Journal of Accounting and Financial Studies (JAFS) مجلة دراسات محاسبية ومالية
VOL.19, ISS.68, YEAR.2024 P-ISSN: 1818-9431, E-ISSN: 2617-9849

The Impact of the Cash Flow, Solvability, and Working Capital on Accounting Profitability with Capital Structure as a Mediation (Qatar Stock Exchange Case Study Period 2018–2022)

Asst.Lect.Kaiwan Hasan Salih
Derbanikhan Technical Institute, Sulaimani Polytechnic University
kaiwan.hassan@spu.edu.iq

Asst.Lect.Shakhawan Saeed Sangaw
Department of Accounting, College of Business, Charmo University, Sulaimani
shaxawan.saed@chu.edu.iq

Asst.Lect.Kadhm Kamal Ahmad
Derbanikhan Technical Institute, Sulaimani Polytechnic University
kadhim.kamal@spu.edu.iq

Received:15/3/2024 Accepted:6/6/2024 Published:30/9/2024

Abstract:

The objective of this study is to analyze the impact of cash flow (CF), and solvability measured by the debt-to-asset ratio (DAR), and debt-to-equity ratio (DER). Working capital (WC) over accounting profitability is measured by return on assets (ROA). using capital structure (CS) as a moderating variable. Using the audited financial lists of 40 companies that were part of the study sample, they were listed on the Qatar Stock Exchange for 2018–2022. The data used are a mixture of cross-sectional and time-series data. using purposive sampling techniques. Quantitatively and hypothetically, the results were estimated using EViews 12 for relationships between variables using fixed least squares (PLS) regression effects models. Because the data included both cross-sectional and time-series characteristics, The analysis of the results shows that cash flow (CF), debt-to-assets ratio (DAR), and working capital (WC) have a significant positive effect on ROA. While capital structure (CS) as a moderating variable does not affect the effect of CF and DAR on ROA, at the same time it has a negative effect on the effect of WC on ROA. However, the debt-to-equity ratio (DER) has a weak negative effect on ROA. At the same time, CS, as a moderating variable, has a positive effect on the effect of DER on ROA.

Keywords: Cash Flow, Solvability, Working Capital, Accounting Profitability, Capital Structure.

1 Introduction:

Each of the economic sectors of the state according to the size and amount of capital invested in the sector is considered an important pillar of development to contribute to economic development in the region. Therefore, we can say that no sector alone can sustain Qatar's growth today. Financial statements can be considered one of the most important tools in evaluating the institutions of any sector. To determine the proportion of the sector's contribution to the growth in Qatar, one of the most important parameters is the return on assets (ROA) (Hastuti et al., 2018, P1136).Without distinguishing between sectors, return on assets is considered to be one of the ratios to measure the net income resulting from the use of the assets that contributed to the generation of this income during the specified period (PUSPITASARI et al., 2021, P728). Therefore, the establishment of new investments requires a larger budget to develop and maintain the productive capacity of their assets, so return on assets (ROA) is considered an important measure to assess how well a company is using its assets (Pandey and Diaz, 2019, P134). The return on assets ratio indicates a company’s ability to manage its assets effectively. The higher this return, the greater the assurance of a higher profit (Syarifah, 2021, P91). Therefore, to assess a company’s ability to make a profit, one of the most important criteria is the rate of return on assets (ROA) (Satryo et al., 2016, P56).Financial statements are required to be prepared for each accounting period. One of the most important of those statements is the statement of cash flows (CF) from the

company. This financial statement is divided into three main levels, consisting of operating cash flow (OCF), investing cash flow (ICF), and financial cash flow (FCF) (Tangngisalu et al., 2022, P427). To evaluate a company's ability to pay debts, its funds from operations, pay dividends and make investments without the assistance of external sources of finance, cash flows from operating activities provide essential data (NGUYEN & NGUYEN, 2020, P20). Therefore, managing cash flow (CF) in companies is one process that always faces a lot of challenges (Soet et al., 2018, P7). Because healthy cash flow from companies helps make the right investment decisions, and it is a reason to create a bankruptcy prevention framework. Companies thrive when they take advantage of the opportunities that come their way while avoiding the risks that result from cash flow uncertainty (Beladi et al., 2021, P1).The solvency ratio measures the ability of a company to pay off its short-term or long-term debts with the pledge of assets it owns, in the event of bankruptcy or liquidation (Maharani et al., 2023, P39). Therefore, the higher the amount of assets owned by the company, the more it helps to ensure financial stability. Conversely, if the company's assets are small, it will easily face financial instability (Maharani et al., 2023, P40). One measure by which solvency can be measured is the debt-to-assets ratio (DAR). This ratio compares the total assets of the company to the liabilities of the company. This ratio shows the debts that are included in the capital structure of the company (Wulaningrum et al., 2022, P424). If the DAR value of any company is high, it indicates that it has more liabilities than assets (SHOLICHAH et al., 2021). Another measure by which solvency can be measured is the debt-to-assets ratio (DAR). The higher the DER, the more the company is forced to use the profit to meet its obligations to external parties, which is the risky stage. The lower the DER, the more it affects the company's ability to raise the necessary capital for its obligations and its profitability (Gibran and Armansyah, 2023).

Working capital (WC) is one of the current problems facing companies, as it is part of managing the assets of the company in consideration of the total assets owned by the company. That is why working capital management is the ability of management to decide how to secure the amount of assets available because if a company does not make this decision correctly, it increases the risk of bankruptcy (Tangngisalu et al., 2022, P427). When a company is profitable, it finds working capital to be very important. Cash is one component of working capital (WC). Therefore, the conversion cycle is the time it takes for any cash issued by the company to return to the Treasury (Hanum and Masdupi, 2023).

2 Literature Review and Theoretical Framing of Research:

2.1 Literature Review

According to Rismala et al, (2022) study, which focuses on the impact of capital structure, liquidity, solvency, and company growth on institutional financial distress, profit acted as a mediator for 12 insurance companies for 2015–2020 on the Indonesian Stock Exchange. Using secondary data sourced from the annual reports of these companies, a joint quantitative method was relied upon in the study. The results of the research show that profitability in companies is affected by both capital structure and solvency, while liquidity and growth of the company do not have this effect on profitability. But at the same time, all four variables affect profitability.

According to the study Tangngisalu et al (2022), it analyses the effect of cash flow and working capital on cash, with profit as a central variable. On the list of private industrial companies listed on the Indonesian Stock Exchange for the year 2019–2020, The total number of companies was 27. Only 21 companies were selected as the sample for the study using the purposive sampling

technique. It is using the statistical method of hypothesis testing, which is panel data regression with the help of EViews software. As a result, the results show that cash flow and working capital significantly impact liquidity. At the same time, both cash flow and working capital also significantly impact profitability. This is even though liquidity is significantly affected by earnings. Liquidity, on the other hand, has a negligible positive impact on cash flow through profits.

While according to the study Kurniani (2021), titled "Effect of Liquidity Ratio, Activity Ratio, and Profit Ratio on Accounting Profitability with Firm Size as Mediator," Using the financial lists of companies for the year (2016–2020) and using AMOS 23 software as a tool for data analysis. The results show that the current ratio does not affect accounting profitability, while the activity ratio can significantly affect accounting profitability. This result also emphasizes that the earnings ratio has a significant effect on accounting profitability, although firm size as a mediating variable only affects the relationship between the current ratio and accounting earnings.

According to the results of the study Ayoush et al (2021), liquidity ratio, leverage, and solvency affect the profitability of industrial sectors in Jordan. The sample of the study is 44 industrial companies for the period 2012–2018, using the financial reports of companies whose data were available on the Amman Stock Exchange. ROA and ROE are used as performance indicators, current ratio, and quick ratio as liquidity indicators, and interest coverage ratio as a measure of financial viability. Multiple regression analysis was used to check the research hypotheses. The results show that a statistically significant positive relationship was observed between financial leverage and profitability. While the results did not show the same results for the impact of liquidity and solvency on profitability, However, at the same time, among all the independent variables, leverage has the highest level of influence on profitability, followed by solvency, and then liquidity. These results suggest that industrial enterprises should rely less on debt to finance their enterprises.

2.2 Theoretical Framing of Research

2.2.1 Cash flow

According to the study by Tangngisalu et al (2022), it is one of the five most important financial statements prepared by accountants for any given financial period. It is a cash flow statement. It evaluates the company's financial position from operating cash flow (OCF), investment cash flow (ICF), and financing cash flow (FCF). According to accounting data, the cash flow patterns in the company indicate the life cycle of the company (Sayari and Mugan, 2013).

2.2.1.1 Operating Cash Flow (OCF)

In the study of (Hastuti et al., 2018), operating cash flow (OCF) is one of the aspects expected to affect earnings management. In financial lists of cash flows, more specifically, the operating cash flow (OCF) section can give the best information on the viability of the company and how much cash is needed for the benefits of debt, equity, and assets acquired. Therefore, according to international standards, the operating cash flow statement gives complete data on the cash spent during the company's financial year. Because the amount of operating cash flow gives investors a signal to decide on the financial side of the company, The extent to which sufficient funds can be obtained without the use of external sources of finance to pay interest on loans, continue operations, and pay interest on shares.

2.2.1.2 Financing Cash Flow (FCF)

According to the study (Soet et al., 2018), the financial statements, show how much cash flow there is to carry out financing activities. This refers to the funds received by the company in

exchange for the amount of cash issued as part of the funding procedure. It is to finance the company and its investment projects. Because the continuity and survival or destruction of the company depend on the number of cash inflows versus net cash outflows as a result of the activities of the entity, that shows how capable the company is of generating cash to sustain its operations, if the company is weak at collecting its funds on time, it will be forced to resort to other financial sources or liquidate its assets to meet its obligations. This accelerates the causes of collapse and **bankruptcy in the institution.**

2.2.1.3 Investment Cash Flow (ICF)

To study the growth potential function of a firm, one measure is the amount of investment cash flow (ICF) according to contract theory. Because the amount of investment capital depends on the management policy between the owners and managers, they are responsible for providing the necessary capital for investment. Because “a firm’s investment decisions are independent of its financial situation, in this case, their investment spending will be independent of their cash flow," Therefore, sometimes the investment capital cannot be met by domestic capital alone. At this time, the company must resort to external sources of finance, such as debt, to replenish its investment capital, and in this case, debt puts another financial burden on the company. Therefore, some companies invest only in domestic capital (Jiang et al., 2019, P2), (Hassan et al., 2021).

2.2.2 Solvability

When we want to evaluate a company's solvency ratio, we must consider the extent to which the company can clear its liabilities when it uses all its assets. Therefore, the liquidity ratio affects the price of shares in the market (Satryo et al., 2016). Therefore, the solvency ratio is used as a measure to determine the extent to which the capital of the business is financed through debt (Effendie et al., 2022). One of the basic criteria by which the management of a company is evaluated is its ability to pay properly (Ayoush et al., 2021). According to the (SHOLICHAH et al., 2021) study, the debt-to-asset ratio (DAR) and debt-to-equity ratio (DER) should be used to determine the solvency ratio.

2.2.2.1 Debt to Assets Ratio (DAR):

To show solvency, an institution is shown by the ratio of total debt to total assets (DAR). Therefore, the result of this ratio shows how much of the assets owned can cover liabilities. Therefore, according to the study (Wulaningrum et al., 2022), total debt divided by total assets (DAR) shows the importance of debt financing ability. By showing the percentage of debt that is the source of financing for the company. It does this by comparing total liabilities and assets in the company’s budget.

2.2.2.2 Debt to Equity Ratio (DER):

This ratio indicates the extent to which debt contributes to the capital structure. That is, it shows the ratio of debt to equity (DER) in the company's budget (Bintara, 2020). Therefore, debt affects the profit and loss ratio in financial years. Because the debt ratio indicates the extent to which debt has contributed to the capital structure, if the company can manage the debt it has invested in well, increasing the profit against the cost of the debt, it will also affect the shareholders' profit margin. But, on the other hand, if healthy debt management is not done, it can lead to bankruptcy because loans and loan rates vary according to the nature of companies' businesses, according to his study (HUSSEIN et al., 2023).

2.2.3 Working Capital (WC)

The difference between the current assets and current liabilities of the firm is officially referred to as net working capital, according to a study (Ibrahim and Isiaka, 2021, P242). Therefore, the management policy of this working capital (WC) affects the profit margin. Lack of profits in the company is the cause of the crisis. Every business need working capital to perform its daily

operations. Cash, expenses, advances, and short-term investments are part of the company's current assets. The most important function of the institution is the management of working capital. Since it has a direct impact on profitability, most importantly, it maintains liquidity to ensure the company's ability to meet its day-to-day obligations. If working capital (WC) has a positive result, it can be used to increase sales by providing credit facilities to customers, maintaining safe inventory by maintaining standard levels, and providing supplies to vendors on time. However, if the working capital (WC) results are negative, it shows a deficit. Therefore, working capital (WC) management emphasizes the application of international standards at the level of current assets versus current liabilities in companies (Yenni et al., 2020). Working capital (WC) management that is effective will boost the company's cash flow, giving it greater opportunity to spend in other areas that can boost both the company's value and performance (Hanum and Masdupi, 2023).

2.2.4 Accounting Profitability

According to a study Kurniani, (2021), a stable state cannot be formed unless profits and profit concepts lead to better and healthier GDP changes over time. Plus, economists use the standards to determine whether welfare has improved or as variables. Income, funds, and capital are among the measures applied according to international standards. Because the profit margin is considered one of the criteria for assessing a company's ability to make a profit on working capital, the higher the ratio, the more likely the company will be profitable in the future(Ahmad et al., 2024, P535). An organization's operating activities in producing sales or cash are described in terms of its activity ratio. The higher the ratio, the more likely the business is to make a profit (Matuszak and ´nska, 2019). That is why accounting profit affects all aspects of the company to create a better position in the labor market. Assure lenders to facilitate the provision of loans for the implementation of investment projects within a specified period. So that the company can make better and easier profits (SMII, 2016, P39). To (Choiriya et al., 2020, P109) "profitability is the ratio of how the company can manage its foreign capital to earn profits and repay its debts".

2.2.4.1 Return On Assets (ROA)

Show the ability of the company in the investment in which it has invested to earn a profit is measured by the return on assets (ROA) of which that investment is part of the capital of the company. So, the profit earned is measured by the return of assets (ROA) owned back to the company (Sangawi et al., 2023, P726). Therefore, return on assets (ROA) is accepted as a financial ratio that assesses a company's profitability and ability to generate profits at a given level of income and assets for share capital (Yusnita, 2023, P104). The more efficiently a company's management can generate a return on its investment, the greater the impact on the return on the value of its assets. In other words, the higher the return on assets (ROA), the higher the emphasis on profitability. Conversely, as long as the return on assets (ROA) is low, the company is at risk of bankruptcy (Chasanah & Sucipto, 2019, P54).

2.2.5 Capital Structure (CS)

According to Linawati et al., (2022) study, a balance should be maintained between the capital structure (CS), because the capital structure consists of the total ratio of the company's debts to its total equity capital. Therefore, the concept of capital structure indicates the company's financial management policy for how to expand its investment projects. Therefore, a project cannot expand if the necessary financial resources are not available (Muhammed & Ahmed, 2023, P96). Therefore, the capital structure shows how much the company relies on debt to finance its projects. Because the debt ratio affects management policies and all departments in the company, The debt ratio, which is part of the capital structure of the company, will continue to increase due to the interest rate. That would make it impossible for the company to clear its financial obligations on time with

its existing assets. On the other hand, the balance between equity and debt shows that the firm uses less debt than equity in its capital structure (CS) (Negoro & Wakan, 2022, P66).

3 Technical analysis:

3.1 Research design

The companies used as examples in this study. It includes companies listed on the Qatar Stock Exchange for the period 2018–2022. It is based on the financial lists of 40 companies from different sectors, characterized by purposive sampling criteria. However, in this study, it follows the quantitative method and the research hypothesis. It has been studied using the annual audited financial statements of different companies to determine the relationship between variables.

3.2 Method of data collection

This study is considered one of the quantitative studies using secondary data to analyze the effects of cash flow, debt-to-assets ratio, debt-to-equity ratio, and working capital ratio on return on assets in different sectors. It is the degree to which capital structure affects the relationship between variables. For this purpose, reliance was placed on the audited financial statements of the companies. For 2018–2022, 40 companies have been selected from the Qatar Stock Exchange, divided into different sectors (www.qe.com.qa).

Table 1: The examples are divided by sector.

No	Industry or a Sector	Firms in Number	%
1	The banking sector	11	27.5
2	manufacturing sector	15	37.5
3	Investment Holding sector	14	35
Total		40	100

Source: Researchers used the Qatar Stock Exchange (www.qe.com.qa).

3.3 Identification of Variables

Table 2: Operationalization of Measurement and Variable

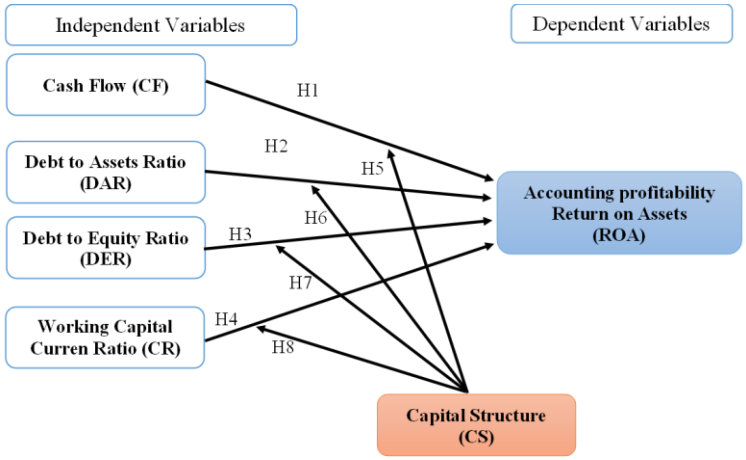
Variable	Measurement	formula	Reference
Independent variables			
Cash flow	Cash flow (CF)	OCF+FCF+ICF	(Tangngisalu et al., 2022)
Solvability	Debt to Assets Ratio (DAR)	Total Debt / Total Assets	(Pattiasina et al., 2018)
	Debt to Equity Ratio (DER)	Total Liability / Total Equity	(Ningsih and Sari, 2019)
Working Capital	Current Ratio (CR)	Current Assets / Current Liabilities	(Ibrahim and Isiaka, 2021)
Dependent variables			
Accounting Profitability	Return On Assets (ROA)	Net Income / Total Assets	(Satryo et al., 2016)
Mediation variables			
Capital Structure	Capital Structure (CS)	Total Debt / Total Equity	(Rismala et al., 2022)

Source: Prepared by the researchers using the sources cited in the table as guides.

3.4 Framework Theoretical and Hypothesis

Panel data (pooled data) regression analysis, which combines time series and cross-sectional data, was employed by the authors to determine the association between the variables included in this investigation. Following that, EViews 12 was used to perform hypothesis testing on the following six operational variables, paradigms, and frameworks:

Figure 1: Framework Theoretical



Source: Prepared by researchers.

Hypothesis

H1: Cash flow (CF) has a positive and significant effect on the accounting profitability.
H2: Debt to Assets Ratio (DAR) has a positive and significant effect on the accounting profitability.
H3: Debt to Equity Ratio (DER) has a negative and significant effect on the accounting profitability.
H4: Working capital (WC) has a positive and significant effect on accounting profitability.
H5: The capital structure moderates the impact of Cash flow (CF) on accounting profitability.
H6: The capital structure moderates the impact of Debt to Assets Ratio (DAR) on accounting profitability.
H7: The capital structure moderates the impact of the Debt-to-Equity Ratio (DER) on accounting profitability.
H8: The capital structure moderates the impact of Working capital (WC) on accounting profitability.

3.5 Data Analysis

In analyzing the results of this investigation, multiple linear regression design and classical hypothesis tests were used for hypothesis testing and descriptive analysis of the data. According to the (Lestari & Albertus, 2022) study, multiple regression can be used to determine the extent to which an independent variable has a greater effect on the dependent variable due to the mediating variable. The following equation is used for multiple regression in the study:

$$\mathbf{ROA} = \mathbf{a} + \boldsymbol{\beta}\mathbf{1CF} + \boldsymbol{\beta}\mathbf{2DAR} + \boldsymbol{\beta}\mathbf{3DER} + \boldsymbol{\beta}\mathbf{4WC} + \boldsymbol{\beta}\mathbf{5}(\mathbf{CF} * \mathbf{CS}) + \boldsymbol{\beta}\mathbf{6}(\mathbf{DAR} * \mathbf{CS}) + \boldsymbol{\beta}\mathbf{7}(\mathbf{DER} * \mathbf{CS}) + \boldsymbol{\beta}\mathbf{8}(\mathbf{WC} * \mathbf{CS}) + \mathbf{e} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (\mathbf{1})$$

Description:
ROA: Return on Assets (Dependent variables).
CS: Capital Structure (Mediation variables).
CF: Cash flow (Independent variables).
DAR: Debt to Assets Ratio (Independent variables).
DER: Debt to Equity Ratio (Independent variables).
WC: Working Capital Ratio (Independent variables).
a: Constants
β1, β2 …. β8: Partial Coefficient Regression
e: Error

4 Results Discussion:

Table 2 shows the results, where all the observed values of the variables are 200. In this work, descriptive statistics of variables such as observation value, mean value, minimum value, median value, and maximum value are presented. Descriptive statistics were performed on all-inclusive data collected before variable regression. on the Qatar Stock Exchange for the year 2018–2022 (www.qe.com.qa).

It has a minimum value (ROA) of -0.156519 versus a maximum value of 0.166015, a median value of 0.021928, and a standard deviation of 0.043878. The higher the ROA value, the more it indicates that the management of the institution is working efficiently to make a profit from the assets available to it. While (CF) has a minimum value of -0.334084 with a maximum value of 0.305932 and a median value of -0.000335, against a standard deviation of 0.063981, The more positive the cash flow result, the more it shows the company's ability to secure its obligations to other parties. Meanwhile, the highest value (DAR) is 0.632122 and the lowest value is 0.002560; the median value is 0.056325, against the highest and lowest (DER) values of 10.21304 and 0.013932, with a median value of 0.838533. The lower the DAR, the lower the risk of default. On the other hand, the higher the DER, the more difficult it will be for the company to repay its obligations. This is while the highest value for the working capital ratio is 114.9479 and the lowest value is 0.044836, with a mean value of 1.366638 and a standard deviation of 10.92409.

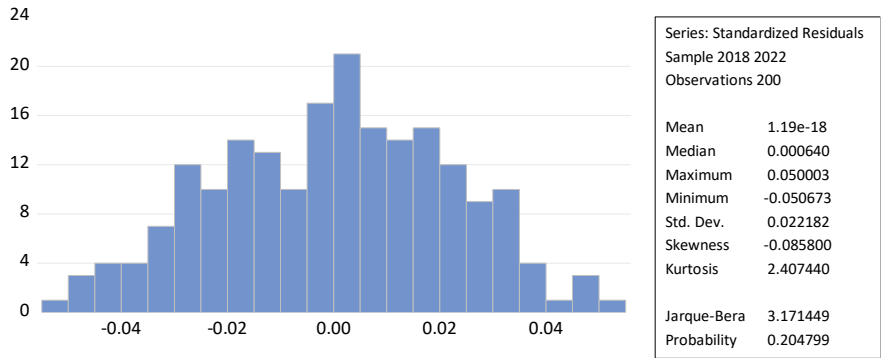
Table 3: Statistic Descriptive

Variables	Mean	Median	Maximum	Minimum	Std. Dev.	N
ROA	0.027458	0.021928	0.166015	-0.156519	0.043878	200
CF	0.000400	-0.000335	0.305932	-0.334084	0.063981	200
DAR	0.096772	0.056325	0.632122	0.002560	0.111254	200
DER	1.915247	0.838533	10.21304	0.013932	2.252948	200
WC	3.102700	1.366638	114.9479	0.044836	10.92409	200
CS	0.349850	0.137633	4.939532	0.006786	0.761640	200
CF*CS	-0.000943	-1.89E-05	0.104731	-0.232268	0.024579	200
DAR*CS	0.108264	0.006544	3.002940	2.00E-05	0.447852	200
DER*CS	1.512444	0.162807	35.19430	0.000186	4.998433	200
WC*CS	0.566519	0.229408	11.54417	0.003504	1.369962	200

Source: researcher's compilation of outcomes (EViews 12).

According to the probability value result of 0.205. The Jarque- Bera value is 3.171, which is greater than 0.05, so the result of the normality test indicated that the data in the study is normally distributed. where these results are shown in Figure 2.

Figure 2: Test of (Jarque- Bera) Normality



Source: researcher's compilation of outcomes (EViews 12).

4.1 Results of Correlation

The results in Table 3 show that there is a significant positive relationship between return on assets (ROA) and cash flow (CF), that is, when (ROA) increases, then (CF) increases by (0.07). This is while the debt-to-assets ratio (DAR) has a weak positive impact on return on assets (ROA). Meanwhile, the debt-to-equity ratio (DER) has a significant negative impact on ROA. In other words, when the return on assets (ROA) increases, it leads to an increase in the debt-to-assets ratio (DAR) by (0.017), while at the same time it leads to a decrease in the debt-to-equity ratio (DER). -0.248) is. However, the same result for the working capital ratio in Table 3 shows that the working capital ratio (WC) has a significant negative effect on return on assets (ROA). That is, when the return on assets (ROA) increases, the working capital ratio (WC) decreases by (-0.07).40 companies, divided into different sectors, are listed on the Qatar Stock Exchange for the period 2018–2022.

Table 4: Correlation analysis

	ROA	CF	DAR	DER	WC	CF*CS	DAR*CS	DER*CS	WC*CS
ROA	1								
CF	0.07076	1							
DAR	0.01665	-0.0523	1						
DER	-0.24818	0.0432	0.2551	1					
WC	-0.06673	-0.02839	-0.09648	-0.03251	1				
CF*CS	0.07428	0.55910	-0.17517	-0.09551	-0.00021	1			
DAR*CS	-0.07623	-0.02144	0.83603	0.38171	-0.0424	-0.2091	1		
DER*CS	-0.11472	-0.02412	0.8028	0.53434	-0.05065	-0.25083	0.96612	1	
WC*CS	-0.12853	-0.03679	0.49257	0.27873	0.763	-0.13581	0.58645	0.57501	1

Source: researcher's compilation of outcomes (EViews 12).

4.2 Results of Regression

Table 5: Fixed Effect Panel Data

Variable	Coefficient	Std. Error	t-Statistic	Prob.	Result
C	0.018692	0.005082	3.678387	0.0003	
CF	0.046245	0.020259	2.282706	0.0238	Significant
DAR	0.584474	0.112900	5.176905	0.0000	Significant
DER	-0.004820	0.000964	-5.002293	0.0000	Significant
WC	0.002229	0.000734	3.037103	0.0028	Significant
CF*CS	-0.049765	0.056759	-0.876779	0.3820	Insignificant
DAR*CS	-0.058013	0.043940	-1.320268	0.1887	Insignificant
DER*CS	0.017123	0.004065	4.212087	0.0000	Significant
WC*CS	-0.021762	0.007090	-3.069519	0.0025	Significant
R-squared		0.893074			
Adjusted R-squared		0.859084			
F-statistic		26.27469			
Prob(F-statistic)		0.000000			

Source: researcher's compilation of outcomes (EViews 12).

The equation of the research model is as follows:

$$\mathbf{ROA} = \mathbf{0.018692} + \mathbf{0.046245} * \mathbf{CF} + \mathbf{0.584474} * \mathbf{DAR} - \mathbf{0.004820} * \mathbf{DER} + \mathbf{0.002229} * \mathbf{WC} - \mathbf{0.049765}(\mathbf{CF} * \mathbf{CS}) - \mathbf{0.058013}(\mathbf{DAR} * \mathbf{CS}) + \mathbf{0.017123}(\mathbf{DER} * \mathbf{CS}) - \mathbf{0.021762}(\mathbf{WC} * \mathbf{CS}) + \mathbf{e}$$

According to the result presented in the above table, it is shown that return on assets (ROA) is contributed by its regression constant (0.019). while cash flow (CF) has a beta regression coefficient of 0.05. and for the debt-to-asset ratio (DAR), its regression coefficient is equal to 0.58. And the beta regression coefficient is -0.005 for the debt-to-equity ratio (DER). At the same time, the regression coefficient for the working capital ratio (WC) is 0.002. This time, the regression

coefficient beta for each of (CF*CS), (DAR*CS), (DER*CS), and (WC*CS) is (-0.05), (-0.058), (0.02), and (-0.022).

This result is represented by the r-square (0.89), so each of the variables cash flow (CF), debt-to-assets ratio (DAR), debt-to-equity ratio (DER), working capital ratio (WC), rasp of (CF*CS), (DAR*CS), (DER*CS), (WC*CS) affects return on assets (ROA) by 89%. Showing the statistical value of (f) as (26.27) and the value of prob(F-statistic) as (0.00). This suggests that the independent variables alone, or in combination with capital structure as a mediating variable, affect asset returns.

4.3 The Hypothesis Test's Outcome

Hypothesis (H1): Cash flow (CF) has a positive and significant effect on accounting profitability. From Table 4, the hypothesis test results show that the regression coefficient is 0.046 and the p-value is 0.0238, which is less than 0.05. With a t-statistic of 2.283. This result indicates that cash flow has a significant positive and significant effect on accounting profitability; hence, hypothesis (H1) is accepted and hypothesis (H0) is rejected. This result is consistent with the results of studies (Tangngisalu et al., 2022).

Hypothesis (H2): The debt-to-assets ratio (DAR) has a positive and significant impact on accounting profitability. In Table 4, the hypothesis test results show that the regression coefficient for DAR is 0.58. with Sig (0.00), which is less than 0.05. With a t-statistic of 5.177. This result shows that the ratio of debt to assets has a positive and significant effect on accounting profitability; therefore, hypothesis H2 is accepted and hypothesis H0 is rejected. Studies (Rismala et al., 2022) and (Yenni et al., 2020) have the same results.

Hypothesis (H3): The debt-to-equity ratio (DER) has a negative and significant effect on accounting profitability. To test the hypotheses, we rely on the results presented in Table 4, where the regression coefficient for DER is equal to -0.005. by Sig (0.00), which is less than 0.05, with a t-statistic value of -5.002. Due to this result, it is shown that the debt-to-equity ratio has a negative and significant effect on accounting profitability. Therefore, hypothesis H3 is accepted, and hypothesis H0 is rejected. The results of the studies (Gibran and Armansyah, 2023) and (Khidmat & Rehman, 2014) show the same results.

Hypothesis (H4): Working capital (WC) has a positive and significant effect on accounting profitability. According to the result table, (4) supports the hypothesis H4 against the hypothesis H0. Because the regression coefficient for WC is equal to 0.002, There is less than 0.05 in Sig, which is 0.003. with a t-statistic value of 3.037. The result shows that working capital (WC) has a positive and significant effect on accounting profitability. This result is the same as those of the studies (Tangngisalu et al., 2022) and (Bintara, 2020), (Yenni et al., 2020).

Hypothesis (H5): The capital structure moderates the effects of cash flow (CF) on accounting profitability. According to the results in Table 4, which makes the regression coefficient for this hypothesis (-0.05). This is while the t-statistic is 0.88. But Sig (0.382), which is larger than 0.05 alpha, this result indicates that the capital structure does not moderate the effects of cash flows on accounting profitability. Therefore, this is the reason why H5 is rejected, versus accepting H0.

Hypothesis (H6): Capital structure influences the debt-to-assets ratio (DAR) and average accounting profitability. Reading the results in Table 4, it is shown that H0 is accepted while H6 is rejected. because the regression coefficient for hypothesis H6 is -0.059. with a sig (0.19) that is larger than 0.05. and a t-statistic value of -1.32. This result is sufficient to conclude that capital structure does not influence the debt-to-asset ratio on average accounting profit. It means that the capital structure does not have any effect on the relationship between the debt-to-assets ratio and accounting profit. This is a positive effect in (Rao et al., 2019) study.

Hypothesis (H7): Capital structure moderates the effect of the debt-to-equity ratio (DER) on accounting profitability. For hypothesis H7, the regression coefficient is (0.017). with a sig. (0.00) smaller than 0.05. The value of the t statistic is 4.21. So, this result presented in Table 4 makes it clear that capital structure moderates the effect of the debt-to-equity ratio on accounting profitability. This result emphasizes that H7 is accepted.

Hypothesis (H8): Capital structure moderates the effect of working capital (WC) on accounting profitability. According to Table 4, the result shows that the regression coefficient of hypothesis H8 is -0.022. with sig. (0.0025), which is smaller than 0.05. The value of the t statistic is -3.07. With this result, we can conclude that capital structure moderates the effect of working capital on accounting profitability.

5 Conclusion:

This study investigated the influence of each of the factors of cash flow (CF), debt-to-asset ratio (DAR), debt-to-equity ratio (DER), and working capital (WC) on return on assets (ROA). The extent to which this relationship is influenced by capital structure (CS) acts as a mediating variable. Therefore, based on the results shown above, we can conclude that cash flow has a significantly positive impact on return on assets. This is a good indication that the company has adequate cash flow, so the money spent will be a good source to ensure better profits for the company through asset returns, not dividends to shareholders. At the same time, capital structure (CS) as a moderating variable does not have any effect on the relationship between cash flow and return on assets. Moreover, the debt-to-asset ratio has a significant positive effect on asset returns. Therefore, this means that the amount of debt obtained by the company, reused in an appropriate area of investment, was an important factor in ensuring an appropriate source of profit for the institution. This is while capital structure (CS) as a moderating variable has no effect on the relationship between debt-to-asset ratio and return on assets. On the other hand, the debt-to-equity ratio has a significant negative effect on return on assets. This shows that the debt-to-equity ratio of the company is high. This high ratio is a major factor in declining profitability because companies must apply an appropriate debt-versus-equity standard. From another perspective, capital structure as a moderating variable has an important effect on the relationship between debt-to-equity ratio and return on assets, which is an important factor in the reversal of the relationship between the two variables. Moreover, working capital has a significant positive effect on the return on assets. This result suggests that the company has adequate capital available to ensure a return on assets. This is because capital structure (CS), which as a moderating variable exerts an inverse effect on the relationship between working capital and return on assets, in this study has inverted the relationship between these two variables. Companies listed on the Qatar Stock Exchange for the period (2018–2022) Based on the financial lists of only 40 companies from all different sectors, we were selected to conduct this study.

6 Recommendations

1- The companies mentioned in this paper must be better reviewed to apply that cash flow to an appropriate source. It is a better reason to earn a high rate of profit by returning the assets to the company for reuse in another area to create another source of income, rather than paying the profits back to shareholders at a high rate.

2- Companies should be able to reuse the amount of loan they secure in an appropriate area to create another source of income. Conversely, companies should avoid large amounts of debt, as it is a source of bankruptcy.

3- Companies should follow an appropriate standard for debt-to-equity ratios. Because rising debt rates increase financial obligations on companies, this has led to a long-term decline in the company's profit margins.

4- The firms covered by this study should maintain their working capital. According to the results of this study, companies have adequate capital available, so in turn, they should maintain their working capital balance.

References:

1. Ahmad, K.K., Salih, K.H. and Sangawi, S.S. (2024), “The Impact of Operating Cash Flow on Corporate Profitability: Amman Stock Exchange case study”, Journal of Economics and Administrative Sciences (JEAS), Vol. 30 No. 140, pp. 532–543.
2. Ayoush, M.D., Toumeh, A.A., Shabaneh, K.I. and Maha. (2021), “Liquidity, leverage, and solvency: What affects the profitability of industrial enterprises the most?”, Investment Management and Financial Innovations, Vol. 18 No. 3, pp. 249–259.
3. Beladi, H., Deng, J. and Hu, M. (2021), “Cash flow uncertainty, financial constraints, and R&D investment”, International Review of Financial Analysis, Vol. 76, pp. 1–13.
4. Bintara, R. (2020), “The Effect of Working Capital, Liquidity and Leverage on Profitability”, Saudi Journal of Economics and Finance, Vol. 4 No. 1, pp. 28–35.
5. Chasanah, N. and Sucipto, A. (2019), “Liquidity Ratio, Profitability, And Solvency On Stock Returns With Capital Structure As An Intervening Variable (Study On Food And Beverage Sub Sector Listed In Indonesia Stock Exchange (Idx) Period 2013-2017)”, Jurnal Bisnis Dan Manajemen, Vol. 3 No. 1, pp. 52–68.
6. Choiriya, C., Fatimah, F., Agustina, S. and Ulfa, F.A. (2020), “The Effect of Return on Assets, Return on Equity, Net Profit Margin, Earning per Share, and Operating Profit Margin on Stock Prices of Banking Companies In Indonesia Stock Exchange”, International Journal of Finance Research, Vol. 1 No. 2, pp. 103–123.
7. Effendie, J.M., Manafe, H.A. and Man, S. (2022), “Analysis of the Effect of Liquidity Ratios, Solvency and Activity on the Financial Performance of the Company (Literature Review of Corporate Financial Management)”, DIJEFA DINAST INTERNATIONAL JOURNAL OF ECONOMICS, FINANCE ACCOUNTING, Vol. 3 No. 5, pp. 541–550.
8. Gibran, D.M.C. and Armansyah, R.F. (2023), “The effect of liquidity ratio, solvability ratio, activity ratio and ownership structure to the company profitability of consumer goods industry in Indonesian capital market”, Journal of Management, Vol. 12 No. 6, pp. 4895–4903.
9. Hanum, L.A. and Masdupi, E. (2023), “The Effect ofWorking Capital Management on Financial Performance Companies with Liquidity as Mediation in Trading Companies on the Indonesia Stock Exchange (IDX)”, Proceedings of the Ninth Padang International Conference On Economics Education, Economics, Business and Management, Accounting and Entrepreneurship (PICEEBA 2022), pp. 676–689.
10. Hassan, B.K., Mohammed, A.O. and Omer, R.A. (2021), “The Role of Innovative Bank Products on Customer Perception Influencing Accounting Procedures in Kurdistan INTRODUCTION”, Journal of University of Raparin, Vol. 8 No. 1, pp. 334–352.
11. Hastuti, C.S.F., Arfan, M. and Diantimala, Y. (2018), “The Influence of Free Cash Flow and Operating Cash Flow on Earnings Management at Manufacturing Firms Listed in the Indonesian Stock Exchange”, INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & COCIAL SCIENCES, Vol. 8 No. 9, pp. 1133–1146.
12. HUSSEIN, M.Q.S., SAEED, N.A. and AHMAD, G.S. (2023), “FINANCIAL RATIOS ANALYSIS AND COMPANIES’ LIQUIDITY EVALUATION”, Journal of Global Economics and Business, Vol. 4 No. 14, pp. 60–75.
13. Ibrahim, U.A. and Isiaka, A. (2021), “Working capital management and financial performance of non financial quoted companies in Nigeria”, Research in Business & Social Science, Vol. 10 No. 3, pp. 241–258.
14. Jiang, F., Kim, K.A., Ma, Y. and Nofsinger, J.R. (2019), “Corporate Culture and Investment–Cash Flow Sensitivity”,

Journal Business Ethics, Vol. 154 No. 2, pp. 1–15.
15. Khidmat, W. Bin and Rehman, M.U. (2014), "IMPACT OF LIQUIDITY & SOLVENCY ON PROFITABILITY CHEMICAL SECTOR OF PAKISTAN", Economics Management Innovation, Vol. 6 No. 3, pp. 3–13.
16. Kurniani, N.T. (2021), "The effect of liquidity ratio, activity ratio, and profitability ratio on accounting profit with firm size as a mediation", Journal of Economics and Business Letters, Vol. 1 No. 3, pp. 18–26.
17. Lestari, E.D. and Albertus, R.H. (2022), "THE INFLUENCE OF LIQUIDITY RATIO, PROFITABILITY RATIO, AND SOLVENCY RATIO ON COMPANY VALUE IN THE PROPERTY AND REAL SECTOR COMPANIES ESTATE IN INDONESIA STOCK EXCHANGE 2016-2017 PERIOD", Strategic Management Business Journal (Submit:, Vol. 2 No. 2, pp. 92–98.
18. Linawati, N., Moeljadi, Djumahir and Aisjah, S. (2022), "The effect of profitability and bank size on firm value sustainability: The mediating role of capital structure", Investment Management and Financial Innovations, Vol. 19 No. 2, pp. 1–13.
19. Maharani, A., Purnamasari, E.D. and Veronica, M. (2023), "The Effect of Liquidity, Solvency, and Profitability Ratios on Transportation Sub-Sector Companies Listed on The Bei in 2017-2021", Jurnal Manajemen, Vol. 14 No. 5, pp. 38–47.
20. Matuszak, Ł. and ´nska, E.R. (2019), "A Non-Linear and Disaggregated Approach to Studying the Impact of CSR on Accounting Profitability: Evidence from the Polish Banking Industry", Sustainability, Vol. 11 No. 183, pp. 1–21.
21. Muhammed, A.A. and Ahmed, R.A. (2023), "The Role Of Capital Structure On Profitability During Financial Crisis: An Empirical Evidence Of Financial- Firms Listed In The Iraq Stock Exchange", Journal of Namibian Studies, Vol. 36 No. 1, pp. 93–109.
22. Negoro, D.A. and Wakan, M. (2022), "EFFECT OF CAPITAL STRUCTURE, LIQUIDITY,AND PROFITABILITY ON FINANCIAL DISTRESS WITH THE EFFECTIVENESS OF THE AUDIT COMMITTEE AS VARIABLE MODERATE", American International Journal of Business Management (AIJBM), Vol. 5 No. 6, pp. 63–82.
23. NGUYEN, D.D. and NGUYEN, C. Van. (2020), "The Impact of Operating Cash Flow in Decision-Making of Individual Investors in Vietnam's Stock Market", Journal of Asian Finance, Economics and Business, Vol. 7 No. 5, pp. 19–29.
24. Ningsih, S. and Sari, S.P. (2019), "ANALYSIS OF THE EFFECT OF LIQUIDITY RATIOS, SOLVABILITY RATIOS AND PROFITABILITY RATIOS ON FIRM VALUE IN GO PUBLIC COMPANIES IN THE AUTOMOTIVE AND COMPONENT SECTORS", International Journal of Economics, Business and Accounting Research (IJEBAR), Vol. 3 No. 4, pp. 351–359.
25. Pandey, R. and Diaz, J.F. (2019), "FACTORS AFFECTING RETURN ON ASSETS OF US TECHNOLOGY AND FINANCIAL CORPORATIONS", JURNAL MANAJEMEN DAN KEWIRAUSAHAAN, Vol. 21 No. 2, pp. 134–144.
26. Pattiasina, V., Sejati, F.R., Seralurin, Y.C., Batilmurik, R.W. and Aziz, M.A. Al. (2018), "The Impact of Financial Ratios towards Profit Changes Article", International Research Journal of Management, IT & Social Sciences, Vol. 5 No. 5, pp. 1–16.
27. PUSPITASARI, E., SUDIYATNO, B., HARTOTO, W.E. and WIDATI, L.W. (2021), "Net Interest Margin and Return on Assets: A Case Study in Indonesia", Journal of Asian Finance, Economics and Business Vol, Vol. 8 No. 4, pp. 727–734.
28. Rao, P., Kumar, S. and Madhavan, V. (2019), "A study on factors driving the capital structure decisions of small and medium enterprises (SMEs) in India", IIMB Management Review, Elsevier Ltd, Vol. 31 No. 1, pp. 37–50, doi: 10.1016/j.iimb.2018.08.010.
29. Rismala, L.I., Holiawati and Sunardi, N. (2022), "The Influence of Capital Structure, Liquidity, Solvency and Firm Growth on the Company's Financial Distress That is Mediated by Profitability (A Study on 12 Indonesia General Insurance Companies Listed on the Indonesian Stock Exchange 2015-2020)", Adpebi International Conference on Management, Education, Social Science, Economics and Technology (AICMEST), Vol. July 26, pp. 1–17.
30. Sangawi, S.S., Ahmed, hadi M., Mohammed, H.M.N. and Salih, K.H. (2023), "An Investigation into the Impact of Profitability on Annual Growth Rate among the Listed Manufacturing Companies on the Iraqi Stock Exchange", Tikrit Journal of Administrative and Economic Sciences, Vol. 19 No. 64 part 2, pp. 720–739.
31. Satryo, A.G., Rokhmania, N.A. and Diptyana, P. (2016), "The influence of profitability ratio, market ratio, and solvency ratio on the share prices of companies listed on LQ 45 Index", The Indonesian Accounting Review, Vol. 6 No. 1, pp. 55–66.
32. Sayari, N. and Mugan, F.N.C.S. (2013), "Cash Flow Statement as an Evidence for Financial Distress", Universal Journal of Accounting and Finance, Vol. 1 No. 3, pp. 95–103.
33. SHOLICHAH, F., ASFIAH, N., AMBARWATI, T. and WIDAGDO, B. (2021), "The Effects of Profitability and Solvability on Stock Prices: Empirical Evidence from Indonesia", Journal of Asian Finance, Economics and Business, Vol. 8 No. 3, pp. 885–894.
34. SMII, T. (2016), "THE IMPACT OF THE AUDIT QUALITY ON THAT OF THE ACCOUNTING PROFITS: THE CASE OF COMPANIES LISTED ON THE TSE", International Journal of Managing Value and Supply Chains (IJMVSC), Vol. 7 No. 1, pp. 39–54.

35. Soet, M.A., Muturi, W. and Oluoch, O. (2018), “EFFECT OF FINANCING CASH FLOW MANAGEMENT ON FINANCIAL PERFORMANCE OF MUTUAL FUNDS IN KENYA”, European Journal of Business, Economics and Accountancy, Vol. 6 No. 6, pp. 7–16.
36. Syarifah. (2021), “Effect of Earnings Management, Liquidity Ratio, Solvency Ratio and Ratio Profitability of Bond Ratings in Manufacturing: (Case Study Sub-Sector Property and Real Estate Sector Companies listed on the IDX Indonesian)”, International Journal of Business, Economics and Social Development, Vol. 2 No. 2, pp. 89–97.
37. Tangngisalu, J., Halik, A., Marwan and Jumady, E. (2022), “Effect of Cash Flow and Working Capital on Liquidity: The Mediation Role of Profitability”, JURNAL ILMIAH AKUNTANSI, Vol. 5 No. 2, pp. 426–439.
38. Wulaningrum, R., Handayani, N., Amirudin and Romadloni. (2022), “The Effect of Liquidity Ratio, Solvency, Profitability and Activity on Profit Changes in Automotive Companies Listed on the Indonesia Stock Exchange”, Advances in Social Science, Education and Humanities Research, pp. 423–428.
39. Yenni, Arifin, Gunawan, E., Pakpahan, L. and Siregar, H. (2020), “THE IMPACT OF SOLVENCY AND WORKING CAPITAL ON PROFITABILITY”, Journal of Industrial Engineering & Management Research, Vol. 2 No. 4, pp. 15–38.
40. Yusnita, I. (2023), “The Effect Of Solvency Ratio, Profitability Ratio And Activity Ratio To Company Value Of PT. Astra Internasional Tbk”, International Journal of Business and Quality Research, Vol. 1 No. 3, pp. 102–113.