

# The Investor Sentiment and Market Reaction Before and During the Covid-19 Pandemic on Indonesia Stock Exchange

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## ABSTRACT

This research was conducted to analyze investor sentiment on market reactions over two different periods. The analysis was conducted before and during the covid-19 pandemic on the Indonesia Stock Exchange. Investor sentiment uses trading volume proxies and consumer confidence indexes while market reactions use The Composite Stock Price Index (IHSG) proxy. Data collection with documentation and using a quantitative approach. The results prove that before the covid- 19 pandemic investor sentiment did not influence the market reaction. On the contrary, during the covid-19 pandemic investor sentiment influenced the market reaction. Trading volume is a variable that has a positive and significant effect on IHSG, otherwise, the consumer confidence index does not affect IHSG. During the pandemic, the share price was at a low point and consumer confidence dropped to pessimistic. At short-selling, irrational investors will tend to make transactions, when their pessimistic investors buy falling stocks in the hope of higher returns after the pandemic. Investor sentiment causes a difference in stock price sensitivity patterns. Investor sentiment produced by trading volume is a source of positive risk caused by information that existed during the Covid 19 pandemic.

Keywords: Consumer Confidence, Investor Sentiment, Stock Prices, Stock Volume, IHSG.

# **1. INTRODUCTION**

World Health Organization (WHO) explains that Coronaviruses (Cov) are viruses that infect the respiratory system. This virus infection is called covid-19. Coronavirus causes common colds to more severe diseases such as Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV). The virus is rapidly spreading and has spread to several countries, including Indonesia. Transmission of covid can be infected through various means, namely a). Holding the mouth or nose without washing your hands first after touching objects affected by a splash of saliva sufferers Covid-19, b). Accidentally inhale a splash of saliva from sneezing or coughing covid-19 sufferers. c). Close contact with covid-19 sufferers. The spread of coronavirus is very fast even to the whole country. The spread of coronavirus has spread to various parts of the world including in Indonesia. In Indonesia, the spread of the virus began on March 02, 2020, and has had an impact on the Indonesian economy, both from trade, investment, and tourism factors. Coronavirus also has an impact on investment because people will be more careful when buying goods or investing. Coronavirus also affects market predictions.

Another factor, coronavirus not only has a negative impact but can also have a positive impact on the Indonesian economy. One of them is the opening of new export market opportunities other than China. In addition, this opportunity to strengthen the domestic economy can also be carried out because the government will prioritize and strengthen domestic purchasing power rather than attracting profits from abroad. This condition can be used as a correction so that investment can be stable even though the global economy is unstable [1].

In the study of behavior in the field of economics, the emerging economic behavior [2], states that individuals in assessing and choosing alternative decisions are not always consistent and rational with the theory of the utility of goods/services. This theory assumes that the individual who makes the decision is rational, but often the decision-maker is not rational at the time of making his choice.

The efficient market theory states that investors cannot use publicly available information such as historical stock prices or trading volumes to find excess returns on the stock market [3]. However, financial conduct studies have provided empirical evidence that investor sentiment and their behavior can significantly affect asset returns and create overpayments.

Investor sentiment is the view or opinion of investors anticipating the share price in a market. Investor sentiment will react positively if the market gives a positive sentiment, and vice versa [4]. Reference [5] stated that the investor sentiment arose due to the tendency of investors to speculate. Such sentiment drives relative demand for speculative investments. Reference [6] found that the sentiment expressed by journalists could drive a broad index. There are always events in the stock market when investors overreact to some news either positively or negatively [7]. The Composite Stock Price Index (IHSG) is a value used to measure the performance of stocks listed on a stock exchange. So IHSG is something data about the movement of the combined stock price used to measure the ability of stocks listed on a stock exchange until a certain time.

Reference [8] found that shares in the news caught the attention of individual retail investors and led to their buying.

Investor sentiment is often referred to as market sentiment, which cannot be calculated, but some indicators support the emergence of such sentiment Supporting indicators such as the investor's view of each cash flow of each company, then the volume trading conducted by investors when conducting transactions on the exchange, and consumer confidence index that can affect investor sentiment.

Investor sentiment is a belief in how future cash flow and investment risk cannot be measured by fundamentally definite results[9]. Reference [10] suggests that overreacting investors will significantly affect sales, sales quality, operating profit, profit quality, cash flow, and return on shares. Positive sentiment is proxied by eight measures, namely a). Investor Surveys, b). consumer Confidence, c). Trading volume, d). Mutual fund flows, e). Dividend premium, f). Closed-end fund discounts, g). First-day returns on initial public offerings, h). The volume of initial public offerings [11].

Trading Volume, Reference [12] states that a trading volume is several stocks traded daily. So the large trading volume proves that the stock is buying a lot. News from the Wall Street Journal about public companies and codes them according to positive or negative words to analyze implicit sentiment. Positive and negative sentiment predicts trading volume [13].

Consumer confidence. Reference [11] stated that Consumer confidence is the confidence of consumers about how the current economic situation in a country. So, there is an organization that conducts surveys in several regions to find out how consumers view the current economic situation.

The theory of the consumer confidence index is a composition used to measure the ability and willingness of one individual to buy the hope that there may be additional information to determine consumer behavior [14]. Reference [15] was used as a survey of business data from the European Commission and financially interested organizations.

Figure 1 shows the development of IHSG stock price in Indonesia before the covid-19 period and during the covid-19 period, namely from November 2018 to April 2021.

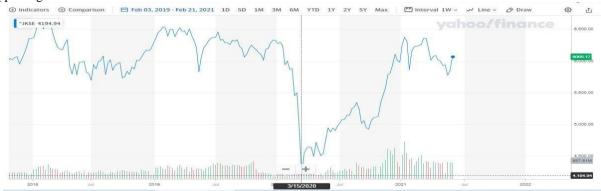


Figure 1. IHSG Development in Indonesia

Figure 1 shows that IHSG's share price initially fluctuated steadily. Then in March 2020, IHSG moved down drastically to the lowest point. The very low decline in IHSG occurred during the start of the covid-19 outbreak in Indonesia on March 15, 2020. This makes investors take steps to secure their shares so as not to lose money. After that, IHSG's share price began to improve and increase, although it still did not return to normal.

The purpose of this study is to analyze and prove the influence of investor sentiment on the Indonesia Stock Exchange before and during the covid-19 pandemic. The research looks at how investors view stock price movements before and during the covid- 19 pandemic. Investors also pay attention to the volatility of the stock price, which is how the share price rises and then falls drastically at the lowest point during the pandemic. This condition is called negative investor sentiment. Similarly, when the share price is from falling to the lowest price, then it starts to improve and moves upwards. This condition is said to be positive investor sentiment, and it is investors may be prepared to sell. Investor sentiment can also be attributed to behavioral finance, investor sentiment can be overconfidence.

This phenomenon of overconfidence sees the behavior of investors who feel confident with the purchase of the shares they choose. However, this overconfidence behavior makes investors usually become noise traders, which is the habit of investors not to look at the fundamental analysis side but to look at trend analysis only. So investors are too quick to make decisions in the purchase of the shares they choose.

Based on this study several similar studies have been conducted by other researchers, but there are differences of opinion with the results obtained. Previous research on investor sentiment and market reaction or stock performance, namely Reference, [16-19] research shows that investor sentiment affects stock returns or market reactions in the stock market. Reference [10] suggested that the overconfidence of investors significantly affected the return of shares on the Tehran Stock Exchange.

Other research from reference [20,21] shows that the volume of each trading transaction affects the relationship between trading volume and stock price volatility or market reaction. In contrast research [22], [23] stated no relationship between trading volume and returns on stock indices on the stock market. In addition, research [24,25] suggests an influence between consumer confidence and stock prices. In contrast to research [26], it states that the relationship between consumer confidence and stock prices is counterintuitive.

The difference between this research and previous research is that previous research was examined outside Indonesia and at a time when the economy is still stable while this research was conducted in Indonesia before the covid-19 pandemic and during the covid-19 pandemic. The covid-19 pandemic is an interesting period to research because the occurrence of covid- 19 has a tremendous impact on the world at large and for Indonesia in particular.

A. Framework

Based on the background, the theoretical approach, and relevant research, the frame of thought in this study can be seen in Figure 2.

Based on the frame of thought that has been expressed above, the hypotheses of this study are:

H1= Trading volume and consumer confidence are variables that affect IHSG on the Indonesia Stock Exchange before the covid 19 pandemic. H2 = Trading volume and consumer confidence are variables that affect IHSG on the Indonesia Stock Exchange during the covid 19 pandemic.

## 2. METHODS

The subjects of this study were the Indonesia Stock Exchange and Bank Indonesia. IDX provides data on research objects in the form of trading volumes of all companies that go public and the composite stock price index (IHSG). The data is obtained through www.finance.yahoo.com and www.idx.co.id sites. BI provides data for consumer confidence index research objects. This data is obtained www.bi.go.id site.

The dependent variable used in this study is the Composite Stock Price Index (IHSG) closing price each month (closing price) before and during the covid-19 pandemic period from November 2018 to April 2021. The independent variable used in this study is the trading volume which is the monthly average volume for the period November 2018-January 2020 as many as 627-671 companies, while the period February 2020-April 2021 increased by 677-717 companies. Consumer confidence index data obtained secondary data from the Bank Indonesia website (www.bi.go.id) conducted by Bank Indonesia. If the index is above 100 it means optimistic, otherwise below 100 means pessimistic. Monthly historical data of consumer confidence index from November 2018 to April 2021.

The sampling method used is non-probability sampling, using the purposive sampling technique with the number of observation samples based on the 2018-2021 study monthly. The data used in this study is secondary data. The analysis techniques used in this study are multiple linear regressions with 2 equations, namely before the covid-19 pandemic in 2019 and during the covid-19 period in 2020. Multiple linear regressions with the formula:  $Y = a + b_1 Ln X_1 + b_2 X_2 + e$ 



#### **3. RESULTS AND DISCUSSION**

Descriptive analysis are presented with 2 tables, namely description analysis before the covid 19 period and description analysis during the covid 19 pandemic.

**Table 1.** Descriptive Analysis Before the Covid-19

 Period

Variable	Minimum	Maximum	Mean	Standard Deviation
LnTrad Vol1	15.41	16.89	16.40	0.40
Cons Conf1	118.40	128.20	124.51	2.66
IHSG1	5940.05	6532.97	6272.44	177.73

**Table 2.** Descriptive Analysis During the Covid-19

 Pandemic

Variable	Minimum	Maximum	Mean	Standard Deviation
LnTrad Vol1	15.46	17.20	16.30	0.62
Cons Conf1	77.80	117.70	91.10	11.84
IHSG1	4538.93	6241.80	5362.08	554.03

Based on Table 1 description analysis before the covid 19 period, it can be known that IHSG has an average of 6272.44 every month while in Table 2 during the covid 19 pandemic the average IHSG decreased to 5362.08. In addition, the average consumer confidence before the covid 19 period of 124.51 fell to 91.10. Although consumer confidence and IHSG decreased the average trading volume was almost the same before and during the covid 19 pandemic, which was 16.30.

The results of this study produced two equations, these two equations have been tested with a classic assumption test so that the resulting coefficient value is good or unbiased. Based on the results of the analysis obtained that the results of this study are normally distributed, free from multi celerity, heteroscedasticity, and autocorrelation.

Table 3.	Analysis	Before the	Covid-19 Period	
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Variable	Coefficient	Value t	Significance
Constant	2145,83	0,778	0,452
LnTrad Vol1	0,122	0,465	0,650
Cons Conf1	26,058	1,484	0,164
R = 0	,420		
R Square	= 0,176		
Adj.Rsquare	= 0,039		
F statistics	= 1,284		
Sign $F = 0$	,312		

Based on Table 1 which describes the analysis before the covid-19 period, the value of adjusted determination coefficient R2 is 0.039 or 3.9%. This result shows that a very small change in the value of IHSG is explained by trading volume and consumer confidence of only 3.9%, while the value of the adjusted R2 coefficient of determination during the covid-19 pandemic is 0.684 which means that the change in IHSG can be explained by trading volume and strong consumer confidence of 68.4%. The remaining 31.6% were explained by other variables outside the study model.

Table 3 of the results of research before the covid-19 pandemic Fount value of 1,284 with a significance of 0.312. This means that simultaneous trading volume and consumer confidence do not affect IHSG changes. In Table 3 the results of this test by looking at the significance value, it can be concluded that

- a). Before the covid-19 period, trading volume did not affect the IHSG, while during the covid-19 pandemic, trading volume had a positive and significant effect on the IHSG.
- b). Partially, consumer confidence has no significant effect on the IHSG, both before covid-19 and during the covid-19 pandemic.

# The influence of investor sentiment is the market reaction before and during the covid-19 pandemic.

The results of this study showed before the covid-19 period investor sentiment produced by trading volume and consumer confidence did not influence the market reaction projected by the IHSG Composite Stock Price Index. Before the pandemic, the stable state situation did not trigger to make a lot of investments because of the stable return on return. This research is done by research [28] suggesting that the impact of investor sentiment on market reactions is temporary. So it could be that sentiment doesn't affect stock price changes, unless extreme investor sentiment can trigger a market reaction.

In addition, Reference [29] suggests that the performance of stocks was different before and after the 2007 crisis. Similarly, Reference [30] that there are differences in the influence of fundamental factors on the performance of stocks before and during the conomic crisis of 2007.

Reference [11], found that if investor sentiment is at a low position, then the returns are relatively high for low capitalization with smaller company sizes, new stocks, high volatility stocks, unprofitable stocks, stocks that do not pay dividends, speculative companies with the extreme growth potential of stocks, and distressed stocks, then investors will reduce their investments. But when investor sentiment is at a high, then some stock categories are relatively low. On the contrary, the results of research during the covid-19 pandemic investor sentiment had a significant effect on the market reaction. This result is by the theoretical framework that has been discussed previously that states trading volume and consumer confidence are variables that affect the composite stock price index (IHSG) on the Indonesia Stock Exchange during the covid-19 pandemic. During the pandemic, the stock price was at a low point and consumer confidence declined flat below 100 which means that pessimistic investor confidence, turns out that low stock prices can trigger investors to invest in the hope of higher returns after the pandemic, thus affecting the market reaction.

The results of this study agree with [5] which states that at the time of short-selling has a larger price than at the opening and closing of long positions, then irrational investors will tend to make transactions and increase liquidity, at a time when investors are optimistic they will buy stocks that are rising while when investors are pessimistic they buy stocks that are falling. The results of this study are reinforced by [18] research on investor sentiment which can lead to differences in stock price sensitivity patterns. Research [19] also stated investor sentiment was one of the possible causes of asymmetric stock market reaction.

The results of this study support the empirical study of [17] research that investor sentiment is a positive and significant risk factor in the Mexican stock market. Research [4] that investor sentiment had a positive and significant effect on market reaction.

# The effect of trading volume on the Composite Stock Price Index before and during the covid-19 pandemic

Partially the results of this study stated that before the covid-19 period volume trading did not affect the composite stock price index (IHSG). The results of this study agree with the research of [22] that the trading volume has nothing to do with returns on Greek stock indices. The results of this study were reinforced by [23] which suggested that trading volume does not always have a significant relationship with stock returns due to fundamental factors that further influence market reaction.

In contrast to the results of research during the covid-19 pandemic that the volume trading has a direct and significant influence on IHSG. So, the higher the trading volume, the higher the IHSG. Trading volume exerts a dominant influence. During the covid-19 pandemic trading volume in IDX is quite high, this affects IHSG. This study agrees with research [20] finding that there is a significant relationship between trading volume and returns on the Taiwan Stock Index using the VAR method. Trading volume is a source of risk resulting from the information available. Reference [31] stated that using trading volume as a proxy since their arguments about active trading involve the attention of investors in analyzing portfolios and fundamental assets. This result is reinforced by [21] that trading volume affects the share price, this is due to the imbalance of stock demand-supply is an important factor that affects stock returns.

# The Effect of Consumer Confidence on the Composite Stock Price Index before and during the covid-19 pandemic

The results of this study show that before and during the covid-19 pandemic consumer confidence did not have a significant influence on IHSG. consumer confidence decreased before and during the covid-19 pandemic which is below the number but does not influence the market reaction.

Reference [25] said about the level of consumer confidence that describes how consumer confidence in the economic situation and their income ability, these two factors can affect people's economic decisions such as saving, investing or shopping activities. The results of research [26] also stated that the relationship between consumer confidence and share prices is counterintuitive.

## 4. CONCLUSIONS

Before the covid-19 period, investor sentiment consisting of trading volume and consumer confidence did not affect the market reaction generated by IHSG. Conversely, during the covid-19 pandemic investor sentiment had a significant effect on the market reaction. Investor sentiment causes differences in stock price sensitivity patterns. Investor sentiment is one of the causes of the stock market reaction.

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