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## ARTÍCULO

## Determinants of Financial Performance: A Case from Oil and Gas Companies listed in the Iraq Stock Exchange

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**Abstract:** The purpose of this study is to examine the influence of return on equity (ROE), return on assets (ROA), leverage ratio (DTE), working capital ratio (WCR), and gross profit ratio (GRPM) on the earnings per share (EPS) and market to book value ratio (MBV) of Iraqi oil and gas firms listed on the stock exchange from 2010 to 2021. The STATA analytical tool uses multiple regression analysis to analyze panel data. Before regression analysis, following a diagnostic test, data normality assumptions, autocorrelation, multicollinearity, and heteroscedastic were performed, along with autocorrelation, multicollinearity, and heteroscedastic. ROA, ROE, GRPM, and WCR positively and substantially influence EPS and MBV. In contrast, DTE has a positive and significant influence on EPS but a negative and significant influence on MBV, as determined using regression analysis. The research findings could facilitate understanding the significance of EPS and MBV for investors' investment decisions and the influence of EPS and MBV on the oil and gas industry. Understanding the various financial considerations in the oil and gas sector enables professionals to make sound choices. Practitioners and others with decision-making authority could also benefit from understanding the significance of ratios to boost their investment in company shares.

## 1. Introduction

The capital market plays a crucial role in the growth of businesses and the economy, piqued scholars' interest in this study area for centuries. The capital market facilitates trading long-term securities, such as bonds, shares, debentures, and other instruments, to raise capital. The secondary market is equally essential for the economic growth of the nation. Robiyanto et al. (2019) state that the capital market frequently experiences insufficiency and excess funds for trading bonds, stocks, and other market instruments.

The financial statements of the corporations reveal the company's strengths or weaknesses. Most investors base their investment decisions on a firm's profitability and earnings per share (EPS) (Kumar, 2017). Other scholars have suggested that the market-to-book-value ratio (MBV) is a popular criterion for investors (Hermawan, 2012). Therefore, for investors, EPS and MBV are the indicators of a company's annual profitability (Nurfadillah, 2016). Investors' logical decision-making and substantial share and security purchase prices may raise annual earnings and dividends (Almira et al., 2020). According to (Al Umar et al., 2020; Susanti et al., 2021), investors base their decisions on the pattern of EPS and MBV of the companies to estimate their future earnings based on dividend payment trends from the past. According to past studies, EPS also indicates the number of investors interested in investing (Estiasih et al., 2020). While other authors have stated that MBV is among the most influential factors in shaping investor decisions (Abuzayed et al., 2009), MBV is among the most prevalent. Investors need to comprehend a firm's reported financial ratios to understand its prospects better.

Various authors have also proposed that the ratios "return on assets (ROA), return on equity (ROE), working capital ratio (WCR), leverage ratio (DTE), and gross profit ratio (GPR)" are often employed as measures of financial performance (Amelia et al., 2020; Jufrizen et al., 2020; Mangantar et al., 2020; Sondakh et al., 2015). Ang (1997) states that a greater ROA, improved asset management, and more efficient assets will increase investor trust and EPS. According to Abigael (2008), ROA increases EPS. According to Kirana et al. (2017), the DER ratio indicates how much equity a company has to pay its obligations (Sugiarto, 2011). High DER ratios pose a risk to investors and should thus be avoided. High DER will reduce market demand for shares and EP (Jufrizen et al., 2020). On the other hand, it was discovered that working capital has a positive and significant relationship with both EPS and MBV (Sharma et al., 2011). (Mathuva, 2015). Alternatively, the gross profit ratio (GPR) has a favorable and substantial effect on profitability (Ledley et al., 2020). The ROA has a positive and large impact on both EPS and MV (Aryaningsih, 2018). (Daniswara et al., 2020). The preceding discussion demonstrated that all indicators are similarly important for EPS and MBV.

With the presence of prior discussion for EPS and MBV, the previous studies have primarily focused on the impact of ROA, ROE, WCR, DTE, and GPR on EPS (Lutfiah et al., 2020; Putra et al., 2018; Setiawan et al., 2020; Tirta et al., 2022), but have paid little attention to the, in addition, past investigations have had contradictory results (Anam et al., 2019; C. N. Chandra et al., 2021; Putra et al., 2018). On the other hand, the past study has primarily concentrated on other nations (D. S. Chandra, 2021; Siregar, 2021), while Iraq, particularly Oil and Gas businesses, has received scant attention. In 2020, Iraq produced 4.3 million barrels of oil per day, making it the sixth largest producer in the world. It has the world's third largest conventional petroleum reserves, with 147 billion barrels, behind only Saudi Arabia and Iran, which have 297 billion and 155 billion barrels, respectively. By 2020, Iraq is expected to provide natural gas reserves of around 125.6 trillion cubic feet

(Judeh et al., 2022). This demonstrates that oil and gas businesses in Iraq have a significant social and economic impact. Therefore, this sector could not be disregarded, as investor confidence is crucial, and ratio analysis of this sector is essential for increasing stakeholder investment. Therefore, this study aims to examine the influence of ROE, ROA, DTE, WCR, and GRPM on the financial performance of Iraq-listed oil and gas businesses from a market ratio viewpoint.

The current study aims to understand the significance of EPS and MBV for investors' investment decisions and how EPS and MBV affect the oil and gas industry. Understanding the various financial considerations in the oil and gas sector enables professionals to make sound choices. Practitioners and others with decision-making authority could also benefit from understanding the significance of ratios to boost their investment in company shares. The article was divided into five sections: introduction, literature review, research methodology, data analysis, and conclusion.

## 2. Literature Review and Research Framework Development

This section describes the correlations between the independent variables "return on assets (ROA), return on equity (ROE), gross profit margin (GRPM), leverage ratio, working capital ratio, earnings per share (EPS), and market value to book value (MBV) ratio." The literature on the link between these variables is examined here from a theoretical and an empirical standpoint.

A company's gross profit is an essential indicator of the amount available for other costs, such as interest and taxes (Evmenchik et al., 2021). The income of a business is derived from the sale of items, which in turn is derived from purchases and all costs associated with acquiring, selling, and administration (Evmenchik et al., 2021). Increases or decreases in sales of goods or services and associated expenses show the company's profit margin; these indicators directly correlate with earnings per share (EPS) (Xie et al., 2014). According to Gomes Leite et al. (2018) investigation into how companies gain a competitive advantage in the market and maximize the firm's value, as well as how these companies earn the greatest profits, companies obtain a competitive advantage in the market by maximizing the firm's value. To maximize profits, businesses implement the most effective cost-cutting and loss-prevention measures during production. The profit margin has the greatest impact on earnings per share, as proved in various academic papers by researchers employing different elements and statistical methodologies. According to another study (Allain, 2021), labor costs and gross profit margins are connected and have a bigger impact on the earnings and capital of the organization. Economic conditions are also considered when computing EPS using the net profit margin indicator. The researchers use various components to indicate the relationship between profit margin and earnings per share. The results demonstrated that an increase in gross profit margin increases earnings per share. Additionally, with the movement of actual earnings activities of a company, EPS and profit margins exhibit both upward and downward movement, as these activities have a direct relationship with the company's profitability (Allain, 2021). The participants determine their scheme based on experience, which directly correlates with profit margin expansion (McConville et al., 2020).

In addition to gross profit, corporations in global marketplaces typically rely on greater loans to operate their businesses (McConville et al., 2020). Using a greater quantity of debt may reduce shareholder earnings due to higher loan cost bearing than equity. Similarly, a rise in equity shares may reduce EPS, but the appropriate management of debt and equity can improve earnings and firm value, increasing EPS (Lim et al.,

2021). According to [Lim et al. \(2021\)](#)'s research, the leverage ratio and earnings per share enhanced the performance of public debt and equity markets. The efficient management of equity and debt increases the firm's profitability and worth. In their research, researchers employed a variety of financial and theoretical models to determine the EPS threshold level. Thus, the data demonstrate the relationship between leverage ratio and EPS in various global economies. Companies and economies incur substantial losses due to excessive levels of debt in firms; therefore, the right management of capital in economies and firms is required since it increases firms' need for equity capital. Businesses gauge their earnings management to identify prospects from a financial optimism standpoint to achieve a significant level of earnings. These levels can be maintained using statistical approaches and selected parameters ([Samour et al., 2020](#)). According to earlier research, the leverage ratio boosts EPS in the event of positive and good planning. According to [Alhodiry et al. \(2021\)](#), enterprises with greater leverage must face interest rates and other financial charges, resulting in lower earnings and EPS. Loan payback and economic cost on debts lower the firm's profitability and EPS, according to [Samour et al. \(2022\)](#). Numerous more experiments, including these two Co-integration and auto-regressive distributed lags, have been utilized to examine the effects on EPS.

The results of the studies indicate that the debt-to-equity ratio is the most influential element in promoting policies that improve EPS. In the study by [Junus et al. \(2021\)](#), an examination of the integrated reports of several firms reveals the dominance of the debt-to-equity ratio and its effect on the share price. In addition, the firm's financial performance and earnings management are evaluated using the debt-to-equity ratio, "Capital Asset Pricing Model," and other statistical methodologies. The results demonstrate that a reduction in leverage ratio substantially impacts EPS. According to [Willows et al. \(2018\)](#), who researched the relationship between global financial instability and change in earnings management in BRICS nations, shareholders do not prefer leveraged enterprises but rather their predicted future profits and earnings. Financial ratios provide information regarding the financial components of a company. On the stock exchange, leverage ratios are the most important economic indicator for confirming the stability of EPS.

Furthermore, tangible and intangible assets are extremely significant to businesses because they are employed to generate money. Effective and efficient asset utilization attracts corporate investment from investors in civilized nations. ROA helps evaluate EPS and investor sentiment. A study by [Chiang \(2021\)](#) demonstrates the impact of risk value and uncertain economic or market policies on asset returns, such as stocks, bonds, and gold dividends. The relationship between asset return and earnings per share is examined using regression and correlation approaches. Results suggest a favorable correlation between return on assets and earnings per share. A study in India [Estiasih \(2021\)](#) examined the relationship between ROA and EPS, as well as board size, and found that more efficient use of assets attracts investors through efficient operations. Using the Least Square Regression Model indicated a positive relationship between ROA and EPS, which aids in business expansion. According to [Houmes et al. \(2018\)](#), the relationship between asset turnover, earning stock, and profit margins indicate that the EOA significantly impacts stock returns and EPS. Research on taken components and CAPM applied to these factors revealed positive and negative associations between these parameters. However, ROA is the cause of earnings growth. [Rokhayati et al. \(2022\)](#), who examined the relationship between financial structure, capital

structure, and earnings volatility for small and medium-sized businesses, found that ROA is dominant when examining EPS volatility. [Chalmers et al. \(2021\)](#) investigate how investor views and trading actions influence firm characteristics and market share. Statistical analysis of selected components revealed a strong and favorable relationship between ROA and EPS.

Working capital is another key factor influencing a company's profitability and earnings per share. The impact of effective working capital on EPS businesses is investigated ([Deloof, 2003](#)). In addition, other study results demonstrated that the company's earnings per share could be enhanced by positive working capital ([Wasiuzzaman, 2015](#)). Earnings management can be improved by adopting trade methods for business expansion to a larger organization. Working capital is positively related to earnings per share ([Sharma et al., 2011](#)). Working capital influences the value of a company because it is an essential factor. In addition, [Huang \(2019\)](#), who studies the impact of EPS, investigated return on investment and ROE and discovered a positive and significant effect on EPS. In several studies, return on equity (ROE) was examined to determine the significance of earnings per share (EPS) using various statistical tools and ratios, revealing that an increase in ROE results in an adequate rise in EPS.

Additionally, [Vergara Garavito et al. \(2021\)](#) investigated the relationship between ROE and EPS. A positive and statistically significant correlation was discovered using multiple estimations, multivariate regression, and statistical methods. According to [Vergara Garavito et al. \(2021\)](#) findings, ROE correlates favorably and considerably with EPS and reduces the risk associated with investors' returns. Reduction in the market value of shares attributable to the ROE's predominance ([Khurshed et al., 2018](#)). The stock market's ROE and EPS potential components are evaluated using asymmetrical methods. ROE increases EPS, as determined by testing and employing statistical techniques on potential aspects such as ROE and EPS. A decrease in ROE increases EPS ([Zheng et al., 2021](#)). Multiple studies have demonstrated that ROE and EPS have a favorable correlation. Due to the increase in ROE, the EPS increases significantly. By applying various statistical models and tools to certain elements, ROE was found to have a positive and statistically significant relationship with EPS in capital markets.

On the other hand, earlier research has revealed that ROA has a good and significant link with the MBV ([Musallam, 2018](#)). Another study demonstrated a negative and statistically significant effect of ROA on MBV ([Kalsie et al., 2016](#)). In other words, the correlation between ROA and market-to-book value was determined to be inconsequential ([Marito et al., 2020](#)). ROE is also a significant indicator of MBV. In one study ([Clubb et al., 2007](#)), it was discovered that ROE has a favorable and considerable effect on MBV.

Similarly, ([Marlina, 2013](#)) found a positive and significant correlation between ROE and market-to-book value. The working capital also has a strong and favorable relationship with the MBV ([Martina et al., 2019](#)). Another study indicated a negative and statistically significant effect on MBV ([Bunea et al., 2019](#)). In addition to other indications, the leverage ratio positively and significantly influenced MBV. Still, another study revealed a negative and significant influence on MBV ([Frank et al., 2009](#)). These studies demonstrate that ROA, ROE, WCR, DTE, and GRPM are significant determinants for both EPS and MBV. In addition, past investigations have produced contradictory outcomes. In this regard, research might be conducted in other contexts that could strengthen the credibility and validity of the research.

Moreover, past research focused mostly on the influence of these five factors on earnings per share or market capitalization separately. Still, there is no influence of these five indicators

on earnings per share and market capitalization in a single study. These deficiencies are the basis for the study framework outlined in Figure 1.

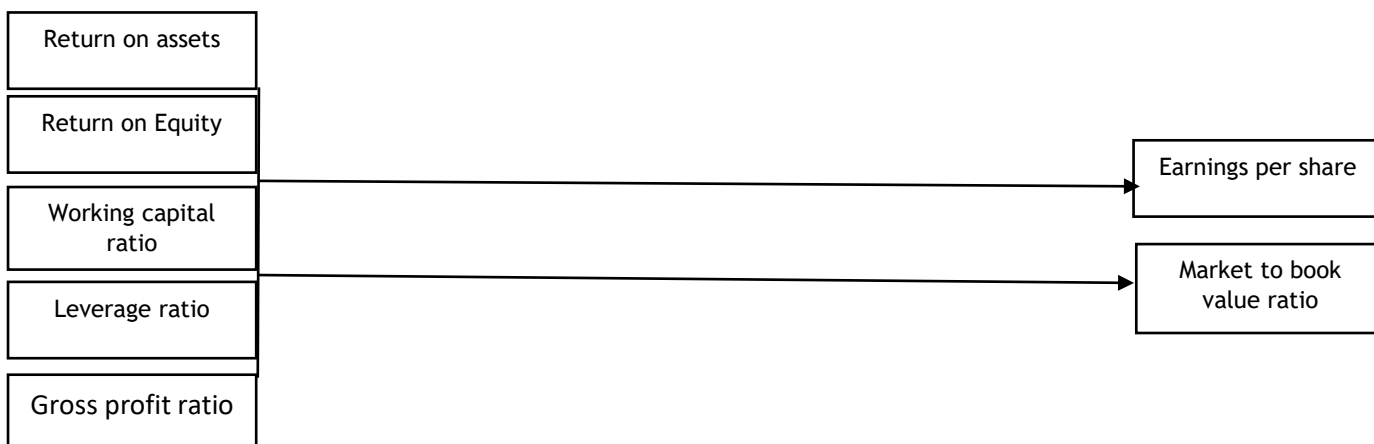


Figure 1. Conceptual framework

The research hypothesis of the study is formulated below based on the above framework,

**H1:** Return on assets positively and significantly influences earnings per share of listed oil and gas companies in Iraq.

**H2:** Return on equity positively and significantly influences earnings per share of listed oil and gas companies in Iraq.

**H3:** The working capital ratio positively and significantly influences earnings per share of listed oil and gas companies in Iraq.

**H4:** The leverage ratio positively and significantly influences earnings per share of listed oil and gas companies in Iraq.

**H5:** Gross profit ratio positively and significantly influences earnings per share of listed oil and gas companies in Iraq.

**H6:** Return on assets has a positive and significant influence on market to book value ratio of listed oil and gas companies in Iraq.

**H7:** Return on equity positively and significantly influences the book value ratio of listed oil and gas companies in Iraq.

**H8:** working capital ratio positively and significantly influences the book value ratio of listed oil and gas companies in Iraq.

**H9:** The leverage ratio positively and significantly influences the book value ratio of listed oil and gas companies in Iraq.

**H10:** gross profit ratio positively and significantly influences the book value ratio of listed oil and gas companies in Iraq.

### 3. Research Design and Population

This study aims to examine the influence of ROE, ROA, DTE, WCR, and GRPM on the financial performance of Iraqi oil and gas firms from a market ratio viewpoint. For this purpose, the quantitative research method was utilized, which is more credible and reliable than the qualitative research method (Eyisi, 2016). According to Atkins et al. (2012), qualitative methods cannot produce reliable and consistent data compared to quantitative methods. Consequently, this research strategy was appropriate for this investigation, given the theory was already formed and the hypothesis was evaluated. Numerous scholars have suggested that when testing hypotheses based on a prior approach, the quantitative research method is appropriate for the investigation (Apuke, 2017). In addition, Williams (2011) notes that quantitative research begins with a problem statement, the generation of research questions, a review of relevant literature, and the testing of hypotheses using quantitative data analysis. In addition, a cross-sectional

research design was utilized. For data gathering, the longitudinal research approach advised by numerous researchers was utilized (Menard, 2007). This study examined the influence of financial indicators, including leverage ratio, return on assets, gross profit margin, working capital ratio, return on equity, etc., on Iraq's listed oil and gas businesses. The IDX database is utilized to collect secondary information on Indonesian pharmaceutical companies. The secondary data is derived from the database of the Iraq Stock Exchange from the financial statements of ten oil and gas businesses. The information was collected between 2010 and 2021.

### 4. Econometric Model

The current study has two econometric research models, the first model is related to earning per share, and the next model consists of market-to-book value share.

The equation is given below

$$EPS_{it} = \alpha_0 + \beta_1GPM_{it} + \beta_2LEV_{it} + \beta_3ROA_{it} + \beta_4WCR_{it} + \beta_5ROE_{it} + e_{it} \quad \text{(Model-1)}$$

$$MBV_{it} = \alpha_0 + \beta_1GPM_{it} + \beta_2LEV_{it} + \beta_3ROA_{it} + \beta_4WCR_{it} + \beta_5ROE_{it} + e_{it} \quad \text{(Model-2)}$$

Where; EPS = Earnings per Share, GPM = Gross profit margin, DTE = Leverage ratio, ROA = Return on Assets, WCR = Working capital ratio, ROE = Return on Equity, MBV=Market to book value ratio, i=firm, and t=time

This article's dependent variable is the firm's financial performance, as assessed by earnings per share and market-to-book value. In addition, five independent financial variables are utilized: gross profit margin, return on assets, return on equity, working capital ratio, and leverage ratio. Earnings per share was determined by dividing net income by outstanding shares, gross profit margin by dividing gross profit by total assets, leverage ratio by dividing total debts by total equity, market value to book value by dividing market value by book value, return on assets by dividing net income by total assets, working capital ratio by dividing current assets by current liabilities, and return on equity by dividing net income by total equity.

In this study, descriptive statistics were employed to illustrate the number of observations using the mean, standard deviation, and minimum and maximum values. Researchers employ correlation matrices to determine the relationship between variables. In addition, the variance inflation factor (VIF) was employed to examine multicollinearity. In addition, the Hausman test is utilized to evaluate the adequacy of the model. If the P value is greater than 0.05, the random effect model



(REM) accepts the null hypothesis. In contrast, FEM is appropriate if the P value is less than 0.05. After executing this test, FEM is deemed the best model since it controls autocorrelation and heteroscedasticity.

## 5. Research Findings and interpretations

This study used descriptive statistics to display observations along with mean average and standard deviation values. Minimum and maximum values for variables were also

Table 1: Descriptive Statistics

Variable	Observation	Average	Standard Deviation	Minimum	Maximum
EPS	210	15.692	0.518	12.453	25.733
GRPM	210	.399	0.176	0.811	1.756
DTE	210	0.516	0.433	0.467	0.986
WCR	210	1.359	0.499	3.913	6.271
ROE	210	15.317	17.148	11.320	18.89
ROA	210	0.905	2.058	0.180	4.060
MBV	210	1.48	1.320	25.89	15.317

Table 2. Correlation Matrix

Variables	EPS	GRPM	DTE	WCR	ROE	ROA	MBV
EPS	1.000						
GRPM	0.052	1.000					
DTE	0.682	0.168	1.000				
WCR	0.179	-0.383	-0.081	1.000			
ROE	0.508	-0.382	-0.214	0.346	1.000		
ROA	0.571	-0.317	-0.368	0.676	0.562	1.000	
MBV	0.308	-0.145	-0.213	0.432	0.348	-0.450	1.000

VIF is also run to assess the multicollinearity of the data. Les valeurs recommandées pour le VIF should be fewer than 5 or 10 (Romero-Gonzalez et al., 2018). This test revealed that the value of VIF is less than 5, indicating no multicollinearity in the data.

Table 3. VIF

	M-1 (VIF)	M-2 (VIF)
ROA	4.607	4.607
ROE	3.384	2.234
WCR	2.532	3.162
GRPM	2.276	3.252
DTE	2.341	3.241

In addition, the heteroskedasticity of both models was examined. The heteroskedasticity requirement requires that the values be greater than 0.05. (Romero-Gonzalez et al., 2018). Table 5's projected values indicate that all model values are greater than 0.5, indicating that there are no heteroskedasticity difficulties.

Following the diagnostics test, the next Bruach-Pagan test evaluated the model acceptance between the pooled and

Table 5. Regression Results (M-1, Earning per share as a dependent variable)

	Beta	SD.	T values	P values	Decision
GRPM	0.112	0.041	2.73	0.037	Accepted
DTE	0.452	0.083	5.446	0.000	Accepted
WCR	0.226	0.101	2.133	0.042	Accepted
ROE	0.323	0.125	2.584	0.039	Accepted
ROA	0.231	0.062	3.72	0.021	Accepted
Constant	5.801	0.998	5.812	0.000	
R-squared			0.497		

emphasized. The total number of observations utilized in the study is 210. The average EPS value is 15.692, and the average GRPM value is 1.169. Moreover, the average value of DER is 0.516. WCR has a mean value of 5,359. The average return on equity is 15,317, while the average return on assets is 0.905%. The values are listed in the Table 1 below.

The researcher also uses the correlation matrix to find the relationship among variables. The results showed a positive association of GRPM, DER, WCR, ROA, and ROE with EPS.

random effects in Model-1. The P value was less than 0.05, indicating that the random effect model (REM) was acceptable and permitting testing of the random effect model (RE) and fixed effect model (FEM).

Table 4. heteroskedasticity Results

	M-1 (VIF)	M-2 (VIF)
ROA	0.061	0.082

The Hausman test was used to evaluate the model's applicability to this data. If p is greater than 0.05, the null hypothesis will be accepted, and REM will be applied. If the P value is less than 0.05, however, FEM is applied to test the data. The findings indicate that P is less than 0.05. Hence the FEM is appropriate. According to the results of this study, the return on assets, gross profit margin, return on equity, working capital ratio, and leverage ratio have a positive relationship with the earnings per share of the listed oil and gas textile firms in Iraq. In addition, the R square value of 0.497% indicates a 50% change in dependent variables due to the five independent factors. The expected regression results and R-square values are displayed in Table.5 below.

The diagnostic tests for model 2 are predicted in Tables 4 and 5. Model 2's model acceptance between the pooled and random effect was the subject of the subsequent Bruch-Pagan test. The P values were less than 0.05, indicating that the random effect model (REM) was acceptable for the Hausman test to proceed. The Hausman test was used to evaluate the model's applicability to this data. If p is greater than 0.05, the null hypothesis will be accepted, and REM will be applied. However, if the P value is less than 0.05, the FEM will be utilized to test the data. The results indicate that the P value was greater than 0.05. Hence Model 2 can use the REM. This study demonstrates that the return on assets, gross profit margin, return on equity, and the working capital ratio

has a positive and statistically significant relationship with the market capitalization of listed oil and gas businesses in Iraq. While the leverage ratio has a negative and severe impact on oil and gas businesses listed in Iraq, this demonstrates that when the debts of a company are increased, the company's market value decreases, indicating that greater debt is inappropriate for the company. In addition, the R-square value of 0.537 indicates that 53.7% of the variation is attributable to these variables, which is more than the model's value of 0.497%, which is over 50%. These data indicate that these variables have a greater impact on the market-to-book value ratio than on earnings per share. The following Table.6 predicts these values.

Table 6. Regression Results (M-2, Market to book value ratio as a dependent variable)

	Beta	SD.	T values	P values	Decision
GRPM	0.379	0.138	2.74	0.042	Accepted
DTE	-3.432	1.061	-3.234	0.000	Rejected
WCR	1.634	0.501	3.263	0.027	Accepted
ROE	1.563	0.325	4.814	0.002	Accepted
ROA	.920	0.252	3.581	0.021	Accepted
Constant	5.801	0.998	5.812	0.000	
R-squared			0.537		

## 6. Discussions and Implications

Financial performance indicators from a market perspective are crucial indications that could aid a company in gaining a competitive edge vis-à-vis other company. The literature demonstrates that many variables affect a company's financial performance relative to its market ratio, which could increase its competitive advantage. Among these measures, "the return on equity (ROE), return on assets (ROA), working capital ratio (WCR), leverage ratio (DTE), and gross profit margin (GRPM)" are significant indicators that could aid organizations in improving their performance relative to market ratios. Therefore, this study aimed to examine the impact of ROE, ROA, DTE, WCR, and GRPM on the financial performance of Iraq-listed oil and gas businesses from a market ratio viewpoint. For this purpose, data were collected from oil and gas firms' annual reports from 2010 through 2021 using the statistical technique of panel data. According to the panel data, there is a positive link between NPM and EPS. In the preceding study by Sekhon et al. (2019), which investigated GPM and EPS, the results indicate that GPM is a potent indication of an organization's operational and financial performance. It is advantageous for the management of a firm to make dividend decisions, as it facilitates the evaluation of earnings after deducting all overhead and operating costs from revenues and calculating the gross profit margin before declaring dividends to shareholders.

Additionally, Robin et al. (2018) validated the findings of this study analyzing GRPM and EPS. The dividend per share given to shareholders is determined by the company's performance, reserves aside from the total number of shares outstanding, and the remaining dividend amount. Thus, a profit rise increases the profits available for distribution to shareholders. Liu further corroborates our study, Liu et al. (2019), indicating that after deducting expenditures, net profits are accessible, representing a percentage of sales. Using a vertical analysis of different years' profits, the company's management can determine if the gross profit margin has decreased or increased. This can aid in deciding whether or not business operations and operations are functioning smoothly. Revenues predict corporate profits, and business profits determine earnings per share.

Additionally, the data demonstrates that DTE and EPS have a significant and beneficial association. Abdel-Basset et al. (2020) research supports our findings, demonstrating that DTE identifies the firm's financial leverage by comparing the quantity of debt to the amount of equity capital. A firm can develop its business by acquiring a sufficient amount of assets and resources through a loan, increasing its productivity. Previous research has demonstrated that the leverage ratio affects EPS. According to Nuryani et al. (2020), the company can acquire additional assets and resources through financial leverage, which increases the business's efficiency. Investors can anticipate a rise in EPS due to leverage's contribution to a company's expansion, which results in increased revenue and profits compared to when they were generated only with equity and no debt.

Conversely, ROA is a crucial measure of a company's earnings and EPS. This research demonstrates a positive correlation between ROA and EPS. Consistent with a prior study published by Das et al. (2018), the ROA reveals the management's effectiveness in utilizing the company's assets because it maximizes the company's earnings through efficient and effective asset utilization. Putra et al. (2018) also support our findings, in which he evaluates the EPS of the company's shareholders regarding their investments. When resources are employed effectively and efficiently, the firm's profitability increases, which might increase EPS following investor expectations.

In addition, WCR plays a crucial role in creating shareholder earnings and EPS. The previous study by Isichei et al. (2020) supports our findings that an organization with a large number of high-quality assets and a high working capital ratio has more current assets, which indicates that the business is operating more efficiently, increasing sales, revenue, and earnings per share. Thus, company expansion boosts the firm's earnings per share. This study is also corroborated by Lin et al. (2019), which state that when a corporation has a large number of current assets and more business resources, it generates greater value, profits, and EPS for its shareholders. Due to these factors, large enterprises can sell on a wide scale and develop a greater sales volume, increasing EPS.

The findings of this study indicate that return on equity has a positive relationship with earnings per share. Puni et al. (2020) backed up our results. According to Puni et al. (2020), if a company's assets and resources, which were acquired through the expenditure of money, are utilized effectively and its performance in all business operations and processes, such as management, production, operational procedures, and marketing, is satisfactory, it generates more value and revenue, which is the primary cause of EPS. Patel (2018) said in his study report that a higher ROE results in an even higher ROE. The application of available resources in the most productive manner indicates a strong financial position and profitability, allowing the company to increase its EPS.

The results of model two reveal that ROA has a positive and significant effect on MBV, indicating that when ROA is enhanced, so is the MV of the companies. This notion is bolstered by prior studies that discovered identical outcomes (Liow, 2010). However, ROE also has a positive and significant effect on MV, as demonstrated by the correlation between an increase in ROE and an increase in MV. Several investigations with identical findings reinforce these conclusions further (Ghosh et al., 2015). Similarly, the WCR positively and significantly impacts MV, indicating that enterprises have sufficient current assets to maintain MV. This result is further corroborated by other investigations with consistent findings (Lozano et al., 2015). While the DTE has a negative and considerable impact on MV, this indicates that when the DTE of a company is elevated, its MV will fall. This research demonstrates that oil and gas companies in Iraq place a bigger emphasis on loans than equity, which is a bad indicator of the market value of oil and gas enterprises. Lastly, the GRPM has a positive and substantial effect on the MV of the companies, indicating that when the GRPM of the company increases, so does the MV. The idea is further bolstered by the findings of other authors who have reached the same conclusions.

Based on the data mentioned above, it is stated that all of the abovementioned indicators are crucial for the market ratio performance indicators, which might lead to an increase in global and domestic competitive advantage. Therefore, it is suggested that businesses concentrate on these indicators to boost their market value and competitive advantage.

## 7. Implications of the Study

The present investigation has numerous theoretical and empirical ramifications. This study's major contribution to the existing literature demonstrates its significance. Because capital is an indicator of a firm's vitality, this study investigates the company's financial results in the contemporary, internationally competitive era by focusing on the numerous factors that impact its performance. This essay is also very useful for investors who wish to acquire business assets for financial gain. This study will aid investors in making rational investing decisions. The dependent variables in this study are earnings per share and market-to-book value, which are influenced by multiple variables such as ROA, ROE, Gross profit margin, leverage ratio, and working capital ratio. Thus, this work provides a significant contribution to the body of knowledge. Numerous past scientists and authors have explored these aspects to address earnings per share and market capitalization. In their research, Alvian et al. (2022) examined the impact of gross profit margin on earnings per share (EPS). Still, he neglected other variables such as ROA, ROE, working capital ratio, and leverage ratio that can affect EPS and the impact of these variables on MBV. Another crucial contribution to literature is the choice of the economic system. Iraq was chosen since it is a very rapidly developing country. This research assists Iraqi policymakers in establishing diverse

financial decision-making strategies for the oil and gas sector. This study is also important for policymakers, financial managers, and economists in developing nations to formulate methods for achieving improved financial performance in firms. This study will guide organizational managers and policymakers in enhancing a company's profitability and distributing the high EPS and market-to-book value ratio among shareholders. This study demonstrates that a firm can improve earnings per share and market capitalization by increasing gross profit margins, leverage ratio, business size, ROA, and ROA.

## 8. Conclusion and Limitations

Because the globe is now a global village, the international rivalry is severe. Every firm desire to produce more revenue and profits and be more successful than its local and global competitors. The financial health of a business determines its viability. Investors make investment decisions based on a company's financial health. This inquiry aims to explain how firms might attain greater financial performance. Therefore, the effect of return on assets (ROA), return on equity (ROE), gross profit margin (GRPM), working capital ratio (WCR), leverage ratio (DTE) on earnings per share and market capitalization (MBV) of oil and gas businesses listed on the Iraq Stock Exchange was examined. The statistical analysis describes the research's conclusions. A recent study demonstrates that an increase in GRPM increases earnings per share and the market-to-book value ratio. As ROE evaluates a company's management's efficient use of assets to increase sales and profits, ROE is a crucial metric. Therefore, a rise in ROA raises EPS and MBV. Existing research revealed that an increase in leverage ratio contributes to the rise in earnings per share (EPS) because more funds are available for acquiring assets and business expansion. However, leverage harms the market-to-book value ratio, indicating that more leverage could reduce the market value of the firms. In addition, working capital has a positive and significant effect on EPS and market-to-book value ratio, indicating that a larger amount of available capital accelerates sales revenue and profits, increasing EPS and market-to-book value ratio. This study concludes that the working capital ratio can increase EPS and market-to-book value.

Certain limitations to the present study can be addressed in future research projects. Only financial variables such as ROA, ROE, GRPM, DTE, WCR, and EPS, as well as the market-to-book value ratio, were presented in the research. The organizational and marginal elements are disregarded in this study. This is the study's limitation. In future studies, other aspects like corporate governance, dividend policy, etc., that impact EPS and market-to-book value can be examined. Second, this research was undertaken on Iraqi oil and gas firms listed on the stock exchange. The researcher can research oil and gas corporations in other emerging nations or industries in different countries. Thirdly, data were gathered for the years 2010 through 2021. It is suggested that, in the future, researchers collect data for multiple nations or multiple industries over a longer period, as this would increase the generalizability of their findings. Lastly, the study was limited to quantitative research methods; qualitative research methods exist and could alter the conclusions of future studies. Consequently, future studies could investigate blended techniques.

## References

- Abdel-Basset, M., Ding, W., Mohamed, R., & Metawa, N. (2020). An integrated plithogenic MCDM approach for financial performance evaluation of manufacturing industries. *Risk Management*, 22(3), 192-218. doi: <https://doi.org/10.1057/s41283-020-00061-4>



- Abigael, K., Veronica, I., Ardiani Ika, S. (2008). Effect of Return on Assets, Price Earning Ratio, Earning Per Share, Debt to Equity Ratio, Price to Book Value on Stock Prices in Manufacturing Companies on the IDX. *Dalam Jurnal SOLUSI*, 7(4), 75-90.
- Abuzayed, B., Molyneux, P., & Al-Fayoumi, N. (2009). Market value, book value and earnings: is bank efficiency a missing link? *Managerial Finance*, 35(2), 156-179. doi: <https://doi.org/10.1108/03074350910923491>
- Al Umar, A. U. A., & Savitri, A. S. N. (2020). Analysis of the Effect of ROA, ROE, EPS on Stock Prices. *Jurnal Analisa Akuntansi dan Perpajakan*, 4(1), 15-33. Retrieved from <https://www.researchgate.net/profile/Ahmad-Ulil-Al-Umar/publication/346243855>
- Alhodiry, A., Rjoub, H., & Samour, A. (2021). Impact of oil prices, the US interest rates on Turkey's real estate market. New evidence from combined co-integration and bootstrap ARDL tests. *PLOS ONE*, 16(1), e0242672. doi: <https://doi.org/10.1371/journal.pone.0242672>
- Allain, O. (2021). Heterogeneous unit labor costs and profit margins in an economy with vintage capital: an amended neo-Kaleckian model. *Journal of Post Keynesian Economics*, 44(4), 537-568. doi: <https://doi.org/10.1080/01603477.2020.1835496>
- Almira, N., & Wiagustini, N. L. P. (2020). Return on asset, return on equity, dan earning per share berpengaruh terhadap return saham. *E-Jurnal Manajemen Universitas Udayana*, 9(3), 1069. doi: <https://doi.org/10.24843/EJMUNUD.2020.v09.i03.p13>
- Alvian, R., & Munandar, A. (2022). The influence of debt to equity ratio, net profit margin, and cash ratio on firm value. *Fair Value: Jurnal Ilmiah Akuntansi dan Keuangan*, 4(7), 2682-2690. doi: <https://doi.org/10.32670/fairvalue.v4i7.1204>
- Amelia, R. W., & Sunarsi, D. (2020). The Effect of Return On Assets and Return On Equity on Debt To Equity Ratio at PT. Kalbe Farma, TBK. *Ad-Deenar: Jurnal Ekonomi dan Bisnis Islam*, 4(01), 105-114.
- Anam, M. H., Mardani, R. M., & Wahono, B. (2019). Effect of Earning Per Share, Debt To Equity Ratio, and Return On Assets on Stock Prices (Case Study on Energy, Telecommunication and Transportation Companies Listed on the Indonesia Stock Exchange 2015-2017 Period). *Jurnal Ilmiah Riset Manajemen*, 8(06), 68-84. Retrieved from <http://riset.unisma.ac.id/index.php/jrm/article/view/4056/3529>
- Ang, R. (1997). *The Intelligent Guide To Indonesian Capital Market*. Mediasoft Indonesia. Retrieved from [https://nanopdf.com/download/the-intelligent-guide-to-indonesia-capital-market-first\\_pdf](https://nanopdf.com/download/the-intelligent-guide-to-indonesia-capital-market-first_pdf)
- Apuke, O. D. (2017). Quantitative research methods: A synopsis approach. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 33(5471), 1-8. Retrieved from <https://platform.almanhal.com/Files/Articles/107965>
- Aryaningsih, Y. Y., Fathoni, A., Harini, C. (2018). The Effect of Return on Asset (ROA), Return on Equity (ROE) and Earning Per Share (EPS) on Stock Return on Consumer Good (Food and Beverages) Companies Listed on the Indonesia Stock Exchange (IDX) for the 2013-2016 Period. *Journal of Management*, 4(4).
- Atkins, L., & Wallace, S. (2012). *Qualitative research in education*: SAGE publications
- Bunea, O.-I., Corbos, R.-A., & Popescu, R.-I. (2019). Influence of some financial indicators on return on equity ratio in the Romanian energy sector-A competitive approach using a DuPont-based analysis. *Energy*, 189, 116251. doi: <https://doi.org/10.1016/j.energy.2019.116251>
- Chalmers, J., Liu, Y. S., & Wang, Z. J. (2021). The difference a day makes: Timely disclosure and trading efficiency in the muni market. *Journal of Financial Economics*, 139(1), 313-335. doi: <https://doi.org/10.1016/j.jfineco.2020.07.015>
- Chandra, C. N., & Osesoga, M. S. (2021). Analysis on Factors that Affect Stock Price: A Study on Property, Real Estate, and Building Construction Companies at Indonesia Stock Exchange. *Ultima Accounting: Jurnal Ilmu Akuntansi*, 13(1), 32-45. doi: <https://doi.org/10.31937/akuntansi.v13i1.1933>
- Chandra, D. S. (2021). The Effect of Debt To Asset Ratio, Return On Asset Earning Per Share on Stock Prices in Pharmaceutical Companies Listed on the Indonesia Stock Exchange for the 2015-2019 period. *Jurnal Akuntansi dan Keuangan Kontemporer (JAKK)*, 4(1), 99-108. Retrieved from file:///C:/Users/DELL/Downloads/6906-15199-1-PB.pdf
- Chiang, T. C. (2021). Geopolitical risk, economic policy uncertainty and asset returns in Chinese financial markets. *China Finance Review International*, 11(4), 474-501. doi: <https://doi.org/10.1108/CFRI-08-2020-0115>
- Clubb, C., & Naffi, M. (2007). The usefulness of book-to-market and ROE expectations for explaining UK stock returns. *Journal of Business Finance & Accounting*, 34(1-2), 1-32. doi: <https://doi.org/10.1111/j.1468-5957.2006.00662.x>
- Daniswara, H. P., & Daryanto, W. M. (2020). Earning Per Share (EPS), Price Book Value (PBV), Return on Asset (ROA), Return on Equity (ROE), and Indeks Harga Saham Gabungan (IHSG) Effect on Stock Return. *South East Asia Journal of Contemporary Business, Economics and Law*, 20(1), 11-27. Retrieved from [http://seajbel.com/wp-content/uploads/2020/01/SEAJBEL-20\\_18.pdf](http://seajbel.com/wp-content/uploads/2020/01/SEAJBEL-20_18.pdf)
- Das, C. P., & Swain, R. K. (2018). Influence of Capital Structure on Financial Performance. *Parikalpana: KIIT Journal of Management*, 14(1), 161-171. doi: <https://doi.org/10.23862/kiit-parikalpana/2018/v14/i1/173256>
- Deloof, M. (2003). Does working capital management affect profitability of Belgian firms? *Journal of business finance & Accounting*, 30(3-4), 573-588. doi: <https://doi.org/10.1111/1468-5957.00008>
- Estiasih, S. P. (2021). Factors Affecting Financial Performance of Pharmaceutical Companies Listed of Indonesia. *Factors Affecting Financial Performance of Pharmaceutical Companies Listed of Indonesia*, 4(125), 106-115. Retrieved from <http://repository.unipra.ac.id/id/eprint/158>
- Estiasih, S. P., Prihatiningsih, E., & Fatmawati, Y. (2020). Dividend Payout Ratio, Earning Per Share, Debt To Equity Ratio Towards Stock Prices In LQ45 Company. *Jurnal Akuntansi dan Pajak*, 21(1), 205-212. Retrieved from <http://repository.unipra.ac.id/id/eprint/120>
- Evmenchik, O. S., Niyazbekova, S. U., Seidakhmetova, F. S., & Mezentceva, T. M. (2021). The role of gross profit and margin contribution in decision making. In *Socio-economic Systems: Paradigms for the Future* (pp. 1393-1404): Springer, 1393-1404. doi: [https://doi.org/10.1007/978-3-030-56433-9\\_145](https://doi.org/10.1007/978-3-030-56433-9_145)
- Eyisi, D. (2016). The usefulness of qualitative and quantitative approaches and methods in researching problem-solving ability in science education curriculum. *Journal of Education and Practice*, 7(15), 91-100. Retrieved from <https://eric.ed.gov/?id=EJ1103224>



- Frank, M. Z., & Goyal, V. K. (2009). Capital structure decisions: which factors are reliably important? *Financial Management*, 38(1), 1-37. doi: <https://doi.org/10.1111/j.1755-053X.2009.01026.x>
- Ghosh, S. K., & Maji, S. G. (2015). Empirical validity of value added intellectual coefficient model in Indian knowledge-based sector. *Global Business Review*, 16(6), 947-962. doi: <https://doi.org/10.1177/0972150915597597>
- Gomes Leite, D., Estombelo Montesco, R. A., & Sakuraba, C. S. (2018). Increasing a gas distributor net profit through Lean Six Sigma. *Quality Engineering*, 30(3), 359-370. doi: <https://doi.org/10.1080/08982112.2017.1386787>
- Hermawan, D. A. (2012). Effect of Debt To Equity Ratio, Earning Per Share and Net Profit Margin on Stock Return. *Management Analysis Journal*, 1(1), 1-7. doi: <https://doi.org/10.15294/maj.v1i1.498>
- Houmes, R., Jun, C. C., Capriotti, K., & Wang, D. (2018). Evaluating the long-term valuation effect of efficient asset utilization and profit margin on stock returns. *Meditari Accountancy Research*, 26(1), 193-210. doi: <https://doi.org/10.1108/MEDAR-12-2016-0104>
- Huang, T.-L. (2019). Is the Fama and French five-factor model robust in the Chinese stock market? *Asia Pacific Management Review*, 24(3), 278-289. doi: <https://doi.org/10.1016/j.apmr.2018.10.002>
- Isichei, E. E., Emmanuel Agbaeze, K., & Odiba, M. O. (2020). Entrepreneurial orientation and performance in SMEs. *International Journal of Emerging Markets*, 15(6), 1219-1241. doi: <https://doi.org/10.1108/IJOEM-08-2019-0671>
- Judeh, A. K., & Hamdan, K. H. (2022). Facing the challenges of oil price fluctuations and their impact on the income tax of foreign oil companies. *Journal of Positive School Psychology*, 6(5), 4776-4791. Retrieved from <https://journalppw.com/index.php/jpsp/article/view/7333>
- Jufrizen, J., & Al Fatin, I. N. (2020). The Influence of Debt To Equity Ratio, Return On Equity, Return On Assets And Company Size On Firm Value In Pharmaceutical Companies. *Jurnal Humaniora: Jurnal Ilmu Sosial, Ekonomi Dan Hukum*, 4(1), 183-195. doi: <https://doi.org/10.30601/humaniora.v4i1.677>
- Junus, O., & Irwanto, A. (2021). Stock Reaction to the Implementation of Extensible Business Reporting Language. *The Journal of Asian Finance, Economics and Business*, 8(1), 675-685. doi: <https://doi.org/10.13106/jafeb.2021.vol8.no1.675>
- Kalsie, A., & Shrivastav, S. M. (2016). Analysis of board size and firm performance: evidence from NSE companies using panel data approach. *Indian Journal of Corporate Governance*, 9(2), 148-172. doi: <https://doi.org/10.1177/0974686216666456>
- Khurshed, A., Tong, Y., & Wang, M. (2018). Split-share structure reform and the underpricing of Chinese initial public offerings. *The European Journal of Finance*, 24(16), 1485-1505. doi: <https://doi.org/10.1080/1351847X.2015.1107603>
- Kirana, G. C., & Rahman, O. (2017). Effect of Trading Volume, Earning Per Share (EPS), Price To Book Value (PBV) on Stock Prices (In Manufacturing Companies Listed on the Indonesia Stock Exchange 2013-2014 Period). *Jurnal Liabilitas*, 2(2), 52-64. doi: <https://doi.org/10.54964/liabilitas.v2i2.25>
- Kumar, P. (2017). Impact of earning per share and price earnings ratio on market price of share: a study on auto sector in India. *International Journal of Research*, 5(2), 113-118. doi: <https://doi.org/10.5281/zenodo.345456>
- Ledley, F. D., McCoy, S. S., Vaughan, G., & Cleary, E. G. (2020). Profitability of large pharmaceutical companies compared with other large public companies. *Jama*, 323(9), 834-843. doi: <https://doi.org/10.1001/jama.2020.0442>
- Lim, H., & Rokhim, R. (2021). Factors affecting profitability of pharmaceutical company: an Indonesian evidence. *Journal of Economic Studies*, 48(5), 981-995. doi: <https://doi.org/10.1108/JES-01-2020-0021>
- Lin, W.-L., Cheah, J.-H., Azali, M., Ho, J. A., & Yip, N. (2019). Does firm size matter? Evidence on the impact of the green innovation strategy on corporate financial performance in the automotive sector. *Journal of Cleaner Production*, 229, 974-988. doi: <https://doi.org/10.1016/j.jclepro.2019.04.214>
- Liow, K. H. (2010). Firm value, growth, profitability and capital structure of listed real estate companies: an international perspective. *Journal of Property Research*, 27(2), 119-146. doi: <https://doi.org/10.1080/09599916.2010.500459>
- Liu, K., Chen, W., Zheng, Z., Li, Z., & Liang, W. (2019). A novel debt-credit mechanism for blockchain-based data-trading in internet of vehicles. *IEEE Internet of Things Journal*, 6(5), 9098-9111. doi: <https://doi.org/10.1109/JIOT.2019.2927682>
- Lozano, M. B., & Caltabiano, S. (2015). Cross institutional cash and dividend policies: focusing on Brazilian firms. *Applied Economics*, 47(3), 239-254. doi: <https://doi.org/10.1080/00036846.2014.967516>
- Lutfiah, D., & Soegoto, D. S. (2020). *Return on Assets, Debt to Equity Ratio, and Earning per Share Impact on Stock Price in Property Companies Stock Exchange*. Paper presented at the International Conference on Business, Economic, Social Science, and Humanities-Economics, Business and Management Track (ICOBEST-EBM 2019): Atlantis Press, 181-185. doi: <https://dx.doi.org/10.2991/aebmr.k.200108.042>
- Mangantar, A. A., Mangantar, M., & Baramuli, D. N. (2020). The Effect of Return on Assets, Return on Equity and Debt to Equity Ratio on Stock Returns in the Food and Beverage Subsector on the Indonesia Stock Exchange. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi*, 8(1). doi: <https://doi.org/10.35794/emba.v8i1.27527>
- Marito, B., & Sjarif, A. D. (2020). The impact of current ratio, debt to equity ratio, return on assets, dividend yield, and market capitalization on stock return (Evidence from listed manufacturing companies in Indonesia Stock Exchange). *Economics*, 7(1), 10-16. doi: <https://doi.org/10.27512/sjppi-ukm/ses/a11052020>
- Marlina, T. (2013). Pengaruh Earning Per Share, Return On Equity, Debt To Equity Ratio dan Size Terhadap Price To Book Value. *Jurnal Ilmiah Akuntansi Kesatuan*, 1(1), 59-72. Retrieved from [http://digilib.mercubuana.ac.id/manager/t!@file\\_artikel\\_abstrak/lsi\\_Artikel\\_715653482132.pdf](http://digilib.mercubuana.ac.id/manager/t!@file_artikel_abstrak/lsi_Artikel_715653482132.pdf)
- Martina, S., Sadalia, I., & Bukit, R. (2019). The effect of quick ratio, debt to equity ratio, earning per share, price to book value and return on equity on stock return with money supply as moderated variables (Study of Banking Companies Listed on Indonesia Stock Exchange Period 2008-2017). *International Journal of Public Budgeting, Accounting and Finance*, 2(3), 1-10. Retrieved from <https://core.ac.uk/reader/268161140>
- Mathuva, D. (2015). The Influence of working capital management components on corporate profitability. *Research Journal of Businee Management*, 4(1), 1-11. Retrieved from <http://hdl.handle.net/11071/3382>

- McConville, D., Arnold, J., & Smith, A. (2020). What do people think employee share ownership schemes do for them? A qualitative study of participants' experiences in three UK share schemes. *The International Journal of Human Resource Management*, 31(18), 2340-2371. doi: <https://doi.org/10.1080/09585192.2018.1445655>
- Menard, S. (2007). *Handbook of longitudinal research: Design, measurement, and analysis*: Elsevier. Retrieved from <https://books.google.co.in/books?hl=en&lr=&id=K2yTbPjYBdQC&oi=fnd&pg=PP1&dq=Menard>
- Musallam, S. R. (2018). Exploring the relationship between financial ratios and market stock returns. *Eurasian Journal of Business and Economics*, 11(21), 101-116. Retrieved from <https://www.ejbe.org/EJBE2018Vol11No21p101MUSA LLAM.pdf>
- Nurfadillah, M. (2016). Analysis of the Effect of Earning Per Share, Debt to Equity Ratio and Return on Equity on the Stock Price of Pt Unilever Indonesia Tbk. *Jurnal Manajemen Dan Akuntansi*, 12(1), 45-50. Retrieved from <http://journal.stiei-kayutangi-bjm.ac.id/index.php/jma/article/view/32>
- Nuryani, Y., & Sunarsi, D. (2020). The Effect of Current Ratio and Debt to Equity Ratio on Deviding Growth. *JASa (Jurnal Akuntansi, Audit dan Sistem Informasi Akuntansi)*, 4(2), 304-312. doi: <https://doi.org/10.36555/jasa.v4i2.1378>
- Patel, R. (2018). Pre & post-merger financial performance: An Indian perspective. *Journal of Central Banking Theory and Practice*, 7(3), 181-200. doi: <https://doi.org/10.2478/jcbtp-2018-0029>
- Puni, A., & Anlesinya, A. (2020). Corporate governance mechanisms and firm performance in a developing country. *International Journal of Law and Management*, 62(2), 147-169.
- Putra, F. L., Nurlaela, S., & Samrotun, Y. C. (2018). *Effect of Return on Asset, Return on Equity, Debt to Equity Ratio to Return Stock Company Property and Real Estate In Indonesia Stock Exchange*. Paper presented at the PROCEEDING ICTESS (Internasional Conference on Technology, Education and Social Sciences), 133-140. Retrieved from file:///C:/Users/DELL/Downloads/2205-%23%23default.genres.article%23%23-7941-1-10-20180823.pdf
- Robin, I., Salim, R., & Bloch, H. (2018). Cost efficiency in Bangladesh banking: does financial reform matter? *Applied Economics*, 50(8), 891-904. doi: <https://doi.org/10.1080/00036846.2017.1346361>
- Robiyanto, R., Santoso, M. A., Atahau, A. D. R., & Harijono, H. (2019). The Indonesia stock exchange and its dynamics: An analysis of the effect of macroeconomic variables. *Montenegrin Journal of Economics*, 15(4), 59-73. Retrieved from <https://mnje.com/#page=59>
- Rokhayati, I., Purnomo, S. D., Retnowati, D., Winarto, H., Prabawa, A., & Kencana, H. (2022). Analysis of financial distress in banking companies listed on the Indonesian stock exchange. *Akuntabel*, 19(2), 269-274. doi: <http://dx.doi.org/10.29264/jakt.v19i2.11183>
- Romero-Gonzalez, B., Caparros-Gonzalez, R. A., Gonzalez-Perez, R., Delgado-Puertas, P., & Peralta-Ramirez, M. I. (2018). Newborn infants' hair cortisol levels reflect chronic maternal stress during pregnancy. *PLOS ONE*, 13(7), e0200279. doi: <https://doi.org/10.1371/journal.pone.0200279>
- Samour, A., Isiksal, A. Z., & Günsel Resatoglu, N. (2020). The impact of external sovereign debt and the transmission effect of the US interest rate on Turkey's equity market. *The Journal of International Trade & Economic Development*, 29(3), 319-333. doi: <https://doi.org/10.1080/09638199.2019.1668047>
- Samour, A., & Pata, U. K. (2022). The impact of the US interest rate and oil prices on renewable energy in Turkey: a bootstrap ARDL approach. *Environmental Science and Pollution Research*, 1-10. doi: <https://doi.org/10.1007/s11356-022-19481-8>
- Sekhon, A. K., & Kathuria, L. M. (2019). Analyzing the impact of corporate social responsibility on corporate financial performance: evidence from top Indian firms. *Corporate Governance: The International Journal of Business in Society*, 20(1), 143-157. doi: <https://doi.org/10.1108/CG-04-2019-0135>
- Setiawan, A., & Sumantri, M. B. A. (2020). The Effect of Return On Asset (ROA), Debt to Equity Ratio (DER), and Earning Per Share (EPS) on Stock Prices in the Mining Sector on the Indonesia Stock Exchange for the 2015-2019 Period. *Technium: Romanian Journal of Applied Sciences and Technology*, 2(7), 324-335. Retrieved from <https://techniumscience.com/index.php/technium/article/view/2242>
- Sharma, A. K., & Kumar, S. (2011). Effect of working capital management on firm profitability: Empirical evidence from India. *Global Business Review*, 12(1), 159-173. doi: <https://doi.org/10.1177/097215091001200110>
- Siregar, Q. R. (2021). *Pengaruh Return On Assets, Debt To Equity Ratio, dan Earning Per Share Terhadap Harga Saham Pada Perusahaan Aneka Industri Yang Terdaftar di Bursa Efek Indonesia*. UMSU, Retrieved from <http://repository.umsu.ac.id/handle/123456789/15748>
- Sondakh, F., Tommy, P., & Mangantar, M. (2015). Current Ratio, Debt to Equity Ratio, Return on Assets, Return on Equity Knowledge of Stock Prices on the Lq 45 Index in Bei 2010-2014 Period. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi*, 3(2). doi: <https://doi.org/10.35794/emba.3.2.2015.8716>
- Sugiarto, A. (2011). Analisa pengaruh beta, size perusahaan, DER dan PBV ratio terhadap return saham. *Jurnal Dinamika Akuntansi*, 3(1). doi: <https://doi.org/10.15294/jda.v3i1.1939>
- Susanti, N., Nugraha, M. A. D., Yaasmiin, N. N., Maghfiroh, N., Ramadanti, D. Z., & Nasution, Y. P. (2021). The Influence of Firm Size, Leverage, and Liquidity on Company Performance through Dividend Policy in Manufacturing Companies Listed on the Indonesia Stock Exchange 2015-2019 Period. *Review of International Geographical Education Online*, 11(5), 3225-3237. Retrieved from <http://jp.feb.unsoed.ac.id/index.php/sca-1/article/view/2796>
- Tirta, K. A., Astuti, P. D., & Damayanti, N. N. S. R. (2022). Pengaruh Return on Assets, Return on Equity, Earning Per Share dan Debt To Equity Ratio Terhadap Harga Saham. *Jurnal Riset Akuntansi Warmadewa*, 3(1), 28-33. doi: <https://doi.org/10.22225/jraw.3.1.4712.28-33>
- Vergara Garavito, J., & Chi6n, S. J. (2021). Relationship between cash holdings and expected equity returns: evidence from Pacific alliance countries. *Journal of Economics, Finance and Administrative Science*, 26(51), 77-93. doi: <https://doi.org/10.1108/JEFAS-03-2020-0078>
- Wasiuzzaman, S. (2015). Working capital and profitability in manufacturing firms in Malaysia: An empirical study. *Global Business Review*, 16(4), 545-556. doi: <https://doi.org/10.1177/0972150915581098>
- Williams, C. (2011). Research methods.[JBER]. *Journal of Business & Economics Research*, 5(3). Retrieved from

<https://www.coursehero.com/file/p2jm1p4/Williams-C-2011-Research-methods-Journal-of-Business-Economics-Research-JBER-5-3/>

Willows, G. D., & Rockey, J. A. (2018). Share price reaction to financial and integrated reports. *South African Journal of Accounting Research*, 32(2-3), 174-188.

doi: <https://doi.org/10.1080/10291954.2018.1514141>

Xie, W., Liao, H., & Zhu, X. (2014). Estimation of gross profit for a new durable product considering warranty and post-warranty repairs. *IIE Transactions*, 46(2), 87-105. doi:

<https://doi.org/10.1080/0740817X.2012.761370>

Zheng, D., Dai, X., Lan, T., Zhang, W., & Mou, J. (2021). The negative effect of share pledging by controlling shareholders under COVID-19. *Emerging Markets Finance and Trade*, 57(10), 2826-2837. doi:

<https://doi.org/10.1080/1540496X.2021.1904885>