

The Effect of The Application of Financial Technology (Fintech) on the Value of Companies in the Banking Industry Listed on the Indonesia Stock Exchange

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Abstract- The presence of the digital economy is felt by the increasing rise of business and commerce that use the internet as a medium of communication and collaboration of relationships between companies and individuals. In the early 1990s, almost the entire world was affected by the internet revolution, whose main impact was the declining cost in financial transactions. The growth of smartphone user rates in the mid-2000s affected the growth rate of mobile finance, such as mobile payments and mobile banking, which is an extension of financial services. Financial services allow customers to access bank account information and make financial transactions, such as making bill payments and remittances through their mobile devices. Financial Technology (Fintech) as a form of banking and financial services based on software in providing financial services using computer programs and other technologies. The rapid growth of Fintech has changed the business environment in banking, especially financing, where the banking world needs more innovative solutions. Fintech innovations in terms of technology and business models will increase efficiency and capabilities in all areas and aspects of the financial industry, and will even be able to increase the Value of The Firm This shows a bright future in the banking services sector where technology allows more possibilities in financial services and banking. This research is descriptive with a quantitative approach. Quantitative research methods are research methods based on the philosophy of positivism, used to examine in a particular population or sample, data collection using research instruments, quantitative or statistical data analysis with the aim to test hypotheses that have been applied banking in 2018-2020. Based on the results of the study, it can be concluded that fintech has a significant effect on the value of the company (Tobin's q). The more fintech services develop in the banking industry, the more significant the value of the company. Based on the conclusions above, the advice that can be given in the next research is for banks are expected to maintain and further improve fintech services in financial services because with fintech can boost financial services to be better known to the public with their ease and sophistication to access financial services. For future research is expected to use different variables and a longer research period of years in order to obtain more accurate results and can support the results of this study.

Index Terms- Fintech, Value Of The Firm, Tobin's q, Financial services

I. INTRODUCTION

The presence of the digital economy is felt by the increasing rise of business and commerce that use the internet as a medium of communication and collaboration of relationships between companies and individuals. In the early 1990s, almost the entire world was affected by the internet revolution, whose main impact was the declining cost in financial transactions. The growth of smartphone user rates in the mid-2000s affected the growth rate of mobile finance, such as mobile payments and mobile banking, which is an extension of financial services. Financial services allow customers to access bank account information and make financial transactions, such as making bill payments and remittances through their mobile devices.

Technological advances driven by the internet revolution have changed the face of the financial services industry leading to changes in electronic financial services. This change in services is seen in almost all forms of financial services such as banking, insurance and stock trading done by utilizing electronic media, such as internet and the World Wide Web. This financial services system allows anyone and company to access accounts, conduct business transactions, and obtain information about financial products and services without having to make physical contact with financial companies. From a banking point of view, this online system has the potential to gain advantages where operating costs become cheaper, managerial information is clearer, and communication in companies is smoother. Interaction is felt more comfortably with customers and potential customers [1].

Financial Technology (Fintech) as a form of banking and financial services based on software in providing financial services using computer programs and other technologies. The rapid growth of Fintech has changed the business environment in banking, especially financing, where the banking world needs more innovative solutions. In addition, service providers, search engines and social networks also participate in traditional banking services that were originally only carried out by a bank institution. With the growing and the wide selection of funding sources, business environment and geographical spread, it will

automatically lead to an increase in Fintech users. Financial technologists have a great ability to change or restructure existing forms of financial services. Most fintechs combine a form of financial services with additional activities related to e-commerce. In addition, fintech innovation provides a wide choice of services for users, ranging from payment efficiency and security, to better accessibility of financial services. Fintech services result in increased financial service inclusion as well as a new experience in terms of cost efficiency. This is the attraction of fintech, where its presence provides highly focused solutions and provides a more personalized experience to customers in utilizing the power of digital technology that members fish value. The fintech industry is considered more flexible compared to conventional financial businesses or traditional banks where there are still limited regulations governing the financial services industry. This is seen during the process of applying for loans on conventional financial services, with a variety of administrative processes that must be completed by consumers. Unlike the FinTech business, the completeness of the required files is less and can be done by simply uploading the required documents over the internet [4]. Fintech innovations in terms of technology and business models will increase efficiency and capabilities in all areas and aspects of the financial industry, and will even be able to increase the value of the firm.

Based on the above description, this study will test and analyze the effect of the application of financial technology on the value of companies in the banking industry that go public on the Indonesia Stock Exchange.

II. LITERATURE REVIEW

FinTech (Financial Technology) is not only an introduction to the online version of traditional financial services, but rather a new set of solutions from financial services as a whole. The technology applied to the financial system in the fourth Financial (FinTech), according to Merton (2018)[7] cannot necessarily create trust just like that, or cannot be successful without consumer trust, which of course must be rebuilt. FinTech enables cyber-connected physical systems to manufacture, deploy and trade products around the world in a massively distributed system. These technologies have encouraged the efficient and effective development and deployment of financial products in various financial fields. In the third financial and previous periods implemented a top-down ledger system (hierarchical/pyramid system), where trading and payments between two parties were settled in a higher ledger. It can be described as an example, transactions between two people / parties to different banks will be recorded on the central bank's bookkeeping in the local currency. Then, the transaction is in international trade and payments, most of which will be placed in U.S. dollars on the ledger system of the U.S. federal banking authority. For those who do not trust the system, there is a tendency to practice shadow-banking, where there is a transfer of trade and transactions outside the balance sheet and also abroad as a way to avoid existing regulations, taxation and official supervision. Technically shadow-banking is a non-bank financial system, which includes the bond, stock and commodity markets as well as various illegal transactions made 'in cash'. The aftermath of the monetary crisis prompted tighter regulation of traditional players and fostered consumer distrust of traditional financial institutions. This factor is the main trigger for the birth of FinTech. The fundamental difference between FinTech and previous financial systems is the emergence of Blockchain (distributed ledger technology). With the technical innovation of cyber-currency it is possible to conduct Peer-to-Peer (P2P) transactions in the Blockchain system. FinTech ini is a bottom-up system that can technically avoid official surveillance, using virtual currencies/tokens. This cyber currency was created because economic actors do not trust official systems, so they tend to use cyber-tokens (bitcoin) in addition to cash. The pioneering of the FinTech version of the payment system was first carried out by PayPal Holdings Inc. America in 1998[6], by providing payment services that use email accounts. The success of PayPal gaining trust is seen from the number of customers in 2017 which reached 218 million. This can be understood because users can make transactions.

online with his credit card without having to expose his credit card data at the place of online transactions. The success of PayPal followed by a flood of similar services, ranging from Alibaba Group with Alipay in 2004, and Apple with Apple Pay in 2014 and others. Driven by the success of PayPal, other non-financial startups began to emerge, not only payment system companies but widespread including loan companies, asset-management, remittances and various companies in finance globally. In more detail[6] it refers to the portrayal of the Strategic Business Innovator Group (SBI), a Tokyo Japan-based financial services company that it leads, to take the development of FinTech from the beginning to the present, into 3 phases, namely —FinTech 1.0, FinTech 1.5 and FinTech 2.0 which are now underway.

Tobin's q is valuation cost of the firm. Tobin's q is market cost of a corporation's belongings calculated with marketplace price of the variety of stocks high-quality and debt cost (value Of The company) in comparison to substitute value of the business enterprise's belongings. If the company has a cost greater than the preceding base fee, it will have fees to boom returns, and income are possibly to be acquired. primarily based on Tobin's thinking, that the inducement to create new investment capital is excessive whilst securities (stocks) supplying destiny returns may be sold at a better rate than the value of the investment [10] tested Tobin's q as the agency's overall performance gauge in the Multinational control recreation inside the examine it's been determined that the organization's excessive performance, as measured via its very own performance video games on a normal foundation, tobin's q become highest after gambling ten rounds. based on the effects of checking out thru simulations of the game, showing that q statistically has the validity of predictions and its cost must be investigated whilst carried out to other business video games. Tobin's q is unexpectedly being used in a extensive range of monetary studies, inclusive of microeconomics, finance and investment research. In economics the use of q as a measure of added fee "Marginal Q" to provide an explanation for

The company's funding selections, which might be based on income margins. Measurements elevated in the course of the "market growth" in 1990, when researchers noted that tobin's average value seems particularly high as a historical norm. In a review of The Wall

avenue's Valuing e-book: protective Wealth in Turbulent Markets extends the size record again to 1900, masking three previous peak market speculators. [11]

In this study value of the firm measurement to measure the value of the company using the formulation

$$q = (MV + D)/TA$$

Where:

MV = Market value outstanding shares.

D = total Debt.

TA = Total Assets

The interpretation of the Tobins q score is as berjoins:

Tobin's $q < 1$ Describes that the stock is undervalued. Management has failed in managing the company's assets. Investment growth potential is low.

Tobin's $q = 1$ Describes that a stock is at an average. Management is stagnant in managing assets. Investment growth potential is not growing.

Tobin's $q > 1$ Describes that the stock is in an overvalued state. Management succeeds in managing corporate assets. Investment growth potential is high.

Based on the explanation in the above interpretation, investors who will pursue capital gains can take the decision to buy, hold or sell the shares they own. Although Tobin's q has a high appeal to researchers, educators and managers, some criticism has been addressed to Tobin's q. Tobin's q is based on the view that capital market value represents the overall value of installed capital and invested incentives. Recent research on measurement errors suggests that q size may not be calculated correctly if there is a "bubble" in capital market valuations that are continuous over time and that relate to fundamental values.[9] Although Tobin's q is usually correlated with investment in empirical studies, researchers found that this relationship is sometimes weak and often dominated by the direct influence of cash flow on investments.

III. RESEARCH METHODOLOGY

This research is descriptive with a quantitative approach. Quantitative research method is a research method based on the philosophy of positivism, used to examine a particular population or sample, data collection using research instruments, quantitative or statistical data analysis with the aim to test hypotheses that have been applied Data used is secondary data. Secondary data is primary data that has been further processed and presented both by primary data collectors and by other parties. Secondary data is data obtained from records and magazines in the form of financial statements, company publications, government reports, articles, books such as magazine theory and soon. The population in this study is the Banking Industry that has been listed on the Indonesia StockExchange. The number of populations in this study amounted to 45 which can be seen in table 1.

Table 1
Number of Banking Industries Made into Population

No.	Company Name	No.	Company Name	No.	Company Name
1	Bank Amar Indonesia Tbk.	16	Bank JTrust Indonesia Tbk.	31	Bank Oke Indonesia Tbk.
2	Artha Graha International Bank	17	Bank KB Bukopin Tbk.	32	Bank Pan Indonesia Tbk
3	International Business Bank Tbk.	18	Bank Mandiri (Persero) Tbk.	33	Bank Panin Dubai Syariah Tbk.
4	Bank BTPN Syariah Tbk.	19	Bank Maspion Indonesia Tbk.	34	Banten Regional Development Bank
5	Bank BTPN Tbk.	20	Bank Mayapada International Tb	35	Java Regional Development Bank B
6	Bank Bumi Arta Tbk.	21	Bank Maybank Indonesia Tbk.	36	Java Regional Development Bank T
7	Bank Capital Indonesia Tbk.	22	Bank Mega Tbk.	37	Bank Permata Tbk.
8	Bank Central Asia Tbk.	23	Bank Mestika Dharma Tbk.	38	Bank QNB Indonesia Tbk.
9	Bank China Construction Bank	24	Bank MNC Internasional Tbk.	39	People's Bank of Indonesia (Persero)
10	Bank CIMB Niaga Tbk.	24	Bank Multiarta Sentosa Tbk.	40	People's Bank of Indonesia Agroniag
11	Bank Danamon Indonesia Tbk.	26	Bank Nationalnobi Tbk.	41	Bank Sinarmas Tbk.
12	Bank Ganesha Tbk.	27	Bank Negara Indonesia (Persero)	42	Bank Syariah Indonesia Tbk.
13	Bank IBK Indonesia Tbk.	28	Bank Neo Commerce Tbk.	43	State Savings Bank (Persero)
14	Bank Ina Perdana Tbk.	29	Bank OCBC NISP Tbk.	44	Bank Victoria International Tb

15	Bank Jago Tbk.	30	Bank Of India Indonesia Tbk.	45	Bank Woori Saudara Indonesia 1
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Source: Indonesia Stock Exchange

Sampling methods in this study use purposive sampling which is a technique of determining samples with certain considerations or criteria. In determining the purposive sampling sample, it was determined by researchers that some of the criteria used as samples were the Banking Industry that already uses fintech services such as Internet Banking, Mobile Banking, SMS banking, and Phone Banking and publishes annual financial statements from time to time during the research period conducted from 2018-2020. The independent variables in this study are fintech, namely the use of mobile banking, internet banking, sms banking and phone banking. Dummy variables will be used to measure the use of fintech facilities, namely banks that already use fintech facilities, if using only one fintech service such as sms banking are rated 1, if using two types of fintech services such as sms banking and mobile banking or phone banking are given a value of 2, while if using three fintech services such as sms banking, mobile banking, internet banking and so on are given a value of 3, the addition of 4 is adjusted to the fintech facilities used. Data on fintech services used by Islamic banking is obtained from playstore / appstore. While the dependent variable is the Value of the Banking Company which is the value of Tobin's q. The sample in this study was 35 Banking Companies.

In this study, using a simple linear regression statistical analysis the equations used were:

$$Y = a + b.X$$

Information:

Y = Company Value measured by Tobin's q

a = Constant

b = Coefesien regression

X = FinTech

IV. RESULTS

Statistical test results show the following results:

<i>Regression Statistics</i>	
Multiple R	0,922325
R Square	0,850683
Adjusted R Square	0,849233
Standard Error	0,244659
Observations	105

The results of the determination coefficient test above showed that the value of R is 0.922 with R square 85%. This shows that 85% of the variation or change in the value of banking companies in the period 2018-2020 is explained by fintech variables. While the remaining 15% is explained by variables or other causes outside of this research model.

As for testing and proving the influence of fintech variables against Company Value (Tobin's q) in banking in 2018-2020, whether fintech services have a significant effect on the value of the company, then the t (partial) test is carried out whose results can be seen in the table below:

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	-1,2401	0,131421082	-9,43611	0,000
X Variable 1	0,876563	0,036185519	24,22412	0,000

Based on the table above can be seen after using significant values of $0,000 < 0,05$ and T count $24,224 > 2,001$, with beta showing there is a positive relationship or correlation of fintech variables to the value variables of banking companies in the period 2018-2020. Thus the fintech variable affects the value variables of banking companies and the hypothesis proposed in this study can be accepted, namely fintech affects the value of banking companies.

V. CONCLUSION

Based on the results of research and discussion, this study aims to find out the influence of fintech on the value of banking companies in 2018-2020. Based on the results of the study, it can be concluded that fintech has a significant effect on the value of the company (Tobin'sq). The more fintech services develop in the banking industry, the more significant the value of the company.

Based on the conclusions above, the advice that can be given in the next research is for banks are expected to maintain and further improve fintech services in financial services because with fintech can boost financial services to be better known to the public with the ease and sophistication of accessing financial services. For future research is expected to use different variables and a longer research period of years in order to obtain more accurate results and can support the results of this study.

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