

Fintech Revolution in Malaysian Banking Industry

Saleh Ali Hussein

AL-Furat University, Deir ez-Zor City, Syria

Abstract

The innovative use of technology in finance is posing challenges to many traditional business models for the application of cutting-edge technologies to financial services at a global level (a phenomenon known as Fintech). From there, we analyze the implications that this trend is having on the development of the banking system, with particular focus on the case of Malaysian banks. In this field, digital platforms are competing vigorously, although large technology companies have clear advantages (most regarding user data) should they decide to enter Fintech full-on. It is worth mentioning the specific business approaches of Google (cloud service - cybersecurity -Big Data), and the “digital-wallets” are growing as important alternatives within the context of financial markets, representing a source of tension for the traditional banking business. The conclusion is that the traditional banking industry perceives latent competitive threats from this Fintech revolution. That is why it has awakened in recent years with waves of acquisitions-alliances with Fintech start-ups.

Keywords: Fintech, Banking industry, Malaysia.

1. Introduction

The market of Fintech is lucratively attractive and potential for handsome profit. (Surendra, 2017) reported that estimation of investment in Fintech globally reaching up to USD 40 billion. Although it is reported that the users of Fintech globally are still small, as it is now in nascent stage, the report from (Pollari & Ruddenklau, 2018) has shown that the growth rate of adoption is fast up to three times. Currently, the adoption index of Fintech globally is 15.5 percent and it is estimated can be tripled within a year, provided there are awareness on the adoption. This is quite fast compared to the report in 2016 by International Trade Administration (ITA) from US Department of Commerce which stated that the adoption rate can double within a (International Trade Administration, 2016). In Indonesia, the transaction value via Fintech in 2016 is worth RPI 199 trillion (Dwi Marlina & Alex, 2017). In the case of Malaysia, Fintech in Malaysia is still in infancy stage but growing rapidly. Securities Commission (SC) is the first fintech regulator in ASEAN. SC has amended the Guidelines for Recognized Market, as part of regulatory (HAYS, 2019) framework for P2P lending, allowing small and medium-sized companies access for debt funding (Surendra, 2017). Minister of Finance II (year 2016-2018), Dato' Seri Johari Abdul Ghani has mentioned in Malaysia Fintech Expo 2018 that government of Malaysia will guarantee the conducive economic environment to support the Fintech industry to ensure no glitch in the digital business (Hazwan Faisal, 2019). He also reporting that digital economy has contributed to the Gross Domestic Product (GDP) about 17.8 percent in 2016 and estimated to reach 20 percent in 2020.

The purpose of the study: determining the impact of financial technologies on various subjects of the financial market to identify prospects for development financial market in particular market. The scientific significance is the development of theoretical and methodological foundations for the management of financial technologies by various subjects of the financial services. The results of this work will contribute to further theoretical and practical market research Fintech in Malaysian and Asian market.

2. Literature Review

The term “fintech” stands for “financial technology services” (Arner & Buckley, 2017) (Anand & Mantrala, 2018). To begin with, it should be clearly understood that fintech companies are not a homogeneous lot. Rather this label applies to a 12 disparate set of companies aiming to serve different needs of financial customers – whose common feature is the reliance on digital technologies to deliver solutions. The usage of the term ‘Fintech’ dates back to the early 1990’s when Citibank group initiated a ‘Financial Services Technology Consortium’ to facilitate technological cooperation efforts amongst banks (Anand & Mantrala, 2018). Ironically, today, the term is used to define the most challenging competitors of banks, namely, the “new and emerging firms entering the financial sector that use technological advancements to provide better, quicker and more cost-efficient services to the customers than that given by the banks”. FinTech are seen as innovative entities that have stepped in to exploit the divide that exists between the new demands of the connected customers and the outmoded services of the traditional banks which are bound by industry regulation, as well as their longstanding structure and corporate culture. FinTech have effectively unbundled the traditional banks’ offering with different fintech entities specializing in different components such as payments, foreign exchange, lending, access to capital markets, financial advisory services, and consumer banking. For example, this is true of financial crowdfunding platforms and virtual currencies, which have the potential to cut bank intermediation out of the equation completely. But to fully appreciate the position of traditional banks relative to new fintech today, it is relevant to go back much further than the last decade to

recall three main eras of fintech evolution (“Fintech 1.0”, “Fintech 2.0”. and “Fintech 3.0”) (Anand & Mantrala, 2018).

Specifically, during the Fintech 1.0 period, lasting from about 1866 to 1987, the growth of banks and financial services industry was indeed heavily influenced by technology, although it remained largely an ‘analog’ industry in the perception of the public. For example, the introduction of the telegraph, first commercially used in 1838, and the laying of the first successful transatlantic cable in 1869 (by the Atlantic Telegraph Company) provided the basic infrastructure and impetus for the first major period of financial globalization in the late 19th century. Subsequently, the introduction of the Automatic Teller Machine (ATM) in 1967 by Barclays Bank (The Telegraph, 2017) undoubtedly marks the beginning of the modern fintech revolution in the industry. About the same time, there was a shift from telegraphic to the electronic mode of banking, and the introduction of services such as Inter-Bank Bureau (Anand & Mantrala, 2018), Clearing House Interbank Payments System (CHIPS- US, 1970) and Society of Worldwide Interbank Financial Telecommunications (SWIFT- 1973) in the payments area. The securities area was marked by the establishment of NASDAQ in 1971 (Nasdaq., 2013). Interestingly, as should be evident from the above history, banks were in fact the pioneers in the introduction of financial technologies. It is banks who first launched the precursors of consumer online banking, namely, home banking (i.e., the use of a numeric keypad to send tones down a phone line with instructions to the bank) at the beginning of the ‘80s. In particular some of the earliest services started in New York in 1981 when four of the city’s major banks (Citibank, Chase Manhattan, Chemical and Manufacturers Hanover) home banking services using the videotex system (Anand & Mantrala, 2018). However, because of the commercial failure of videotex, these banking services never really took off. The Fintech 2.0 period roughly spans the years 1987 to 2008. During this period, it was the traditional regulated financial services industry that became more globalized as well as digitized and banks continued to be the leaders in the use of technology to provide financial products and services. They were in fact the prime purchasers of IT products and services globally (This trend has continued since the mid-90s with traditional financial services industry’s total spending on IT at over US\$ 197 billion in 2014.) There is much truth in one bank executive’s statement that “The biggest and most successful fintech in the world is the bank” (Anand & Mantrala, 2018).

More specifically, despite the failure of the early home banking services, banks continued to be very enthusiastic about the opportunities presented by the emerging Internet-based online banking technologies and, Wells Fargo was the first to introduce World Wide Web, to provide customers with online account checking in 1995 (Wells Fargo, 2015). The appeals of online banking for banks were the prospects for diminished transaction costs, easier integration of services, interactive marketing capabilities, and other benefits that could boost customer lists and profit margins. More specifically, banks saw online banking services as a way to bundle more services into single packages and market them, thereby deriving more customer value while minimizing overhead. Therefore, in sharp contrast to what we have said earlier about banks’ myopia with respect to today’s connected customers, in the late ‘90s banks were eagerly pushing online banking services while it was their customers who were resistant to change! Customers’ reluctance to adopt the new online banking services essentially stemmed from a widespread lack of confidence in the security of financial transactions made online. As a result, customer use grew very slowly. For example, it took Bank of America 10 years to acquire 2 million e-banking customers! However, as early e-commerce platforms like America Online, Amazon.com and eBay made customers more comfortable with the idea of shopping and paying for items online, and the Y2K crisis passed, a sea-change took place among consumers and the growth in online banking customers steeply accelerated. For example, in October 2001, Bank of America customers executed a record 3.1 million electronic bill payments, totaling more than \$1 billion. By 2006, 80% of US banks offered online banking and by the end of the Fintech 2.0 period, Gartner Group estimated that almost half of United States adults and 30% in the United Kingdom used online banking (Anand & Mantrala, 2018).

Since 2008 (the period we characterize as “FinTech 3.0”), however, banks’ grand vision to employ the

new online banking as a means to offer more bundled services began to unravel as new start-ups, staffed by bank techies recently unemployed because of the financial crisis, and established technology companies hit upon the latent needs of the connected and millennial consumers. These Fintechs began to deliver unbundled financial products and services directly to businesses and the general public. In effect, the new fintech entrants were catering to augmented needs for unbundled services that were the exact opposite of what the banks were hoping to achieve with more profitable bundled solutions (Anand & Mantrala, 2018). That is, many of the new fintech challengers promised to disintermediate the relationships between traditional banks and their customer bases by slicing off and specializing in the high-ROE segments of banks' offerings. Notably, most new fintech players do not want to be banks and are not asking customers to transfer all their financial business at once. They are instead offering targeted (and more convenient) services. The new digital platforms often allow customers to open accounts effortlessly, and once they have an account, switch among providers with a single click. Examples include: Platforms such as NerdWallet (in the United States) or India's BankBazaar.com aggregate the offerings of multiple banks in loans, credit cards, deposits, insurance, and more, and receive payment from the banks for generating new business (Jangra, 2014). Wealthfront targets fee-averse millennials who favor automated software over human advisors. Lending Home targets motivated investment-property buyers looking for cost-effective mortgages with accelerated time horizons. In 2015, global investment in fintech companies totaled nearly \$20 billion. In the meantime, incumbent banks were preoccupied with rebuilding the financial system and complying with new rules and regulations in the wake of the 2008 financial crisis. To summarize, by mid-20th century, banks were in a dominant position in nations' economies (Frame, Wall, & White, 2018). They had led in the introduction of electronic technologies but were largely product-centric and slow in introducing newer technologies that addressed their evolving customers' unmet needs. In particular, the shift in product services was not accompanied by complementary customer service enhancements. The basic services of banking still required customers to stand in long queues, wait for days before they could open an account, and go through a grueling, unfriendly loan approval process.⁸ The focus on customers' expressed needs and myopia with respect to their latent needs left many customers, especially millennials, dissatisfied and ripe for plucking by new entrants. Additionally, industry regulators focused on protecting banks and their customers required any change in the banking structure to be well scrutinized, pilot-studied in a longitudinal setting, and validated before any innovation could be actually approved (Trelewicz, 2017). Regulations simply did not allow banks to adopt radical innovations as quickly as new fintech entrants. Last but not the least, tacit collusion rather than fierce rivalry between global banks still allowed them to earn a good margin on their services thereby greatly reducing the incentive to develop and enhance their customer relationships (Milne, 2019). Some evidence of such tacit collusion is provided by Indian Banks' MCLR (Marginal Cost of fund based Lending Rate which is the minimum rate at which a bank can lend) history. Until the end of 2016, there was little variance in the MCLR of various banks. But such apparent tacit collusion has been drastically disrupted from the beginning of 2017 as large banks have come under considerable competitive pressure from new-age Indian 'nonbank financial companies' (NBFCs) (Anand & Mantrala, 2018).

The researcher searched for articles published from 2016 to 2019 in Scopus based on the keywords 'fintech impact AND financial services AND disruptive innovation OR business model'. A total of 30 documents were obtained from the search and organized in descending order of their number of citations in Microsoft Excel. The abstract from 30 of 30 papers was read to rank these papers depending on their significance to the topic of research.²⁰ out of 30 documents were chosen for afterwards analysis. Due not availability of all the chosen research paper 10 were read and analyzed. The read articles were further categorized, and concepts covered were summarized. The following are among the innovations in Fintech around the globe. It will be increased more soon as the invention is fast and the success stories are ubiquitous as shown below in Table 1.

Table 1: Review of Literature in FinTech

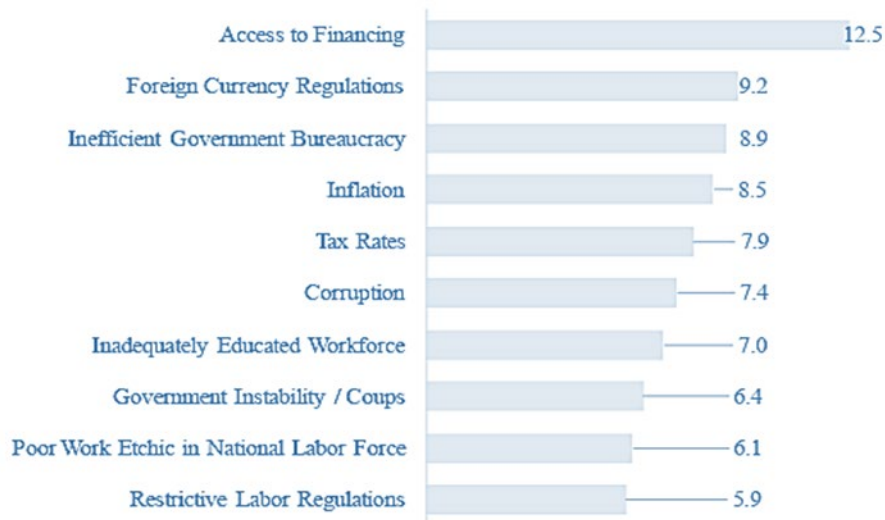
<i>No</i>	<i>Authors & Year</i>	<i>Keywords and Concepts Covered</i>
1	(Clavijo, Vera, Londoño, & Beltrán, 2018)	This paper of a bank-survey on the development of Fintech-Digital Banking in Latin America. Being aware of Fintech's competitive threats In addition, results suggest that the region shows favorable elements of development in digital banking supply, although there are persistent lags of adoption of those digital banking services on the demand side (where most users still prefer traditional banking channels such as physical offices).
2	(Rahim et al. 2019)	The review found that smart contract is currently in the early stage and so is Islamic FinTech. The scholars agreed that FinTech is a Maslahah (interest) to mankind's benefit. However, the smart contract is still in discussion and review.
3	(Marko, 2018)	the article evaluates the role of distances, artificial intelligence, and behavioral biases. Implications for stability in banking are explored. We argue that relationship banking can overcome its drawbacks, but it needs to adjust to the new reality in order to survive.
4	(Zubairu, 2019)..	The results reveal that users' trust in Fintech services has a very significant influence on users' attitudes for adoption. In addition, perceived ease of use and perceived risk does not affect users' attitudes toward the adoption regarding Fintech services. This study contributes to the literature of the adoption of Fintech services by providing a more comprehensive view of the determinants of users' attitudes by combining trust of Fintech services with TAM.
5	(Henner et al, 2018)	Financial services, financial technology, business model, services taxonomy. Authors analyzed main characteristics of 227 customer oriented Fintech start-ups using 15 criteria, which are included in 3 perspectives interaction, data and monetization. The investigation helps to understand archetypes and characteristics of Fintech companies.
6	(Lee & Jae, 2017)	Business models, Disruptive innovation, Financial startups, Fintech, Online banking Real options. This article develops architectural view of financial technologies and describes their ecosystem. The author breaks down the understanding of terming Fintech and describes main form of Fintech enterprises and challenges for Fintech businesses. Where he identifies risk management as main factor which Fintech companies should evaluate better.
7	(Lee & Jae, 2017)	Digital Finance, FinTech, e-Finance Literature review, Future research opportunities. This paper represents the research on various spheres of financial services and the tremendous impact of financial technology on each of it. It also covers ideas about possible development of innovative business models.
8	(Zalan & Toufaily, 2017)	Banks, Disruptive innovation, Emerging markets, Financial services industry, Fintech. The research gives important knowledge about the possible steps of traditional banking from the banks' board point of view.
9	(Davis, & Foo, 2017)	P2P lending, Fintech regulations, Indonesia fintech. The research covers such topics as fintech regulations approaches in Indonesia and globally in the world, identifying that risk and opportunity of fintech in emerging markets is considerably higher than developed countries.
10	(Trelewicz, 2017)	Data analytics, Financial sectors, FinTech, IT, Technology development. The article analyses the trends and patters of financial technology usage in various spheres. Information provided by the author shows the current usage of big data in various industries and intends on high tech future of the banking
11	(Leyer & Pisani, 2017)	Financial service, Innovation management, Performance management, Structural, equation modelling work organization. The paper describes the factors and methods used in companies which generate innovation and its adoption. With quantitative analysis being used, and data gathered from non-public financial services companies.

12	(Susan et al., 2017)	Technology adoption, Bank performance, Financial services, Network innovation, SWIFT. This paper combines insights from several different research approaches to identify the impact of information communication technologies(ICT). Particularly paper investigates the impact of SWIFT technology adopted in 1970 on European and American banks in long-term perspective. Furthermore, research distinguish the ICT influence depending on the size of the financial service provider.
13	(Das, Verburg, Verbraeck, & Bonebakker, 2017)	Innovation projects, Financial services, Disruptive innovation, Radical innovation, Innovation barriers. The research paper represents in depth investigation on the barriers large financial service provide face in ideas, projects and processes in adoption of innovation.
14	(Daichi, 2017)	Bank API, Banking system, Big data, Business model, Financial operations, Internet Online. The article covers the historical changes that technologies brought to the industry of financial services. Author of the article stresses his attention mostly on big data and capabilities AI, suggesting that in very near future technologies will be able to substitute plenty of financial operation and contribute positively on banking B2B and B2C segments.
15	(Maria & Peruta, 2017)	Banking sector, Information technology, Performance, Technological innovation. This paper describes the benefit that banks have achieved by adopting IT innovation to the industry if financial services. The researchers had identified that only innovative software and human resources are core the in positive results of bank. Particularly it was discovered that software for measuring credit risk and ERP have been making the most positive impact on banks' performances.
16	(Xie & Liu, 2016)	The research covers topics of internet finance in China. The country where financial technology industry has made very rapid growth. Integration of innovative payments options, implementation of negative and positive policies are the main topics discussed be the authors. It was noted by the authors that 'internet finance' used in their work has the same concept as FinTech.
17	(J.Kauffman, 2016)	Debit cards, Financial service, Internet banking, This research paper aims to analyzes and predict future patters of usage of Internet banking, cash, credit, and debit cards.
18	(Nejad, 2017)	Literature review, Financial innovations, New financial services, New products. This paper represents quantitative analysis on innovation in financial industry. Strong theoretical background of the research summarized by impact if 6 main topics and their influence in banks' services reshaping
19	(Brühl, 2017)	Virtual currencies, Bitcoin, Blockchain, Distributed ledger, Financial services. The author of the research paper discusses how new virtual currencies are affecting the payment systems. Furthermore the author stresses that the main influence on financial markets and institution will be coming from the Blockchain technology rather than from digital currencies themselves.
20	(Chen, 2016)	Fintech, financial schematization, financial inclusion. This article has documented the rapid growth of Fintech in China. The analysis of its causes suggests that successful integration between finance and real-life needs is a reason for this fast growth. Technological progress enables finance to serve real-life needs better. The success of innovation thus rests not on the technology itself, but on how well finance serves business and real-life needs. China's experience fresh light on the development of financial innovations, and especially on inclusive finance

Source: Depended on Review of Literature

3. Fintech Development in Malaysia

In the recent, The Global Economic Competitiveness Report 2017–2018 published by The World Economic Forum (WEF) on 26 September 2017(Forum, 2017), Malaysia has successfully moved up one place to the 23rd position from the 24th spot in the 2016-2017 report(Hakim Ghazali, 2019). The report indicated that economy of Malaysia and its financial market development had grown steadily ever since the oil price crisis in 2011 and one of the most competitive emerging economies in the Asia region. However, also shown in the report was that one of the significant challenges for Malaysia to increase business activity in the country is the access to financing as illustrated in Figure 1 below. Realizing the fact that these new innovative finance of FinTech can benefit SMEs and start-ups in Malaysia, as well as the disruptive risk it brings to the traditional financial institution, the Malaysian Government through its Central Bank of Malaysia has taken a positive approach to managing and adapting to the emerging risk emanating from these new solutions. P2P lending and Crowdfunding which are part of Fintech have been officially recognized by the Malaysian Government since October 2016 through the introduction of Fintech Regulatory Sandbox Framework(Hakim Ghazali, 2019).



Source: The Global Economic Competitiveness Report 2016-2017, World Economic Forum (2018)

Figure 1. Most problematic factors for doing business in Malaysia.

Malaysia become the first Asia Pacific nation to regulate for equity crowdfunding in its drive to develop the FinTech agenda. Later in November 2016, Securities Commission of Malaysia (SC) announced six P2P Financing Operators in Malaysia to widen financing options for small and medium enterprises (SMEs). Apart from Malaysia, other countries such as United Kingdom (UK), Hong Kong and Singapore are also adopting regulatory sandbox to provide flexible regulations for the FinTech companies to test their innovative product and services. However, the regulatory sandbox in Malaysia is a little bit different from the others. For example, in Malaysia, only authorized firms with a track records can participate in the sandbox while in the UK, both authorized and unauthorized firms may apply for the participation. SMEs and start-ups. However, there are challenges from demand-side such as the lack of financial knowledge or awareness of many entrepreneurs and business owners on this alternative financing instruments. Most of them are unaware of the existence of alternatives to bank lending and, even if they are, are often unable or unwilling to comply with

the requirements of professional investors. Consequently, prevents SMEs and start-ups from seeking out the instruments that are most suited to their needs(Hakim Ghazali, 2019). According to a report by Accenture (a global management consulting, technology services and outsourcing company) (Saksonova & Kuzmina, 2017), fintech is one of the fastest growing sectors of the economy. Investments in the industry have increased rapidly reaching 12,2 billion dollars in 2014, while in 2008, it was only 930 million dollars. The highest increase was observed in Europe (Accenture, 2015). Table 1 summarizes statistics on investment in fintech in the USA, Europe and Asia for 2014-2016.

Table2. Investment in FinTech, 2014-2016

Region	2014	2015	2016
USA	14.1	27.4	13.5
Europe	12.0	10.9	2.2
Asia	3.3	8.4	8.6

Source: (Accenture, 2015)

As can be seen from Table 1, the total volume of investment in fintech in these regions was \$46.7 billion in 2015. In 2016 it fell to \$24.3 billion, but this does not mean a decrease in interest towards this field of activity in general.

Study on awareness of FinTech has been carried out in many countries such as United Kingdom (UK), Latvia, Finland and many more. (Saksonova & Kuzmina, 2017)reported that consumers were unaware of FinTech services in Latvia and their associated innovations and new financial product. In the UK,(Baeck et al , 2014) reported that the level of awareness, as well as the nuances of perception about alternative finance among consumers and SMEs in the UK, was very low. As for the countries in Asia, no specific journal was found on the survey of awareness particularly between SMEs and FinTech in each country. However, there was a report from(Ernst &Young, 2017) as shown in Table 2 regarding FinTech Adoption Index in for Asia countries such as China, Japan, India, Singapore and Hong Kong, but still, no data was highlighted for Malaysia.

Table 3. Adoption Rate Study countries in FinTech Development

Country	Adoption Rate (%)
China	69
India	52
United Kingdom	42
Australia	37
United States	33
Singapore	23
Japan	14

Source: Ernst and Young (2017)

Before 2000, the Chinese financial industry was lagging behind those of many other countries, and the financial infrastructure was insufficient, and commerce-related fraud was commonplace (Shim & Shin, 2016). However, since the establishment of Alibaba in 1999, now is the largest e-commerce company in China, the contribution of FinTech to the growth of SMEs and economy of China has started to be noticed. In 2014, following the government's approval, a total of 250 companies in China received a payment license, including 90 for online payment and 37 for mobile phone payment with Alibaba as the frontrunner. As for July 2015, China's peer-to-peer (P2P) lending platforms counted 2,136, with settlements of about RMB82.5 billion

transactions in that single month, making it the country with the most P2P platforms in the world. It is further reported the platform has delivered directly to the public and SMEs more than RMB251 billions of credit in 2014m. (Saksonova & Kuzmina, 2017). As cited by (Asaba et al, 2016) based on China case study, there are three conditions observed to be important as essential success factors for the FinTech industry to support the growth of the SMEs: the digital technology adoption level of the SMEs, the financial literacy skills, and the regulatory frameworks. A simple comparison study as shown in Table 3 on above factors was also done between China and Malaysia to see the readiness of FinTech industry in Malaysia in supporting SMEs and start-ups.

Table 4. Comparison Study Between Malaysia and China in FinTech Development.

Key Indicator	China	Malaysia
The digital technology adoption level of the SMEs	a) 89% using a mobile phone* b) 45% internet users*	a) 76% using mobile phone** b) 32% internet users**
The financial literacy skills	66***	67***
The regulatory frameworks	Less intervention in the early stage. * Start to impose heavier regulation as the industry mature. * Regulation, mostly promote risk management. *	Financial Technology Regulatory Sandbox Framework (Framework) is introduced****

Source: Asaba et al. (2016)

4. Discussion and Research Implications

With the wave of new fintech companies entering Malaysia, a question that often pops up in conversation is whether the banks are asleep on the wheels or are they actively beefing up their tech portfolio in response. we study top 6 banks in Malaysia to understand their views on fintech and what they're doing for fintech.

Maybank

Being the largest bank in Malaysia, it is no surprise that Maybank is amongst the first few banks embracing fintech. Historically Maybank has always been quick to adopt new technology as evidenced by the fact that several years back Maybank was one of the first to implement online banking. In 2015 Maybank organised the Maybank Fintech 2015 in partnership with local VC firm L337 Ventures and over 100 technology companies from 10 countries took part in the event. In 2016 Maybank will target at least 200 companies to take part in the initiative (Bank tech Asia, 2018). Maybank sees Maybank Fintech as a tremendous opportunity for themselves to harness the startups ecosystem regionally, to acquire the best innovation ideas in financial technology (Bank tech Asia, 2018). Their focus for this year will be in the areas of:

- Mobile Banking
- Payments
- Lending
- Distributed Database (Blockchain)
- Asset Management
- Humanising Financial Services (Financial Inclusion)
- Security
- Islamic Finance
- Big Data

Maybank Fintech programmer is a unique platform for aspiring innovators to showcase their ideas. We want

to be a central member of the Fintech community in the region, to help grow and support entrepreneurs, by providing them with an avenue to connect directly with the financial industry(Bank tech Asia, 2018).

CIMB Bank

With 7.5 million customers in Malaysia alone and over 40,000 employees across the ASEAN region, CIMB bank is Malaysia's second largest bank. CIMB launched their incubation programme known as Inn challenge in May 2015(Engine, 2019). The goal is the ideation and creation of new fintech solutions. In this programme, both CIMB and the Malaysia Digital Economy Corporation (MDeC) actively mentored the fintech startups(Bank tech Asia, 2018). They have picked 4 winners from that pool of fintech startups and they are currently developing the bank's digital and mobile banking solutions. Logically, CIMB also hosted the 2016 session and it had focus on the following areas:

- Loyalty & Rewards
- Identity, Security & Document Management using blockchain Remittances
- Mobile Payments
- P2P
- Digital Wallets

CIMB bank worked with Startupbootcamp in 2015 to mentor the fintech startups in Singapore on top of their Inn challenge. This partnership's main reason is to scout for, and evaluate, new technology and ideas for the future. "One of the main reasons why we are tying up with Startupbootcamp Fintech is because CIMB has always been focused on technology(Bank tech Asia, 2018).

RHB Bank

With a network of 210 branches in Malaysia and 19 across nine Asian countries, RHB Bank is the 4th largest bank in Malaysia. Through this partnership, RHB aims to bring digital innovations to the banking market in Malaysia(Engine, 2019). Here, RHB will evaluate, fund, mentor and also organise hackathons in Kuala Lumpur. Other than just working with fintech, the group will also be spending 20% of their capex this year to execute new digital strategies. customers can expect to see the integration of seamless and innovative digital solutions from some of the best global and regional fintech companies(Bank tech Asia, 2018).

AmBank

AmBank is among the top-tier banks in Malaysia, employing over 12,000 employees with a network of 175 branches. AmBank is the latest bank in Malaysia to throw their hat in the ring(Bank tech Asia, 2018). The Group CEO Datuk Suleiman Mohd Tahir was quoted saying that the inclusion of fintech towards better mobile banking, cash management and understanding customer behavior is now becoming very important to the bank(Engine, 2019).

Datuk Suleiman also mentioned that their approach towards fintech will be through the banks current partner and shareholder ANZ. The plan to embrace fintech is reported to be ready in six months. While it is encouraging to see banks taking an active step with accelerator programmers, there has been no major announcement related to tangible results or solutions coming out of these exercises. One can only speculate that perhaps these banks are waiting for the regulatory framework to be released in July 2016 or that the products are simply not market ready (fintech Malaysia, 2019).

It is interesting to also note that out of the five top banks in Malaysia only Public Bank and Hong Leong Bank has not made any major announcements about their fintech play. Though, Raja Teh Maimunah who is the CEO of Hong Leong Islamic and the COO of Digital Innovation and Transactional Banking has been seen actively presenting keynotes within the fintech circuit. Therefore, it is not unlikely that the bank would be influenced by her vision of fintech and make an announcement in the months to come(Bank tech Asia, 2018).

Public Bank

overall Vic is positive on the outlook of fintech in Malaysia, he feels that the mobile processing power improvements, liberalization of the regulatory guideline by Bank Negara will do wonders for the sector. At

the same time, he also feels that the introduction of Chinese players like Alipay and Tencent's WeChat Pay will shake up the local market with incumbents investing to maintain their foothold against the Chinese giants. Mobile payment is the buzz now and will go main stream from 2018 onwards" said Vic in keeping with Public Bank's pragmatic nature, when Vic commented on the bank's response he emphasised that Public Bank has and always will be prioritising shareholder's value, adding that while they embrace technological changes they will remain prudent at all times and only priorities initiatives that have a clear economic value(Fintech Malaysia, 2019).

Hong Leong

Domenic Fuda, CEO and Group Managing Director, Hong Leong Bank feels that the fintech landscape has really been flourishing this past 3 year with both homegrown and regional players entering the market. He believes that the fintech ecosystem has much room to grow in Malaysia especially in areas like lending and KYC, while payments are wallet he opines are more crowded than others(Engine, 2019). The growth in FinTech has been impactful at innovating and disrupting financial services – it opens up not only the eyes of the consumers, but also awakens incumbents to the possibility that there may be new avenues of delivery and fulfilment. However, only a select few of these FinTech will win in the long run(fintech Malaysia, 2019).

Whereas Public Bank's playbook still remains unknown, the industry is skeptical if there will be any major moves from the bank, which is understandable as Public Bank has always been the more conservative player when it comes to technology despite being the most profitable bank in Malaysia. At the time of writing, only four banks have made announcements of the fintech play. The next few months will be an interesting one to observe to see who else will join the fray.

5.The Challenges Facing Due to Fintech

There are several challenges that commercial banking industry is facing nowadays. Banks are not making as much money as they used to do decades ago, while the consumers expectations increase as well as regulatory requirements. But all these challenges are not putting as much pressure on conventional banking as innovative, simple and fast software-as-a-service(SaaS) start-ups do(Guliyev, 2018). Fintech start-up investments have started growing rapidly (Figure 2) since 2013, and reached annual investments of \$8 bln. only in Europe(Guliyev, 2018). Banks in order to cut the costs have to decrease their physical presence, as the customers prefer to interact with banks online. Only in UK banks had to shut down 1,000 bank branches in the past 2 years, while in U.S this number equals to 1,700 from June 2016 to June 2017(Guliyev, 2018). Besides affecting banks, fintech revolution also negatively affects employees of those banks which have to cut personnel amount in order to sustain. Australian top 4 banks are planning to cut 20,000 work places only in 2018, and that is about 10% for some of them (Guliyev, 2018).One commercial senior banker stated: "Commercial customers will be most affected. This technology is more useful for retail, personal accounts. For example, when paying bills, it's easier to use an application." FinTech "will not affect corporate banking services or private banking ones but it might affect some retail banking segments " (Zalan & Toufaily, 2017). What does make fintech so attractive for customers in digital era?

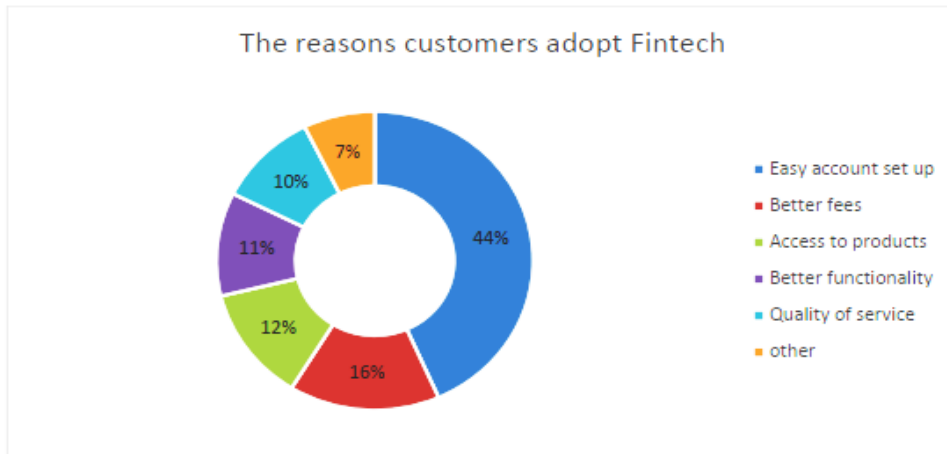


Figure 2. The reason Customers adopt fintech

Source:(<http://www.visualcapitalist.com/how-fintech-digitally-disrupting-financial-world/>)

The chart above (figure 2) displays that the simplicity and better prices have been winning criteria for fintech companies. If ease of accessibility of fintech could be understood by using application, then what stands behind cheaper prices? Some critics say that recent start while reinventing their business model can afford providing cheap service due easy and free funding sources such as interested investors. Some of the startups rely on their customers: Number26 assumed that their free withdrawal service won't be used very much. Their assumptions were wrong, hence they had to shut down them (Guliyev, 2018).

6. Conclusion

In the abyss of modern news resources, here could be noted that the bank with international experience and huge capital base feels itself more comfortable endorsing and stimulating the fintech development in the markets where present. With a fintech framework in the pipeline, most major banks are working with fintech in one way or another and several promising players in the local fintech startup scene, Malaysia's fintech space while not fully matured definitely looks hopeful. As we speak, more and more fintech startups are emerging locally. Perhaps, soon we will have even more startups in Malaysia. and we think Malaysia will rise to be a gateway for fintech in Asia Pacific and not will Malaysia lose the race to some of its competitive neighbors. Nevertheless, as a fellow consumer I am sure we will all benefit from this fintech arms race. That the traditional banking industry perceives latent competitive threats from this Fintech revolution. That is why it has awakened in recent years with waves of acquisitions-alliances with Fintech startups in order to achieve better provision although there are persistent lags of adoption of those digital banking services on the demand side (where the majority of users still prefer traditional banking channels such as physical offices). Malaysian banks project that, during 2025, will trothing that their reactive innovation strategies will be enough to maintain their banking leadership.

7. Research Limitations

Perspective of a fintech start up founders would have great value add to this work, making a quantitative research regarding this topic could bring even more insight about the market. The main challenge of

quantitative research would be difficulties in finding highly qualified experts who would be willing to fill out the survey.

References

- Accenture. (2015). The future of FinTech and banking: Digitally disrupted or reimaged? <https://doi.org/16/7/2019>.
- Anand, D., & Mantrala, M. (2018). Responding to Disruptive Business Model Innovations : The Case of Traditional Banks Facing Fintech Entrants. *Journal of Banking and Financial Technology*, 1(2), 11–40. <https://doi.org/10.1007/s42786-018-00004-4>.
- Arner, D. W., Barberis, J., & Buckley, R. P. (2017). FinTech , RegTech , and the Reconceptualization of Financial Regulation. *Northwestern Journal of International Law & Business*, 37(3), 371–413.
- Asaba, S., Aiba, K., Hirano, M. (2016). The Potential of the Fintech Industry to Support the Growth of SMEs in Indonesia, *Raras Minerva Management Strategy and Industry Evolution*. <https://doi.org/13/7/2019>.
- Baek, P., Collins, L., Zhang, B. (2014). Understanding Alternative Finance: The UK Alternative Finance Industry Report 2014. <https://doi.org/15/7/2019>.
- Bank tech Asia. (2018). The Emergence of Fintech: Where Does Malaysia Stand? <https://doi.org/15/7/2019>.
- Brühl, V. (2017). Virtual Currencies, Distributed Ledgers and the Future of Financial Services. *Intereconomics: Review of European Economic Policy*, 52(1), 370–378.
- Chen, L. (2016). From Fintech to Finlife: the case of Fintech Development in China. *China Economic Journal*, 9(3), 225–239.
- Clavijo, S., Vera, N., Londoño, J., & Beltrán, D. (2018). Digital Financial Services (FINTECH) in Latin America □. *CAF and FELABAN*, 1(February), 1–17.
- Daichi, I. (2017). A New Relationship between Financing and Tech- nology in the FinTech Era. *NEC Technical Journal*, 11(2), 12–16.
- Das, P., Verburg, R., Verbraeck, A., & Bonebakker, L. (2017). Barriers to innovation within large financial services firms An in-depth study into disruptive and radical innovation projects at a bank. *European Journal of Innovation Management*, 5(21), 96–112. <https://doi.org/10.1108/EJIM-03-2017-0028>.
- Davis, K., Maddock, R., & Foo, M. (2017). Catching up with Indonesia’s fintech industry. *Law and Financial Markets Review*, 1(11), 1–8.
- Dwi Marlina, W., & Alex, F. R. (2017). Shariah Fintech: Positive Innovation in Consumer Perspective. *Proceeding International Seminar on Competition Policy and Law*. <https://doi.org/20/7/2019>.
- Engine. (2019). Financial Services Reputation Index for Asia: Has the sector become complacent? <https://doi.org/10/6/2019>
- fintech malaysia, C. F. G. (2019). What Are Malaysia’s Top 5 Banks Doing About Fintech? <https://doi.org/19/7/2019>.
- Forum, W. E. (2017). The Future of FinTech A Paradigm Shift in Small Business Finance. Retrieved from http://www3.weforum.org/docs/IP/2015/FS/GAC15_The_Future_of_FinTech_Paradigm_Shift_Small_Business_Finance_report_2015.
- Frame, W. S., Wall, L., & White, L. J. (2018). Technological Change and Financial Innovation in Banking: Some Implications for FinTech. *Indian Journal of Commerce and Management Studies*, 2(1), 1–33.
- Guliyev, A. (2018). The Impact of Fintech on Banking Industry in Portugal. *universidade do porto faculdade engenharia*. <https://doi.org/16/7/2019>.
- Hakim Ghazali, N. (2019). Awareness and Perception Analysis of Small Medium Enterprise and Start-up Towards FinTech Instruments: Crowdfunding and Peer-to-Peer Lending in Malaysia. *International Journal of Finance and Banking Research*, 4(1), 13. <https://doi.org/10.11648/j.ijfbr.20180401.12>
- HAYS. (2019). The Inside Story of Finance Technology in Malaysia. <https://doi.org/12/7/2019>.
- Henner Gimpel, Daniel Rau, M. R. I. (2018). Understanding FinTech Start-Ups – A Taxonomy of Consumer-Oriented Service Offerings.

Electronic Markets – *The International Journal on Networked Business*, 28(3), 2–35.

International Trade Administration. (2016). 2016 Top Markets Report Financial Technology. <https://doi.org/20/7/2019>.

J.Kauffman, R. (2016). Contemporary research on payments and cards in the global fintech revolution. *Electronic Commerce Research and Applications*. Special Issue, 261–264.

Jangra, S. (2014). More Finance , More Growth : What India Does ? *International Journal of Advance Research in Computer Science and Management Studies*, 2(3), 213–219.

Lee, I., & Jae, Y. (2017). Fintech : Ecosystem , business models , investment decisions , and challenges. *Business Horizons*, x, 1–12. <https://doi.org/10.1016/j.bushor.2017.09.003>.

Leyer, M., & Pisani, F. (2017). The influence of process-oriented organisational design on operational performance and innovation: a quantitative analysis in the financial services industry. *International Journal of Production Research*, 55(18), 5259–5270.

Maria, F. C., & Peruta, R. D. (2017). The influence of process-oriented organisational design on operational performance and innovation: a quantitative analysis in the financial services industry. *Journal of the Knowledge Economy*, 8(1), 356–368.

Marko, J. (2018). Relationship Banking and Information Technology: The Role of Artificial Intelligence and FinTech. *SSRN*, 3(2), 1–31.

Milne, A. (2019). Centre for Applied Macroeconomic Analysis are the research gaps ? *Industrial Management & Data Systems*, 3(1), 1–9.

Nasdaq. (2013). Nasdaq’s Heritage: Our History. <https://doi.org/17/7/2019>.

Nejad, M. G. (2017). Research on Financial Services Innovations : A Quantitative Review and Future Research Directions Research on Financial Services Innovations : A Quantitative Review and Future Research Directions. *International Journal of Bank Marketing*, 3(2), 1042–1068. <https://doi.org/10.1108/IJBM-08-2015-0129>.

Oleh Hazwan Faisal Mohamad. (2019). Kerajaan komited perkasa Fintech di Malaysia. <https://doi.org/10/7/2019>.

Pollari, I., & Ruddenklau, A. (2018). The Pulse of Fintech 2018, Biannual global analysis of investment in fintech. <https://doi.org/14/7/2019>.

Rahim;, N. F. H. B. N. Y. (2019). Fintech and Shariah Principles in Smart Contracts. *IGI Global*, 12(1), 1–14.

Shim, Y., & Shin, D. H. (2016). Analyzing China’s Fintech Industry from the Perspective of Actor-Network Theory. *Telecommunications Policy*, 40(2–3), 168–181. <https://doi.org/10.1016/j.telpol.2015.11.005>

Surendra, E. (2017). Introduction To Fintech In Malaysia. <https://doi.org/20/7/2019>.

Susan, V., Reenen, V., The, M., Scott, S. V, Reenen, J. Van, & Zachariadis, M. (2017). Original citation : The version presented in WRAP is the published version , or , version of record , and may be The long-term effect of digital innovation on bank performance : An empirical study of SWIFT adoption in financial services. *Research Policy*, 46(5), 984–1004. <https://doi.org/10.1016/j.respol.2017.03.010>

Svetlana Saksonova, & Irina Kuzmina-Merlino. (2017). Fintech as Financial Innovation – The Possibilities and Problems of Implementation. *European Research Studies Journal*, XX(3), 1.

The Telegraph. (2017). The story behind the world’s first cashpoint. <https://doi.org/17/7/2019>

Trelewicz, J. (2017). Big Data and Big Money: The Role of Data in the Financial Sector. *Journal of Business Economics*, 3(8), 2–10.

Wells Fargo. (2015). 20 Years of Internet Banking 1995-2015 - Wells Fargo History. <https://doi.org/17/7/2019>.

Xie, P., Zou, C., & Liu, H. (2016). Financial Services and Open Innovation. *China Economic Journal*, 1(1), 315–346.

Young, E. &. (2017). EY FinTech Adoption Index 2017: The rapid emergence of FinTech. <https://doi.org/16/7/2019>.

Zalan, T., & Toufaily, E. (2017). The Promise of Fintech in Emerging Markets: Not as Disruptive. *Contemporary Economics*, 11(4), 415–430. <https://doi.org/10.5709/ce.1897-9254.253>.

Zubairu, D. I. A. & U. M. (2019). Service Innovation and Performance of Telecommunication Firms in FCT, Abuja. *Nile Journal of*

Business and Economics, (April), 32-58.