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The Utilization of Fintech to Increase Financial Inclusion in Indonesia: A Conceptual Paper

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Abstract

Financial inclusion has been an economic drawback for many countries, including Indonesia. Developing countries struggle with financial inclusion due to various factors. This paper aims to provide evidence on expanding Indonesia's financial inclusion through the utilization of Fintech. Studies from previous researchers as secondary data were conceptualized, and to provide complete research, primary data were also gathered to study Indonesian's response to the theories being hypothesized. This paper elaborates on how Fintech is an alternative in improving accessibility to financial services. It educates and raises awareness to its citizens, eliminates negligence and vulnerability of scams, facilitates credit activities and scores through advanced analytics. It also encourages the efficiency of asset allocation and economic growth and innovation - all of which ultimately leads to the expansion of financial inclusion.

Keywords: *financial inclusion, Fintech, money circulation, and innovation*

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INTRODUCTION

According to research done by Pham and Doan (2020), only 48.86% of Indonesians had access to financial services in 2017 - in other words, a majority of Indonesian citizens still belong in the unbanked sector of the country. A low financial inclusion rate in Indonesia is proven to have been slowing down Indonesia's economy over the years, and a drive in a higher rate of people having access to financial services is arguably the key to achieving a country's sustainable growth in the economy (Bakar & Sulong, 2018). Indonesia needs all the resources available to help increase its people's access to financial services. Technology, more specifically financial technology, can be used as a medium to encourage the use of financial services for the unbanked sectors of Indonesia. Researches done the years insinuate that a higher rate of financial inclusion among citizens is associated with a prompter rate of economic

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growth (Elsherif, 2018). There are many ways policy-makers of a country can help encourage its people's use of financial services, converting the unbanked sectors of the country to the opposite group. A way to raise Indonesia's financial inclusivity numbers is with the existence and development of financial technology that encourages digital financial transactions.

The growth of financial technology has been rapid in Indonesia. There were initially only 40 Fintech companies by the end of 2016, but in just less than three years, this number tripled to 164 companies in 2019 (Narasati, 2020). The Fintech companies then dropped to 149 in 2020 and again to 104 companies in 2021 (Ambarwati, 2021) - likely due to the COVID-19 pandemic. More research needs to be done to prove the utility of Fintech to the economic problem of financial inclusion to help with the economic growth of Indonesia. This research can help with the country's economic growth not only by aiding financial inclusivity in the unbanked sectors of the country but also by encouraging the creation of new Fintech start-up companies, which leads to more money circulation in various ways. Therefore, the purpose of this research is to contribute to raising the awareness of Fintech utility by dissecting the central issue of financial inclusion before providing evidence as to how Fintech can be the answer to the issues mentioned.

LITERATURE REVIEW

There are many definitions of financial inclusion. According to Lubis *et al*. (2019), financial inclusion is the access that households and businesses have to the effective use of financial products and services. Another definition provided by Yuliani (2020), financial inclusion can also be defined as access to valuable and affordable financial products and services in meeting the needs of the community and their businesses. In this case, this includes transactions, payments, savings, credit, and insurance that are used responsibly and sustainably.

From the various existing definitions, it can be concluded that the elements that play a role in financial inclusion are access, availability of financial products and services, use, and quality. With financial inclusion, experts have studied its efficacy in reducing the number of unbanked people or those who do not have a bank account because they do not have access to essential banking services such as savings (Elsherif, 2018).

Access to finance is a fundamental right for all people and has a vital role in improving people's lives (Pham & Doan, 2020). One of the ways to fulfill the need for financial products and services from the most basic level is through account ownership in a bank which can then develop to have other financial products and services such as insurance, financing, pension plans, and investments. According to previous research (Bakar & Sulong, 2018; Elsherif, 2018; Kandpal & Mehrotra, 2019; Marini *et al*., 2020; Nuryakin *et al*., 2019; Pham & Doan, 2020; Yahaya & Ahmad, 2018), there are

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many benefits to be gained when inclusivity in financial services of a country is created, including the following:

1. Increased economic efficiency.
2. Heightened financial stability
3. Reduced shadow banking activities
4. Supports financial market deepening.
5. New market potential for the banking industry
6. Supports the improvement of Indonesia's Human Development Index (HDI).
7. Contribute positively to sustainable local and national economic growth.
8. Reducing inequality and the rigidity of the low-income trap improves people's welfare, which in turn leads to a reduction in the poverty level.

Yuliani's (2020) research cited that financial inclusion is the main supporting factor for reducing poverty and increasing welfare. Since 2010, more than 55 countries have made commitments to financial inclusion, and more than 60 countries have launched or are developing national strategies (Bhatia & Singh, 2019).

With that, it is clear that financial inclusion has a significant impact on economic growth. Country leaders of Indonesia have done numerous endeavors to achieve better financial inclusivity. Programs such as Laku Pandai allow people to open savings accounts, save, and withdraw funds through bank agents - this is especially useful for cities in Indonesia with more minor technological advances (Sastiono & Nuryakin, 2019). SimPel or Simpanan Pelajar, which enables students to have bank accounts in Indonesia, with easy and straightforward requirements and attractive features, in the context of financial education and inclusion to encourage a culture of saving (Syah, 2020). Other than the Laku Pandai and SimPel, other programs organized by Indonesia’s country leaders to help with financial inclusivity includes:

1. *Simpanan Mahasiswa dan Pemuda (SiMuda)* / Student and Youth Savings
2. *Tim Percepatan Akses Keuangan Daerah (TPAKD)* / Regional Financial Access Acceleration Team
3. *Bank Wakaf Mikro (BWM)* / Micro Waqf Bank
4. *Pusat Edukasi, Layanan Konsumen & Akses Keuangan UMKM (PELAKU)* / Center for Education, Consumer Services & Access to MSME Finance
5. *Kredit Usaha Rakyat (KUR)* / People's Business Credit
6. Many other microfinance services

All these endeavors and programs assembled by Indonesia’s policymakers become proof of the evident fact that financial inclusion equals economic growth (Mahiranissa *et al*., 2020). Although these financial inclusivity programs have helped reach its goals, Yahaya and Ahmad (2018) argue that Fintech can be a more efficient and effective way to increase financial inclusion. Sari (2018) emphasizes that the use of Fintech should be encouraged for its immediate impact in raising financial inclusivity rates. Another researcher, Rusdianasari (2018), adds that Fintech can be a more measurable medium when used as financial inclusion means. It plays an essential role

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in financial system stability through financial access and services. Theories by previous researchers have proven that financial inclusion provides various advantages to Indonesia's economy and how Fintech can be an alternative to achieving financial inclusion.

METHODOLOGY

Research Design

This research is categorized as a research-based paper, written as a conceptual paper to elaborate on how the use of Fintech can be evidence to expand financial inclusion in Indonesia. The data sources in this study consist of secondary data in the form of conceptualized studies of previous researchers and primary data gathered from questionnaires via Google Form that is collected to study the responses of Indonesians to the hypothesized theories from previous researchers, perfecting the research results as a whole.

Object of Research

The object in this research is the citizens of Indonesia as the population of the study. Having all Indonesians as the object of a study is a relatively broad population. Therefore, the purposing sampling method is utilized to narrow the research object to a more specific. There are a few criteria determined to select the sample, as listed below;

1. The subject of the study must be a native Indonesian citizen - born and raised.
2. The subject of the study is currently using or has used financial technology services.
3. The subject of the study must own or must have owned a personal bank account.

In addition, because our research sample consists of all Indonesian people who have bank accounts and have used Fintech applications, the number cannot be known with certainty and specifically. Therefore, we use the method Hair *et al.* (2011) proposed, namely the 10-Times Rule. This method assumes that the sample size must be ten times larger than the variables studied. In this study, two variables are measured by the number of questions in the questionnaire as much as 10. So by using the 10-times rule method, the number of questions or statements is ten times 10, meaning the number of samples in this study is 100 samples as the minimum limit and may be increased. In addition, to facilitate the analysis of the questionnaire, we used a Likert scale of 5 interval scores consisting of strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5).

Data Analysis Method

This study uses the quantitative data analysis method. A survey of 766 respondents as a result of data collection carried out from 26 February 2022 to 7 March 2022 was statistically described to provide for the research topic as quantitative data research.

RESULTS AND DISCUSSION

This study examines people's perceptions about the use of Fintech to increase financial inclusion in Indonesia. 766 respondents participated in the study, but 23 of

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them did not fulfill the previously set criteria. More specifically, 12 participants never had bank accounts, and 11 had never used any Fintech instruments. In other words, 23 out of 766 respondents who did not fulfill the predetermined criteria must be removed from the pool of respondents. This study will not utilize these respondents who do not meet the predetermined criteria. With the elimination of the respondents that did not meet the criteria previously set, the number of respondents left was down to 747 participants.

The questionnaire that was distributed had 10 queries, which were:

1. I think that Fintech is more reachable/accessible than conventional financial services that require face-to-face interaction
2. I think that Fintech applications are user-friendly and easy to use
3. I obtained some of my knowledge about financial services through the utilization of Fintech
4. I think that Fintech promotion campaigns help in raising the awareness of Fintech utilization
5. I feel that getting funding for various activities (new business ideas, project ideas, etc.) has become easier to reach with the existence of Fintech
6. The less occurrence of human errors (inaccurate credit scoring, unreliable risk analysis, failed fraud detection, etc.) motivates me in using financial services
7. I would use financial services that have little to no vulnerability to scams
8. I believe that Fintech can eliminate negligence and/or vulnerability to scams
9. I think that the existence of Fintech encourages me to engage more in financial activities
10. I prefer buying goods/services from businesses that offer digital payment options

These 10 opinion-based statements were given to the respondents. They were asked to rate their agreeableness on these statements on a scale of 1-5. All of the respondents were previously briefed on the descriptions of what each scale stood for. Table 1 summarizes the numerical value of each scale level and the description that had previously been given to the respondents.

Table 1. The Scale of Agreement Level of the Study

Numerical Value	Description
1	Strongly Disagree
2	Disagree
3	Neutral
4	Agree
5	Strongly Agree

Source: Processed data (2022)

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With the results of the respondents gathered, there were a total of 267 male participants, which took up 35.7% of the total respondents, and 747 female participants, who took up 64.3% of the total respondents. Table 2 summarizes the respondents' demography based on gender.

Table 2. Respondents' Demography Based on Gender

Gender	Number of Respondents	Percentage
Male	267	35.7%
Female	480	64.3%
Total	747	100%

Source: Processed data (2022)

Furthermore, based on age, there were 38 respondents under 17 years old, 509 people aged 17 to 21 years old, 170 people aged 22 to 28 years old, 23 people aged 29 to 35, and finally, those aged over 35 years old is 7 people. Table 3 summarizes the respondents' demography based on their age.

Table 3. Respondents' Demography Based on Age

Age	Number of Respondents	Percentage
< 17	38	5.1%
17 – 21	509	68.1%
22 – 28	170	22.8%
29 – 35	23	3.1%
> 35	7	0.9%
Total	747	100%

Source: Processed data (2022)

Based on their occupations, of all the participants, 382 are students, 256 are private employees, 40 are civil servants, 25 are entrepreneurs, 43 are unemployed, and 1 person with other jobs not listed. Table 4 summarizes the respondents' demography based on their occupation.

Table 4. Respondents' Demography Based on Occupation

Occupation	Number of Respondents	Percentage
Students	382	51.1%

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Private Employees	256	34.3%
Civil Servants	40	5.4%
Entrepreneurs	25	3.4%
Unemployed	43	5.8%
Other	1	0.0%
Total	747	100%

Source: Processed data (2022)

Finally, based on their earnings, respondents with income below Rp. 2,000,000/month round up to 280 people, an income of Rp. 2,000,000 to Rp. 4,999,999/month totaled to 331 people, an income of Rp. 5,000,000 to Rp. 7,999,999/month totaled 107 people, an income of Rp. 8,000,000 to Rp. 10,000,000/month were as many as 20 people, and income of above Rp. 10,000,000/month were as many as 9 people. Table 5 summarizes the respondents' demography based on their income/month.

Table 5. Respondents' Demography Based on Income (per Month)

Occupation	Number of Respondents	Percentage
< Rp 2,000,000	280	37.5%
Rp 2,000,000 – Rp 4,999,999	331	44.3%
Rp 5,000,000 – Rp 7,999,999	107	14.3%
Rp 8,000,000 – Rp 10,000,000	20	2.7%
> Rp 10,000,000	9	1.2%
Total	747	100%

Source: Processed data (2022)

Improving Accessibility to Financial Services

Technology has always been developing rapidly from time to time, especially technology in the financial sector. Financial technology or Fintech certainly has a varied contribution to achieving financial inclusion in Indonesia, one of which is to increase or improve the public accessibility to financial services. This improved access to financial services as a part of financial inclusion makes it easier for people to have bank accounts, electronic money, or e-money. It enables them to use various other financial services through the tip of their fingers.

The large number of Fintech companies operating in Indonesia is one of the many mediums that actively push the movement of financial inclusion. Fintech companies

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perform all possible means to reach, facilitate, and improve the accessibility of Fintech for all users - especially those of the unbanked sectors in rural areas where conditions can be strenuous to obtain the availability of financial services. These means are ways their businesses can expand (Mardiana *et al*., 2020). In addition, with the growing number of Fintech companies, more digital platforms can be established to support the unbanked population in Indonesia with essential financial services via mobile phones (Popescu, 2019).

Soegoto and Utomo (2019) cited that ease of access is the driver of higher consumer use. This widely-known theory can be applied as one of the tactics to increase financial inclusion by making financial services more accessible and convenient (Suryono *et al.*, 2020). However, the still ongoing debate is whether or not Fintech does increase accessibility in financial services.

A survey participated by a total of 747 eligible respondents was studied to provide further evidence that the use of Fintech can increase public access to and increase financial inclusion. The query in the survey centers on the controversy on Indonesians' preferences in financial services mediums. As briefed, the respondents are given a scale of 1-5 to rate their level of agreement on the statement on whether or not they prefer whether or not Fintech is more reachable/accessible than conventional financial services that require face-to-face interaction. This comparison is given on the notion that if more people agree that Fintech is more reachable or more accessible, the use of Fintech can then be proven by the survey conducted and by previous researchers of its capabilities in encouraging the utilization of financial services. The result of the survey based on the first statement on Fintech's ease of accessibility is as illustrated below:

Illustration 1. Survey Responses Based on Statement 1

"I think that Fintech is more reachable/accessible than conventional financial services that require face-to-face interaction"

Scale	Number of Respondents	Percentage
1	21	2.8%
2	27	3.6%
3	40	5.4%
4	276	37.0%
5	383	51.2%

Source: Processed data (2022)

This survey adds another statement to support further the theories discussed. The second statement aims to investigate the user experiences of Indonesians when

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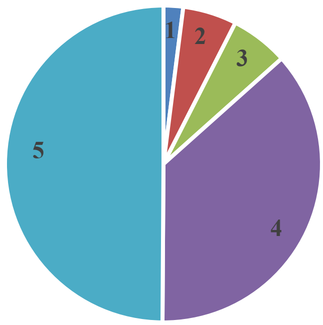
utilizing Fintech mobile applications. The survey result regarding statement 2 is as demonstrated in illustration 2.

Illustration 2. Survey Responses Based on Statement 2

"I think that Fintech applications are user-friendly and easy to use"



Scale	Number of Respondents	Percentage
1	15	2.0%
2	41	5.5%
3	44	5.9%
4	274	36.7%
5	373	49.9%

Source: Processed data (2022)

Illustration 1 and illustration 2 demonstrate the survey's first two statements, respectively. Based on the survey results, it is evident that most respondents accept the first statement, which centers on comparing the ease of access and reachability of Fintech and conventional financial services that require in-person interaction. More specifically, 37% of the respondents agree with the first statement, while 51.2% strongly agree. In other words, nearly 4 out of every 5 respondents agree to the motion suggested. In addition, statement 2 focuses on whether or not the survey participants feel that Fintech is user-friendly and is easy to use. 36.7% of the survey's participants accept/agree to the statement that Fintech is user-friendly and easy to use, while 49.9% of them strongly agree. All-in-all, these two statements produced the same response as the results of previous studies, supporting that the use of Fintech can increase public access to financial services. With the fact that Indonesia is the fourth-most populous country globally, conventional financial inclusion campaigns work less efficiently and effectively than Fintech and the accessibility in the platforms that it provides.

Increasing the Low Financial Literacy Rates in Indonesia

The lack of knowledge of foreign objects becomes an obstacle in their utilization. Indonesia's financial literacy rate has always been low, with a rate of 38,03% in 2019 and a score of 13,3/100 compared to other countries (Otoritas Jasa Keuangan, 2019). Indonesia's low financial literacy rate is one of the most significant setbacks in its financial inclusion campaigns - financial services that are now learning towards being fully digitalized in other parts of the world, this concept is widely unfamiliar (Gunawan & Chairani, 2019).

When it comes to financial literacy, the development can be accelerated through digital finance as a medium for Indonesia's policy-makers and country leaders to

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expand its people's use of financial services. Regarding the advantage of the various technological advances in this 4.0 industry, Fintech can be employed to educate and increase public awareness in the use of technology and finance, raising the financial literacy rates in Indonesia, which then raises its financial inclusion rates (Tam & Hanh, 2018).

The option to obtain information of financial activities such as savings, accessing credits, investments, transactions provides an efficient and effective alternative for Indonesian citizens to be familiarized with all the benefits it provides, which encourages the use even more. By educating people through financial services through Fintech, people's awareness of the importance of financial inclusion can be enlightened. The increase of financial literacy through the availability of Fintech will then help with increasing financial inclusion in Indonesia (Salampasis & Mention, 2018).

Similar to the previous discussion, the same survey conducted by the same pool of respondents is provided as evidence to support previous studies. Statement 3 continues the previous survey but focuses more on whether or not the respondents feel that Fintech helped them expand their knowledge of finance. The goal is precisely related to how knowledge about financial services can improve financial literacy in the community, especially in Indonesia. The results of the survey regarding statement 3 are described as follows:

Illustration 3. Survey Responses Based on Statement 3

"I obtained some of my knowledge about financial services through the utilization of Fintech"

Scale	Number of Respondents	Percentage
1	26	3.5%
2	35	4.7%
3	59	7.9%
4	245	32.8%
5	382	51.1%

Source: Processed data (2022)

Following statement 3, statement 4 was also drafted and given to the respondents to rate whether or not they think that Fintech promotion campaigns can help increase public awareness about the use of Fintech. According to Philippon (2019), Fintech companies are growing rapidly because of their promotion campaigns that target the unbanked sectors of the world. Through this survey, the efficacy of these campaigns

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in Indonesia can be rated by Indonesian themselves. The results of the survey on statement 4 are described in the following illustration:

Illustration 4. Survey Responses Based on Statement 4

"I think that Fintech promotion campaigns help in raising the awareness of Fintech utilization"

Scale	Number of Respondents	Percentage
1	16	2.1%
2	36	4.8%
3	82	11.1%
4	255	34.1%
5	358	47.9%

Source: **Processed data (2022)**

Through the two illustrations of the survey results above, it can be seen that in the third statement regarding the acquisition of knowledge about financial services through the use of Fintech, the vast majority of respondents either agree or strongly disagrees with the previous theories being hypothesized. 32.8% of the respondents agree with the third statement, while 51.5% strongly agree. It indicates that Indonesians gain knowledge about financial services through the usage of Fintech. However, around 8.2% of Indonesians disagree, and it means that they do not gain knowledge from using this Fintech.

In the fourth statement about Fintech promotion campaigns and how they can raise awareness of financial services, the survey showed 34.1% and 47.9% agreed and strongly agreed with the fourth statement. The results of these two statements suggest that the promotion strategies that Fintech companies use to promote their services help raise awareness of the whole financial services world.

Utilizing Artificial Intelligence and Advanced Analytics of Fintech

One way to drive financial inclusion is through ease of access - and the artificial intelligence and advanced analytics of Fintech provide precisely that. Fintech covers a broad spectrum of financial services, including insurance, investments, payments, and loans. While payment is the largest sector of Fintech in Indonesia, loans that include housing loans, car loans, business loans also hold a vast portion of financial activities done in the country (Luckandi, 2018).

Under the conventional way of loans and credit scoring, requirements such as requests for corporate balance sheets salary slips become barriers for small companies

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and non-salaried lenders to access credit. The advanced analytics and AI for credit assessment can help broaden the pool of credit-worthy clients, enabling credit access to clients who usually would not be able to have access under the conventional credit assessment system. Digital lending services run machine-learning algorithms and advanced data engines to create an increased accuracy of people's credit profiles. These services can also use artificial intelligence to build data from customers' mobiles to help identify and segment risk profiles. With the integration of technology in financial services, credit assessment facilities are accessible to an additional layer of customers.

One of the surveys included whether the ease of funding for financial services has become more accessible with the availability of Fintech. This question in the survey aims to determine if the respondents would agree that Fintech services help them obtain funds more efficiently. More specifically, if they think that obtaining funding is easier with Fintech than the conventional money lending system. The ease of access to these fundings is associated with the ease of having business capital for new business ideas or new project investment endeavors, which can then increase the cashflow of Indonesia. The result of the survey surrounding ease of access in obtaining funding is demonstrated below:

Illustration 5. Survey Responses Based on Statement 5

"I feel that getting funding for various activities (new business ideas, project ideas, etc.) has become easier to reach with the existence of Fintech"

Scale	Number of Respondents	Percentage
1	20	2.6%
2	34	4.6%
3	61	8.2%
4	268	35.9%
5	364	48.7%

Source: **Processed data (2022)**

The second survey highlights how much the mass majority of respondents agree with artificial intelligence technology. As well as the advanced analytics in Fintech would help reach a new pool of consumers that would have otherwise been unreachable. It focuses on asking the respondents to rate if fewer human errors would encourage them more in using financial services. Fernandez (2019) discusses how the use of AI technology significantly escalates and increases the accuracy of consumer profiling, risk management, control of money-laundering, regulatory compliance, and many other features which would require the need of a highly secured and precise system to calculate. The use of algorithms and machine learning to calculate data and

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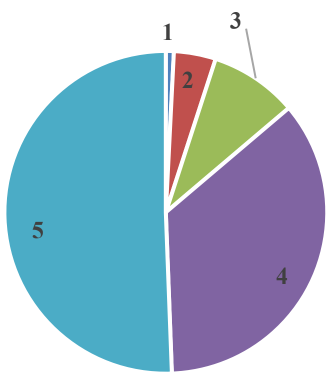
risks and eliminate the threat of mistakes made by human errors can add a remarkable amount of trust to consumers in their participation in financial services. One study found by Lockey *et al.* (2021) concluded that investors could trust fully-computerized artificial financial advisors more than human, financial advisors. With that being said, the second survey being studied would highlight whether or not the minor occurrence of human errors would encourage the respondents to make more transactions financially. The results of the second survey is demonstrated below:

Illustration 6. Survey Responses Based on Statement 6

"The less occurrence of human errors (inaccurate credit scoring, unreliable risk analysis, failed fraud detection, etc.) motivates me in using financial services"



Scale	Number of Respondents	Percentage
1	6	0.8%
2	31	4.2%
3	66	8.8%
4	266	35.6%
5	378	50.6%

Source: **Processed data (2022)**

The questionnaire results show that for both of the surveys conducted, the majority of the respondents mostly agree on previous studies, which theorize that Fintech provides easier access to obtaining funding, which would otherwise be impossible for many people – especially those with a minimalistic credit profile. 35.9% of the pool of respondents strongly agree with the statement that the existence of Fintech has made funding easier to reach, and 48.3% of them strongly agree. Only a minority of less than 10% of respondents either disagree or strongly disagree with the 5th statement being declared.

The 6th statement focuses more on whether or not the reliability of financial services would motivate the respondents more in using financial services. 35.6% of the respondents agree that the more reliable financial services are, the more motivated they are in using the financial services, and 50.6% of the respondents strongly agree to this. These results provided by the survey are in line with the study of previous researchers who came to the same conclusion, proving that Fintech does increase financial inclusion through the increased accuracy, efficiency, and effectiveness of AI technology and advanced analytics.

Eliminate Negligence and Vulnerability of Scams

Negligence comes from a place of not knowing. Having little to no knowledge of something makes an individual more vulnerable to it by default. The rapid rise of

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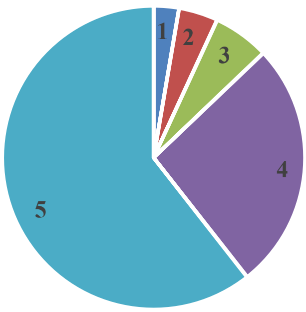
Fintech presents tools that are faster, cheaper, and ultimately better at managing tasks efficiently related to everyday transactions, investments, fields of education, health as well as businesses. The effects of these services can be felt by their direct consumers and indirectly by the masses. It draws a more precise and distinct line for the "out of the loop" population. Moreover, with the rapid growth that the industry continues to experience, the number of people left behind will only be more significant. Lyons *et al.* (2021) explained that groups younger (age 15-24), older (older than 55), female gender, less educated (primary education or lower), and the poor (bottom 20% economically) are the most vulnerable part of the population.

Advancements made in Fintech leave holes that can be exploited. However, it also promotes financial inclusion with most services are designed and updated to ease its' use and accessibility to widen its reach. Some are even targeting the far-end of the market to try to grasp a harder-to-access segment. Although a case can be made that not all inclusion is in the best intention for the included, predatory and unregulated needs to be ethically filtered out. Fintech offers a wide variety of tools and support to those who could not access it before. Its accessibility and constant improvements that strive to include the most amount of people possible, be it for its benefit or the benefit of the masses, helps cultivate financial inclusion. However, it needs to be followed closely with adequate education on financial literacy (San-Jose *et al.*, 2021).

Considering some contradicting values that FinTech offers in terms of scams and vulnerability shown in past research, we have formed a survey participated by 747 eligible respondents. Statement 7 was presented regarding finding out how people feel about the possibility of a FinTech they use being vulnerable to scams and if they would consider using a FinTech over the other if it were not. The result for which are presented below:

Illustration 7. Survey Responses Based on Statement 7

"I would use financial services that have little to no vulnerability to scams"



Scale	Number of Respondents	Percentage
1	20	2.7%
2	31	4.2%
3	45	6.0%
4	198	26.5%
5	453	60.6%

Source: **Processed data (2022)**

Statement 8 focuses on the FinTech users' belief on what FinTech is doing to people's negligence towards their safety to scammers and how it affects people's

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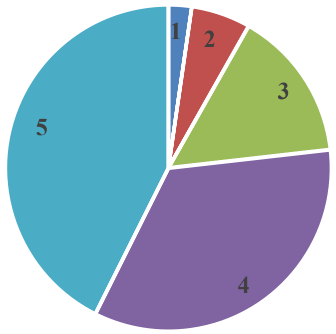
vulnerability towards being scammed. This statement was made to arbitrate FinTech usage and scam vulnerability sentiment—the results are shown below:

Illustration 8. Survey Responses Based on Statement 8

"I believe that Fintech can eliminate negligence and/or vulnerability to scams"



Scale	Number of Respondents	Percentage
1	17	2.3%
2	44	5.9%
3	112	15.0%
4	256	34.2%
5	318	42.6%

Source: **Processed data (2022)**

Through the findings of our survey, we concluded that the general masses agree with the notion that FinTech can help eliminate negligence and vulnerability to scams. 76.8% of respondents agree that Fintech can help eliminate negligence and vulnerability to scams. This percentage is divided into 42.6% strongly agreeing and 34.2% agreeing with the statement. There is a general positivity and belief that the introduction and usage of FinTech in our daily life will promote a practical form of financial literacy, which might generate more critically minded people that are less susceptible to scams in general. Although some slight discrepancy exists, a few people from the survey (around 8.2%) believe the opposite to be true. 15% of the respondents are not inclined to believe in the statement but are unsure of its effects. Such numbers are understandable because of the reasons listed above by some of the research done in the past.

On the contrary, the majority agree that they are more likely to use a financial service with little to no vulnerability to scams. 60.6% of respondents strongly agree that they are more likely to use a FinTech if it is less or not susceptible to scams, with the 26.5% of respondents who also agree with the statement, 87.1% in total.

Fintech's growth and popularity have raised awareness of its vulnerabilities and risks. As a result, countermeasures, insecurity, vulnerability management, exploit prevention from the technical side of things have been researched, and development and implementation are updated consistently (Garcia-Alfaro *et al.*, 2020).

Stimulating Economic Growth

Achieving financial inclusion led by Fintech is not done by the actions of Fintech firms alone but also the actions of stakeholders, including business partners,

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government, policymakers, and customers (Lagna & Ravishankar, 2022). This relationship also goes the other way around, the effect from Fintech's emerging industry consisting of payments. There are fund transfers, personal finance, personal loans, improved traditional deposits/saving accounts, insurance, and wealth management services is not something to scoff at, as it is one of the most rapidly growing industries in the world (Soloviev, 2018). In Indonesia, the digital payment sector alone reached US$32,422 million in 2019 (Abdillah, 2019). Fintech is described to be an engine thrusting forward a developing economy. It could provide traditional and new financial services on demand which is severely convenient and crucial in the next step of innovating businesses. It is based on fulfilling consumer demands as fast as possible such as online banking, peer-to-peer lending, crowdfunding, investments, and many more (Shin & Choi, 2019).

Peer-to-peer lending is one of the top ways. Fintech helps stimulate economic growth. It allows more projects and businesses to be financed and get the funding they need to start and develop. In China, P2P lending captured so much capital that the large banks and other formal financing institutions were forced to innovate to better consumer experience and address problems and inefficiencies in their operational structure to compete with them (Guild, 2017). It heightens the efficiency of asset allocation and money circulation, which boosts consumption and business creation, therefore improving the quality of people and overall economic efficiency.

If the existence of FinTech encourages them to engage more in financial activities. If more of the general population engage in financial activities, not only does it help in improving financial inclusion, but it also helps develop financial literacy in its' users. The responses are presented as follows:

Illustration 9. Survey Responses Based on Statement 9

"I think that the existence of Fintech encourages me to engage more in financial activities"

Scale	Number of Respondents	Percentage
1	22	3.0%
2	35	4.7%
3	57	7,6%
4	258	34.5%
5	375	50,2%

Source: Processed data (2022)

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Lastly, we aim to identify if the services provided by FinTech help in money circulation, not just through borrowing, as shown in a previous statement. However, we highlight its' effect on spending. In this last statement, we asked if FinTech users prefer digital payment when buying goods/services and whether it affects their decision on which business they would buy. The result of the statement is illustrated below:

Illustration 10. Survey Responses Based on Statement 10

"I prefer buying goods/services from businesses that offer digital payment options"

Scale	Number of Respondents	Percentage
1	21	2.8%
2	40	5.4%
3	46	6.2%
4	197	26.3%
5	443	59,3%

Source: **Processed data (2022)**

The survey results shown above conclude that the existence of FinTech promotes the engagement of people in financial activities, with over 84.7% of the respondents agreeing to the notion of which 50.2% of them strongly agree, and 34.5% agree. With more of the general population engaging in financial activities such as investing, saving, spending, and managing their money, the country's economy benefits from it. The result shows that FinTech users prefer businesses that incorporate FinTech into their operations, with 85.6% or 640 out of 747 respondents agreeing that they prefer buying goods/services from businesses that offer digital payment options, and only 8.2% of the respondents disagreeing with the statement.

CONCLUSION

The requisites for financial inclusivity are easy and quick access, affordability, and simplification. A digitalized approach can meet all these requirements. Further implementation of Fintech into society needs to be as accessible as possible. Indonesia is now at a point where using Fintech for financial services is easier and more accessible than the brick and mortar conventional financial services. Moreover, nearly 80% of participants of the survey agreed to the motion suggested in this research which was the hypothesis that the utilization of Fintech does increase financial inclusion.

It is recommended for Indonesia's policymakers to push its people's familiarization with Fintech. This research has shown that the implication of Fintech

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in Indonesia's financial inclusivity efforts will not only increase awareness and teach people financial education but also promote financial literacy amongst them. Additionally, the support of Fintech gives people various advantages in the use of the broad spectrum of financial services, especially in obtaining and giving alternative funding.

Furthermore, this research also argued that using AI with advanced analytical data to better profile people who may not be eligible to borrow under conventional credit assessment systems opens up a new layer of people that can access credit assessment facilities along with a list of other financial services. The increased financing of projects and businesses will stimulate economic growth while driving people into doing more, better, and faster. The rapid growth of Fintech at first can be met with structural holes that can be a vulnerability. However, as Fintech grows, the technology improves, security and scam prevention also advance. Eventually, this research concludes that financial inclusivity can be achieved more efficiently and effectively with the support of Fintech. It brings Indonesia to higher economic growth by achieving a higher financial inclusivity rate.

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