

THE ENHANCEMENT OF FINTECH ON ISLAMIC BANKING AND FINANCIAL SECTOR IN SRI LANKA: A LITERATURE REVIEW

M.N.M. Minaz¹, A.M.F.F. Nihla¹, M.N.F. Nasrin² and H.M.A. Hilmy¹

¹Department of Islamic Studies, South Eastern University of Sri Lanka

²İlahiyat Fakültesi, Bursa Uludağ Üniversitesi, Turkey

minazsrilanka@gmail.com

ABSTRACT: *FinTech, a prominent technology that is quickly becoming integrated into modern banking industry, In Sri Lanka, the majority of banks have begun to incorporate FinTech into their current banking practices. Islamic banking and finance started as a different financial system was established in Sri Lanka. The Islamic banking sector is effectively growing, along with other conventional banks. Islamic banking has recently experienced enormous expansion, which has greatly benefited the partnership banking business. Numerous conventional banks offer separate windows to start their operations in Islamic financing. Islamic banks and windows are using more financial technology in conjunction with these initiatives for regular transactions. The growth of Islamic banking has accelerated the development of FinTech. Islamic banks are making a lot of technological advancements in order to improve their banking services and draw in new clients. Three Islamic windows and one full-fledged Islamic bank in Sri Lanka are examined in this study. These banks' information suggests that FinTech adoption in their banks is still in its early stages. In Sri Lanka's banking sector, it should develop and grow.*

Keywords: Finance, FinTech, Islamic Banking, Sri Lanka, Technology

1. INTRODUCTION

The application of scientific knowledge to the pragmatic objectives of human existence is known as technology, or as it is also known, "the transformation and manipulation of the human environment." Technology can be used to create other human creations like industry using science-based principles. The environment in which we exist has problems. Technology is essentially anything we use to accomplish a particular goal by utilizing our knowledge and comprehension. Particularly the banking industry is changing as a result of the greater interest in and use of technology. To make this a reality and shift away from traditional banking, banks must power their automated self-service capability, which includes remote customer authentication, account opening, and many other duties. Customers look forward to having easy access to digital banking services at any time. The empowerment of those without access to financial services appears to be a crucial function of financial technology (FinTech), which benefits people, the environment, and wealth both now and in the future. Everywhere, the finance industry is undergoing rapid change. Due to the rapid digitization, the banking industry, and particularly the Islamic banking sector, has made significant use of technology (Kavita, 2020). Over the duration of the past year, software solutions have been utilized by numerous industries. When it comes to money transfers, financial services have not been exempt from technical advancement and digital change. Finance-focused businesses are always looking for new technologies to help them increase productivity, responsiveness, and customer

support. The impact of technology on financial transaction services today and in the future can be disregarded.

The first significant technological advancement in the financial industry was the 1950 credit card advertisement. The introduction of credit cards fundamentally changed how people perceived their financial position. In 1960, the people received the first ATM. The use of computers served as the impetus for the first digital transformation. To simplify operations, banks started to spend heavily in computer technology. By the year 1970, the first domestic and international electronic payment methods had been developed. The SWIFT worldwide payment network was established in 1973 (Trificana, 2022). In the 1980s, when digital technology was well developed, the word "online" spread widely to describe the use of a terminal, keyboard, and TV to access the banking system over a phone line. Lower transaction costs, simpler service integration, and more precise marketing possibilities are advantages of online banking. Late in the 1990s, a peer-to-peer money transfer program called PayPal was offered to the public. The introduction of wireless technology and the widespread use of smartphones in the early 2000s resulted in the next major shift in the financial sector. Thanks to mobile banking, people can now handle their finances almost anywhere. Therefore, for the ease of the public, mobile banking has been combined with the use of modern technologies in the twenty-first century.

Opportunities and Challenges in Islamic Financial Technology, Cryptocurrency/Block chain Three main categories have been established for Islamic FinTech, Sharia Compliance, and Law/Regulation (Mustafa, 2020). For many Middle Eastern banks and their customers, having the ability and availability to apply Islamic Shariah rules on financial activity is essential. There may occasionally be commercial and technical barriers that limit one's ability to access and offer financial services that are compliant with Shariah laws (Izzat, 2015). The ability to deposit or withdraw money using an online banking system is one of the services that banks now offer to their customers. The safety of e-banking systems could be jeopardized by a number of issues in the field of private security (Zulkifli, 2021).

Internet banking has gained popularity among Sri Lankans since its debut there in March 1999. Many institutions in Sri Lanka still have new customers who are just getting started. For instance, banking customers in eastern province are less accustomed to online banking than those in western province. The Sri Lankan banking sector is trying to promote internet banking among its customers (Aboobucker *at et*, 2017). In 1997, Amana Investment established Sri Lanka's first Islamic bank. (KPMG 2011: Amana bank, n.d) Initially developed mainly to service the Muslim community, private businesses now make up a sizeable portion of Sri Lanka's developing financial sector. They also implement cutting-edge technology to attract more customers. In order to gain a competitive edge and attract more customers, they also implement cutting-edge technology. The mobile banking industry has seen the most recent advancements in banking and finance (Mohammadi, 2015).

This research looks at the various financial technologies used in Sri Lankan Islamic banking and finance. The past and current implementation of FinTech services in Sri Lanka's Islamic banking sector are key questions that are addressed in this paper.

1.1 THE CONCEPT OF FINTECH

Financial technology companies (FinTech) will reshape and improve the financial industry by lowering costs and expanding access to financial services. Software and technology are

combined to provide banking services by FinTech businesses. FinTech companies can create a more varied and stable lending landscape by gathering data from social media and other sources to assess the requirements of young businesses and borrowers outside the banking sector. The FinTech sector is seeing the emergence of a new breed of businesses that deal with everything from payments to wealth management, marketplace lending, and equity crowd funding fundraising (FinTech, 2018). One reason why FinTech has become a growing industry is that it has a supportive regulatory environment and demographics that can give FinTech options a growing edge over traditional financial services.

Telecommunications and widespread acceptance of electronic payments are essential components of the infrastructure of a flourishing FinTech sector. Big data-enhanced credit information systems, customer education programs, and effective legislation that promotes innovation and provides adequate consumer protection are all crucial (Trificana, 2022). Thanks to wireless technology, financial services are able to replace antiquated telecoms infrastructure. The primary forces behind FinTech adoption for many services will be smartphones and the accessibility of broadband links. Consumers will quickly embrace FinTech innovations once they are widely accepted in retail.

1.2 CLASSIFICATION OF FINANCING TECHNOLOGIES

Business-to-business (B2B), business-to-consumer (B2C), and peer-to-peer (P2P) marketplaces all include a variety of use cases for FinTech. The kinds of FinTech that are transforming the financial services sector are listed below. The FinTech Report of Global FinTech Q3 2019 categorized FinTech as follows in this study:

1.2.1 PAYMENTS AND BILLING

Worldwide, the number of non-cash transactions is rising quickly. Cashless transactions have grown significantly since a lot more transactions are now being made electronically on a global scale. Since the beginning of the pandemic, cashless transactions have considerably increased in a number of countries. Apps and payment systems have both exploded in popularity. This is due to the quicker and easier signup and authentication processes, as well as the significantly lower cost of gathering payments via direct bank transfer as opposed to credit card (FinTech, 2018).

1.2.2 PERSONAL FINANCE

By combining financial information from various accounts into a singular dashboard, users of the personal finance options can more easily keep track of their money. People who use these services are better able to plan their finances, handle them, and comprehend them (Trificana, 2022).

1.2.3 WEALTH MANAGEMENT

By combining information from held-away accounts with the aid of fintech solutions, financial advisers and wealth management platforms can better develop assets under management and offer more thorough financial guidance. For instance, Atom Finance offers a selection of tools and services that let users investigate and manage all of their investments in one place. Through the subscription platform Stash, customers can quickly and affordably access investment, education, and financial advising materials (Trificana, 2022).

1.2.4 LENDING

Due to the effort and time required to gather income data, account balances, and asset history, lenders frequently struggle to get a complete and accurate picture of their applicants. Additionally, convincing borrowers to link their bank accounts in order to receive and repay loans can be a difficult procedure.

1.2.5 BLOCK CHAIN CRYPTO

FinTech offers the essential tools required to address these issues for clients involved in these situations, but the landscape is still changing due to new and ongoing challenges relating to consumer financial services platform innovation, crypto currency dynamics, block chain features, and purportedly disruptive crypto currency trading practices (Lerner, 2017).

1.2.6 REGTECH

Over the past few years, financial institutions and FinTech have worked together on a variety of commercial initiatives. Businesses have lately started paying attention to back-end components as well, even though customer-facing components have traditionally received the majority of attention. RegTech has grown to be a sizable component of the FinTech ecosystem as a result of the fierce pressure regulators have applied to general data compliance and control. Future years may see potential FinTech collaboration to take advantage of interesting use cases (Trificana, 2022).

1.2.7 INSURANCE

The development of finance, changing consumer behavior, and cutting-edge disruptive technologies are all disrupting the insurance industry. Additionally, insurance technology and technology startups are reimagining the customer experience by utilizing innovations like risk-free underwriting, on-the-spot purchasing, activation, and claims handling. FinTech examines the variables shaking up the insurance industry and provides four futuristic scenarios (Sandra, 2022).

1.2.8 CAPITAL MARKET

The capital market value chain has one of the highest levels of technological integration among the various Finance companies. Banking institutions generally offer higher process efficiency and cost optimization and are evenly distributed among different chain links (Lerner, 2017).

1.2.9 MONEY TRANSFER/ REMITTANCE

Any international money transfer, payment solution, or remittance platform that a FinTech business develops must include a cross-border money transfer processor. The only other choice is to create your own banking network by connecting with well-known banks, but this procedure requires a lot of time and effort. By integrating with a payment processor, a FinTech company can greatly reduce this complexity, speed up time to market, and reduce business risk and costs (Paul, 2019).

1.2.10 MORTGAGE/ REAL ESTATE

Due to the financial technology, or "FinTech," industry's digital disruption, mortgage lenders are no longer always conventional banks. Residential and commercial real estate projects may receive financing from alternative lenders, either directly from FinTech companies or through intermediary corporations (Sandra, 2022).

2. METHODOLOGY

The qualitative method is appears to be the most suitable methodology for carrying out this study because it is exploratory in nature and examines Financial Technologies employing Fully Fledged Islamic Banks, and Islamic Windows in Sri Lanka. The Central Bank of Sri Lanka (CBSL), the official websites of Islamic banks, and the Financial Institutions of Sri Lanka were all considered for this study's data collection. Additionally, the information needed for this study will be obtained in a variety of ways, including through observation, library materials, and professional statements, all of which call for lengthy descriptions and interpretations rather than precise statistical data.

3. LITERATURE REVIEW

A developing area of modern banking and finance is FinTech. It refers to the application of technology to facilitate gradual or significant advancements in financial services. Anyone can use their smartphone to get information from anywhere and carry out their activities while relaxing on a comfortable couch (Alshater et al, 2020) Because of a lack of resources and an appropriate legal and regulatory framework in Sri Lanka, Islamic banking was transformed into a full-fledged Islamic commercial bank in 2011 (AmanaBank, n.d.). The development of the Islamic finance sector in Sri Lanka was facilitated by Amana Investment. There are many researches are conducted in FinTech area of Islamic banking and Finance.

A Research on *The Impact of FinTech on Development of Islamic Banking Sector in the Contemporary World* by Kavita Panjwani and Nedra Shili (2020) state that technologies of the future drive an important role in effective growth of Islamic banking sector by creating transformational waves fostering the emersion of “FinTech”, which, compared to the traditional financial system, fulfills several advantages. In order to that this study examines that how financial technology innovations induce financing efforts to enhance the quality of Islamic banking sector services in contemporary world and analyzes the new concept of digital Islamic banking.

A review by Muneer M. Alshater (2022) on *FinTech in Islamic finance* adopts a hybrid approach combining bibliometric and content analysis to reveal the current research trend of Islamic FinTech research. They analysis categorizes the research output in Islamic FinTech into four distinct streams and the study finds potential for counteracting FinTech into Islamic finance to benefit the unbanked and small-medium-size businesses, the adoption of FinTech in Islamic finance will also help the government improve financial inclusion, conquer financial crisis, such as COVID-19, and achieve SDGs for a sustainable nation. However they explain that the lack of legal regulation and the lower financial literacy becomes the primary obstacle to the development of FinTech in Islamic finance.

A study by Mustafa Raza Rabbani (2020) on *FinTech, Block chain and Islamic Finance* aims to review the academic research work done in the area of Islamic financial technology. The study classifies the Islamic FinTech into three broad categories namely, Islamic FinTech opportunities and challenges, Crypto currency/Block chain sharia compliance and law/regulation. And also this study identifies that the sharia compliance related to the crypto currency/Block chain is the biggest challenge which Islamic FinTech organizations are facing. This review finds that Islamic FinTech organizations are to be considered as partners by the Islamic Financial Institutions (IFI's) than the competitors. If Islamic Financial institutions want to increase efficiency, transparency and customer satisfaction they have to adopt FinTech and become partners with the FinTech companies.

A study by Dharmadasa P.D.C.S (2021) on *FinTech Services and the Future of Financial Intermediation: A Review* explains that Due to the emergence of two significant FinTech services, namely peer-to-peer (P2P) lending and digital wallet and virtual currency services, Sri Lankan banking practices on credit, deposits, capital raising and payment services, as well as banking practices on clearing and settlement services, have changed. Following this study, national and international studies on the use of fintech by financial institutions were taken into consideration. Although there will be a transfer of lenders from banks to P2P platforms, which may cause banks to lose specific customer segments in the future, there is no clear threat from P2P lending to banking activities overall. An increasing number of smartphone users have a tendency to switch from physical to digital wallets, which could have an impact on how banks conduct their business as usual. However, given the competitive nature of money issuance by banks, as well as the risky and unreliable character of these advances, adoption of FinTech in the banking industry will not lead to a fully disintermediated financial system.

Research on *FinTech Innovations and Islamic Banking Performance: Post pandemic Challenges and Opportunities* by Abdul Aziz Abdul Rahman (2022) aims to investigate the role of financial technology (FinTech) during pandemics on Islamic financial institutions and banks' performance. The study identified measures of lockdown executed by numerous countries across the world that have also indicated the significance of leveraging technology and establishing a livelier Islamic finance industry. The results and data analysis identified adoption of greater digitalization and incorporation of FinTech strengthens the spirit of the industry in a more unstable ecosystem and challenges like pandemic and opens another new opportunity for growth. However, this study identified the recent financial years has shown that there is room for expansion and growth, especially for Sukuk issuance, by guidelines and regulations, and ease and velocity of implementation. The results of this study suggested that various indications on the effect of financial technology reform on the Islamic banks' growth significantly with the adoption of the FinTech revolution. Since the performance of Islamic banking proved to be better in certain aspects compared to conventional banking, this study suggests industry adopt paradigm change and development of financial technology to enhance the global market.

A study by Mudiarsan Kuppusamy (2009) on *a perspective on the critical success factors for information systems deployment in Islamic financial institution* state that the successful deployment of new information systems is vital for efficient business operations. Many Empirical and conceptual research papers have provided various success factors for Information system implementation in various types of organizations. But according to this study there is very limited focus on the success factors in the context of Islamic financial institutions, which is now regarded as one of key players of global financial landscape. Successful adoption to new Information system applications and tools is paramount in creating and sustaining growth for financial institutions including Islamic financial institutions. So this study presents some of the critical success factors that need to be considered during or before implementing Information system applications and tools in Islamic financial institutions.

A study by Mohd Zulkifli Muhammad (2021) on *Internet Banking of Islamic Banks: Issues of Security and Privacy* focuses on problems associated with the usage of internet banking and its privacy and security in the Islamic banks in area of Kota Bharu, a state capital of Kelantan, Malaysia which are attributed to the perspective, decision and suggestions from customers for possible actions that could be taken to overcome the problem. Researchers find perception factor to be crucially significant and play a key role in determining whether e-banking

adherents are confident and content with the privacy and security of online banking and whether perceptions affect their choice of e-banking. To avoid problems concerning privacy and security, awareness is an essential element. In saving oneself from cybercrime, everybody has their own roles. Trusts also influence decision-making and perception in ebanking access. The implication of this study is that privacy and security are critical aspects in Islamic banking operation, and Islamic banking should take proactive measures to ensure that privacy and security in internet banking are at an optimal level.

A study by Misrina A.P (2021) on *Impact of FinTech on Work from Home & Mobile Banking Operations: Evidence from Islamic Banking Sector during Covid-19 in Sri Lanka* discussed that The Pandemic has caused the entire world to come to a complete standstill and has had an influence on society, particularly the means of communication, way of life, health, and riches. Because of this, individuals everywhere were forced to abide by the government's curfew laws and lockdown regulations, even though those who owned these gadgets had trouble accessing their online banking operations. Therefore, while applying FinTech at COVID 19, Islamic banks encountered a number of problems and difficulties. The bank can be in a perfect position to encourage and influence individuals to be outstanding at using technology in mobile banking operations in order to the study were advised. People will be forced to adopt technology by default if banks have integrated it into banking operations. This will inspire people to use technology in creative ways. Banks can use technology to pawn money transactions, and because Sri Lanka has adopted the Bank E-checke, there will be a rise in the volume of business and commercial money transactions.

There are various studies conducted in FinTech on Islamic bank and Finance in national level and International level. But there are limited investigations about enhancement of FinTech on Islamic Banking and Financial Sector of Sri Lanka. So this study filled that space in covering the area by researching current FinTech usage in Islamic banking and financial sector of Sri Lanka.

4. DISCUSSION

4.1 OVERVIEW OF FINTECH

Currency has been around for more than 40,000 years, but it still plays a big role in modern living. As it transitioned from organic objects like pebbles and bones to coins, paper, and finally digital forms, its shape underwent a substantial change over time. A currency still has the same function, despite major changes over time. It functions as a means of exchange, a store of worth, and a method of payment. The most prestigious type of currency in the twenty-first century is digital. The development of FinTech, as it is known today, was made possible by innovation in the area of digital commerce. The term "financial technology," or FinTech, refers to the revolutionary changes brought about by the advent of the digital era in how we handle our finances.

4.2 THE FINTECH IN SRI LANKA

When it comes to the state of the digital payment industry, Sri Lanka has consistently followed international trends. On the island, cash is still the most common form of payment, but because it is so convenient, more and more people are choosing to use cashless interactions. A trend

that intensified during the lockdowns those COVID-19 customers endured last year (Channa, 2021). Although digital payment methods are widely used throughout the nation, consumer resistance has put a stop to further advancement. In Sri Lanka, more than 50% of people have access to mobile phones, and more than 30% have internet connectivity. This shows that a sizable portion of people do have access to the devices needed to complete a digital exchange. Even so, a lot of customers still fret about the reliability of deals and the safety of online money transfers. Consequently, Sri Lankans there have not yet fully profited from FinTech (Channa, 2021).

4.3 THE FUTURE OF FINTECH IN SRI LANKA

Future FinTech businesses in Sri Lanka should focus on the rural market segment given that more than 80% of the country's population lives in rural areas (Channa, 2021). Before FinTech can deliver on the promise of a cashless Sri Lanka, this section of the populace needs to make the switch to digital. The high costs that were once connected to digital transactions are a distinct problem. There is now a common method for making QR purchases in Sri Lanka thanks to LankaQR. Most rural small company owners are still ignorant of the potential financial benefits of utilizing LankaQR and other FinTech technologies. Such FinTech initiatives ought to be supported because they demonstrate the advantages of going digital for both consumers and businesses in these outlying areas. Explaining to the consumer that they can use their phone as a wallet and that all they have to do to make a purchase is scan a retailer's QR code is the first step (Channa, 2021).

4.4 THE ROLE OF CENTRAL BANK IN PROMOTING FINTECH IN SRI LANKA

When compared to other FinTech industries throughout the globe, Sri Lanka's can offer the country a wide range of financial products and services. The expansion of financial services employing biometrics-based technologies and Internet of Things (IoT) products and services will encourage Gen Z millennial and our future market to embrace digital financial services. The CBSL has achieved a number of goals to increase digital financial inclusion in recent years, making substantial strides toward a society with fewer cash transactions (Fernando, 2021).

A few recent successful endeavors by the organization include the creation of Lanka QR, the nation's national QR code, the beginning of the FinTech regulatory sandbox in early 2020, and the conclusion of the National Data Protection Act's development, which was aided by the Central Bank. The Central Bank is also aiming to build a national remittance mobile application and has completed the deployment and testing phases of a proof of concept for a common Know Your Customer (KYC) platform based on block chains. More programs, such as open banking, Central Bank Digital Currency (CBDC), and digital banking, will be introduced soon (Fernando, 2021). With the cooperation of the Central Bank of Sri Lanka, the country has built national payment and settlement systems (CBSL). CBSL has started a number of projects to make payment systems reliable, sound, efficient, and accessible across the country. By prescribing principles and defining standards for all national payment and settlement systems, the Payment and Settlement Systems (PSS) Act grants CBSL the power to manage and oversee payment, clearing, and settlement systems. The PSS Act states that CBSL is the only legitimate entity permitted to launch or manage a payment system in Sri Lanka without its prior consent. These responsibilities are carried out on behalf of the corporation by the 2002-established CBSL Payments and Settlements Department (PSD). The CBSL is also

responsible for creating a plan for the national payment system as well as provide direction and leadership for the development of the payment, clearing, and settlement systems. The National Payments Council (NPC), which is led by the CBSL, is comprised of the major participants in the payment system. The NPC makes recommendations for enhancing Sri Lanka's monetary system.

The central bank of Sri Lanka established basic five kinds of Payment systems as follows;

1. Systemically Important Payment Systems (SIPS)
 - a. Real Time Gross Settlement System
 - b. LankaSecure - Scrip less Securities Settlement System (SSSS) and Scrip less Securities Depository System (SSDS)
2. Retail payment systems
 - a. Cheque Imaging and Truncation System (CITS)
 - b. Sri Lanka Interbank Payment System
 - c. US Dollar Cheque/Draft Clearing System
 - d. Sri Lanka Interbank US Dollar On-line Payment System
 - e. Common Electronic Fund Transfer Switch (CEFTS)
3. Payment Cards and Mobile Payment Systems
4. Other Payment and Settlement Infrastructures
 - a. Equities Trading System and Debt Securities Trading System
 - b. Common ATM Switch
 - c. Shared ATM Switch
5. QR Payment system
 - a. LANKAQR Payment System

4.5 THE LEGAL FRAMEWORK

The Payment and Settlement Systems Act No. 28 of 2005 specifies the laws regulating money service providers and electronic check presentation, as well as Sri Lanka's payment, clearing, and settlement systems (PSSA). The rules outlined in the PSSA's Payment Card and Mobile Payment Systems Regulations No. 1 of 2013 apply to payment card issuers, financial acquirers of payment cards, operators of mobile payment systems based on client accounts, and operators of mobile phone-based e-money systems.

4.6 FINTECH IMPLEMENTATIONS IN ISLAMIC BANKING AND FINANCIAL SECTOR OF SRI LANKA

4.6.1 AMĀNA BANK PLC

Amana Bank, the only licensed commercial bank in Sri Lanka that solely uses a non-interest based business model, was founded in August 2011 and has made significant advances in both company development and market impact. Customer advances have grown by 188% in the bank's two years of operation, while customer deposits have increased by 70%. In 2013, customer deposits increased by over 2.6 billion rupees and client advances increased by over 2.8 billion rupees, considerably quickening the rate of growth (Annual Report, 2020).

The Bank's achievements and commercial expansion show the market's acceptance and promise for its distinct banking model. Even though all banks were affected by the regulatory

credit ceiling last year, the Bank was able to gather its strength and achieve significant increase in its customer advances this year. The Bank further stated that their banking approach has already been adopted by over 380000 customers, and that this figure is steadily rising. With 32 strategically placed branches, 19 Self Banking Centers and more than 5000+ ATMs and 850+ deposit points through collaborations with LankaPay and Pay&Go, offering a wide range of product and service solutions island-wide, the Bank is expanding its reach. In addition to aggressively growing its branch network, the Bank has introduced a number of FinTech initiatives aimed at providing its clients with more convenience, including Saturday Banking, Extended Banking Hours, and a 24-hour deposit kiosk that allows for both cash and check deposits. To help with its customers' payment demands, the Bank introduces its own debit card.

Amana Bank has launched new treasury and asset management software from Path Solutions. A legacy treasury and equity management platform at Amana was superseded by the new products, iMAL Islamic Treasury and iMAL Asset Management. Banking Technology is aware that Sungard's Ambit Treasury Management was involved. According to the vendor, the new software has a Swift interface and covers all of the bank's Islamic treasury requirements across a variety of products, including FX, promissory FX operations, MM, and equity investments. Path has served as the bank's long-time supplier, and Amana has been using its flagship iMAL central banking system for more than ten years (path solutions, 2016).

Amana Bank sincerely believes in and is committed to providing a financial model that supports morality, equity, and fairness for the benefit of society as a whole. The Islamic Development Bank, based in Saudi Arabia, AB Bank, in Bangladesh, and Bank Islam Malaysia Berhad are the Bank's strategic shareholders. With their backing and stability, the Bank is able to move aggressively through the Sri Lankan banking sector and capitalize on the expanding market potential for this particular banking model throughout the entire nation.

4.6.2 BANK OF CEYLON – AN NOOR ISLAMIC BANKING UNIT

The Bank of Ceylon, a fully owned subsidiary of the Sri Lankan government, was established in 1939 and is regarded as the market leader in commercial banking. BOC can reach millions of customers with a variety of products and services, some of which enjoy market leadership, thanks to its unmatched network of branches and extension offices strategically located across the country and its more than 1000 touch points, in addition to the London, Male, Chennai, and Seychelles overseas branch networks. The top bank in the nation, Bank of Ceylon, has partnered with Credence Analytics Ltd. to receive a comprehensive asset and custody management solution from Epic Lanka, the top FinTech Company in Sri Lanka. 2009 recognized the introduction of Islamic finance in Sri Lanka as a result to the finance Act No. 30 of 1988 and its 2005 amendment No. 2. An exclusive treasury operation and a Shari'ah Supervisory Board (SSB) comprised of the aforementioned leading Shari'ah scholars of the country control BOC AN-NOOR (The Light), the brand house for all Islamic Banking goods and services.

In a pandemic-affected business environment, the global investment banking sector is going through a number of changes as a result of growing client demands, digital transformation, regulation compliance, internationalization, and intensifying competition. Due to an increase in operating expenses generally, this has an effect on the bottom line. Today's investment bankers must put a greater emphasis on innovation, efficiency, productivity, and customer

centricity. Therefore, in order to completely automate the business demands of investment bankers in accordance with the "new normal," investment banking solutions must combine multiple investment banking platforms, such as asset management and custody divisions. In order to satisfy its customers' growing demands, Epic Lanka and Credence Analytics have given Bank of Ceylon a complete solution of the highest caliber that includes global best practices. The "iDEAL Wealth & Funds 6.0" solution from Credence Analytics, an award-winning software platform, can automate the full range of wealth and portfolio management while supporting various client-facing business operations like prospect management, client onboarding, document management, customer profiling, and custodian management.

4.6.3 COMMERCIAL BANK OF CEYLON - AL ADALAH

Al Adalah Islamic Banking is a separate division of the Commercial Bank of Ceylon PLC. Their specialized Islamic Banking staff provides financial products founded on Islamic principles. On the Sharia Supervisory Board, which directs and regulates the operations of the Islamic Banking Unit, are eminent scholars with expertise in Islamic banking. In order to better serve a sizeable part of its clientele who seek financial products that are compliant with Islamic law and Sharia, the Commercial Bank of Ceylon is launching "Sharia Compliant banks." The Commercial Bank's Islamic Banking Unit would first introduce the products before ultimately making them accessible to customers visiting branches via the bank's IT system. In order to facilitate Internet Payment Gateway (IPG) operations and act as the acquiring bank for the clients' cashless payment solutions, DirectPay, one of Sri Lanka's fastest-growing FinTech start-ups, and the Commercial Bank of Ceylon have formed a partnership. DirectPay aims to expand the range of services it provides with the aid of this partnership with Commercial Bank, including inventory management applications that accept Card and LankaQR payments as well as fully integrated payment Point-of-Sale devices to enter new markets. Additionally, DirectPay will cooperate with the Bank to improve supply to its merchant customers. In addition, DirectPay will work with the Bank to provide its merchant clients with more effective supply chain payment options, including micro lending and pay-day loans.

DirectPay will also increase the number of customized digital payment solutions it offers to businesses in the insurance, education, and eCommerce industries. These solutions will enable them to transition away from transactions based on cash-on-delivery and enable a range of digital payment choices for the offered goods and services. with the assistance and knowledge of Commercial Bank, a top national supplier of IPG services. According to the business, the introduction of these innovative payment solutions will provide customers with a range of payment choices. In 2018, DirectPay, a specialized service provider to businesses in the financial and telecom sectors, was founded. It has since developed a number of payment channels that benefit both the client's suppliers and the ultimate consumer. These options include internet payment gateways, linkages to receive payments remotely, mobile-based payment apps, subscription payments with recurring revenue, and bill-paying options.

Commercial Bank provides payment processing services via the MasterCard Payment Gateway Services (MPGS) and Visa Cyber source platforms, which support tokenization. Commercial Bank is a favored IPG partner to a number of businesses in Sri Lanka. Customers will no longer need to enter their card details again when making subsequent purchases from the same retailer. This is made possible by the Bank's secure card data storage, which generates a unique token and hides the buyers' private card information from the systems of the merchants. These solutions offer users access to a broad variety of fraud mitigation

capabilities, in addition to supporting both "MasterCard Secure Code" and "Verified by Visa" 3D secure authentication techniques and having a fully automated procedure to handle ComBank Easy Payment Plans. (EPP). In addition to security, the local eCommerce industry has made device-optimized payment displays—which are designed to give a seamless experience to users of various devices—one of the most crucial components of cashless payments. Commercial Bank's IPG solutions support this feature. Bank commercial Run its operations through a network of 931 automated machines and 268 branches in Sri Lanka. The only Sri Lankan bank to have achieved complete carbon neutrality for 11 years in a run, it is among the Top 1000 Banks of the World. 19 branches in Bangladesh, a microfinance organization in Nay Pyi Taw, Myanmar, and a completely operational Tier I bank with a majority stake in the Maldives are all part of the *bank's international operations*.

4.6.4 HATTON NATIONAL BANK PLC - AL NAJAAH

The Islamic Banking division of Hatton National Bank PLC, Sri Lanka's biggest retail bank, recently celebrated ten years of successful operations under the "Al Najaah" name. In order to speed up service delivery in the new normal, HNB Al Najaah, a pioneer in Islamic Banking with extensive experience managing high-value and complicated transactions, is now preparing for a new stage of growth. By design, Islamic banking presents opportunities for consistent growth. This stability is really important, particularly now when the market is so volatile. We think Islamic banking has a big potential to assist Sri Lanka's economy get back on track given that Islamic finance is estimated to be worth \$ 2.2 trillion globally. HNB Al Najaah has exceptional performance since its founding, in addition to producing the highest profits in the HNB Al Najaah has consistently won acclaim for its exceptional performance since its founding and has produced the highest profits in the Sri Lankan Islamic Banking sector for the previous five years in a run. In just its second year of operation, the unit defeated competitors from South Asian hegemony Pakistan, India, Bangladesh, Maldives, and Kuwait, earning accolades from the Sri Lanka Islamic Banking and Finance Industry (SLIBFI) and the Islamic Finance Forum of South Asia (IFFSA).

A firm that handles payments and fraud, called CyberSource, has a partnership with Hatton National Bank. HNB will incorporate Visa's CyberSource system into its entire merchant network. The bank will be able to provide its network with enhanced m-commerce and e-commerce skills as a result, giving users a secure financial environment. The transaction takes place at a moment when the bank is looking to use new technology for its merchants, including processing, tokenized in-app payments, dynamic currency conversion on foreign cards, and mobile POS payments.

The first fitness-focused banking app created by HNB PLC, Sri Lanka's most technologically advanced bank, won the "Best IoT initiative" award at the most recent Asian Digital Finance Forum and Awards. The Asian FinTech Academy (AFTA) in Colombo hosted the forum, a hybrid event that honored important groups and individuals.

4.6.5 LOLC - AL-FALAAH

LOLC Al-Falaah began operations in 2007 with the dual goals of promoting and offering alternative financial solutions in accordance with the growing global acclaim for Islamic finance. We set ourselves apart from the competition by focusing on a broader clientele that included people of all religious backgrounds and not just the Muslim community. LOLC Al-Falaah amassed a dependable and dedicated clientele because of the Company's useful

alternative products and services. What differentiates us from the competition is our individualized and cutting-edge product portfolio, which meets the commercial and socioeconomic requirements of various market segments while also attending to the particular needs of individuals. A wide range of alternative financial options are available in the areas of leasing, trade financing, import financing, property & project financing, and profit-sharing investment & savings through LOLC Al-Falaah's product portfolio. Customers can purchase these products and services through specific windows through LOLC Finance's extensive channel network of more than 130 branches and service centers island-wide at strategic locations throughout the country. Through a number of CSR initiatives that are organized on a group level, our focus is not only on the perfection of our business operations but also on our social responsibility. In order to ensure that LOLC Al-operations Falaah always and in every way adheres to the principles of Islamic economics with regard to alternative finance, a dedicated Scholar Supervisory Board carefully supervises and directs us.

The LOLC Group took home top honors at the LankaPay Tech Innovation Awards 2018, which were organized by LankaClear (Pvt) Ltd. to recognize and honor the pioneers in payment technology, for the second year in a run. The biggest Non-Banking Financial Institution (NBFI) in Sri Lanka and the parent company of the LOLC Group, LOLC Finance PLC, was named the overall winner for Excellence in Interbank Payments in the Financial Institutions Category. The Runner-up Award went to Commercial Leasing & Finance Company PLC (CLC), a LOLC Group subsidiary and a well-known brand for reliability and stability. LOLC Finance went on to earn the Award for the Best Financial Institution of the Year for Customer Convenience, while its sister company, CLC, received the Runner-up Award. When LOLC Finance received the Merit Award for the Best Application for Retail Payments, it brought home the third prize of the evening.

Meanwhile, LOLC's revolutionary iPay payment system was dubbed the Most Popular Electronic Payment Product and Best Application for Retail Payments victors. The merchant acquiring partner for iPay, a mobile program built on complex software architecture, is LOLC Finance. Thanks to a number of features designed to securely integrate the customer and merchant ecosystems, the app is a real FinTech application that goes beyond payments. The LOLC Group has advanced rather than merely changing. The business plan of LOLC has been broadened by information and communication technology (ICT). Through its ICT strategy, the LOLC group is working to hasten the adoption of FinTech solutions, which will allow it to be responsive to shifting market conditions and customer demands. As a leading conglomerate at the forefront of innovation with a worldwide footprint, LOLC will continue its journey of digital transformation while offering customer-centric solutions that are on par with international standards. Online purchases at LOLC have increased significantly in just one year. This growth demonstrates how well-liked both customers and companies find LOLC's real-time, secure payment apps, like LOLC Real Time, CLC Online, and iPay. During the previous year, they made steps to incorporate a variety of new value-added features into their applications, such as trilingual support. The Group's business strategy integrated its physical and digital components while introducing new features to produce a phy-gital customer service experience. LOLC has made significant strides in the field of FinTech in a brief amount of time while continuing to ensure that all services adhere to the highest standards of information security.

5. CONCLUSION

FinTech, a prevalent technology, has been quickly embraced by modern finance. In Sri Lanka, the majority of institutions have incorporated FinTech into their current business plans. Islamic banking and finance began with the establishment of a different financial structure in Sri Lanka. The Islamic banking sector is successfully growing alongside other traditional institutions. The Islamic banking sector has recently experienced tremendous development in the partnership banking industry. To start their operations in Islamic financing, many conventional banks establish separate windows. Alongside these efforts, Islamic banks and windows are using more financial technology for regular transactions. FinTech is currently expanding quickly thanks to the growth of Islamic finance. Islamic banks are utilizing a variety of innovations to improve their banking services and draw in clients. Three Islamic windows and one full-fledged Islamic bank were investigated in Sri Lanka for this research. According to the data given by those organizations, FinTech adoption by their banks is still in its early stages. The banking sector in Sri Lanka needs to develop and flourish.

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