

The Islamic Fintech Ecosystem- Malaysian Experience-

النظام البيئي للتكنولوجيا المالية الإسلامية- التجربة الماليزية-

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Abstract:

This research aims to identify the requirements of the ecosystem for financial technology in general and Islamic financial technology in particular and its role in promoting financial inclusion with a case study of the Malaysian experience, which is a pioneering experience in this field.

The study concluded that financial technology is one of the most important issues for research in the financial industry at the present time, especially in the field of Islamic finance as it served as the basis for introducing a new definition of Islamic digital finance.

Keywords: Financial Technology; Islamic Financial Technology; Ecosystem; Malaysian experience.

Résumé :

Cette recherche vise à identifier les exigences de l'écosystème pour la technologie financière en général et la technologie financière islamique en particulier et son rôle dans la promotion de l'inclusion financière avec une étude de cas de l'expérience malaisienne, qui est une expérience pionnière dans ce domaine.

L'étude a conclu que la technologie financière est l'un des problèmes les plus importants pour la recherche dans le secteur financier à l'heure actuelle, en particulier dans le domaine de la finance islamique, car elle a servi de base à l'introduction d'une nouvelle définition de la finance islamique numérique digitale.

Mots-clés : Technologie Financière ; Technologie Financière Islamique ; Écosystème ; Expérience Malaisienne.

ملخص:

يهدف هذا البحث إلى تحديد متطلبات النظام البيئي للتكنولوجيا المالية بشكل عام والتكنولوجيا المالية الإسلامية بشكل خاص ودورها في تعزيز الشمول المالي مع دراسة حالة للتجربة الماليزية والتي تعد تجربة رائدة في هذا المجال.

وخلصت الدراسة إلى أن التكنولوجيا المالية هي أحد أهم القضايا المطروحة للبحث في الصناعة المالية في الوقت الحاضر، خاصة في مجال التمويل الإسلامي حيث كانت بمثابة الأساس لتقديم تعريف جديد للتمويل الإسلامي الرقمي.

الكلمات المفتاح: تكنولوجيا مالية؛ تكنولوجيا مالية إسلامية؛ نظام بيئي؛ تجربة ماليزية.

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I- Introduction :

Today's world is witnessing an acceleration in information technology, especially Financial Technology, and it is expected that it will move financial and business organizations to a new world in which they abandon the current financial technology system to digital technology, as is the case with blockchain technology and the emergence of digital currencies like Bitcoin.

The Islamic finance industry is looking forward to develop a platform for financial innovations that are compliant with shariah in order to keeping up with this rapid technological development, and this requires setting up a strategy to establish a knowledge and research base for islamic finance based on Sharia principles, in line with the developments of the digital economy.

From this standpoint, the Islamic finance industry seeks to innovate new financial instruments that lead to diversification of financing instruments and tools of managing them, with the aim of achieving efficiency in Islamic financial products and developing them in line with various and renewable financial needs.

For the longest time, Bank Negara Malaysia have been conducting their experiments on Islamic Finance industry to build a viable business model that can be the example to the world.

This situation has resulted in an industry adaptive and innovative, and also strongly built around Shariah. Malaysia has established an appropriate fintech ecosystem where all industry participants work towards the same goals; and Islamic Fintech brings about a new paradigm in which information technology is driving innovation in the Malaysian Islamic financial industry.

I.1. Research problematic: Based on what is mentioned above, the problem of this research was formulated in the following main question:

How can an Ecosystem enhance Islamic financial technology?

The main question includes the following sub-questions:

- What is Fintech?
- What is meant by Islamic financial technology?
- What is meant by Islamic Fintech Ecosystem?
- What are the main features of Malaysian experience?

To answer the main question and the sub-questions, the following basic hypothesis was adopted:

The Ecosystem provide a support and enhance Financial Technology

I.2. Research Importance:

The topic is very important, as it is one of the topics that has become the focus of many researchers, as financial technology has become a feature of the current era, and it will control economic transactions with the increasing pace of the digital economy, as the Islamic finance industry possesses elements of strength that qualify it to benefit from the renewed and accelerating scientific and technological developments to confirm its future role. Also, Fintech, is a key element in Malaysia's national digital push.

I.3. Research objectives:

This research paper seeks to achieve the following points:

- Knowing the theoretical aspect related to financial technology in general and Islamic financial technology in particular;
- Knowing the concept of Ecosystem and its objectives;
- Knowing the opportunities and the challenges of Islamic financial technology;
- Learn about the pioneering experience of Malaysia in this field

I.4. Research methodology:

To study this topic, an analytical descriptive method that relies on data collection has been adopted for study and analysis, with a view to studying the topic in all its aspects. In order to achieve this objective, many references that were closely related to the topic were adopted in the interest of scientific objectivity.

II- Definition of Fintech: Fintech can be defined as follows:

II.1. Fintech, is the contraction of the word "Financial Technology", this word, which appeared in the 1980s and 1990s, Fintech companies are "involved in a process of disintermediation through innovation: big data, blockchain, robo-advisors, Internet of Everything (IoE), contextually with a by far more effective exploitation of digital channels and mobile devices, are levers that are allowing them to reshape the financial services industry". (Nicoletti, 2017, p. 2);

II.2. Fintech derives from the coupling of two complementary areas: "financial services" and "solutions" based on advanced technology, so it is a line of business based on using software to provide financial services; and fintech companies are generally startups founded with the purpose of disrupting incumbent financial systems and corporations that rely less on software". (Chishti & Barberis, 2016, p. 13).

From the above, financial technology can be defined as follows:

"products and companies that employ newly developed digital and online technologies in the banking and financial services industries"

II.3. Emergence of shariah -Tech:

Technology is neutral from Shariah perspective as it is only an enabler. However, certain fintech innovations for Islamic financial services are required to adhere to Shariah guidelines.

Generally, fintech solutions that require adjustments for Shari'a compliance purposes are those: Islamic Crowdfunding, Investment Account Platform (IAP), Islamic Robo-Advisor, Global Islamic Fintech Hub, Shariah-Compliant Peer-To-Peer (P2P) Crowdfunding, (Alam & others, 2019, p. 60).

So, Islamic Fintech appears as one of emerging issues in Islamic finance, and wraps up shariah compliance and regulatory aspects, and it's recently seen as a significant element that will make a big change in contents of Islamic financial services. (Zulhibri & and others, 2019, p. 180).

So, From the above, both traditional Fintech and Islamic Fintech share similar definition, but the main point of departure is that Shariah guidelines must be observed in the Islamic Fintech.

II.4. Basic skills of the Fintech Revolution:

Fintech as discipline relies on three basic concepts, which are: (Gupta & Tham, 2019)

- Data capture: processes to capture and store data and information about every individual person, company or activity;
- Data analysis: methodologies and tools to analyze these large and growing data-sets to arrive at succinct information that can drive future decisions;
- Intelligence and implementation: use and implementation of this data-based knowledge to make existing services and activities more efficient or to create new services that do not exist today.

III- Islamic FinTech Opportunities and Challenges:

The opportunities for Islamic finance are more than the conventional finance because the basic concept of FinTech-shared capital is in accordance with the rules prescribed by the sharia. Islamic FinTech has the same values and ethics which are the basics of Islamic Finance. (Raza Rabbani & and others, 2020).

Of course, these opportunities are not without challenges the biggest challenge for the Islamic FinTech companies are about regulation and lack of good and authentic research in the Islamic Fintech sector. (Hazik & Hassnian, 2019).

The opportunities and challenges of Islamic Fintech are summarized as in the following Table:

Table (1): Islamic FinTech Opportunities and Challenges

Islamic FinTech Opportunities	Islamic FinTech Challenges
Islamic Fintech companies can help the new startups in a big way	Lack of good and authentic research in the Islamic Fintech sector.
Islamic FinTech companies can provide a wide range of innovative products and services.	Developing the Islamic FinTech has been the lack of trained human personnel and clear policy from the government.
It provides an option to the customers to use both traditional financial services as well as new and innovative services.	Educational intuitions must bring good researches and provide trained personnel and academic researchers must provide good research.
It can provide cost-effective solution to the financial services and will give a lifeline to traditional Islamic banks to go digital and provide financial services at a low cost.	Islamic FinTech needs to keep itself at pace with the rapid development going in the conventional finance world.
Islamic Fintech is transparent, accessible and easy to use and can gain customer confidence easily.	Islamic FinTech must maintain the stability and must protect the investors and institutions from the fraudulent trade practices.
It can be linked to the cryptocurrencies, Blockchain and other areas such as cross border payments.	The banks are exposed at every level as technology brings more transparency.
It can easily gain the confidence of Muslim investors as it is in accordance with the rules prescribed by the sharia.	Since, Islamic FinTech is still new and investors are not able to make sure how much investments are worth investing.

Source: Mustafa Raza Rabbani & others, FinTech, Blockchain and Islamic Finance: An Extensive Literature Review, International Journal of Economics and Business Administration, Volume VIII, Issue 2, 2020 p: 69

III.1. Islamic Fintech Alliance: (Cambridge institute of islamic finance, 2017)

Eight Islamic crowdfunding platform operators from across the globe launched the Islamic Fintech Alliance (IFT Alliance) on the 1st April 2016 in Kuala Lumpur, Malaysia. The founding members are Blossom Finance, EasiUp, EthisCrowd, Narwi, FundingLab, KapitalBoost, Launchgood and SkolaFund. The alliance has the following three primary objectives:

- Foster safety and trust by establishing, promoting, and enforcing shared standards for Islamic finance;
- Broaden the reach of Shari'a and social impact financial technology by supporting a network of innovators;

- Support the development of a sustainable global ecosystem by interfacing with and providing industry insights to regulators and other key stakeholders.

III.2. Islamic Fintech and Financial Inclusion:

The 2030 Agenda for Sustainable Development has been established and adopted by the world leaders since 2015, wherein 17 Sustainable Development Goals (SDGs) have been drawn for the sake of people, planet, prosperity, peace and partnership. Being a prominent enabler of other SDGs, the aspect of financial inclusion is highlighted specifically in the eighth goal. Academic evidence has verified the fact that financial inclusion can support the achievement of broader SDGs. The Islamic fintech appears to be a perfect medium to achieving the SDGs via financial inclusion. The dynamic amalgamation of fintech and digital technology offers a strong enabler for Islamic finance to reach clients rapidly without the need to build a physical presence or distribution channel. (world Bank Group, 2020).

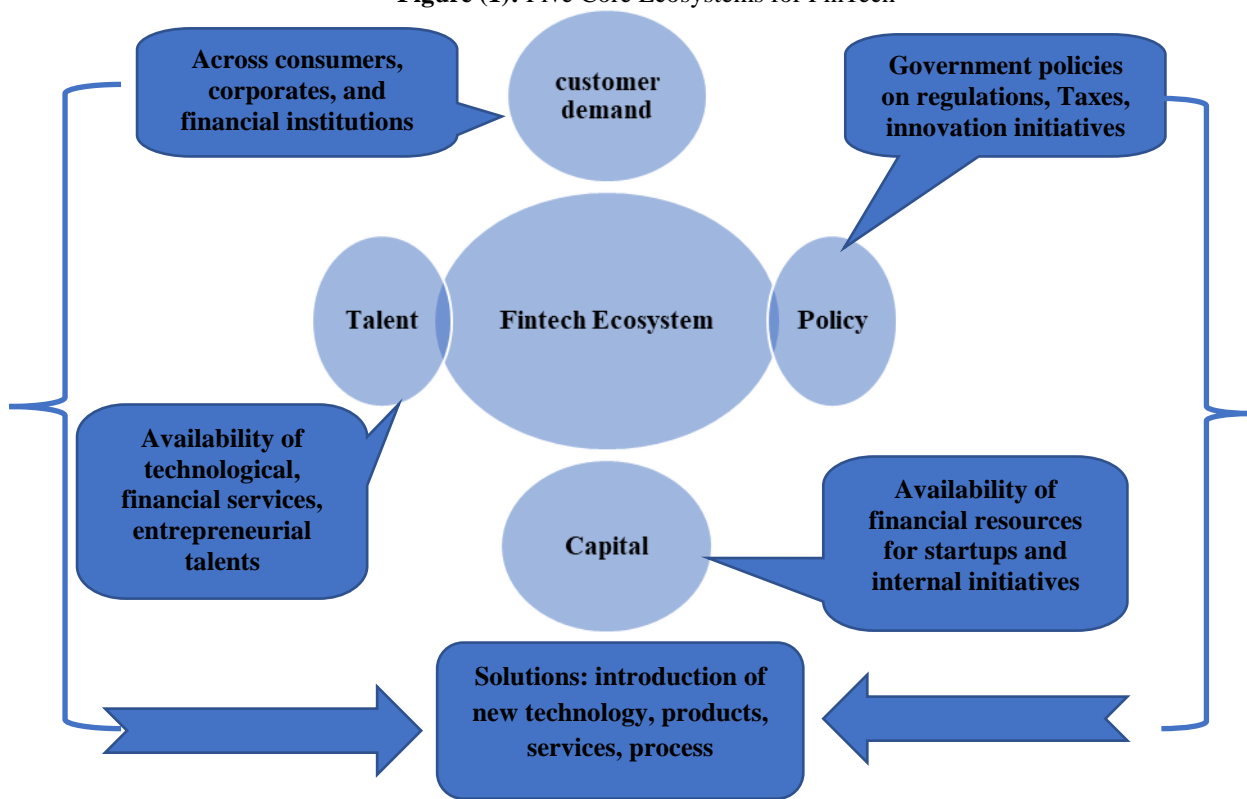
Fintech in Islamic finance should be generally understood in a broad manner as Islamic financial services transcend mere banking. The Islamic financial services spectrum comprises of Islamic banking, Islamic insurance or Takaful, Islamic capital market and Islamic money market. From the transactional perspective, the understanding of fintech in Islamic finance includes all aspects of a typical Islamic financial services transaction starting from the negotiation phase, credit scoring/ checking phase, documentation phase, execution phase and up to the post-transaction issues such as managing defaults, addressing disputes and enforcement of contractual terms, judgements of the courts/arbitral tribunals or settlement agreements. (Oseni & Ali, 2019).

IV-Fintech Ecosystems:

The ecosystem is an open system, the simplest definition of an ecosystem is that it is a community or group of living organisms that live in and interact with each other in a specific environment. (Gera & and others, 2019).

The consultancy company Ernst &Young (EY) ranked the most relevant fintech ecosystem from a worldwide perspective.it identified four core ecosystem attributes, to which it is necessary to add solutions as the fifth one, As shown in the figure below:

Figure (1): Five Core Ecosystems for FinTech



Source: Sofie Blakstad, Robert Allen, FinTech revolution-universal inclusion in the new financial Ecosystem, Palgrave Macmillan, Switzerland, 2018, p: 98.

IV.1. Digital Ecosystems: It can be defined as follows:

"loose networks of suppliers, distributors, outsourcing companies, makers of related products and services, technology providers, and a host of other organisations that affect and are affected by the creation and delivery of a company's own offering" (Jansen & others, 2013, p. 17).

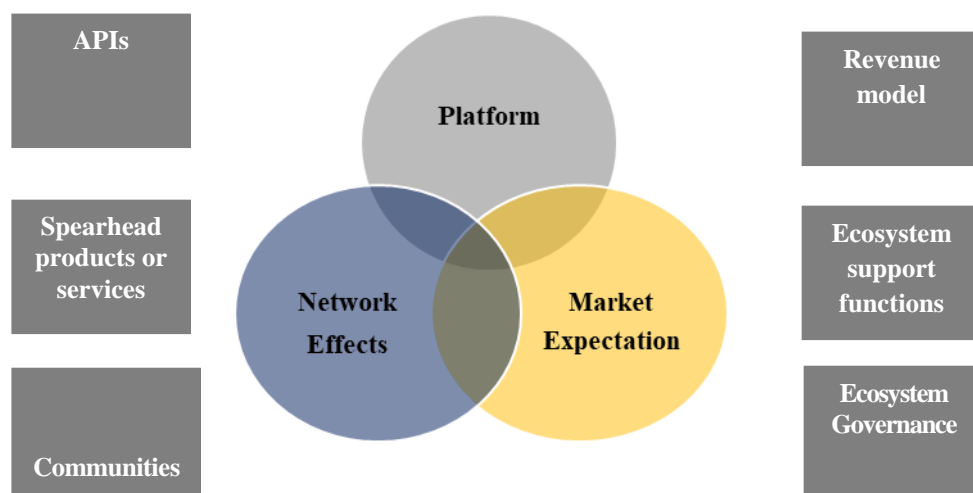
IV.2. The Enablers of Digital Ecosystems:

The ecosystem involves an entire new set of processes and skills. As described below, there is a set of key elements and enablers for developing digital ecosystems.

As shown in Figure below, there are three main elements that make up a successful digital ecosystem these are: a platform, the market expectation and the network effects.

The Digital Ecosystem is a crucial part of a digital transformation strategy. As industries become more disintegrated, the digital ecosystem will become ever more important as the ultimate way to organize and compete. Building a digital ecosystem is a complex undertaking that requires many interconnected factors to be balanced. The challenge for service providers is to define an Ecosystem strategy and implementation plan that is holistic. (Valdez-De-Leon, 2019, p. 44).

Figure (2): key elements and enablers for developing digital Ecosystems



Source: Omar Valdez-De-Leon, how to develop a digital Ecosystem: a practical Framework, Technology Innovation Management Review, Canada, August 2019 (volume 9, Issue 8), p: 48

IV.3. The Digital Financial Services ecosystem:

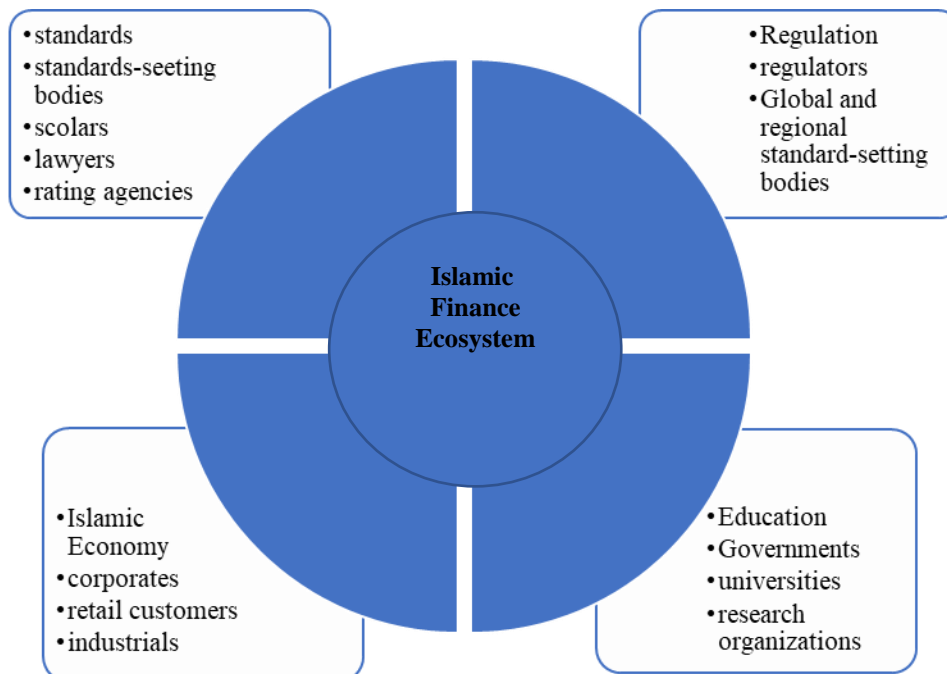
There are global ecosystems like those of Apple or AirBnB. There are also industry-specific ones like those Verifone and Klockner are developing. Likewise, also small, local or niche ecosystems like To Good To Go, whose app connects local businesses and consumers to make unsold food available at reduced prices to cut food waste. Too Good To Go is part of both the iOS and Android ecosystem. Yet it also has its own ecosystem of vendors and consumers, who in turn participate in other digital ecosystems. As such, from the results of this article it is fairly safe to say that every organization needs an ecosystem strategy. (Valdez-De-Leon, 2019).

The Digital Financial Services ecosystem consists of users (consumers, businesses, government agencies and non-profit groups) who have needs for digital and interoperable financial products and services; the providers (banks, other licensed financial institutions, and non-banks) who supply those products and services through digital means; the financial, technical, and other infrastructures that make them possible; and the governmental policies, laws and regulations which enable them to be delivered in an accessible, affordable, and safe manner. (The International Telecommunication Union, 2016).

IV.4. Islamic Finance Ecosystem:

The islamic finance industry needs to work to create a global ecosystem, driven by technology. The figure below shows the components of islamic finance ecosystem.

Figure (3): Islamic Finance Ecosystem



Source: Sh Muhammad Issa, Islamic Finance in Tanzania: Success or Failure? a paper presented at the 5th African Islamic Finance summit 17th and 18 th April 2018 Hyatt regency hotels in DAR ES SALAAM, p: 8.

V-Malaysian experience case study

At present, digitalization is the focus of well-established Islamic financial industry in more digitally advanced and developed Islamic finance countries, like Malaysia.

The Existence of Good digital infrastructure and government agencies support have enabled growth of fintech startups and rising adoption from established financial institutions across major areas of fintech; and the continued regulatory vigilance will be important given the rapid growth of fintech and entrance of big tech firms. (International Monetary Fund, 2020).

According to the report issued in July 2020 by IFN FinTech – a global network representing fintech’s Islamic segment – says it’s recorded 142 Islamic fintech’s around the world. Malaysia has 19 fintech start-ups, and it has seen significant contributions to its GDP come from its flourishing digital economy, recording 18.5% in 2019 growing to a predicted 21% by 2022. Malaysia is also a central for Islamic digital economic activity comprising of digital products and services catering to the Islamic crowd according to the state of the global Islamic economy report 2019/2020. (International Monetary Fund, 2020).

Malaysia has also developed world-class regulation, driving new initiatives like the first Islamic fintech crowdfunding license, and it has all the right ingredients to be an attractive base for an Islamic Fintech hub; with 95% of Malaysians having deposit accounts, having progressive regulations and ranked 1st in the Global Islamic Economy Index Malaysia is acclaimed as the world’s Islamic Fintech Hub. In terms of the market access for Malaysian Fintech, the Islamic economy is largely underserved US\$3.2 trillion global market with an expected 6.2% Compound annual growth rate in 2024.

V.1. An appropriate regulatory framework

Malaysia appears to be poised favorably within Islamic fintech to take advantage of the regulations that help its growth; the central bank supports efforts to promote the sector. The regulations work in a way that Islamic financial institutions benefit from improved transparency which is a core principle of Islamic finance. Of course, the rapidly evolving technology—alongside new consumer habits—is not without risk or challenges. Malaysia has been a leader on regulations to ensure that the financial system remains safe amid the possibility of cybersecurity incidents. Well aware that cyberattacks can undercut customer confidence and inflict widespread damage, Malaysian banks and regulators list cybersecurity among their issues of top concern.

Hence, Islamic Fintech seems to not only be able to withstand regulation, but also turn regulation into a springboard as its principles are deeply rooted in transparency and thus, inclusion.

V.2. Islamic FinTech and financial inclusion

Underserved markets in Malaysia offer opportunities for Islamic Fintech players as Malaysia strives towards financial Inclusion as a goal within sustainable growth with fair and equitable distribution, in line with Shared Prosperity Vision 2030. Add to that the recent COVID-19 crisis and its anticipated impact on the overall Malaysian economy, and you get an underserved that is readier than ever for digitally abled and enabled enterprises. The underserved will now grow to include those dependent on the digital economy for a boost in their livelihoods - alongside a severe need to educate and connect communities as part of financial inclusion.

Players successful in Malaysia such as Wahed Invest, Finterra and Ethis are key Islamic Fintech companies which are making a splash, but every activity in the fintech space is of value to the underserved. Muslims especially, have the opportunity to create new solutions and ecosystems in the Islamic Digital Economy (Fong, 2017).

V.3. Commercialising fintech solutions in Malaysia: there are 3 key areas that the industry can benefit from by leveraging fintech which are: (Fong, 2017).

V.3.1 By leveraging on technology, industry players are able to create more value and customer focused services. This can be achieved through the delivery of customised solutions using for example biometric technologies, big data and analytics. Technologies such as Application Programme Interfaces (or APIs) could bring substantial benefits to customers, by making banking transactions simpler, quicker and more convenient;

V.3.2 The adoption of technology can help Islamic finance reach out to market segments which would not otherwise be cost-effective. This means a great opportunity to serve untapped markets;

V.3.3 In terms of processes, fintech can assist to improve the efficiency of back-end systems and operations, including through the use of predictive analytics to undertake real time risk management.

V.4. Malaysian islamic FinTech Ecosystem

The Malaysian fintech ecosystem has grown considerably where annual economic growth has averaged just under 5% over the past five years, it is rapidly becoming a central part of the country's financial sector. With its growing middle class, high mobile phone penetration rates, and strong government support for the digital economy, Malaysia is well situated to take advantage of fintech innovation. From mobile wallets and electronic payments, to crowdfunding and insurtech (the combination of insurance and technology). (International Monetary Fund, 2020).

Internet banking in Malaysia has quadrupled in the last decade, topping a 90 percent usage rate in 2018. Mobile banking is also booming, supported by near-universal 4G network coverage, affordable data, and 5G is in the works. It's no coincidence the World Economic Forum's 2019 Network Readiness Index ranked Malaysia high among the 139 countries surveyed and first among countries in emerging and developing Asia.

The most commonly used forms of fintech in the country are digital payments and mobile wallets, followed by insurtech, lending, digital remittances, blockchain, crowdfunding, electronic Know-Your-Customer processes, and other forms of financial technology.

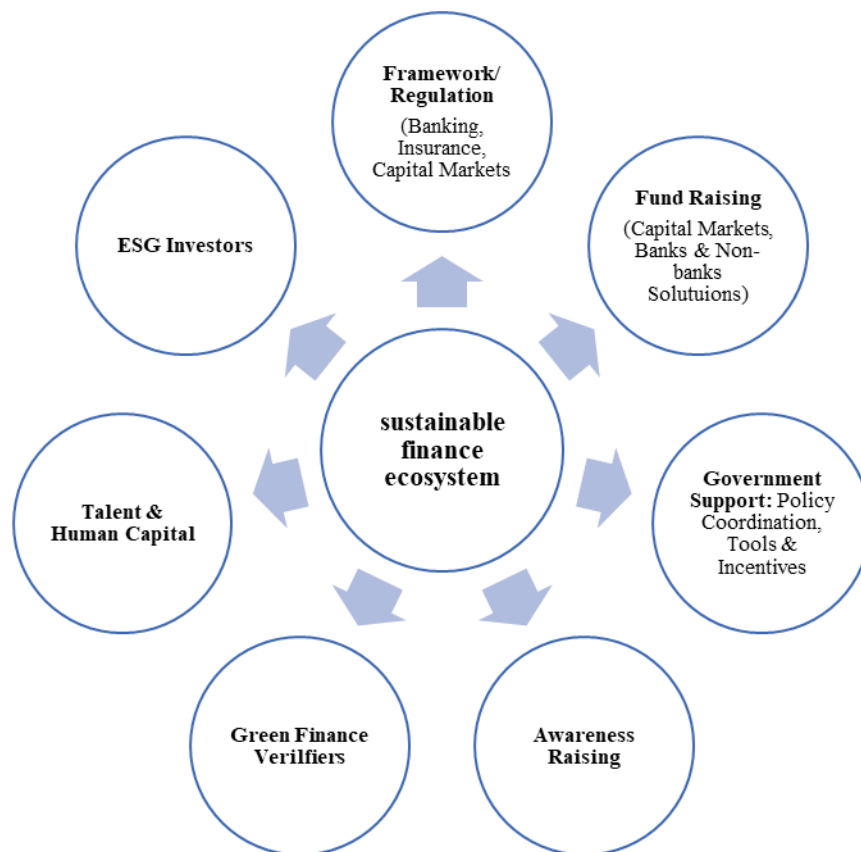
Developments in Malaysian fintech are altering the country's financial sector landscape by adopting new technologies and either competing or collaborating with new tech startups. As of April 2019, there were close to 200 startups in Malaysia in a range of fintech areas, including payments, lending, and blockchain. (Abdul Aziz & Zhang, 2019).

V.5. Creating frameworks and guidelines for the Ecosystem

A key step to creating a strong ecosystem is laying its foundation, Malaysia's Islamic sustainable finance ecosystem benefits from a comprehensive set of guidelines including the Sustainable and Responsible Investment (SRI) Sukuk framework and SRI funds issued by the

Securities Commission (SC) of Malaysia. This provides a regulatory framework to facilitate more green, social and sustainable financing. The figure below illustrates the main components of a sustainable finance Ecosystem in Malaysia.

Figure (4): Sustainable Finance Ecosystem in Malaysia



Source: Ahmad Hafiz Abdul Aziz ,Wei Zhang, How Malaysia Created A Conducive Ecosystem For Islamic Sustainable Finance, May 22, 2019/ <https://blogs.worldbank.org/eastasiapacific/how-malaysia-created-conducive-ecosystem-islamic-sustainable-finance>

V.6. Fintech players in Malaysia:

There are initiatives demonstrated by the industrial key players to encourage the adoption of FinTech into Islamic financial transactions, products and services. For instance, EthisCrowd as an Islamic crowdfunding online platform has been established with the objective of collectively funding in business, trade, entrepreneurial, real estate activities in Southeast Asia.

Islamic crowdfunding is guaranteed to invest in permissible (halal) projects/products/services by Shariah law in the absence of an interest rate. Furthermore, Malaysian Government Advisory Committee (MPM) has entered into a Memorandum of Understanding (MOU) with IncuBlock, a South Korean blockchain lab for the development of Shariah-compliant blockchain. (bin Ab Razak & others, 2020).

The Investment Account Platform (IAP) is launched as the first FinTech platform for Islamic banking to serve as a hub marketplace in funding the Small and Medium Enterprises (SMEs). The consortium members are Bank Rakyat, Affin Islamic, Bank Muamalat, Bank Simpanan Nasional, Maybank Islamic and Bank Islam. Apart from that, the local government has established the Malaysian Digital Economy Corporation (MDEC) as an entity which is liable to develop Malaysia's digital business ecosystem. This organization also earnestly engages with halal ecosystem by giving Shariah certification. In addition, a remarkable stride was witnessed when a gold-backed cryptocurrency by HelloGold which is founded by a Malaysian co-founders Robin Lee and Ridwan Abdullah, obtained Shariah-compliance certification from the Shariah supervisory board of Amanie Advisors.

Malaysia has a robust framework to cater Islamic finance-related activities, like the issue of the FinTech Regulatory Sandbox and the guidelines on crowdfunding. Thus, this regulatory restraint shall frustrate the potentials of Islamic finance institutions to improve their products and services in adopting up-to-date models related to the FinTech solutions like cryptocurrency and blockchain technology. While in fact, the usage of RegTech would lessen the risk associated to probable breaches of Shariah prerequisite.

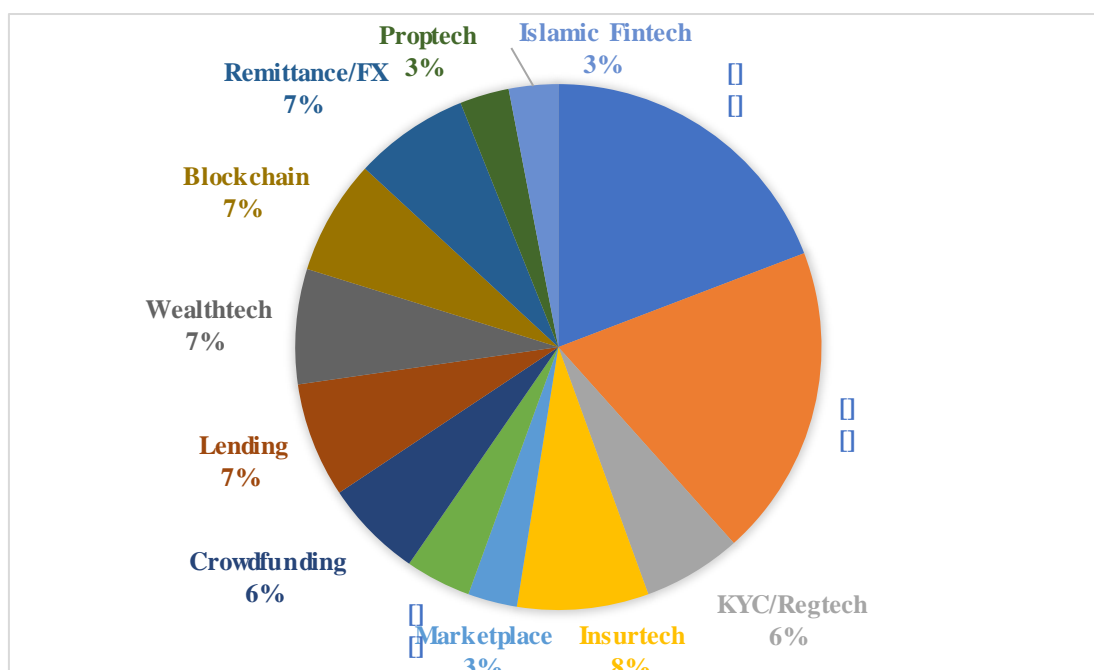


Figure (5):
FinTech players in Malaysia

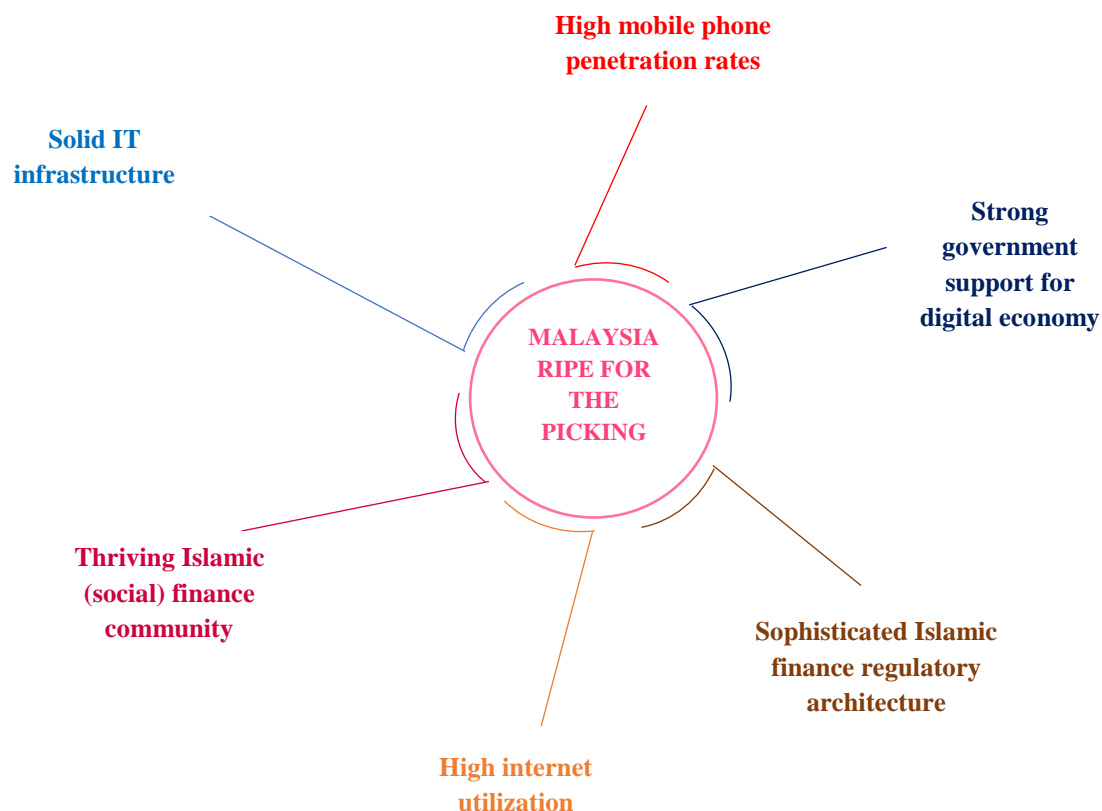
Source: Malaysia Fintech report, 2019, p: 6.

V.7. Malaysia is ripe for digital financial services and fintech for financial inclusion

The Malaysian Digital Economy Corporation (MDEC) has developed an Islamic digital economy guide, to serve as a reference for start-ups, venture capitalists and other supporting players in Islamic technology that wish to explore opportunities in the sector (Shukri & and others, 2020).

The digital readiness of the country, Islamic finance sophistication and national ambition to embrace and advance value-based intermediation (VBI) finance build the case for Islamic fintech to drive financial inclusion in Malaysia as shown in the following figure.

Figure (6): Malaysia is ripe for digital financial services and Financial inclusion



Source: Malaysia Digital Economic Corporation (MDEC), Islamic Fintech & digital financial inclusion report, 2020, p: 4.

As a developing nation of about 32 million, where over 77% of its population are urbanized and are growing in affluence, fintech is steadily gaining mainstream prominence with considerable promise for expansion.

VI-CONCLUSION

During the last decades, companies from the financial services sector became more and more digital in its processes, products and communication. Due to this development, cooperation increased as companies and banks in particular cannot only rely on their internal competencies. Instead, they have to complement their own competencies with those of other companies of the financial services sector. Furthermore, the emergence of new niche market players, called FinTech's, which entered the financial services market, lead to further changes in the ecosystem.

Islamic FinTech is based on the ethos and value of Sharia and it has the ability to lead the finance world across the globe. The biggest advantage with the Islamic Fintech is that it is transparent, accessible and easy to use.

While fintech applications in the banking and capital market sectors have been widely acknowledged, there has not been much focus on what we may refer to as Taktech or Takaful technology. This is a Shariah-complaint variant of the conventional insurtech. Taktech, being a subset of fintech in Islamic finance that combines the word Takaful and technology, seeks to revolutionise the takaful sector by complementing existing initiatives to extend Takaful to the underinsured segments of the population. Taktech is the latest buzzword that specifically refers to the application of technology in different aspects of Shariah-compliant insurance schemes to complement existing practices, enhance financial inclusion, serve the underinsured, and promote best practices in service delivery to policy holders or participants.

Islamic finance and the digital economy are key economic growth activities in Malaysia's shared prosperity vision 2030, and a strong Fintech Ecosystem.

Malaysia is fast becoming the global hub for Islamic fintech. Utilizing its burgeoning Islamic financial sector and governmental support to expand the digitalization of the economy, an ecosystem is being carved out for fintech start-ups to flourish.

Private sector initiatives have been accompanied by the government acting as an enabler, with its Shared Prosperity Vision 2030 including Islamic finance and the digital economy as key pillars. More sector-specific, a fintech academy has been established, while fast-track visas were greenlighted for new and established entrepreneurs to come to the country.

Regulations are also keeping pace with global developments, with Bank Negara Malaysia, the central bank, approving four fintech firms as participants in a regulatory sandbox in 2017, and granting the first Islamic fintech crowdfunding license. Earlier this year, BNM's Shariah Advisory Council permitted the use of electronic money as a payment instrument.

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