

RESEARCH ARTICLE

DIGITAL BANKING STOCK PERFORMANCE: THE IMPACT OF COVID-19

I Gst. Agung Pramesti Dwi Putri, S.E., M.Si.*, and Jasmine Priscilla Kho

STMIK Primakara, Jln. Tukad Badung, Renon, Denpasar, Bali, Indonesia

ABSTRACT - The Covid-19 pandemic has catalyzed a dramatic change in entire banking operations. However, not a few banks have transformed into digital banks to continue providing top services to customers. This study aims to identify Indonesia's banking market reaction to the Covid-19 pandemic especially for digital banking industries. The market reaction is seen from the movement in stock prices and stock trading volumes. The research was conducted using qualitative research methods. The sample is PT Bank Jago Tbk. (ARTO) with observation period from January 2020 to December 2021. The results of this study indicate that the market reacts to information entering the market quickly. The speed of information entering the market also accelerates market reactions that occur. The market reacts negatively to negative events and reacts positively to positive events. In addition to confirming the efficient market theory, the results of this study also confirm the signal theory. The president's announcement of the first case of Covid-19 in Indonesia is a bad signal for investors regarding cash flow and the company's future. This study also found that stock prices and volume did not only react to Covid-19 conditions but also corporate actions. Several corporate actions that have an impact on price movements and volume of ARTO stocks are the issuance of rights issues, changes in the company's business processes, and the entry of the new investors. Based on the results of this study, investors in the stock market can pay attention to certain events that can provide buy or sell signals.

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1.0 INTRODUCTION

World Health Organization (WHO) has stated the Coronavirus Disease – 2019 (Covid-19) as a pandemic since 9 March 2020. Covid-19 has changed the condition of society. People are unable to carry out activities freely as before this pandemic. Therefore, people are encouraged to work from home to suppress the spread of Covid-19 disease (Putri & Artani, 2020). It is only recommended to leave the house when it is necessary to do essential things urgently. Several health protocols must be carried out when people have something to do outside their homes. Based on the Decree of the Minister of Health of the Republic of Indonesia Number HK.01.07/MENKES/382/2020, people who leave the house are required to use personal protective equipment in the form of masks that cover the mouth to the chin. In addition, it is mandatory to maintain a minimum distance of 1 meter from other people and not to crowd any places. People are also required to clean their hands regularly and adopt clean and healthy lifestyles. The managers of public places and facilities are also required to support the implementation of this health protocol. This pandemic has unprecedentedly caused social restrictions and closure of national borders (O'Donnell et al., 2021).

Covid-19 has created unprecedented panic and uncertainty, roiling capital markets and bringing down economies globally (Yarovaya et al., 2022). The impact of the Covid-19 pandemic in Indonesia is felt not only in the health sector but also in other sectors. One of the sectors affected is the economic sector. This effect is reflected in the drop in the value of the Jakarta Composite Index (JCI) on the Indonesia Stock Exchange (IDX). Generally, stock prices that move fluctuate are influenced by the amount of demand and supply formed in the capital market. In addition, stock price movements are also influenced by the company's financial performance. For example, research by Fahlevi, Asmapane, and Oktavianti (2018) proved that the financial performance of banking companies, as reflected in the capital adequacy ratio, loan ratio, and the amount of profit compared to assets, affects the stock price of banking companies. On the other hand, stock price movements also reflect investors' reactions to an event. For example, on March 2, 2020, the JCI touched its lowest point at 3,937.63. It means there has been a decline of 27% compared to when Covid-19 was first announced in Indonesia. This happened as a result of the massive sale of stocks by investors due to the uncertainty of the situation during the Covid-19 pandemic (Lathifah et al., 2021). Therefore, investors will react according to the analysis and expectations for the stock.

The banking industry is one of the exciting industries to discuss during the Covid-19 pandemic. The banking industry is an industry with high interaction between producers and consumers. The quality of services a bank provides is primarily determined by the ability of banking personnel to solve problems or customer requests. However, this cannot be done during the Covid-19 pandemic due to restrictions on public activities in public places, including banks. Customers can no

longer freely go to the bank when they need services. The banking sector can also not provide full service due to this social restriction. As a result, banks' business models are under attack on all dimensions, from client services, lending, asset gathering, or payments (Carletti et al., 2020).

The pandemic has catalyzed a dramatic change in entire banking operations. However, not a few banks have transformed into digital banks to continue providing top services to customers. The presence of digital bank services is expected to be able to accommodate the needs of customers who increasingly require online services. According to the Financial Services Authority Regulation Number 12/POJK.03/2018, digital banking services are services for bank customers to obtain information, communicate, and conduct banking transactions through electronic media, which was developed by optimizing the utilization of customer data to serve customers better, fast, easy, and by the needs. It also can be done independently by the customer. This allows bank customers to carry out transactions, including registration, account opening, banking transactions (cash withdrawals, transfers, and payments), and account closing, including obtaining other information and transactions outside of banking products and financial advice, advisory, investment, electronic-based trading system transactions (e-commerce), and other needs of bank customers.

The public welcomed the emergence of digital banks in Indonesia during the pandemic. This is reflected in the rapid development of the number of deposit accounts at digital banks. The Deposit Insurance Corporation (LPS) recorded growth in digital bank accounts, which increased by 8,000 percent year on year as of May 2022. LPS Board of Commissioners Chairperson, Purbaya Yudhi Sadewa said that at the end of 2020, there were only around 179,000 deposit accounts in digital banks. However, these accounts have skyrocketed. There are around 28.3 million accounts as of May 2022 (Bisnis.com, 2022). This growth in the number of customers is undoubtedly a good thing for digital banks in Indonesia. This phenomenon makes the author intend to conduct qualitative research to explore the impact of the Covid-19 pandemic on the performance of digital bank stocks on the Indonesia Stock Exchange. This research will see the performance of digital bank stocks with stock prices and trading volume indicators.

2.0 LITERATURE REVIEW

2.1 *Efficient Market Hypothesis*

The efficient market hypothesis is a paradigm widely used to explain market reactions. Fender (2020) stated that there are several assumptions in the efficient market hypothesis, namely: (a) market participants are homogeneous, rational, and selfish; (b) there are no transaction fees and costs to obtain information; (c) there are no restrictions on short selling transactions; and (d) override the bubble event. Various previous studies have often linked changes in stock prices with emergency conditions stemming from incidents of terrorism, natural disasters, political policies, and financial crises (He et al., 2020). The increase in the number of positive cases of Covid-19 has also been proven to reduce stock price indexes in several countries such as China, Italy, Spain, the United States, and the United Kingdom (O'Donnell et al., 2021).

2.2 *Signaling Theory*

Signaling theory arises from information asymmetry between investors and company management. Investors have less information than managers. Therefore, investors need various information to estimate events that may occur in the future. Information entering the market is considered a signal for investors to find future conditions. This signal will determine the actions of investors. Yasar et al. (2020) said that presidential announcements influence the stock market because they have the power to give signals to the public, both through formal and informal conversations. Investors tend to rely on explanations given by the president regarding specific events and on signals that emerge from the president's statements, especially about Covid-19. Even though the information is already available in the market before the president makes the announcement, confirmation, clarification, and/or additional new perspectives will influence investors' reactions because it is considered reliable information.

2.3 *Bank Jago at a Glance*

PT Bank Artos Indonesia Tbk (ARTO) was established in Bandung 1992. After more than 27 years of serving, the public with conventional banking products, Bank Artos entered a new era in 2019. This movement marked by the entry of PT Metamorfosis Ekosistem Indonesia (MEI) and Wealth Track Technology Limited (WTT) as controlling shareholders, after acquiring 37.65% (by MEI) and 13.35% (by WTT) stake in Bank. To support the bank's lofty aspirations, the management changed its name from PT Bank Artos Indonesia Tbk. to PT Bank Jago Tbk in 2020. Bank Jago is transforming into an innovative technology-based bank to serve the needs of customers in the Small and Medium Enterprises (SME), retail, and mass market segments, by offering bank products and services that are embedded in an ecosystem.

3.0 METHODOLOGY

The research was conducted using qualitative research methods. Qualitative research is used to examine the condition of natural objects, where the researcher is the key instrument, the data collection technique is done by triangulation (combined), data analysis is inductive, and the results of qualitative research emphasize meaning rather than generalization (Sugiyono, 2009). The final results obtained in research with a qualitative approach are in the form of descriptive conclusions and not in statistical calculations. This research approach also used a phenomenological approach

to understand the condition of the community under certain conditions. The phenomenon is the Covid-19 pandemic and its effect on digital banking stock performance. Data were collected in the form of a literature study (library research), which was conducted by collecting data from books, journals, magazine articles, annual report, and internet sources related to research problems. The data that were obtained in the form of secondary data is in the form of stock price and trading volume. Stock prices and stock trading volumes are commonly used to identify market reactions. The internet sources used are data from the idx.co.id, ojk.go.id, company financial reports, and news portals pages.

Data were analysed through 3 stages of data analysis techniques: data reduction, data presentation, and conclusion (Miles & Huberman, 1992). Data reduction is a process of selecting, focusing on simplifying, abstracting, and transforming rough data that emerges from written notes in the field. The data obtained is then compiled into information in the form of numbers, matrices, graphs, and charts that are valid and can be used for conclusions. Finally, conclusions are obtained based on the data that has been presented related to the research problem. The stock is included in the financial sector with characteristics of a digital bank and the highest market capitalization. The sample is PT Bank Jago Tbk. (ARTO). The observation period was carried out from January 2020 to December 2021 using daily stock price data. Daily stock price data were used because this study focuses on events that occur on certain days in stock exchange trading and the investor's reaction on that day. Based on signaling theory, information entering the market signals investors to find future conditions. This signal will determine the actions of investors on the day that event happened.

4.0 RESULTS

The results show that information that enters the market quickly is also responded to quickly by the market. The speed of information entering the market also accelerates market reactions that occur, such as stock market volatility. These results align with the research of Baek et al. (2020), who found that Covid-19 impacted stock market volatility in the United States. In addition, it is also proven that negative news has a higher impact than positive news. March 2, 2020, was the first time a Covid-19 case was announced in Indonesia. Also, during the same month, the government began to enforce a social restriction policy for the community. This social restriction policy is carried out by directing all community activities to be carried out from home, starting from work, study, and other activities, including financial activities related to the banking sector. The banking sector, which has been emphasizing providing personalized services to its customers, has begun to change how they work by providing services without face-to-face or online. One of the banks that has transformed into digital banks is PT Bank Jago Tbk. (ARTO).

ARTO stock price condition before the announcement of Covid-19, from early January to early March 2020 fluctuated. As shown in Figure 1, on January 2, 2020, ARTO opened at Rp. 3,200 but closed lower at Rp. 3,100. ARTO stock price from January to March 2020 trading touched the highest Rp. 4,110, on January 28, 2020, but could not be maintained. On March 2, 2020, ARTO could only close at a price level of Rp. 3,110. Looking at the price trend, from January 2 to March 2, 2020, ARTO stock moved in a sideways phase. The sideways phase shows that the stock price is in a sideways trend. In other words, the stock price is not in an uptrend or downtrend. The JCI movement experienced different conditions in the same period. JCI has started its downtrend phase in this period.



Figure 1. ARTO Movement (January – March 2020)



Figure 2. JCI Movement (January – March 2020)

Since March 2, 2020, ARTO stock price has weakened. During trading in March 2020, ARTO was in a downtrend phase. Investors are pessimistic and tend to sell their stocks due to Covid-19. This result aligns with the research of Hasan et al. (2021) which revealed that the stock market experienced very high anxiety and fear due to the escalation of the Covid-19 crisis. The market reacts negatively to adverse events and reacts positively to positive events (Endrikat, 2016). This trend of adverse stock price movements proves that investors responded to information about the entry of Covid-19 into Indonesia by selling their stocks. However, this downtrend phase lasted only one month, and ARTO entered the sideways phase again in early April 2020. The sideways phase occurred precisely from April 3 to June 10, 2020. ARTO was traded at a price range of Rp 795 – Rp. 1,060 during these three months. On June 11, 2020, ARTO managed to break out from its sideways phase by successfully closing at Rp. 1,185. This breakout does not necessarily change its sideways trend into an uptrend phase. ARTO has returned to its sideways period, which is quite long, namely during the trading period from July 2 to December 2 2020. During this sideways period, ARTO is traded in the price range of Rp. 2,500 – Rp. 2,900.



Figure 3. ARTO Movement (March 2020 – December 2020)

The reversal period for ARTO only really materialized in the trading period from December 2, 2020, to December 30, 2021. During this year, ARTO was traded in an uptrend phase, even though there were price fluctuations on the day trade, either a decrease or an increase in stock prices. ARTO's stock price rose significantly. On December 2, 2020, ARTO

closed at Rp 2,910. Meanwhile, ARTO was successfully closed at Rp 16.000 at the end of the trading day on December 30, 2021. Although on this day, ARTO closed at a maximum decline of -6.57%, still, ARTO has increased by 400% as of December 2020. Not only the stock price, the trading volume is also increase.



Figure 4. The Uptrend Period of ARTO (December 2020 – December 2021)

5.0 DISCUSSION

This study aims to identify Indonesia's banking market reaction to the Covid-19 pandemic especially for digital banking industries. The market reaction is seen from the movement in stock prices and stock trading volumes. The stock price reflects the market reaction because it is formed from the forces of demand and supply of stocks in the market. Stock trading volume refers to the number of stocks traded in the market. The higher the stock trading volume, the more the number of stocks changing hands from one investor to another. Changes in stock trading volume reflect fluctuating supply and demand for stocks, which are manifested by changes in the behaviour and decisions of investors. Both stock price and stock trading volume are dynamic aspects that reflect market forces.

The results of this study indicate that the market reacts to information entering the market quickly. The speed of information entering the market also accelerates market reactions that occur. The market reacts negatively to negative events and reacts positively to positive events. If traced further, the movement of ARTO stock price was not only the result of investors' reactions to Covid-19. Specifically, several events also affect the movement of ARTO stock price during the observation period, which can be described as follows.

Table 1. Summary of event

Date	Event	Impact
March 2, 2020	President Joko Widodo announced the first Covid-19 case in Indonesia	ARTO price closed down to 2.81%. The beginning of March was a short-term downtrend for ARTO that lasted one month. This downtrend phase is a reaction to the entry of Covid-19 into Indonesia.
March 30, 2020	Ex-date right issue	ARTO ended its downtrend phase. The rights issue was issued to strengthen the company's capital structure - the dilution of stocks of 21.65% to shareholders who did not realise their rights. After the issuance of this rights issue, investors tend to wait and see that makes ARTO become sideways again.
June 11, 2020	Change of name to PT Bank Jago Tbk.	June 11, 2020, ended ARTO sideways phase into a short-term uptrend phase until July 2020. The announcement of the official name change confirms the company's transformation from a conventional bank to a digital bank. Investors responded positively, so ARTO closed up to 16.75%.

Table 1. (cont.)

Date	Event	Impact
December 2020	Gojek become investor	ARTO re-entered the sideways phase from July 2020 to early December 2020. December 2020 was the beginning of the sideways phase of ARTO stocks, turning into an uptrend phase until the end of 2021. The entry of Gojek triggered this through its subsidiary Gopay as the owner of ARTO. Gojek's ownership reaches 22% in ARTO stocks. This event was responded to positively by the market because it was considered that they could reach digital bank consumers more broadly. The positive response was seen from the soaring price of ARTO's stocks, which reached Rp. 19,050 in July 2021. In early December 2020, the stock price of ARTO was still at Rp. 2,900. ARTO trading volume also increased during this period.

In addition to confirming the efficient market theory, the results of this study also confirm the signal theory. The president's announcement of the first case of Covid-19 in Indonesia is a bad signal for investors regarding cash flow and the company's future. This bad signal triggers a market reaction in the stock exchange. The bad precedent regarding the impact of Covid-19 on the economy in several countries reinforced negative signals that were able to form new stock prices. Furthermore, the announcement regarding the entry of Covid-19 in Indonesia has proven to increase the stock trading volume of most banking companies on the stock exchange. This increase in stock trading volume refers to an increase in the number of stocks sold by investors, so that it is correlated with a decrease in the stock price of banking companies. This result is in accordance with research by Haroon and Rizvi (2020) which found that the panic arising from news that emerged about Covid-19 was related to an increase in stock market volatility.

Changes in stock trading volume after the presidential announcement can be explained by the possibility of panic selling and/or panic buying around the announcement. Negative sentiment arising from the announcement can trigger three investor reactions: hold, sell, or buy stocks. The decision to hold stock ownership can occur if investors have confidence that the performance of the stock and the company will improve again and will provide profits in the long term. On the other hand, panic selling is carried out by investors when there is excessive concern about the company's cash flow in the future, so they prefer to sell their stocks even though there is a significant decline in stock prices. Investors in countries with a high culture of uncertainty avoidance will do panic selling to avoid uncertainty that leads to declining stock returns (Ashraf, 2021). This study also found that stock prices and volume did not only react to Covid-19 conditions but also corporate actions.

On the other hand, long-term investors who believe that buying stocks when the price is cheap can provide large profits in the future will make large purchases. This can also be explained by the Emergent Norm Theory. This theory explains that when an emergency occurs, society will form new norms that will direct the behaviour of each individual (Levine & Hogg, 2014). A person's individualistic attitude will strengthen during an emergency, so that it can lead to an overreaction in the market (Fernandez-Perez et al., 2021). The higher a person's individualistic attitude, the higher the individual's reaction to immediately secure his position from the bad possibilities that could happen to his investment, and/or also take advantage of the emergency to get more profits. This can be done either by buying and/or selling a collection of stocks, depending on which one is considered more profitable for the individual.

6.0 CONCLUSION AND IMPLICATIONS

Covid-19 has changed the condition of society. People are unable to carry out activities freely as before. However, not a few banks have transformed into digital banks to continue providing top services to customers. The presence of digital bank services like ARTO is expected to be able to accommodate the needs of customers who increasingly require online services. The results of this study indicate that the market reacts to information entering the market quickly. The speed of information entering the market also accelerates market reactions that occur. The market reacts negatively to negative events and reacts positively to positive events. In addition to confirming the efficient market theory, the results of this study also confirm the signal theory. The president's announcement of the first case of Covid-19 in Indonesia is a bad signal for investors regarding cash flow and the company's future. This study also found that stock prices and volume did not only react to Covid-19 conditions but also corporate actions. Several corporate actions that have an impact on price movements and volume of ARTO stocks are the issuance of rights issues, changes in the company's business processes, and the entry of the new investors. The limitation of this study is that it only conducts case studies on ARTO. For further research, it can be done by taking more digital bank samples for research. In addition, a comparison of the performance of digital bank share prices can also be made when the Covid-19 pandemic is under control.

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