

IS THERE ANY EFFECT OF COVID 19 ON THE PERFORMANCE OF THE SHARIA STOCK INDEX?

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ABSTRACT - The implementation of social distance during the Covid-19 pandemic has an impact on economic activity and stock market indices. Evidently, the increase in confirmed cases has had no discernible effect on economic activity. This article compares the performance and returns of the Islamic stock index before and after the pandemic. Data were gathered from the Jakarta Islamic Index (JII), the Indonesian Sharia Stock Index (ISSI), and the Jakarta Islamic Index 70 (JII70) for the April 2019-March 2020 (pre-Covid-19) and April 2020-June 2021 (post-Covid-19) periods. The Paired Sample-T Test was employed to compare the return values of each Islamic stock index. The results show that these indices performed better in Covid-19 than in previous years. The independent sample test reveals that only the ISSI index demonstrated a statistically significant difference between returns before and during the Covid-19 periods. This study concludes that Covid-19 has implications for increasing the average return and decreasing the risk of all sharia indices studied during the observation period. Analysts predicted that rising prices would boost sharia stock returns, beginning with BRI sharia shares and spreading to other sharia industries such as ANTM, INCO, EMTK, and the banking sector.

Keywords: Return, Sharia Stock, Covid 19, Comparison

ABSTRAK – Adakah Pengaruh Covid 19 Terhadap Kinerja Indeks Saham Syariah? Penerapan social distancing selama masa pandemi covid-19 berdampak pada aktivitas ekonomi dan indeks pasar saham. Hanya saja, peningkatan jumlah kasus terkonfirmasi virus corona tidak berpengaruh signifikan terhadap aktivitas ekonomi. Tujuan artikel ini adalah untuk menguji perbedaan kinerja dan return indeks saham syariah pada periode sebelum pandemi dan setelah pandem. Data penelitian merupakan data saham syariah yang dikumpulkan dari Jakarta Islamic Index (JII), Indeks Saham Syariah Indonesia (ISSI) dan Jakarta Islamic Index (JII70) periode April 2019 – Maret 2020 (sebelum Covid-19) dan periode April 2020 – Juni 2021 (saat Covid-19). Data analisis menggunakan Paired Sample-T Test untuk mengkomparasi nilai return masing-masing indeks saham syariah. Hasil penelitian menunjukkan indikasi kinerja indeks saham syariah yang lebih baik selama Covid-19 dibandingkan sebelumnya. Selain itu, perhitungan independent sample test menunjukkan hanya indeks ISSI yang memberikan perbedaan return yang signifikan sebelum dan selama masa Covid-19. Kajian ini menyimpulkan bahwa Covid-19 berimplikasi pada peningkatan rata-rata return untuk semua indeks syariah yang diteliti dan memiliki risiko yang lebih rendah pada periode covid-19. Beberapa analis menyatakan kenaikan harga akan meningkatkan return saham syariah dimulai dari pergerakan saham syariah BRI yang juga didorong oleh industri syariah lainnya seperti ANTM, INCO, EMTK dan industri perbankan.

Kata Kunci: Return, Saham Syariah, Covid 19, Perbandingan

INTRODUCTION

The business cycle is generally divided into four stages or phases: prosperity (peak cycle), downturn (economic recession), economic trough, and recovery (expansion). This stage of wealth represents the pinnacle of the process, where a nation's economy is thriving (Kaiser & Maravall, 2012; Leiva-Leon, 2017; Perron & Wada, 2016; Kare & Stjepanovi, 2016). This stage of wealth is characterized by a high standard of living.

On March 2, 2020, Indonesia reported the first case of Covid-19 in Depok City. The Covid-19 pandemic initially went unnoticed in Indonesia. However, new cases of Covid-19 patients increased exponentially in the first three months. The Covid-19 pandemic has impacted numerous sectors in both developed and developing countries, including Indonesia. According to Ozili and Arun's (2020) research, social distancing during the covid pandemic affected economic activity and stock market indexes.

Additionally, the Indonesia Stock Exchange (IDX) has had an impact on the Covid-19 pandemic. The average composite stock price index (JCI) from January 2 to October 27 in 2020 was Rp. 5,147.43. On March 24, 2020, the JCI reached its highest point of Rp. 6,325.41, and its lowest point of IDR 3,937.63. Because of these circumstances, the first case discovered in early March 2020 was influenced by the stock market's decline. At the same time, on March 23, 2020, the Dow Jones Industrial Average (DJI) fell USD18,591.93. The DJI, on the other hand, peaked at USD 29,551.42 on February 12, 2020, about a month before plummeting to its lowest point on March 23, 2020.

What about the Indonesian Islamic stock index (ISSI), the Jakarta Islamic Index (JII), and the Jakarta Islamic Index 70 (JII 70)? When the index is negative, the average return from April 2019 to March 2021 is -3.133%, -2.9%, and -3.1%, respectively. Meanwhile, the average return from April 2020 to June 2021 is positive, with 1.1%, 1.9%, and 1.6%, respectively, following the developments of the three sharia stock indices before and after the pandemic.



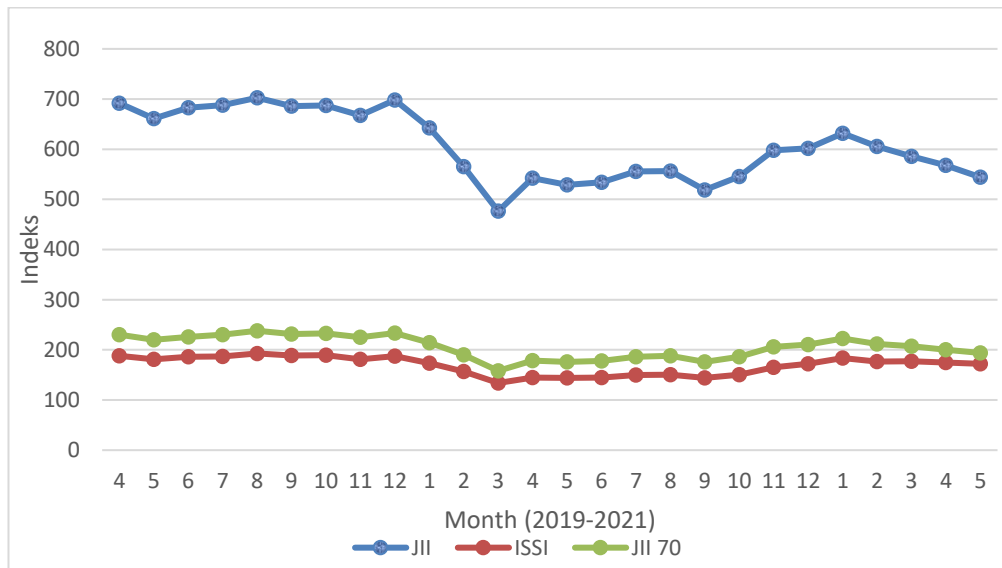


Figure 1 Development of the JII, ISSI, and JII 70 Indexes Before and During Covid-19

(Source: Indonesia Stock Exchange, data processed)

Previous research comparing stock performance before and after the covid-19 pandemic has focused on one index or a few stocks and has primarily discussed conventional stocks (Abhinandan et al., 2020; Alam et al., 2020; Amaroh, 2020; Ashraf, 2020; Faruk & Marsono, 2022; Haryanto & Mawardi, 2021; He et al., 2020; Nurdany et al., 2021; Ozili & Arun, 2020; Rianto et al., 2022; Rusydiana & Prakoso, 2021; Zhang et al., 2020). While there has been little research comparing the performance of Islamic stocks before and during Covid using data from three types of Islamic stock indexes (ISSI, JII, and JII70). Therefore, this study will compare the performance of three sharia stock indexes before and during the covid pandemic.

Based on the foregoing, this study will examine the performance of the Islamic stock index. The data was collected before and during the pandemic. This study will examine if there is a significant difference in returns before and after the pandemic.

LITERATURE REVIEW

Sharia Stock Index

The stock market that follows sharia principles is still in the early stages of development. Hearn et al. (2011) mention that due to the limited focus on



Islamic finance, there is little literature available on the role and regulations of the Islamic-compliant stock market. Most of them focused on Islamic banking industry such as Ibrahim & Salam (2021), Mailinda, Ibrahim, & Zainul (2018), Muarif, Ibrahim, & Amri (2021), and Nadia, Ibrahim, & Jalilah (2019). In addition, only a handful of stock markets around the world -- such as the Khartoum Stock Exchange (KSE) in Sudan, the Kuala Lumpur Stock Exchange (KLSE) in Malaysia, and the Tehran Stock Exchange (TSE) in Iran, for example -- accommodate Islamic law in trading in Indonesia. stock market.

Indonesian sharia shares are included in the Indonesian Sharia Stock Index (ISSI), and the screening process is carried out by the Financial Services Authority (OJK). Meanwhile, in Malaysia, the list of sharia shares is included in the FTSE Bursa Malaysia EMAS Shariah Index (FBMS), and the selection is determined by the Sharia Advisory Board (SAC). Both DSN-MUI and SAC impose specific criteria on the company's financial statements in the sharia index (Mifrahi, 2013; Mariana, & Ibrahim, 2022).

In addition to the Indonesian Sharia Stock Index (ISSI), there is the Jakarta Islamic Index (JII) and the Jakarta Islamic Index 70 (JII70). The Indonesian Sharia Stock Index (ISSI) consists of all sharia shares listed on the Sharia Securities List. The Jakarta Islamic Index (JII) holds 30 sharia shares, and the Jakarta Islamic Index 70 (JII70) holds 70 sharia shares. JII 70 was selected by the IDX based on liquidity criteria among constituents listed on ISSI for the last six months, then 150 stocks were selected based on the order of the highest average market capitalization for the past year. After this step, 70 stocks were selected from 150 stocks based on the regular market's highest average daily transaction value. According to the Sharia Securities List and the Financial Services Authority schedule, Sharia shares will be reviewed twice a year. (Amaroh, 2020; Nurdany et al., 2021; Sutrisno et al., 2022).

Previous Research

Kulal et al. (2020) empirically determined the effect of Covid-19 on the Indian Stock Exchange using NSE (National Stock Exchange) data from 2 January 2020 to 22 January 2020. The results indicate a decline in short-term stock market returns and a substantial effect of Covid-19 on the Indian stock market. Alam et al. (2020) analyze the impact of the Covid-19 lockdown period on the Indian stock market using an event study of 31 BSE-listed companies. The analysis of the pre-20 day and post-15-day data for the 35-day event window



reveals a significant positive response in the event window period, with the stock market responding significantly during the lockdown period.

According to research conducted by Haryanto and Mawardi (2021), Covid-19 had a negative impact on the JCI and trading volume of the previous day. This study provides empirical confirmation that the Covid-19 epidemic has an effect on the Jakarta Composite Index (JCI). In addition to these variables, market conditions were found to affect JCI. On the JCI, empirical evidence can demonstrate the effect of Covid-19 and the weakening of daily transactions. To identify return volatility in the Islamic capital market in Indonesia during the Covid-19 pandemic, Nurdany et al. (2021) conducted an asymmetric analysis with the GARCH (1,1) model and an asymmetric analysis with the TGARCH (1,1) model. The daily time series information from January 2, 2020, to July 17, 2020, is provided by the Indonesian Sharia Stock Index (ISSI). The results indicate that the volatility of ISSI yields has decreased during the Covid-19 pandemic. Simultaneously, the price of ISSI fell sharply, followed by a gradual increase.

Zhang et al. (2020) discovered that Covid-19 increased the risk of global financial markets significantly. Individual stock markets are impacted by the severity of the epidemic in their respective nations. In addition, they assess the potential outcomes of policy interventions. They are concerned that policies such as the US government's unlimited quantitative easing could increase uncertainty and lead to long-term problems. Ashraf (2020) examines the reactions of stock markets in 64 nations to the increase in COVID-19 cases between January 22, 2020 and April 17, 2020. The research demonstrates that the stock market has reacted negatively to COVID-19 cases. The author also reveals that the initial phase of COVID-19 saw a more negative market response.

He et al. (2020) investigated the effects and ripple effects of COVID-19 on the stock markets of the eight most affected nations. Their findings indicate that COVID-19 has a negative short-term impact on the stock market. In addition, they identify a two-way spillover effect of COVID-19 between Asian, European, and American nations. Ozili & Arun (2020) analyzed the impact of COVID-19 on stock market indices on four continents. They noted that stock indices were significantly impacted by the social isolation caused by COVID-19.



Several previous studies have demonstrated a negative impact of COVID-19 on stock market indices (Abhinandan et al., 2020; Ashraf, 2020; Haryanto & Mawardi, 2021; He et al., 2020; Nurdany et al., 2021; Ozili & Arun, 2020; Zhang et al., 2020). Covid 19 also had a positive impact on the market index (Alam et al., 2020). Therefore, it can be concluded that COVID-19 has had both positive and negative effects on the stock market index.

METHODOLOGY

Data

The data used are the Jakarta Islamic Index (JII), the Indonesian Sharia Stock Index (ISSI), and the Jakarta Islamic Index (JII70) for the period April 2019 – March 2020 (Before Covid-19) and the Period April 2020 – June 2021 (During Covid-19). Data source from the Indonesian stock exchange.

Analysis Method

Performing the calculation of returns for each sharia stock index with the formulation.

$$R_{it} = \frac{I_{it} - I_{it-1}}{I_{it-1}} \quad (1)$$

Furthermore, a comparison of returns before Covid-19 and during Covid 19 was carried out using the Paired Sample-T Test comparison analysis, which was used to compare whether there were differences or similarities in average between groups of related/paired data.

The analytical method used in this research is the Pair Sample T-Test, and the analysis is carried out using SPSS 18.0 software. In this study, the significance level or probability of error is 0.05 or (5%). H_0 is rejected, and H_a is accepted if the probability value ($\text{sig } t$) < (0.05).

RESULT AND DISCUSSION

Research result

The development of sharia stock index returns consisting of JII, ISSI and JII70 is illustrated in the Table 1. The performance of Islamic stocks was favorable



throughout the Covid-19 pandemic. The three sharia indices that are tracked by the exchange all move in a more positive direction than they did before the pandemic. The Indonesian Sharia Index (ISSI), the Jakarta Islamic Index 70 (JII70), and the Jakarta Islamic Index (JII) are the three indices that are being discussed. Since the Covid-19 case in Indonesia was first announced on March 2 in 2020 to March 31 in 2021, the ISSI has strengthened by 13.9 percent, according to the Indonesia Stock Exchange (IDX), which noted this development.

Table. 1 Return JII, ISSI, JII 70 Periods Before and During Covid-19

Year	Month		Return JII	Return ISSI	Return JII 70	
2019	4					
	5		-0,045	-0,039	-0,044	
	6		0,033	0,028	0,028	
	7		0,008	0,005	0,019	
	8		0,022	0,031	0,033	
	9	Before Covid 19		-0,024	-0,020	-0,026
	10			0,001	0,003	0,006
	11			-0,028	-0,045	-0,034
	12			0,046	0,038	0,037
	2020	1		-0,079	-0,078	-0,081
		2		-0,121	-0,095	-0,113
		3		-0,157	-0,145	-0,169
4			0,139	0,081	0,129	
5			-0,025	-0,007	-0,015	
6			0,009	0,008	0,013	
7			0,041	0,036	0,046	
8			0,002	0,004	0,010	
9			-0,068	-0,046	-0,064	
10		During Covid 19		0,052	0,046	0,058
11				0,096	0,097	0,106
2021	1		0,007	0,043	0,021	
	2		0,049	0,065	0,058	
	3		-0,041	-0,035	-0,049	
	4		-0,033	0,001	-0,021	
	5		-0,030	-0,015	-0,035	
	6		-0,041	-0,015	-0,032	

(Source: BEI, data processed)

In the meantime, JII70 saw a gain of 12.3%, while JII have seen a gain of 7.8%. The movement of the three sharia indices performed significantly better than



that of the LQ45 and IDX30, which were, respectively, 5.1% and 2.4%. As a point of comparison, the performance of ISSI dropped by 16.5% in the time before the pandemic that occurred in January-February 2020. During this time, the value of JII70 and JII decreased by 18.4% and 19.1%, respectively.

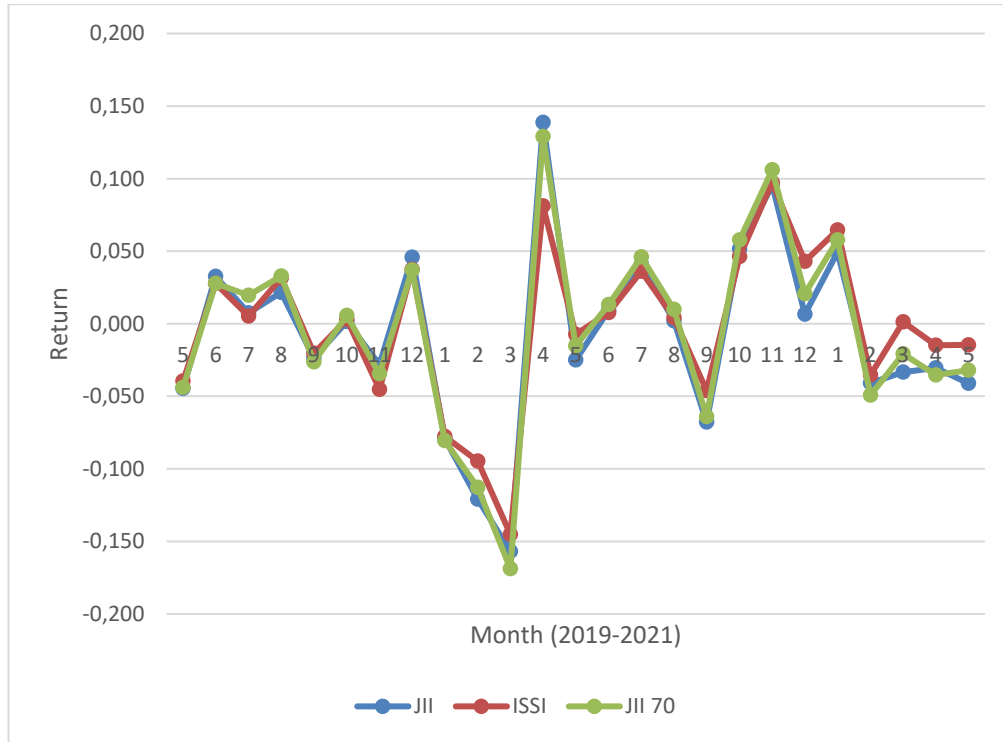


Figure 2. JII, ISSI and JII 70 return fluctuations Before and during covid-19 (Source: BEI, data processed)

Figure 2 demonstrated that the direction of movement of the three sharia stock indices has almost the same movement pattern after the initial information that the Covid 19 return experienced the highest increase in ISSI, JII, and JII 70, along with the average return prior to and during Covid 19.

Table 2. Average Return on Islamic Stock Index Before and During Covid-19

Indeks		Before Covid-19	During Covid-19
JII	Average Return	-3,1%	1,1 %
	Risk (Standard Deviation)	6,5%	5,8 %
ISSI	Average Return	-2,9%	1,9 %
	Risk (Standard Deviation)	5,8%	4,3 %
JII 70	Average Return	-3,1%	1,6 %
	Risk (Standard Deviation)	6,7%	5,8 %

(Source: BEI, data processed)



This was shown by the fact that the three sharia stock indices all moved in the same direction after the first piece of information. Based on Table 2, it can be seen that before Covid, the average return of the Islamic stock index gave a negative return value and vice versa. During Covid, it gave a positive return value, and the risk (standard deviation) also decreased. In addition, Islamic investors also showed higher growth in transaction activity during the pandemic. This result is seen from the increase in sharia investors' transaction value and the growth of active sharia investors. The growth of active sharia investors in February 2020 was 8,652, and in February 2021, the number doubled to 17,117. Likewise, the transaction value increased dramatically from IDR 470 billion in February 2020 to IDR 2.5 trillion in February 2021.

Statistical Test Results

Jakarta Islamic Index (JII)

The JII index reached its maximum return of 4.6% in December 2019 before covid 19, and it reached its maximum return of 13.9% in April 2021 during covid-19. The maximum return during covid-19 was achieved in April 2021. This value demonstrates performance during the pandemic, particularly in terms of maximum return in the year of study, which is certainly something that is interesting for people who invest according to sharia law. Aside from that, we are in a position to assert that covid-19 did not have a detrimental impact on the JII index.

The following are the results of the independent sample test to see if there is an impact of covid-19

Table 3. Description of JII Returns Before and During Covid 19

Group Statistics					
Group		N	Mean	Std. Deviation	Std. Error Mean
Return	Before	11	-0,031273	0,0647396	0,0195197
	During	14	0,011214	0,0583730	0,0156009

(Source: BEI, data processed)

Table 3 demonstrates that JII's return data prior to COVID 19 was 11, and that during COVID 19, there were 14, with the highest average return occurring during COVID 19 was 1.12%. As can be seen in the Table 4, there is a significant difference in the returns before and during the period.



Table 4. JII Sample Independent Test

		Independent Samples Test								
		Levene's Test for Equality of Variances			t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Return	Equal variances assumed	.099	.756	-1.722	23	.098	-.0424870	.0246673	-.0935151	.0085411
	Equal variances not assumed			-1.700	20.440	.104	-.0424870	.0249881	-.0945395	.0095654

(Source: BEI, data processed)

Based on Levene's Test for Equality of Variances with sig 0.756 > 0.05, the data variance before and during covid-19 is homogeneous, so the Equal variances value should be used to interpret the independent sample test output. According to the results of the independent sample test table, the value of Sig. (2-tailed) 0.098 > 0.05, which indicates that there is no significant difference between the average return on the JII index before and after the pandemic.

Indonesian Sharia Stock Index

A composite index of sharia shares that are listed on the IDX is represented by the Indonesian Sharia Stock Index (ISSI), which was introduced on May 12, 2011. ISSI is a performance indicator for the Indonesian Islamic stock market. ISSI components are all sharia shares listed on the IDX and included on the OJK's Sharia Securities List (DES). This index indicates that the IDX does not select sharia shares in order for them to be included in the ISSI. The data presented in Table 5 for ISSI return before and during COVID 19 show that the average return during COVID is higher than the average return before COVID. There is no difference between this condition and the JII index. As can be seen in the following table, there is a significant difference in the returns before and during the period.



Table 5. Description of ISSI Returns Before and During Covid 19

Group Statistics					
	Group	N	Mean	Std. Deviation	Std. Error Mean
Return	Before	11	-,028818	,0584531	,0176243
	During	14	,018786	,0433557	,0115873

(Source: BEI, data processed)

The value of Sig. (2-tailed), determined using Levene's Test for Equality of Variances with the Independent Sample Test, is 0.028 minus 0.05. The findings imply that there was a sizeable gap between the average return on the ISSI Index prior to and during the period covered by covid-19.

Table 6. ISSI Sample Independent Test

Independent Samples Test										
		Levene's Test for Equality of Variances			t-test for Equality of Means					
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Return	Equal variances assumed	.974	.334	-2.341	23	.028	-.0476039	.0203381	-.0896764	-.0055314
	Equal variances not assumed			-2.257	17.936	.037	-.0476039	.0210922	-.0919283	-.0032795

(Source: BEI, data processed)

Jakarta Islamic Index 70 (JII 70)

The IDX introduced the Jakarta Islamic Index 70 (JII70 Index) on May 17, 2018. The JII70 only includes the 70 most liquid sharia-compliant stocks listed on the IDX. Similar to ISSI, JII's constituent sharia shares are reviewed twice a year, in May and November, in accordance with OJK's DES review schedule.

Table 7. Description of Return JII 70 Before and During Covid 19

Group Statistics					
	Group	N	Mean	Std. Deviation	Std. Error Mean
Return	Before	11	-.031273	.0667384	.0201224
	During	14	.016071	.0576641	.0154114

(Source: BEI, data processed)



The average return for the JII 70 Index during covid-19 was higher than before the pandemic. When compared to other sharia indices, the trend is the same. The question is whether there is a real difference in the average return of the two groups, as shown in the table below:

Table 8 Independent Test Sample Jakarta Islamic Index 70 (JII 70)

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper	
Return	Equal variances assumed	.166	.687	-1.902	23	.070	-,0473442	,0248892	-,0988315	,0041432
	Equal variances not assumed			-1.868	19.904	.077	-,0473442	,0253460	-,1002314	,0055431

(Source: BEI, data processed)

According to Levene's Test for Equality of Variances with sig $0.687 > 0.05$, the data variance before and during the independent sample test is homogeneous, so the interpretation of the independent sample test output table is guided by the values contained in the Equal variances assumed table. Based on the independent sample test table, Sig. (2-tailed) $0.070 > 0.05$, this means that there is no significant (significant) difference in the average return on the JII 70 index before and during covid.

Discussion

Covid-19 has implications for increasing the average return and risk for all sharia indices studied. Sharia stock indices have a lower risk during the Covid-19 pandemic. The statistical test results of research data show that the difference in Islamic stock returns from the three Islamic stock indices, which had a significant difference before and during the COVID-19 pandemic, is the difference in the Indonesian Syariah Stock Index (ISSI). This study also found that three sharia stock indices (ISSI, JII, and JII70) had a positive impact during the covid-19 pandemic. It is clear from the average return and risk (standard deviation) values. This result is very encouraging and contradicts the findings



of Haryanto and Mawardi (2021), who concluded that Covid-19 had a negative impact on the JCI and the previous day's trading volume. Similarly, Abhinandan et al. (2020) found that short-term stock returns on the Indian Stock Exchange are lower.

He et al. (2020), Ashraf (2020), and Ozili & Arun (2020) found similar evidence that COVID-19 had a negative impact on the index. It is fascinating to delve deeper into the causes of the Islamic Stock Index in Indonesia. Several analysts predicted that the increase in prices would ultimately increase the return on sharia shares, beginning with the movement of BRI sharia shares, which was driven by other sharia industries such as ANTM, INCO, EMTK, and the banking industry.

CONCLUSION

The calculation of the return and risk of Islamic stock indices (JII, ISSI, and JII 70) shows that performance during Covid-19 was better than before Covid-19. This is based on the calculations mentioned earlier. Furthermore, the ISSI index is the only one that shows a significantly different level of returns prior to and during the Covid-19 period, according to the results of calculations based on independent sample tests.

This finding is related to the previous one because the proportion of Islamic shares in ISSI is greater than in JII and JII70. However, when using data from all Islamic stocks included in ISSI rather than JII and JII70, the significance of this comparison increases. The following study can compare the performance of Islamic stocks in Indonesia using ISSI data on Islamic stocks.

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