Journal of Business Management and Economic Development E-ISSN 2986-9072 P-ISSN 3031-9269 Volume 2 Issue 02, May 2024, Pp. 713-729 DOI: <u>https://doi.org/10.59653/jbmed.v2i02.693</u> Copyright by Author

Global Board Market Index Shariah: A Comprehensive Analysis of the 2020-2023 Trends

Aldi Akbar^{1*}, Budi Rustandi Kartawinata², Agus Maolana Hidayat³

Telkom University, Indonesia¹²³ Corresponding Email: aldiakb@telkomuniversity.ac.id

Received: 10-02-2024 Reviewed: 20-02-2024 Accepted: 11-03-2024

Abstract

Global stock markets experienced several spikes and dips during the pandemic. In March 2020, there was a sharp decline in many stock exchanges around the world, known as "Black Thursday". Major stock indice such as S&P 1200 Global Board Market Index (BMI) Shariah experienced significant declines in a short period of time. However, since those declines, global stock markets have experienced a strong recovery. Huge economic stimulus, hopes for a COVID-19 vaccine, and measures to ease restrictions have made investors more optimistic. Many major stock indices have managed to reach new highs in recent months. The movement of of the global Islamic stock market during the pandemic also depends on regional and country-specific factors. Overall, the global Islamic stock market experienced volatility during the COVID-19 pandemic, but has shown signs of recovery. Investment decisions in the global Islamic stock market during the pandemic need to take into account factors that affect sector and country-specific performance.

Keywords: global shariah, S&P, shariah sector, BMI, capital index, business management, economic development

Introduction

The world's capital markets underwent many changes during the COVID-19 pandemic (Abdi, 2020; GONGKHONKWA, 2021). Some of which are the following phenomena: (1) High Volatility, which is a condition where the global capital market has experienced high volatility since the beginning of the COVID-19 pandemic, has experienced high volatility since the beginning of the COVID-19 pandemic (M. Ali et al., 2020; Basuony et al., 2022). Szczygielski et al., (2022), investors face economic uncertainty and uncertainty about the impact of the pandemic on companies and certain sectors. This has resulted in significant price fluctuations and high volatility in the stock market. in the stock market; (2) Market Trend Decline, a condition where many stock exchanges around the world experienced a significant

decline in stock market indices. experienced significant declines in their stock market indices (Akbar & Hidayat, 2023; Liu et al., 2023). This is mainly triggered by decreased demand and investors' concerns over company performance during the pandemic. The stock market indices, which had reached their highest levels before the pandemic, dropped significantly in a short period of time; (3) Government Stimulus and Intervention, where in order to overcome the economic economic impact of the COVID-19 pandemic, many countries undertook large economic stimulus, including government intervention in the capital market (Polyzos et al., 2021). These measures aim to maintain market liquidity and prevent financial system collapse (Musthaq, 2023). Bailey et al., (2020), these interventions included purchases of corporate bonds by central banks and other measures to maintain capital market stability; (4) Increased Online Trading: The COVID-19 pandemic triggered increase in online trading in the capital market (Fathmaningrum & Utami, 2022). Many investors have turned to online trading platforms platforms to invest and manage their portfolios (Hamim, 2020). This includes trading stocks, bonds, and digital currencies (Goede, 2021; Wójcik & Ioannou, 2020). This increase in online trading is due to the restrictions on travel and work-from-home (Eliner, 2022) restrictions imposed in many countries; (5) Changing of Investment Patterns: Investors have also changed their investment patterns during the COVID-19 pandemic. Many have shifted from stocks and other high-risk assets to assets that are considered safer, such as government bonds and gold (Kumthakar & Nerlekar, 2020; Tanin et al., 2021); (6) Market Recovery: Despite the initial decline, the world's capital markets began to recover along with the slow economic recovery (Beer et al., 2023). Expectations of COVID-19 vaccine and government stimulus measures have given a boost to the capital market. capital markets (Jackson et al., 2020; M. Liu et al., 2023).

In recent years, the global financial landscape has witnessed a growing interest in ethical investment options, leading to the emergence of Shariah-compliant investment opportunities (S. N. Ali, 2020; Svoboda, 2024). The Global Shariah Index has gained significant prominence in this regard, serving as a comprehensive benchmark to evaluate the performance of Shariah-compliant assets (M. K. Hassan et al., 2021; Mohiuddin & Siddiqui, 2023).

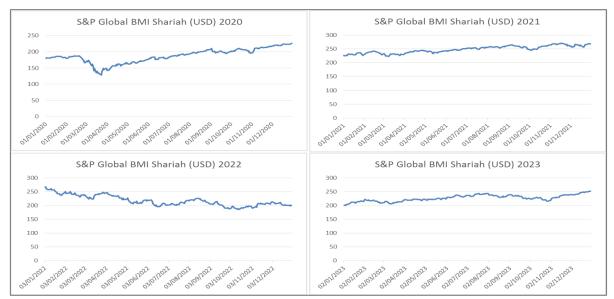


Figure 1. S&P Global BMI Shariah Trend 2020-2023 (source: S&P, 2024)

In Figure 1, it can be seen that the movement of the global sharia exchange index at the beginning of the pandemic (2020) showed an upward trend, although it can be seen that in March and April 2020 it experienced a sharp decline to below USD 150. Then it rose again until the end of the year the average was above USD 150 and even November and December were above USD 200. Moving on to the following year, 2021, conditions tend to get better with a trend that continues to move above USD 250 from September to December. But things turned around again in 2022, throughout this year the index continued to decline even below USD 200 exactly like 2020 although overall it was still above USD 150. In 2023, the upward trend again occurred as well as the previous two years (2021) and this is certainly encouraging because the sharia market can be said to be starting to get excited. Capturing the phenomenon above, it can be seen that the Global BMI Shariah trend has spiked in the range of USD 100 - 250 during the pre, during, and post-pandemic (Masyhuri, 2023). Departing from this, it is necessary to test whether the volatility of the index for each time period is significantly different or not at all even though the pandemic atmosphere can be said to have not completely disappeared.

This essay aims to provide a detailed overview of the Global Shariah Index's conditions from 2020 to 2023 (Siska et al., 2024), shedding light on the underlying factors influencing its performance. By examining various reliable sources, this analysis seeks to provide readers with an in-depth understanding of the dynamics surrounding the index during this period.

Literature Review

Capital Market Formation Theory

The evolution of the capital market theory has been shaped by the contributions of numerous scholars and practitioners over the years. The capital market theory refers to a framework that analyzes the behavior of financial markets, focusing on the pricing and allocation of financial assets. It explores the interaction between investors, issuers, and intermediaries, shedding light on how information, risk, and return are incorporated into market prices. Key concepts include efficient market hypothesis, portfolio theory, risk and return tradeoff, and market efficiency. Benjamin Graham (1934) laid the foundation for the fundamental analysis approach, emphasizing the importance of assessing the intrinsic value of securities based on their underlying fundamentals. Then began to be introduced (1952) the concept of diversification and the efficient frontier, highlighting the benefits of combining assets with different risk and return characteristics to optimize portfolio performance (Markowitz, 1991). Capital Asset Pricing Model (CAPM) is the concept of systematic risk and its influence on expected returns. Investors require higher returns for holding riskier assets, such as stocks, compared to less risky assets like government bonds. It proposed that an asset's risk should be measured by its beta, representing its sensitivity to market movements (Sharpe, 1964). Fama (1970) argued that financial markets are efficient, implying that all relevant information is quickly reflected in asset prices. This hypothesis has been a subject of extensive research and debate, leading to the development of various forms of market efficiency. According to him, stock market indices accurately reflect all known information, including fundamental factors, news, and investor sentiment. As a result, changes in index values are mainly driven by new information and unexpected events. Empirical research conducted by Malkiel (2003) supports the efficient market hypothesis, highlighting the difficulty of consistently beating the market. Kahneman (1979) challenged the assumptions of rationality in traditional finance by introducing the concept of decision-making under uncertainty and the impact of cognitive biases. Shiller (2000) highlighted the role of investor sentiment and speculative bubbles in driving market prices away from their fundamental values, contributing to the development of behavioral finance and the study of market anomalies. Kahneman (1979) and Shiller (2000) view capital markets through the behavioral finance approach. According to them, behavioral biases such as overconfidence, herd mentality, and loss aversion, can drive the movement of stock market indices. These biases can cause investors to overreact or underreact to information, leading to price deviations from fundamental values. The study of historical price patterns to predict future market movements is a technical analysis concept to predict future market movements (Edwards et al., 2018). The advent of computerized trading systems has given rise to algorithmic trading and high-frequency trading, revolutionizing market dynamics.

Sharia Capital Market

The global Islamic stock market index plays a pivotal role in understanding and evaluating the performance of sharia-compliant equities worldwide. To comprehend the genesis of the global Islamic stock market index (K. Hassan & Mahlknecht, 2011), a brief overview of the historical development of Islamic finance is paramount (Askari et al., 2010). Islamic finance is rooted in the principles of Islamic law (Sharia), which prohibits interest (riba) and promotes ethical and socially responsible investments (Elasrag, 2022). The establishment of the first Islamic bank in the 20th century paved the way for the growth and recognition of Islamic finance globally Rehman et al., 2021).

Islamic index serves as a benchmark to gauge the performance and growth of shariacompliant equities across different countries. It enables investors, policymakers, and researchers to assess the financial health of Islamic markets and make informed decisions

(Bobur & Sirojiddin, 2023). Hanif & Ayub (2022), this index provides a comprehensive snapshot of the performance of various sectors, industries, and companies adhering to Islamic principles, thus facilitating the growth of Islamic finance.

The methodology employed in constructing the global Islamic stock market index is based on a rigorous screening process to ensure compliance with Islamic principles (Alotaibi et al., 2022; El Saleh & Jurdi, 2021). The index encompasses a set of criteria derived from Sharia, such as the prohibition of interest-based financial instruments, companies involved in unethical activities, and excessive debt. The screening process involves analyzing financial statements, business operations, and adherence to Islamic principles, resulting in a transparent and reliable index.

Delle Foglie & Panetta (2020), the global Islamic stock market index consists of numerous components, each representing a specific sector or industry. These components are meticulously selected based on their adherence to Sharia principles and their market capitalization. The inclusion of major companies from diverse sectors ensures a comprehensive representation of the performance of Islamic equities globally. Examples of well-known components include ABC Islamic Bank, Saudi Arabian Oil Company (Aramco), and Telekom Malaysia. M. H. Ali et al., (2021), the Islamic index holds significant importance in the global financial landscape. It provides a platform for Islamic finance to thrive, attracting both Muslim and non-Muslim investors seeking ethical and socially responsible investment opportunities. The index also fosters the development of sharia-compliant financial products, such as exchange-traded funds (ETFs), mutual funds, and Islamic bonds (sukuk). Furthermore, the index encourages transparency, accountability, and corporate governance within the Islamic finance industry (El-ghonemey, 2023; Wahab, 2023).

The S&P Global 1200 or Board Market Index (BMI) Shariah is a prominent index that encompasses a diversified portfolio of companies adhering to Islamic principles. The index serves as a benchmark for Islamic investment strategies, allowing investors to identify and track the performance of Shariah-compliant companies. It aims to provide a comprehensive representation of the global equity market, while adhering to the principles of Islamic finance (IFN, 2021). The methodology employed in constructing the S&P Global 1200 Shariah index involves a rigorous process to ensure compliance with Shariah principles (S&P, 2024b). Key steps include: (1) Business Activity Screening: Companies involved in activities such as alcohol, gambling, pork-related products, and conventional finance are excluded; (2) Financial Ratio Screening: Companies are evaluated based on specific financial ratios, ensuring compliance with Islamic principles related to debt, interest, and liquidity; (3) Compliance Monitoring: Regular monitoring is conducted to verify the continued adherence to Shariah principles by the included companies. The S&P Global BMI Shariah index encompasses a wide range of sectors and regions, ensuring diversification and global representation. The index includes companies from various sectors such as technology, healthcare, energy, and consumer goods. Its regional representation spans North America, Europe, Asia-Pacific, and the Middle East. The performance of the S&P Global BMI Shariah index is closely monitored by investors seeking to align their investments with Islamic principles. By investing in Shariah-compliant companies, investors aim to achieve financial gain while adhering to ethical and religious

beliefs (Anwer, 2021). This index provides them with a reliable benchmark to evaluate their investment strategies.

Ashraf et al., (2022), The S&P Global BMI Shariah index differs from conventional indices, such as the S&P 500, due to its adherence to Islamic principles. While conventional indices may include companies involved in interest-based financial activities or non-compliant industries, the index ensures that only Shariah-compliant companies are included. This distinction makes it a preferred choice for investors abiding by Islamic finance principles.

As Islamic finance continues to gain prominence globally, understanding and monitoring the global Islamic stock market index becomes increasingly vital for investors, policymakers, and researchers.

Research Method

The object of this research is the daily index of the Islamic stock market in globally specially taken from S&P Global Board Market Index (BMI) Shariah, starting from pre, during, and post Covid (early 2020 – end 2023). This research method is descriptive quantitative, the nature of the data is data series. This study uses two related samples, namely Wilcoxon Signed-Rank which is a non-parametric test with data that does not have to be normally distributed (distribution-free test) but still pays attention to the magnitude of the difference value (Westfall & Henning, 2013). The hypotheses formulated are H₁: There is a significant difference between Global BMI Shariah 2020 and 2021; H₂: There is a significant difference between Global BMI Shariah 2022; H₃: There is a significant difference between Global BMI Shariah 2022; H₃: There is a significant difference between Global BMI Shariah 2022, H₃: There is a significant difference between Global BMI Shariah 2022; H₃: There is a significant difference between Global BMI Shariah 2022; H₃: There is a significant difference between Global BMI Shariah 2022, H₃: There is a significant difference between Global BMI Shariah 2022, H₃: There is a significant difference between Global BMI Shariah 2022, H₃: There is a significant difference between Global BMI Shariah 2022, H₃: There is a significant difference between Global BMI Shariah 2022 and 2023. The criteria for the three hypotheses are if the p-value < 0.05 then H₁, H₂, and H₃ of each hypothesis are not rejected. Some of these things certainly refer to each sectors conditions under study.

Result/Findings

Processing results in the form of descriptive statistics of the observed daily Global BMI Shariah Index, summarized in Table 1.

	N	Mean	Std. Deviation	Minimum	Maximum
S&P Global BMI Shariah (USD) 2020	260	187.23	21.47	128.58	226.06
S&P Global BMI Shariah (USD) 2021	260	248.01	12.65	222.28	270.11
S&P Global BMI Shariah (USD) 2022	260	217.74	19.15	186.14	268.46
S&P Global BMI Shariah (USD) 2023	260	227.23	11.47	200.42	252.50

Table 1. Descriptive Statistics

Source: results of processed data

The global Islamic index (USD) in 2020 averaged 187.23 with a minimum index of 128.58 and a maximum of 226.06 and a standard deviation of 21.47. In 2021 there was an

increase in the average index to 248.01 in the minimum to maximum range of 222.28 - 270.11 with a standard deviation of 12.65. However, in the following year (2022) there was another decrease in the average index to 217.74 with the lowest index value of 186.14 and the highest index of 268.46 while the standard deviation was 19.15. Despite the decline, when compared to the initial period of the pandemic, 2020, the performance of the stock exchange is still slightly better. And finally, 2023, S&P Global BMI Shariah shows an average value of 227.23 in the range of 200.42 (minimum) to 252.50 (maximum) with a standard deviation of 11.47. Experiencing an increase in performance from the previous year, although not as good as the performance in 2021.

Table 2 below shows the results of the Wilcoxon Signed Rank test which illustrates the different conditions of S&P Global BMI Shariah daily data between years.

		Ν	Mean Rank		
S&P Global BMI Shariah (USD) 2021 - S&P Global	Negative Ranks	0 ^a	0.00		
BMI Shariah (USD) 2020	Positive Ranks	260 ^b	130.50		
	Total	260			
S&P Global BMI Shariah (USD) 2022 - S&P Global	Negative Ranks	199°	154.47		
BMI Shariah (USD) 2021	Positive Ranks	61 ^d	52.31		
	Total	260			
S&P Global BMI Shariah (USD) 2023 - S&P Global	Negative Ranks	88 ^e	114.99		
BMI Shariah (USD) 2022	Positive Ranks	172 ^f	138.44		
	Total	260			
a. S&P Global BMI Shariah (USD) 2021 < S&P Global BMI Shariah (USD) 2020					
b. S&P Global BMI Shariah (USD) 2021 > S&P Global BMI Shariah (USD) 2020					
c. S&P Global BMI Shariah (USD) 2022 < S&P Global BMI Shariah (USD) 2021					
d. S&P Global BMI Shariah (USD) 2022 > S&P Global BMI Shariah (USD) 2021					
e. S&P Global BMI Shariah (USD) 2023 < S&P Global BMI Shariah (USD) 2022					
f. S&P Global BMI Shariah (USD) 2023 > S&P Global BMI Shariah (USD) 2022					

Table 2. Wilcoxon Signed Rank Result

The overall S&P Global BMI Shariah daily index in 2021 when compared to the previous year (2020) illustrates that the performance of the exchange during the pandemic shows a higher performance than at the beginning of the pandemic, this can be seen from the absence of values in the negative rank. Conversely, a comparison of the performance of the global sharia exchange between 2021 and 2022, it can be seen that the negative rank dominates, this shows that the performance of the global sharia market fell quite a lot in 2022, so there is

a strong suspicion that the impact of the covid pandemic began to be felt in this period. However, the situation then reverses when comparing the performance of the global shariah exchange between 2022 and 2023, the condition in 2023 is dominated by the positive side of the rank, which means that the market has started to be vibrant even though it is not as good as the previous two years (2021).

The following are the results of the Wilcoxon hypothesis test (Table 3) of the comparison of the daily performance of the S&P Global BMI Shariah index between years.

	S&P Global BMI Shariah (USD) 2021 - S&P Global BMI Shariah (USD) 2020	S&P Global BMI Shariah (USD) 2022 - S&P Global BMI Shariah (USD) 2021	S&P Global BMI Shariah (USD) 2023 - S&P Global BMI Shariah (USD) 2022
Z	-13.98	-11.35	-5.64
Sig. (2- tailed)	.000	.000	.000

Table 3. Wilcoxon Test Statistics Result

The Wilcoxon t-test results of each hypothesis show significant results (p < 0.05). This means that H₁ is not rejected, there is a significant difference in the performance of the S&P Global BMI Shariah index between 2020 and 2021. Likewise, H₂ is not rejected, which means that the average value of the S&P Global BMI Shariah index in 2021 and 2022 is significantly different. The same result is also shown in H₃, which is not rejected, which means that there is a significant difference between the average index value of S&P Global BMI Shariah in 2022 and 2023. The results of this test show that the performance of the global Islamic stock index is also affected by the shocks of the covid pandemic starting from pre, during and post covid.

Discussion

The movement of the S&P Global BMI Shariah pre, during, and post covid shows an up and down direction, a year during the pandemic the average index showed an increase but fell back a year later and rose again in the post-pandemic era (Alim, n.d.; Herrero & Martín, n.d.). It is not surprising that volatility occurred due to the conditions at the time, which indeed showed that the conditions of the epidemic at that time in several regions of the world experienced different spikes (IIzetzki et al., 2020; Wan et al., 2024). And the impact also affects global stock indices, especially for companies whose business scope is global (Ghauri et al., 2021; Y. Liu et al., 2020; Şenol & Zeren, 2020).

The surges that occurred were caused by several factors in addition to the external conditions that were happening at the time (pandemic). These factors include: (1) Global Economic Performance, to comprehend the Global Shariah Index's performance, it is essential to examine the prevailing economic conditions during the aforementioned period (Haddad & Souissi, 2022; Mohiuddin & Siddiqui, 2023). Factors such as GDP growth, inflation rates, and global trade dynamics significantly impact the index's overall performance (Aziz et al., 2020); (2) Regulatory Frameworks, the regulatory environment plays a pivotal role in shaping the performance of Shariah-compliant assets (Alduaij, 2020). Valencia et al., (2022), evaluating

the regulatory frameworks implemented by various jurisdictions during 2020-2023 will contribute to understanding the index's conditions; (3) Islamic Finance Governance, the governance of Islamic finance institutions and regulatory bodies impacts investor confidence and the overall growth of Shariah-compliant investments (Hasan et al., 2020). Examining the initiatives taken in this regard will provide a holistic view of the index's development; (4) Industry Growth and Investment Trends, tracking the growth of the Islamic finance industry and the corresponding investment trends will shed light on the market sentiment surrounding Shariah-compliant assets (S. Aziz et al., 2022; Touti & Taïb, 2023); (5) Investor Sentiment and Risk Appetite, analyzing investor sentiment and risk appetite towards Shariah-compliant assets during the specified period will provide insights into the index's performance (Anwer, 2021; Hussain et al., 2023). Factors such as geopolitical events, market volatilities, and investor preferences influence the overall sentiment (Hachicha, 2023; He, 2023).

Some of the global stock sectors that have been affected during, before, and after the pandemic are (1) Travel and Tourism Sector: The travel and tourism sector suffered a severe blow due to travel restrictions, lockdown measures, and fear of contracting the virus (Ulak, 2020). The closure of international borders, cancellation of flights, and strict quarantine measures led to a sharp decline in demand for travel-related services and products (Barkas et al., 2020; Elhini & Kafafy, 2021). Dube et al., (2021) according to a report by the International Air Transport Association (IATA) 2020, global air travel demand declined by 66% in 2020, resulting in significant losses for airline companies and related businesses; (2) Hospitality and Entertainment Sector: Hotels, restaurants, and entertainment venues faced enormous challenges during the pandemic (Lau, 2020). Lockdown measures and social distancing protocols led to temporary closures, reduced capacity, and a decline in consumer spending (Bodenstein et al., 2022). The hotel industry witnessed a decline in occupancy rates and a decrease in revenue per available room (Iirmdu, 2022; Mohammadi, 2020). In the entertainment sector, cinemas, theaters, and live events experienced a substantial drop in ticket sales and revenue (Ryu & Cho, 2022; Vogel, 2020); (3) Energy Sector: The energy sector faced significant disruptions due to the pandemic-induced economic downturn and reduced global energy demand (Hoang et al., 2021; Shaikh, 2022). The decline in industrial activities, travel restrictions, and reduced transportation needs led to a fall in oil prices (Abu-Rayash & Dincer, 2020; Norouzi, 2021). According to the International Energy Agency (IEA) (2020), global energy demand declined by 5% in 2020, resulting in reduced revenues for oil and gas companies (Hoang et al., 2021; Newell et al., 2020); (4) Retail Sector: Retail businesses experienced a significant impact as lockdown measures and social distancing guidelines forced non-essential stores to close temporarily (Cronin & Evans, 2020; Panzone et al., 2021). Consumer behavior shifted towards online shopping, leading to a surge in e-commerce sales but leaving brick-and-mortar stores struggling to survive (Rice, 2022). Many retail giants faced financial losses and bankruptcy due to reduced footfall and revenue (Knecht-Tarczewska, 2021; Lashgari & Shahab, 2022); (5) Automotive Sector: The automotive industry faced challenges such as supply chain disruptions, production halts, and reduced consumer demand (Frieske & Stieler, 2022; Xu et al., 2020). Wen et al., (2021) lockdown measures and economic uncertainty led to a decline in vehicle sales globally. Jackson et al. (2020), according to the International Monetary Fund (IMF) global car sales declined by 15% in 2020.

On the contrary, there are many stocks in certain sectors that have survived and even improved their performance during the pandemic. The sector in questions are (1) Healthcare Sector: The healthcare sector has emerged as a resilient industry during the COVID-19 pandemic. Companies involved in pharmaceuticals, biotechnology, medical devices, and healthcare services have witnessed increased demand and investor confidence. For instance, pharmaceutical giants such as Johnson & Johnson and Pfizer have experienced significant growth due to their involvement in the development and distribution of COVID-19 vaccines (Lovelace, 2021). Furthermore, healthcare technology firms like Teladoc Health, which provide telehealth services, have also seen substantial growth as people increasingly turn to remote healthcare solutions (Bestsennyy et al., 2021); (2) E-commerce and Online Retail: The COVID-19 pandemic has accelerated the shift towards online shopping, leading to significant growth in the e-commerce sector (Nanda et al., 2021; Paraschiv et al., 2022). Companies such as Amazon and Alibaba, have witnessed soaring stock prices due to increased demand for online purchases (Oteng Agyeman et al., 2022). The convenience and safety offered by online retail have attracted more consumers, resulting in substantial revenue growth for these companies (Nguyen et al., 2021; Sharma & Jhamb, 2020); (3) Technology and Software Services: The pandemic has highlighted the importance of technology and software services for remote work, communication, and entertainment. Companies specializing in cloud computing, video conferencing, and remote collaboration tools have experienced remarkable growth (Alashhab et al., 2021; Kodama, 2020; Kordova & Hirschprung, 2023). Microsoft, with its popular cloud service Azure and collaboration platform Microsoft Teams, has seen its stock price soar (Forbes, 2023). Zoom Video Communications has also become a household name, witnessing exponential growth due to its widely-used video conferencing platform (CIM, 2021); (4) Renewable Energy: Amidst the pandemic, the renewable energy sector has shown resilience and growth, driven by a global push for clean energy and sustainability (Heffron et al., 2021; Hoang et al., 2021). Companies involved in solar, wind, and battery technologies have attracted substantial investments (Amir & Khan, 2022; Mihajlović et al., 2021). Fernandez (2021), Tesla, a leading electric vehicle and clean energy company, experienced a surge in stock prices due to increased demand for electric vehicles and renewable energy solutions. Despite the numerous challenges posed by the COVID-19 pandemic, certain sectors have managed to thrive and even grow during these difficult times. The healthcare sector, ecommerce and online retail, technology and software services, as well as renewable energy, have been among the sectors that have experienced significant success. Investors have recognized the potential of these sectors, resulting in increased stock prices and market capitalization for the respective companies. As the world continues to navigate the pandemic, these sectors are likely to remain robust and continue their upward trajectory.

Conclusion

However, volatility remains high and markets are still vulnerable to developments related to the pandemic. Overall, world capital market conditions during the COVID-19 pandemic were characterized by high volatility, a decline in early market trends, government

stimulus and intervention, increased online trading, changing investment patterns, and a slow market recovery.

This result has provided a comprehensive overview of the Global Shariah Index's conditions from 2020 to 2023. By analyzing economic factors, regulatory environments, and market trends, we have gained valuable insights into the factors influencing the index's performance during this period. The outbreak of the COVID-19 pandemic in 2020-2023 had far-reaching implications for global financial markets, including Shariah-compliant assets. Analyzing the pandemic's effects on the index will provide valuable insights into its performance during this period. Understanding the dynamics surrounding the Global Shariah Index will enable investors, policymakers, and researchers to make informed decisions and contribute to the growth of the Shariah-compliant investment industry.

Declaration of conflicting interest

The authors declare that there is no conflict of interest in this work.

Funding acknowledgment (optional)

Many thanks to Telkom University, Business Administration Study Programme at Faculty of Communication & Business that have been of help during the project, for instance by supporting it financially.

References

- Abdi, M. N. (2020). Krisis Ekonomi Global dari Dampak Penyebaran Virus Corona (Covid-19). *AkMen Jurnal Ilmiah*, *17*(1), 90–98.
- Abu-Rayash, A., & Dincer, I. (2020). Analysis of mobility trends during the COVID-19 coronavirus pandemic: Exploring the impacts on global aviation and travel in selected cities. *Energy Research & Social Science*, *68*, 101693.
- Akbar, A., & Hidayat, A. M. (2023). Moving Average Analysis of Islamic Stock Composite Index in Asia during Covid-19 Pandemic. *Open Society Conference*, 1, 146–155.
- Alashhab, Z. R., Anbar, M., Singh, M. M., Leau, Y.-B., Al-Sai, Z. A., & Alhayja'a, S. A. (2021). Impact of coronavirus pandemic crisis on technologies and cloud computing applications. *Journal of Electronic Science and Technology*, 19(1), 100059.
- Alduaij, D. (2020). Ensuring Shariah compliance in Islamic financial institutions as an essential interest of shareholders. Cardiff University.
- Ali, M., Alam, N., & Rizvi, S. A. R. (2020). Coronavirus (COVID-19)—An epidemic or pandemic for financial markets. *Journal of Behavioral and Experimental Finance*, 27, 100341.
- Ali, M. H., Uddin, M. A., Khan, M. A. R., & Goud, B. (2021). Faith-based versus value-based finance: Is there any portfolio diversification benefit between responsible and Islamic finance? *International Journal of Finance & Economics*, 26(4), 5570–5583.
- Ali, S. N. (2020). Edinburgh Companion to Shari'ah Governance in Islamic Finance.

Edinburgh University Press.

Alim, E. A. (n.d.). Edited By: Dr. Sutan Emir Hidayat Dr. Mohammad Omar Farooq.

- Alotaibi, K. O., Helliar, C., & Tantisantiwong, N. (2022). Competing logics in the Islamic funds industry: A market logic versus a religious logic. *Journal of Business Ethics*, 175(1), 207–230.
- Amir, M., & Khan, S. Z. (2022). Assessment of renewable energy: Status, challenges, COVID-19 impacts, opportunities, and sustainable energy solutions in Africa. *Energy and Built Environment*, 3(3), 348–362.
- Anwer, Z. (2021). Portfolio Decisions for Faith-Based Investors: The Case of Shariah-Compliant and Ethical Equities (Vol. 8). Walter de Gruyter GmbH & Co KG.
- Ashraf, D., Rizwan, M. S., & Ahmad, G. (2022). Islamic equity investments and the COVID-19 pandemic. *Pacific-Basin Finance Journal*, 73, 101765.
- Askari, H., Iqbal, Z., & Mirakhor, A. (2010). *Globalization and Islamic finance: convergence, prospects and challenges.*
- Aziz, S., Jalan, A., Matkovskyy, R., & Bouraoui, T. (2022). Does Shariah compliance affect investor behaviour in the COVID-19 times: evidence from herding in the global energy market. *Applied Economics*, 54(24), 2825–2836.
- Aziz, T., Marwat, J., Mustafa, S., & Kumar, V. (2020). Impact of economic policy uncertainty and macroeconomic factors on stock market volatility: Evidence from islamic indices. *The Journal of Asian Finance, Economics and Business*, 7(12), 683–692.
- Bailey, A. J., Bridges, J., Harrison, R., Jones, J., & Mankodi, A. (2020). *The central bank balance sheet as a policy tool: past, present and future.*
- Barkas, P., Honeck, D., & Rubio, E. (2020). International trade in travel and tourism services: Economic impact and policy responses during the COVID-19 crisis. WTO Staff Working Paper.
- Basuony, M. A. K., Bouaddi, M., Ali, H., & EmadEldeen, R. (2022). The effect of COVID-19 pandemic on global stock markets: Return, volatility, and bad state probability dynamics. *Journal of Public Affairs*, 22, e2761.
- Beer, C., Maniora, J., & Pott, C. (2023). COVID-19 pandemic and capital markets: the role of government responses. *Journal of Business Economics*, 93(1–2), 11–57.
- Benjamin Graham, D. L. D. (1934). Security analysis: Principles and technique. McGraw-Hill.
- Bestsennyy, O., Gilbert, G., Harris, A., & Rost, J. (2021). Telehealth: a quarter-trillion-dollar post-COVID-19 reality. *McKinsey & Company*, 9.
- Bobur, V., & Sirojiddin, A. (2023). IMPORTANCE OF ISLAMIC STOCK INDICES FOR THE COUNTRY'S FINANCIAL MARKET. Spectrum Journal of Innovation, Reforms and Development, 22, 48–60.
- Bodenstein, M., Corsetti, G., & Guerrieri, L. (2022). Social distancing and supply disruptions in a pandemic. *Quantitative Economics*, 13(2), 681–721.
- CIM. (2021). Zoom aims to build brand post-pandemic beyond just video calling. The Chartered Institute of Marketing.

- Cronin, C. J., & Evans, W. N. (2020). *Private precaution and public restrictions: what drives* social distancing and industry foot traffic in the COVID-19 era? National Bureau of Economic Research.
- Delle Foglie, A., & Panetta, I. C. (2020). Islamic stock market versus conventional: Are islamic investing a 'Safe Haven' for investors? A systematic literature review. *Pacific-Basin Finance Journal*, 64, 101435.
- Dube, K., Nhamo, G., & Chikodzi, D. (2021). COVID-19 pandemic and prospects for recovery of the global aviation industry. *Journal of Air Transport Management*, 92, 102022.
- Edwards, R. D., Magee, J., & Bassetti, W. H. C. (2018). *Technical analysis of stock trends*. CRC press.
- El-ghonemey, A. G. O. (2023). Capital Adequacy Ratio: Determinants and Its Effect on the Bank's Efficiency in MENA Region Islamic Versus Conventional Banks. University of Portsmouth United Kingdom.
- El Saleh, A. I., & Jurdi, D. J. (2021). Stock performance under alternative Shariah screening methods: Evidence from Australia. *Accounting & Finance*, *61*(3), 4339–4388.
- Elasrag, H. (2022). Understanding Islamic Finance. Hussein Elasrag.
- Elhini, M. M., & Kafafy, D. (2021). The Economic Impacts of COVID-19 on the Tourism Global Value Chain. In *Handbook of Research on the Impacts and Implications of COVID-19 on the Tourism Industry* (pp. 92–114). IGI Global.
- Eliner, L. (2022). Trading from Home: On the Implications of Time Constraints for Retail Investors. *Available at SSRN 4115852*.
- Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work. *The Journal of Finance*, *25*(2), 383–417.
- Fathmaningrum, E. S., & Utami, T. P. (2022). Determinants of Investment Decisions in the Capital Market During the COVID-19 Pandemic. *Journal of Accounting and Investment*, 23(1), 147–169.
- Fernandez, G. (2021). Tesla and the Stock Market. Available at SSRN 3908812.
- Forbes. (2023). Earnings Show Growth in Public Cloud Market.
- Frieske, B., & Stieler, S. (2022). The "Semiconductor Crisis" as a Result of the COVID-19 Pandemic and Impacts on the Automotive Industry and Its Supply Chains. World Electric Vehicle Journal, 13(10), 189.
- Ghauri, P., Strange, R., & Cooke, F. L. (2021). Research on international business: The new realities. *International Business Review*, *30*(2), 101794.
- Goede, M. (2021). COVID-19 and Change. Journal of Applied Business and Economics, 23(3).
- GONGKHONKWA, G. (2021). The Connectedness between COVID-19 and Trading Value in Stock Market: Evidence from Thailand. *The Journal of Asian Finance, Economics and Business*, 8(7).
- Hachicha, F. (2023). Sentiment investor, exchange rates, geopolitical risk and developing stock market: evidence of co-movements in the time-frequency domain during RussiaUkraine war. *Review of Behavioral Finance*.

- Haddad, A., & Souissi, M. N. (2022). The impact of Shariah Advisory Board characteristics on the financial performance of Islamic banks. *Cogent Economics & Finance*, 10(1), 2062911.
- Hamim, M. T. (2020). COVID-19 and the capital market chaos. Available at SSRN 3600853.
- Hanif, M., & Ayub, M. (2022). Islamic financial services industry: Aspirations and achievements. *Business Ethics, the Environment & Responsibility*, 31(1), 257–271.
- Hasan, A. N., Abdul-Rahman, A., & Yazid, Z. (2020). Shariah governance practices at Islamic fund management companies. *Journal of Islamic Accounting and Business Research*, *11*(2), 309–325.
- Hassan, K., & Mahlknecht, M. (2011). *Islamic capital markets: Products and strategies*. John Wiley & Sons.
- Hassan, M. K., Khan, A., & Paltrinieri, A. (2021). *Islamic Finance: A Literature Review* (pp. 77–106). https://doi.org/10.1007/978-3-030-76016-8_5
- He, Z. (2023). Geopolitical risks and investor sentiment: Causality and TVP-VAR analysis. *The North American Journal of Economics and Finance*, 67, 101947.
- Heffron, R. J., Körner, M.-F., Schöpf, M., Wagner, J., & Weibelzahl, M. (2021). The role of flexibility in the light of the COVID-19 pandemic and beyond: Contributing to a sustainable and resilient energy future in Europe. *Renewable and Sustainable Energy Reviews*, 140, 110743.
- Herrero, L. R., & Martín, I. M. (n.d.). Handbook of Sustainable Finance.
- Hoang, A. T., Nižetić, S., Olcer, A. I., Ong, H. C., Chen, W.-H., Chong, C. T., Thomas, S., Bandh, S. A., & Nguyen, X. P. (2021). Impacts of COVID-19 pandemic on the global energy system and the shift progress to renewable energy: Opportunities, challenges, and policy implications. *Energy Policy*, 154, 112322.
- Hussain, F., Ali, A., Malik, N., & Javed, S. (2023). INVESTMENT BEHAVIOUR OF INDIVIDUAL INVESTORS REGARDING SHARIA STOCK INVESTMENT: A SYSTEMATIC REVIEW. *Journal of Southwest Jiaotong University*, 58(3).
- IFN. (2021, December). Combining ESG and Islamic finance principles in an index framework. *Islamic Finance News*.
- Iirmdu, T. O. (2022). A chaos theory approach to understanding the impact of the COVID-19 pandemic on tourism businesses in Plateau State, Nigeria.
- Ilzetzki, E., Reinhart, C. M., & Rogoff, K. S. (2020). Will the secular decline in exchange rate and inflation volatility survive COVID-19? National Bureau of Economic Research.
- Jackson, J. K., Weiss, M. A., Schwarzenberg, A. B., Nelson, R. M., Sutter, K. M., & Sutherland, M. D. (2020). *Global economic effects of COVID-19*. Congressional Research Service Washington, DC.
- Kahneman, D. (1979). Prospect theory: An analysis of decisions under risk. *Econometrica*, 47, 278.
- Knecht-Tarczewska, M. (2021). The impact of the COVID-19 pandemic on the operation of shopping centres and stakeholders' interests. *Biblioteka Regionalisty*, 21, 28–40.

- Kodama, M. (2020). Digitally transforming work styles in an era of infectious disease. International Journal of Information Management, 55, 102172.
- Kordova, S., & Hirschprung, R. S. (2023). Effectiveness of the forced usage of alternative digital platforms during the COVID-19 pandemic in project communication management. *Heliyon*, 9(11).
- Kumthakar, S., & Nerlekar, V. (2020). Analytical Study of Investment Patterns and Investment Preferences of Retail Investors Post COVID 19. *Journal of Seybold Report ISSN NO*, *1533*, 9211.
- Lashgari, Y. S., & Shahab, S. (2022). The impact of the COVID-19 pandemic on retail in city centres. *Sustainability*, *14*(18), 11463.
- Lau, A. (2020). New technologies used in COVID-19 for business survival: Insights from the Hotel Sector in China. *Information Technology & Tourism*, 22(4), 497–504.
- Liu, H., Manzoor, A., Wang, C., Zhang, L., & Manzoor, Z. (2020). The COVID-19 outbreak and affected countries stock markets response. *International Journal of Environmental Research and Public Health*, 17(8), 2800.
- Liu, M., Tao, Q., Wang, X., & Zhou, H. (2023). Build resilience to overcome panic? Examining the global capital market during the COVID-19 pandemic. *International Review of Economics & Finance*, 88, 670–682.
- Liu, Y., Lee, J. M., & Lee, C. (2020). The challenges and opportunities of a global health crisis: the management and business implications of COVID-19 from an Asian perspective. *Asian Business & Management*, 19, 277–297.
- Lovelace, B. (2021, January). J&J says its Covid vaccine is 66% effective, but the single shot may fall short against variants. *CNBC*.
- Malkiel, B. G. (2003). The efficient market hypothesis and its critics. *Journal of Economic Perspectives*, 17(1), 59–82.
- Markowitz, H. M. (1991). Foundations of portfolio theory. *The Journal of Finance*, 46(2), 469–477.
- Masyhuri, M. (2023). Effect of Leverage and Net Profit to the Firm Performance in Indonesia's Small Medium Enterprises (SMEs) Listed Firms. *International Journal of Multidisciplinary Approach Research and Science*, 2(01), 50–60. https://doi.org/10.59653/ijmars.v2i01.306
- Mihajlović, M., Stošić-Mihajlović, L., & Trajković, S. (2021). During a crisis caused by a pandemic, it is best to invest in green energy. *Journal of Process Management and New Technologies*, 9(2), 8–18.
- Mohammadi, S. (2020). Perceptions of Employees on Effects of COVID-19 Pandemic in Food and Beverage Industry: A Case Study from North Cyprus. Eastern Mediterranean University (EMU)-Doğu Akdeniz Üniversitesi (DAÜ).
- Mohiuddin, S. K., & Siddiqui, D. A. (2023). The Development of the Maqasid Al Shariah Index to Assess the Sharia Compatibility Performance of Islamic Industry Including Other Industry and Financial Industry & amp; Banks. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.4432530

- Musthaq, F. (2023). Unconventional central banking and the politics of liquidity. *Review of International Political Economy*, *30*(1), 281–306.
- Nanda, A., Xu, Y., & Zhang, F. (2021). How would the COVID-19 pandemic reshape retail real estate and high streets through acceleration of E-commerce and digitalization? *Journal of Urban Management*, *10*(2), 110–124.
- Newell, R., Raimi, D., Villanueva, S., & Prest, B. (2020). Global Energy Outlook 2020: energy transition or energy addition. *Resources for the Future*.
- Nguyen, J., Le, Q. V., & Ha, J. T. (2021). Impacts of health and safety concerns on e-commerce and service reconfiguration during the COVID-19 pandemic: insights from an emerging economy. *Service Science*, *13*(4), 227–242.
- Norouzi, N. (2021). Post-COVID-19 and globalization of oil and natural gas trade: Challenges, opportunities, lessons, regulations, and strategies. *International Journal of Energy Research*, 45(10), 14338–14356.
- OTENG AGYEMAN, F., ZHIQIANG, M. A., LI, M., KWASI, A. S., FRIMPONG DAPAAH, M., & BRENYA, R. (2022). Comprehending the globalization and performance of ecommerce businesses: evidence from e-commerce companies. *Asian Journal of Advances in Research*, 5(1), 409–424.
- Panzone, L. A., Larcom, S., & She, P.-W. (2021). Estimating the impact of the first COVID-19 lockdown on UK food retailers and the restaurant sector. *Global Food Security*, 28, 100495.
- Paraschiv, D. M., ȚIțan, E., Manea, D. I., Ionescu, C. D., Mihai, M., & Şerban, O. (2022). The change in e-commerce in the context of the Coronavirus pandemic. *Management & Marketing. Challenges for the Knowledge Society*, 17(2), 220–233.
- Polyzos, S., Samitas, A., & Kampouris, I. (2021). Economic stimulus through bank regulation: Government responses to the COVID-19 crisis. *Journal of International Financial Markets, Institutions and Money*, 75, 101444.
- Rehman, S., Wani, I., Khanam, M., & Almonifi, Y. S. A. (2021). A Brief Review of Growth and Development in Islamic Banking. *IOSR Journal of Economics and Finance*, *12*(3), 15–25.
- Rice, M. (2022). Bricks vs. Clicks: How Businesses Survive.
- Ryu, S., & Cho, D. (2022). The show must go on? The entertainment industry during (and after) COVID-19. *Media, Culture & Society*, 44(3), 591–600.
- S&P. (2024a). S&P Global BMI Shariah.
- S&P. (2024b). S&P Shariah Indices Methodology.
- Şenol, Z., & Zeren, F. (2020). Coronavirus (COVID-19) and stock markets: The effects of the pandemic on the global economy. Avrasya Sosyal ve Ekonomi Araştırmaları Dergisi, 7(4), 1–16.
- Shaikh, I. (2022). Impact of COVID-19 pandemic on the energy markets. *Economic Change* and Restructuring, 55(1), 433–484.
- Sharma, A., & Jhamb, D. (2020). Changing consumer behaviours towards online shopping-an impact of Covid 19. *Academy of Marketing Studies Journal*, 24(3), 1–10.

- Sharpe, W. F. (1964). Capital asset prices: A theory of market equilibrium under conditions of risk. *The Journal of Finance*, *19*(3), 425–442.
- Shiller, R. J. (2000). Irrational Exuberance, Princeton Univ. Press.
- Siska, E., Duraipandi, O., Tio, L., & Ameen, A. (2024). Foreign Investment and Stock Market Development in Indonesia. *International Journal of Multidisciplinary Approach Research and Science*, 2(02), 646–658. https://doi.org/10.59653/ijmars.v2i02.656
- Svoboda, A. (2024). INVESTING IN THE ISLAMIC WORLD: OPPORTUNITIES, CHALLENGES, AND IMPLICATIONS. Economics and Finance, Volume 12, Issue 1, 13-21.
- Szczygielski, J. J., Charteris, A., Bwanya, P. R., & Brzeszczyński, J. (2022). The impact and role of COVID-19 uncertainty: A global industry analysis. *International Review of Financial Analysis*, 80, 101837.
- Tanin, T. I., Sarker, A., Hammoudeh, S., & Shahbaz, M. (2021). Do volatility indices diminish gold's appeal as a safe haven to investors before and during the COVID-19 pandemic? *Journal of Economic Behavior & Organization*, 191, 214–235.
- Touti, N., & Taïb, A. A. (2023). Bibliometric Analysis Of Shariah Compliant Capital Asset Pricing Models. *Journal of Islamic Monetary Economics and Finance*, 9(4), 725–750.
- Ulak, N. (2020). COVID-19 pandemic and its impact on tourism industry in Nepal. Journal of Tourism & Adventure, 3(1), 50–75.
- Valencia, F., Varghese, R., Yao, W., & Yépez, J. F. (2022). Handle with care: regulatory easing in times of COVID-19. *The BE Journal of Macroeconomics*, 22(1), 363–396.
- Vogel, H. L. (2020). Entertainment industry economics: A guide for financial analysis. Cambridge University Press.
- Wahab, A. (2023). Islamic Finance. Politecnico di Torino.
- Wan, J., Yin, L., & Wu, Y. (2024). Return and volatility connectedness across global ESG stock indexes: Evidence from the time-frequency domain analysis. *International Review of Economics & Finance*, 89, 397–428.
- Wen, W., Yang, S., Zhou, P., & Gao, S. Z. (2021). Impacts of COVID-19 on the electric vehicle industry: Evidence from China. *Renewable and Sustainable Energy Reviews*, 144, 111024.
- Westfall, P. H., & Henning, K. S. S. (2013). Understanding advanced statistical methods. CRC Press Boca Raton, FL, USA:
- Wójcik, D., & Ioannou, S. (2020). COVID-19 and finance: market developments so far and potential impacts on the financial sector and centres. *Tijdschrift Voor Economische En Sociale Geografie*, 111(3), 387–400.
- Xu, Z., Elomri, A., Kerbache, L., & El Omri, A. (2020). Impacts of COVID-19 on global supply chains: Facts and perspectives. *IEEE Engineering Management Review*, 48(3), 153–166.