Implication of Digital Economy and Financial Technology Towards Performance of Financial Services Sector in Indonesia

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ABSTRACT

Objectives*: This study aims to understand the relationship between financial technology, digital economy, and performance of the financial services sector; as well as to find out the role of digital economy as a mediator in the relationship between financial technology and performance of the financial services sector.*

Methodology*: This study uses a quantitative explanatory approach. The population of this study is financial services sector companies in Indonesia, which is determined using purposive sampling as a method of sampling design. The data used in this study is a secondary data with the research period from 2015-2019 and a total number of 50 data. The data analysis used in this study is path analysis.*

Finding*: The mediating role of the digital economy that influences the relationship between financial technology and the performance of the financial services sector. The influence of financial technology in driving the growth of the digital economy creates a momentum for economic growth and development.*

Conclusion*: The results explained that financial technology and the digital economy has a significant influence on performance of the financial services sector.*

Keywords*: Banking Performance; Digital Economy; Financial Services Sector; Financial Technology.*

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INTRODUCTION

The exponential growth of digitization and internet connectivity is the backbone of the industrial revolution 4.0 in various sectors of the global economy, and it has an impact on the trade, energy, transportation, education, media, health, and financial services sectors. Digital technology lowers information costs and drastically reduces economic and social transaction costs for companies, individuals, and even the public sector. Digital technology is also able to increase efficiency because of its cheaper, faster, and more convenient activities and services. The term digital economy appears in an economic perspective as a concept of economic activity that is based on digital technology. Temasek, and Bain & Company in their report on e-Conomy SEA compiled by Google, estimate that the digital economy in Indonesia as a whole reach US$ 44 billion or equivalent to Rp 624.2 trillion in 2020, and is predicted to increase three times in 2025 of US$ 124 billion (bisnis.com, accessed on January 25, 2021). Indonesia's various denominations in the Google-Temasek-Bain & Company report also validate that Indonesia is on the right track in building its digital economy.

Digital economy facilitates the development of digital financial services, which is able to make cheaper and more efficient transactions, without which cash transactions would be required (Manyika et. al., 2016) and it provides access to 44.3% of Indonesian adults who do not have a formal bank account (Schueth & Simorangkir, 2018). Digital financial services also create opportunities for women, who traditionally do not have the same rights to access bank accounts and digital payment lines, as well as opportunities to access services such as health insurance (Women's World Banking, 2018). One of the industries that was disrupted by digital technology is the financial services industry, which is later known as financial technology (fintech). Fintech is one of the innovations in the financial sector that refers to modern technology (Chrismastianto, 2017). This innovation aims to introduce the practicality, ease of access, convenience, and economical costs (Hadad, 2017). In other words, the progress of financial technology and the digital economy will affect the performance of the financial sector industry. It is known that one of the important elements of the economy that can determine speed and a quality of change is the performance of the financial services sector. Electronic payments and transactions are part of the performance of the financial services sector.

Leading performance in the introduction and use of innovative technology and digital services, namely the financial services sector. The use of digital public services has increased. The use of digital public services has increased. It also becomes a platform to make a better and more prosperous life for the people of Indonesia. National strategies and policies are increasingly being improved with a focus on the areas of policy, regulation and supervision, financial education, and consumer protection.

There have been many studies that prove that financial technology has a significant effect on performance. This is proven by one of the results of a study conducted by Killu (2018) which concluded that financial technology and bank financial performance have a significant positive relationship. This is also supported by the results of research conducted by Chen et al., (2021); Kemboi, (2018); Kristianti & Tulenan, (2021); Ibrahim, (2018) which found a link between financial technology and the performance of the financial services sector. But on the other hand the research results from Chen, X. et al. (2021) shows that perceived difficulty of use as an indicator of financial technology does not have a significant effect on service quality and work efficiency as an indicator of bank performance.

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The gap in the results of this study makes it possible to examine other variables that can mediate the effect of financial technology on the performance of the financial services sector. The development of financial technology is part of the digital economy (Salinger, et al., 2020). Supporting this, the research results of according to Chinn and Fairlie (2006) economic development, financial products, government regulations and IT infrastructure play a role as the main contributors to the country's digital development that cannot be separated from development. of financial technology. The analysis in Jiang's (2021) research also found that the development of financial technology is also able to encourage the growth of the digital economy.

This study will describe and analyze the extent to which the digital economy and financial technology in Indonesia contribute to the performance of the financial services sector. Specifically, the objective of this study is to analyze the influence of digital economy on the performance of financial services sector, analyze the influence of financial technology on the performance of financial services sector, analyze the influence of financial technology on digital economy, and analyze the influence of financial technology on the performance of financial services sector through the digital economy. This study is useful for understanding the influence of the digital economy and financial technology on the performance of the financial services sector. This study contributes to providing important information for central and regional policy makers, as well as financial and monetary institutions, especially Bank Indonesia (BI) and the Financial Services Authority (OJK).

LITERATURE REVIEW

Definition of Bukht and Heeks (2017) which asserts that the digital economy is "that part of economic output derived solely or primarily from digital technologies with a business model based on digital goods or services". The "digital economy" is viewed as a vague concept surrounding a set of industries, a set of outputs (products and services), a set of inputs, production and distribution platforms that are used at varying intensities across the global economy as a whole. Enterprises that exist in the digital economy tend to have business models where changes in the digital technologies trigger fundamental changes in the way the firm's business activities are carried out, as well as how revenues are generated (Veit et al., 2014). Using this definition in this paper provides the flexibility of incorporating all digital business models, as well as digital innovations. The study conducted by Litviskho et al. (2020) who examined the impact of digital economy in the banking sector in Kazakhstan defined the limits of the model digital banking, and defined the specific activities and services banking. It was aimed to discuss more about the understanding of modern features in the banking industry that allow further development. However, the rapid growth of the internet in the popularity of the banking industry explains that there is an effective demand for this banking service. Internet customer service costs become cheaper and can increase customer demand. The development of the digital banking industry requires support from the Central Bank, as well as efforts from every commercial bank. Ali et al. (2018) in his study also investigated and analyzed the nature of the relationship between the development of e-government and the digital economy. The findings indicated a two-way positive relationship between the development of e-government and the digital economy. The rationale for adopting a multidimensional approach is from the theory that underlies the success of e-government in transforming government by summarizing the six dimensions of e-government proposed by EUI along with its culture. The EUI model has six perspectives: ICT connectivity, business environment, socio-cultural environment,

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government policies and visions, ICT business adoption, legal and consumer environment (Economist Intelligence Unit, 2010). Several other studies have shown the influence of the digital economy on financial services. The literature review conducted by Abbasi and Weigand (2017) observed that the rapid technological advances that have manifested the digital economy are factors that affect the performance of the financial services sector. According to Li et al. (2017), the measurement of company performance can be seen from the company profitability, which reflects the company sales, gross and net profits, sales returns, equity, and company investment. The study carried out by Agyapong (2020) and Yuliani et al. (2019) also explained that rapid technological advances through the development of the digital economy are the factor that affects the performance of the financial services sector. Based on this explanation, the hypothesis proposed in this study is:

H1: Digital economy has a positive influence on the performance of the financial services sector.

The innovation of financial technology, in particular, is disrupting business as usual practice in the finance industry. Practitioners and experts agree on the disruptiveness of the new technology synthesized by financial technology firms such as block chain (Cai et al., 2018), crowdfunding (Mollick, 2014). Financial technology has become one of the newest trends in the finance sector. An investigation by Schueffel (2016) found the term "financial technology" to be broadly applied and to describe innovation in the financial sector, using semantic analysis the author finds the most common definition to be "a new financial industry that applies technology to improve financial activities." While this study helps define the ever-broadening term of financial technology, more importantly, it distinguishes the role of financial technology as an industry. Drummer et al. (2016) analyzed 1,500 financial technology companies in the world to gain deeper knowledge about the service excellence and business model of financial technology companies. Andriariza and Agustina (2020) explained that the challenges faced by the financial technology industry in Indonesia comes from the use of technology, condition of the people, and coordination with relevant stakeholders. One of the strategies that can be achieved to overcome these challenges is the development of policies that can be carried out through a 5P scheme based on development strategies, and the development of the financial sector ecosystem in Indonesia. The financial technology industry is all about innovations that can disrupt traditional financial models and products through technological tools (Andrade, 2020). In addition to innovating to develop platforms, financial technology providers will also pay attention to the platform stability and the impact of financial technology on the performance of the operating companies. Killu (2018) determined how and to what extent the financial performance of the banking sector, and reviews theoretical and empirical studies of the magnitude and influence of financial technology on the performance of the financial services sector of commercial banks in Kenya. The research concluded that financial technology and the bank's financial performance has a significant positive relationship. A number of previous studies have also explained the linkage between financial technology and the performance financial services sector (Chen et al., 2021; Kemboi, 2018; Kristianti & Tulenan, 2021; Ibrahim, 2018). Based on this description, the hypothesis proposed in this study is:

H2: Financial technology has a positive influence on the performance of the financial services sector.

The business model of financial technology covers the area of investment, payment, management, financing, and insurance. Maharani and Ulum (2019) revealed that the emergence

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of technological innovation and economic digitization through shopping or media that affect the economic and social activities of the community. The economic system has changed from a conventional manual to a more modern one, or what is commonly known as the digital economy. Furthermore, the study from Ilman et al. (2019) analyzed that financial technology can contribute to financial and economic inclusion because it has the ability to find what the society really needs as well as the ability to simplify the sophisticated and complex technology behind simple products. Salinger et al. (2020) added that the development of financial technology is a part of the digital economy. Tapscott (1996) shows that the digital economy acts as a new economy based on intelligence networks by having 12 characteristics, namely knowledge, digitization, virtualization, molecularization, internetworking, innovation, disintermediation, convergence, prejudice, proximity, globalization, and incompatibility. The findings of an international study by Chinn and Fairlie (2006) show that economic development, financial products, IT infrastructure, and government regulations are the main contributors to the digital development of a country that cannot be separated from the development of financial technology. Further analysis found that the development of financial technology is also able to drive the growth of the digital economy (Jiang, 2021). In other words, the influence of financial technology has a positive correlation with the digital economy. Referring to this explanation, the hypothesis proposed in this study are:

H3: Financial technology has a positive influence on the digital economy.

H4: Financial technology has an influence on the performance of the financial services sector through the digital economy.

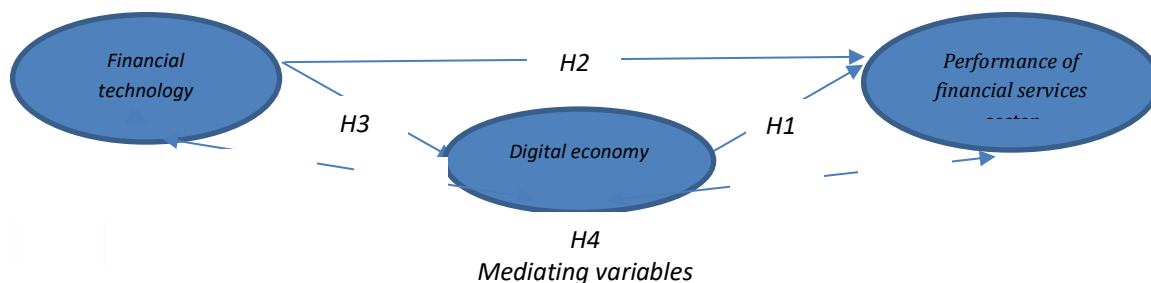Figure 1 presents the conceptual model of our study:

Figure 1. Conceptual Model

METHOD

The type of this study is quantitative research with an explanatory approach. The variables used in this study are the performance of the financial services sector as an independent variable, financial technology as a dependent variable, and digital economy as a mediating variable. The population are companies in the financial services sector, with purposive sampling as the sampling technique. There are several criteria used in the sampling, namely: (1) companies operating in the financial services sector in Indonesia; (2) companies that fall into the category of conventional banking; (3) banks that included in the data collection from the banking performance report (Indonesian Banking Statistics Report – SPI) by the Financial Services Authority (OJK) for 2015-2019 and the total number of 50 data. The type of data used in this study is secondary data, while the data analysis is carried out using path analysis using WarpPLS 7.0 software.

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Variable Measurement

Financial Technology

Financial technology is defined as an industry which consists of companies that use technology to make the financial system and delivery of financial services more efficient (World Bank, 2016). Indicators of financial technology variables are adopted from Ibrahim (2018), namely mobile banking and internet banking. Mobile banking is measured by finding the ratio between the number of transactions through mobile banking and mobile banking users, while internet banking is measured by finding the ratio between the number of internet banking transactions and internet banking users. The ratio data of mobile banking and internet banking is obtained from the website of Indonesia's top brand.

Digital Economy

The digital economy is an economy based on digital technology and the main use of information technology applications, hardware, software and telecommunications in all areas of the economy, including the internal and external activities of organizations (Domazet & Lazi, 2017; Sutherland & Jarrahi, 2018). The variable of the digital economy in this study is measured using several indicators. The first indicator is the Information and Communication Technology Development Index (IP-TIK), IP-TIK is a standard measure that describes the level of development of information and communication technology in a region, the digital divide, the potential for information and communication technology that can be compared across time and between regions. (Central Statistics Agency, 2016). IP-TIK data can be obtained from the Information and Communication Technology Development Index (IP-TIK) report on the website of the Central Statistics Agency (BPS).

The second indicator is Global Innovation Index (GII), which is an annual ranking of countries based on capacity and success in innovation, with the aim of looking at the multidimensional aspects of innovation. The third indicator is Network Readiness Index (NRI), which is an index of technology readiness. It can be known by measuring the tendency of a country to take advantage of the opportunities offered by information and communication technology. The GII data is obtained from the website of https://www.globalinnovationindex.org/, while the data of NRI is obtained from the Global Information Technology Report. The fourth indicator is High-Technology Exports, which is a product with high intensity of research and development such as aerospace, computers, pharmaceuticals, scientific instruments, and electrical machines (World Bank Group, 2019), and the data is obtained from the World Bank Group website. The fifth indicator of the digital economy variable is Share-Households with Internet. This is an indicator that is used to find out the percentage of households that have access to information and services via the internet (BPS, 2019). The Share-Households with Internet data can also be obtained in the Central Bureau of Statistics data.

Performance of Financial Services Sector

The performance of the financial services sector is a subjective measure regarding how well a bank can use the assets of its primary business model and generate avenues. There are three indicators used to measure the performance of the financial services sector, namely Non-Performing Loan (NPL), Capital Adequacy Ratio (CAR), and growth of Third-Party Funds. NPL is a ratio that is used to calculate the percentage of non-performing loans, or loans with maturities of more than ninety (90) days (Dimitrios et al., 2016).

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CAR is a bank's capital adequacy ratio, or the bank's ability in existing capital to cover possible losses in credit or securities trading (Flannery & Giacomini, 2015). The calculation of CAR according to the Financial Services Authority (OJK, 2004) is carried out by comparing the capital owned by banks with the risk-weighted assets (RWA). The Third-Party Funds are non-bank third party deposits which consist of Current Accounts, Savings, and Time Deposits (OJK, 2004). The growth of Third-Party Funds is calculated through the difference in TPF in a certain period and the previous period compared to the TPF of the previous period held by conventional commercial banks for the 2015-2019 period. The data on banking performance with indicators of NPL, CAR, and growth of Third-Party Funds can be obtained from the website of Financial Services Authority (OJK) based on the report of Indonesia Banking Statistics (SPI) of 2015-2019.

Research methods are the strategies, processes or techniques utilized in the collection of data or evidence for analysis and the specification of tools and materials for the research.

RESULTS AND DISCUSSION

Descriptive Statistics
The results of descriptive statistics in this study are presented in Table 1. This study uses panel data from 2015-2019, with a total number of 50 data. The results of statistics indicate that the highest average value comes from the indicator of 'Share-Households with Internet', with the value of 57.30. The lowest average value comes from the IP-ICT indicator. These results also show that all indicators have a standard deviation value below the average value, or less than the average value, so that the level of variation in the data in this study is characterized as low.

Table 1. Descriptive Statistics

	Mean	Std. Deviation
IP-ICT	4.7200	0.59275
Global Innovation Index	29.7000	0.36742
Networked Readiness Index	48.3620	9.74344
Share-Households with Internet	57.3000	13.10037
High-Technology Exports	8.3360	0.35900
Mobile banking	20.6540	2.03531
Internet banking	21.1480	2.78826
Non-Perforning Loan	2.5880	0.20327
Capital Adequacy Ratio	22.7200	0.82502
DPK	7.2860	1.30609

Validity and Reliability
The outer model analysis is carried out to find out the validity and reliability of the research indicator through testing convergent validity, discriminant validity, and reliability. The evaluation of convergent validity is obtained from the outer loading coefficient value for each

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indicator. That research indicator is valid when the outer loading value is above 0.5 (Chin, 1998; Muafi & Roostika, 2014). The results of the convergent validity test are shown in Table 2.

Table 2. Outer Loading Value

Variable	Indicator		Outer Loading	Details
Digital Economy	ICT Development Index	X1.1	0.979	Valid
	Global Innovation Index	X1.2	0.460	Valid
	Networked Readiness Index	X1.3	0.800	Valid
	Share-Households with Internet	X1.4	0.920	Valid
	High-Technology Exports	X1.5	-0.446	Invalid
Financial Technology	Mobile banking	X2.1	0.873	Valid
	Internet banking	X2.2	0.873	Valid
Performance of Financial Services Sector	Non-Performing Loan	Y1	0.937	Valid
	Capital Adequacy Ratio	Y2	0.255	Invalid
	Third-Party Funds	Y3	0.943	Valid

The results of the convergent validity test show that of the 10 indicators used in this study, 8 indicators have values above the testing standard. Table 1 shows that the indicators X1.5 and Y2 each have an outer loading value below 0.50, thus the indicator can be said to be invalid. Thus, indicators with values above 0.50 in this study have met the requirements of convergent validity while indicators with values below 0.50 do not meet the requirements of convergent validity and cannot be used in indicators of this study.

Furthermore, discriminant validity is examined by comparing the value of the square root of average variance extracted. A research model has a good discriminant validity value when the value of the loading factor of each variable is greater than the value of the loading factor of other variables. Table 3 shows that the value of discriminant validity of each variable is greater than the other variables, hence this study meets the measurement standards of discriminant validity.

Table 3. Discriminant Validity Value

	Digital Economy	Financial Technology	Performance of Financial Services Sector
Digital Economy	0.756		
Financial Technology	-0.544	0.873	
Performances of Financial Services Sector	-0.265	0.750	0.782

In order to support the test results of convergent validity and discriminant validity, the Average Variance Extracted (AVE) test is also carried out. The research indicator is valid if the AVE value is greater than 0.50 (Ghozali & Latan, 2014). Referring to the results of the AVE test in Table 4, it can be seen that the AVE value of each construct of this study is greater than 0.5. Therefore, it can be said that all indicators in this study are valid.

The results of the reliability test in this study can be seen based on the value of composite reliability (CR) and Cronbach's alpha. The research indicator is reliable if the CR value is >0.70 (Hair et al., 2015) and for the value of cronbach's alpha with a value of more than 0.60 (Muafi, 2016). The results of the construct reliability test of this study indicate that the CR value > 0.7, for each variable. Thus, it can be concluded that the constructs in this study are reliable.

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Tabel 4. AVE, Composite Reliability, and Cronbach's Alpha

Construct	AVE	Composite Reliability	Cronbach's Alpha
Digital economy	0.572	0.775	0.667
Financial Technology	0.762	0.865	0.687
Performances of Financial Services Sector	0.611	0.796	0.610

Construct Model Evaluation

The inner model analysis is carried out to understand the relationship between the research constructs. The inner model measurement can be seen from the value of determinant coefficients (R-Square or R^2), Predictive Relevance (Q-Square or Q^2), and Goodness of Fit (GoF). The R-Square value of the performance of the financial services sector can be said to be a weak model because it is less than 0.25 (Sekaran, 2014), while the R-Square value of digital economy is a strong model because it is more than 0.75 (Sekaran, 2014). The R-square value of digital economy is 0.834, which indicates that 83.4% of the digital economy variable can be influenced by the financial technology variable, while the 16.6% is influenced by other variables outside the model (see Table 5). The R-square value of the performance of the financial services sector is 0.010, which indicates that the performance of the financial services sector is influenced by digital economy and financial technology by 1%, while the 99% is influenced by other variables outside the research model or the study.

Table 5. R-Square Value

Variable	R-Square
Digital economy	0.834
Performance of Financial Services Sector	-0.010
Value of $Q^2 = 1 - (1 - R_1^2) \times (1 - R_2^2)$	
Value of $Q^2 = 1 - (1 - 0.834) \times (1 - (-0.010)$	
$= 1 - (0.166) \times (1.010)$	
$= 0.832$	

Q-Square Predictive Relevance (Q^2) is used to measure how well the results of the research model. The research model is said to be poor when the Q-Square value is close to 0, otherwise if the value is closer to1, the research model is said to be good. Referring to Table 5, it can be known that the value of Q^2 is 0.832. This value indicates that this research model is good. It also explains that the magnitude of diversity of the digital economy and financial technology variables on the performance of the financial services sector in this structural model is 83.2%, while the 16.8% is explained by other variables that are not included in the research model.

Goodness of Fit (GoF) test is carried out to measure the overall accuracy of the model. The criteria for the strength or weakness of the research model are based on the measurement of Goodness of Fit according to Hair et al. (2014) namely 0.36 (GoF large); 0.25 (GoF medium), and 0.10 (GoF small). Referring to the calculation results of GoF below, the GoF value of this research model is 0.517. Thus, it can be concluded that the overall model can be said to be strong. The equation of GoF is as follow:

$$GoF = \sqrt{\text{AVE} \times \text{R}^2}$$
$$GoF = \sqrt{0.648 \times 0.412}$$
$$GoF = 0.517$$

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Digital Economy and Performance of Financial Services Sector

The p-value of the influence of the digital economy on the performance of the financial services sector is $0.045 < 0.05$ is shown in table 6, thus H1 is accepted. The test results indicate that the digital economy has a positive influence on the performance of the financial services sector. This study is consistent with a number of previous studies from Agyapong (2020); Yuliani et al. (2019); Abbasi & Weigand (2017) who explained that rapid technological progress through the development of the digital economy is a factor that affects the performance of the financial services sector. The context of this study proves that the digital economy is able to increase the performance of the financial services sector. This means that the community paradigm that is centered on technology platforms, such as the internet, mobile phones, or other electronic devices which are used to produce, distribute, exchange, and consume goods/services is able to improve the financial performance achieved by banks. This is possible because of the support from the Information and Communication Technology Development Index and high household internet access (Table 2), so that the process of studying digitization and community implementation is growing more and more active in the financial services sector in Indonesia. However, when looking at the low role of the GII in shaping the digital economy, it still shows that the global innovation in Indonesia has not been able to strengthen the digital economy at the global level.

Every financial services sector uses digital technology to expand its product range. The performance of the banking financial services sector, which is more reflected by Third-Party Funds and NPL (Table 2) requires the banking financial services sector to improve digital lending and saving services that are more effective and efficient. This study is consistent with a number of previous studies from Agyapong (2020); Yuliani et al. (2019); Abbasi & Weigand (2017) who explained that rapid technological progress through the development of the digital economy is a factor that affects the performance of the financial services sector. Litviskho et al. (2020) mentioned that the impact of digital economy in the banking services sector in Kazakhstan has defined the boundaries of the digital banking model and defined the specific features of banking services to better understand the system subject in the features of modern banking. The study conducted by Ali et al. (2018) proved that multidimensional and holistic approaches are very important to understand the digital economy and its relationship with various possibilities.

Financial Technology and Performance of Financial Services Sector

The results show that the p-value of the influence of financial technology on the performance of the financial services sector is $0.048 < 0.05$ (see Table 6), thus H2 is accepted. The results explained that financial technology has a positive influence on the performance of the financial services sector. This study is in line with a number of previous studies who found that there is an influence of financial technology on the performance of financial services sector, especially in the banking sector (Chen et al., 2021; Kemboi, 2018; Kristianti & Tulenan, 2021; Ibrahim, 2018; Phan et al., 2020; Ardiansyah, 2020; Kiilu, 2016). Financial technology can increase the performance of the financial services sector. This means that new innovations in financial services that adapt technological developments to make financial services and systems more efficient and effective are able to improve the financial performance achieved by banks. It is also evidenced by Lisna et al. (2021), who found that financial technology has an influence on the efficiency of financial transactions, as the financial technology business promises more opportunities, flexibility, and security compared to the traditional financial services.

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The use of internet banking and mobile banking in Indonesia has also indicated the acceptance of banking digitization. This is shown by an increase in non-cash transactions in the society. The volume of digital banking transactions has reached 513.7 million transactions, or grew by 41.53% (yoy) with a digital banking transaction value of 2,774.5 trillion at the end of December 2020 (Sahara, 2021). The interaction and affinity of banking customers, which is growing rapidly, supported by the mobile banking functions via smartphones, has become a battle zone, where banks compete fiercely to gain market share (Chen et al., 2021). This study is in line with a number of previous studies who found that there is an influence of financial technology on the performance of financial services sector, especially in the banking sector (Chen et al., 2021; Kemboi, 2018; Kristianti & Tulenan, 2021; Ibrahim, 2018; Phan et al., 2020; Ardiansyah, 2020; Kiilu, 2016). It is also in line with the study carried out by Bashayreh and Wadi (2021) who did a case study in banking performance in Jordan. Litvishko et al. (2020) investigated the impact of financial technology products on commercial banks performance in China during the Covid-19 pandemic. Hannoon et al. (2021) showed that the total level of application of financial technology by Bahraini banks is 70.51%, and that it has a significant positive relationship with financial performance.

Table 6. Hypothesis Test

Variable	Path Coefficient	S.E	P-Value	Details
Digital economy ⟶ Performance of Financial Services Sector	0.526	0.236	0.045	**Accepted**
Financial technology ⟶ Performance of Financial Services Sector	0.516	0.239	0.048	**Accepted**
Financial technology ⟶ Digital Economy	-0.913	0.147	0.002	**Accepted**
Financial technology on the Performance of Financial Services Sector through Digital Economy	-0.480	0.229	0.036	**Accepted**

Financial Technology and Digital Economy

Table 6 presents the p-value of the influence of financial technology on the digital economy of 0.002<0.05, thus H3 is accepted. It can be concluded that financial technology has a positive significant influence on the digital economy. According to a study from Ernst and Young (2017), about a third of digitally active people in the world's 20 largest economies already use financial technology services. This study is in line with Saliger et al. (2020); Tcvetova, (2020); Vardomatskya et al. (2021). Financial technology is able to improve the digital economy. This means that the new innovations in the financial services which adopt technological development to facilitate financial services and system to be more effective and efficient are able to enhance the paradigm of the society that is centered on technological platform such as internet, mobile phone, or other electronic devices that is used to produce, distribute, exchange, and consume goods/services. According to G. (2019), the use of financial technology makes it possible to expand geographical coverage through the development of remote service channels, reduce the cost of financial services, accelerate the launch of new financial products on the market, increase the financial accessibility of people with limited mobility, and ensure cash flow transparency. The higher the service that combines technology and finance where this service provides innovation to business, the higher the relationship between economic activity and new technology to develop the effectiveness of social production would be. This is possible

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because financial technology as measured by mobile banking and internet banking is growing rapidly in Indonesia for economic transactions.

Financial technology drives the growth of the digital economy by proving that internet technology in financial services can come together to create a new momentum for economic growth and development. The success of financial technology is based on a customer service orientation and manifests itself in the transparency, efficiency, low cost, favorable conditions, as well as speed and accessibility. According to a study from Ernst and Young (2017), about a third of digitally active people in the world's 20 largest economies already use financial technology services. This study is in line with Saliger et al. (2020); Tcvetova, (2020); Vardomatskya et al. (2021) who examined the development of financial technology as a part of the digital economy. Further analysis also revealed that financial technology is able to drive the growth of the digital economy (Jiang (2021). China and India are currently at the top of the so-called financial technology adaptation index, because more than half of digitally active people also use digital financial technology. Utilizing the advantages of technology used by the financial technology industry provides good opportunities by taking part in economic activities. The rapid development of financial technology is expected to improve financial literacy in a sustainable manner.

Financial Technology, Digital Economy and Performance of Financial Services Sector
Gomber et al. (2017) argued that the term digital economy includes a wide variety of new financial software programs business, products and services, aiming at enabling customers to interact and communicate with financial institutions more quickly and efficiently. Korir et al. (2015) stated something similar. They indicated that the digital economy has to do with introducing new tools to be used by financial institutions to raise the level of effectiveness and efficiency of the services offered by these institutions to their customers. The study of Muthinja (2016) examined the relationship between financial technology and financial performance of commercial banks in Kenya, as well as the drivers of financial technology at both firm and macro levels. The main objective of the study is to establish the link between financial technology usage and bank performance in Kenya. The study makes several other findings. First, financial technology significantly contributes to firm financial performance, and that firm-specific factors are more important to the firm's current financial performance than industry factors. Second, firm-specific variables significantly drive financial technology at the firm level, with firm size being the most significant driver of financial technology at the firm level. In a similar vein, Elseed and Elzain (2018) emphasized the relationship between financial innovation and the financial performance of banks. The study found that the use of risk forecasting strategies contributes to raising the efficiency of the financial performance of banks, and found that the use of options contracts contributes to raising the financial efficiency of the financial performance of banks. The mediation test is carried out by conducting an online sobel test. The results are briefly presented in Table 6. The p-value of the influence of financial technology and the performance of the financial services sector through digital economy is $0.036 < 0.05$, thus H4 has a mediation. The results concluded that the digital economy mediates the relationship between financial technology and the performance of the financial services sector. The new innovations in the financial services that adapt technological developments to facilitate financial services and systems to be more effective and efficient have led to a community paradigm that is centered on technology platforms, such as the internet, mobile phones, or other electronic devices that are used to produce, distribute, exchange, and consume

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goods/services, so that it can improve the financial performance achieved by banks. Financial technology has provided a positive contribution to the national economy and increased public access to financing. The development of the financial services sector through the development of the financial technology industry enables market development in Indonesia. Through the development of financial technology, industry players in the financial sector can reach the unbanked population. This can happen because in the era of the digital economy, the paradigm used in the development of the financial sector is customer-driven. The presence of various digital platforms in the financial sector will certainly support the acceleration of digital economy growth in Indonesia. Today's global competition demands digital transformation in every line of life. The financial services sector in Indonesia must also quickly transform in that direction so as not to lose competition with other countries. In addition, the development of innovation in input and output technology and the development of high technology in exports must become the concern of all parties, both the government, industry, and the society in order to increase the role of the digital economy in Indonesia. The results of this study are also in line with several previous studies that explain the mediating role of the digital economy (Agyapong, 2020; Al-Dmour et al., 2020). According to Klapper et al. (2016), digital finance also encompasses diverse financial processes such as capital market activities, banking system connectivity, credit scoring, asset securitization, risk management and trade processing. It also extends to cover other financial processes, such as middle- and back-office reporting, customer service, collections and recovery, as well as the compliance with the so-called anti-money laundering-know your customer. It can be argued that financial institutions, particularly banks, have improved their performance and profitability, relying on financial innovations (Scott et al., 2017). In conclusion, the findings confirm that digital financial innovation has an important role in mediating effects on the relationship between the digital economy and the relationship between financial technology and the performance of the financial services sector. Therefore, hypothesis H4 is supported. Moreover, The main statistical results also support the predictive validity of the research concept model. Overall, this study was validated. Therefore, it is concluded that it is very closely related to the digital economy mediating the relationship between financial technology and the performance of the financial services sector.

CONCLUSION

Study on financial technology and the digital economy has become increasingly popular in recent years, and it still needs to be explored further. The results of this study explain that financial technology can directly improve the performance of the financial services sector, which means that new innovations in financial services that adapt technological developments to facilitate financial services and systems to be more effective and efficient are able to improve the financial performance achieved by banks. It is also supported by the role of the digital economy in improving the performance of the financial services sector. The higher the digital economy, the higher the performance of the financial services sector would be. It is also possible because the Information and Communication Technology Development Index is quite high, so that the process of studying digitization and implementation can develop more actively in the financial services sector in Indonesia, especially in the banking sector. This study also found the mediating role of the digital economy that influences the relationship between financial technology and the performance of the financial services sector. The influence of financial technology in driving the growth of the digital economy creates a momentum for economic growth and development.

Financial technology has become a driving force for the growth of the digital economy as indicated by the ratio of the number of transactions made using mobile banking and the ratio of the number of transactions used using internet banking. This needs to be implemented further to help the development of a sustainable digital economy. Specifically, the government must take steps to expand the scope and depth of the usage, as well as utilize the functions of financial technology to advances the digital development finance as an information technology, software, or research service company, who describe themselves in their business description as working as or serving as financial institutions, banking, financial services, wealth management, finance, or payment service in Indonesia with information technology as its carriers. In addition, technological innovation in Indonesia still requires a full attention to be able to play a role in reflecting Indonesia's digital economy globally.

Policy makers must expand accessibility and maintain stability of the performance of the financial services sector to assist economically vulnerable and marginalized countries and overcome difficulties in financing. Financial technology provides impetus for the growth of the digital economy, proving that internet technology in financial services can unite to create new momentum for economic growth and development. Therefore, the financial services sector in Indonesia must adapt its business culture by developing technology, and focus management of communications, IT platforms, social media information, developing network security management, and consumer grouping for more advanced management in this digital era.

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