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A SLANTED VIEW ON THE FUTURE OF ISLAMIC FINTECH AND CONVENTIONAL FINTECH IN SOUTH AND SOUTHEAST ASIAN COUNTRIES

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Abstract: Introduction/Main Objectives: This study reviews the presence of Fintech in South and Southeast Asian countries through several categories. **Background Problems**: Many people doubt the presence of Fintech in South Asia and Southeast Asia as part of a developing country with all its limitations, especially Sharia Fintech. **Novelty**: Developing Sharia Fintech in South Asian and Southeast Asian countries, which have not spread evenly before. **Research Methods**: Qualitatively using GFD (*Global Findex Database*) data collected in 2021, which was then elaborated with 115 research studies (50 from Scopus, 24 from Research Gate, 21 from Google Scholars and 20 from other sources). **Finding/Results**: The presence of Fintech is more likely to develop rapidly in the Southeast Asia region, not so in the South Asian region. The lneeds of each region are different. It is different if developed by Sharia Fintech (I-Fintech/Islamic Financial Technology). Its potential is almost acceptable in all regions, including in countries that are sensitive to religious issues. **Conclusion**: It is not only Fintech that is the future of cutting-edge banking, but also the presence of I-Fintech (*Islamic Financial Technology*) which empirically opens up great opportunities and repositions mainstream financial institutions into traditional banking, including Islamic banking. However, the presence of Fintech and I-Fintech still requires the support of local government policies and the wider community, Muslims and non-Muslims in any part of the world.

Keywords: Future of Fintech, Islamic Fintech, I-Fintech SDGs

INTRODUCTION

The latest financial technology has shifted the position of the world's leading mainstream banking as "traditional banks" (Imam et al., 2022). This term applies not only to conventional banks but also Islamic banks which are proud of their potential in the future (Khan, 2010). The financial technology is more familiar with the word "FinTech" which stands for Financial Technology (Freedman, 2006; Nguyen, 2016). There are hopes and challenges wherever the position of this FinTech country is (Suryono et al., 2021).

In this study, the researcher considers two regions with similar economic, political and social structures—the South Asian Countries region and the Southeast Asian Countries region. (Rahman et al., 2018). The South Asia Region, currently incorporated into South Asia consists of eight countries (India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan and Maldives, and Afghanistan) and came into force in 1985 with the aim of promoting socio-cultural development and cooperation and collaboration between regions (South Asian Association for Regional Cooperation 2020). The total population of South Asian countries is close to the total population of China, South Korea, and Japan (Dey et al., 2019). While most South Asian countries have strong historical ties to the late British/Indian Empire, Southeast Asian countries have a high degree of ethnic, religious and linguistic diversity (Dey et al., 2019) and have an average age of 27 years (Prasad & Aravindakshan, 2021). The political and social systems of these countries have incorporated "English, standard English spelling, Westminster-style Parliamentary democracy, common law legal system, left-hand driving, etc." (Dey et al. 2019, hlm. 1020). The region has a highly familial and collectivist culture in ethos and practice, and exists under an economic context that is heavily dependent on the banking system, and where digital services thrive. (Pandey, Sehgal, and Ahmad 2019; Dey et al. 2019; Prasad and Aravindakshan 2021). Meanwhile, Southeast Asian countries that are members of ASEAN (Association of South East Asian Nations), represent 10 countries (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam), and were founded in 1967. The region is the seventh largest economy in the world with a combined GDP of $USD 2.5 trillion, and is expected to become the fourth largest economy by 2030 (Aujirapongpan et al., 2020). The region has an economic context that drives digitization (Avirutha, 2021) and has a focus on developing communities that respect equality, freedom and the collective spirit (Ullah & Ming Yit Ho, 2021).

In 2016 the Southeast Asian and South Asian countries comprised 8.8% and 23.75% of the world's population respectively and made a combined contribution of 5.81% to the world's GDP (Rahman et al., 2018). Economic conditions in Southeast Asian and South Asian countries are quite different, with GDP per capita in Southeast Asian countries much higher than South Asian countries (Chang et al., 2009), and the convergence of income among member countries is more visible in the Southeast Asia region than in the South Asia region (Zia & Mahmood, 2019). Compared to OECD (Organization for Economic Cooperation and Development) countries, which generally have larger elderly populations, the South and Southeast Asia regions have younger populations. (Rahman et al., 2018). Their contribution to the world economy cannot be ignored.

It will be interesting to explore the extent to which FinTech services, including those offered by traditional banks, can thrive in this region, and potentially contribute to reducing the financial inclusion gap. Today, smartphone devices and their applications have become an integral part of people's daily lives, particularly in the South Asia and ASEAN region, where the underlying context and social media have led to the high growth of smartphone adoption. (Prasad and Aravindakshan 2021; Dey et al. 2019; Babu 2016; Widyastuti 2018). It is believed, that exploration which comprehensively covers Southeast Asia and South Asia does not exist. In addition, there is a paucity of literature comparing the opportunities and constraints of FinTech in the Southeast Asia and South Asia regions, with regard to the future of fintech and the future of Islamic fintech. This research article fills that gap.

LITERATURE REVIEW

Future of Fintech

According to Nicoletti (2017), the future of fintech cannot be separated from artificial intelligence, blockchain, smart contracts and machine learning. This momentum gave birth to 2 consequences simultaneously, namely the modernization of the financial architecture and the acceleration of changes in consumer and market behavior, as well as influencing the establishment of policies in the world of work, forms of services and regulations. The future of fintech and Islamic finance, especially Islamic FinTech, is very good in Muslim countries (Ahmad & Al Mamun, 2020; Avirutha, 2021; Saba et al., 2019). The development of mobile and smartphones has paved the way for FinTech growth in these countries (Haqqi, 2020; Rizvi et al., 2018; Van Loo, 2018). These opportunities are certainly not without challenges. The biggest challenges for Sharia FinTech companies are regulations and the lack of good and authentic research in the Sharia Fintech sector. (E. A. Firmansyah & Anwar, 2019; (Rabbani et al., 2020; Alam et al., 2019b; (Bromberg et al., 2017). Other studies (H. B. Firmansyah & Ramdani, 2018) believes that the presence of Islamic Fintech companies can help startups effectively (Ahmad & Al Mamun, 2020; Saba et al., 2019; Alshater, 2020). This will be a good boost for young graduates due to the lack of organizations that support prospective young graduates with sharia-compliant financing (Biancone et al., 2019; Zhang et al., 2021; Ibrahim et al., 2017).

Fintech has doubled in Europe, in fact, at twice that of Silicon Valley since 2008 (Odinet, 2020). Since 2011, the volume of FinTech transactions in the London area has tripled and accounted for more than 50% of all European activity (Jędrzejowska-Schiffauer et al., 2019; Setyarini et al., 2021). There is room for new financial technology companies, and that can be achieved through a variety of financial services and respect from clients (Chishti & Barberis, 2016;

Cohen & Nelson, 2011; Bakar et al., 2020). It is very important for the development of financial services companies and banks because the development and growth of FinTech companies will give customers the choice to use traditional financial services as well as new and innovative services provided through FinTech companies. (Gomber et al., 2017, 2018; Saksonova & Kuzmina-Merlino, 2017). FinTech companies have given traditional banks a lifeline to go digital and provide low-cost financial services (G. Lee & Megargel, 2021; Varga, 2017; Saad et al., 2019; Kavuri & Milne, 2019). In a country like the Czech Republic, low-cost banking with Fintech will help banks to compete with bigger and more established banks (Hes & Jílková, 2016; Saksonova & Kuzmina-Merlino, 2017; Navaretti et al., 2018).

Islamic FinTech and Islamic Fintech SDGs

Islamic fintech is a financial innovation that involves technology that offers products and services that comply with Islamic law to increase financial activity. Islamic fintech must be aligned with the foundation of *maqasid al-shariah*, and relevant to the regulations of local state authorities (Hudaefi, 2020; Mansur, 2015).

Islamic FinTech is based on Shariah ethos and values and has the ability to lead the financial world around the world (SP et al., 2022; Atif et al., 6 C.E.; Ahmad & Al Mamun, 2020). The biggest advantage with Sharia Fintech is that it is transparent, accessible and easy to use (Laldin & Furqani, 2018); Alam et al., 2019a; Friantoro & Zaki, 2018). The global financial crisis does not affect the financial performance of Islamic banks because the nature of Islamic finance has emerged as an alternative to conventional finance (Setyawati et al., 2017; Hidayat & Abduh, 2012; Rizal & Humaidi, 2019). With the emergence of Islamic

FinTech, providing opportunities for Islamic banks to make the financial world better and emerge as a more transparent financial alternative and have ethical values. (Ali et al., 2019; Avirutha, 2021; Setyawati et al., 2017). Technological change is only the beginning of innovation in the financial and banking industry (Arize et al., 2018; Hudaefi, 2020). It is very important for Islamic financial institutions to be prepared and accept change (Warde, 2010; Marzuki, 2020; Maali & Napier, 2010). Sharia Compliance Islamic FinTech has the ability to attract 150 million new customers in the next 3 years (Chen, 2018; M R Rabbani, 2021).

However, it is expected to grow even further as we forecast a boom in Muslim population growth as the Muslim population is expected to reach 3 billion by 2060 (Cooper, 2018; Maideen & Jumale, 2021; Hafiz, 2020). Until now, Malaysia, the UK, and Indonesia still occupy the top three positions in terms of Islamic FinTech startups (Aulia et al., 2020; Alam et al., 2019a; Darmansyah, 2020). Other studies (Rusydiana, 2018) concluded that the biggest obstacle to developing Islamic FinTech is the lack of trained human resources and clear policies from the government (Yazici, 2019; Hassen, 2020). The researcher further stated that in order to develop the right ecosystem for Islamic FinTech development in the country, the government should bring in proper regulations, educational institutions should bring good research and provide trained personnel (Guild, 2017; Mansur, 2022; M R Rabbani, 2020;). The success of Islamic Fintech can be attributed to the number of areas of financial services in which FinTech can be linked, for example, it can be linked to cryptocurrencies, blockchain and other areas such as cross-border payments (Tao et al., 2022;

Gambler, 2018; Michalopoulos & Tsermenidis, 2018; (Alam et al., 2019b). Islamic FinTech needs to keep pace with the rapid developments taking place in the conventional financial world (Mohamed & Ali, 2018; Miskam et al., 2019; Kammer et al., 2015). In fact, the opportunity for Islamic finance is greater than conventional finance because the basic concept of FinTech is joint capital according to the rules determined by sharia (Khan, 2010; Ilias, 2009). Sharia FinTech shares the same values and ethics that form the basis of Islamic Finance (Alam et al., 2019; Haqqi, 2020).

The development of Islamic Fintech provides great opportunities for developing countries, as it provides cost-effective solutions for financial services. At the same time, it also tests regulatory bodies to maintain stability and protect investors and institutions from fraudulent trading practices (Saba et al., 2019; Muryanto, 2022). To ensure Islamic FinTech grows and has a sustainable development, awareness programs among students can be initiated among those who use technology (Saad et al., 2019; E. A. Firmansyah & Anwar, 2019). If Fintech is to be relevant in the longer term, it must be innovative because the adoption of FinTech by Islamic financial institutions not only affects the Muslim community, but also affects non-Muslims and the global financial world (Irfan & Ahmed, 2019; Baber, 2019).

Fintech has become a challenge for financial institutions that can be turned into an opportunity by making FinTech companies a partner in providing innovative services rather than treating them as competitors. (Cristea & Thalassinos, 2016). The main risk associated with developing from FinTech is that banks are exposed at every level (Kavuri & Milne, 2019; Rabbani et al., 2020). FinTech is still new and companies cannot be sure how much investment is worth investing as far as Fintech projects are concerned (I. Lee & Shin, 2018; Thakor, 2020). To address these challenges, banks and Fintech companies need to sit down and integrate and evaluate their efforts. Fintechs and banks need to evaluate their value proposition in terms of integrating innovation and FinTech (Acar & Çıtak, 2019; Coates, 2015; Drasch et al., 2018).

METHODS

For this qualitative study, we focused on a selection of statements contained in GFD 2021 to help understand and reflect on opportunities for FinTech development in Southeast Asian and South Asian countries. It is important to note that the World Bank report on GFD 2021 mentions opportunities for digital banking and financial services in different countries (Demirguc-Kunt et al., 2022). The report, however, does not cover Southeast Asia and South Asian countries in particular and does not focus on a comparison of opportunities relative to their respective economic contexts. In addition, we conceptualize opportunities across different types of FinTech technologies, not just banking and payment services. With that in mind, we listed our conceptualization of the question as the constraints and opportunities associated with different categories of FinTech. We follow the latest KPMG report (Pollari & Daniel, 2021) and categorize potential FinTech services into seven groups: neobanks, lending services, personal finance services (management), payment services, crowdfunding, RegTech (regulatory technology), and InsurTech (insurance technology).

The GFD asked participants why they should not have a bank account or an account with a financial institution and suggested reasons, including: distance to a financial institution, expensive financial services, lack of documentation to create an account, distrust of financial institutions, religion, lack of money, family members others already have accounts, and participants do not need a formal account. The question items, by their very nature, also reflect opportunities for FinTech expansion as they are responses to the barriers mentioned above. The GFD asked participants whether they used cash or online payments to complete their purchases—another survey item that correlates with FinTech technology opportunities. In the same way, questions asking participants about their lending behavior can be reversed and considered as opportunities to develop FinTech lending services. The question of borrowing and saving for business can be conceptualized as entrepreneurship and business management behavior. While those of interest to FinTechs such as crowdfunding services, which can help raise funds for businesses; or InsurTech, which may be relevant from an insurance perspective; or RegTech, which can help with regulatory compliance.

RESULT AND DISCUSSION

Fintech is not a completely new financial concept, and has gone through a long stage since the 1950s known as Credit Cards, Automated Teller Machines (ATMs) in the 1960s, electronic stock trading in the 1970s, mainframe computers and sophisticated record-keeping systems in the 1980s. -an, and internet banking and online stockbroking in the 1990s (Setiawan & Maulisa, 2020). The introduction of the Internet, the World Wide Web (WEB), and online payments have led to the concept of digital money and it became more dominant in the 2000s with mobile banking services via smartphones in European banks. For example, PayPal uses digital currency to process payments and money transfers instead of paper money (Bakar et al., 2020).

There are several categories of Fintech services that can enhance the consumer financial service experience by digitizing financing, investment, money, insurance and financial advice (Gomber, Koch, and Siering 2017; Chinnasamy, Madbouly, and Reyad 2021). Some common FinTech services include:

- PayTech—(payment technology) that offers digital payment services;
- LendTech—(lending technology) offers efficient, accurate digital loan solutions;
- Crowdfunding/equity financing—offering the opportunity to raise funds through the sale of securities online or through some promise of incentives to funders;
- Neobanks—offers digital banking and financial services;
- RegTech (regulatory technology)—offers the safe and cost-effective delivery of regulatory compliance in a standardized, integrated and transparent ecosystem;
- InsurTech (insurance technology)—offering insurance solutions within the digital finance ecosystem; and

- Personal finance/robo-advisers/WealthTech—offers personal digital financial planning or management services using robotic technology involved in portfolio construction and stock trading.

Fintech Opportunities and Constraints in Southeast Asia and South Asia

This article explores the opportunities and barriers to FinTech development in the Southeast Asia and South Asia region. Using GFD (Global Findex Database) data collected in 2021 to conduct a comprehensive analysis of responses to the GFD questionnaire from various angles. Overall, it is noted that FinTech services have potential opportunities for expansion in the ASEAN region, while expansion in the South Asian region is more problematic. There are also different levels of opportunity for different categories of FinTech in the region. Services such as crowdfunding, neobanks and InsurTech have good growth potential in the ASEAN region, especially with a positive attitude towards entrepreneurship and asset investment. In the South Asia region, healthcare-related InsurTech, LendTech and neobank have growth potential. In addition, we note the need for innovative promotion and user education on the benefits of technology in both regions to motivate groups that are less likely to adopt FinTech services. We also developed an opportunity index that helps facilitate further insight into the opportunities and barriers to FinTech expansion (Imam et al., 2022).

Like most studies, this study also has certain limitations. A limitation of this study relates to the fact that GFD data were collected in 2021, and the results depend on the participants featured in the GFD

(Demirguc-Kunt et al., 2022). While we assume that the context, despite some changes in recent years, has not changed significantly, future research could explore FinTech in the region further with up-to-date information and potentially a larger participant base. Another limitation of this study is that we assume that FinTech opportunities can also translate into profitable developments in the region. Like it may or may not, depending on the context. However, given the great interest in FinTech in each area and the lack of research exploring this issue, the results obtained can still be of interest to relevant business leaders and policy makers and guide further research in the field. Finally, as explained earlier in this article, the scores given in the development of the index are subjective and the results must be weighed against that subjectivity. However, as also reflected in the article, the index has reasons and a statistical basis for its suitability. Future research will explore further index development by including other data and considering other assessment approaches. Any future endeavors could also address another relevant issue, which this study could not cover due to the lack of relevant data—how the index adapts when considering any changes over time. Overall, despite some limitations, we believe that we have contributed to the body of literature in this research domain with a unique analysis of FinTech opportunities and challenges in South Asia and ASEAN countries. The index and research findings should prove useful to different stakeholders and lead to relevant further studies (Imam et al. 2022).

Discussion

This article is novel in that it focuses on individual savings, loans, buying behavior, and payment preferences. And the research location used as the object is a combination that has never been studied before regarding the novelty. However, in terms of opportunity, it does not lie in the location but lies in the Islamic financial system (*Islamic Financial Technology*) or I-Fintech. There are 93 I-FinTech startups that offer financial services solutions to consumers around the world. Specifically, 65 of the 93 companies provide alternative peer-to-peer (P2P) technologies to facilitate financing accessibility for consumers and businesses while 14 partners enable deposits and transfers with blockchain technology. Notably, I-FinTech is dominated by Indonesia with 31 startup stakeholders apart from the increasing number of I-FinTech companies under the Indonesian Islamic FinTech Association, followed by the US and UAE (Dinar Standard, 2018). Ethis Kapital (Malaysia), Nusa Kapital (Malaysia), Kapital Boost (Singapore), and Wahed Invest LLC (USA) are some of the well-known I-FinTech companies in P2P and crowdfunding (IFN FinTech, nd). Because the digital economy will contribute around 22.6% of Malaysia's Gross Domestic Product (GDP) in 2025 (Povera, A., & Yusof, 2021), Malaysia would be an ideal regional hub as Southeast Asia's third largest economy by GDP offering a sizable market for early stage I-FinTech startups. (MDEC, 2020).

The difference between I-FinTech and conventional FinTech involves Sharia compliance, transparency and mutual benefit (Kelana, 2018). This confirms that I-FinTech's main attitude is to uphold Sharia principles while maintaining integrity and transparency in every transaction (Rahim et al., 2019) and ensuring fairness between the contracting parties so that there is no *riba* (usury), *gharar* (uncertainty). and elements of *maysir* (gambling) (Muhammad et al., 2013). Firmansyah and Anwar (2019) stressed that I-FinTech will be deemed Shariah compliant by adhering to its principles. Sharia compliance generally implies compliance of all transactions, activities and processes with Sharia rules even though the product results are similar to conventional products. Rashid (2017) stated that the Shariah aspect should be emphasized by regulators and companies providing FinTech applications to ensure the 'maqasid' of consumer property is protected. Laldin (2017) recognizes FinTech as conveying the goal of *maqashid Syariah* because it contributes to human civilization in order to provide a good life order.

I-Fintech's challenges lie in regulation and human resources. A.Oseni (2019) emphasizing on the development of a new legal framework for digital Islamic banks for optimal development and competition in an increasingly competitive industry with significant stakeholders. Thus, government support is urgently needed to offer functional regulation to the I-FinTech sector (Saksonova & Kuzmina-Merlino, 2017). In Malaysia, MDEC is a government-owned entity that is responsible for developing a local digital business ecosystem, offering a network to venture capital investors, and supporting the halal economy business through Shariah certification. Sharia economic growth is expected to increase to USD 3 trillion in 2021. MDEC also released the Islamic Digital Economy (IDE) Guide (*Mi`yar*) as a reference for the digital economy community such as startups, venture capitalists and supporting ecosystem actors who want to be involved in business operations , products and services in the Sharia-compliant or halal-compliant segment and Islamic venture capital. However, it only serves as a guide that should be read in conjunction with other guidelines issued by SC, BNM and others (MDEC, 2020).

The next challenge, namely in protecting consumer rights. The digital revolution marks a new set of complexities for human development, such as high inequality within and between countries, human rights, data privacy and security, job losses after automation, economic instability, and other related factors. Although several countries are currently extending essential social services, including education and health care to rural populations with mobile phones, a large proportion of low- and middle-income people are still unable to take advantage of social and economic opportunities because nearly 2 billion people do not use smartphones. Furthermore, 2 billion of the 5 billion mobile subscribers worldwide remain offline (Jahic, A., & Jahan, 2019). The local cellular phone penetration rate in 2019 reached 90.71% and is expected to reach 97.4% in 2025. Likewise, the number of mobile internet users is expected to reach 33.43 million in 2025 compared to 28.4 million in 2019 (Department Statista Research, 2020).

Another thing that needs to be said is that the fintech companies reviewed can also promote the idea of financial inclusion, for example, financing underdeveloped sectors such as agriculture and small and micro enterprises (SMEs). In addition, selected fintech companies were also found to collect and distribute Islamic social funds such as infaq (charity spending), waqf (waqf) and alms (voluntary charity). In addition, a company can also start a charity program for the underprivileged. To a certain extent, these findings are identical to the company's efforts to promote the SDGs to end poverty (SDG 1) and hunger (SDG 2) and reduce inequality (SDG 10).

CONCLUSION

The presence of fintech in the banking world is a necessity as the dynamics of the changing times. The Islamic Fintech opportunity further proves the existence of Islamic economic theory which is not only at the normative level, but is able to respond to these changes.

As a new product, it needs the support of state policy authorities and the support of society in general, both in countries with a majority Muslim population or in countries with a minority Muslim population. Religious status should not be a barrier in implementing Islamic economic practices. By referring to maqasid sharia, Islamic Fintech can land in any part of the world.

The benefit of this research is that it is transparent, easy to access and easy to use and can easily gain customer trust which is very important for Startups, and for this I recommend it. FinTech solutions are more cost effective in providing financial services compared to traditional finance and banking. Islamic FinTech will emerge as a savior for Islamic Finance and Banking institutions due to its cost effectiveness and outreach to society. Islamic FinTech can easily gain the trust of the Muslim community as well as the non-Muslim community mainly because of its transparency. However, along with the great opportunities, there are also major challenges, such as lack of good and authentic research in Islamic FinTech, lack of trained personnel, compromise of government and Shariah compliance, cyber attacks, and investor confidence. because Islamic FinTech is still in its infancy. The regulatory framework is another important area for Islamic FinTech to be regulated and address its shortcomings. Since Islamic FinTech is still in its early stages, there are several regulatory challenges such as the regulatory framework that is still developing and contradicts some existing regulations. Regulatory bodies should adopt a relaxed, liberal and principles-based approach in regulating Fintech organizations.

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