Proceeding of the 6th International Conference on Management and Muamalah 2019 (ICoMM 2019)
e-ISBN: 978-967-2122-74-6

The Impact of Digital Finance on Financial Inclusion

NURUL WAJHI AHMAD
Kolej Universiti Islam Antarabangsa Selangor (KUIS)
nurulwajhi@kuis.edu.my

NOR FADILAH BAHARI
Kolej Universiti Islam Antarabangsa Selangor (KUIS)
norfadilah@kuis.edu.my

NORAZLINA RIPAIN
Kolej Universiti Islam Antarabangsa Selangor (KUIS)
norazlina.ripain@kuis.edu.my

ABSTRACT

Digital finance has given a new shape and character to the banking industry as it has the potential to provide a rigorous and secure financial service. It also enables the banking institutions to expand access beyond financial services to other sectors, make a wise financial decision making as well as the ability to receive and execute payment. On the other hand, financial inclusion focuses on ensuring access to financial products and services such as bank accounts, remittance and payment services, financial advisory, credit facilities and so forth by the vulnerable groups. Generally, these are all can be attained through the new banking technology development. In fact a series of initiatives combined with certain policies have aimed to accelerate the access to finance and financial inclusion. Therefore, this paper will provide a discussion on digital finance issues and explore the impacts of digital finance on financial inclusion. The discussions will also address the major benefits and risks of digital finance.

Keywords: Digital finance, Fintech, Financial Inclusion, Financial Institutions

INTRODUCTION

Digital finance has been recognized as one of the vital services as it offers many benefits, not only to the public but also for the government and businesses. In fact, digital finance contributes towards the development of the overall economy. This new expansion in digital finance has altered the approach of designing and distributing financial products and services. In 2016, digital finance platform has become one of the critical tolls in accelerating financial inclusion across the globe. Therefore, the Global Partnership for Financial Inclusion (GPFI) has introduced G20 High-Level Principles for Digital Financial Inclusion (HLPs) in order to encourage the government to embrace digital approaches towards financial inclusion (AFI Report, 2018).

Globally, there are 1.7 billion adults remain unbanked, and two-third of them have their own mobile phone that could possibly help them access financial services (worldbank.org). Pakistan, Myanmar, Mongolia, Indonesia and India are among of the countries that include digital finance as part of the establishment of the National Strategies for Financial Inclusion (NFIS) to promote digital financial services in the broader viewpoint of access to finance for the poor (Asian Development Bank, 2017). In fact, the emergence of digital finance in the new era also has a significant implication in various sectors in the economy, particularly in the banking sector. It changed the methods retail banks are designing and conducting their business operation as well as experienced the evolution of customer preferences. Digital technologies, such as telecommunication, mobile internet, blockchain are parts of the leading tools in penetrating the financial consumers who are excluded from the traditional financial system.

In China, the active users of digital financial services has reach almost 1 billion, through the execution of various types of digital financial services such as digital payment, internet financing, digital credit information services, internet wealth management and digital insurance. In fact, in 2017, China was the largest global digital payment market, with growing e-commerce market and social network mobile applications (CAFI, 2018). The expansion of digital financial services offers many benefits and advantages to the society, businesses, and government as a whole. It offers affordability of financial services such as payment, financing and insurance, as well as improves the accessibility for the unbanked or underbanked people. This new technologies will definitely enhances products types and service qualities of particular financial institutions.

Financial inclusion on the other hand, plays a major role in inclusive growth of the country and can be better achieved with digital technology. The G-20 and the World Bank has led the initiative to increase financial inclusion to reduce the poverty levels in developing and emerging economies. There are approximately 775 million potential female users of mobile money in East Asia & Pacific (Peterson K. Ozili, 2018). The implementation of digital finance will have a substantial impact not only on financial inclusion, but also inclusive economic growth (Asian Development Bank, 2017).

There is a need for developed or developing countries to utilize the advantages offered by digital finance services as it could enhance competition and expand excess. Bank Negara Malaysia (BNM), United Nations Capital Development Fund (UNCDF) and Malaysia Digital Economy Corporation (MDEC) have launched the Digital Finance Innovation Hub in order to support the financial inclusion in Malaysia (Bank Negara Malaysia, 2018). The collective works towards financial inclusion will promotes the use of technologies to encounter the underserved community in Malaysia. According to BNM, the transaction of e-payment per capita increased from 97.5 in 2016 to 110.6 in 2017, whereby the transaction volume per capita for cheques declined in the same period of time from RM52,646 (2016) to RM44,215 in 2017. This scenario shows that more people are turning to digital finance services as it offers many benefits for them.

OBJECTIVES

Digital finance services consist of payments, remittances, savings, credit, takaful and insurances can be delivered through digital channel such as internet banking, mobile banking, mobile wallets (apps) and credit or debit card. Thus, this paper intends to highlight on the benefits of digital finance, financial inclusion as well as the impact of digital finance on financial inclusion.

LITERATURE REVIEW

Digital Finance

Digital finance is a financial services provided through mobile phones, personal computers, the internet or cards linked to a reliable digital payment system known as fintech providers. The purpose of this digital platform is to stimulate poverty reduction and to achieve financial inclusion (United Nation, 2016). Indeed, the adoption of digital finance benefits financial services users, digital finance providers, governments and the economy. Digital Finance also plays an important function to strengthen Financial Inclusion (FI) and the economic growth (Peterson K. Ozili, 2018). Moreover, the implementation of digital finance through fintech providers has a positive impact on the financial inclusion in the emerging economics (Tabitha & Stella, 2019).

Digital financial services deliver financial products and services via digital channels such as internet banking, mobile banking, mobile wallets (apps) and credit/ debit card. Digital financial services refers to a variety of financial services accessible via digital channel such as remittance, savings, credit and other banking facilities (Ross & Louise, 2015). Due to the advance of the digital finance technologies, banking industry has shifted the dependence on branches. In fact, the number of branches where the conventional banking transactions are executed has been decreased. Consequently, many financial institutions have increase the number of automated teller machine (ATM), call centre employees and upgraded internet banking facilities (Eyup & Bert, 2018).

The implementation of digital finance in developing countries provides affordable, convenient and secure banking facilities to poor that ultimately lead to a greater financial inclusion. Digital transaction and peer-to-peer lending are the examples of technologies being used by the financial institutions as part of their strategy to penetrate and satisfy the unbanked consumer. In this ecosystem, fintech providers act as a channel to deliver new financial products, enable customer communication and interaction. Moreover, the properly usage of current digital finance services will serve as the powerful tools to achieve financial inclusion in the long term (James 2017, Peterson K. Ozili, 2018).

Financial Inclusion

Generally, financial inclusion is a major concern among the governments across the globe as it would include the access to financing, financial services, financial reimbursement and financial information. Financial inclusion is defined as enlightening the range, quality and availability of financial services to meet the requirement of the financially excluded group. It involves the delivery of financial services at an affordable cost and reassures that access to formal banking services for every level of the society.

Access to the financial products and services to all society has become one of the grounding principles of the financial inclusion (AFI, 2018). Rajani Gupte et al., 2012 explained on the three (3) dimensions to measure the extent of inclusion specifically; (i) depth (penetration) of access using a proxy measure of the number of bank accounts per 1000 population, (ii) availability to measure proximity of access using the number of bank branches and number of ATMs per 1000 population and (iii) usage to measure the extent and frequency of use by the customers.

Plethora of researchers explained financial inclusion as the person who owns account at a formal financial institution that allows them to do borrowing and saving transactions, mortgages, insurance, short term credits or any payment services at a minimum or reasonable cost. Additionally, financial inclusion also promotes culture of saving habits among individuals and accelerating an efficient payment mechanism. It is not promising for the overall economy to achieve financial and economic stability without financial inclusion. Therefore, banks and other financial providers should play an important role to provide a platform to enable the access of financial services to the poor and disadvantage social group (Purvi & Medha, 2015, Alexandra & Laurent, 2016).

Central bank Act 2009 has further reinforced BNM’s strategic focus on driving financial inclusion policies. In Malaysia set of indicators namely Alliance for Financial Inclusions (AFI) Core Set of Financial Inclusion Indicators being used to measure the level of financial inclusion in Malaysia. Two (2) dimensions, which are access and usage, have been set up to represent several indicators as shown in Table 1 below.

Table 1: Alliance for Financial Inclusion (AFI) Core Set of Financial Inclusion Indicators - Malaysia

Dimension	Indicators
Access	i. Total number of access points per 10,000 adults at a national level.
	ii. Total number of branches per 10,000 adults at a national level.
	iii. Total number of ATMs per 10,000 adults at a national level.
	iv. Total number of agents per 10,000 adults at a national level.
	v. Percentage of administrative units with at least one access point.
	vi. Percentage of total population living in administrative units with at least one access point.
Usage	i. Percentage of adults with at least one type of regulated deposit account.
	ii. Number of deposit accounts per 10,000 adults.
	iii. Percentage of adults with at least one type of regulated credit account.
	iv. Number of loan accounts per 10,000 adults.

Source: www.bnm.gov.my

Based on the above indicators, Malaysia has attained one of the highest level of financial inclusion and reported in 2015, 92 percent out of 22 million of total adult population had their own bank account.

Table 2: Adults with an Account in Select Middle Income Countries (%)

Country	GNI per capita (US$)	2011	2014	Difference 2014-2011 p.p
Brazil	11,690	56	68	12
Costa Rica	9,550	50	65	15
Croatia	13,420	88	86	-2
Hungary	13,260	73	72	11
Malaysia	10,430	66	81	15
Mexico	9,940	27	39	12
Kazakhtan	11,550	42	54	12
Panama	10,700	25	43	18
Poland	13,240	70	78	8
Russia	13,850	48	67	19
Turkey	10,970	58	57	-1
World	10,683	51	61	10

Source: worldbank.org, 2017

Table 2 depicts that Malaysia has recorded the highest increased level of financial inclusion, moving from 61 percent (2011) to 81 percent (2014) among middle-income countries. This achievement has been contributed by numerous initiatives and action taken by the government. Among of them are (i) reducing number of bank branches, (ii) reduce the usage of cash and cheques, and the most important action is (iii) the modernization and expansion of national payment system through technologies based innovative channels such as mobile banking and e-payment.

Methodology
This paper focuses on qualitative research method in describing and discussion the significant impact of digital finance on financial inclusion using library research approach. Previous literature on digital finance and financial inclusion are obtained from secondary data which included in academic journals, books, articles, organizational reports and conference papers.

Significant Role of Digital Finance in Financial Inclusion
Digital finance plays an important role and provides several benefits that contribute to the greater financial inclusion. The prudent adoption of technological innovation has the potential to transform global finance towards more inclusive. One of the effective tool to obtain financial inclusive is through the use of mobile phones to execute banking transactions.

A research by McKinsey World Institute funded by the Bill and Melinda Gates Foundation (BMGF) reveals that the digital financial services are able to increase the Gross Domestic Profit (GDP) of developing and emerging countries by US$3.7 trillion by 2025. Moreover it also has the potential to expand digital banking to 1.6 billion people in emerging countries and create 95 million employments across all sectors, if the implementation of digital finance succeeds. All these initiatives should be supported by excellent digital platform, infrastructures and government policies to make finance more inclusive as it strongly linked with sustainable economic growth (AFI, 2017 & James, 2017). On the other hand, inefficient infrastructures of mobilizing money and payment system, combined with lack of access to the system will be the main obstacles to achieve financial inclusion as well as to economic growth. Thus, it is important to establish better payment systems, particularly electronic payment systems (AFI, 2018)

Peterson K. Ozili, 2018, stated that the usage of digital financial services will also lower the operational cost, reduce manual paperwork and maintain fewer bank branches. In fact, the utilization of reliable digital platform such as mobile phones, personal computers and related devices will definitely assist large number of consumer to easily execute their financial transactions.

Plethora of researchers in their study aimed to identify the impact of digital finance on financial inclusion. They found that the used of digital finance services comprises of internet banking, mobile banking, mobile wallets (apps) and credit/ debit card will provide convenience, accurate timing, usability and easy interbank account facilities. With a low service charge, digital platform when applied to low-income group will improve their access to basic financial services, thereby leading to greater financial inclusion in rural area. Hence, financial inclusive can assist people to achieve income smoothing, consumption smoothing, higher social mobility and financial stability (Salman, 2018, Tabitha and G. Stella, 2019).

A better financial inclusion would also boost the economic growth and overcome any financial access constraints at the level of individual and country. Government and the regulators would somehow identified the need for intervention to improvise and strengthen the digital financial services, to be delivered properly to each level of the society (Rajani Gupte et al., 2012)

CONCLUSION
This study provides a discussion on digital finance and its implications on financial inclusion. Generally, digital finance through the fintech platforms has a positive impact on the financial inclusion in developed and developing countries. Innovations in technological platform provide the opportunities for financial institutions to transform current finance environment by making it more inclusive, unrestricted and accessible by the individual. Despite the challenges and risk, digital finance provides interesting, affordability, user friendly and convenience financial products and facilities. As new services and platform emerge and

benefits every level of society, the regulators should respond to the specific requirement of these new markets, for instance by providing clear regulatory guidelines, security and imposed minimum standards towards the system.

References

Alliance for Financial Inclusion, Annual Report 2018.

Asian Development Bank (ADB), 2017.

Alexandra Zins, Laurent Weill (2016). Review of Development Finance, Volume 6, Issue 1, 2016, pp. 46-57

Buckley, Ross P. and Malady, Louise (2015). Building Consumer Demand for Digital Financial Services – The New Regulatory Frontier. *Journal of Financial Perspectives*, Vol. 3, No. 3, 2015.

Eyup Kahveci and Bert Wolfs (2018). Digital banking impact on Turkish deposit banks performance. Banks and Bank Systems, 13(3), 48-57. doi:10.21511/bbs.13(3).2018.05

Guild, J. (2017). Fintech and the Future of Finance.

Ozili, P. K. (2018). Banking Stability Determinants in Africa. *International Journal of Managerial Finance*, 14(4), 462-483.

Purvi Shah & Medha Dubhashi (2015). Review Paper on Financial Inclusion-The Means of Inclusive Growth. DOI: 10.15410/cijbr/2015/v1i1/61403

Salman Ahmad Shaikh (2018). Role of Islamic Banking in Financial Inclusiveness in Pakistan: promise, performance and prospects. *International Journal of Financial Services Management* 9(1):88.

Tabitha, G. Stella (2019). Digital Finance and its Impact on Financial Inclusion. *Journal of Emerging Technologies and Innovative Research (JETIR)*, Volume 6, Issue 1.

www.bnm.gov.my