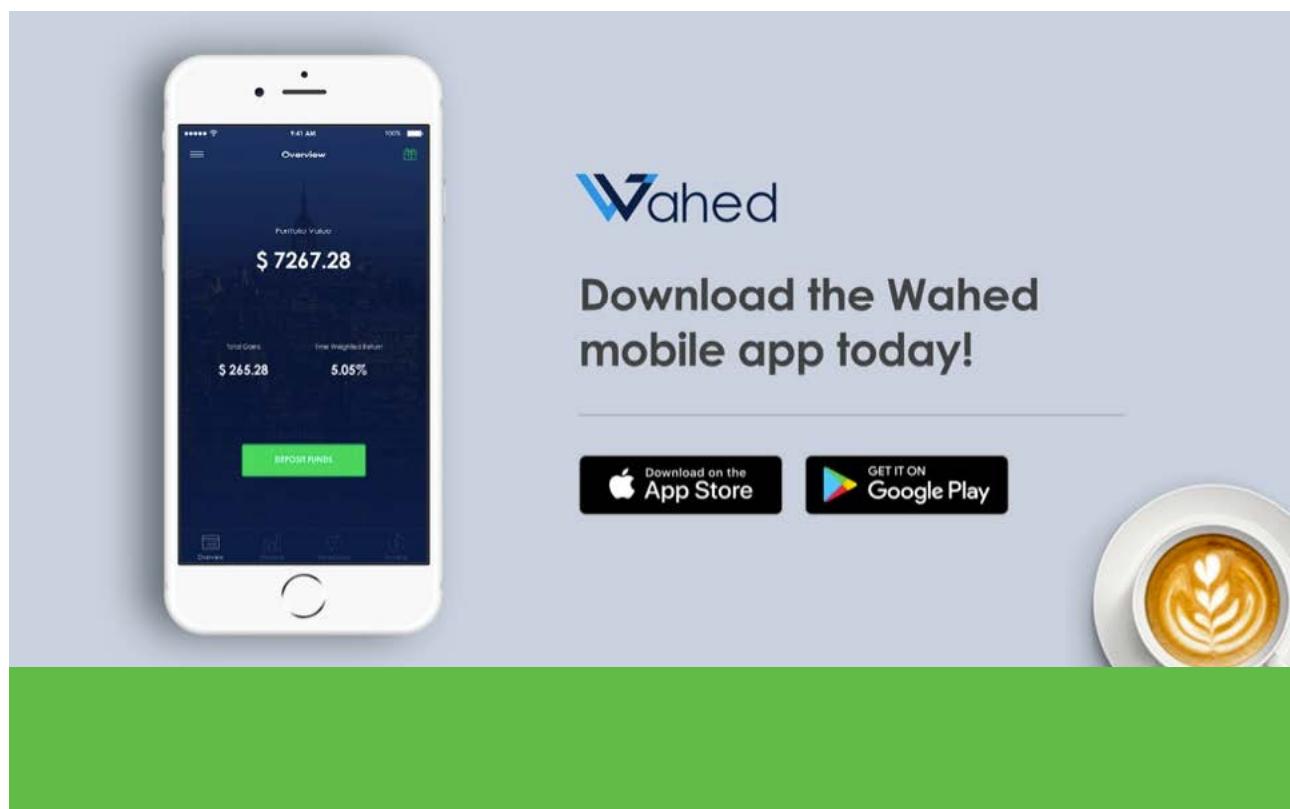
Wahed was founded in New York City on 1 May 2015 by Yale graduate Junaid Wahedna. It is one of the world's leading Islamic fintech startups. Wahedna, currently CEO of Wahed Invest, has raised a total of US\$19.8 million and already claims revenue of US\$3.5 million.

At the time of writing, Wahed has around 50 employees and is starting to scale. The platform was launched in the US in 2017 and expanded into the UK market in 2018. It has found that 84% of its users are either new to or somewhat familiar with investing. The team well orchestrated the launch of the application with their marketing prowess resulting in over 40,000 interested users signed up on the waitlist before commencement.

Wahed now provides access to Islamic value-based investing to the residents of over 130 countries including key markets across Nigeria, India, Pakistan and the MENA region.

Wahedna explains the "Shariah-compliant" as well as "ethical investing" aspect of this firm:

“What we do is run an ethical filter over all our investments. We screen for excessive debt, alcohol, tobacco, firearms, pornographic material and a few other unethical factors.



WAHED INVEST (CONTINUED)



Wahed invests in:

- 1. Sukuk:** Sukuks are Shariah compliant bond like products.
- 2. Gold:** Commodities, as an asset class, have had a historically low correlation with stocks and bonds. The startup has included gold to represent this asset class. According to the fintech, gold provides the potential for long-term capital appreciation and acts as an inflation hedge. The gold ETF included in the portfolio is intended to effectively capture the price volatility of gold in the spot market, thereby generating a return that is similar to the returns in the spot market.

3. Global stocks: Global stocks mainly focus on the developed markets of the world. The fintech describes these as diversified investments across sectors and geographies and generally follows a large-cap value investment style which is similar to that of other robo-investors, within the limitations of their mandate.

4. Emerging-market stocks: According to Wahed, emerging-market stocks provide great potential for geographic diversification and growth. The startup describes this asset class as coming with a higher risk than developed-market stocks. Yet, it can potentially provide higher returns due to the rising economic output and market capitalisation of emerging markets.

WAHED FEES

To use the application, Wahed Invest charges a mix of fixed fees, along with some variable costs. These are detailed in the table below:

COST	VARIABLE COST*	FIXED COST
	*percentage on cost	Amount (in Sterling)
ANNUAL FEE	0.99%	£29.70 (INCLUDING £4.95 VAT)
ANNUAL INVESTMENT FUND COST	0.88%	£26.40
ANNUAL MARKET SPREAD	0.05%	£1.50
TOTAL MONTHLY FEE	0.16%	£4.80

BUSINESS MODEL CANVAS

KEY PARTNERS	KEY ACTIVITIES
<p>1. Organisations that assist with the distribution of the platform or are strategic marketing channels. To date, this can be observed in North America via the Islamic Society of North America (ISNA).</p> <p>2. Wahed has designated its Shariah review to Straightway Ethical Advisory LLC, a leading US-based Shariah financial advisory firm.</p> <p>3. Several leading Asset Management Companies to offer their fund products to their end customers such as HSBC, Franklin Templeton, and others.</p>	<p>1. Systems and a robo-advisor will create investor portfolios.</p> <p>2. Investments vary according to risk profile, from very aggressive to very conservative, and will only utilise compliant instruments that pass the "ethical filter".</p> <p>3. Technology platform.</p>
COMPETITORS	VALUE PROPOSITION
<p>1. Betterment</p> <p>2. Wealthfront</p> <p>3. Nutmeg</p> <p>4. Federated Investors</p> <p>5. Virtus Investment</p>	<p>1. Easy online Ethical (Halal) investments using a smartphone – for retail, HNW and institutional investors.</p> <p>2. "Investment in line with your values" is the marketing positioning with a visibly Muslim customer base depicted in the above-the-line advertising campaigns (head-dress/scarf- clad woman).</p>
CUSTOMER RELATIONSHIPS	CHANNELS
<p>1. Digital self-service for retail investors.</p> <p>2. Account management and service via follow-up calls to customers after the completion of the registration process.</p>	<p>1. iOS and Android apps.</p> <p>2. Wahed Invest website to register and invest.</p> <p>3. Wahed Invest has launched an educational series with Dr Yasir Qadhi to inform its customers about Halal Investing.</p>
KEY RESOURCES	CUSTOMER SEGMENTS
<p>1. A team of 50 employees</p> <p>2. Wahed Shariah Fund</p> <p>3. Wahed Growth Investment Fund</p>	<p>1. Mass-affluent Muslim investors looking for Halal investment opportunities.</p> <p>2. Millennial professionals that are retail investors.</p> <p>3. Institutional investors who wish to create an endowment via the Wahed Waqf Fund.</p>
COST STRUCTURES	REVENUE STREAMS
<p>1. Regulatory costs in each market.</p> <p>2. Shariah audits.</p> <p>3. Compliance and legal.</p> <p>4. Resources spent on hiring, training and retaining employees.</p>	<p>Wahed charges two types of fees:</p> <ul style="list-style-type: none"> • An annual fee. • A fee levied by the funds it invests in.
REGULATIONS	
<p>1. In the US, Wahed Invest LLC. is registered as an investment advisor with the Securities and Exchange Commission (SEC).</p> <p>2. In the UK, Wahed Invest is an appointed representative (AR) of WealthKernel (Reference number: 723719) which is authorised and regulated by the Financial Conduct Authority (FCA).</p> <p>3. The Middle East entity is Wahed Robo SPC, a sandbox investment advisor, that is licensed and regulated by the Central Bank of Bahrain.</p>	

GROWTH OPPORTUNITIES FOR WAHED INVEST IN FINTECH IN ISLAMIC FINANCE

Singapore

Singapore, a country with nearly a million Muslims, is an attractive destination for Islamic Fintech. As such, there is a demand for Islamic lifestyle products, including those from financial services.

Singapore also provides the perfect South-East Asian launchpad for Fintech startups, with large Muslim populations in nearby Indonesia and Malaysia.

Malaysia

Malaysia has long championed Islamic finance and launched the Islamic Fund and Wealth Management Blueprint in January 2017. This included a framework for Socially Responsible Investment (SRI) funds that will help Malaysia establish itself as a global hub for Islamic funds.

India

India has also emerged as the top destination for investment in technology, with a record amount of venture capital pouring into the country due to the significant consumer opportunity. Traditionally lacking other online Islamic finance options, Fintech startups, such as Wahed, have a bright future servicing India's large Muslim population.

Pakistan

The market size for retail investors that leverage technology to make investments is tiny, but presents an opportunity in the years ahead.

UK

Islamic finance is one of the fastest-expanding financial service sectors in the UK, with special savings and loan services now widely available. At present, there are six standalone Islamic banks and twenty conventional banks offering Shariah-compliant financial products and services, and these numbers are expected to rise. Wahed Invest is the first Shariah-compliant robo-advisor fund to be launched in the UK.

Not every Islamic investment market is immature. Malaysia is more mature in terms of everything. They have their own ETFs, for example, but it's also localised. Right now, we're taking over the dollar-denominated clients, so anyone who wants to invest with us should know that all our portfolios are dollar-driven. Malaysia has its own local markets, like Indonesia or India. The GCC, Africa, and America are happy with the dollar, but when we go east, we need to think about other currencies. When we do that, the good news is that there are enough products in Malaysia."

- Wahedna in an interview



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Kashat (formerly known as Kash Egypt) is a fintech startup for nano-finance lending that targets banked and unbanked clients. It provides credit to those who have never previously had access (NTC, New to Credit) in Egypt. Kashat utilises a mixture of proprietary and non-owned technology to register, recognise, and subscribe to consumers. The product will be piloted in the next few months for smartphone users and will eventually be rolled out to feature-phone users.

According to the Co-Founder & CEO of the venture, Sumair Farooqui, Kashat has been fortunate to receive significant interest in potential partnerships from industry leaders across banking and telecommunications. Currently, Kashat is in a discussion to partner with one of the country's major telecommunications companies to support its feature-phone clients. When this partnership is concluded, this will be the first time in Egypt, and potentially the MENA region, that a company serves the 3G/4G and GSM range of the cellular networks. Support and partnerships like this will help the venture to boost its addressable market while decreasing customer acquisition costs.

The startup is the result of a partnership between Pharos Holding for Financial Investments and Planet N Group. Pharos Holding is one of Egypt's leading non-banking financial service suppliers. According to Aladdin Elafifi, Co-CEO Pharos Holding, technological acceptance has changed the course of business over the previous 7 to 9 years across multiple consumer web products. Kashat is its attempt to reach large audiences without the physical facilities needed to do so. After looking at the possibilities, they concluded that fintech, although popular in Egypt, was not reaching its full potential. There were hardly any ventures catering to the unbanked and underbanked sector and there was no focus on any other fintech areas, except

financial payments. Pharos Holding, therefore, came up with a new service idea and partnered with the Planet N group to build Kashat as one of the leading lending business startups in the region, with hardly any competitors.

Nadeem Hussain, Founder & Coach Planet N Group, (previously Founder & President Tameer Microfinance) sold first to Telenor and later purchased by the AliPay group). With its youthful-and-talented workforce, an emerging digital-payment network, swift adoption of technology and a well-targeted market segment, Mr Hussain is more than hopeful about the potential of this startup. Many people in Egypt have rejected financial services until now; however, the rise in technology and the decline in mobile prices will ensure an eventual large-scale acceptance. There are plans to expand the business to other Arab-speaking countries, most probably the MENA region once it shows signs of success in Egypt.

CHALLENGES FOR KASHAT

One of the biggest challenges that Kashat faces as a nano-finance lending venture is bad debts. Loan impairments can pose a threat to the company's profits, as a failure to return loans increases with the inclusion of unbanked and underbanked customers. As there are no strict banking restrictions for common smartphone users, the probability of non-performing assets (NPA) increases.

To tackle this, the Pharos Holding workforce will be a great asset to Kashat. Asset Management is one of the few services Pharos Holding offers and these NPAs will be accounted for under bad debts in its management system.

KASAHAT (CONTINUED)

POTENTIAL MARKETS

Egypt currently has the highest number of unbanked customers among all the Arab-speaking countries. It can become the most significant potential market for Kashat and is an ideal place for its launch – Egypt's population has just passed the 100 million mark and it has 38.3 million smartphone users, plus a mostly underbanked or unbanked population. Other markets, such as Morocco, that have an elevated SIM penetration and a high ratio

of unbanked and underbanked customers, are seemingly ideal places for the startup to prosper. However, strict regulations in Morocco can pose a significant challenge to its growth plans. Elsewhere, regulations in the Kingdom of Saudi Arabia (33.6 million population, just a few million behind Morocco) also strongly favour Kashat, as it is encouraging foreign investors. The number of smartphone users may also prove to be a good target market for the startup.



BUSINESS MODEL CANVAS

KEY PARTNERS	KEY ACTIVITIES
1. Leading regional and international telecom operators.	1. Digital finance 2. Credit delivery system 3. Register, identify and underwrite users 4. Collections
COMPETITORS	VALUE PROPOSITION
1. Money Fellows	1. Deliver credit to those in Egypt who have had no previous access (NTC). 2. First in the region to service 3G/4G as well as GSM. 3. Mobile-first.
CUSTOMER RELATIONSHIPS	CHANNELS
1. Transactional 2. Initially provide loans, which will expand to other VAS. 3. Build a financial identity to qualify for higher-value loans.	1. Kashat website 2. Mobile application 3. Email
KEY RESOURCES	CUSTOMER SEGMENTS
1. Proprietary and non-proprietary technology. 2. The workforce from Pharos Holding and its existing business network.	1. Ideally unbanked and underbanked 2. Smartphone users, using any cellular spectrum 3. Plans to extend the service to feature-phone users
COST STRUCTURES	REVENUE STREAMS
1. Technology infrastructure 2. Underwriting 3. Hiring, training and maintenance staff 4. Collections 5. Lending-based operations	1. A processing fee charged per loan transaction 2. Loan fees charged on every loan
REGULATIONS	
1. A non-banking financial company (NBFC) in Egypt, such as a cashless fintech startup, would be regulated by the Financial Regulatory Authority (FRA). 2. The Egyptian National Payment Council was founded in 2017 to encourage and increase cashless services within the country.	

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CASE STUDY

Ethis is the first Shariah-compliant Islamic crowdfunding startup. It is an Indonesia-based investment platform for those interested in real estate and impact investing, and aims to fund property-based projects

Founded in 2014 by Umar Munshi, Ethis has raised project value of US\$45.1 million (at the time of writing). The venture has supported the construction of over 8,300 houses with the help of 1,275 investors. The company has offices in Jakarta, Kuala Lumpur and Dubai, and functions widely in the ASEAN and APAC regions.

Ethis is gaining popularity worldwide as it works with Islamic scholars to give the green light to investment opportunities into real estate.

The startup currently boasts an investor community based in over 59 countries and has received various government awards, such as the GIFA award for Best Islamic Crowdfunding Platform in 2016, and the World Islamic Fintech Award in 2018.

ETHIS MARKETING WEBSITE

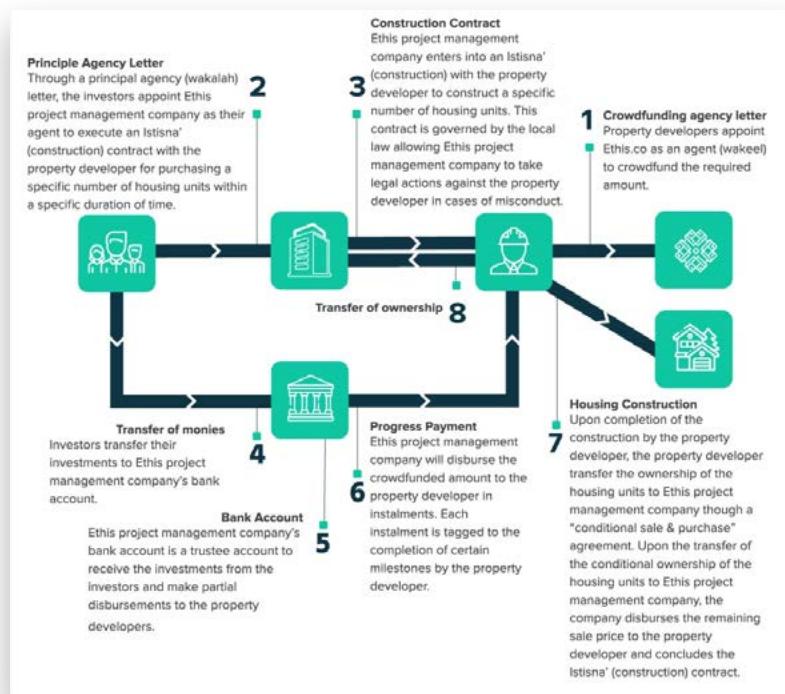
Discover
High-yield, social-impact property developments to invest in

Project	Type	Location	Pledge (%)	Raised (%)	Projected Return	Duration	Goal	Raised	Time Remaining	Action
THE ESSENTIAL DARU	Affordable Housing	Daru, Banten	137.85%	70.93%	28 - 30%	23 - 24 months	SGD \$426,000.00	SGD \$302,161.93	10 day(s) to go	VIEW
PESONA PRIMA CIKAHURIPAN 2	Affordable Housing	Bogor, West Jakarta	140.85%	93.03%	11 - 13%	11-12 months	SGD \$218,542.00	SGD \$203,314.13	10 day(s) to go	VIEW
GRIYA GARDA GARUDA	Affordable Housing	Cilitung, West Java	156.96%	99.75%	11-12%	10-11 months	SGD \$391,495.00	SGD \$390,499.91	0 day(s) to go	VIEW

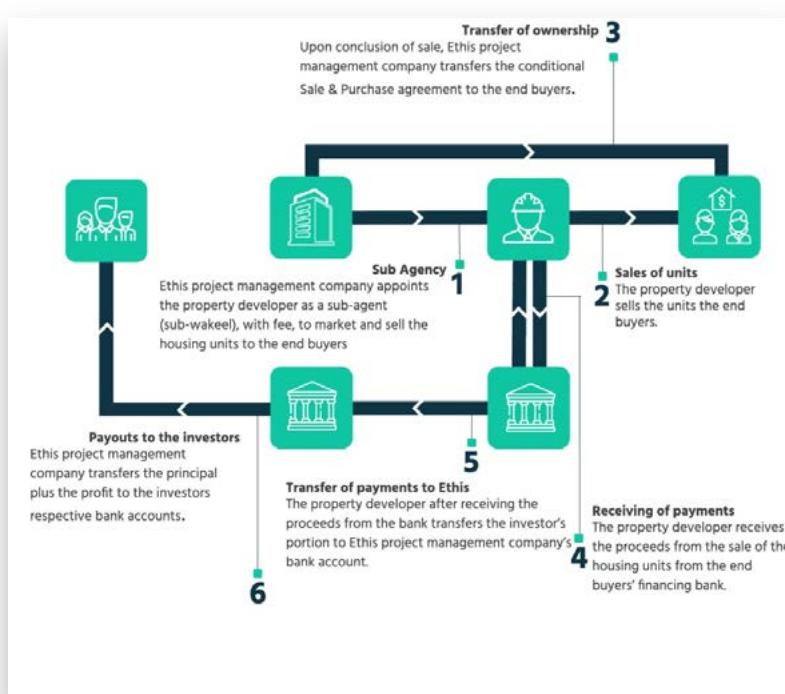
Source: <https://ethis.co/>

INVESTMENT STRUCTURES

ISTISNA'



MURABAHAH



ETHIS (CONTINUED)

BUSINESS MODEL CANVAS

KEY PARTNERS	KEY ACTIVITIES
1. The Islamic Development Bank (IDB) and Ethis Ventures are working together to create greater market capacity. 2. Ethis also has an affiliate programme.	1. Identifies real-estate investment opportunities (Indonesia). 2. Allows investors to pool their money and invest in Shariah-certified property-related investment opportunities. 3. Works with Islamic scholars to certify investments as Halal.
COMPETITIORS	VALUE PROPOSITION
1. Yielders (2016), UK	1. The first fully Shariah-certified property crowdfunding/investment platform. 2. Invest from any country in Indonesian real estate.
CUSTOMER RELATIONSHIPS	CHANNELS
1. Community-led investment. Crowdfunding has unique dynamics that require the management of the community, as well as individual customers. 2. Digital self-service. No real account managers, instead of community managers or opportunity managers.	1. Website 2. Online platform 3. WhatsApp 4. YouTube (Customer education)
KEY RESOURCES	CUSTOMER SEGMENTS
1. Religious groups are involved to help earmark the opportunity as being within the guidelines of Islamic finance	1. Mass-affluent Muslim investors who are looking for Halal investment opportunities. 2. Institutional investors.
COST STRUCTURES	REVENUE STREAMS
1. Trade and property campaign marketing costs. 2. B2C marketing costs. 3. Technology and payroll costs.	1. Profit sharing, as a result of the sale of the underlying asset according to a ratio agreed with the developer.
REGULATIONS	1. According to Ethis, there are currently no regulations in Singapore for the type of crowdfunding activity the company is involved in. For this reason, Ethis is not regulated by the Monetary Authority of Singapore (MAS). However, Ethis does report its activities to MAS in order to obtain regulatory advice and ensure that no laws are violated. Ethis seeks to keep its business practices fair and transparent, and by doing so it aspires to implement crowdfunding best practices. 2. According to the Ethis Islamic Crowdfunding report, it currently operates in three countries: Singapore, Indonesia, and Malaysia. It is concurrently setting up and processing regulatory approvals in two other countries.

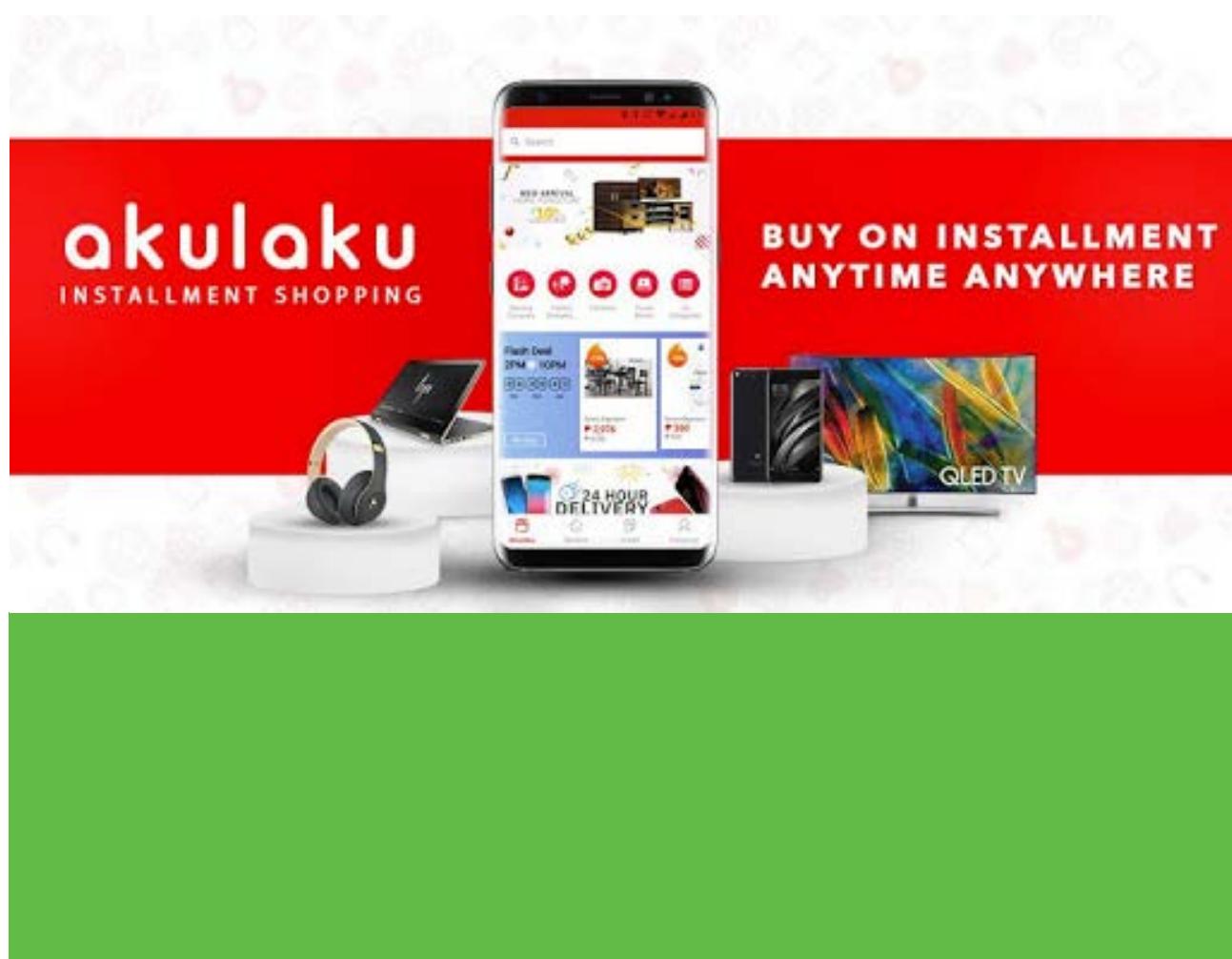


Akulaku is an e-commerce-based fintech company operating in the ASEAN region. It is a digital platform that enables cardless instalments for car loans, bill payments, top-ups, and travel-related payments. The key segment for the startup is working professionals in the South-East Asian market. The company currently has operations in Malaysia, Indonesia, the Philippines, and Vietnam.

Headquartered in South Jakarta, Jakarta Raya, Akulaku was ranked second in the 50 most funded fintech startups in the ASEAN region (ASEAN Investment Report 2018) with total funding of \$150 million and total revenue of \$220 million. Akulaku was co-founded by William Li in 2016,

who is currently its CEO. Widely perceived to be simply a lending-and-borrowing service provider using technology, Akulaku offers much more.

Among its vast array of online products, the company offers online credit services that do not require the use of a credit card (purchase financing or check-out financing). It aims to make shopping easy by using "my credit" facilities that allow customers to pay from anywhere. It also provides easy instalments on shopping items using safe transaction procedures, which are registered and certified by OJK (the local market regulator in Indonesia).



AKULAKU (CONTINUED)

BUSINESS MODEL CANVAS

KEY PARTNERS	KEY ACTIVITIES
1. Samsung 2. Acer 3. Oppo 4. Vivo 5. Alphamart 6. Asus 7. Steam	1. Online consumer lending 2.Underwriting credit 3.Collections 4.Easy instalments for car loans 5.Bill payments 6.Top-ups 7.Travelling.
COMPETITIORS	VALUE PROPOSITION
1. Affirm 2.FuturePay 3.Zibby	1. Cardless and cashless money transactions 2.Digital Wallet 3.Electronic Payment Services 4.A variety of loan repayment options 5.Easy and straightforward loan procedures
CUSTOMER RELATIONSHIPS	CHANNELS
1. A FAQ forum on the Akulaku website. 2. Akulaku responds to the customer service channel on its app and Facebook page.	1. Akulaku app and website 2.Insight from existing customers 3.Email 4.Offline (cash) and online (credit card) payment channel
KEY RESOURCES	CUSTOMER SEGMENTS
1. Ecommerce Platform 2.Akulaku currently has a team of more than 400 people	1. Working professionals 2.Travellers 3."Luxury seekers" – young consumers in need of short-term loans
COST STRUCTURES	REVENUE STREAMS
1. Resources spent on hiring, training and retaining the employees 2. Marketing costs 3.Buying stakes (e.g. in Yuda Bhakti Bank)	1. Subscriptions 2.Registrations
REGULATIONS	<p>1. The company has three regulatory regimes to comply with: a fintech licence (for peer-to-peer lending), an e-commerce licence, and a multi-finance licence.</p> <p>2.All financial business activities, such as those related to lending, are regulated by the Financial Services Authority of Indonesia (Otoritas Jasa Keuangan or OJK).</p> <p>3.Akulaku is also regulated in Malaysia, Vietnam, and the Philippines.</p>

Source: <https://www.akulaku.com/about>

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- Akulaku, Indonesia's consumer instalment loan platform, KrAsia [8]

BANK BAZAAR

BankBazaar is an online consumer finance marketplace that gives customers access to customised rate quotes on loans, credit cards or personal finance products. These include insurance policies, bank loans, and credit card offers.

The business is headquartered in Chennai, Tamil Nadu and was founded in 2008 by Adhil Shetty. It has offices in Bangalore and Mumbai. Adhil is currently its CEO and has a bachelor's degree in engineering and a master's degree in international relations from Columbia University, USA. He has also worked as an engineer with Cisco Systems in Bangalore and San Jose.

BankBazaar partners with over 80 financial organisations in India, including insurance companies and the largest nationalised and private banks. It is supported by global investors, such as Walden International, Sequoia Capital, Fidelity Growth Partners, Mousse Partners, and Amazon, who have helped it raise total funding of US\$110 million. The insurance-oriented fintech employs over 1000 employees to serve its customers and facilitate them in every step of the process. BankBazaar generated Rs103 crore in 2017–2018

according to Times of India. The company is now aiming to double the revenue from its global business. BankBazaar's customers can obtain up to sixteen financial services, including insurance, debit card, credit card, and mutual funds, as well as home loans.

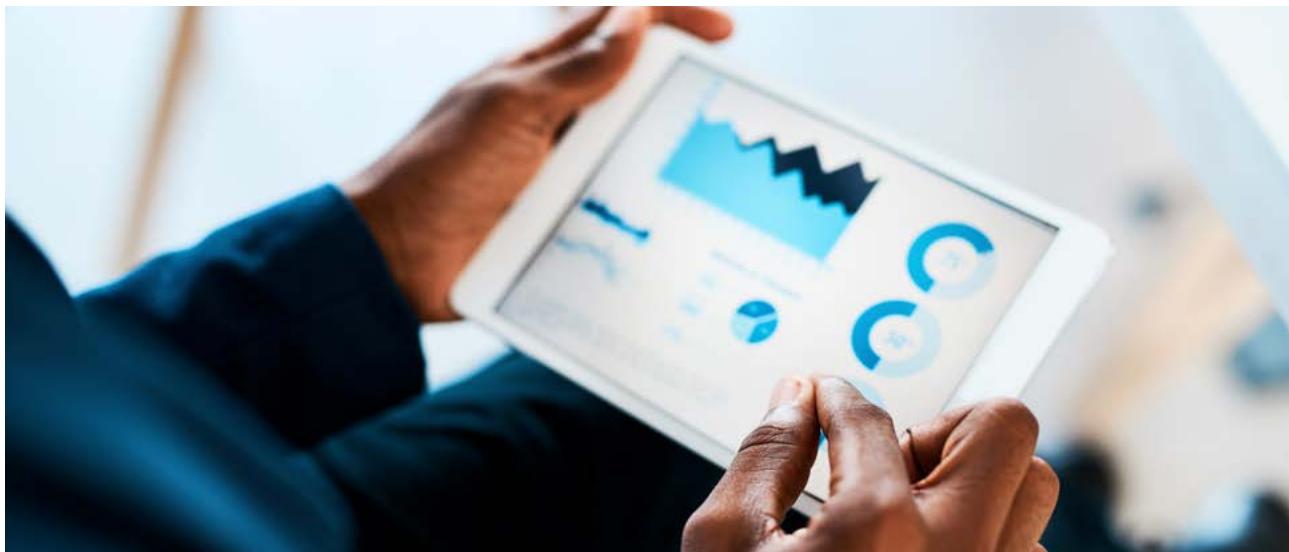
HISTORY

What inspired BankBazaar was an incident when Adhil's brother faced difficulties trying to arrange a home loan. The intensive paperwork plus agents not delivering on their promises encouraged Shetty to come up with this system.

THE GLOBAL REACH OF BANKBAZAAR

BankBazaar currently has overseas operations in Singapore and Malaysia, which contribute 10% of its global business.

A direct competitor, CompareAsiaGroup, has done well throughout Asia. It offers personal-finance choices to customers in Hong Kong, Taiwan, Malaysia, Indonesia, and other ASEAN markets. This means that BankBazaar can scale up quickly given the market opportunities in the region and can successfully go on to expand in Australia, the UK, and the US.



BANK BAZAAR (CONTINUED)

BUSINESS MODEL CANVAS

KEY PARTNERS	KEY ACTIVITIES
<ol style="list-style-type: none"> 1. More than 50 banks and insurers partner with BankBazaar 2. Global investors 3. Tech providers 4. Marketing agencies 	<ol style="list-style-type: none"> 1. Platform operation 2. Business operations 3. Software development 4. Data aggregation
COMPETITORS	VALUE PROPOSITION
<ol style="list-style-type: none"> 1. RupeePower 2. Paisabazaar 3. CompareAsiaGroup 4. Indirect Competitors: Apnapaisa and Rubique 	<ol style="list-style-type: none"> 1. Connects customers with banks 2. Delivers end-to-end paperless transactions 3. Suggests the best offers from various banks and NBFCs (non-banking financial company) 4. Provides instant quotes from banks and eligibility for financial products
CUSTOMER RELATIONSHIPS	CHANNELS
<ol style="list-style-type: none"> 1. Neutral online marketplace 2. Special offers 3. Lowest interest rates 4. Self-service 	<ol style="list-style-type: none"> 1. Web and mobile platforms 2. Community forums 3. Email 4. WhatsApp 5. Voice Support
KEY RESOURCES	CUSTOMER SEGMENTS
<ol style="list-style-type: none"> 1. Platform and technology 2. A network of banking and insurance partners 3. Simple digital process 4. Financial and tech experts 5. Rounds of funding 	<ol style="list-style-type: none"> 1. Multi-sided (B2B and B2C) 2. Mass affluent 3. General consumer market 4. Banking customers
COST STRUCTURES	REVENUE STREAMS
<ol style="list-style-type: none"> 1. Advertising 2. Software development 3. Employees 4. Marketing 5. IT infrastructure (servers & data centres) 	<ol style="list-style-type: none"> 1. No commission or charge to customers, BankBazaar's revenue comes from application-based commission from banks. 2. Its revenue comes via the maintenance of websites for banking clients.
REGULATIONS	
	<ol style="list-style-type: none"> 1. This online distributor of financial products does not currently have a banking licence in India. Nor does it have permission to launch mutual funds or insurance schemes. The startup positions itself as a "neutral online marketplace".

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- Owler, BankBazaar [3]
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Aire is an alternative credit-scoring startup with its headquarters in London, UK. Founded by Aneesh Verma and Srinivas Sundaram in January 2014, the startup is disrupting the world of the credit bureaus by considering several alternative data points and allowing people to have a more nuanced credit score. These alternative data points include what the startup believes are things that really matter, such as financial maturity, career and lifestyle.

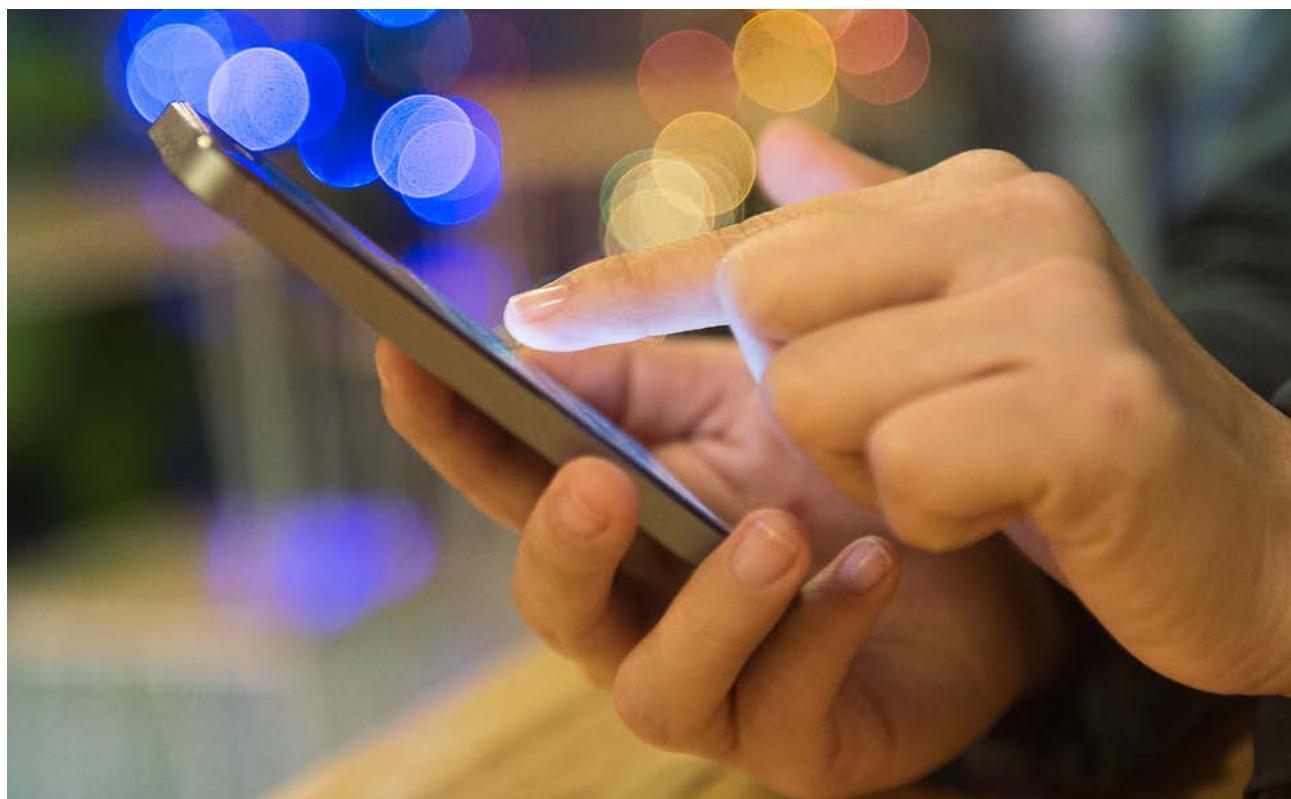
Aire was a participant at Techstar Barclay and is backed by some of the world's leading investors, including White Star Capital, Experian Ventures, Orange Digital Ventures, and others. Aire provides an application programming interface (API) to financial institutions and other customers, which provides an alternative and more holistic credit history of their end-customers.

Aire is also working with credit bureaus, such as Experian. According to the details published

on Aire's blog, Experian can now sell Aire's credit insights combined with its bureau and decision-making services, creating another channel to market for Aire. Partnerships like these are also helping Aire to expand in different geographies, like the USA.

Aire has already helped its lending customers with over \$10 billion of credit, without increasing risk appetite.

Aire was born out of the founders' frustration with credit scores and how credit bureaus were not able to truly understand an individual's circumstances. An example of this would be a creditworthy customer from the US moving to the UK and having to start their credit score almost from scratch. The new approach leverages the very-best capabilities around data science and machine learning to aggregate multiple sources and data points to fashion a credit score.



AIRE (CONTINUED)

BUSINESS MODEL CANVAS

KEY PARTNERS	KEY ACTIVITIES
1. Experian 2. Techstars 3. SparkLabs 4. N Brown	1. Credit Scoring 2. Applicant evaluation 3. API integration 4. Open banking 5. Credit algorithms
COMPETITORS	VALUE PROPOSITION
1. ClearScore. 2. Happy Mango 3. Credit Kudos	1. An easy-to-integrate API that enables customers to utilise the Aire API and have additional data insights for learning decisions. 2. AI-generated predictions of future client behaviour. 3. Use of data sciences to provide professional advice and assist with lending decisions.
CUSTOMER RELATIONSHIPS	CHANNELS
1. B2B sales teams and key-account management structures	1. Direct API integration with partners.
KEY RESOURCES	CUSTOMER SEGMENTS
1. Broad experience in the amount of data they have processed enables Aire to train the credit models to allow for machine learning "10 billion worth of credit at risk". 2. Aire currently has a highly qualified team of data scientists from the world of financial services. 3. It also has clean data rooms and off-site data processing.	1. B2B 2. Financial Institutions 3. Individual lenders, searching for reliable borrowers e.g. banks, NBFIs
COST STRUCTURES	REVENUE STREAMS
1. Resources spent on hiring, training, and retaining the employees 2. API integration costs	1. Aire charges its customers per API call.
REGULATIONS	
1. The EU's General Data Compliance Regulations (GDPR) aims to protect the rights and security of EU citizens – failing to adhere with the rules can result in fines reaching as much as €20 million or 4% of an organisation's worldwide turnover, whichever is higher. 2. Aire is regulated as a credit-scoring startup by the UK's financial regulator The Financial Conduct Authority (FCA).	

Regulators have moved towards enabling customers to switch between providers with greater ease and simplicity. This process started in the UK with the FCA introducing open banking and creating an impetus for banks to create pipes that can transport account-related data from one provider to another. The open-banking movement also provides an opportunity for number of startups to play a role in the aggregation of that data, as well as providing personal finance advice and analytics. These are based on the aggregated customer financial data from multiple types of bank accounts held by one or more provider.

One example of open-banking startups is Bud. It is the first open-banking-based business that focuses on: "Creating value, both for consumers and for the financial institutions they work with." It started in 2015 as a platform for providing financial advisory services to its clients. Bud uses technology to connect people with the right product. With the availability of data, companies can get the facilities of open banking by using their products, as well as tech services.

TrueLayer, which became fully operational in January 2018, is also a startup that provides open-banking services and utilises the PSD2 regulatory frameworks to open data access and link consumers with businesses.

In a similar vein, open pensions allow people to consolidate their pensions and potentially switch providers. PensionBee is one such startup that has played an important role in the UK to facilitate this. Other providers, like pension smarts, are also making it easier for employers to get their employees started with quick digital pension plans.

Open Insurance is also likely to provide a similar environment that will allow customers to switch insurance providers across both general insurance (car, home) as well as life insurance.

Open Fintech refers to an online service-providing platform that is comparatively more 'accepting' in terms of shared data as opposed to closed propositions. This means that the company:

- Opens itself up for external data ecosystems and looks for opportunities to access open APIs to gather deep-rooted data about its customers.
- Opens this data to other players, which can then provide more comprehensive services and boost innovation.
- Open fintech is one of the most promising areas, but for a variety of reasons it has seen a low take-up to date. These range from a lack of consumer awareness to consumer trust issues. This is likely to change in the next few years as the need for global transparency and better data laws take hold.



• FINANCIAL SERVICES SANDBOXES: A RECENT TREND IN APAC FINTECH

In most APAC financial markets, the success of fintech startups has, to varying degrees, disrupted the dynamics of traditional financial services and the broader industry. As a result, consumer companies are looking at how a fintech proposition could help their business.

For example, Grab, which is a player in the on-demand travel space, has started a cashless service 'GrabPay'. It offers transactions, credits, and top-ups that are easier than ever; OYO, an Indian startup that also happens to be China's leading hotel booking/hospitality chain, has also ventured into financial services with its wallet facility.

It means is that the propositions they launch will inadvertently compete with existing fintech players.

With the growth and popularity of fintech, the need for regulatory sandboxes has not just become relevant, but also crucial. However, a sandbox isn't just a "controlled environment" with strict regulatory laws imposed against the very innovation that fintech promises. Instead, it is a system that allows for innovation and, at the same time, protects the interest of consumers and stakeholders. Following the introduction of a financial services regulatory sandbox by the FCA in the UK, several markets have launched similar initiatives: for example, Hong Kong, Brunei, Thailand, Singapore, and Malaysia have either functioning regulatory sandboxes or have proposed them for acceptance. The most recent development has been international sandboxes which are referred to as 'global' or 'bridge sandboxes'. They help two or more markets to work together in a controlled environment to implement experimental concepts in regulated fields, such as banking, insurance, and pensions.

They also ensure that customers are treated fairly, and innovation is fostered with governmental oversight of not just one regulator but across borders. This is particularly appropriate for large or small organisations looking for cross-border trade. The FCA sandbox has seen the participation of both startups and larger established banks and technology players.

The map below showcases the status of markets that have already launched a regulatory sandbox, as of November 2019.

GLOBAL AND LOCAL FINANCIAL SERVICES SANBOXES

CANADA

Autorité des marchés financiers (AMF) (Québec, Canada)

Ontario Securities Commission (OSC) (Ontario, Canada)

British Columbia Securities Commission (BCSC) (British Columbia, Canada)

USA

State of Arizona

SWITZERLAND

Swiss Financial Market Supervisory Authority (FINMA)

BERMUDA

Bermuda Monetary Authority (BMA)

HUNGARY

Magyar Nemzeti Bank (Central Bank of Hungary)

JERSEY

Jersey Financial Services Commission (JFSC)

UK

Financial Conduct Authority (FCA, UK) [GFIN Chair]

GUERNSEY

Guernsey Financial Services Commission (GFSC)

NETHERLANDS

Accepting applications or conducting trials

DENMARK

Danish Financial Supervisory Authority

KAZAKHSTAN

Astana Financial Services Authority (AFSA) (Astana, Kazakhstan)

RUSSIA

Central Bank of the Russian Federation

HONG KONG

Hong Kong Monetary Authority (HKMA)

Hong Kong Securities and Futures Commission (HKSFC)

SOUTH KOREA

Financial Services Commission

JAPAN

Ministry of Economy Trade and Industry

TAIWAN

Financial Supervisory Commission

SINGAPORE

Monetary Authority of Singapore

BRUNEI

Autoriti Monetari Brunei Darussalam

INDONESIA

Bank of Indonesia Financial Technology Office (BI-FTO)

AUSTRALIA

Australian Securities & Investments Commission (ASIC)

SAUDI ARABIA

Saudi Arabia's Capital Markets Authority

BAHRAIN

Central Bank of Bahrain (CBB)

UAE

Abu Dhabi Global Market (ADGM)

MAURITIUS

Board of Investment, Mauritius

THAILAND

Bank of Thailand (BOT)

MALAYSIA

Bank Negara Malaysia

● GLOBAL SANDBOX

● LOCAL SANDBOX

Please note that Sandboxes are being added by markets nearly every other quarter.

CONCLUSION

There are numerous models for fintech innovation that could be adopted and tried across other markets in APAC.

Regulatory regimes need to change and become more open to experimentation through structures like sandboxes. We expect to see not just north-to-south bridging efforts between sandboxes but further south-to-south collaboration between markets like Singapore and other Asian fintech hubs such as those in India.

New models for fintech disruption as well as enablement will emerge as banks, insurance companies and NBFCs in frontier markets collaborate and help support innovation through incubators, accelerators, and funding.

CREDITS

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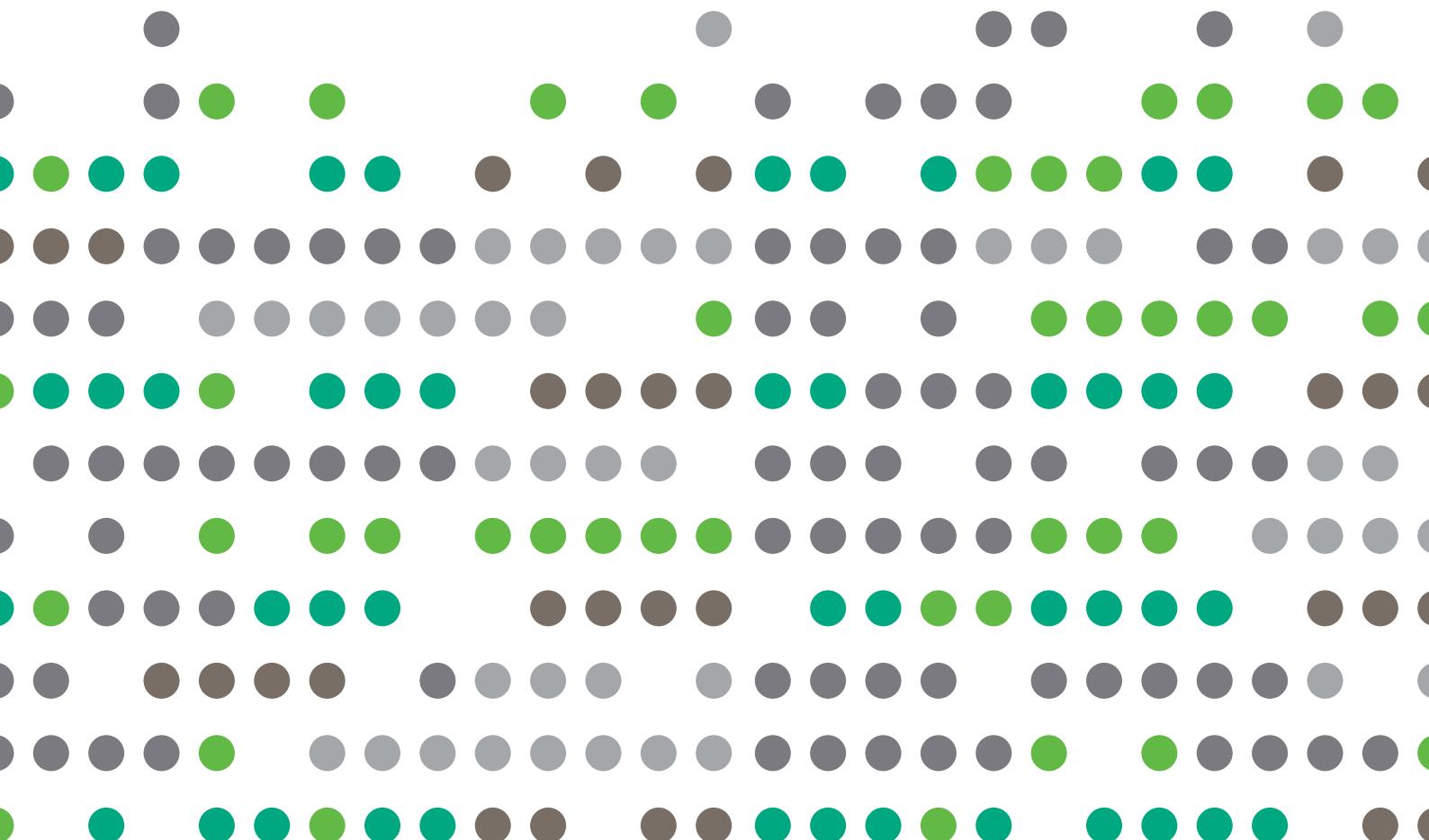


CFA Society Pakistan is a membership body for Charter Holders of the Certified Financial Analyst qualification. The organization continues to bear witness to the rapid digitization and automation of financial services both in Pakistan and overseas. This report is a first glance at the dynamic world of Fintech (Financial Services Technology) as it revolutionizes how the world does business.

The report is intended to inspire and challenge both our Charter Holders as well as other professionals looking to dip their toes into the world of technology and finance.



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