"FINTECH SERVICES" AND THE FUTURE OF FINANCIAL INTERMEDIATION: A REVIEW

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Abstract

The aim of this paper was to review existing literature on Fintech services and their potential impact on traditional financial intermediary practices. The review is significant and timely as banks and customers are gradually familiarizing with these services showing a significant growth of Fintech utilization in Sri Lanka in recent times. Utilizing a qualitative approach, the paper has examined two most significant usual practices of banks including: (a) banking practices on credit, deposits and capital raising and payment services, and (b) banking practices on clearing and settlement services, because of the emergence of two major Fintech services; namely, peer to peer (P2P) lending, and digital wallet and crypto currencies. The review considered both national and international studies on 'Fintech' adaptation in financial institutions. It is observed that there is no compelling threat from P2P lending to banking activities, in general, though there will be migration of lenders from banks to P2P platforms that will result in banks to lose some segments of customers in the future. The review also identified that growing usage of smartphones tends to replace physical wallets with digital wallets which will bring potential disruptions to traditional operations of the banking industry. Adoption of Fintech in the banking industry, however, will not result in a complete financial disintermediation given the monopolistic nature of money creation by the banks, and risky and unreliable nature of these innovations.

Keywords*: Fintech Services, Digital Platform, Mobile Application, Financial Intermediation, Financial Innovations*

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INTRODUCTION

With the advent of revolutionary technology-driven financial services[1], the entire financial sector started to reinvent itself to cope with growing demand for financial services of various business entities around the world. By definition, "Financial technology (Fintech) is a part of the process of evolving financial innovations, which has theoretically been risky but of value" (Thakor, 2012). As recently evident by a research of Chen et al., (2019), these services yield substantial value to investors. According to the report of Financial Stability Board of the Bank for International Settlement (BIS) (2017), Fintech is "technology enabled financial innovation that could result in a new business models, applications, processes, or products with an associated material effect on financial markets and institutions, and the provision of financial institutions". Using these definitions, researchers have explained Fintech products and services under four categories i.e. (i) credit deposits and capital rising services, (ii) payments, clearings and settlements services, (iii) investment management services, and (iv) insurance (Pilkington, 2016).

Fintech is advantageous in promoting greater financial inclusion and helping reduce poverty among the underprivileged communities. Fintech products and services open the door for communities those who have been excluded from the regular financial institutions and the financial system itself. However, critics on this regard have argued that these innovators brought disruptions to the traditional financial intermediary services as it takes customers away from those institutions and dis-intermediating customers and institutions from their existing financial ties (GSMA 2015; PricewaterhouseCoopers, 2015). New technologies, like Bluetooth Low Energy, QR codes and near-field communications enhance easy operations and reduce cost of bank transactions and thereby disrupts the traditional players in the market. Nonetheless, some others have stressed that these new innovations add other layers to the system (Lin, 2015).

Some researchers have claimed that sudden upsurge of Fintech services is attributed to the 2008 global financial crisis (Blaseg and Koetter, 2015). According to a recent IMF study of He et al., (2017), the market value of public Fintech firms quadrupled since the financial crisis and it outperformed many other sectors. Losing trust on traditional banks, increasing the indebtedness of small-scale industries due to increase in debt service payments, strict financial and banking regulations in the aftermath of financial crisis might affect the formation of large start-ups of Fintech services. In addition, growth of the global capital market, well established technological infrastructure might also prompt demand for Fintech services. Especially the growing trade volumes of BRICS countries (Brazil, Russia, India, China, South Africa) is also one among many reasons for the Fintech start-ups in Asia and in the African countries. At present, India

[1] Combination of Finance and Technology services or Fintech services

is the leading country in Asia that uses Fintech services for its day-to-day business-related financial transactions. However, some research claims that part of this development was a result of the high cost of financial intermediation process of financial institutions. As shown in the estimation of Philippon (2014), the unit cost of financial intermediation only in the USA has remained at 2 percent over the past 130 years. Thus, Fintech gives promising services to reduce intermediation cost and improve the quality of financial services that enhances the customer welfare. Fuster et al., (2019) have provided evidence that Fintech services improve the productivity of mortgage lending.

Fintech is also known to be a crucial service to enhance financial inclusion among communities. The first use case is M-Pesa in Africa which was started by Vodafone's Safaricom in Kenya. M-Pesa uses phones as a wallet and makes it possible for financial transactions to anyplace in Kenya (Ndung'u, 2017). In addition, recently popularized Alipay in China fulfils a greater customer satisfaction becoming a platform for online payments. Fintech industries enhance financial inclusion through several ways; such as, disaggregation of value chain and provide financial products directly to customers, opening platforms and capitalizing existing product's customer base, risk assessments through digital data collection and there in identifying segments of customers and human-centred product designs. Basically, many of the core functions of traditional financial intermediary institutions can be done through these high-tech services. Fintech firms and their services are seemingly invading the market and provide user friendly services to the customers. Under this scenario, it is vital to discuss the potential risk and benefits of this new innovative technology services and their impact on traditional financial intermediary institutions i. e. banks, and the process is necessary to enhance Fintech adaptability of financial institutions and face the global competition.

Therefore, the purpose of this paper is to review existing literature on this newly emerged Fintech services and their impact on banks as a traditional financial intermediary institution. At this juncture, the paper focuses on the changes that take place in two main services of banks;

(a) credit, deposits and capital raising services due to P2P lending
(b) payment, clearing and settlement services due to digital wallet and Crypto currencies

It tries to identify the potential positive and negative consequences banks face due to these changes. The method of analysing the facts is in descriptive nature as the paper basically focuses on reviewing of emerging literature related to the particular issue. The rest of the paper is organized as follows. The next section provides a comprehensive review of the theoretical background of financial intermediation and financial innovations. The same section devotes to provide empirical evidence which identifies the potential threats and benefits of modern financial innovations on banking practices while discussing the different aspects of the development of Fintech services. A small

fraction is also devoted to discuss the usage of Fintech services in Sri Lanka in order to see the progress of utilization and potential challenges that Sri Lankan financial sector faces in general.

Finally, the paper summarizes findings collected from the previous literature related to the research question and explains possible avenues for future research on Fintech services.

THEORATICAL BACKGROUND

Financial System and Financial Innovations

Financial system is considered as one of the most integral part of the economic system, which consists of markets, institutions, instruments, regulations and financial services (Rose and Marquis, 2009). The importance of the financial system relies on its intermediary process which transfers funds from the surplus sector to the deficit sector (lenders to borrowers and investors). Financial system facilitates the flow of funds between various economic entities such as households, business firms, government and financial institutions and hence, described as an integrated part of the economic and social system (Pietrzak et al., 2008).

The dominant feature of the modern financial system is a rapid pace of innovations. The term ‘innovation’ describes the use of technology to create a new combination of products and services that generate the higher rate of return and thereby enhance the overall growth of the economy (Targalski, 2006).

This concept was first introduced by Schumpeter explaining six different groups of innovations namely; new products, new methods of production, new market, new source of supply of raw materials, new organizations and business entities, and new method of management (Dabic et al., 2011). Based on Schumpeter’s explanation, OECD has reintroduced the concept of innovation focusing on four categories namely; product, process, marketing and business organization (OECD, 2005). Any new development of the aforementioned four categories is considered as innovations if they are applied by any market or organizational entities.

It is said that technological innovations and financial innovations are bound together and evolve together over time (Michalopoulos, Leaven, and Levine, 2009). That means on one side, financial innovation provide mechanisms to finance technological innovations. On the other side, owing to the advancement in technology, business entities need improved financial instruments and services. Thus, technological innovations and financial innovations seems interdependent. Financial innovations can be applied in two situations i.e., when the traditional financial solutions are no longer available, and when the cost associated with new developments are lower than the cost associated with the traditional solutions (Pantalone and Welch, 1987).

Theoretical aspect of financial innovation connects to both demand and supply sides. The demand-side theory of financial innovations indicates that the presence of market imperfections, asymmetric information and transaction cost is the main reason for the development of new financial products and services (Fabozzi and Modigliani, 2003). Owing to the facts, market participants continuously demand for solutions, hence innovators develop new instruments which enable a quick and easy transaction process for customers. Payments in online platforms, mobile-cash methods, and mobile banking apps are among such responsive innovations that reduce transaction costs. In addition, development in financial management and accountancy such as electronic ledger systems that come as adaptive innovations always avoid persistent distortions and inefficiencies in the financial markets.

Supply-side theory of financial innovations on the other hand, explains that financial institutions tend to develop new financial instruments in order to gain the competitive advantage to the firm. These come in various entities such as investments, savings, and finance and payments tools. These can be categorized as aggressive innovations while new development that protect the market situation and improve financial condition as a new form of risk management tools are called protective innovations (Blach, 2011; Fabozzi and Modigliani, 2003). Disregarding the theoretical differences, financial innovations occur due to internal needs and goals of financial institutions and firms and other market participants and as well as imperfections arise due to external economic challenges (Blach, 2011).

Financial Innovations and Financial Intermediation

Financial intermediation simply refers to the third party who acts in between borrowers and lenders. Traditional theories of financial intermediation developed based on the notions of asymmetric information and transaction cost. Normally, Lenders as well as borrowers (savers and investors) face difficulties when exchanging loans and funds due to market imperfections. People tend to make moral hazards and adverse selections. This is mainly caused through the absence of perfect information about the market (Lehman and Neuberger, 2001; Stiglitz and Weiss, 1983). Owing to these imperfections, transaction cost occurred (Campbell and Kracaw, 1980; Fama, 1980). However, in contrast to the asymmetric information approach, the transaction cost approach considers non-convexities in transaction technology, which transform one type of financial claim into another type. In this way they offer liquidity and diversification opportunities for financial assets (Pyle, 1971; Hellwig, 1991).

Regulatory factor approach on the other hand, claimed that financial intermediation is based on regulations which are imposed on money creation, savings, investments and other financial related transactions (Guttentag and Lindsay, 1968; Fama, 1980; Mankiw,1986; Merton, 1995). As emphasized by them, these regulations affect solvency and liquidity of financial institutions. A study conducted by Diamond and

Rajan (2000), shows that banks' capital enhances its safety and ability of repayments. As shown in La Porta et al., (1998), financial regulations are very crucial for the development of the financial industry and they are exogenous to the industry.

Modern theory of financial intermediation specially focuses on financial intermediaries' ability of risk management and risk transformation. This risk management and transformation practice enhances the value creation process of financial intermediation. The concept of value creation first introduced by Porter (1985) in the theory of industrial organization arguing that transaction cost incurred to create value. Even though this concept is widely adapted in the management and business organizations, some researchers criticize that it is not used in the financial industry (Scholtens and Wensveen, 2003). However, there are some studies that explain the value creation process of banks, but they did not do in depth analysis explaining how banks engage in it in the intermediation process (Canals, 1993; Llewellyn, 1999). However, based on this value creation concept, Scholtens and Wensveen (2003) have argued that the value creation process of financial intermediaries arises through competition between the existing financial institutions and newly entered financial firms. As emphasized by them, this competition among firms leads to more innovations of new financial products and hybrid existing products with new features. By doing so, they produce different types of financial products that lead to create different markets. This market fragmentation helps lasting competition among financial firms and institutions and enhances their presence in the marketplace.

The aforementioned theories have revealed that the traditional financial intermediation and financial innovations appeared to have common objectives of minimizing market distortions, enhancing market competition and thereby creating a smooth-running economy. The only difference between the two is, in traditional processes, financial services deliver via intermediaries, but new financial innovations are capable of delivering the services directly to the consumers without any help of a middleman. This unique feature of modern financial innovations has changed the path of traditional financial intermediaries creating a challenging environment for them to exist in the market. In such a context, it is important to investigate those new innovations and the threat that they pose to traditional intermediary institutions and processes.

EMPIRICAL EVIDENCE

Fintech products and Services and their relationship to banking

At present, Fintech services are the demanding innovations in the world. Not only do they facilitate faster financial transactions, but they enhance assets diversifications as well. As shown in a study of Bank for International Settlement (BIS- 2018), Fintech can cover all forms of financial services, i.e., payments, transfers, clearing and settlements, intermediate and direct finance, risk and investment management through their

diversified apps. These services can be described under four categories[2] and is summarized in Table 1.

Table 1: Fintech Services by Sectors

Fintech Landscape				
Technology Service	**Mobile and internet**	**Distributed ledger**	**Machine learning and big data**	**Potential impact**
Credit, Deposit and Capital raising services	Crowdfunding Mobile banking Peer-to peer lending	Block- chain, Smart contact	Services applications	"new form of financial inclusion
Payments, transfers, clearing and settlements	Mobile and online payments Cross-border transfers	Remittances	Know-your-customer applications Regtech	"New" forms of financial inclusion
Investment Management Services	Mobile banking Agent-based banking, Peer-to-peer lending	Trade finance Initial coin offerings	Credit scoring Risk management	"New" forms of financing
Insurance	Smart contracts, e-contracts		Risk metrics Robo-advisor	"New" forms of insurance

Source: BIS (2018), Awazu, L., and De Silva, P. (2018)

As emphasized by the aforementioned landscape, the potential impact of these services to the society could appear in three ways:

(i) They enhance financial inclusion through facilitating digital transfers through mobile and online payment apps. This helps rural communities to access finance far better than that of traditional financial institutional methods.

(ii) They create a new form of financing through the introduction of mobile banking, agent-based banking and peer-to peer lending. This makes faster access to credits in required amounts.

(iii) Fintech services introduce cost effective risk management and risk transformation practices for investors. For instance, apps like smart contract and e-contract that replace lawyers. Thus, investors can transact without paying for a third party.

Fintech services compete with traditional financial institutions by providing advanced financial services through new technology. When technological equipment is available, they make financial transactions faster than traditional services. Therefore, some have

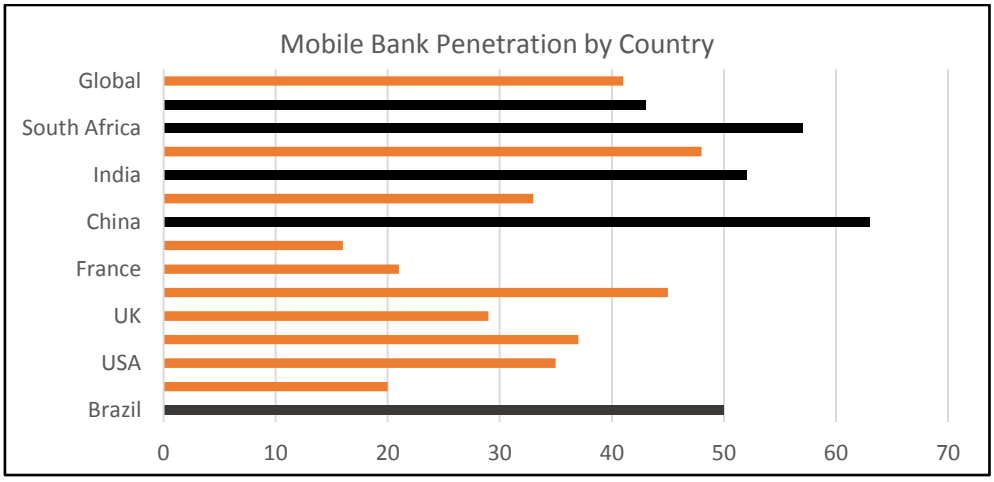
[2] Those four categories are explained in the introductory section of this paper.

argued that Fintech is the new paradigm for financial services (Arner et al., 2016). Since Fintech services industries operate in less regulatory environments, they can improve their products regularly and make them more user-friendly to customers. Owing to the continuous improvement, they can also make their services at low cost.

On the other hand, Fintech services can help traditional financial institutions to reduce their operational cost through facilitating online transactions of loans, deposits and other related cash transfers, bill payments and debt settlements. This cost effective and energy saving application methods help financial institutions to expand their services further within communities and borders. Among the Fintech services, mobile and online payments/transfers services have become the widely used services at present. Recently a survey has revealed that China has the highest rate of mobile banking usage in the world, while India is the highest among South Asians and Sweden takes the lead in Europe (Global Data, 2018). It has reported that the global proportion of frequent mobile banking users accounted for 3% growth from 39% in 2017 to 42% in 2018, but there was a significant regional variation in the usage. As shown in the report, some of the reasons for India to take the leading position are the demonetization process of Indian government and rapid growth of "Payment mobile wallet". In Sweden it is due to the regulators' effort that encourages a cashless society.

However, the global average still is at 42 percent and surveys reported that security fears are a major barrier to adoption of online banking by consumers, and therefore, they have suggested that banks need to gear up their public education programs to overcome these concerns. Nonetheless, mobile banking apps statistics have projected that the mobile app market will generate revenue of $581.9 billion from downloads in 2020 (Letić, 2020).

Figure 1: Percentage of Mobile Bank penetration by Country (at the end of 2018)



Source: Author's calculations using data on mobile banking

In general, the utilization of mobile banking is high in BRICS countries in comparison to the others (refer to Figure 1). Perhaps, the utilization of Fintech services is high among emerging market economies (EMEs) due to less developed financial sectors, low level of financial inclusion, and an increasing interest in having smartphones and technological gadgets which younger generations adapt easily. This can be further proven by comparing the average age of mobile banking users as well. As shown by the data the majority of mobile banking users are around 30 to 40 years.

As shown in Table 2, the average age of mobile bank users ranges from lowest 30 years to highest 39 years. The lowest age records in India, while the highest from Europe. The age distribution represents the young working age population, which may in turn emphasizes the ability and the interest of having smart phones at this stage of life. These trends opened a path for Fintech services to catch the market.

Table 2: Percentage of the Average Age of Mobile Banking Use by Country

America		**Europe**		**Asia Pacific Countries**	
Brazil	34	Italy	39	Japan	37
Canada	32	Spain	39	China	37
USA	32	UK	38	Australia	35
		Sweden	39	India	30
		Germany	37		
		France	36		

Source: GlobalData.com

Especially in the rural sector in most EMEs and BRICS countries have long been suffering from insufficient financial services and difficulties in accessing credits for their entrepreneurial activities and therefore, the majority was left behind from the traditional financial institutions. This low degree of financial inclusion gave the opportunity to Fintech services to access communities and help to overcome their financial difficulties. Especially mobile banking and peer-to-peer lending services (like WeChat app, PayPal, BharatQR and Paytm) are very popular in most parts of Asia including China and India. These apps act as a third party between senders and receivers. These services help small and medium scale entrepreneurs to grow and thereby contribute to reduce rural poverty.

Credit, deposits and capital raising services – P2P Lending

As described above, it has been found that Fintech influence over traditional financial intermediary institutions is stronger on the areas of credits, deposits and capital raising services. However, when it comes to the P2P lending platform, it completely dis-

intermediate customers from traditional financial intermediary institutions, as the platform established direct lender- borrower contacts (Thakor, 2020). As shown by the study of Milne and Parboteeah (2016), since the financial crisis, P2P lending has become stronger in both the US and Europe. According to the report of the Statica (2017), P2P lending will grow from $ 50 billion in 2016 to almost $300 billion by 2022. The operation of P2P lending is simple as the platform accepts applications and analyses credit risk and makes available for interested parties to bid and directly contact the borrowers. There are no any banks in between to asset transformation. Thus, P2P is known as non-intermediated finance (Thakor, 2020).

It is said that in terms of breakdown of P2P lending, consumer lending is much cheaper than credit cards (Tom, 2017). However, most P2P lending is unsecured and regulatory burdens are much lighter than that on banks (Consumer International, 2017). Hence, studies claim that there is a negative shock to banks credit supply (Tang, 2019). As shown in the study, P2P lending competes with banks and gains comparative advantage when banks experience credit shortages. On the other hand, bank regulations also affect the rising demand for P2P lending. Especially, collateral requirements of banks play a major role here as borrowers and those who lack collateral may leave the bank and become a prime candidate of P2P lending platforms (Besanko and Thakor, 1987). In addition, lower consumer trust on banks have also been a responsible factor for rising P2P lending practices (Brostrom et al., 2018).

However, research suggests that the aggregate P2P lending volume is still very small compared with bank lending, even though P2P lending is rapidly growing. And also the growth of P2P lending becomes a threat to banks which have low capital margin. Big banks which are highly capitalized will not be threatened as competition leads to improved banks efficiency and profitability (Boyd and De Nicolo, 2005; Goetz, 2018). Thus, empirical evidence has suggested that there will not be a compelling threat from Fintech to financial system stability in general, but there will be migration of lenders from banks to P2P platforms where fewer people use the banking system and where the regulatory cost and risks are high. However, when considering deposit insurance and security of assets, banks will be in a leading position compared to those P2P lending platforms (Berger et al., 2016; Thakor, 2020). As shown by research, with this new challenge, banks will continue to upgrade the system in order to safeguard their position by establishing online lending platforms. Wells Fargo and Goldman Sachs are already in the process of building such facilities for banks (Thakor, 2020).

Payment, clearing and settlement services – Digital Wallet and Cryptocurrencies

The other question arose at the beginning of this paper was whether Fintech products and services overtake the payments and settlement function of banks. As described in the introductory section, innovative online payment/ money transfer platforms replace physical wallets to a digital one making convenient mode of transaction. These services

are widely used in countries which have small banking populations. Especially M-Pesa in Kenya is the best example for this digital wallet. Currently, it is operating not only for the payments but also lending and international remittance transfers as well (Consumer International, 2017). In addition, PayPal, Alipay in China, and online payment platforms such as Apple pay are very popular among communities at present. Growing smartphone usage replaces the physical wallet into a digital wallet in which all transactions can be made fast and conveniently.

Cryptocurrencies on the other hand replace fiat money to digital money that can be traded through digital platforms. Currently, Bitcoin is the most popular digital currency in the world, which comes with their own special unit of account and payment mode. Even though in the rural sector this will not be a big issue, but in the developed world, big investors are fascinated about those virtual currencies and therefore, invest more on them. This will eventually lead to rise in illegal financial activities and currency and financial bubbles (Carstens, 2018). Such conditions will ultimately lead to instability in the financial system. As shown in Foley et al. (2018), 46 percent of Bitcoin activity is illegal and they are mostly used in drug trafficking and other related activities. Cryptocurrencies also gain criticisms of not displaying the functions of money. Even though they act as a medium of exchange, it is not a stable source of value as research has found that fluctuations of Bitcoin are much bigger compared to the fiat money (Wolla, 2018). In addition, bitcoin is not considered as a legal tender with intrinsic value which accepts for all payments of transaction of goods and services (Merton, 2018). It does not have all attributes that fiat money has to use as a legal tender. The use of bitcoin represents a very small fraction of overall payments.

As emphasized by research, cryptocurrencies so far did not gain much attention compared to fiat money and government controlled digital currency. Therefore, it cannot be said that this new trend takes the central place of the financial markets, nor it deprives the commercial banks' ability to create money. The monopolistic nature of creation of money by the central bank cannot be replaced by such innovative features owing to their risky and unreliable nature.

Nonetheless, unavoidable circumstances such as, the failure of telecommunication may disrupt the operation of these services. In such cases, the traditional banking methods would be most useful. The danger of cyber-attacks and other related risks of fraudulent financial transactions also prevent the general public from using those digital platforms very often. As shown by Letić, (2020), mobile app fraud transactions have increased by over 600% since 2015. As shown by this leading research, mobile apps were the source of 39 percent of fraudulent online transactions. In such a way, 89% of digital fraud losses are due to account takeovers. In addition, frauds from mobile browsers accounted 77 percent in 2019 and the majority of attacks came in the form of Trojan horses, financial malware, brand abuse, or corrupted mobile browsers.

In addition, financial risks/credit risk is another drawback associated with Fintech services. Owing to less regulatory environment of these Fintech services, both creditors and debtors expose liquidity and credit risks. Moreover, since the Fintech industry doesn't consist of field experts on risk analysis, investors may invest in less liquid assets and face liquidity mismatch risks as well. Data privacy risks are the other most affected risk for Fintech users. These industries sometimes misuse customer data for their advantage and sometimes they sell private details of customers to third parties. This may in turn affect customers' personal lives and their perception of Fintech services. Therefore, unless the person has a wide knowledge of using those digital platforms, normal people will not use those services very often.

SRI LANKAN SCENARIO

Sri Lanka has a bank-based financial system which consists of two state banks and 24 other licensed commercial banks. In addition, there are licensed specialized banks, insurance & leasing companies, share market and licensed microfinance institutions playing a comprehensive role in providing financial services to the nation. The Central Bank of Sri Lanka assures the financial system stability while enhancing efficient financial intermediation to promote investment and economic growth.

Considering the degree of financial intermediation in Sri Lanka, it is still at a lower level compared to other regional counterparts. The degree of financial intermediation, as measured by the M2b money supply to GDP ratio (M2b/GDP), remains at 49 percent[3]. In addition, banks' credit supply to the private sector (private sector credits/GDP), another good measure for financial intermediation is also around 45 percent in Sri Lanka[4].

Only 10 percent improvement is observed in this regard during the last four decades. There is still a large number of populations living in rural areas and urban slums who do not even have a bank account. Owing to compulsory savings of "Samurdhi"- the extensive social protection program in the country, and recently established farmers' insurance program and other related transfer programs, the aforementioned situation of the country has improved. Yet, still there are groups that are left behind. Thus, the financial sector in the country is not yet fully developed.

Therefore, compared to other countries in the world and the regional peers, utilization of Fintech services in Sri Lanka is also not satisfactory. It is still at the beginner's level. When it comes to going cashless, the situation in Sri Lanka is still disheartening. When considering the impact of credit and debit cards, although a large number of cards have been issued and being in circulation for many years, they have failed to make much

[3] Author's calculations based on CBSL data

[4] Author's calculations based on CBSL data

progress (De Silva, 2019). The mobile wallets operated by telcos and banks haven't significantly increased cashless transaction volumes either. The fact is that around 95 percent of all retail transactions in Sri Lanka are still cash-based (De Silva, 2019). Even in the rural parts of India people use QR code-based payments, Sri Lanka has yet to adopt these services in the country.

In general, the banking system in Sri Lanka is digitalized and most of them have internet banking facilities as well. However, very few banks adopt mobile banking services and related apps. For example, one of the leading state banks, Peoples' Bank, has a mobile banking app called "Peoples Wave" and it has become very popular among citizens in Sri Lanka. Almost everyone who has a Peoples' Bank account, has this app in their smartphones or personal computers and use it for their fund transfers and bill payments.

In addition, very recently Nations Trust Bank has unveiled "Nations Open API Banking" in Sri Lanka, which is very popular in Europe, aiming for openness and inclusivity, and as well as attracting new customers to the bank. Among the first users of the new offering in the supermarket chain, i.e., Keells Super, which will use FriMi branded application bundle provided by NTB to link its point of sale (POS) terminals to their bank account and customers (Andreasyan, 2018).

However, peer-to-peer payment platforms like PayPal, WeChat are not operating in Sri Lanka. Nonetheless, a couple of Fintech related forums are trying to work together with banks and other financial institutions to find out how Sri Lanka can adopt these services and ease cross border financial transactions. Recently, LankaClear ltd. announced that they will launch an app called 'JustPay', on the objective of encouraging a less-cash society. As emphasized by them, the 'JustPay' system only requires a smartphone in the hands of the consumer. There will be no necessity for investments on infrastructure, such as POS terminals or even a smartphone on the merchant's end. Further, they have stressed that all what a merchant needs to know here is whether the customer's payment has been credited to his bank account. He would receive a SMS to his mobile phone indicating the final outcome. The Central Bank of Sri Lanka is also providing support, which helped in appointing a Fintech committee, as well as a sandbox committee, to encourage Fintech adaptations. Especially, "the regulatory sandbox" which the Central Bank has introduced is aiming to facilitate these Fintech services in a controlled environment and thereby reduce the risks associated with those services. Therefore, in the near future there will be more Fintech services utilization in Sri Lanka as well.

CONCLUSION

The objective of this paper was to review existing literature on Fintech services and their impact on traditional financial intermediary practices. The paper addressed the issue focusing on the changes that take place in credit, deposits and capital raising services and payment, clearing and settlement services of banks due to two major

Fintech services i .e. P2P lending and digital wallet and cryptocurrencies. When analysing the impact on the credit, deposit and capital raising services using a descriptive method, the paper discussed bank lending and P2P lending platforms and it has revealed that there will not be a compelling threat from Fintech to banks in general, but there will be migration of lenders from banks to P2P platforms where fewer people use banking system and where the regulatory cost and risks are high. In that case, banks will lose some segment of customers, but evidence has shown that banks will acquire the necessary technological skills to cope with the challenging environment in the near future. Fintech effect on payment, clearings and settlement services of banks was done by analysing the utilization of digital wallets and cryptocurrencies. Evidence revealed that growing smartphone usage replaced physical wallets to digital wallets in most parts of the world where there is a low banking population, and it will bring potential disruptions to banks in the future. However, the usage of cryptocurrencies will not be able to gain much success in financial markets compared to fiat money. Further the evidence has shown that the monopolistic nature of creation of money by the central bank cannot be replaced by such innovative features owing to their risky and unreliable nature. In this sense, opponents' argument that says Fintech services will lead to complete financial disintermediation, may fail as all facts and details related to Fintech innovations provide evidence that banks are in the process of acquiring skills to cope with the new challenge.

Considering Sri Lanka, even though it has a well-established banking network, there are still a large group of low-income families who do not incorporate into the system. Thus, the utilization of Fintech services is also still at a very low level. Therefore, in order to popularize the new trend among Sri Lankans, the government together with the Central Bank of Sri Lanka should take necessary policy measures and encourage financial institutions to adopt these new innovative services and thereby enhance financial inclusion in the country. These technological advancements like Fintech products and services would bring countless blessings especially when the world at its worst situations like pandemics and other related social calamities, where people are stuck at their homes and cannot connect with the world in person.

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