

The Role of Islamic Fintech in Advancing Sustainable Development Goals- The Malaysian Experience-

دور التكنولوجيا المالية الإسلامية في دعم مساعي التنمية المستدامة- تجربة ماليزيا نموذجا-

Boutemine Wiame¹, Baaloul Newfel²

¹COFIFAS Laboratory, Oum El Bouaghi University, (Algeria),

winame.boutemine@univ-oeb.dz

² Senior Lecturer A, Oum El Bouaghi University, (Algeria),

newfelbaaloul_eco@yahoo.com

Abstract

The study aimed to highlight the role that Islamic financial technology can play in supporting sustainable development efforts in its various dimensions, which has become a primary goal pursued by different countries. Islamic financial technology encourages investments in green and sustainable activities, as well as providing Sharia-compliant products. The study, after examining Malaysia's experience, concluded that providing a conducive environment for Fintech activities is a fundamental support for achieving sustainable development goals by raising awareness of Fintech culture. Especially since Fintech enhances transparency, innovation, creates job opportunities, and most importantly, is a vital driver for the economy

Keywords: Islamic Fintech; sustainable development; Technology.

Jel Classification Codes: G21, Q01, O33.

المخلص:

هدفت الدراسة إلى بيان الدور الذي يمكن أن تقدمه التكنولوجيا المالية الإسلامية في دعم مساعي التنمية المستدامة بمختلف أبعادها، والتي أصبحت هدفا أساسيا تسعى مختلف الدول إلى تحقيقه، حيث تشجع التكنولوجيا المالية الإسلامية الاستثمارات في الأنشطة الخضراء والمستدامة، وكذلك توفير منتجات متوافقة مع الشريعة. وقد توصلت الدراسة بعد التطرق إلى تجربة ماليزيا أن توفير بيئة ملائمة لنشاط التكنولوجيا المالية يعد داعما أساسيا لتحقيق أهداف التنمية المستدامة من خلال نشر الوعي بثقافة التكنولوجيا المالية، خاصة وأن التكنولوجيا المالية تعزز الشفافية والابتكار، وتخلق فرص عمل، والأهم من ذلك، أنها دافع حيوي لعجلة الاقتصاد.

الكلمات المفتاحية: التكنولوجيا المالية الإسلامية، التنمية المستدامة، التكنولوجيا.

1. Introduction: Introduction

Sustainable development is among the most important topics in modern economics. This subject engages many researchers, and countries strive to achieve its goals through formulating various policies and creating an environment conducive to achieving a better and more sustainable future for all. It is a global call to take the necessary actions to eradicate poverty and ensure the sustainability of resources. With less than 10 years remaining to achieve the SDGs, world leaders at the SDG Summit called for stronger leadership, more resources, and smarter, more sustainable solutions. Islamic Fintech is considered one of the most intelligent and sustainable solutions that support the vision of sustainable development.

Fintech, a term that represents a significant leap in the fields of finance and technology, has revolutionized financial transactions by utilizing smart applications and software. This transformation has greatly facilitated both workers and clients by reducing the need for long waits in bank queues to a mere click on a Fintech application, typically operated by startups. Fintech offers numerous advantages, with transparency in transactions being a key benefit, as clients can receive reports of their activities without having to visit the bank or other relevant authorities.

Islamic Fintech, in particular, generates substantial revenues, with the market size exceeding \$128 billion, and is experiencing rapid growth. This sector presents fertile ground for investment, attracting not only Muslims but also Western investors who seek profit with lower risks. Malaysia is considered one of the leading countries making tremendous efforts to support innovation in general and Islamic financial technology in particular, in order to achieve development goals. The Malaysian Islamic fintech market has previously outperformed other markets, making its experience a fertile ground for learning.

Islamic Fintech offers numerous solutions that support sustainable development efforts, starting from job creation to supporting green and sustainable projects, thereby contributing to the overall economy. To better understand this topic, we posed the following research question: **What is the role of Islamic Fintech in supporting sustainable development efforts?**

We will try to answer the query through the following sections:

Section 01: **Theoretical framework of the study variables**

Section 02: **Economic Efficiency and Sustainability**

Section 03: **Islamic Fintech through experiences**

2. Theoretical framework of the study variables:

2.1 The concept of Fintech:

-"International Monetary Fund (IMF) and World Bank Group (WBG):

In 2018 IMF and WBG launched the Bali Fintech Agenda (BFA), with the fundamental objective of considering how technological innovation is changing the provision of financial services with consequences for efficiency and economic growth, financial stability, inclusion and integrity. BFA describes Fintech as "advances in technology that have the potential to transform the provision of financial services by stimulating the development of new business models, applications, processes and products" (IMF, 2018). The BFA is a response to requests from IMF and WBG members to expand international cooperation and provide recommendations on creating a favorable global regulatory environment for Fintech. The Agenda has an informative nature to support awareness, further training and ongoing work. The main conclusion of the policy paper of the IMF and the World Bank group "Fintech: the Experience so far" (IMF, 2019) is that, although there are important regional and national differences, countries make extensive use of Fintech capabilities to accelerate economic growth and integration" (Giglio, 2021, p. 613).

The **FSB** defines Fintech as financial innovations using technology that can create new business models, applications, processes or products that have a significant impact on financial markets and institutions and the delivery of financial services. These services and products are developed by startups that promise to improve retail and corporate banking services either in collaboration or in competition with existing financial service providers (Tamine & Lakhdari, 2021, p. 16).

2.1.1 The importance of Fintech: Financial technology plays a crucial role in transforming the global financial system, facilitating access to financial services in more efficient and faster ways. Innovations in this field enhance financial inclusion and stimulate economic growth by providing advanced financial solutions for both users and businesses.

- Making the financial industry more efficient and nimble in the face of global crises and issues;
- Helping to detect crimes through new technologies;
- Minimise systemic risk, legal risk, and even the risk of non-transparency;
- Minimise exchange risk by having startups convert Bitcoin into foreign currencies and directly into digital wallets;
- Improving financial inclusion by enabling individuals to conduct financial transactions without the need for a bank account;
- Enabling low-income people to build up cash balances by switching to mobile payments, rather than holding them in traditional banks (Hadjrioua, 2024, p. 10).

2.1.2 Fintech Characteristics and Risks: Financial technology (Fintech) offers innovative opportunities to enhance efficiency and expand access to financial services in unprecedented ways, by integrating advanced technologies such as artificial intelligence and blockchain. However, it also brings risks related to cybersecurity, regulatory compliance, and privacy protection that must be addressed to ensure sustainability and trust in this sector.

Fintech Characteristics:

- **Reaching all users:** Startups are targeting all classes, continuously enhancing their capabilities through partnerships, or redesigning products for low-income people.
- **Customer Centred Design:** By focussing on customer interests and requirements, Fintech companies design products that fulfil their aspirations.
- **Speed:** Fintech companies are leveraging modern algorithms and innovations in a way that enables them to complete transactions in a matter of minutes.
- **Flexibility:** Fintech startups offer many ways to make it easier for customers to manage their transactions.

Fintech Risks:

- The influx of Fintech companies into the market could lead to financial and banking institutions losing a portion of their market share and thus losing a significant profit margin;
- The new ways in which Fintech companies are entering the market can make it difficult for organisations that still rely on traditional methods to control operational risks;

- The heavy reliance on new technologies adopted by Fintech companies, such as cloud computing and others, increases the cyber threat of hacking and breaches;
- The portability between types of deposits and savings funds offered by Fintech products may undermine customer loyalty, deposit destabilisation and liquidity risk for banks (Hadjrioua, 2024, p. 32).

2.2 The Concept of Islamic Fintech:

Islamic Fintech is defined as a part of financial technology that follows the principles of Islamic law, which prohibits the utilisation of debt, interest and investment in businesses related to alcohol, tobacco and gambling.

Both Fintech and Islamic Fintech share a similar definition, but the difference lies in Islamic Fintech's observance of Sharia principles. It is worth noting that from an Islamic perspective, any commercial activity including Fintech is considered permissible unless there is a clear stipulation that prohibits it (Benaissa & mouri, 2022, pp. 283-284).

Islamic Fintech Standards:

There are no uniform standards to refer to, but there are regulatory standards that can be generalised across all financial products and innovations offered by Islamic Fintech, but there are some standards that have been adopted in some studies:

❖ Eligibility criterion:

The eligibility criterion means achieving competence in terms of sharia and in terms of compliance with value responsibility, as both criteria are essential for financial innovation and Fintech.

❖ Independence criterion:

It means that the result of financial innovation should be realistic, i.e. applicable and measurable, and that it should be independent and not mimic illegitimate concepts, such as removing debt from the pillars of Islamic finance.

❖ Governance criterion:

It is intended to regulate the relationships between individuals and assign responsibility in a way that contributes to trust and transparency and contributes to the efficiency and performance of Islamic finance, in addition to enabling regulators to scrutinize innovative financial products.

❖ Fairness Criterion:

The Role of Islamic FinTech in Advancing Sustainable Development Goals

Financial innovation and Islamic financial technology should be directed to take into account the justice criterion and achieve it at all levels so that it achieves a balance between resources and needs and takes into account the prioritisation of investment in financial technology and its tools (semira, kassehi, & branni, 2022, pp. 179-181).

Figure 1 (Islamic Fintech examples per type of financial service)



source: Salaam Gateway on the link: [How many Islamic Fintech services are there in the world and who are they? | Salaam Gateway - Global Islamic Economy Gateway](#)

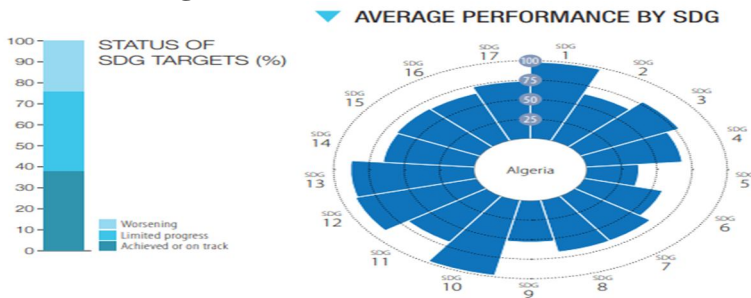
2.3 "Sustainable development

approach to social, economic, and environmental planning that attempts to balance the social and economic needs of present and future human generations with the imperative of preserving, or preventing undue damage to, the natural environment. The intellectual underpinnings of sustainable development lie in modern natural resource management, the 20th-century conservation and environmentalism movements, and progressive views of economic development. The first principles of what later became known as sustainable development were laid out at the 1972 United Nations Conference on the Human Environment, also called the Stockholm Conference. The conference concluded that continued development of industry was inevitable and desirable but also that every citizen of the world has a responsibility to protect the environment. In 1987 the UN-sponsored World Commission on Environment and Development issued the Brundtland Report (also called Our Common Future), which introduced the concept of sustainable development—defining it as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”—and described how it could be achieved. At the 1992 United Nations Conference on Environment and Development (also called the Earth

Summit), more than 178 countries adopted Agenda 21, which outlined global strategies for restoring the environment and encouraging environmentally sound development" (kulik, 2024).

Algeria achieved a score of 70.47 out of 100, ranking 71 out of 166 countries. It is notable that Algeria's score has decreased compared to previous years, and the most dimension of sustainable development in which Algeria has achieved a significant decrease is the fifth dimension, followed by the ninth dimension, as shown in the figure:

Figure 2 (Average performance by SDG)



Source: (from the SDG's report on the link: [SDR-2024-algeria.pdf](https://sdgindex.org/SDR-2024-algeria.pdf) (sdgindex.org))

Algeria shows mixed performance across the different SDGs. While it performs well on some goals such as poverty eradication, good health, and partnerships to achieve the goals, it needs significant improvements in other areas such as life underwater, life on land, and sustainable production and consumption.

2.3.1 Key Principles of Sustainable Development:

Sustainable development is based on a set of key principles that seek to achieve a comprehensive balance between the economic, social and environmental dimensions of development. The key principles of sustainable development are outlined below:

- **Integration and interaction:** The principle of integration and interaction promotes co-operation and interaction between the economic, social and environmental dimensions to achieve sustainable development. These dimensions must work together rather than separately in order to achieve sustainability;
- **Diversity and adaptation:** The principle of diversity and adaptation emphasises the importance of promoting biological, cultural and economic diversity. Sustainable development strategies should adopt a

holistic approach that takes into account the cultural, social and economic differences of societies;

- **Generational responsibility:** The principle of generational responsibility states that decisions and actions should be taken that balance the needs of the current generation with the needs of future generations. Development should be done in a way that preserves resources and the environment for future generations;
- **Social justice:** The principle of social justice emphasises the need to ensure a fair and balanced distribution of opportunities and resources. Sustainable development should seek to reduce poverty and social inequalities and promote equality for all;
- **Strong governance:** The principle of strong governance emphasises the importance of effective, transparent and participatory governance systems to achieve sustainable development. Such governance should include the active participation of citizens, non-governmental organisations and the private sector.

3.Economic Efficiency and Sustainability

The principle of economic efficiency and sustainability aims to promote sustainable and resource-efficient economies and sustainable economic growth. Economic models should be based on technologies and processes that minimise resource consumption and maintain the ecological balance. (sustainability-excellence, 2024)

3.1Fintech and PEST environment

As the volume of investments in the Fintech industry grew at such a pace, Fintech has begun to be actively explored as an object of studies by the scientific and policy-making communities aiming to link this industry to sustainable growth and achievement of the SDGs. In 2014, the UN Environment Programme initiated the establishment of the Inquiry into the Design of a Sustainable Financial System (the Inquiry) to refine the efficiency of the financial system achieving a green and inclusive economy, in other words, sustainable development. Fintech is being considered as one of the main measures.

At the end of 2016, the Inquiry released a report on the assessment of Fintech and sustainable development implications, which considers Fintech's potential to support the achievement of SDGs, and therefore notes that transition of the financial system is driven by sustainable development and Fintech, both having the same "basic potential as drivers of change and impact", being suitable for "creating new, sustainable

business models”. Fintech supports sustainable development and is crucial for any successful SDG strategy by enhancing resource allocation, transparency, civic investment, and fund allocation for SDG projects. It drives economic sustainable development through its unique features, differing from traditional financial industries. Scholars estimate that 3%-13% of the funding needed for SDGs could come from a "Fintech Dividend." Fintech contributes to several SDGs, particularly SDG1, SDG5, SDG7, SDG8, SDG9, and SDG10. Islamic Fintech also promotes financial inclusion aligned with SDG1, SDG2, and SDG10, and fosters SDG9 by disrupting traditional financial services.

Figure 3 (Overall trend among the 15 countries in Fintech PEST environment, SDG achievement, and finance model)

Countries listed in descending order by favorableness of FinTech PEST environment	FinTech PEST environment (Pauliukevičienė & Stankevičienė, 2021)	SDG achievement (Sachs et al., 2020)	Finance (Ziolo et al., 2021)	Attribution to a sustainable finance model (Ziolo et al., 2021)		
				Sustainable finance typology (Schoenmaker, 2017, 2019)	Ranking of factors (Schoenmaker, 2017, 2019)	Horizon (Schoenmaker, 2017, 2019)
Denmark	● 0.102	● 0.071	● 0.150	Sustainable finance model 3.0.	S and E > F	Long term
Sweden	● 0.101	● 0.071	● 0.109	Sustainable finance model 3.0.	S and E > F	Long term
Finland	● 0.100	● 0.070	● 0.105	Sustainable finance model 3.0.	S and E > F	Long term
Netherlands	● 0.099	● 0.067	● 0.117	Sustainable finance model 3.0.	S and E > F	Long term
United Kingdom	● 0.099	● 0.067	● 0.064	Sustainable finance model 2.0.	I = F + S + E	Medium term
Estonia	● 0.098	● 0.067	● 0.091	Sustainable finance model 2.0.	I = F + S + E	Medium term
Lithuania	● 0.095	○ 0.062	○ 0.000	Conventional finance	F	Short term
Germany	● 0.094	● 0.067	● 0.069	Sustainable finance model 2.0.	I = F + S + E	Medium term
France	● 0.089	● 0.068	● 0.055	Sustainable finance model 1.0.	F > S and E	Short term
Spain	● 0.086	● 0.065	○ 0.021	Conventional finance	F	Short term
Austria	● 0.085	● 0.067	● 0.078	Sustainable finance model 2.0.	I = F + S + E	Medium term
Latvia	● 0.085	● 0.065	● 0.049	Sustainable finance model 1.0.	F > S and E	Short term
Poland	● 0.083	● 0.065	○ 0.028	Sustainable finance model 1.0.	F > S and E	Short term
Portugal	● 0.083	● 0.065	○ 0.024	Sustainable finance model 1.0.	F > S and E	Short term
Italy	○ 0.077	● 0.064	● 0.040	Sustainable finance model 1.0.	F > S and E	Short term

Source: Gintarė Pauliukevičienė and Jelena Stankevičienė (2021). Assessing statistical link between Fintech PEST environment and achievement of SDGs. Public and Municipal Finance, 10(1),p57.

The image displays a table comparing countries in terms of the favorability of their Fintech PEST environment and sustainable finance models, with various evaluations from multiple sources. Countries are ranked in descending order based on the favorability of their Fintech PEST environment, starting with Denmark and ending with Italy. The table shows the values assessing the Fintech PEST environment, achievement of the Sustainable Development Goals (SDGs), and finance for each country. For instance, Denmark has the highest Fintech PEST value at 0.102, an

SDG value of 0.071, and a finance value of 0.150, whereas Italy has the lowest values in all three categories.

The table also indicates the type of sustainable finance model each country follows, such as Sustainable Finance Model 3.0, Sustainable Finance Model 2.0, or the conventional sustainable finance model. Additionally, it shows the factors influencing sustainable finance in each country, such as sustainability (S), environment (E), and finance (F), along with the time horizon for each model, whether it is long-term, medium-term, or short-term.

The comparative analysis reveals that a favorable Fintech PEST environment correlates with better achievement of SDGs and superior sustainable finance indicators. Countries like Finland, Denmark, Sweden, and the Netherlands, which rank highly in the Fintech PEST environment, show excellent results in SDG implementation and sustainable finance, and are classified under Sustainable Finance 3.0, which prioritizes social and environmental impacts in the long term. Conversely, countries with less favorable Fintech PEST environments tend to perform worse in achieving SDGs and sustainable finance.

Note: PEST environment mean political, economic, social and technological environment (Gintarė & Stankevičienė, 2021, pp. 48-57).

3.2 "Islamic Finance and Fintech:

- ✓ **Islamic finance is a USD 2.5 trillion business**

Shari'a-compliant finance or Islamic finance comprises Islamic banking, Islamic capital markets, Takaful, and other IFIs. According to ICD-Refinitiv in 2018, 1,447 Shari'a-compliant financial institutions were operating businesses in 72 countries with Islamic finance assets expected to increase from USD 2.5 trillion in 2018 into forecasted number of USD 3.5 trillion in 2024. Islamic banking is still the largest Islamic finance segment with a share of 70% or USD 1.72 trillion in 2017, followed by Sukuk at USD 470 billion (18%), other financial institutions at USD 140 billion (6%), Islamic funds at USD 108 billion (4%), and Takaful at USD 46 billion.

- ✓ **Geographically the Islamic finance market is concentrated in Asia, the GCC28, and MENA regions**

Most Islamic finance assets reside in Asia, the GCC, and MENA regions contributing 95.5% of global Islamic finance assets in 2017 according to

IFSB, with Islamic banking making the largest contribution to the aggregate global asset base.²⁹ However, Islamic banking globally has low market penetration and comprises a minority of total banking assets in most countries within the region. In Asia, the two largest Muslim countries of Pakistan and Indonesia have Islamic banking assets of 15%³⁰ and 5.8%³¹ of total banking assets, respectively. This is despite Muslims in Pakistan and Indonesia comprising 96% and 87% of the total population, respectively. Therefore, significant opportunities exist in gaining more market share, given the right strategy.

✓ **Islamic Fintech expected to increase Islamic finance market share through 6 financial services**

Islamic financial assets can be further fragmented into 6 different financial services categories which include funding, trade finance, financing treasury, wealth management, and Takaful. Leveraging disruption and innovation within these service groups is crucial in increasing market share dominated by non-IFIs with extensive customer reach, large customer databases, and robust security compliance" (World Bank, 2020, pp. 20-24).

Figure 4 (Islamic Fintech examples per type of financial service)

Financial Services	Islamic Financial Services	Islamic Fintech Examples
Funding	<i>Includes:</i> <ul style="list-style-type: none"> • Custody-based deposits (can also be based on <i>Qard</i>) • Investment accounts • <i>Shari'a</i>-compliant payment, collection, and liquidity management 	<ul style="list-style-type: none"> • PayHalal (Souqa Fintech Sdn Bhd, Malaysia) • AmalPay (Malaysia) • Investment Accounts Platform (IAP – Malaysia)
Trade Finance	<i>Includes:</i> <ul style="list-style-type: none"> • <i>Murabaha</i> working capital • <i>Murabaha/Wakala/Mudaraba</i>/Letter of Credit 	<ul style="list-style-type: none"> • Waqfe – Bahrain (Digital banking platform provider)
Financing	<i>Includes:</i> <ul style="list-style-type: none"> • <i>Murabahah/Mudaraba/Musharaka/Salam/Istisn'a/Ijara</i> Financing • Islamic Microfinance 	<ul style="list-style-type: none"> • Ethis Crowd – Singapore, Indonesia, Malaysia, Australia • Blossom Finance
Capital Market	<i>Includes:</i> <ul style="list-style-type: none"> • Islamic Bank Treasury • <i>Sukuk</i> (Islamic Bonds) 	<ul style="list-style-type: none"> • Adab Solution (Crypto exchange)
Wealth Management	<i>Includes:</i> <ul style="list-style-type: none"> • <i>Shari'a</i>-compliant wealth management for retail and HNWIs 	<ul style="list-style-type: none"> • Wahed – US (Robo-advisory investment platform) • HelloGold (blockchain-based gold investment)
Insurance	<i>Includes:</i> <ul style="list-style-type: none"> • <i>Takaful</i> • <i>Re-Takaful</i> 	<ul style="list-style-type: none"> • Uplift Mutuals • Insure Halal

Source:World Bank (2020) “Leveraging Islamic Fintech to Improve Financial Inclusion”, World Bank, Washington, DC , P24 .

The table illustrates the intersection of Islamic financial services with modern financial technology (Fintech), which enhances the

development of the Islamic financial sector, making it more diverse and innovative. Financial services can include various types such as insurance, wealth management, Islamic bonds (sukuk), investment accounts, and more. In contrast, There are many Islamic Fintech companies serving these fields, contributing to the development and diversification of the Islamic financial sector.

3.3 Global Islamic Fintech:

The Global Islamic Fintech (GIFT) Index is the only systematic index for global Islamic Fintech, There are an increasing number of countries with growing Islamic Fintech activity, or are well-placed to facilitate such activity. As such, a clear need exists for a relative comparison of each country, and this report presents the only Global Islamic Fintech (GIFT) Index. This Index represents which countries are most conducive to the growth of Islamic Fintech Market & Ecosystem in their jurisdictions. The index comprises an overall ranking of 64 OIC and non-OIC countries. These countries were included on the basis of their existing Islamic Fintech market activity, the presence of Islamic finance capital (a facilitator of growth in Islamic Fintech), or due to their systemic importance to the wider global Fintech ecosystem (e.g. China, Japan)

Figure 5 (Islamic Fintech examples per type of financial service)



Source: Global Islamic Fintech Report 2023/24, p12.

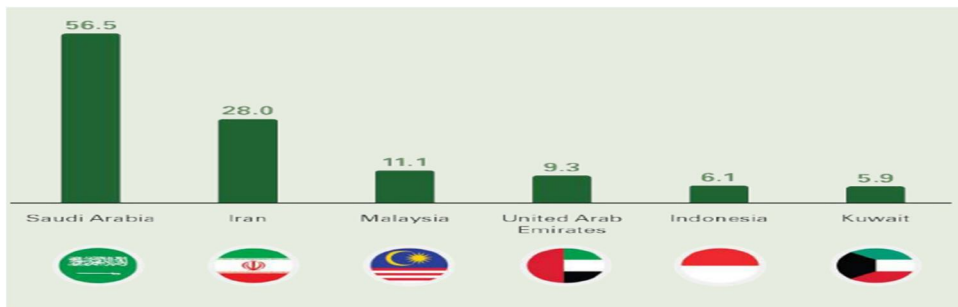
3.4 The global Islamic Fintech market size was USD 138 Bn in 2022/23, and is projected to grow at 17.3% CAGR to USD 306 Bn by 2027

The estimated global Islamic Fintech market size in 2022/23 was USD 138 Bn. This represents 1.2% of the current global Fintech market size, based on transaction volumes and assets under management.

The global Islamic Fintech market size is projected to grow at 17.3% CAGR to USD 306 Bn by 2027. This compares favorably to the conventional Fintech CAGR of 12.3%.

The top 6 OIC Fintech markets by transaction volume and assets under management for Islamic Fintech are Saudi Arabia, Iran, Malaysia, UAE, Indonesia and Kuwait. Each had a estimated market size in 2022/23 of over USD 5 Bn. Collectively, the Top 6 markets account for 85% of the global Islamic Fintech market size, continuing the dominance of two regional centres for Islamic Fintech. (Basit, Najmul Haque, & Shikoh, 2024, pp. 9-11)

Figure 6 (Top 6 Islamic Fintech market sizes 2022/23 USD Bn)



Source: Global Islamic Fintech Report 2023/24, p9.

3.5 Islamic Fintech and sustainability:

Islamic finance aligns with the UN Sustainable Development Goals (SDGs) by promoting a circular economy that integrates human products into the financial system while adhering to Islamic values. Its interest-free system serves as a moral and ethical instrument, fostering healthy competition and faith in Allah. Through profit-sharing financing (Mudharabah) and joint partnerships (Musyarakah), it enhances community-oriented shared economies. Preferred for its ethical purposes and social welfare goals, Islamic finance ensures activities comply with Islamic law, thereby protecting the environment and societal well-being Compliance with Shariah.

Islamic finance, guided by Shariah principles, aims to achieve Maqasid al-Shariah without manipulating God's law. It emphasizes

fairness, free from riba (interest) and gharar (excessive uncertainty), to help alleviate poverty and protect wealth for productive purposes, generating business opportunities and employment. While profitability is crucial, Shariah compliance is paramount, restricting investments in interest-bearing instruments. Instruments like Sukuk support human welfare and sustainable development, aligning with Maqasid al-Shariah and the SDGs. Shariah-compliant companies tend to increase debt ratios during equity declines, reflecting their adherence to these principles.

✓ **Financial Technology**

Technological advancements have led to innovations in Islamic financial technology, particularly the integration of Fintech with Islamic finance products like Sukuk and waqf. Blockchain technology enhances Sukuk by increasing transparency and improving investment decisions with more information, benefiting the SDGs in economics. However, combining blockchain with Sukuk requires careful management of legal, regulatory, and Shariah risks. In Thailand, the multicultural setting and relevant laws make it suitable for developing waqf through crowdfunding, despite the absence of specific waqf laws. Indonesia has successfully digitized waqf, significantly reducing poverty and contributing to sustainable economic development, demonstrating the potential of digital waqf systems in developing countries.

✓ **Green Banking**

Innovations supporting the SDG program include green banking, driven by the green, inclusive behavior of Islamic bankers, which positively impacts its growth. Green programs, adhering to Islamic finance's ethical principles and Maqashid al-Shariah, enhance financial stability and climate change mitigation. Unleveraged green investment trusts exemplify financial innovation, pooling funds for development projects and improving liquidity management for Islamic financial institutions and central banks.

✓ **Islamic Finance Innovation**

Islamic finance, rooted in traditional law, innovates to increase public participation, utilizing instruments like waqf and Islamic microfinance. Integrating technologies such as blockchain and Fintech, these instruments develop new business models and address social issues through income-

generating assets. Combining moral and material factors in transactions boosts profitability, with a focus on sustainability in poor Muslim communities by the Islamic Development Bank. (Harahap, Risfandy, & Nurfadia Putri, 2023, pp. 12-16).

4. Islamic Fintech through experiences :

One of the best experiences in Islamic fintech is Malaysia, which is making great efforts to support technology that aligns with the principles of Shari'ah.

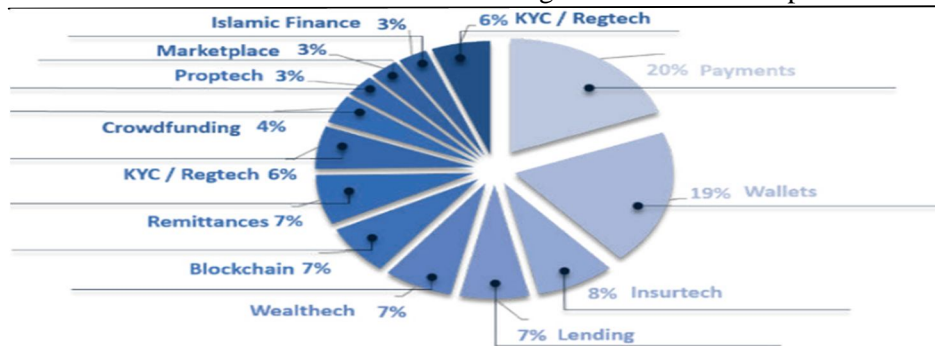
4.1 Islamic Fintech in Malaysia:

The interest in developing Islamic Fintech in Malaysia and the efforts in achieving it are constantly on the rise. Several startups have launched Shariah-compliant Fintech solutions. Shariah advisory boards at regulatory and industry levels have discussed various Shariah issues related to Fintech. Resolutions and exposure drafts have been issued or modified by regulators to cover a wide range of Islamic Fintech activities. Some government agencies have established dedicated departments to support Fintech and the Islamic digital economy. Universities and training centres have started offering specialized courses and programmes to provide the requisite human capital, while research centres have invested in substantial efforts to push the industry forward by conducting extensive research and providing consultancy services.

4.2 The Ecosystem of Fintech in Malaysia:

Malaysia has become one of the fastest-growing Fintech markets in Southeast Asia, with nearly 200 Fintech companies as of September 2020. Most Fintech activity is concentrated in wallets and payments, driven by mobile and e-commerce demands from underserved consumers and merchants. Bank Negara Malaysia's push for electronic payments has further supported this trend. Innovations such as alternative financing platforms, insurtech, blockchain, and remittances are gaining traction. Additionally, a niche in Islamic Fintech has emerged, focusing on Shariah-compliant financial solutions, products, services, and investments.

Figure 7 (Key Fintech Verticals in Malaysia Based on Number of Companies in 2019)



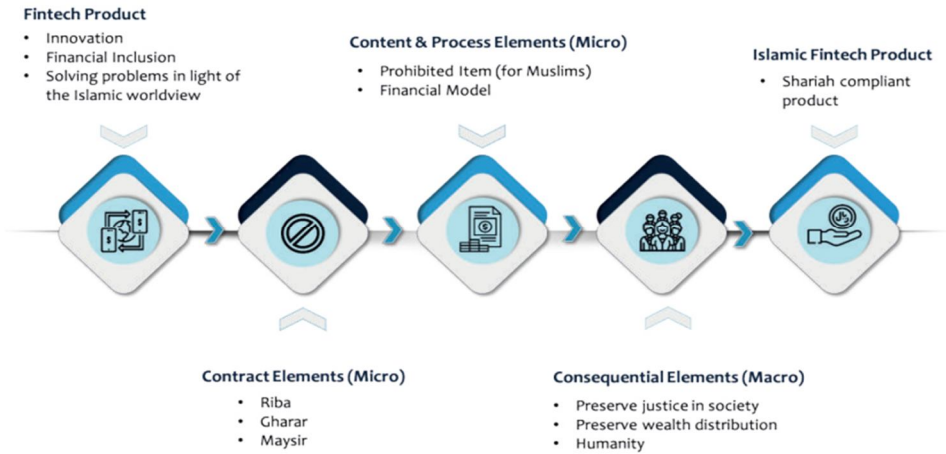
Source: Salim, K, Abojeib, M.& Baharom, AH. (2020). *Islamic Fintech in Malaysia: Reality & Outlook*. Kuala Lumpur: The International Centre for Education in Islamic Finance (INCEIF),p02

Malaysia has two regulatory authorities that regulate its financial system; the first is Bank Negara Malaysia (BNM) that acts as a regulator for banking institutions, insurance/takaful companies and activities related to payment and money services. The second regulatory institution is the Securities Commission of Malaysia (SC), which is a statutory body established under the Securities Commission Act 1993 that regulates capital market activities in Malaysia.

4.3 Islamic Fintech Product Development:

Fintech applies disruptive technology to financial services to optimize cost, time, and system efficiency, significantly enhancing user interfaces and experiences. Islamic Fintech delivers Shariah-compliant financial services through digital interfaces and smart operations. Ensuring these solutions adhere to Shariah principles is a unique challenge. Robo-advisors, for example, use complex algorithms for investment advice, replacing fund managers and financial analysts. They offer quick, error-free, and cost-effective results, minimizing human errors and eliminating agent fees. However, Shariah scholars must determine their compliance with Islamic principles.

Figure 8 (Islamic Fintech Product Development Process)



source: Salim, K, Abojeib, M.& Baharom, AH. (2020). Islamic Fintech in Malaysia: Reality & Outlook. Kuala Lumpur: The International Centre for Education in Islamic Finance (INCEIF),p36

4.4 Shariah Governance Framework for Fintech:

Islamic financial products and services must comply with Shariah principles, which also applies to Islamic Fintech solutions. Traditional Islamic financial institutions (IFIs) follow Shariah governance frameworks set by financial authorities, ensuring compliance and building public trust. For Islamic Fintech, two models are proposed: one where Fintech develops its own Shariah governance framework, and another where Fintech adheres to existing frameworks from financial authorities. Currently, there is no comprehensive global Shariah governance framework for Fintech, so Islamic Fintech solutions follow the same rules as traditional IFIs. Despite this, some Islamic Fintech solutions do comply with existing Shariah governance regulations, and countries like Malaysia have specific product-focused guidelines.

In Malaysia, three key Fintech areas have received specific considerations from regulators for Shariah compliant solutions: Digital assets, E-Money and Crowdfunding.

❖ Digital Assets:

At the start of 2020, there was no official resolution on the Shariah compliance of digital assets, slowing the development of Islamic solutions

using cryptocurrencies or tokens. In July 2020, the Shariah Advisory Council of the Securities Commission (SC) issued a resolution permitting Shariah-compliant tokens under certain conditions, marking a significant development. Although detailed Shariah governance requirements are not yet released, this resolution is expected to enhance Malaysia's crypto landscape, especially among its 60% Muslim population. A regulated crypto exchange plans to offer Shariah-compliant services, eagerly awaited by the Malaysian Muslim community.

Digital currency is recognized as mal (asset) from a Shariah perspective. The SAC views digital currency from two following angles:

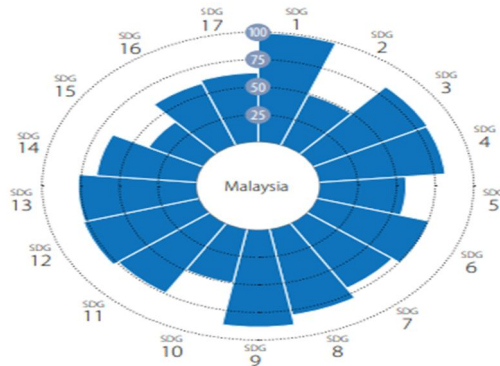
- ✓ Digital currency that is based on technology without anything underlying.
- ✓ Digital currency that is backed by ribawi items.
- ❖ **Electronic Money (E-Money):**

After a significant increase in e-money usage, the Shariah Advisory Council (SAC) of Bank Negara Malaysia (BNM) ruled on January 29-30, 2020, that e-money is a permissible payment instrument under Shariah. This ruling took effect on May 19, 2020, with detailed guidelines to ensure Shariah compliance. This move by Malaysia's regulatory bodies aims to further regulate the Fintech landscape. The trend of e-money usage is expected to grow even faster following this ruling. However, no non-bank e-money issuers in Malaysia have yet announced Shariah-compliant e-money status.

❖ **Equity Crowdfunding & P2P:**

Equity Crowdfunding (ECF) & Peer-to-Peer (P2P) funding are regulated under the 'Recognized Markets' guidelines. The guidelines, which are revised periodically, cover digital assets, ECF & P2P platforms whether offering conventional products or Shariah compliant products. The guidelines declare that wherever an Islamic capital market product is offered, the operator must appoint a Shariah advisor. In addition, the guideline specifies that a P2P platform operator shall use a Shariah compliant trust account with a licensed Islamic bank for the purpose of holding the Shariah compliant funds being raised. (salim, Abojeib, & Baharom, 2020, pp. 1-44)

Figure 9 (AVERAGE PERFORMANCE BY SDG malaysia 2024)



Source: Sachs, J.D., Lafortune, G., Fuller, G. (2024). *The SDGs and the UN Summit of the Future. Sustainable Development Report 2024.* Paris: SDSN, Dublin: Dublin University, p 292.

Overall, it can be observed that Malaysia performs well to excellently in most of the Sustainable Development Goals, with some areas needing improvement, such as Life Below Water (SDG 14).

5. Conclusion and suggestions

Islamic Fintech has become an essential part of the global economy. In light of the digital revolution, it has been necessary to keep pace with this development through Fintech, which is achieving rapid growth, making it a fertile ground for investment. Besides providing numerous benefits and opportunities for work and investment, especially sustainable investment, it also serves the goals of sustainable development. From the above, the following results were concluded:

- Islamic Fintech has a very rapid growth potential, enabling it to penetrate markets and presenting itself as a fertile investment field;
- The transparency provided by Islamic Fintech attracts foreign investors, not just Muslims;
- Islamic Fintech faces significant challenges that could hinder its growth, such as a lack of trust and awareness about technology in general and Islamic Fintech in particular;

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- Malaysia is a leader in the field of Islamic Fintech and one of the world's foremost financial centers, thanks to government support and a conducive environment for this activity;
- Providing a suitable social, economic, and political environment for Fintech can significantly impact its growth;
- Islamic Fintech creates substantial opportunities for achieving sustainable development goals by creating jobs, supporting sustainable projects, encouraging entrepreneurship, and driving the economy forward.

Based on findings, we have put forward some suggestions:

- ❖ Develop a strong and unified regulatory framework for Islamic Fintech to enhance transparency and build trust between investors and consumers;
- ❖ Conduct awareness and education campaigns to highlight the benefits of Islamic financial technology and the importance of transparency in financial operations;
- ❖ Encourage research and development in the field of Islamic Fintech to find innovative solutions that are in line with Shari'ah principles and meet the needs of the market;
- ❖ Promote the use of Islamic financial technology in financing environmental and sustainable projects to promote sustainable development;
- ❖ Establish international co-operation platforms to support joint projects in the field of Fintech and sustainable development;
- ❖ Provide incentives and guarantees to investors in projects that aim to protect the environment and promote sustainability.

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- Salaam Gateway on the link: [How many Islamic Fintech services are there in the world and who are they? | Salaam Gateway - Global Islamic Economy Gateway](#)