Industry Accounting Index And Going Concern Audit Opinion Pre And During Covid-19: Empirical Evidence From Listed Companies In Indonesia

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Abstract

Pandemic has affected on every economic aspect including Companies' growth came to an abrupt and the situation seemed to slowly go back to normal. The financial effect caused by Covid-19 on the going concern and financial reporting could be significant. This study aims to find out the impact of Covid-19 in Indonesian Companies that seen through Industry Accounting Index during Covid-19 for each Industries divided into 8 quarters, and to examine which elements of Industry Accounting Index that have a significant effect on GCAO along with its control variables. The result shows that for overall industries, value creation index in the Covid-19 period is lower than the non Covid-19 period. Different with cost, inventory and leverage indexes that have a higher value in Covid-19 period compared to non Covid-19 period. It can be seen that the Mining Industry is the most affected by Covid-19. Also, an increase for going concern audit opinion post Covid-19 period. Simultaneously, all dimensions of Industry Accounting Index along with its control variables have an effect towards GCAO. Partially, the value creation and cost indexes have an effect towards GCAO, while the inventory and leverage indexes do not have an effect towards GCAO.

Keywords: Covid-19, Going Concern Audit Opinion, Industry Accounting Index, Discretionary Accruals

INTRODUCTION

Covid-19 Pandemic has been global outbreak that came to Indonesia on mid-end March 2020, one of the most challenging in a very long time (Deloitte, 2020). Until the end of December 2020, the number of positive cases of Covid-19 nationally reached 743.198 people with the number of deaths recorded at 22.138 people (Bank Indonesia, 2020). But on the other hand, the Government's policy to reduce the spread of Covid-19 through the implementation of mobility restriction policies, including the implementation of health protocols and PSBB in several areas has unavoidably reduced the economic activity of the community sharply. According to Indonesia Economic Report 2020 published by Central Bank of Indonesia, the impact of Covid-19 has put a lot of pressure on the Indonesian economy in the first semester of 2020. Economic growth slowed to 2,97% (yoy) in the first quarter of 2020 and negative by 5,32% (yoy) in the second quarter of 2020. Consumer Price Index (CPI) inflation was low in June 2020 at 1,96% (yoy), a sharp decline from 2,96% (yoy) in February 2020 before the Covid-19 outbreak.

Other than that, Covid-19 also affected on every aspect including Companies' growth came to an abrupt and the situation seemed to slowly go back to normal. The Central Bureau of Statistics Indonesia (BPS) survey in 2020 recorded 82,85% of companies affected by the Covid-19 pandemic (IDXChannel, 2021). Based on the sector, accommodation and food & beverages

businesses experienced the most decline in income, namely 92,47%. Other services became the sector that experienced the second largest decline in income, namely 90,90%. This position is followed by the transportation and warehousing, construction, manufacturing and trading sectors. The uncertainty about the further development of the pandemic and the widespread effect on sales, supply chain and financial markets and other areas add significant uncertainties to the financial results and outlooks.

This critical situation needs a careful consideration that can be seen through Company's accounting information regarding to improve its performance and competitive advantage by detect the possible threat and opportunity earlier. Accounting information is a comprehensive and detailed record of an enterprise's economic activities and can faithfully reflect the process of value movement at the micro level (He et al., 2020). As an in-depth, refined, and highly integrated accounting information, the accounting index can intuitively and vividly reveal the economic operation situation. According to He et al. (2020), the accounting index can better reflect the different trends of responses in quarterly across industries. He et al. (2020) has developed the industry accounting index to discuss the impact of Covid-19 and can provide guidance for the recovery of the industrial chain after the outbreak from the perspective of value creation, cost expenditure, inventory overstocking, and financial risk of the whole Chinese industry.

The financial effect caused by Covid-19 on the Companies' going concern and financial reporting could be significant. There is an unprecedented level of uncertainty about the economy, future earnings and many other inputs that represent fundamental elements of accounting information through financial reporting. Based on Indonesia Stock Exchange, there were an increasing in Public Companies that experienced delisted from 2019 to 2020 due to going concern problem.
The consequences during this Covid-19 have been challenging including for auditors. According to KPMG (2020), this situation could be a certain affect such as the confidence in the company's financial condition during that period, and ultimately can lead to various company's going concern problem. Auditing clients during this Pandemic situation will carry unique challenges and certain areas may present heightened risks of material misstatement for the audit. Auditors should heighten professional judgement in assessing the adequacy of going concern disclosures and determine if a modification in light of the going concern. Crucean and Hategan (2021) found that certain auditors assessed the risks posed by subsequent events reported by companies such as presenting a significant uncertainty regarding the going concern of the activity of some companies during this Covid-19 situation.

This study aims to find out the impact of Covid-19 on Company's accounting index mentioned above on pre and post Covid-19. The synthetic index compilation method to compile an accounting index used in this study will captures and comparing the Indonesian Public Companies on period pre and post the Covid-19 outbreak for each industry divided in quarterly. Further, this study aims to determine whether there any increase on going concern audit opinion given by independent auditors during Covid-19 on Indonesian listed Companies, and to examine which accounting information seen through Industry Accounting Index that have a significant effect on going concern audit opinion along with its control variables.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT
2.1 Signaling Theory
Signal theory was introduced by Ross (1977) as an action taken by company management. This signal is in the form of information about what has been done by management to realize the principal's and other interested parties' wishes which can be reflected in the company's financial statements as a form of management's responsibility. Ross (1977) defines signals as valid financial information by firms entering the market. Information published as an announcement will provide a signal to interested parties in decision making. If the announcement contains a positive value, it is expected that there will be a reaction when the announcement is received by interested parties. Its reaction characterized by a change in activity. The results of the interpretation of this information can be as good news or bad news (Wang and Zue, 2013) then will later affect decision making. Signaling in study by Elmarzouky et al. (2021) found that Covid-

19 has contributed to Company's annual report and reactions to the Pandemic have varied across the UK's industries.

2.2 Going Concern Audit Opinion

Issue related to the going concern is when a company is seen and considered to not be able to maintain its business into a predictable future (SA 570, 2013:4). The company's financial statements are used as a basis or basis for assessing the viability of the company.

The importance of audit reports related to going concern, is to provide an early warning for shareholders and company management in order to avoid mistakes in decision making (Josi, 2015). SA 570 (2013:5) states that the auditor's responsibility is to obtain sufficient and appropriate evidence about the accuracy of the going concern assumption of a company. In addition, the external auditor has a responsibility to draw conclusions regarding a condition of material uncertainty about the entity's ability to continue as a going concern. When the external auditor finds a significant uncertainty about the company in maintaining its business as a going concern, the auditor must explain and state it in the company's Independent Auditor's Report.

The going concern audit opinion in this study is the dependent variable on a nominal scale. It will be given a value of 1 if the sample company received a going concern audit opinion (GCAO) and will be assigned a value of 0 for the sample company that received a non-going concern audit opinion (NGCAO).

2.3 Industry Accounting Index

A stable financial system is an important requirement for any economy that needs to achieve the objectives of long-term sustained growth and low inflation. Financial instability can adversely affect the growth of economic activity and reduce economic welfare (Giri and Bansod, 2019). According to He et al. (2020), the accounting index can intuitively and vividly reveal the economic operation situation, also it can provide monitor and can be as an early warning device for economic decision making. Zhang et al. (2012) pointed that they can grasp the macroeconomic trends by understanding the microeconomic foundation from the perspective of the accounting index.

The synthetic index compilation method to compile an accounting index used in this study will captures and comparing the period before and after the Covid-19 outbreak for each industry. Since there was no prior study using Industry Accounting Index to detect the possible threat and opportunity earlier in Indonesia, researcher found this idea of study can help to develop Indonesia Companies affected by Pandemic by discover the impact of Covid-19 on different industries and explore its impact mechanism regarding to pursue Company's competitive advantage and performance evaluation. Industry Accounting Index consists of four dimensions as follows.

2.3.1 Value Creation

In the midst of significant financial losses experienced by all countries, including Indonesia, value creation is an important component that can be a reference for companies in maintaining its business (Kourtis, et al. 2022). The Covid-19 pandemic has become an extraordinary threat to the sustainability and operation of the company (IFAC, 2021). Covid-19 may decrease the value of a business entity related to the activity that companies do efficiently to generate profits. Neumann et al. (2021) found that Covid-19 crisis has demonstrated the vulnerability of global value creation, such as the company's sustainability performance, the pandemic moderates the decline in company value during the Covid-19. A decline in corporate value have been observed following the start of the Covid-19 pandemic, with this indicated by a 38% drop in the Dow Jones Industrial Average Index in March 2020 and the Standard & Poor's (S&P) Global Rating Index experiencing a decline (Bose et al., 2021). Covid-19 may decrease the value of a business entity related to the activity that companies do efficiently to generate profits. Neumann et al. (2021) found that Covid-19 crisis has demonstrated the vulnerability of global value creation, such as the company's sustainability performance, the pandemic moderates the decline in company value during the Covid-19. Since value creation is believed to be a measure of performance by revealing the competitive advantages of an organization as it is one of the bridges that can increase the value of a business entity at a higher level, the decrease in value creation may affect the increase probable of going concern opinion accepted by the company.

H$_1$: Value Creation Index in Covid-19 period is lower compared to non Covid-19 period.
H$_7$: Value creation index is negatively associated with going concern audit opinion.

2.3.2 Cost Index

Cost index presents the quarterly operating costs of the company. The company needs to incur certain costs to support its operating activities. In the midst of the crisis that occurred due to Covid-19, costs must still be incurred to maintain these operating activities, despite the threat that the profits obtained on Covid-19 period are not comparable to profit prior to Covid-19 occurred. Meyer et al. (2021) through a survey which found that in the United States, there are three major groups experiencing increased price and higher production costs during Covid-19. Furthermore, Covid-19 actually causes additional costs that must be met by companies such as employee reimbursement related to health maintenance such as PCR tests, medicines, hospitalizations and more. In Indonesia, companies in Indonesia experienced an increase of up to 14% in issuing health costs for their employees including reimbursement of Covid-19 tests, hospitalization costs and medicines compared to health expenses for employees before Covid-19. According to Hao et al. (2020) which found that companies in China, especially the hotel industry, have laid off several employees to reduce the company's burden, but the cost reduction that occurs is not significant due to the companies still have to pay costs such as building, property and asset maintenance costs to support company operations. Furthermore, the company must prepare an additional budget for the health of its employees, even though the company does not get income that is commensurate with the costs it has incurred. A higher cost which not followed by a higher revenue will certainly have an impact on company's profit since there is a threat that the profits obtained on Covid-19 period are not comparable to profit prior to Covid-19. Hence, it may lead an increase in going concern issue in the future.

H$_2$: Cost Index in Covid-19 period is higher compared to non Covid-19 period.
H$_8$: Cost index is positively associated with going concern audit opinion.

2.3.3 Inventory Index

Inventory index presents the company's quarterly inventory backlog. It is used to see if there is a trend of increase or decrease in the company's inventory. He et al. (2020) found that inventory index of various industries in China showed a certain upward trend under the influence of the pandemic. The outbreak suddenly affected the original stable supply chain structure. The normal circulation of the product is hampered, resulting in a supply deposit at the end of production. The backlog of inventory shows that it occurs when businesses accumulate a buildup of unfulfilled orders or incomplete work in the process of completion and delivery (Sackos, 2022). Ivanov (2021) on his study found that during Covid-19, there was a decline in demand by up to 50%. The capacity between production and demand is experiencing supply chain disruption. In addition, in his study he also found severe disruptions resulting in almost zero levels of "pending demand" in the supply chain, with some stabilization during the pandemic. Ivanov (2021) on his study found that during Covid-19, there was a decline in demand by up to 50%. The capacity between production and demand is experiencing supply chain disruption which not followed by a higher revenue that may lead an increase in going concern issue in the future.

H$_3$: Inventory Index in Covid-19 period is higher compared to non Covid-19 period.
H$_9$: Inventory index is positively associated with going concern audit opinion.

2.3.4 Leverage Index

Leverage index presents the company's quarterly debt pressure. It is used to see whether there is a tendency to increase or decrease the financial expenses in the company. Leverage is a metric that shows how much a company is using debt to finance its operations (Hayes, 2022). Covid-19 causes a significant decrease in sales in crisis conditions, this also affect on the company's profit in terms of revenue receipts in its sales transactions and has an impact on the ability to pay its debts (Xuan, 2021). Due to the lack of cash to pay debts, this situation will have a significant effect on the company's ability to pay its debts. Furthermore, the value of capital will decrease as a result of the company's losses as a result of lower sales. Low sales revenue will inevitably reduce the company's ability to cover all operating expenses, resulting in losses. Awad (2021) found that Covid-19 has a strength effect in a negative way on company's financial pressure since there was an increase in leverage in Kuwait companies. Further, Badulescu (2021) also found the increase in leverage in North-West of Romania companies caused by Covid-19 impact on the decrease in company's sustainability growth rate which may cause a serious

disaster. Giri et al. (2022) found that the company obtains a going concern audit opinion when there is a higher leverage value due to its operational activities cannot be separated from debt, hence the auditor doubts the entity's business viability in the future. This is due to companies with high levels of leverage will face high risks to its going concern.

H$_4$: Leverage Index in Covid-19 period is higher compared to non Covid-19 period.
H$_{10}$: Leverage index is positively associated with concern audit opinion.
Based on the above explanation, below is the conceptual framework on this study:

Figure 1: Conceptual Framework
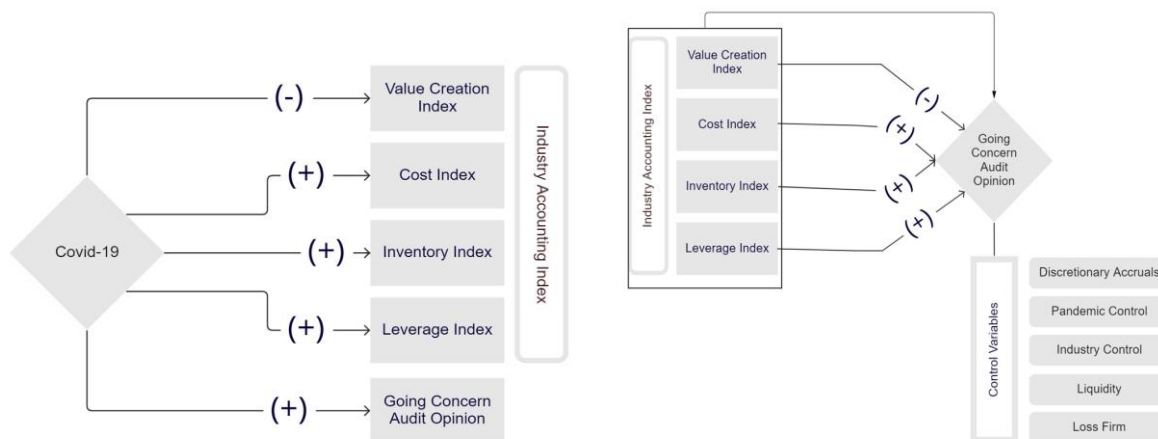
METHODS AND DATA
3.1 Sample and Data Collection
The type of data used in this study is secondary data, collected in the form of quarterly financial report from 147 (a hundred and forty-seven) Listed Companies in Indonesia, from January 2019 until December 2020.

Table 1: Sampling Criteria

No.	Criteria	Total
1.	Listed companies in Indonesia from January 2019 until December 2020	681
2.	Listed companies in Indonesia that does not consistently listed from January 2019 until December 2020	(48)
3.	Listed companies in Indonesia that does not consistently publish the quarterly and year-end financial report during January 2019 until December 2020.	(151)
4.	Listed companies in Indonesia that does not have the complete information and data in quarterly financial reports related to the study.	(335)
The amount of samples used as research objects		**147**
The amount of variation in the study (147 samples x 8 quarters)		**1.176**

3.2 Operational Variables, Proxies and Expected Sign
The below table will present for each operational variables along with its proxies and expected sign as below:

Table 2: Operational Variables

No.	Variables	Proxies	Expected Sign
1.	Going Concern Audit Opinion (Dependent Variable)	Will be given a value of 1 if the sample company received a going concern audit opinion (GCAO) and will be assigned a value of 0 for the sample company that received a non-going concern audit opinion (NGCAO).	
2.	Value Creation Index (X_1)	• The sum of (a_{it}) of net profit, financial expense, taxes and remuneration • A_{it} = Weighted average • C_{it} = If $A_{it} > 0$, $\frac{A_{it} - A_{i(t-1)}}{A_{it} + A_{i(t-1)}} \times 200$ If $A_{it} \leq 0$, $A_{it} - A_{i(t-1)}$ • $U_{it} = \frac{\sum_t^n |C_{it}|}{n-1}$ • $S_{it} = \frac{U_{it}}{A_{it}} \times 10.000$ • $Y_{it} = Y_{i(t-1)} \times \frac{200 + S_{it}}{200 - S_{it}}$	Negative
3.	Cost Index (X_2)	• The sum of (a_{it}) of operating cost, taxes, sales expense and management expense • A_{it} = Weighted average • C_{it} = If $A_{it} > 0$, $\frac{A_{it} - A_{i(t-1)}}{A_{it} + A_{i(t-1)}} \times 200$ If $A_{it} \leq 0$, $A_{it} - A_{i(t-1)}$ • $U_{it} = \frac{\sum_t^n |C_{it}|}{n-1}$ • $S_{it} = \frac{U_{it}}{A_{it}} \times 10.000$ • $Y_{it} = Y_{i(t-1)} \times \frac{200 + S_{it}}{200 - S_{it}}$	Positive
4.	Inventory Index (X_3)	• a_{it} = Company's inventory • A_{it} = Weighted average • C_{it} = If $A_{it} > 0$, $\frac{A_{it} - A_{i(t-1)}}{A_{it} + A_{i(t-1)}} \times 200$ If $A_{it} \leq 0$, $A_{it} - A_{i(t-1)}$ • $U_{it} = \frac{\sum_t^n |C_{it}|}{n-1}$ • $S_{it} = \frac{U_{it}}{A_{it}} \times 10.000$ • $Y_{it} = Y_{i(t-1)} \times \frac{200 + S_{it}}{200 - S_{it}}$	Positive
5.	Leverage Index (X_4)	• a_{it} = Financial expense • A_{it} = Weighted average • C_{it} = If $A_{it} > 0$, $\frac{A_{it} - A_{i(t-1)}}{A_{it} + A_{i(t-1)}} \times 200$ If $A_{it} \leq 0$, $A_{it} - A_{i(t-1)}$ • $U_{it} = \frac{\sum_t^n |C_{it}|}{n-1}$ • $S_{it} = \frac{U_{it}}{A_{it}} \times 10.000$ • $Y_{it} = Y_{i(t-1)} \times \frac{200 + S_{it}}{200 - S_{it}}$	Positive
6.	Discretionary Accruals (Control Variable)	• $TAC = NI_{it} - CFO_{it}$ • $\frac{TA_{it}}{A_{it-1}} = \beta_1 \left(\frac{1}{A_{it-1}} \right) + \beta_2 \left(\frac{\Delta REV_{it}}{A_{it-1}} \right) + \beta_3 \left(\frac{PPE_{it}}{A_{it-1}} \right) + \varepsilon$ • $NDA_{it} = \beta_1 \left(\frac{1}{A_{it-1}} \right) + \beta_2 \left(\frac{\Delta REV_{it}}{A_{it-1}} - \frac{\Delta REC_{it}}{A_{it-1}} \right) + \beta_3 \left(\frac{PPE_{it}}{A_{it-1}} \right)$ • $DA_{it} = \frac{TA_{it}}{A_{it-1}} - NDA_{it}$	Positive/Negative
7.	Industry Control (Control Variable)	• Code 1 = Agriculture • Code 2 = Basic Industry and Chemicals • Code 3 = Miscellaneous Industry • Code 4 = Trade Services Investment • Code 5 = Property, Real Estate and Building Construction • Code 6 = Consumer Goods Industry • Code 7 = Infrastructure, Utilities & Transportation • Code 8 = Mining	Positive/Negative
8.	Pandemic Control (Control Variable)	• Code 1 = Covid-19 Period (2020) • Code 0 = Non-Covid-19 Period (2019)	Positive/Negative
9.	Liquidity (Control Variable)	Current Ratio = $\frac{Current\ Assets}{Current\ Labilities}$	Positive/Negative
11.	Loss Firm (Control Variable)	• Code 1 = When the company produce loss • Code 0 = When the company produces profit	Positive/Negative

FINDINGS AND DISCUSSION
4.1 Univariate Analysis for Industry Accounting Index and Going Concern Audit Opinion

As the beginning, this study will analyze each of Industry Accounting Index dimension across Indonesian Listed Companies and captured its characteristic in 8 (eight) quartal. The sector or industry in this study will be divided into 8 (eight) Industry Code as below:

Table 3: Industry Code

Sector/Industry	Industry Code
Agriculture	1
Basic Industry and Chemicals	2
Miscellaneous Industry	3
Trade Services Investment	4
Property, Real Estate and Building, Construction	5
Consumer Goods	6
Infrastructure, Utilities & Transportation	7
Mining	8

Source: Indonesia Stock Exchange (2022)
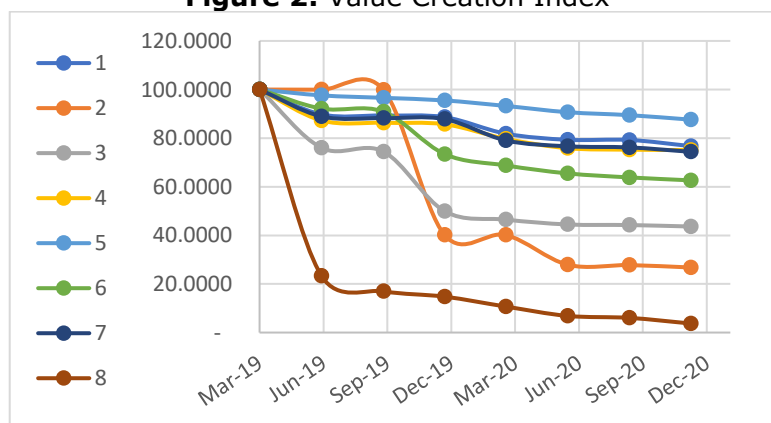
4.1.1 Value Creation Index

The Covid-19 pandemic has become an extraordinary threat to the sustainability and operation of the company (IFAC, 2021). In the midst of significant financial losses experienced by all countries, including Indonesia, value creation is an important component that can be a reference for companies in maintaining its business (Kourtis, et al. 2022). Value creation is believed to be a measure of performance by revealing the competitive advantages of an organization.

Table 4: Univariate Analysis for Value Creation Index

Group	Obs	Mean	Std. Dev.
Non Covid-19	588	99.91	0.39
Covid-19	588	99.48	1.69
diff		0.43	
t = 6.03			

Based on the univariate test above, the value creation index in the non-covid (0) period has an average of 99,91 and 99,48 in the covid (1) period, so the mean difference is 0,43. Thus, it can be said that the Ha1 is accepted since the mean of value creation index in the Covid-19 is lower than the non Covid-19 period. The t value is 6.03 which higher than 1.96 means that the difference in value creation index between Covid-19 and non Covid-19 period is statistically significant. Related to the decline in the value creation index, Mining Industry is the most affected sector that is more clearly seen in the following figures:

Figure 2: Value Creation Index

Based on the above figure, value creation index in generally affected by Covid-19 that can be seen from the sharp decline that occurred by comparing the period before and post Covid-19 that reflected in the each quartal. The Mining Industry experienced the sharpest decline in terms of value creation index with the index occurring at 3,73 in the last quartal of 2020.
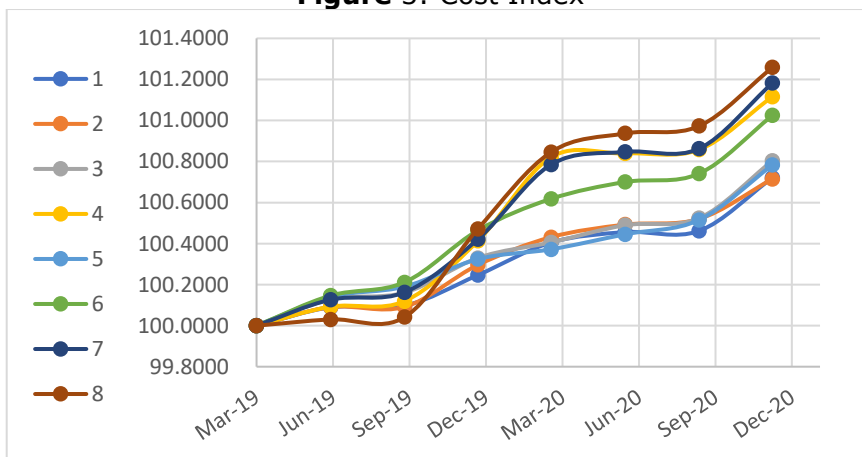
4.1.2 Cost Index

The company needs to incur certain costs to support and support its operating activities. In the midst of the crisis that occurred due to Covid-19, costs must still be incurred to maintain these operating activities, despite the threat that the profits obtained on Covid-19 period are not comparable to profit before Covid-19 occurred. Furthermore, Covid-19 actually causes additional costs that must be met by companies such as employee reimbursement related to health maintenance such as PCR tests, medicines, hospitalizations and more. As reported by Media Indonesia (2022), companies in Indonesia experienced an increase of up to 14% in issuing health costs for their employees including reimbursement of Covid-19 tests, hospitalization costs and medicines compared to health expenses for employees before Covid-19.

Table 5: Univariate Analysis for Cost Index

Group	Obs	Mean	Std. Dev.
Non Covid-19	588	100.15	0.15
Covid-19	588	100.72	0.24
diff		-0.56	
t = -11.26			

Based on the above test, the cost index in the non-covid (0) period has an average of 100,15 and 100,72 in the covid (1) period, so the mean difference is -0,56. Thus, it can be said that the Ha2 is accepted since the mean of cost index in the Covid-19 is higher than the non Covid-19 period. The t value is 11.26 which higher than 1.96 means that the difference in cost index between Covid-19 and non Covid-19 period is statistically significant. Unlike the graph and the results of previous analysis, in the cost index, mining industry has increased the most compared to other industries.

Figure 3: Cost Index

The cost index on public companies in Indonesia has generally increased. The increase in the cost index along with the decline in the value creation index due to an increase in costs will certainly have an impact on the decline in company revenue.

4.1.3 Inventory Index

Inventory index is used to see if there is a trend of increase or decrease in the company's inventory. He et al. (2020) found that inventory index of various industries in China showed a certain upward trend under the influence of the pandemic. The outbreak suddenly affected the original stable supply chain structure. The normal circulation of the product is hampered, resulting in a supply deposit at the end of production.

Table 6: Univariate Analysis for Inventory Index

Group	Obs	Mean	Std. Dev.
Non Covid-19	588	100.01	0.007
Covid-19	588	100.03	0.016
diff		-0.02	
t = -7.47			

Based on the above test, the inventory index in the non-covid (0) period has an average of 100,01 and 100,03 in the covid (1) period, so the mean difference is -0,02. Thus, it can be said that the Ha3 is accepted since the mean of inventory index in the Covid-19 is higher than the non Covid-19 period. The t value is 7.47 which higher than 1.96 means that the difference in inventory index between Covid-19 and non Covid-19 period is statistically significant.

In the graph below, it can be seen that the Mining Industry has the most increase in the inventory index as follows:

Figure 4: Inventory Index
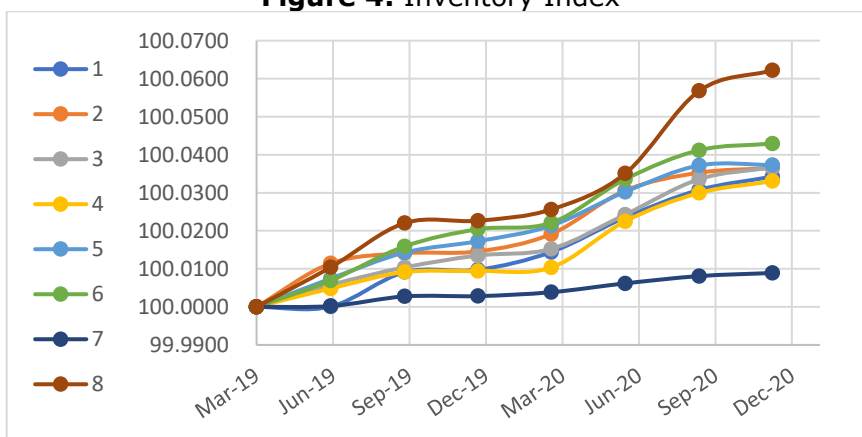
Inventory index on listed companies in Indonesia generally has increased. Although not significant, it shows the backlog of inventory that occurs when businesses accumulate a buildup of unfulfilled orders or incomplete work in the process of completion and delivery (Sackos, 2022). This backlog can occur when one or more factors in the settlement process are compromised. Therefore, an increase in the inventory index can lead to business going concern problems due to the inventory backlog cannot be followed by company profits, which can be reflected in the decline in value creation.
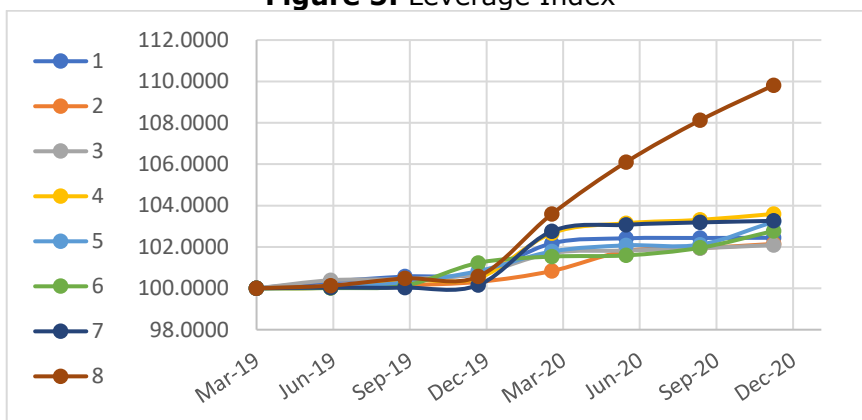
4.1.4 Leverage Index

Leverage index is known as financial risk that presents the pressure of the company's debt. Used to see if there is a tendency to increase or decrease the financial expenses in the company. Leverage is a metric that shows how much a company is using debt to finance its operations (Hayes, 2022).

Table 7: Univariate Analysis for Leverage Index

Group	Obs	Mean	Std. Dev.
Non Covid-19	588	100.27	0.31
Covid-19	588	102.94	1.87
diff		-2.66	
t = -7.95			

Based on the test above, the leverage index in the non-covid (0) period has an average of 100,27 and 100,94 in the covid (1) period, so the mean difference is -2,66. Thus, it can be said that the Ha4 is accepted since the mean of leverage index in the Covid-19 is higher than the non Covid-19 period. The t value is 7.95 which higher than 1.96 means that the difference in leverage index between Covid-19 and non Covid-19 period is statistically significant.

Figure 5: Leverage Index

It can be known that leverage index in generally increases for listed companies in Indonesia. Companies with a high level of leverage require high enough profits and revenue to compensate for the additional debt shown on the balance sheet. When a company's revenue and profits are on the rise, leverage works well for companies and investors. However, when income or profit is depressed or down, debt and fixed interest expense must be paid and can become a problem if income is not enough to meet debts and operating obligations (Hayes, 2022).

4.1.5 Going Concern Audit Opinion
The going concern audit opinion during this pandemic could be increase due to certain conditions that may affects to the company's ability to maintain its going concern. Based on univariate analysis testing to compare the averages before and post Covid-19 period, the results showed an average increase in the going concern audit opinion as follows:

Table 8: Univariate Analysis for Going Concern Audit Opinion

Group	Obs	Mean	Std. Dev.
Non Covid-19	147	0.23	0.42
Covid-19	147	0.24	0.43
diff		-0.01	
t = -0.14			

According to the above result, we have been informed that the GCAO in the non-covid (0) period has an average of 0,23 and 0,24 in the Covid-19 (1) period. Thus, it can be said that the Ha5 is accepted since the mean of going concern audit opinion in the Covid-19 is higher than the non Covid-19 period. The t value is 0.14 which lower than 1.96 means that Covid-19 have no significant difference on the increase in going concern audit opinion given by independent auditors. As stated in SA 570 (2013:5), the auditor's responsibility is to obtain sufficient and appropriate evidence about the accuracy of the going concern assumption of a company. However, the auditor must be careful in issuing an audit opinion on a company by looking at things that are not visible behind the financial statements related to the disruption caused by Covid-19. This requires the auditor to be aware of potential things that can interfere with the viability of a business entity.

4.2 Statistical Descriptive Analysis
Descriptive statistical analysis in this study is presented to provide information about the characteristics of the research variables. Descriptive statistical analysis in this study is divided into two parts:
a. Statistical analysis on a ratio scale using the minimum, maximum, mean and standard deviation values.
b. Descriptive statistical analysis on nominal scale using frequency and percentage.

4.2.1 Statistic Descriptive for Dummy Variables

The importance of audit reports related to going concern, is to provide an early warning for shareholders and company management in order to avoid mistakes in decision making if the company is not seen and considered to be able to maintain its business into a predictable future (SA 570, 2013:4). Related to the going concern, the company has a goal to generate optimal profit (Bringham and Huston, 2011:183). The profits obtained by the company can be reflected through the income statement which is part of the company's financial statements. This analysis aims to find out whether the company is making a loss or making a profit in a certain period by classifying it with a loss firm. Companies that are making a loss or are classified as loss firms will increase the possibility that the company will receive a going concern audit opinion due to the companies that are making a loss will tend to experience problems related to the going concern issue.

Going concern audit opinion and loss firm in this study is classified as a dummy variable that using a nominal scale. Below is the result of descriptive statistic for going concern audit opinion and loss firm:

Table 9: Statistic Descriptive for Going Concern Audit Opinion and Loss Firm

Group Pandemic	Industry Code	Going Concern Audit Opinion			Loss Firm		
		0	1	Total	0	1	Total
Non Covid-19	1	4	1	5	1	4	5
	2	28	3	31	29	2	31
	3	9	5	14	11	3	14
	4	30	9	39	29	10	39
	5	10	9	19	12	7	19
	6	21	1	22	22	0	22
	7	4	0	4	3	1	4
	8	7	6	13	10	3	13
Total		**113**	**34**	**147**	**117**	**30**	**147**
Covid-19	1	4	1	5	1	4	5
	2	28	3	31	23	8	31
	3	10	4	14	2	12	14
	4	28	11	39	19	20	39
	5	10	9	19	10	9	19
	6	21	1	22	19	3	22
	7	4	0	4	3	1	4
	8	7	6	13	10	3	13
Total		**112**	**35**	**147**	**87**	**60**	**147**

According to the Table above, in the sum of 294 data using the Independent Auditor's Report across year-end 2019 and 2020, there were an increase in company that received the going concern audit opinion on 2020 compared to 2019. Trade Service Investment is the industry that experienced the most increase in the receiving of Going Concern Audit Opinion when compared to the period before Covid-19. Based on Independent Auditor's Report, there were the impact caused by the Covid-19 pandemic which has affected the operations of the company and its subsidiaries as well as their financial position. The external auditor considers that this condition indicates an uncertainty that may cause doubts about the company's ability to maintain its business going concern.

Related to the loss firm, Trade Service Investment is the industry that experienced the most increase in losses when compared to the period before Covid-19. According to its nature of business from companies that are included in the Trade Service Investment industry, this cannot be separated from the impact of (restriction regulations) imposed by the Government to prevent the spread of Covid-19. Government policies have a significant impact on companies in Retail Trade, Hospitality, Restaurant and other companies that include in Trade Service Investment industry caused by the restrictions on visits and purchases due to these policies, thus many companies in Trade Service Investment experience loss.

4.2.3 Statistic Descriptive for Ratio Variables

Value creation index, cost index, inventory index, leverage index, discretionary accruals and liquidity in this study are classified as ratio variables. Statistical analysis on a ratio scale using the minimum, maximum, mean and standard deviation values. Below is the summary of statistic descriptive for ratio variables:

Table 10: Statistic Descriptive for Value Creation Index, Cost Index, Inventory Index, Leverage Index, Discretionary Accruals and Liquidity

Variable	Obs	Mean	Std. Dev.	Min.	Max
VAI	294	99.49	2.03	77.67	103.66
CI	294	100.19	1.59	90.41	114.69
INVINDEX	294	99.67	1.37	89.95	101.91
LEVINDEX	294	99.09	7.54	12.42	110.90
DA	294	-0.05	0.29	-1.20	1.42
LIQ	294	3.48	14.78	0.03	208.44

Based on the statistical descriptive test in the table above, it can be seen that value creation index on Listed Companies in Indonesia has a mean value of 99.49 and standard deviation value of 2.03. The minimum value is 77.67 and the maximum value is 103.66. Cost index on Listed Companies in Indonesia has a mean value of 100.19 and standard deviation value of 1.59. The minimum value is 90.41 and the maximum value is 114.69. Inventory index on Listed Companies in Indonesia has a mean value of 99.67 and standard deviation value of 1.37. The minimum value is 89.95 and the maximum value is 101.91. Leverage index on Listed Companies in Indonesia has a mean value of 99.09 and standard deviation value of 7.54. The minimum value is 12.42 and the maximum value is 110.90. Discretionary accruals on Listed Companies in Indonesia have a mean value of -0.05 and standard deviation value of 0.29. The minimum value is -1.20 and the maximum value is 1.42. Liquidity on Listed Companies in Indonesia has a mean value of 3.48 and standard deviation value of 14.78. The minimum value is 0.03 and the maximum value is 208.44.

4.3 Hypothesis Testing
4.3.1 Goodness of Fit Tests

Goodness of Fit Test, used as the feasibility of the regression model that was assessed using Hosmer and Lemeshow's Goodness of Fit Test called the Chi-Square (Verma, 2013:417). This model is used to test the null hypothesis that the empirical data fits the model (there is no difference between the model and the data so that the model can be said to be fit). Below is the result of Goodness of Fit Tests in this study:

Table 11: Goodness of Fit Tests

Logistic model for GCAO, goodness-of-fit test	
number of observations	= 294
Prob > chi^2	= 0.6569

The results of the Hosmer and Lemeshow Test showed that the probability level seen through Prob>chi^2 was 0.6569. This value is greater than 0.05 or 5% so H$_0$ is accepted. Thus, this research model is acceptable because it matches its observation data. It can be interpreted that the regression model used is worth using for later analysis because the regression model is able to predict the value of its observation.

4.3.2 Logistic Regression and Coefficient Determination

Logistic regression is used when a dependent variable is a nominal-scale variable (dummy variable). The results of the logistic regression test will be explained as follows:

Table 12: Logistic Regression

Iteration 0: log likelihood = -160.19651			
Iteration 1: log likelihood = -142.49202			
Iteration 2: log likelihood = -141.46408			
Iteration 3: log likelihood = -141.17993			
Iteration 4: log likelihood = -141.15975			
Iteration 5: log likelihood = -141.15975			
Logistic Regression		**Number of obs**	**= 294**
		LR chi^2 (9)	**= 31.75**
		Prob > chi^2	**= 0.0002**
Log likelihood = -141.15975		**Pseudo R^2**	**= 0.1188**
GCAO	**Coef.**		**P>|z|**
VAI	-0.07		0.01*
CI	0.15		0.03*
INVINDEX	0.03		0.19
LEVINDEX	-0.01		0.55
COVIDNON	-0.52		0.00*
INDUSTRYCONTROL	0.21		0.00*
DA	-0.41		0.10
LIQ	-0.05		0.01*
LOSS	1.35		0.00*
_cons	17.26		0.00*

We have been informed that the Prob > chi^2 is 0,0002. Since it is below the significant rate (0,05), then it has been proven that the independent variables along with its control variables have a simultaneous effect towards going concern audit opinion. Furthermore, the result of Pseudo R^2 is 0.1188, means that the independent variable and control variable are able to explain the dependent variable by 11.88% (very low level), while the rest is explained by other variables outside the research.

Furthermore, partial testing for each variable based on the values P>|z| and Coef will be explained as follows:

a. Value Creation Index towards Going Concern Audit Opinion
The results of the logistic regression analysis in the table above show that the value creation index (VAI) has a Coef value for -0.07 and has P>|z| of 0.01 with a significance level of 0.05. A value of 0.01 which is smaller than a value of 0.05 indicates that Ha7 is accepted. Thus, the value creation index variable partially has a negative influence on the going concern audit opinion acceptance. Hence, the results of this test are in accordance with the research hypothesis that when a company has a good value creation index, it is unlikely that the company will receive a going concern audit opinion from an independent auditor. Upon checking, it can be seen that both in the period before and during Covid-19, the value creation index that had a value above the average tended not to accept going-concern audit opinions, while the value creation index below the average tended to be more likely to receive a going concern audit opinion. received a going concern audit opinion. Thus, it can be concluded that the increase in value in the value creation index as an important component that can be a reference for companies in maintaining their business is able to avoid companies from receiving going-concern audit opinions.

b. Cost Index towards Going Concern Audit Opinion
The results of the logistic regression analysis in the table above show that the cost index (CI) has a Coef value for 0.15 and has P>|z| of 0.03 with a significance level of 0.05. A value of 0.03 which is smaller than a value of 0.05 indicates that Ha8 is accepted. Thus, the cost index variable partially has a positive influence on the going-concern audit opinion acceptance. That is, the results of this test are in accordance with the research hypothesis that the smaller the cost owned by the company, the less likely it is that the company will receive a going concern audit opinion from an independent auditor. Upon checking, it can be seen that during the Covid-19 period, companies with a cost index below the average tended to be more likely to not receive going-concern audit opinions. This means that the smaller the costs incurred by the company, such as

the reduction in utility and electricity costs due to the implementation of working from home (WFH), can prevent companies from receiving going concern audit opinions. Auditors may assess because the decrease in costs incurred by the company can affect the increase in company profits so that they can avoid going concern issue.

c. Inventory Index towards Going Concern Audit Opinion

The results of the logistic regression analysis in the table above show that the inventory index (INVINDEX) has a Coef value for 0.03 and has P>|z| of 0.19 with a significance level of 0.05. A value of 0.19 which is higher than a value of 0.05 indicates that Ha9 is not accepted. Thus, the inventory index variable partially has no effect on the acceptance of going concern audit opinion. Hence, the results of this test are not in accordance with the research hypothesis. Upon checking, it can be seen that in the period before and during Covid-19, companies that received or did not receive a going concern audit opinion tended to have an inventory index value above the average. Hence, the amount of inventory owned by the company has no effect on the acceptance of going concern audit opinion. The accumulation of unfulfilled orders or incomplete work in the process of completion and delivery as well as the inventory backlog that occurs when one or more factors in the completion process are disrupted in this study may not be considered by the auditors for the disruption of the company's going concern issue due to considering the effects of the pandemic in terms of limitation of activity and operations.

d. Leverage Index towards Going Concern Audit Opinion

The results of the logistic regression analysis in the table above show that the leverage index (LEVINDEX) has a Coef value for -0.01 and has P>|z| of 0.55 with a significance level of 0.05. A value of 0.55 which is greater than a value of 0.05 indicates that Ha10 is not accepted. Thus, the leverage index variable partially has no effect on the acceptance of going-concern audit opinion. Hence, the results of this test are not in accordance with the research hypothesis. Upon checking, it can be seen that in the period before and during Covid-19, companies that received or did not receive a going concern audit opinion are tended to have a leverage index value above the average. This means that the debt pressure the company has for its operations in this study is not considered by the auditors in granting a going concern audit opinion. This may be considered in terms of the company's revenue which tends to decline when Covid-19 hits. Due to various limitations but activities have to be continue for the company's operations to run, the auditor may tend to assess that the Company's value of financial expenses are in order to maintain the going concern of its operations.

CONCLUSSION

Value creation index in the Covid-19 period is lower than the non Covid-19 period. Different with cost, inventory and leverage indexes that have a higher value in non Covid-19 period compared to Covid-19 period. It can be seen that the Mining Industry is the industry that most affected by Pandemic Covid-19. This is explained by the United States Department of Energy (DOE) that the lockdown policy practiced in various countries has an impact on reducing demand for fuel. There is also an increase for going concern audit opinion during Covid-19 period. Hence, the consequences during this Covid-19 have been challenging including for companies and auditors. This situation could be a certain affect such as the confidence in the company's financial condition during that period, and ultimately can lead to various company's going concern problem. Auditors should heighten professional judgement in assessing the adequacy of going concern disclosures and determine if a modification in light of the going concern.

Value creation index, cost index, inventory index and leverage index along with its control variables on Listed Companies are associated with going concern audit opinion.
Value creation index is negatively associated with going concern audit opinion. Hence, the result is in accordance with the research hypothesis that when a company has a good value creation index, it is unlikely that the company will receive a going concern audit opinion from an independent auditor. The increase in value creation index is an important component that can be a reference for companies in maintaining their business and is able to avoid companies from receiving going concern audit opinions.

Cost index partially is positively associated with going concern audit opinion. Hence, the result is in accordance with the research hypothesis which stated the smaller the cost owned by the company, the less likely it is that the company will receive a going concern audit opinion from an independent auditor. This means that the smaller the costs incurred by the company, such as the reduction in utility and electricity costs due to the implementation of working from home (WFH), can prevent companies from receiving going concern audit opinions. Auditors may assess because the decrease in costs incurred by the company can affect the increase in company profits so that they can avoid going concern issue.

Inventory index is not associated with going concern audit opinion. Hence, the result is not in accordance with the research hypothesis. The amount of inventory owned by the company has no effect on the acceptance of going concern audit opinion. The accumulation of unfulfilled orders or incomplete work in the process of completion and delivery as well as the inventory backlog that occurs when one or more factors in the completion process are disrupted in this study may not be considered by the auditors for the disruption of the company's going concern issue due to considering the effects of the pandemic in terms of limitation of activity and operations.
Leverage index is not associated with going concern audit opinion. Hence, the result is not in accordance with the research hypothesis. The debt pressure that the company has for its operations in this study is not considered by the auditors in granting a going concern audit opinion. This may be considered in terms of the company's revenue which tends to decline when Covid-19 hits. Due to various limitations but activities have to be continued for the company's operations to run, the auditor may tend to assess that the Company's value of financial expenses are in order to maintain the going concern of its operations.

This study can be used as a reference material for recommendations by detect the possible threat and opportunity earlier regarding to pursue Company's competitive advantage and performance evaluation. Also, it can be used as a reference to provide an assessment of the decision to grant an audit opinion that refers to the company's going concern based on Industry Accounting Index calculation in the future, especially for value creation index and cost index. For Macroeconomic Policymakers, this study can be used as a reference material for recommendations in preparing, implementing, and updating policies related to the economy, also to better understand the impact of Covid-19 on different industries, better explore the impact mechanism and would provide guidance for the recovery of the industrial chain after the pandemic.

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