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**| RESEARCH ARTICLE**

## **Analysis of Fundamental Factors to Improve the Performance of Hospitality and Tourism Companies: Case Study of Companies Listed on IDX Before and After COVID-19**

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**| ABSTRACT**

The study aims to analyze the fundamental business factors to maximize shareholder wealth before and after COVID-19 as a representation of a normal economic environment and economic downturn. This quantitative research method uses data from 19 hospitality and tourism companies registered on the Indonesia Stock Exchange (IDX). The data used are financial statements for 2018-2020. The results provide empirical evidence that before COVID-19, the return on equity (ROE) was positively affected by the asset turnover ratio (ATO), net profit margin (NPM), and negatively affected by the current ratio (CR) and debt to equity ratio. (DER). Unexpectedly the stock return (SR) is not influenced by internal performance factors. After COVID-19, ROE was negatively affected by DER with a coefficient of -64%, and the stock return (SR) was influenced by ROE positively. The results of this study suggest, based on the experience of the COVID-19 pandemic, hotel and tourism company managers should focus more on maximizing shareholder wealth by increasing profitability (NPM) and asset productivity (ATO) as well as minimizing liquidity (CR) and avoiding excessive debt (DER). Moreover, after COVID-19, ROE was only affected by a high decrease in debt, then the stock return was affected by ROE. In short, to improve hotel and tourism companies' performance which are heavily on assets investment, while their business is cyclical and vulnerable to economic turbulence and other external factors, maximizing profitability and minimizing risks are the two most important fundamental factors.

**| KEYWORDS**

ROE, Stock Return, Fundamental Business Factors, Hospitality and Tourism Companies, Indonesia

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**1. Introduction**

Travel and Tourism Competitiveness Index (TTCI) 2019, Indonesia is ranked 40th in the world. The advantages of tourism in Indonesia are the support from the government, price competitiveness, community friendliness, natural beauty, the uniqueness of traditional culture, and others (Junior, 2020).

The contribution of the tourism industry to the Indonesian economy is quite significant. In 2019, the number of foreign tourists visiting Indonesia was 16.1 million people, and local tourists were 722.2 million people. In 2019, the contribution of the hospitality and tourism industry to gross domestic product (GDP) was 5.9%, generating a foreign exchange of \$18.7 billion, and room occupancy rates in star and non-star hotels were 54% and 31%, and employed 13.2 million people. However, in 2020 after the COVID-19 outbreak, the number of foreign tourists dropped drastically to 4.1 million people (-75%) and local tourists to 518.6 million people (-28%), so the contribution to GDP fell to 5.32%, foreign exchange earnings decreased significantly to \$4 billion (-79%), occupancy rates for star and non-star hotels decreased by -39% and -42%, as well as a workforce of 11.8 million people. The contribution of the Indonesian hospitality and tourism industry in 2018-2020 is shown in Table 1.

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Table 1: Contribution of the Indonesian Hospitality and Tourism Industry in 2018-2020

	2018	2019	2020	The decline in 2019-2020
Number of Foreign Tourists (in millions of people)	15,8	16,1	4,1	-75%
Number of Domestic Tourists (in millions of people)	303,4	722,2	518,6	-28%
Contribution to GDP (%)	5,3	5,9	5,3	-10%
Foreign Exchange Income (in USD billion)	15,8	18,7	4,0	-79%
Star Hotels - Room Occupancy Rate (%)	58	54	33	-39%
Non-Star Hotels & Other Accommodations (%)	33	31	18	-42%
Number of Workers (in millions of people)	12,7	13,2	11,8	-11%

Source: Central Bureau of Statistics (BPS - Statistics Indonesia) 2018-2020

The decline is related to the policy of restricting human movement from the WHO and the Government of Indonesia, as well as public awareness to prevent the transmission of COVID-19. This health disaster has a direct impact on the decline in the frequency of international flights by -77% and domestic by -59% and also the decline in all hotel and tourism companies' revenues and profit significantly (CNBC Indonesia, 2020).

To reduce a huge loss and maintain their operations, most hospitality and tourism companies implement cost reduction strategies of up to 50% through reducing working hours, laying off employees, or selling their assets. Until 2021 more than 2,000 hotels and 8,000 restaurants in Indonesia were forced to stop operations due to fewer visitors. The Minister of Tourism and Creative Industries stated that the potential loss to the hospitality and tourism industry in Indonesia is estimated at IDR 70 trillion (\$5 billion) and losing foreign exchange income US \$ 4 billion (Hamdani, 2020; Bisnis.com, 2021). By looking at the COVID-19 pandemic, which is getting longer and unclear if it will end, many experts cannot predict the recovery of international tourist arrivals to normal levels until 2023 (Reni Lestari, 2021).

This economic downturn caused by the COVID-19 pandemic must be a serious concern, especially for managers, directors, and shareholders, because other global disasters such as climate change, natural disasters, politics, and war could also destroy the business environment and economic stability. Therefore, in this modern era, business people, including the hospitality and tourism industry, must rethink and focus more on strengthening the most basic internal factors, not seeking popularity (Bhagat and Hubbard, 2020; Kochan, 2021).

## 2. Literature Review

### 2.1 Shareholder theory

From the perspective of shareholders theory, the main task of management is to maximize shareholder wealth. This is very logical because they had invested large sums of money and mobilized their best resources, but legally they are residual claimants as their rights are only after all claims of suppliers, creditors, employees, and others are fulfilled. Therefore, it is not surprising that shareholders are the parties most interested in the sustainability and resilience of the company compared to other parties (Brigham and Houston, 2017; O'Connell and Ward, 2020).

Kochan (2021) emphasizes that the purpose of corporations is not to gain popularity but to seek profit without exploiting employees, the environment, and society according to universal business ethical values. Thus, the misconception that maximizing shareholder value means neglecting social welfare and damaging environmental sustainability needs to be rectified.

The advantage of shareholder theory is that performance measurement is easier to apply because it has long been used and is available in various business and economic literature. Researchers, investment analysts, and company managers use financial ratio analysis because it is most effective in signaling the profitability achievement and risk of the company (Wahlen et al., 2011:50). On the contrary, the measurement of corporate objectives from the perspective of stakeholder theory is too broad and has not been standardized, making it difficult to implement and suggest best practices accurately and measurably (Gopal, 2009; Harrison and Wicks, 2013; Iriyadi, 2016).

Financial ratio analysis is one of the fundamental analysis techniques to measure company performance. Financial ratio analysis is recognized as a powerful technique for understanding corporate health symptoms and finding improvement solutions to improve

performance and protect shareholder equity. Moreover, financial reporting has internationally accepted accounting and auditing standards (Gopal, 2009; Savage Brands, 2021).

## 2.2 Financial Ratio Analysis

In general, financial ratio analysis can be classified into four categories, namely liquidity ratios, profitability, solvency, and valuation (Elmerraji, 2022).

The liquidity ratio measures the company's ability to pay off short-term debt. The most widely used liquidity ratio is the current ratio (O'Regan, 2011), formulated as follows:

$$\text{Current Ratio (CR)} = \text{Current Assets (CA)} / \text{Current Liabilities (CL)} \times 100\%$$

For cyclical industries such as hospitality and tourism, the availability of adequate liquidity by having cash and cash equivalents or other liquid assets that can be converted quickly into cash is very important, especially during times of crisis and economic downturn (Hales, 2005; Tarver, 2021). However, companies with excessive liquidity may indicate that they have a lot of unproductive resources so that investors' perceptions of business risk increase (Hsiang Chen, 2010).

The profitability ratio shows the level of efficiency and net results of all operational decisions and asset and debt management (Brigham and Houston, 2017). Profitability ratios, among others, are asset turnover ratio (ATO), net profit margin (NPM), and return on equity ratio (ROE).

The asset turnover ratio (ATO) provides information on the extent to which each dollar invested in assets can generate sales (Hayes, 2021a; Hsiang Chen, 2010). The higher the asset turnover indicates, the more efficient asset management. Conversely, a lower asset turnover ratio indicates inefficiency as the existence of unproductive asset investment (Hayes, 2021a; Rotblut and Hageman, 2020). The asset turnover ratio is formulated as follows:

$$\text{Asset Turnover (ATO)} = \text{Total Revenue} / \text{Total Assets} \times 100\%$$

Yoonjung Heo (2021), based on research on the economic downturns situation years ago, found that asset-intensive hotel and tourism companies are at high risk caused by heavy financial burdens. Asset-intensive companies will experience liquidity shortages when there is a decrease in asset turnover and asset prices (Deloitte, 2019).

The net profit margin ratio (NPM) is a ratio to measure management's ability to generate net profit from each sale; the formula is:

$$\text{Net profit margin (NPM)} = \text{Net Income} / \text{Total Revenue} \times 100\%.$$

A high NPM ratio indicates that revenue can cover the cost of goods sold and operating expenses. A high NPM ratio can be influenced by selling prices that are too high and uncompetitive, so a high NPM ratio must be supported by a high asset turnover ratio (ATO) that signs high asset productivity and customer loyalty.

Return on equity (ROE) is the ability of management to generate profits from every dollar of shareholder equity invested in the company (Hsiang Chen, 2010). ROE is formulated as follows:

$$\text{Return on equity (ROE)} = \text{Net Income} / \text{Equity} \times 100\%.$$

The higher the ROE, the better the protection and growth of shareholder equity. The results of research by Pelaez-Verdet and Sanchez (2021) using data of 3,341 companies in Spain in 2008 found that ROE is the most relevant ratio for predicting the profitability and risk performance of hospitality and tourism companies. According to Brigham and Houston (2017), high ROE is favored by investors and shareholders, so high ROE is often correlated with an increase in stock price. However, high ROE can also be caused by financial leverage, which could increase the company's risk. Therefore, high ROE is much better if optimizing net income is generated from lesser debt rather than debt-intensive. For this reason, a solvency ratio analysis is needed.

The solvency ratio is a ratio to measure the company's ability to provide guarantees to creditors that the company's wealth is adequate to cover its debts. Two commonly used ratios are the debt to equity ratio (DER) and debt to assets ratio (DAR) (Brigham and Houston, 2017; Tarver, 2021).

The debt to equity ratio (DER) measures the extent to which the company's total debt is guaranteed by the equity. This ratio informs the adequacy of shareholders' equity to cover the company's debt (Tarver, 2021), formulated as follows:

$$\text{Debt to Equity Ratio (DER)} = \text{Total Debt} / \text{Total Equity} \times 100\%$$

The higher the DER, the higher the risk of the company as they have to spend their money in huge amounts for the interest expenses and principal installments in the long term. Previous research found and suggested that companies should have high profitability and low debt, so that shareholder wealth is protected (Hsiang Chen, 2010). Likewise, research by Fajri et al. (2017) and Fawzi and Sunarti (2021) found that DER had a negative effect on ROE.

The debt to asset ratio (DAR) measures the extent to which a company uses debt to finance its assets (Bettner and Lindback, 2015). This ratio is formulated as follows:

$$\text{Debt to Asset Ratio (DAR)} = \text{Total Debt} / \text{Total Assets} \times 100\%$$

The lower the DAR indicates, the better the company's performance because its assets are mostly self-funded, thereby reducing the company's risks. On the other hand, a high DAR indicates that the company's managers are unable to mitigate the risks. If most parts of assets are funded by excessive debt and the asset investment is inefficient, the risks of default and lawsuits could lead to bankruptcy (Bettner and Lindback, 2015). Therefore, companies' managers and owners have to maximize profitability and use debts more wisely.

The valuation ratio is a ratio to measure the value of the company. One corporate valuation method is comparing the stock price between periods. The higher the increase in stock prices, the higher the capital gain for investors and the increasing the shareholders' wealth. According to Hsiang Chen (2010), one of the valuation models is to compare changes in stock prices on the closing date, formulated as follows:

$$\text{Stock Return (SR)} = [(S_{Rt} - S_{Rt-1}) / S_{Rt-1}] \times 100\%$$

Where  $S_{Rt}$  = share price at the closing date of the stock market transaction at the end of year  $t$  and  $S_{Rt-1}$  = change in share price at the closing date at the end of year  $t-1$ .

Baresa et al. (2013) stated that this valuation model was widely adopted by investors and researchers. The results of the research by Latva-Maenpaa (2019) in Finland concluded that this formula is more capable of predicting and explaining firm value than analyzing technical factors. According to Hayes (2021b), the closing price is often used as the point of reference by investors in the evaluation of the stock performance and the company's value.

### 2.3 Conceptual Framework

Based on the description above, the conceptual framework of the research is as follows:

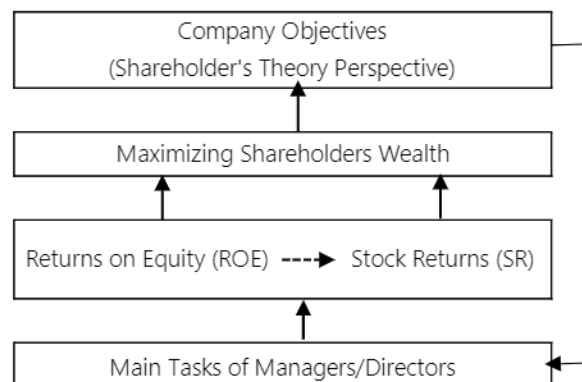


Figure 1 Conceptual Framework

The conceptual framework above shows that, based on the perspective of Shareholder Theory, the main task of a company's managers and directors is to maximize shareholder wealth. To protect and increase shareholder wealth, companies must be able to maximize ROE in the long term. A high return on equity (ROE) can create a positive perception of the investors so that it will

increase the stock price and capital gain or stock return (SR). Thus, based on the perspective of shareholder theory, the most relevant measures of the effectiveness of management are the ROE and the stock return (SR) (Carton and Hofer, 2006; Hsiang Chen, 2010; Lim and Chan, 2013; Saravanan, 2020).

In this study, the ROE and Stock Return (SR) are used as the proxies of management's ability to maximize shareholder wealth. The ROE is influenced by the effectiveness of managers in managing fundamental business factors, which are mainly liquidity, profitability, asset, and debt management effectively, measured by CR, NPM, ATO, DER, and DAR. The Stock Return (SR) as a proxy for maximizing the owner's wealth is influenced by ROE. A high ROE indicates high profitability and low risk for the company, which is correlated with an increase in stock prices, hence increasing capital gain. The hypotheses of this study for the period before and after COVID-19 are as follows:

H1: Return on equity (ROE) is positively influenced by the Current Ratio (CR), Net Profit Margin (NPM), Asset Turnover (ATO), and negatively affected by the Debt to Equity Ratio (DER) and the ratio of Debt to Total Assets ( DAR).

H2: Stock return (SR) is positively influenced by Return on Equity (ROE).

**3. Methodology**

**3.1 Research Sample**

The sample of this study is 19 companies, or 54% of 35 hospitality and tourism companies listed on the Indonesia Stock Exchange (IDX). The data used in this study is cross-sectional data based on companies' financial statements for the period of 2018-2020. The sample was selected purposively based on the ease of obtaining their financial statements and the availability of data for this study. Based on the reports, their business includes hotels, tourism, property and apartment, restaurants, cafes, and travel agents.

The data used for the period before COVID-19 is the change in financial ratios in 2018 compared to 2019. While after COVID-19 is the change in financial ratios in 2020 compared to the average of financial ratios before COVID-19. Data analysis for this study uses SPSS (Statistical Package for the Social Sciences) software version 26.

**3.2 Variable Measurement**

The operationalization of variables in this study is as follows:

Variables	Indicators (measurements)	Scale
H1:		
Dependent variable:		
Y1: Return on Equity (ROE)	Net Income/Equity x 100%	Ratio
Independent variable		
X1: Current Ratio (CR)	Current Assets (CA)/Current Liabilities (CL) x 100%	Ratio
X2: Net Profit Margin (NPM)	Net Income/Sales x 100%	Ratio
X3: Assets Turnover (ATO)	Sales/Total Assets x 100%	Ratio
X4: Debt to Equity Ratio (DER)	Total Debt/Total Equity x 100%	Ratio
X5: Debt to Assets Ratio (DAR)	Total Debt /Total Assets x 100%	Ratio
H2:		
Dependent variable		
Y2: Stock Return (SR)	(Stock Price t/ Stock Price t-1) x 100%	Ratio
Independent variable		
X: Return on Equity (ROE)	Net Income/Equity x 100%	Ratio

**3.3 Regression Model**

The regression model of H<sub>1</sub> for the period before and after COVID-19 uses the multiple linear regression equation as follows:

$$H_1: ROE = a + b_1CR + b_2NPM + b_3ATO - b_4DER - b_5DAR + e$$

The regression model of H<sub>2</sub> for the period before and after COVID-19 uses the simple linear regression equation as follows:

$$H_2: SR = a + b_1ROE + e$$

Where a is a constant, b is the correlation coefficient, and e is the standard error. For the first hypothesis (H<sub>1</sub>), the dependent variable ROE is predicted to be positively influenced by the independent variables CR, NPM, and ATO and negatively influenced by DER and DAR. In the second hypothesis (H<sub>2</sub>), the Stock Return (SR) is estimated to be positively influenced by the independent variable ROE.

**4. Results**

**4.1 Descriptive statistics**

The results of descriptive statistical tests for all variables based on the data of 19 hospitality and tourism companies in Indonesia for 2018-2020 can be seen in Table 2.

Table 2: Descriptive Statistics

<b>Before COVID-19 (2018-2019)</b>							
	N	Range	Minimum	Maximum	Mean	Std. Dev	Variance
SR	19	1.07487	-.54545	.52941	-.0382619	.28352995	.080
ROE	19	.40129	-.10081	.30048	.0151317	.08163008	.007
CR	19	2.46560	-1.06931	1.39629	.0827846	.60357921	.364
NPM	19	2.56587	-.41353	2.15234	.1008765	.51666044	.267
ATO	19	.44629	-.10303	.34327	.0077402	.09047311	.008
DER	19	2.13921	-1.67252	.46668	-.1267484	.46087149	.212
DAR	19	.21718	-.16697	.05021	-.0147206	.06267418	.004
Valid N (listwise)	19						

<b>After COVID-19 (2020)</b>							
	N	Range	Minimum	Maximum	Mean	Std. Dev	Variance
SR	19	.98153	-.94483	.03670	-.3589013	.26885017	.072
ROE	19	.88843	-.88868	-.00024	-.1541492	.22016434	.048
CR	19	12.98753	-7.27308	5.71445	-.0785352	2.6126061	6.8269
NPM	19	2.75463	-2.74284	.01179	-.5716036	.78921407	.623
ATO	19	2.33630	-1.98377	.35253	-.2263676	.47952851	.230
DER	19	1.58037	-.22545	1.35493	.1772149	.40111856	.161
DAR	19	.24968	-.07841	.17127	.0262189	.05515198	.003
Valid N (listwise)	19						

Source: SPSS v.26 descriptive statistical test

For ease of description and interpretation, the mean value is converted into percentages (%). Based on Table 2 above, the mean value of the stock return (SR) before COVID-19 showed -3.8%, and after COVID-19 stock return ratio decreased to -35.8%. The negative SR in the period before COVID-19 was due to the decline of eight companies' stock prices (42%). In the period after COVID-19, almost all companies that are 18 companies (95%) experienced the stock prices decline.

The mean value of return on equity (ROE) before COVID-19 was +1.5%, but after COVID-19, ROE dropped to -15.4%. The low ROE in 2019 was due to eight companies (42%) having suffered losses the period before COVID-19, while in 2020, after COVID-19, the number of companies experiencing losses increased to 16 companies (84%). In the period after COVID-19, all fundamental factors showed a decline. The current ratio (CR) decreased -by 7.8%, net profit margin (NPM) decreased drastically is by-57.2%, and asset turnover (ATO) decreased to -22.6%. Likewise, the performance of debt management was worsened, as indicated by an increase in the debt to equity ratio (DER) of +17.7% and the debt to total asset ratio (DAR) of +2.6%.

To ascertain what factors are maximizing the shareholders' wealth, in this study is the increase of ROE and SR before and after COVID-19; hence inferential statistical tests were carried out. To ascertain the accuracy, unbiased, and consistency of the estimation, the residual data in the regression equation must fulfill the requirements of the classical assumption tests, namely normality, multicollinearity, and heteroscedasticity. Then it follows by testing of coefficient determination (R<sup>2</sup>), F-test to test the goodness of fit of the regression model, and a t-test to determine the influence of independent variables on the dependent variable partially.

**4.2 Inferential Statistics**

**4.2.1 H1-test before COVID-19**

The results of the classical assumption test on the regression equation for H1 before COVID-19 show that all requirements are met. The normality using the Shapiro-Wilk show sig 0.067 > 0.05, the multicollinearity as seen in Table 5 (Collinearity Statistics column), shows that all variables have a tolerance value > 0.1 and VIF < 10. The heteroscedasticity using the Glejser test shows Sig 0.138 > 0.05. While the autocorrelation test was not carried out because this study uses cross-sectional data.

In Table 3, the coefficient of determination ( $R^2$ ) is 94.4% which indicates that the independent variables CR, NPM, ATO, DER, and DAR can explain the variability in the dependent variable ROE is 94.4%, while 5.6% can be explained by other factors not investigated.

Table 3 Coefficient of Determination ( $R^2$ )

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.972 <sup>a</sup>	.944	.923	.02267878

a. Predictors: (Constant), DAR, ATO, CR, DER, NPM

b. Dependent Variable: ROE

Table 4 The result of the F-test (ANOVA) shows Sig 0.000 < 0.05, which indicates that the regression model is the goodness of fit, hence and is suitable for partially predicting each of the independent variables CR, NPM, ATO, DER, and DAR on the dependent variable ROE with t-test.

Table 4 F-Test Results

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.113	5	.023	44.041	.000 <sup>b</sup>
	Residual	.007	13	.001		
	Total	.120	18			

a. Dependent Variable: ROE

b. Predictors: (Constant), DAR, ATO, CR, DER, NPM

Table 5 shows that the results of the t-test provide statistical evidence that, with a 95% confidence level, ROE is positively influenced by the independent variables NPM (Sig. 0.000 < 0.05; B = +0.159) and ATO (Sig. 0.047 < 0, 05; B = +0.130), affected negatively by CR (Sig. 0.008 < 0.05; B = -0.034) and DER (Sig. 0.009 < 0.05; B = -0.051). However, DAR, which has a negative coefficient (B = -0.020), did not affect ROE (Sig. 0.890 > 0.05).

Table 5 t-Test Results

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.006	.006		-1.052	.312		
	CR	-.034	.011	-.255	-3.109	.008	.639	1.565
	NPM	.159	.015	1.003	10.481	.000	.468	2.136
	ATO	.130	.059	.144	2.194	.047	.989	1.011
	DER	-.051	.017	-.289	-3.089	.009	.491	2.038
	DAR	-.020	.144	-.016	-.141	.890	.352	2.838

a. Dependent Variable: ROE

**4.2.2 H2-test before COVID-19**

The results of the classical assumption test on the regression equation for H2 before COVID-19 show that all requirements are met. The results of the normality test with Shapiro-Wilk showed sig 0.462 > 0.05. Multicollinearity test showed tolerance values 1.0 > 0.1 and VIF 1.0 < 10, Heteroscedasticity with Glejser test showed Sig 0.954 > 0.05. However, as shown in Table 6, the results of the F-test (ANOVA) show Sig 0.564 > 0.05, which indicates that the regression model has not had the goodness of fit and is not

suitable to predict the influence of the independent variable ROE on the dependent variable Stock Return (SR). Hence, the t-test was not carried out.

Table 6 F-Test Results

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.029	1	.029	.346	.564 <sup>b</sup>
	Residual	1.418	17	.083		
	Total	1.447	18			

a. Dependent Variable: SR

b. Predictors: (Constant), ROE

#### 4.2.3 H1-test after COVID-19

The results of the classical assumption test using the original data on H1 after COVID-19 did not match the criteria. To remedy this issue, all data were converted using the double log-natural transformation to produce the dependent variables LN ROE and the independent variables LN CR, LN NPM, LN ATO, LN DER, and LN DAR. According to converted data, the Shapiro-Wilk test revealed normality with a sig 0.170 > 0.05, multicollinearity with a sig 0.909 > 0.05, and heteroscedasticity with a sig 0.909 > 0.05, according to the Glejser test.

Table 7 shows that the coefficient of determination ( $R^2$ ) is 79.7%, indicating that changes in all predictor variables can explain 79.7% of the variation in the dependent variable ROE, with the remaining 20.3% being explained by unresearched factors.

Table 7 Coefficient of Determination ( $R^2$ )

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.893 <sup>a</sup>	.797	.719	.08551

a. Predictors: (Constant), LN\_DAR, LN\_CR, LN\_ATO, LN\_NPM, LN\_DER

b. Dependent Variable: LN\_ROE

Table 8 F-test results show a Sig value of 0.000 < 0.05, indicating that the regression model meets the goodness of fit and is suitable for predicting the effect of the independent variable on the dependent variable with the t-test.

Table 8 F-Test Results

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.374	5	.075	10.232	.000 <sup>b</sup>
	Residual	.095	13	.007		
	Total	.469	18			

<sup>a</sup>Dependent Variable: LN\_ROE

<sup>b</sup>Predictors: (Constant), LN\_DAR, LN\_CR, LN\_ATO, LN\_NPM, LN\_DER

Table 9 The results of the t-test show that the dependent variable ROE is negatively affected by the independent variable DER (Sig. 0.004 < 0.05; B = -0.640), while the other independent variables are CR, NPM, ATO, and DAR, which show Sig. > 0.05 indicates no effect on the dependent variable ROE.



Table 9 T-Test Results

Model		Coefficients <sup>a</sup>						Collinearity Statistics	
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Tolerance	VIF	
		B	Std. Error	Beta					
1	(Constant)	.418	.134		3.129	.008			
	LN_CR	-.004	.037	-.016	-.118	.908	.868	1.152	
	LN_NPM	.076	.065	.184	1.161	.267	.623	1.605	
	LN_ATO	.126	.092	.185	1.377	.192	.867	1.153	
	LN_DER	-.640	.181	-.923	-3.529	.004	.228	4.389	
	LN_DAR	.907	.784	.276	1.157	.268	.275	3.643	

<sup>a</sup>Dependent Variable: LN\_ROE

**4.2.4 H2-test After COVID-19**

The results of the classical assumption test show that there is one outlier data. After the outlier data is removed, all assumptions are met. Normality test with Shapiro-Wilk showed sig 0.558 > 0.05, multicollinearity test, in Table 12, showed tolerance value 1.0 > 0.1 and VIF 1.0 < 10, and heteroscedasticity with Glejser test showed Sig 0.244 > 0.05.

Table 10, the Coefficient of Determination (R<sup>2</sup>) shows 39.9%, which indicates that changes in the independent variable ROE can explain changes in the dependent variable Stock Return (SR) of 39.9%, while 60.1% is explained by other factors that are not studied.

Table 10 Coefficient of Determination (R<sup>2</sup>)

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.631 <sup>a</sup>	.399	.361	.18782123

a. Predictors: (Constant), ROE

b. Dependent Variable: SR

Table 11 F-test results show Sig 0.005 < 0.05, indicating that the regression model can be used to predict the effect of the independent variable ROE on the dependent variable Stock Return (SR) with the t-test.

Table 11 F-Test Results

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.374	1	.374	10.609	.005 <sup>b</sup>
	Residual	.564	16	.035		
	Total	.939	17			

a. Dependent Variable: SR

b. Predictors: (Constant), ROE

In table 12, the results of the t-test show that Stock Return (SR) is positively influenced by the independent variable ROE (Sig. 0.005 < 0.05; B = +0.662).

Table 12 T-Test Results

Model		Coefficients <sup>a</sup>						Collinearity Statistics	
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Tolerance	VIF	
		B	Std. Error	Beta					
1	(Constant)	-.219	.055		-3.975	.001			
	ROE	.662	.203	.631	3.257	.005	1.000	1.000	

## 5. Discussion

The statistical test results provide empirical evidence that maximizing shareholder wealth in hospitality and tourism companies in Indonesia in the period before COVID-19 as a representation of a normal economic environment, and after COVID-19, as a representation of an economic downturn, is very different.

In the pre-COVID-19 period, the return on equity (ROE) was positively influenced by the company's ability to generate profitability, proxied by the net margin ratio (NPM) and optimize asset productivity, measured by the asset turnover ratio (ATO) accompanied by minimizing liquidity, proxied by the current ratio (CR) and debt reduction, measured by debt to equity ratio (DER). Meanwhile, after COVID-19, ROE is only affected by the company's ability to significantly reduce its debt, measured by decreasing DER by at least 64% (Table 9 shows the DER coefficient is -0.640). Stock Return (SR) as a proxy of maximizing shareholder wealth in the period before COVID-19 was not influenced by internal factors performance, but after COVID-19, stock return (SR) was positively influenced by ROE.

These findings suggest that management should focus more on increasing the profitability and productivity of assets, accompanied by avoiding excessive liquidity and debt. High profitability will increase ROE, and high ROE is expected to increase stock prices. Profitability and minimizing debts are the two most important factors, as proven by the COVID-19 experience that ROE is the only factor that can protect shareholder wealth (ROE) by reducing debt by at least 64%. It means that lesser debt means higher ROE. Regarding the Stock Return (SR), which was not influenced by ROE in the period before COVID-19, while after COVID-19, they were positively influenced by ROE, this is supported by Wall Street's (2018) statement that stock price changes are often influenced by factors beyond management's control. In addition, in previous research, Ahmed (2021) found that in the US hospitality and tourism sector, various corporate strategies related to stock momentum returns often have no effect, although positive.

## 6. Conclusion

This study is aimed to find the fundamental business factors for maximizing shareholders' wealth. The results provide empirical evidence that before COVID-19, a representation of a normal economic environment, the return on equity (ROE) was positively affected by the asset turnover ratio (ATO), net profit margin (NPM), and negatively affected by the current ratio (CR) and debt to equity ratio (DER). However, the stock return (SR) is not influenced by internal performance factors. Then, after COVID-19, a representation of economic downturn, ROE was negatively affected by DER with a coefficient of -64%, and the stock return (SR) was influenced by ROE positively. These results suggest that to maximize the shareholders' equity, the managers and directors of the hotel and tourism company should focus more on increasing asset productivity and profitability and minimizing liquidity and debt. This study also suggests that lowering debt is the most important business factor as shown that in the period after COVID-19, the shareholders' equity was only affected by a high decrease in debt, while the increases in equity affected the stock return. The limitation of this study is the small number of samples for the period until 2020. For further study, it is recommended to use more samples of companies and a longer period.

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## References

- [1] Ahmed, M. S. (2021). Momentum Investing: Evidence from the US Tourism and Hospitality. *European Journal of Management and Business Economics*. Emerald Publishing Limited e-ISSN: 2444-8494 DOI 10.1108/EJMBE-02-2021-00
- [2] Baresa, S., Bogdan S and Ivanovic Z. (2013). The strategy of Stock Valuation by Fundamental Analysis, *Journal of Economics*. University of Tourism and Management Skopje. 4(1) 45-51.
- [3] Bettner, M. S., and Lindback, C. R. (2015). *Using Accounting and Financial Information Analyzing, Forecasting, and Decision Making*. Business Expert Press, New York, [www.businessexpertpress.com](http://www.businessexpertpress.com)
- [4] Bhagat, S and Glenn H. R (2020). Should the Modern Corporation Maximize Shareholder Value? May 18, 2020. From <https://clsbluesky.law.columbia.edu/2020/05/18/should-the-modern-corporation-maximize-shareholder-value/>
- [5] Bisnis.com. (2021). *Ribuan Hotel dan Restoran Tutup Permanen Akibat Pandemi Covid19*. News wire Editor: Yustinus Andri DP. From <https://ekonomi.bisnis.com/read/20210205/12/1352941/ribuan-hotel-dan-restoran-tutup-permanen-akibat-pandemi-covid-19>.
- [6] [BPS-Statistics Indonesia. (2021). *Hotel and Other Accommodation Statistics in Indonesia 2020*. Printed by CV. Pratama Persada.
- [7] Brigham, E. F, and Houston. (2017). *Fundamentals of Financial Management: Concise*, 9th-ed. Cengage Learning Printed in Canada 2015 by Nelson Education, Ltd.
- [8] Carton, R. B and Charles W. H. (2006). *Measuring Organizational Performance - Metrics for Entrepreneurship and Strategic Management Research*. Published by Edward Elgar Publishing Limited ISBN-13: 978 1 84542 620 0
- [9] CNBC Indonesia. (2020). *Wisata 2020 Hancur Lebur: Turis Ambles, Hotel Berdarah-Darah*. CNBC Indonesia. Tirta Citradi. 01 December 2020

- [10] Deloitte. (2019). *Planning for An Uncertain Future: How Airlines and Hotels Can Prepare for An Economic Downturn*. © 2019 Deloitte Development LLC.
- [11] Elmerraji, J. (2022). *Guide to Financial Ratio Analysis*. From <https://www.investopedia.com/articles/stocks/06/ratios.asp>
- [12] Fajri, A and Rahayu S, K. (2017). Pengaruh Current Ratio, Debt Equity Ratio, dan Total Asset Turnover terhadap Return on Equity (Studi pada Sektor Industri Kimia dan Farmasi yang Terdaftar di BEI Tahun 2011-2016). *e-Proceeding of Management: 4(2)* 1527
- [13] Fawzi, A. M and Sunarti. (2021). Factors Affecting the Performance of F and B Industry in Malaysia and Indonesia. *Jurnal Economia*. 17(1), 65-80.
- [14] Gopal, R. C. A.C. (2009). *Accounting for Managers (Starting from Basics) - An Exclusive & Comprehensive Book Covering Revised UGC Syllabus*. New Age International (P) Ltd., Publishers, New Delhi, India.
- [15] Hamdani, T. (2020). 2.000 Hotel dan 8.000 Restoran Tutup, Pengusaha Rugi Rp 70 T. *detikFinance* Jumat, 05 Jun 2020. From <https://finance.detik.com/berita-ekonomi-bisnis/d-5042109/2000-hotel-dan-8000-restoran-tutup-pengusaha-rugi-rp-70-t>. Diakses 19/2/2022.
- [16] Harrison, J. S., and Andrew C. W. (2013). Stakeholder Theory, Value, and Firm Performance. *Business Ethics Quarterly* 23(1) 97-124.
- [17] Hayes, A. (2021a). *Total-Debt-to-Total-Assets Ratio*. Updated Apr 12, 2021. Reviewed by David Kindness. From <https://www.investopedia.com/terms/t/totaldebttotalassets.asp>
- [18] Hayes, A. (2021b). *Closing Price*. Updated Aug 4, 2021. From <https://www.investopedia.com/terms/c/closingprice.asp#:~:text=Key%20Takeaways,stock%20dividends%2C%20or%20stock%20splits>.
- [19] Hsiang C. M. (2010). The Economy, Tourism Growth and Corporate Performance in the Taiwanese Hotel Industry. *Tourism Management*. 31 (2010) 665–675. [www.elsevier.com/locate/tourman](http://www.elsevier.com/locate/tourman)
- [20] Iriyadi. (2016). Performance Measurements: From Accounting to Shared Values. *International Journal of Applied Business and Economic Research*, 14(3) 1571-1585
- [21] Junior, K. (2020). *TTCI – Travel and Tourism Competitiveness Index*. April 1, 2020. <https://www.kampretnews.com/ttci-travel-and-tourism-competitiveness-index/> [27/12/201]
- [22] Kochan, J. D. (2021). The purpose of a corporation is to seek profits, not popularity. From <https://thehill.com/opinion/finance/568595-he-purpose-of-the-corporation-is-to-seek-profits-not-popularity/>
- [23] Latvia-Maenpaa, L. (2019). *Evidence of a Complementary Relationship between Fundamental and Technical Analysis in the Finnish Stock Market*. Master's Thesis. Master's Degree Programme in Finance Faculty of Business Studies, School of Accounting and Finance University of Vassa.
- [24] Lim, C and Felix C. (2013). *An Empirical Modelling of New Zealand Hospitality and Tourism Stock Returns*. Hindawi Publishing Corporation. ISRN Economics. Article ID 289718, 10 pages. <https://dx.doi.org/10.1155/2013/289718>
- [25] O'Connell, M and Ward A.M. (2020). *Shareholder Theory/Shareholder Value*. First Online: 09 March 2020 DOI: [https://doi.org/10.1007/978-3-030-02006-4\\_49-1](https://doi.org/10.1007/978-3-030-02006-4_49-1).
- [26] O'Regan, P. (2016). *Financial Information Analysis - The Role of Accounting Information in Modern Society. Third Edition. Published 2016 by Routledge Park Square, New York, NY 10017*
- [27] Pelaez-Verdet, A. and Loscertales-Sanchez, P. (2021). Key Ratios for Long-Term Prediction of Hotel Financial Distress and Corporate Default: Survival Analysis for an Economic Stagnation. *Sustainability* 2021, 13, 1473.
- [28] Reni L. (2021). Ekonomi Global Rugi US\$4 Triliun dari Pukulan Pariwisata Akibat Covid-19. *Bisnis.com* 30 Juni 2021. Editor: Hadijah Alaydrus. From <https://ekonomi.bisnis.com/read/20210630/620/1411866/ekonomi-global-rugi-us4-triliun-dari-pukulan-pariwisata-akibat-covid-19>
- [29] Rotblut C and Hageman. D (2020). *20 Stocks Sporting High Returns On Equity*. Nov 19, 2020. From <https://www.forbes.com/sites/investor/2020/11/19/20-stocks-sporty-high-returns-on-equity/>
- [30] Saravanan, P. (2020). *Deconstructing Return on Equity: Why RoE is considered among the most relevant ratios in-stock selection*. From <https://www.financialexpress.com/money/deconstructing-return-on-equity-why-roe-is-considered-among-most-relevant-ratios-in-stock-selection/1829699/>
- [31] Savage B. (2021). *What Is ESG Reporting and Why Is It Important?* [Internet]. 9, 2021. From <https://savagebrands.com/what-is-esg-reporting-and-why-is-it-important/>
- [32] Tarver, E. (2021). *Key Financial Ratios to Analyze the Hospitality Industry*. Updated May 27, 2021. From <https://www.investopedia.com/articles/active-trading/082615/key-financial-ratios-analyze-hospitality-industry.asp>
- [33] Wahlen, J.M. Baginski, S.P.B. (2011). *Financial Reporting, Financial Statement Analysis, and Valuation: A Strategic Perspective*. Seventh Edition. USA: South-Western, Cengage Learning.
- [34] Wall S. (2018). *Trading Basics - Factors that Influence Share Price*. Posted by Wall Street. Jul 24, 2018
- [35] WTTC. (2021). *World Travel and Tourism Council: Global Economic Impact and Trends 2021*. June 2021.
- [36] Yoonjoung H. C. (2021). Asset-light Strategies and Stock Market Reactions to COVID-19's Pandemic Announcement: The Case of Hospitality Firms C'edric Porette. HES-SO/University of Applied Sciences and Arts Western Switzerland, Switzerland. *Tourism Economics 1–10. Journals.sagepub.com/home/teu*