

Received : 13 July 2019 Accepted : 27 July 2019 Published : 30 July 2019

Strategies to Increase Financial Inclusion through Financial Technology

Basrowi

Sekolah Tinggi Ekonomi dan Bisnis Islam (STEBI) Lampung Email: basrowi2018@gmail.com

ABSTRACT

The purpose of this study is to describe the strategy of increasing public financial inclusion through the use of fin-tech finance. The method used is descriptive qualitative. Data is obtained from secondary data sourced from the official website of Indonesian banks, financial service authorities, and the finance ministry from 2015-2018. Data were analyzed using theme analysis of an overview of the development of fin-tech in Indonesia over the past four years, and the benefits of fin-tech in improving financial inclusion in Indonesia. The results of data analysis show that, first, the development of fin-tech in Indonesia has exceeded the needs of fin-tech itself. Secondly, the development of fin-tech has been able to increase the financial inclusion of the community even though it is only very small at 0.8%.

Keywords: Financial Technology; Financial Inclusion; Financial Literacy



INTRODUCTION

The adoption of digital finance has numerous benefits for financial service users, providers, governments, and the economy as a whole. Therefore, it is crucial to take fintech seriously and to embrace it inclusively so that it can be of greater benefit to individuals, businesses, and governments (Ozili, 2018). The developing phenomenon of fintech indicates that it is the most significant finding of this century and the best technological innovation today. It has entered every aspect of people's lives, and those who do not use fintech will be left behind, as all business partners have embraced fintech (OJK, 2016). Various fintech startups that are widely developing in Indonesia include: 1) consumer to consumer (C2C), which includes P2P payments and P2P lending, 2) business to consumer (B2C), which includes crowdfunding and risk management, and 3) business to business (B2B), which includes big data analysis, predictive modeling, and security (Finansialku.com, 2018).

Table 1. Classificasion of Business Types and Interaction Forms in Fintech

Business Types	%	Interaction Forms
P2P payments: fintech yang bergerak di bidang	20%	C2C
pembayaran	2970	
P2P lending: fintech yang bergerak di bidang	8%	
peminjaman	070	
Crowdfunding: fintech pembiayaan	6%	B2C
risk management: fintech bidang asuransi	2%	
Big data analysis, predictive modeling: fintech	110/	B2B
lintas pembiayaan	1170	
Security: fintech infrastruktur	44%	

Source: (OJK, 2016).

The various classifications in Table 1 provide an example that startups included in fintech include: 1) various electronic-based payments, 2) electronic-based money lending, 3) electronic-based financing and insurance, 4) electronic-based remittances, 5) various retail investments and buying and selling of electronic-based shares, and 6) electronic-based independent financial planning (personal finance), and others (Finansialku.com, 2018). With the presence of financial technology startups, it will be able to increase the number of people receiving services from financial institutions, both banks and non-banks. As it is well known,



Indonesia's population is spread across hundreds of islands, which are far from bank infrastructure and services. With a very large demographic bonus, a large number of judges, and social media users, Indonesia has enormous potential in utilizing fintech startups.

The results of the analysis by Galvin et al. (2018) also conclude that the traditional and conventional thinking models played by banks so far have fallen apart after the presence of fintech. Fintech startups that are much more sophisticated can destroy the existence of banks when banks stop innovating in the field of financial services. This happens because fintech can penetrate the barriers of space and time. The results of Chrismastianto's research explained that the strength of fintech is its ability to increase the number of people served. Even though fintech is very dependent on internet network services, this can already be answered with the presence of judges that everyone already has (Chrismastianto, 2017).

This research aims to describe in detail the strategy for increasing public financial inclusion through financial technology. It is hoped that readers will gain a complete understanding of the various strategies that can be implemented to increase financial inclusion through the utilization of financial technology developments.

LITERATURE REVIEW

The results of a study conducted by Muzdalifa and colleagues concluded that fintech startups, especially those in crowdfunding, mobile payments, and money transfer services, have transformed the banking industry by offering faster, cheaper, and less risky services that can cross national borders. Additionally, these services can offer exchange rates for remittances that are more favorable than those offered by traditional banking services. (Muzdalifa, Rahma, & Novalia, 2018). Another study conducted by Galvin et al. (2018) found that both banking financial institutions and fintech startups face competition from each other. Fintech developed by startups acts like a virtual bank, providing lending and



borrowing services that conventional banks do not offer. This type of fintech is currently the primary competitor of traditional banks.

The Financial Services Authority (2016) defines financial literacy as the knowledge, skills, and beliefs that influence attitudes and behavior towards financial decision making and management in order to achieve prosperity. Bank Indonesia (2014) defines financial inclusion as all efforts aimed at eliminating all forms of price and non-price barriers to public access to financial services. The Financial Services Authority (2016) defines financial inclusion as the availability of access to various institutions, products, and financial services that meet the needs and capabilities of the community to improve people's welfare.

The findings of the aforementioned research align with those of Abyan, who concluded that the increasing number of fintech services not only increases the number of people receiving financial services but also threatens the existence of banks (Abyan, 2018). This is consistent with the findings of Anggota-Dewan-Gubernur-BI (2018), which state that fintech can provide financial services to a larger number of people, as it can bridge the gap between the types of services that banks can provide. These results are also supported by the research conducted by Muchlis, who concluded that fintech has the advantage of reaching more customers, leading to an increase in the number of people served by banks, and providing more facilities to those who have not yet been served by financial institutions (Muchlis, 2018).

Furthermore, the results of this study are also in line with Abyan's findings, which state that branchless banking services through fintech technology can provide satisfactory services for urban communities. Once the customer has added funds to their fintech account, they can perform various transactions, such as sending money, purchasing tickets, paying for credit, home and vehicle installments, prepaid electricity, and other services (Abyan, 2018).



RESEARCH METHODS

The method used in this research is descriptive research. Based on the source of the data, this research can be categorized as literaturedocumentary research since the data used is already available at government agencies. The data was taken from reliable secondary sources that could be accessed online, namely the Financial Services Authority, Bank Indonesia, and the Ministry of Finance of the Republic of Indonesia. The data collected covers the period from 2014 to 2018, which was chosen by the researchers to ensure the analysis of up-to-date data. The collected data was analyzed through descriptive analysis, consisting of four stages: data collection, data filtering, data classification, and drawing conclusions. The data filtering process aimed to obtain valid and reliable data, leading to valid and reliable conclusions (Sekaran, 2016).

RESULTS AND DISCUSSION

An Overview of Financial Technology and Financial Inclusion in Indonesia

The number of the productive age population (17-60 years) in Indonesia from 2014 to 2019 appears as in Table 2. The number of Indonesian populations of productive age always increases from year to year. It is the productive age population that banks and non-bank financial institutions will look at to become their loyal customers.

		• • •			
Description	2014	2015	2016	2017	2018
Male	85.135.600	86.394.600	87.650.900	88.860.700	90.005.200
Female	84.198.500	85.479.600	86.724.200	87.947.100	89.121.600
Total	169.334.100	171.874.200	174.375.100	176.807.800	179.126.800

Table 2. Total population of productive age in 2015-2018 in Indonesia

Source: BPS (2018).

Data from Bank Indonesia for 2015-2019 shows that the number of people who have accounts shows an increasing trend, although not so significant. Table 3 shows the growth in the number of people who have accounts, both savings, demand deposits and time deposits.

able 3. Number o	of commercial	bank accounts	2014-2019 in	Indonesia
------------------	---------------	---------------	--------------	-----------

Description	2014	2015	2016	2017	2018	Januari 2019
Accounts	161.428.538	175.501.915	199.301.222	242.396.164	275.764.037	279.039.520
Growth		10,68%	13,14%	24,10%	11,67%	3,24%



Source: Bank Indonesia (2019)

Table 3 shows a fluctuating development, starting from 10.68% (2014-2015), 13.14% (2015-2016), 24.10% (2016-2017), 11.67% (2017-2018), and until January 2019 it was only 3.24% (2018-January 2019). When viewed from the type of account, which is shown in Table 4.

Description	Conventiona	Conventional		
Description	Total	%		
Demand Deposits	3.325.779	1,19%		
Saving Account	271.107.837	97,16%		
Deposit on Call	5.331	0,00%		
Time Deposits	4.600.314	1,65%		
Cartificate of Time Deposite				
	259	0,00%		
Total	279.039.520	100		

 Table 4. Number of commercial bank accounts based on types in 2019

Source: LPS (2019).

Table 4 shows that in 2019, there were 279,039,520 accounts, both demand deposits, savings and deposits. It's just that the number of residents who have accounts is only around 36% of the total productive age population of 179,126,800 residents, which is only 64,485,648 residents. In other words, every productive age population has 4-5 different accounts. On the other hand, in 2019, there were 114,641,152 residents who did not have accounts.

Data released by OJK (2018) relating to the growth in the number of lender accounts and borrower accounts can be seen in Table 5. The data in Table 5 proves that the presence of fintech has been able to increase the number of residents who have accounts of 182,895 fintech accounts, and the number of lending transactions on in 2018 there were 2,805,026 transactions. In other words, each account has made 15.3 loan transactions. Thus, the presence of fintech is able to increase the number of people of productive age who receive financial services by 182,895 residents (0.28%). Or an increase from 64,485,648 residents (36%) to



64,668,543 (36.28%). In other words, after the existence of fintech, the number of people who received financial services became 36.28%.

No	Description	October 2018
1.	Number of Fintech accounts	
	a. account owners in Java	138.509
	b. account owners outside Java	42.484
	c. account owners in foreign countries	1.902
	d. number of all accounts	182.895
2.	Number of Fintech account borrowers	
	a. borrowing transaction in Java	2.389/765
	b. borrowing transaction outside Java	415.261
	c. number of all borrowing transaction	2.805.026

Table 5. Growth of fintech users in Indonesia

Source: (OJK, 2018)

Data from Diretorat Pengaturan Perizinan dan Pengawasan OJK (2018), Bank Indonesia (2019), and OJK (2016) relating to fintech developments both licensed, registered and illegal can be seen in the Table 6. All illegal fintech services have been blocked by the Financial Services Authority in collaboration with the Ministry of Information and Communication. However, some of these services continue to operate via social media. It is important to note that the large number of people who receive illegal fintech services. Financial inclusion services only include individuals who receive financial services from formal institutions that are registered with the Financial Services Authority.

	-		
Types	2017	2018	2019
Licensed	0	1	1
Registered	36	89	99
Illegal	57	635	803
Total	93	725	903

 Tabel 6. Perkembangan fintech legal dan ilegal 2017-2019

Source: Diretorat Pengaturan Perizinan dan Pengawasan OJK (2018), Bank Indonesia (2019), and OJK (2016)

Factors Influencing Financial Inclusion

The low level of financial literacy has prompted regulators to vigorously pursue various financial inclusion programs, such as the branchless banking program, which includes Digital Financial Services (DFS) initiated by Bank Indonesia with electronic money products and the



Financial Services Without Office (Laku Pandai) program initiated by the Financial Services Authority with basic saving account products (BSA).

The proper use of fintech by its users theoretically can improve the welfare of society because: 1) people can easily access various banking transaction services, thereby saving time and energy in conducting financial transactions at banks, 2) people become more open in conducting various businesses related to financial transaction processes, 3) all costs incurred or charged to fintech users are much lower than transportation costs, energy, and expenses incurred when they have to go to the bank, 4) the risk of using fintech, if done carefully, can reduce the risk of losing money, pickpocketing, or other violent actions, and 5) with fintech, business partners feel more comfortable in conducting various trading transactions, which can demonstrate the technological literacy level of their business partners.

The weakness related to the application can actually be experienced when fintech providers have conducted various rigorous and comprehensive trials, so that fintech users (customers) no longer experience losses when transacting using fintech. If illustrated in a diagram, it appears as follows.



Figure 1. Benefits of Fintech startups for Society

Figure 1 above provides a detailed explanation that when a society has not been touched by banking services, only those with income, savings, and loans can enjoy banking services (exclusive). However, with the presence of fintech, all segments of society will have contact with financial institutions, whether bank or non-bank, so that financial



institutions are inclusive for the community. With fintech, people who have not been touched by banking services can now borrow, start businesses, open new businesses, create jobs for themselves and others, and the micro, small, and medium enterprise (MSME) sector comes to life. The production of goods and services increases, the income of the people increases, and their welfare improves.

When the number of fintech companies is limited, the interest rates charged to borrowers will be very high, and the choice of good fintech by the public is still limited, and violations committed by fintech providers are still high. When the number of fintech companies is limited, even though the government limits the maximum interest rate to 0.8% per month, and the maximum amount of interest and fines is 100%, these government restrictions can easily be violated by fintech providers because of the weak supervision by Bank Indonesia, the Financial Services Authority in collaboration with the Ministry of Information and Communication. When fintech providers succeed in developing their fintech business, they will be followed by new startups that also develop fintech, both similar and dissimilar, which provide similar or different services. Thus, healthy competition occurs among fintech providers, and the public becomes increasingly open in choosing the most profitable type of fintech.

The impact of fintech on financial inclusion is highly positive, especially for those who previously did not have access to banking services. Fintech has made financial institutions inclusive for all members of society, regardless of their income, savings, or loan history. As a result, individuals and small businesses can now borrow money, start new businesses, create jobs, and improve their standard of living. The growth of fintech has also led to healthy competition among providers, which has resulted in lower interest rates and fewer fraudulent activities.

However, when the number of fintech providers is limited, interest rates charged by lenders can be high, and the options available to consumers are limited. In such instances, providers may also breach



regulations set by the government or the central bank due to the lack of oversight. As more fintech startups emerge and compete, consumers can select the most advantageous option for their business needs. This competition also helps to eliminate fraudulent or illegal fintech companies, as consumers become more educated and discerning.

When fintech providers are registered and authorized by the appropriate financial regulatory bodies, interest rates will become more competitive, and fraudulent activities will become less prevalent. Legal fintech providers also adhere to regulations and limits set by the authorities, ensuring that borrowers are protected from excessive interest rates and debt collectors' abusive tactics. As a result, individuals and small businesses that use fintech can benefit from lower interest rates, leading to increased profits, better employee compensation, and more financial stability. Illegal fintech providers charge higher interest rates, use abusive debt collection tactics, and ignore regulations, leading to financial difficulties for borrowers. They may also use unconventional methods to force repayment of loans, including using family members or other unauthorized assets as collateral. Therefore, individuals and small businesses are advised to use only authorized and registered fintech providers and avoid using illegal ones to prevent such problems.

If all of the above explanations are illustrated in diagrammatic form, they will appear in Figure 2. The figure gives confidence that when there were only conventional commercial banks, Islamic commercial banks and non-banking financial institutions, the number of people receiving financial institution services was initially very limited. , will develop after there is a fintech start-up. Financial services are becoming more inclusive. The development of financial inclusion is also inseparable from government support for fintech such as Bank Indonesia Regulation Number: 18/17/PBI/2016 concerning Electronic Money and Financial Services Authority Regulation number: 77/POJK.01/2016 concerning Information Technology-Based Money Lending Services (OJK, 2016). The two





government policies were also significantly able to increase the occurrence of financial inclusion.

Figure 2. Benefits of Fintech development in Indonesia

Conclusion

The number of people who had a bank account prior to the arrival of fintech was only 36% of the productive age population of 179,126,800 people, which is equivalent to only 64,485,648 people. After the emergence of fintech, the number of productive age population who had access to financial services increased to 64,668,543, representing a 0.28% increase. Therefore, after the arrival of fintech, the number of people who have access to financial services increased to 36.28%. This number is expected to continue to grow, considering the massive and structured promotion of fintech through social media networks. In the future, fintech will be able to increase the number of people who have access to financial services that were initially only able to reach certain communities near banking infrastructure will significantly increase as fintech develops, making financial services more inclusive rather than exclusive.



REFERENCES

Abyan, M. A. (2018). Konsep Penggunaan Financial Technology dalam Membantu Masyarakat Sub Urban di Indonesia dalam Melakukan Transaksi Finansial, (April), 1–6. https://doi.org/10.13140/RG.2.2.36402.30404

Anggota-Dewan-Gubernur-BI. (2018). Disruptive Technology: The Phenomenon of FinTech towards Conventional Banking in Indonesia. https://doi.org/10.1088/1757-899X/407/1/012104

- Bapenas, 2018. *Jumlah penduduk di Indonesia*. Online: https://www.bappenas.go.id/files/5413/9148/4109/Proyeksi _Penduduk_Indonesia_2010-2035.pdfaccessed April 6, 2019
- Bank-Indonesia. (2019). Daftar Penyelenggara Uang Elektronik yang Telah Memperoleh Izin dari Bank Indonesia Per 21 Januari 2019, (11), 21. Retrieved from Gelombang Perkembangan Fintech
- Bank Indonesia. 2014. Booklet Keuangan Inklusif. Jakarta (ID): Bank Indonesia.
- Basrowi, et.al. 2019. Fintech development in indonesia: Distrupsion technology and risk analysis phenomenon. *Penang Invention, Innovation And Research Design 2019* (PIID 2019)
- Chrismastianto, I. A. W. (2017). Analisis SWOT Implementasi Tekonologi Finansial terhadap Kualitas Layanan Perbankan di Indonesia. *Jurnal Ekonomi Dan Bisnis*, *20*(1), 137. https://doi.org/10.24914/jeb.v20i1.641



Clusters, C. (2016). FINANCIAL. Retrieved from https://www.austrade.gov.au/.../US-Fintech-Clusters.pdf.aspx

Diretorat-Pengaturan-perizinan-dan-Pengawasan-OJK. (2018). *Perusahaan Fintech Lending Berizin dan Terdaftar di OJK*.

Finansialku-com. (2018). Pengertian Fintech, 1–18. Retrieved from https://www.finansialku.com/definisi-fintech-adalah/

- Galvin, J., Han, F., Hynes, S., Qu, J., Rajgopal, K., & Shek, A. (2018). Synergy and disruption: Ten trends shaping fintech, (December). Retrieved from https://www.mckinsey.com/~/media/McKinsey/Industries/Fi nancial Services/Our Insights/Synergy and disruption Ten trends shaping fintech/Synergy-and-disruption-Ten-trendsshaping-fintech.ashx
- Ghazali, Imam. 2017. *Struktur Equation Modeling*. Semarang: Program Doktor Ilmu Ekonomi Universitas Diponegoro
- He, D., Leckow, R., Haksar, V., Mancini-Griffoli, T., Jenkinson, N., Kashima, M., Karunaratne, S. (2017). Fintech and Financial Services: Initial Considerations Monetary and Capital Markets, Legal, and Strategy and Policy Review Departments Fintech and Financial Services: Initial Considerations Authorized for distribution by. Retrieved from

https://www.imf.org/~/media/Files/.../SDN/.../sdn1705.ashx %0A

Kolesova, & Girzheva, &. (2018). Impact of Financial Technologies on the Banking Sector. *KnE Social Sciences*, *3*(2), 215. https://doi.org/10.18502/kss.v3i2.1545



Lembaga penjamin simpanan. 2019. *Distribusi Simpanan Bank Umum.* Online:

> https://www.lps.go.id/documents/10157/197446/Distribusi+ Simpanan+Bank+Umum+periode+Februari+2019.pdf/0dfc 935e-5697-41bc-bc9c-3e346c09add3 accessed April 6, 2019

Leong, C., Tan, B., Xiao, X., Tan, F. T. C., & Sun, Y. (2017). Nurturing a FinTech ecosystem: The case of a youth microloan startup in China. *International Journal of Information Management*, *37*(2), 92–97. https://doi.org/10.1016/j.ijinfomgt.2016.11.006

Micu, A. (2016). FINTECH AND ITS IMPLEMENTATION ON THE ROMANIAN NON-BANKING, /V(2), 379–384. Retrieved from

seaopenresearch.eu/Journals/articles/SPAS_11_30.pdf

- Muchlis, R. (2018). Analisis SWOT Financial Technology (Fintech)
 Pembiayaan Perbankan Syariah Di Indonesia (Studi Kasus
 4 Bank Syariah Di Kota Medan). *AT-TAWASSUTH: Jurnal Ekonomi Syariah*, *1*(1), 335–357.
- Muzdalifa, I., Rahma, I. A., & Novalia, B. G. (2018). FinTech's Role in Enhancing Inclusive Finance in UMKM in Indonesia (Sharia Financial Approach). *Masharif Al-Syariah: Jurnal Ekonomi Dan Perbankan Syariah, 3*(1). Retrieved from https://www.researchgate.net/publication/324386435
- Odelius, A., Traynor, M., Mehigan, S., Wasike, M., & Caldwell, C. (2017). Implementing and assessing the value of nursing preceptorship. *Nursing Management*, *23*(9), 35–37. https://doi.org/10.7748/nm.2017.e1547



- OJK. (2016). Tren fintech dan perbankan, (November). Retrieved from http://nofieiman.com/wp-content/images/tren-fintech-danperbankan.pdf
- OJK. (2018). IKHTISAR DATA KEUANGAN FINTECH (Peer To Peer Lending) PERIODE OKTOBER 2018, 2018. Retrieved from https://www.ojk.go.id/id/kanal/iknb/data-danstatistik/fintech/Pages/Ikhtisar-Data-Keuangan-Fintech-(Peer-To-Peer-Lending)-Periode-Oktober-2018.aspx
- Otoritas Jasa Keuangan. 2016. Survei Nasional Literasi dan Keuangan Inklusi Keuangan 2016. Jakarta (ID) : OJK. ntang Penyelenggaraan Pemrosesan Transaksi Pembayaran. Jakarta (ID): Bank Indonesia.
- Ozili. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review*, *18*(4), 329–340. https://doi.org/10.1016/j.bir.2017.12.003
- Sekaran, U. & R. B. (2016). Research Methods for Business: a skillbuilding approach (Seventh ed). Chichester, West Sussex, United Kingdom: Wiley Online Library/John Wiley & Sons. Retrieved from www://wileypluslearningspace.com
- Xu L, Bilal Z. 2012. Financial literacy around the world an overview of the evidence with practical suggestions for the way forward. The World Bank: Finance and Private Sector Development. Policy Research Working Paper. 6107: 1-58.

