



The Effect Of Covid-19 Pandemic On Financial Performance Of Covid-19 Referral And Non-Referral Hospital

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ABSTRACT

The purpose of this paper is twofold: to examine the relationship between Covid-19 pandemic and hospital performance and to compare the performance of Covid-19 referral and non-referral hospitals. To this end, secondary data were obtained from fourteen state-owned hospitals. These fourteen hospitals were parts of Indonesia Health Care Corporation (IHC). The data on hospital's performance were used to represent the population of all state-owned hospitals in Indonesia. A correlation test was performed using the Rank Spearman test, while the comparison test was done using Mann-Whitney. Test results showed a weak, positive relationship between both types of hospitals in terms of ROA, a moderate, positive relationship between both types of hospitals in terms of EBITDA margin, and a moderate, negative relationship in terms of BOPO ratio. A significant difference in financial performance was also noticed between Covid-19 referral and non-referral hospitals. The result implies that hospitals play a central role in handling Covid-19 pandemic, especially those appointed as the referral hospital by the authority. Referral hospitals actively handled the pandemic, as indicated by the significant difference in financial performance compared to non-referral hospitals. This work is expected to contribute to future studies on similar topics and the hospital management's decision-making process when a similar condition occurs in the future.

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1. Introduction

Covid-19 was firstly detected in Wuhan on 31 December 2019. It only needed a few days for the virus to spread around the globe, forcing WHO to declare the Covid-19 outbreak as a pandemic on 11 March 2020. The virus was first detected in Indonesia on 2 March 2020 when two Indonesian citizens were reported to be infected by Covid-19 from their contact with a Japanese citizen. On 14 March 2020, Presidential Decree no. 12 of 2020 on stipulation of Non-Natural Disasters of the Spread of COVID-19 as a National Disaster was issued. On 9 April the same year, the virus spread over 34 provinces, with DKI Jakarta, West Java, and Central Java reporting the highest SARS-CoV-2 cases in the country. On 31 December 2021, Indonesia reported 4,262,653 confirmed cases, the highest in Southeast Asia.

Every country worldwide made various attempts to prevent the viral spread, including international travel restrictions, night time curfew, sport and cultural event cancellations, and school closure.

The rapid Covid-19 viral spread forces countries worldwide to perform various measures to break the viral transmission despite their significant impact on the global economy. Those measures primarily

aim to decline in Covid-19 infected population. International Monetary Fund and World Bank predicted that the global economy would enter a sharply corrected recession until the end of the 1st quarter of 2020 (Liu et al., 2020). England and other European Union countries performed economic lockdown to minimize fatality and the spread despite its adverse impact on their national economy, business, and even bankruptcy. In Indonesia, the authority issued various policies to respond to the covid-19 pandemic, including social and physical distancing policies issued in early March 2020 (Hadiwardoyo, 2020). The authority also issued travel restrictions to countries categorized as “red zone” during the Covid-19 pandemic in order to cut the viral spread (Arianto, 2021).

The government's policy did affect the country's economy. All sectors are affected by the pandemic, including export-import, investment, trading, and particularly service-related sectors like hospitality, health care, and transportation industries. Previous studies show that all industry and service sectors suffered a significant performance drop during the Covid-19 pandemic. Another impact of the pandemic on Indonesia's economy includes layoffs, PMI Manufacturing Indonesia, declined import, inflation, and losses in the tourism sector that causes lower occupancy (Yamali & Putri, 2020). Income management also declined during the Covid-19 pandemic in Europe (Benhlime, Elaoud & Jarboui, 2022). Zeho (2020) reports a decline in hospital income in 2020 due to closure for outpatient and focus on emergency patients. In the US, almost half of US hospitals reported a negative margin in the second quarter of 2020, and the condition is likely to continue even after COVID-19 spread is lower if they do not receive financial support (Kaufman Hall, 2020). Similarly, Synhorst and associates (2021) found an average of \$ 276 million decreased income in US pediatric hospitals in 2021. The covid-19 pandemic is responsible for the financial performance drop of almost all industrial sectors, especially in the first semester of 2020. A decrease in non-covid-19 visits eventually affects hospitals' financial performance. Covid-19 is viewed as a health shock and causes unpredictable demands that affect hospital financial performance in 2020 (Hassan, Moosavi, & Enayat, 2021). Gebai and Anderson (2020) (Health Affairs Blog) report that although hospitals in remote US areas do not show increased Covid-19 visits, inadequate facilities, lengthy treatment, and increasing costs for medical devices, PPEs, and medicine are inevitable. The increasing cost clearly affects hospitals' financial performance, and this problem seems to have no solution unless the US government hands financial aid. Similar condition is also found in hospitals in Tehran, Iran. Although financial loss due to lower demands for hospital service during the first semester of the Covid-19 pandemic is unavoidable, lower costs and higher Covid-19 health care tariffs stipulated by the Iranian Ministry of Health and Medical Education can prevent further losses (Hassan, Moosavi & Enayat, 2021).

Indonesia also exhibits a similar issue. The country's restriction for outpatients by prioritizing only emergency cases and limited physical contact are responsible for lower outpatients' visits in private hospitals in Indonesia. Such a condition has resulted in a lower occupancy rate. The restriction of surgery and operative measures to prevent infections also accounted for the lower occupancy rate. While the government-owned hospitals focus on caring for Covid-19 patients, the increasing Covid-19 cases have outnumbered the health care facilities. To address the increasing Covid-19 cases, regional governments appointed several private hospitals as Covid-19 referral hospitals. On 13 March 2020, the Indonesian government appointed 132 hospitals as Covid-19 referral hospitals. This appointment implies the government's responsibility to prepare more capacity to cope with increases in emerging infectious diseases, especially Covid-19 (<https://infeksiemerging.kemkes.go.id/>). At this point, hospitals' difficulties revolve around two issues The financial performance drop due to restrictions on outpatient care and patients' fear of Covid-19 infection. An increasing cost due to additional infrastructure and facilities to handle Covid-19, including additional bed, medical devices (e.g., ventilator), PPEs, and Covid-19 medicine. This condition, as previous studies mention, causes perplexity among hospital management around the world. Some private hospital managements made decisions considered to increase non-covid-19 patient visits by rejecting Covid-19 patients. The director of RSGM UGM, Dr.drg. Julita Hendartini, M.Kes.,AAK., states that the Covid-19 pandemic has affected hospitals' operations, especially non-referral hospitals for Covid-19. The covid-19 pandemic demands sufficient public funding to ensure comprehensive responses from the Indonesian Government. Reprioritizing public expense for strengthening the economy and health system requires a timely measure from policymakers and the

public financial ecosystem that supports government's policy (Poluakan et al., 2019; Wawo & Dharmawati, 2020). While needs for beds, doctors, medical gas, and medicine should be fulfilled in a timely manner, current government-owned hospitals' facilities are insufficient to handle Covid-19 cases in the country. Before Covid-19 outbreak, many hospitals run on a thin financial margin, and during the pandemic, some hospitals suffer from significant income loss due to elective procedure cancellation or deferral and focus on Covid-19 care (Orlando & Field, 2021). American Hospital Association sums up four issues faced by hospitals in handling Covid-19: The effect of Covid-19 inpatient care on hospital cost; The effect of service left by non-covid-19 patients on hospital income; Increasing cost due to PPE procurements; Increasing cost for health workers' incentives.

Hospitals are demanded to provide a maximum facility to handle the pandemic by providing additional beds, ICU, Isolation room, PPE, medical gases, and medicine. Increasing asset value and hospital costs due to additional requirements are inevitable. Return on assets, EBITDA margin, and BOPO may picture hospitals' financial performance as the asset value and cost increase. The 132 appointed private hospitals receive a privilege as the government substitutes their expenses for Covid-19 patient care, as stipulated in The Minister of Health Decision number.

HK.01.07/MENKES/238/2020. The issuance of that policy can address increasing assets and costs due to Covid-19 patient care. Subsidy for Covid-19 patients' claims issued in Q3 2020 is expected to support appointed private hospitals to meet their needs for handling the pandemic. Previous studies show that hospitals worldwide are overwhelmed by high costs in handling Covid-19 patients, a problem that can only be resolved by the government's financial aid (Kauffman, 2020). In Indonesia, financial aid is given as claims for inpatient daily tariffs for patients with referral letters from the first-level health care facilities. The financial aid can minimize the loss due to the huge cost spent by the hospital. However, hospitals still struggle to battle the pandemic in 2021, as Kaitlin Stansell asserts in her article on 26 March 2021. Hospital income is predicted to drop around 4%-10% in 2021 (American Hospital Association, 2021).

While some previous studies believe hospitals will continue suffering from a financial performance drop in 2021, other studies state that the government's financial aid could mitigate such issue. In Indonesia, the financial aid is realized through the Minister of Finance's decision on claims for Covid-19 patient care through the appointment of referral hospital for Covid-19 patients. In the present study, ROA, EBITDA margin, and BOPO were employed to scrutinize the relationship between the Covid-19 pandemic and private hospital appointments as the Covid-19 referral hospital, proxied by government-owned hospitals under Indonesia Health care Corporation as the study sample, to confirm the difference in financial performance by the presence of Indonesian government's financial aid. The study result is expected to provide feedback for hospital managements' decision-making process in the future during the pandemic.

The covid-19 pandemic that occurred in early 2020 has resulted in significant changes in social life and economic performance drop in almost all countries around the world, including Indonesia. Along with the increasing Covid-19 cases, the market tends to fluctuate in a negative direction (Nasution, Erlina, Iskandar, 2020). Covid-19 pandemic has caused a 13% decline in inpatient and outpatient services compared to the previous years, resulting in a sharp downturn in hospital revenue in the US (American Hospital Association, 2020). Although hospital profit is predicted to begin to recover in Q3 and Q4 2020, still around 10%-11% below the normal profit in previous years (Kauffman, 2020). Declining financial performance in Indonesia was spotted in Q1 2020, represented by the 2.97% economic growth y-o-y and a significant drop in Q2 2020 (i.e., -5.32% y-o-y) (Subdirectorate of Statistical Indicator, BPS RI, 2020). The covid-19 pandemic is responsible for the poor service and financial performance of most Public service agencies in Indonesia (Donny, 2020). The hotel occupancy rate dropped by 70% since the Covid-19 pandemic was first declared, and a total of 1,266 hotels in 31 provinces in Indonesia were closed in April 2020 (Siswantoro, 2020). Several hospitals in the country are at risk of bankruptcy due to the prolonged Covid-19 pandemic, as most hospitals lose up to 50% of their average income. (Donny Adhiyasa, <https://www.viva.co.id/berita/nasional/1226139>, 2020). The study conducted by Helmi and Ede (2021) showed that hospital X exhibited an average of 9.6% growth in each quarter during the pandemic, with -14.6% growth in Q1 and Q2 2020.

Covid-19 pandemic is responsible for the significant drop in the patient visit as health care procedure changes, restriction of the number of patients to avoid crowds, and the implementation of standard preventive measures, early identification, and viral source control (Indonesia. Kementerian Kesehatan, 2020). During the Covid-19 pandemic, hospitals report a lower revenue due to lower visits. They face numerous challenges in surviving the pandemic, especially financial challenges (Mahubessy & Darmawan, 2020). The pandemic affects the inpatient occupancy and forcefully turns normal care rooms into Covid-19 isolation care, resulting in ineffective bed use and eventually affecting the hospital revenue. (Yuniarti, Paryanti, Tejaningsih, 2020). Limitation of the number of daily patients and fear of Covid-19 infection in referral hospital allegedly causes patients to visit other hospitals. The pandemic forces physical distancing practice, and since Indonesia's large-scale social restriction is in effect on 20 March 2020, Cicendo Eye Hospital reports a 67.9% decreased visit between March and April 2020. Declined visit in April was spotted in all installation units, including the pavilion, emergency department, LASIK, inpatient, and outpatient installations. (Dewanti, Afni & Diana, 2020). Another study by Setyorini (2020) also reports a decline in visits between 2019 and 2020 in the general polyclinic, emergency, ob/gyn, pediatric, internal medicine, general surgery, eye, ENT, lung, nerve, surgery, dermatovenereology, cardiology, maternal and child health departments. Not all hospitals suffer from financial difficulties. In Indonesia, such conditions are found in private hospitals that provide Covid-19 patients care that do not receive a subsidy from the government (Giusman and Nurwahyuni, 2020; ARSSI, 2021)

Organization's Financial Performance, financial performance refers to a company's ability to manage and control its resources (IAI, 2007). It is necessary to measure an organization's performance to see its development and supports the proper decision-making process by the owner or stakeholders. The financial performance depicts a financial condition of an organization, measured using certain techniques and analytical tools. The present study measures financial performance using Return on Asset (ROA), EBITDA margin, and BOPO. Return on Asset is a tool that can assess the degree to which the investment made can yield the expected profit. It is necessary to measure hospitals' ROA, given that they have to make more expenditures for additional beds, ventilators, and PCR devices, among other hospital needs. EBITDA (Earning Before Interest, Tax, and Depreciation) margin refers to the ratio reflecting a company's earnings after deducting production cost and operating cost from the revenue without including depreciation and amortization of production and operating costs. Meanwhile, the Operational Efficiency Ratio denotes a comparison between operating cost and operating income in measuring a company's efficiency and ability to run its operation. As management sometimes forgets to control the cost and efficiency when a force majeure happens, it is necessary to consider this ratio to assess the hospital performance during the pandemic. Hypotheses Development, anjelia and Tri's (2021) study is one of the studies stating that the Covid-19 pandemic has led to a financial performance drop. They report a financial drop in Southeast Minahasa Regency during the Covid-19 pandemic compared to previous years, although the effect was insignificant.

Similarly, Yuniarti and Ajeng (2020) revealed a financial performance drop during the Covid-19 pandemic due to restricted patient care, especially outpatients. Covid-19 pandemic causes a decreased number of visits in several hospitals, including outpatient, emergency, and inpatient care (Helmi & Ede, 2021). While several hospitals are overwhelmed by the Covid-19 patient surge, many hospitals suffer from declining patients, especially non-Covid-19 referral hospitals (Dr. dr. Nur Hidayah, S.E., M.M., 2020). Zeho et al. (2020) noted a lower financial performance and significantly increased costs in Indonesian hospitals. Several studies also report a financial performance drop among hospitals in Q2 2020; a condition predicted to persist until the end of 2021. This problem can only be solved if the local government gives financial aid to cover additional costs and decreased revenue due to the Covid-19 pandemic (Hassan, Moosavi, Enayat, 2020).

To cope with a rapid-changing market, hospitals need to have risk-seeking management who can cope with the market update, including by receiving the government appointment as a referral hospital to fulfill the decreased occupancy rate due to restriction policies. The present study aims to picture the relationship between hospital financial performance and the Covid-19 pandemic using ROA, EBITDA margin, and operational efficiency ratio. These three ratios were selected because, during the pandemic,

hospitals are required to provide the necessary facilities and infrastructures to handle the pandemic, resulting in increased asset value and costs. Even before Covid-19 stroke, hospital capacity has already become a problem in Indonesia. According to the Ministry of Health data in January 2020, Indonesia only has 321,554 hospital beds to serve its 270 million population, which equals 1.2 beds per 1000 people (Hoeng, 2020). Return on assets was used to see the hospitals' financial performance due to their investment in procuring beds, ventilators, ICU renovation, isolation rooms, laboratory, PCR test kits, and other medical devices related to Covid-19 care. Considering its considerable amount of investment, ROA may represent the hospitals' financial performance in obtaining the return on their investment. EBITDA margin was used to examine hospitals' financial performance by comparing their income to revenue. A high number of Covid-19 patients is theoretically a promising revenue because the government has guaranteed a claim subsidy. However, it does not necessarily mean high income. Cost management plays a pivotal role in increasing Ebitda margin. Hospitals' performance, represented by Ebitda margin, is inseparable from their performance as proxied by the operational efficiency ratio. The operational efficiency ratio represents the organization's effectiveness in spending its operating costs compared to its operating revenue. Operational efficiency ratio is the opposite of Ebitda Margin in depicting hospital financial performance. These three ratios are expected to represent the hospital management's policy in fulfilling the needs to handle the Covid-19 pandemic.

The appointment of 132 hospitals as Covid-19 referral hospitals constitutes an effort to mitigate risks of loss for referral hospitals. Only referral hospitals are allowed to claim the government's subsidy. This step is expected to improve the hospital revenue so long as they can transform their services to focus on Covid-19 care. This study aims to confirm the assumption that the government subsidy helps referral hospitals to exhibit better financial performance than non-referral hospitals during the pandemic from 2020 to 2021. The following hypotheses were formulated:

- H1: Covid-19 pandemic is strongly associated with hospitals' financial performance
- H1a: There is a strong, positive relationship between Covid-19 case increase and ROA.
- H1b: There is a strong, positive relationship between Covid-19 case increase and Ebitda Margin.
- H1c: There is a strong, positive relationship between Covid-19 case increase and Operational efficiency ratio.
- H2: There is a significant difference in financial performance between referral and non-referral hospitals.

2. Methods

2.1 Research Design

This study applied a quantitative approach with correlational and comparative designs. Correlational analysis refers to a set of techniques used to measure relationships between two variables. The basic idea of correlational analysis is to report a relationship between two variables (Lind, March, Wathen, 2008). The term correlation refers to a causal relationship (Kamus besar bahasa Indonesia, 2008; 775). Correlation is one of the analysis techniques that belong to measures of association (Sarwono, 2011:57). Correlational research is an effort to see the association between two or more variables and the degree of correlations between the variables being studied (Haryono, 2012:76). Correlational study reported in this paper aims to describe the relationship between Covid-19 pandemic and organizational performance by seeing the ROA, Ebitda Margin, and Operational efficiency ratio. Comparative research is research designed to compare a variable to another variable in two or more samples (Haryono, 2012:181). The comparative study in this paper specifically aims to compare the financial performance of Covid-19 referral hospitals to non-referral hospitals.

2.2 Population, Sample, and Data Collection

Samples in this study were selected using the purposive sampling technique. The term sample refers to a part of the population selected using certain methods which have certain characteristics deemed to represent the population (Haryono, 2012: 106). The purposive sampling technique is a sampling technique based on predetermined considerations (Sugiyono, 2014:122). Purposive sampling technique was applied as it suits quantitative studies or studies that do not require

generalization (Sugiyono, 2016:85) 85). The study samples were selected based on the following criteria:

- a. State-owned hospitals in Indonesia
- b. Reporting a complete financial statement presented on monthly basis from January 2020 to December 2021.
- c. Reporting a complete financial performance ratio statement from January 2020 to December 2021.

The population of the study was hospitals under the Indonesia Health care Corporation (IHC), a holding corporation of all state-owned hospitals in Indonesia. As a part of the health sector, pandemic is known to affect IHC and all state-owned hospitals it holds. Numerous breakthroughs and innovations are taken by hospital management to optimize their occupancy rate and support the country's government in battling the Covid-19 pandemic.

IHC ensures that state-owned hospitals can be appointed as Covid-19 referral hospitals to support the government tame the pandemic. The President Director of Pertamedika IHC, DR.dr. Fathema Djan Rachmat, Sp. B, Sp.BTV (K), MPH, makes zoning for seventy hospitals she manages as IHC should prepare additional beds, ICU, and ventilators to handle Covid-19 patients (Kontan.co.id, June 2020). Despite the fear of failure and difficulty in fulfilling non-covid markets, hospitals under IHC management see an opportunity to fulfill public needs. It was believed that issues on occupancy rate drop could be addressed by accepting the government's appointment as a Covid-19 referral hospital. Thus, IHC's focus on increasing capacity constitutes mitigation in addressing drastic market changes. Unfortunately, the appointment of referral hospitals is the full authority of each provincial government. Different needs for capacity to treat Covid-19 patients and increases in Covid-19 cases in each province are why not all hospitals under IHC are appointed as Covid-19 hospitals.

In total, there are seventy-five state-owned hospitals under IHC. Researchers attempted to collect financial data of these hospitals from the IHC headquarter in Jakarta. The data include the financial statement of each hospital that presents monthly financial statements and each ratio required to measure their performance. However, since six hospitals were under joint operation status (KSO), nineteen hospitals had just joined IHC in the mid-2020, and thirty-five hospitals had just joined at the end of 2020, IHC headquarters did not have a complete financial statement of all hospitals for 2020-2021 period. Thus, only fourteen hospitals had complete data and met the predetermined requirements.

Data on financial performance was examined based on ROA, Ebitda Margin, and Operational Efficiency ratio using secondary data obtained from financial statements of each hospital from January 2020 to December 2021. As a result, 336 data samples in the form of monthly performance ratio percentages were obtained. For the comparative purpose, the obtained data were grouped into two classes: Referral and non-referral hospitals for Covid-19 patients

Table 1
Data samples

	Referral	Non-referral
No. of samples	202	134

The correlational test was conducted using sample data obtained from the Covid-19 patients update published in <https://covid19.go.id/> in the same financial statement period. The tabulated sample data were number of monthly patient, compared to the monthly financial statement of the hospitals.

Table 2
Data on number of Covid-19 patients

PERIODE		JUMLAH PASIEN TERKONFIRMASI	
BULAN	TAHUN	CURRENT	YTD
January	2020	-	-
February	2020	-	-
March	2020	1.020	1.020
April	2020	8.658	9.678
May	2020	17.191	26.869
June	2020	30.737	57.606
July	2020	53.603	111.209
August	2020	66.959	178.168
September	2020	112.764	290.932
October	2020	124.214	415.146
November	2020	129.722	544.868
December	2020	205.980	750.848
January	2021	331.092	1.081.940
February	2021	256.141	1.338.081
March	2021	175.570	1.513.651
April	2021	156.636	1.670.287
May	2021	153.693	1.823.980
June	2021	359.032	2.183.012
July	2021	1.225.748	3.408.760
August	2021	680.938	4.089.698
September	2021	125.301	4.214.999
October	2021	29.257	4.244.256
November	2021	12.082	4.256.338
December	2021	6.315	4.262.653

2.3 Hypotheses Test

The proposed hypotheses were tested using the Rank Spearman test for the correlation and the Mann-Whitney test for the comparative purpose. The correlation test was performed using the data sample of Covid-19 patients from 2020 to 2021 and the secondary data obtained from hospitals' financial statements, i.e., ROA, Ebitda margin, and Operational efficiency ratio. The comparison test was performed using ratio values that have been grouped like shown in Table 2.

3. Results And Discussion

This section presents the research result in the following order: first, the researchers present the relationship between Covid-19 pandemic and the hospital financial performance, represented by ROA, Ebitda Margin, and operational efficiency ratio. Secondly, a comparison between referral and non-referral hospitals is presented.

3.1 Correlation hypotheses tests

The correlation between increased Covid-19 patients and hospital performance was tested using Rank Spearman test

Table 3.
rho Correlation test

		Roa	Ebitda	Bopo
COVID	Correlation Coefficient	.232	.287	-.303
	Sig. (2-tailed)	.000	.000	.000
	N	336	336	336

The test results are presented in three sections, as shown in Table 4. The test result on the correlation between Covid-19 and ROA showed a significance value of 0.000 (<.05) and a correlation coefficient of 0.232, showing a positive direction and a very weak correlation between Covid-19 and ROA. This result shows that increasing Covid-19 cases have a weak correlation with hospitals' increased income. In the 2020-2021 period, hospitals added their bed capacity and made an investment in other

medical devices related to Covid-19 needs, and this investment turned out to have a weak relationship with the hospitals' income.

The second test result showed a significance value of 0.000 (<0.05) and a positive correlation coefficient value of 0.287 for the relationship between Covid-19 and Ebitda margin, indicating a moderate, positive correlation between Covid-19 and Ebitda margin. This shows that the hospitals' income in 2020-2021 was positively associated with the increase in Covid-19 cases. The previous section explains that the hospitals attempted to maintain their performance by optimizing the occupancy rate through Covid-19 patient care and PCR and rapid antigen services. These new services link the Covid-19 cases to the hospitals' performance.

The third test result showed a significance value of 0.000 (<0.05) and a positive correlation coefficient value of 0.303 for the relationship between Covid-19 and Operational efficiency ratio, indicating a moderate, negative correlation between Covid-19 and Operational efficiency ratio. Increased costs due to higher needs for PPEs, infectious waste management, and additional facilities and infrastructure during the restriction policy due to Covid-19 pandemic have imposed high costs on hospitals. This indicates a relationship between increased Covid-19 cases and hospital performance.

The correlation test result shows that the hypotheses on the relationship between increased Covid-19 cases and hospital performance, represented by ROA, Ebitda Margin, and Operational efficiency ratio, were rejected because ROA exhibited weak correlation, while Ebitda margin and operational efficiency ratio exhibited moderate, but not strong relationship as previously hypothesized. This test result is in line with previous studies reporting that hospital performance is related to the increased Covid-19 cases. However, the assumption that the two variables are strongly correlated was not proven in this study. Helmi and Ade (2020) state that Covid-19 pandemic causes decreased visits in some hospitals, particularly in outpatient, emergency, and inpatient facilities. Zeho et al. (2020) also state that Covid-19 has caused performance drop and significant cost increase.

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3.3 Comparative Hypothesis Test

The comparative test between referral and nonreferral hospitals is displayed in Table 5.

Table 5
Comparative Test Result

	ROA	EBITDA	BOPO
<i>Asymp. Sig. (2-tailed)</i>	.014	.000	.000

With asymp. Sig. (2-tailed) of 0.000 for the three variables, the hypothesis test result indicates a significant difference between referral and non-referral hospitals. Non-referral hospitals exhibited declined occupancy rate and non-covid-19 visit (Dr. dr. Nur Hidayah, S.E., M.M., 2020), leading to financial performance drop in non-referral hospitals. On the other hand, Referral hospitals could avoid low occupancy rate problems due to Covid-19 pandemics. Thus, the financial performance of referral hospitals could be improved by receiving Covid-19 patients to optimize the occupancy rate. The study result shows that referral hospital appointment is responsible for the significant difference. In this regard, private hospital management could consider receiving Covid-19 patients to optimize the occupancy rate and increase their financial performance.

3.4 Discussion

The correlation test results showed that the Covid-19 pandemic has a weak, positive correlation with ROA, a moderate, positive relationship with Ebitda Margin, and a moderate, negative correlation with the Operational efficiency ratio. The study results indicate that, in general, the Covid-19 case increase is correlated with hospital financial performance. However, a weak correlation with ROA indicates that the return of investment in purchasing and procuring new assets did not depend on the number of Covid-19 patients. Moderate relationships between Covid-19 and Ebitda and the Operational efficiency ratio implies the importance of proper cost management in treating Covid-19 patient, and the subsidy claim for Covid-19 patients facilitated by the government can cover the loss due to additional costs. The comparative test result shows a significant difference in financial performance between referral and non-referral hospitals. Referral hospitals managed to optimize their occupancy rate by receiving Covid-19 patients. As suggested by Kaufman (2020), the government should provide financial support to private hospitals to meet the Covid-19 patient occupancy rate. Such financial support may cover the costs of additional facilities to handle Covid-19 and improve the hospitals' financial performance

4 Conclusion

Previous studies show that the Covid-19 pandemic affects Indonesia's economy and forces the authority to issue policies (Yamali & Putri, 2020). The health industry serves as the most affected sector during the pandemic. Inpatient services, including ob / gyn care, pediatric, and general care, exhibited a decline between 2019 and 2020 (Setyorini, 2020). The hospitals' financial performance appears to improve since the second semester of 2020, thanks to the government policy on Covid-19 referral hospital appointment. The subsidy through treatment tariff claim allows hospital management to replace the lost occupancy rate due to public doubt in visiting hospitals. Risk-seeking hospital management tends to use this opportunity to improve its performance, although they should sacrifice the non-covid-19 market.

This study proves that the Covid-19 pandemic is correlated with hospital performance and shows a significant difference in financial performance between referral and non-referral hospitals. To conclude, risk-seeking hospital managements who receive government appointment as referral hospital is proven to increase their performance amid the pandemic. This study faces several difficulties during the research process. First, it was difficult to collect data as most state-owned hospitals do not evaluate their performance every month, especially during the pandemic. Regarding the economic uncertainty during the pandemic in Indonesia, managements need data on financial performance to make a decision swiftly. Second, the research period was relatively short, preventing researchers from further scrutinizing the association between hospital management behaviors in the decision-making process during the pandemic. This research topic is interesting considering the pros and cons among hospitals in facing differences in treating covid-19 and non-covid-19.

The followings are recommendations for future studies on hospitals and Covid-19 pandemic: The study on supply chain management related to PPE, reagent, and covid-related medicine supplies during the pandemic; The effect of declined non-covid-19 visits on hospital performance. The effect or relationship between the increased number of PCR and rapid antigen tests on hospital performance. The development of government policy on Covid-19 pandemic. Possibility of fraud due to donation to hospital during the Covid-19 pandemic. The hospital management behavior in the decision-making process in facing Covid-19 pandemic, and its correlation with hospital performance. The scope of this study is still broad, and further works are necessary to better handle the pandemic in the future by the government, stakeholders, owners, and hospital managements to make an accurate decision and policy.

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