



IZVESTIYA

Journal of Varna University of Economics

<http://journal.ue-varna.bg>

HEALTHCARE COMPANIES PERFORMANCE BEFORE AND DURING COVID-19: EMPIRICAL EVIDENCE FROM 150 COMPANIES IN INDONESIA, MALAYSIA, AND SINGAPORE

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JEL: M4

Abstract

The aim of this study is analyzing the effects of Economic Value Added (EVA) and Cash Value Added (CVA) on firm performance, also analyzing whether COVID-19 pandemic affected the firm performance of listed healthcare companies in South-east Asia countries significantly. The objective of this study is to see if healthcare sectors company are really a better option for investors in this time, especially because of the emergence of COVID-19. The firm performance in this study was measured with Market Value Added (MVA). This study took samples of listed healthcare companies from three South-east Asia countries, Indonesia, Malaysia, and Singapore. The study samples included 16 samples from 16 Indonesian Healthcare companies listed in the Indonesia Stock Exchange (IDX), 13 samples from 19 Malaysian Healthcare companies listed in the Bursa Malaysia, and 23 samples from 33 Singaporean Healthcare companies listed in the Singapore Stock Exchange (SGX), the total samples used were of 150 companies. The samples used in this study are from selected companies representing the whole segment. All samples were based on the informations provided in their annual report ended per 31 December. Multi regression analysis method was applied in this study to determine the effects of COVID-19 pandemic on the listed healthcare companies' performance. Based on the tests conducted for this study, it is found that EVA and CVA have a positive significant effect on MVA. However, there was no significant difference found between MVA before and during COVID-19 pandemic.

Key words:

Firm Performance,
COVID-19, Healthcare
sectors, Multi Regression
Analysis

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Citation: FLORENCE, C., SOENARNO, Y.N. (2022) Healthcare Companies Performance before and during Covid-19: Empirical Evidence from 150 companies in Indonesia, Malaysia, and Singapore. *Izvestiya Journal of Varna University of Economics*, 66 (1-2), pp. 91 – 106.

DOI: 10.56065/IJUEV2022.66.1-2.91

1. INTRODUCTION

The World Health Organization (WHO) has officially declared a COVID-19 pandemic to hit more than 150 countries across the world. Although the number of people infected in some countries has decreased, but there is still no certainty for how long countries could keep the infection under control or when it would strike back and infect even more people. COVID-19 has changed the world in many ways since its first occurrence in Wuhan, China in December 2019. COVID-19 has brought alteration in society from the way we work, study, socialize, and so on, and there is no exception for business and economic aspect. It is difficult to predict how long this pandemic would impact business and economic world.

At the beginning of this case, it did not affect the stock market, but as more victims were confirmed, the stock market reacted negatively (Khan et al., 2020). Prices on the stock market are declining, especially after WHO stated that Covid-19 was a pandemic (AlAli, 2020). COVID-19 pandemic has trapped many businesses in difficult situation and brought huge turmoil in global commerce, as a result, almost all business sectors suffered from losses. Most companies are opting to save costs, avoid expansion, and conserve their funds (Rababah et al., 2020). Many businesses suffered from downsizing, temporary closure, and even permanent closure. For example, a retail supermarket in Indonesia, PT Hero Supermarket Tbk, permanently closed almost all of their stores across the country, Malaysia Airlines Bhd, a Malaysian airline company, has announced 35% pay cuts for top management, 50% reduction in directors' monthly fee, and streamlining of allowances for licensed aircraft engineers and technicians.

The implementation of this policy causes a decline in demand for most services and goods along with a decline in people's purchasing power and has an impact on the company's performance in creating profitable value for investors, thereby affecting investors' interest in investing. In measuring the value creation of a company, one of the indicators that can and will be used from companies' internal point of view in this research are economic value added (EVA) and cash value added (CVA). Meanwhile, from external point of view, as an indicator of market valuation on companies' performance which is also related to stock prices, this research is going to use market value added (MVA). These measurements were chosen in this study considering various

factors such as globalization, increased competition, interest rate volatility, and foreign exchange fluctuations, as examples of the various types of risks and uncertainties caused by the international financial crisis that affect financial markets and companies' activities. Therefore, it would be better to re-analyze performance measures not using conventional performance measurement but using company performance measurements that focus on value creation.

Measurement of company performance with a focus in the value creation concept is preferred in this study because it can explain the company's financial condition even closer to reality than conventional performance measurement. Since value creation based concept also calculates the existence of cost of capital, consisting cost of debt and cost of equity, that the company owes, and these aspects can not be calculated simultaneously with the conventional measurement method and thus financial performance measurement could be biased, especially for externals, such as investors.

When almost all countries in Southeast Asia region were forced to set social distancing along with quarantine and some country even enforced lockdown and banned public places that were not crucial and essential to operate in order to suppress the number of people infected by the highly contagious virus. The implementation of this policy caused a decline in most goods and services demand and had an impact on the companies' performance in creating profitable value for investors, thereby affecting investors' interest in investing. These practices have led towards a decline in demand for most common goods and services, resulting to a decline of economic performance. Research noted that the average performance of stock indexes of those three countries, Indonesia, Malaysia, and Singapore from of the end of Q4 2019 to the end of Q1 was -21.7%. If compared with the performance of Q3 2019 to Q4 2019 it was -3.44%. It showed a significant deflation on stock performance since COVID-19 arrival in those countries.

With corona virus (COVID-19) plaguing the world, on the contrary to most sectors, with the increasing number of infected people, the goods and services from the health sector will be increasingly sought after. Therefore, the economic situation for companies which are engaged in an area such as healthcare should be different from the other sectors. Southeast Asia's consumer health industry is in a good position to grow, as consumers demand on necessities such as medicines and immune-boosting supplements is increasing.

The retail sales of consumer health in Southeast Asia countries are set to grow by 3% from 2019 to 2020, more dynamic than Asia Pacific's aggregated 1% growth. ASEAN's healthcare sector has been driven towards reforms and open investment opportunities by the emergence of COVID-19 pandemic. According to World Health Organization (WHO), ASEAN spends almost 4% of its GDP on healthcare, with expenditure per

capita at USD 2,700, Singapore is placed at the top of the list. The increasing demand in healthcare related goods and services impacted investors' interest. Some healthcare companies in Southeast Asia have experienced increased investor demand for their shares. As an example, Malaysian LYC Healthcare Berhad's stock price has added 13.3% year-to-date as of 22 July 2020, confirming the solid growth prospects for the sector. In Indonesia, this could be seen from the strengthening of PT Kimia Farma Tbk (KAFF) shares on March 26, 2020, by 23.08% to the position of Rp 1,280 per share. Followed by PT Indofarma Tbk (INAF) which rose 23.30% to a position of Rp 1,085 per share.

The steps taken to do this research are, first, authors gathered the published financial data of Indonesian, Malaysian, and Singaporean companies ranging from 2018 to 2020 to determine whether COVID-19 has significant impact on companies' performance in those three countries and provide comparison between years before and during pandemic. This comparison will provide information about how COVID-19 affected financial performance of healthcare sector in each country. This study is mainly beneficial for investors since based on the results of this study, it can help convince investors and potential investors about the financial performance of health sector companies. As can be seen, the healthcare sector is assumed by many as an investment option in the current pandemic condition. The awareness of the importance of other factors that influenced firms' performance has been raised during COVID-19 pandemic. (Kells, 2020; Obrenovic et al., 2020). Accordingly, this study will use the relation between firms' performance with firm-specific and country-specific factors.

This research is divided into five parts, arranged in the following order: Part 2 contains review of literature and research hypothesis, Part 3 contains details about the data, sample, and statistical methodology used to test the hypothesis, Part 4 contains the tests results and analysis, and Part 5 contains conclusions.

2. LITERATURE REVIEW AND RESEARCH HYPOTHESIS

Economic Value Added

Economic value added (EVA) is defined as a surplus in the value created over the expected returns from shareholders as an expression of economic benefit of a business organization. EVA measures the company's performance in a certain period of time, whether it was a success or failure. This measurement is useful for investors to see how well the company has generated value for its investors. One of the most important aspects reflected by EVA is the cost of capital. Measurement using conventional indicators, most companies could appear profitable even when they are not. EVA measurement can correct this bias in calculating companies' profit because in EVA, the capital used

by the company is assumed to be paid. By taking the cost of capital into account, EVA shows a more accurate profit in each reporting period (Vasilescu et al., 2011).

Cash Value Added

Cash Value Added (CVA) is a variation of the EVA measurement. CVA is defined as a measure of a company's ability to generate profit in a cash beyond the required returns to its investors. CVA provides investors with an idea firm's capability to generate cash from a particular period to another. Kordlar et al. (2006) defines CVA as a measurement of the activities carried out by the company and its employees in order to create value and increase the wealth of the entity. In general, a high CVA indicates the company's ability to generate liquid profits from one financial period to another. The difference between CVA and EVA is that CVA only focuses on the company's cash flow while EVA focuses on the overall value of the company.

Year

The virus was discovered in late 2019 and first reported in Wuhan, China, on December 31 in the same year. Not long after the first discovery of this virus, it could already be found in various countries, no exception for Southeast Asian countries. In Singapore, the first case of COVID-19 was confirmed in early 2020 to be exact on January 23, 2020, followed by two days later Malaysia declared its first COVID-19 case on January 25, 2020, while Indonesia only confirmed the first case of COVID-19 on March 3, 2020.

According to the previous information, it is known that COVID-19 has spread to Singapore, Malaysia, and Indonesia in early 2020. In this study, the time range studied was from 2018 to 2020. Therefore, the previous two years, namely 2018 and 2019 are categorized as the years before the spread of COVID-19 and 2020 is categorized as year during COVID-19 pandemic. Year variable determined using dummies, where years before covid-19 will be represented by 0 and year during Covid represented by 1.

Market Value Added

The concept of market value added (MVA) was introduced by Steward and Co in 1993 with the aim of assessing the impact of companies' decision on the prosperity of their shareholders since the company started their business. When a company has good performance over time, it will be able to maintain profits. This will increase the book value of the company's share, and investors are more likely to value the company's shares higher based on the expectation of higher future earnings. An increasing share price will increase the market value of the company.

Based on previous explanation, from the investor's point of view, market value added (MVA) considered to be the best external measurement tool that can show the company's performance in accordance with the statement of Vasilescu et al. (2015). (Alipour & Pejman, 2015) stated that MVA is closely related to the ability of a business to create value based on their performance in the future.

Prior study in correlation between pandemic and firm performance conducted by Rababah et al (2020) on the overall firm performance of the Chinese companies showed that there was a decline across various business sectors since the pandemic of COVID-19 struck China. A study carried by (Devi et al., 2020) found a significant difference in the performance of the listed firms between before COVID-19 and during COVID-19. In the research, it was concluded that due to the decline in sales during the pandemic and the company incapability to save costs, this would negatively affect the company's performance. A similar result stated in (Hu & Zhang, 2021) study, the research concluded that cumulative COVID-19 cases affected firm performance negatively, suggesting that the average firm performance weaken as cumulative COVID-19 cases rise. In a study conducted by (Cho & Saki, 2021) on the effect of the COVID-19 pandemic on the performance of textile and clothing industry companies in the United States, it was found that COVID-19 had a negative or adverse effect on company performance.

This study will be using research model as shown below to gauge the firm performance from external point of view.

$$Performance_{it} = \beta_0 + \beta_1 EVA_{it} + \beta_2 CVA_{it} + \beta_3 YEAR + \beta_4 SIZE_{it} + \beta_5 COUNTRY_t + \varepsilon_{it}$$

In the research model above $Performance_{it}$ denotes firm performance and proxied by market value added (MVA). In this study, several control variables are being used such as firm and country. Firm control in this study proxied by firm size will be measured using natural logarithm of total assets. Country-specific control variable in this study measured by using countries' market capitalization since in (Hu & Zhang, 2021) stated that advanced financial markets could cushion pandemic shocks and alleviate financial constraints.

The sample used in this study consists of firms located in three different countries in Southeast Asia, that is Indonesia, Malaysia, and Singapore. The research in this study will be looking for data between pre-pandemic period, which is year 2018 and 2019, and the pandemic period is year 2020. The Covid-19 cases were confirmed in Malaysia and Singapore on late January 2020, while in Indonesia, the case was first confirmed on early March in the same year.

Signaling Theory

Signal theory emphasizes the importance of the information issued by the company on the investment decisions of the company's external parties. This is different from the agency theory that emphasizes more on agency problems between owner as a principal and management as a responsible party to ensure the company's performance and stability. According to Brigham & Houston (2010), signals are actions taken by the company's management to provide information for investors regarding how management views the company's prospects.

Financial report as a signal transmitter to the current and potential investors has an important role to affect the companies' market value. As EVA and CVA both are financial measures that could be calculated based on the information provided in the financial report, EVA and CVA of a company can affect the investors behaviour towards that company's stock. Whether they will have the willingness to buy the stock at a higher price level or instead sell them in accordance to the EVA and CVA they have calculated based on the information in the financial report.

EVA is a value-based measurement that help investors with wealth discovery and company-selection processes. EVA deals with accounting for cost of capital and determines whether a company's earnings are sufficient or insufficient to cover the cost of capital, and determine whether a company is a value generator or a diluter. EVA is considered to be an appropriate measurement of firm performance. It is highly correlated to shareholder return and able to signal the extent of periodic wealth creation (Bhasin & Shaikh, 2013).

Investor demand and willingness to buy the stock at a higher price level will be reflected in the MVA. The higher gap between company's share book value and the market share price will result in the higher MVA. According to the explanation above, signaling theory is considered able to outline the correlation between these variables better than other theories.

Based on current conditions, generally, COVID-19 outbreak has had a devastating impact on most companies. Many companies have experienced a decline in profits, even suffered losses during the COVID-19 pandemic. Companies needed more fund sources and appropriate management strategies to be able to survive this condition. This is certainly bad news for investors because the company's condition is uncertain and unstable and most certain that the companies' EVA and CVA calculations are not as fit as the previous financial periods. This condition will be responded negatively, which in turn will lower the company's stock price (Wicaksono & Adyaksana, 2020).

Research Hypothesis

In general, Economic Value Added (EVA) is considered as a measurement for firm performance. EVA identifies the company's performance from an internal perspective related to how far the company has created value for shareholders by considering the cost of capital that has been placed into the company. Meanwhile, Market Value Added (MVA) is an external measure of performance (Panahi et al., 2014) and can only be measured in public companies because it is related to the company's stock market price.

The main idea of EVA is built upon economic profit, which means that wealth is only created if a company managed to cover its operating and capital costs. The principle of EVA is to give assessment on firms' performance and achievements of the companies because EVA is directly related to the market value of a company. EVA and MVA have a close relationship based on the statistical results conducted by (Pinto & Machado-Santos, 2011). The analysis that has been carried out shows that EVA and MVA have a significant relationship. The effect of EVA on MVA also analyzed by (Vijayan, 2018) using company data for a 10-year period from 2005 to 2014 shows a significant effect.

Based on the relationship between the variables described above, the first hypothesis in this study can be formulated:

H_1 : Economic Value Added (EVA) has a positive effect on Market Value Added (MVA)

The concept of CVA is similar to EVA, but CVA only considers cash as the main focus in measuring the company's ability to generate economic wealth. This measurement shows the company's ability to generate cash from one period to another. In general, the higher the CVA the better for the company and for investors.

Therefore, the second hypothesis in this study can be formulated:

H_2 : Cash Value Added (CVA) has a positive effect on Market Value Added (MVA)

The decline in company performance could be linked to the increasing uncertainty due to COVID-19 pandemic. The COVID-19 pandemic has had a negative impact on the economies of several Southeast Asian countries. The Organization for Economic Co-operation and Development (OECD) informs that COVID-19 pandemic has brought a threat of major economic crisis marked by the decrease in production activities in countries across the globe, a decline in public consumption levels, and ultimately a fall in stock prices. (OECD, 2020).

H_3 : The difference in years before and after the Covid-19 pandemic has a significant effect on Market Value Added (MVA)

3. RESEARCH METHODOLOGY

Research method used in this study was the quantitative method. The object of research used in this study are the health sector companies listed on the national stock exchanges of Indonesia, Malaysia, and Singapore in the period 2018 to 2020. This study uses secondary data in the form of audited company annual reports for the period 2018 to 2020 which are downloaded from the IDX's official website (www.idx.co.id), the Bursa Malaysia website page (www.bursamalaysia.com), and the Singapore Exchange website (www.sgx.com). In addition, other necessary additional data such as stock prices are accessed through the yahoo finance website page.

Population and Sample

The population studied in this study were 16 Indonesian companies, 19 Malaysian companies, and 33 Singaporean companies with a total number of 204 samples. However, after being processed by purposive sampling method and removing outlier data, the final number of samples that can be used is in this study are 150 units of analysis. Purposive sampling was used to gather information based only on companies' financial statement that ended December 31st, so there was no bias in the study due to differences in time periods analyzed.

Research Variables

Economic Value Added (EVA) is a measure of company performance associated with the creation of value for shareholders. EVA calculation can be done by subtracting a net operating profit after tax with the entire cost of capital from investments in the company. Therefore, the formula used in calculating EVA variable is net operating profit after tax minus capital charges.

$$EVA = NOPAT - CC$$

NOPAT : Net Operating Profit After Tax

CC : Capital Charges

Cash Value Added (CVA) is defined as a performance measurement carried out by company management and employees to create value and increase company wealth especially in cash. CVA is calculated by deducting the gross cash flow by economic depreciation and capital charges.

$$CVA = \text{Gross Cash Flow} - \text{Economic Depreciation} - \text{Capital Charge}$$

Year variable was used to distinguish the years before and after COVID-19. This variable will be indicated using the number 0 if it is a year before being affected and 1

if it is a year that has been affected by COVID-19. According to the information that has been compiled from various sources, it can be concluded that 2018 and 2019 will be indicated using the number 0 and in 2020 using the number 1.

There were two control variables used in this study, firm size and country market capitalization. Control variable is a variable that is controlled or made constant in order to limit the influence of independent variable on the dependent variable. So the dependent variable would not be affected by external factors that are not included as objects in the study (Sugiyono, 2011).

Firm-specific control in this study proxied by firm size. Firm size refined by using natural logarithm (ln) of the total assets since the total assets value are generally larger in value in comparison to other financial variables. Country-specific control variable in this study measured by using countries' market capitalization. Market capitalization (% of GDP) or also known as market value is calculated by multiplying share price by the number of outstanding shares owned by domestic or domestic companies that are listed. Domestic listed companies are domestic legal entities that are listed on the state stock exchange at the end of the year. Market capitalization (% of GDP) data were obtained from the World Development Indicators (WDI) website.

4. RESULTS AND ANALYSIS

Regression analysis

Variables	Coefficients	p-Value
EVA	0,345223	0.000*
CVA	-0,2856972	0.001*
Year	1,47E+08	0.469*
Firm-Specific	5,10E+08	0.000*
Country-Specific	-0,0006194	0.489*
Constant	-8,73E+09	0.000*
Prob > F	0,0000	
Adjusted R-squared	0,7813	

* significant < 0.05; * not significant > 0.05

Fig 1. Multi Regression Analysis

Based on the analysis result on Table 2, the first hypothesis (H_1) is accepted. Independent variable EVA have a positive significant effect on MVA. Over twenty years

of development, discussion, and verification, EVA valuation model is now considered to be an important selection criteria used by managers and investors all over the world to analyze companies' economic performance (Hui et al., 2015). Investors and analysts considered intrinsic values that are determined by valuation models, which aid in the borrowing, merging, and acquiring process, are the actual value of equity. Corporate performance is indicated by intrinsic values' high and low (Behera, 2020). Meanwhile from the analysis, it is shown that Cash Value Added has a negative significant effect on Market Value Added. Investors' sufficient knowledge regarding calculation and benefits of Cash Value Added in making investment decisions. Investors realize the importance of CVA since calculation of CVA is based on cash flow, therefore CVA provides an overview of the company's ability to generate cash flow from one period to another. However, lower CVA could also indicate that a company has an investment whether for expansion or future projects that require them to increase their funding source and therefore increasing their cost of capital.

The third hypothesis (H_3) is rejected. Based on regression analysis result, Year variable does not have a significant effect on MVA. It means there was no significant difference on MVA of the healthcare companies throughout years before COVID-19 and a year after COVID-19. An assumption as for why there was no significant difference found on MVA is mainly because the sample of this study were companies engaged in the healthcare sector. During 2020 since the arrival of COVID-19 to Southeast Asian countries that were the object of the study, consumption of goods and services from healthcare companies was not declining as happened to companies engaged in other sectors. This reason caused investors to value healthcare sector companies as more profitable than other sectors.

Variables	Indonesia		Malaysia		Singapore	
	Coefficients	p-Value	Coefficients	p-Value	Coefficients	p-Value
EVA	-47,96991	0.000*	-18,28346	0.344*	0,3012263	0.000*
CVA	0,309667	0.418*	-2,240469	0.105*	-0,2375705	0.000*
Year	2,26E+08	0.371*	1,90E+09	0.685*	5,06E+08	0.627*
Firm-Specific	6,00E+07	0.705*	6,00E+07	0.044*	3,52E+08	0.000*
Country-Specific	-0,0060066	0.435*	-0,0392301	0.764*	0,142896	0.578*
Constant	1,79E+09	0.722*	4,85E+09	0.928*	1,61E+10	0.368*
Prob > F	0,0000		0,0026		0,0000	
Adjusted R-squared	0,4183		0,3787		0,9249	

* significant < 0.05; * not significant > 0.05

Fig 2. Multi Regression Analysis for Each Country

After examining independent variables effect on MVA based on countries, it was found that there were some differences in the results. Regression analysis result on Indonesian healthcare companies shows that only one independent variable has a significant effect on the dependent variable, which is EVA. Therefore, it can be known that Indonesian investors also see EVA as a considerable indicator in investment decision making. Although based on a study conducted on Indonesian market shows that Indonesian investors have a tendency to focus more on capital gains and dividends, the regression results still show that EVA has affected MVA significantly. EVA calculation considered as suitable indicator because it represents the expectations of creditors and shareholders (Anita, 2009). Indonesia's need for healthcare goods and services give opportunities for healthcare sector companies to expand their performance. In order to be able to do this, companies might need more funds, therefore companies seek for funding source from debt and equity. This lead to an increase in their cost of capital and therefore decreases their EVA. But investors in the market see this lower EVA not as something unprofitable. Since expansion and projects in the future could make a company better and therefore profitable for investors.

Meanwhile, the other two independent variables, CVA and Year, are not having a significant effect on MVA. A study on companies listed in Indonesia stock exchange and included in LQ45 index shows that cash value added is not able to provide better information than price to earnings ratio. This could be a result of cash value added being not widely used in Indonesia. Cash value added is part of the concept of value-based management as one of the company's performance measurements. Meanwhile in Indonesia, public and investors still tend to use conventional accounting measurement concepts (Marsiwi, 2016).

Regression analysis result on Malaysian healthcare companies shows that EVA, CVA, and Year independent variable has no significant effect on the dependent variable. Malaysian markets can continue to assess companies' performance based upon the profitability ratios since it has higher explanatory power on the Malaysian market than EVA (Nakhaei, 2021). The study has also mentioned another reason why EVA has not been performing well in Malaysia: namely, that the adjustments of accounting to net operating profit after tax recommended by Stern Stewart & Co. are sometimes ineffective when implemented in Malaysia and might cause measurement inaccuracy in information that Malaysian investors use in measuring a company's value. Based on that, it can be said Malaysian investors tend to choose profitability ratios to measure a firm performance and value rather than valuation models such as EVA and CVA.

However, in regression analysis result on Singaporean healthcare companies, EVA has a positive significant effect on MVA and CVA has a negative significant effect on MVA and only Year variable found to have no significant effect on MVA. In Singapore,

EVA is often a preferred standard for performance. Temasek, one of the world's largest institutional investors is one of the examples which preferred EVA as a standard for performance measurement (Kuk & Teo, 2020). According to a survey conducted based on the views of institutional and retail investors in Singapore, it was found that investors rated operating cash as one of the most important source for investment decision-making in comparison to other financial statement items with 68% of institutional investors and 46% of retail investors rated operating cash as "very important" (Teen & Hong, 2016). While CVA negatively affected MVA because of investors seeing lower CVA means a company is trying to expand or planning a bigger project in the coming years.

5. CONCLUSIONS

This study discusses the effects EVA and CVA on healthcare firm performance measured by MVA and try to find if there is any difference between firm performance before and during the COVID-19 pandemic. The findings of this study generally indicated that EVA and CVA both have a significant effect on MVA. However, when each country is being analyzed separately, it shows that not all countries have the same results as the previous analysis. This is due to investors in each country and the different main factors to consider when making investment decision that finally leads to different effect on the market value of each country.

The other finding in this study is that there is no significant difference found between firm performance in all three countries before and during the COVID-19 pandemic. This result could be explained because the research object in this study is limited to healthcare companies only. During 2020 since the arrival of COVID-19 to Southeast Asian countries, consumption of goods and services in most sectors were decreasing. On the contrary, for healthcare companies, the consumption for medicine, hospital services, and other medical appliances has not declined and some companies have even experienced an increase in revenue. This reason caused investors to value healthcare sector companies as more profitable than in other sectors.

Several analysts assess that stocks in the health sector are quite resilient, both during the pandemic and immediately after the pandemic. This is because the health sector has a relationship between each other. Capital market analyst from PT Ciptadana Sekuritas Asia stated that all lines in the health sector support each other, for instance, with the improvement in the hospital sector having an impact on other sectors such as the distribution of medical devices (Safitri, 2022).

For a long-term prediction, along with the recent decline in COVID-19 cases, income from COVID-19 patients is predicted to decline. The decrease would be compensated by the usual patient volume. Even so, the volume of ordinary patients had

also fallen because people tend to avoid visits to hospitals to minimize transmission of the COVID-19 virus (Intan, 2021).

Moreover, the positive sentiment at the beginning of the vaccines arrival could no longer rise the overall healthcare sector price. People also tend to presume COVID-19 as a normal flu. Based on that, demand of healthcare sectors goods and services would be back to its normal level unless there is a new phenomenon or sentiment that could escalate the healthcare sector stock price.

REFERENCES

1. AlAli, M. S. (2020). The Effect of WHO COVID-19 Announcement on Asian Stock Markets Returns: An Event Study Analysis. *Journal of Economics and Business*, 3(3). <https://doi.org/10.31014/aior.1992.03.03.261>
2. Alipour, M., & Pejman, M. E. (2015). The impact of performance measures, leverage and efficiency on market value added: Evidence from Iran. *Global Economics and Management Review*, 20(1), 6–14. <https://doi.org/10.1016/j.gemrev.2015.04.001>
3. Anita. (2009). *Analisis Pengaruh Economic Value Added (Eva) Terhadap Market Value Added (Mva) Pada Beberapa Perusahaan Tercatat Di Bursa Efek Indonesia (Bei) Periode 2005-2006*.
4. Behera, S. (2020). Does the EVA valuation model explain the market value of equity better under changing required return than constant required return? *Financial Innovation*, 6(1). <https://doi.org/10.1186/s40854-019-0167-8>
5. Bhasin, M. L., & Shaikh, J. M. (2013). Economic value added and shareholders' wealth creation: the portrait of a developing Asian country. *International Journal of Managerial and Financial Accounting*, 5(2), 107–137. <https://doi.org/10.1504/IJMFA.2013.053208>
6. Cho, B., & Saki, Z. (2021). Firm performance under the COVID-19 pandemic: The case of the U.S. textile and apparel industry. *Journal of the Textile Institute*, 0(0), 1–11. <https://doi.org/10.1080/00405000.2021.1943258>
7. Devi, S., Warasniasih, N. M. S., & Masdiantini, P. R. (2020). The Impact of COVID-19 Pandemic on the Financial Performance of Firms on the Indonesia Stock Exchange. *Journal of Economics, Business, & Accountancy Ventura*, 23(2), 226–242. <https://doi.org/10.14414/jebav.v23i2.2313>
8. Hu, S., & Zhang, Y. (2021). COVID-19 pandemic and firm performance: Cross-country evidence. *International Review of Economics and Finance*, 74(2020), 365–372. <https://doi.org/10.1016/j.iref.2021.03.016>
9. Hui, E. C. M., Gao, Y. O., & Kevin Chan, K. K. (2015). Does EVA truly reflect the performance of property companies in China? *International Journal of*

Strategic Property Management, 19(3), 260–270. <https://doi.org/10.3846/1648715X.2015.1052766>

10. Intan, K. (2021). *Euforia meredup, kenaikan saham sektor kesehatan cenderung melambat*. Stock Setup. <https://stocksetup.kontan.co.id/news/euforia-meredup-kenaikan-saham-sektor-kesehatan-cenderung-melambat>

11. Safitri, K. (2022). *Saham Sektor Kesehatan Dinilai Lebih “Resilience” Saat Pandemi*. <https://money.kompas.com/read/2022/01/20/141646526/saham-sektor-kesehatan-dinilai-lebih-resilience-saat-pandemi>

12. Kells, S. (2020). Impacts of COVID-19 on corporate governance and assurance, international finance and economics, and non-fiction book publishing: some personal reflections. *Journal of Accounting and Organizational Change*, 16(4), 629–635. <https://doi.org/10.1108/JAOC-08-2020-0115>

13. Khan, K., Zhao, H., Zhang, H., Yang, H., Shah, M. H., & Jahanger, A. (2020). The impact of COVID-19 pandemic on stock markets: An empirical analysis of world major stock indices. *Journal of Asian Finance, Economics and Business*, 7(7), 463–474. <https://doi.org/10.13106/jafeb.2020.vol7.no7.463>

14. Kuk, K., & Teo, J. (2020). *A global perspective: Is EVA a good incentive metric?* Willis Towers Watson. <https://www.willistowerswatson.com/en-US/Insights/2020/06/A-global-perspective-Is-EVA-a-good-incentive-metric>

15. Marsiwi, D. (2016). Pengaruh Cash Value Added Dan Earning Share Ratio Terhadap Return Saham. *Ekulibrium : Jurnal Ilmiah Bidang Ilmu Ekonomi*, 8(1), 48. <https://doi.org/10.24269/ekulibrium.v8i1.34>

16. Nakhaei, H. (2021). *Does EVA Have More Information Content with Stock Return than Profitability Ratios? Evidence from Malaysia*. February. <https://doi.org/10.22067/ijaaf.v3i1.68163>

17. Obrenovic, B., Du, J., Godinic, D., Tsoy, D., Khan, M. A. S., & Jakhongirov, I. (2020). Sustaining enterprise operations and productivity during the COVID-19 pandemic: “Enterprise effectiveness and sustainability model.” *Sustainability (Switzerland)*, 12(15), 1–27. <https://doi.org/10.3390/su12155981>

18. Panahi, B., Preece, C. N., Zakaria, W. N. W., & Rogers, J. (2014). The Correlation of EVA and MVA with Stock Price of Companies in Tehran Stock Market Babak. *Interdisciplinary Journal of Contemporary Research In Business*, 6(2), 291–308.

19. Pinto, T. da C., & Machado-Santos, C. (2011). an Analysis of the Correlation Between Eva® and Mva®: the Case of a Nyse Euronext Lisbon Listed Company. *Global Journal of International Business Research*, 4(4), 69–79.

20. Rababah, A., Al-Haddad, L., Sial, M. S., Chunmei, Z., & Cherian, J. (2020). Analyzing the effects of COVID-19 pandemic on the financial performance of Chinese

listed companies. *Journal of Public Affairs*, 20(4). <https://doi.org/10.1002/pa.2440>

21. Sugiyono. (2011). *Metode Penelitian, Kuantitatif, Kualitatif dan R&D*. Alfabeta.

22. Teen, M. Y., & Hong, C. Y. (2016). *Into the Minds of Investors*. 1–28.

23. Vasilescu, L., Popa, A., Stern, J., & Stewart, S. (2011). Economic Value Added: Pros and Cons. *Finance : Challenges of the Future*, 1(13), 60–65.

24. Vijayan, M. (2018). *Project Report on Analysis of Impact of EVA on MVA of companies belonging to select industries in Nifty 50 CMA Ramesh Rajagopalan MBA Program*. 560085(February 2017).

25. World Development Indicator. (2021). Retrieved November 27, 2021, from <https://databank.worldbank.org/source/world-development-indicators>

26. World Health Organization. (2021). Retrieved November 24, 2021, from

27. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen>

28. Wicaksono, C.A. & Adyaksana, R.I. (2020). Analisis Reaksi Investor Sebagai Dampak Covid-19 Pada Sektor Perbankan Di Indonesia. *JIAFE: Jurnal Ilmiah Akuntansi Fakultas Ekonomi*, 6(2), 129-138.