مجلة الغري للعلوم الاقتصادية والادارية

مجلد (٢٠) عدد (٤) ٢٠٢٤

The impact of Working Capital Management and Net Profit Margin on Accounting Profitability: An applied study of manufacturing firms listed on the Iraqi Stock Exchange for 2016–2022

Shakhawan Saeed Sangawi **College of Business, Charmo University** shaxawan.saed@chu.edu.iq	**Omed Mahmood Hama Salish** **Dukan Technical Institute, Sulaimani Polytechnic University** omed.mahmood@spu.edu.iq	**Kadhm Kamal Ahmad** **Derbanikhan Technical Institute, Sulaimani Polytechnic University** kadhim.kamal@spu.edu.iq

Abstract

The problem of the study is the existence of an unclear relationship between working capital management and net profit to accounting profit in manufacturing companies in Iraq. Investors often rely solely on a company's profitability as a measure of its financial strength without considering its working capital management. The study aims to determine the impact of working capital management and net profit margin on accounting profitability in manufacturing companies listed on the Iraqi Stock Exchange for the years 2016-2022. Only 10 companies met the total study criteria. Panel data regression and statistical methods were used to evaluate and test the quantitative method research hypothesis with the help of EViews software. The findings indicate that net profit margin (NPM) has a significant positive effect on return on assets (ROA), a measure of accounting profitability. Working capital management is measured by liquidity (LIQ), leverage (LEV), and cash flow (CF). Liquidity (LIQ) and leverage (LEV) have a significant negative effect on return on assets (ROA). However, cash flow (CF) has a positive yet non-significant impact on return on assets (ROA). The result of the R-squared value of 23%

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (٢٠) عدد (٤) ٢٠٢٤

confirms that the regression model used in the study achieved the objective to some extent.

This paper not only contributes to the literature review, by providing a new idea of the relationship between working capital management and net profit margin and accounting profit, but at the same time, it suggests that management policy should consider working capital in companies as an important aspect.

key words (Working Capital Management, Net Profit Margin, Accounting Profitability, Liquidity, leverage, Cash Flow, Return on Assets)

تأثير إدارة رأس المال العامل وهامش الربح الصافي على الربحية المحاسبية: دراسة تطبيقية على الشركات الصناعية المدرجة في سوق العراق للأوراق المالية للفترة ٢٠١٦-٢٠٢٢

م.م. شاخوان سعيد سنكاوي
جامعة جرمو، كلية الأعمال
shaxawan.saed@chu.edu.iq

م.م. أميد محمود حمه صالح
جامعة السليمانية التقنية، معهد دوكان التقني
omed.mahmood@spu.edu.iq

م.م. كاظم كمال أحمد كوران
جامعة السليمانية التقنية، معهد دربنديخان التقني
kadhim.kamal@spu.edu.iq

المستخلص

تتمثل مشكلة الدراسة في وجود علاقة غير واضحة بين إدارة رأس المال العامل وصافي الربح إلى الربح المحاسبي في شركات التصنيع في العراق، إذ يعتمد المستثمرون في كثير من الأحيان على ربحية الشركة فقط كمقياس لقوتها المالية دون الأخذ بعين الاعتبار إدارة رأس المال العامل.

تهدف الدراسة إلى تحديد أثر إدارة رأس المال العامل وهامش صافي الربح على الربحية المحاسبية في الشركات الصناعية المدرجة في سوق العراق للأوراق المالية للسنوات ٢٠١٦-٢٠٢٢. وقد استوفت ١٠ شركات فقط معايير الدراسة الإجمالية. وقد تم استخدام انحدار البيانات اللوحة والأساليب الإحصائية لتقييم واختبار فرضية البحث بالطريقة الكمية بمساعدة برنامج EViews.

تشير النتائج إلى أن هامش صافي الربح (NPM) له تأثير إيجابي كبير على العائد على الأصول

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (٢٠) عدد (٤) ٢٠٢٤

(ROA) وهو مقياس للربحية المحاسبية. يتم قياس إدارة رأس المال العامل من خلال السيولة (LIQ) والرافعة المالية (LEV) والتدفق النقدي (CF). السيولة (LIQ) والرافعة المالية (LEV) لهما تأثير سلبي كبير على العائد على الأصول (ROA). ومع ذلك، فإن التدفق النقدي (CF) له تأثير إيجابي ولكنه غير مهم على العائد على الأصول (ROA). تؤكد نتيجة قيمة R-squared البالغة ٢٣٪ أن نموذج الانحدار المستخدم في الدراسة حقق الهدف إلى حد ما.

لا تساهم هذه الدراسة في مراجعة الأدبيات فحسب، من خلال تقديم فكرة جديدة عن العلاقة بين إدارة رأس المال العامل وهامش الربح الصافي والربح المحاسبي، ولكنها في الوقت نفسه تقترح على المستثمرين أن سياسة الإدارة يجب أن تنظر في رأس المال العامل في الشركات باعتباره جانبًا مهمًا.

الكلمات المفتاحية (إدارة رأس المال العامل، هامش الربح الصافي، الربحية المحاسبية، السيولة، الرافعة المالية، التدفق النقدي، العائد على الأصول)

Introduction:

The management of working capital is a powerful tool for firm profitability. which is why it is a priority for the board of directors and directors of the company (Nunes & Riyanto, 2001). Since the main objective of a company is to make money, especially in today's world where there is fierce competition among businesses to be the best, many of them cooperate for mutual benefit (Elessa et al., 2023). Any facility that leads to the production of goods or services and is used by users for conversion and profit is considered a company. The performance of the company must be strong enough to fulfill the purpose for which it was established. We can evaluate the performance of the business by examining its financial statements, which allow us to determine whether the business's finances have improved or deteriorated with each annual report (George-

مجلة الغري للعلوم الاقتصادية والادارية

مجلد (٢٠) عدد (٤) ٢٠٢٤

Carey et al., 2012). Firms may enhance profitability and provide value to investors by establishing fair working capital policies (Hung & Dinh, 2022). Thus, the operating performance of the firm's owned resources, liquidity, profitability, and ultimately the overall value of the firm is all greatly affected by working capital management. To achieve the ideal amount of working capital investment, businesses therefore try to balance the risks and rewards associated with investing in existing assets (Tsagem et al., 2015).

This study aims to analyze the impact of working capital management and net profit margin (NPM) on accounting profitability. More specifically, it aims to analyze working capital management measured by each of the three variables of liquidity (LIQ), cash flow CF), and leverage (LEV), along with net profit margin (NPM), on accounting profit measured by return on assets. It is considered to be one of the most important indicators for assessing accounting profitability in companies. Therefore, the study aims to provide a broader understanding of these variables that are directly related to accounting profitability in companies. Outline the differences resulting from the work environment in different countries. Nevertheless, the results of this study can help managers and other stakeholders, such as investors, follow an appropriate system of corporate capital management that creates management stability in institutions.

The problem of the study lies in the fact that there is a particularly unclear relationship between the management of working capital and the ratio of net profit to accounting profit. Because investors only see the company's profitability as an indicator of the company's financial strength

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (٢٠) عدد (٤) ٢٠٢٤

without any reading of how the working capital is managed. Therefore, our study set out to analyze the impact of working capital management and net profit on accounting profitability in manufacturing companies in Iraq.

Literature Review:

The study (Nasreen et al., 2014), aims to determine the impact of working capital management on company profitability. This study aims to measure the turnover period of working capital management inventories. The debtor turnover period, creditor turnover period, cash conversion cycle, and cash conversion efficiency are independent variables. Also measured is the profitability of the company. Net profit margin (NPM), return on assets (ROA), return on capital employed (ROCE), and return on capital employed are dependent variables. They found that they used the regression analysis method to see the impact of working capital management on firm profitability using secondary data. This data comes from the annual reports of 45 companies obtained from KSE for five years from 2008-2012. According to the research findings, working capital management significantly impacts a company's net profit margin, return on assets, and return on capital employed. It has little effect on a company's return on equity.

The survey by (O.N & Ramanan, 2013), aimed at identifying working capital management and accounting profitability, for five years, was conducted by analyzing data from 1198 manufacturing companies listed in the Canter for Economic Monitoring of India. To determine the effect of these factors on accounting profitability, in the study, we used group weighted least squares regression analysis and correlation analysis. The

مجلة الغري للعلوم الاقتصادية والادارية

مجلد (٢٠) عدد (٤) ٢٠٢٤

results of the study reveal those relationships. Related factors related to assets have a significant impact on corporate profitability. At the same time, the variables of working capital management and accounting profitability have a strong positive relationship.

(Hung & Dinh, 2022), aim to identify the effect of working capital management on the profitability of Vietnamese firms, hence investigating the nonlinear relationship between firm profitability and working capital management (WCM) or not to assess how working capital affects business income over time using panel data of 405 companies listed on the Vietnam Stock Exchange between 2010 and 2020. The findings of the study indicate that working capital management and profitability Firms are not non-linearly related, et beyond a certain debt ratio, all variables representing working capital management have a negative impact on firm profitability.

According to (Shabbir et al., 2018), which aims to identify the impact of working capital management on profitability and firm value: which is a study of the manufacturing sector of Pakistan. Consisting of thirty manufacturing firms listed on the Pakistan Stock Exchange for twelve years (2005 to 2016), they were randomly selected for the study. Regression models were estimated using the generalized method of moments. The findings showed that when debt and inventory turnover go up, a firm's profitability and value fall because the financial requirement for working capital increases when there is a delay in stockpiling or selling inventory. Comparing a company's value to its liquidity, improved profitability is mostly a result of liquidity. Nevertheless, for both models, several factors only partially produced the expected outcomes. For

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (٢٠) عدد (٤) ٢٠٢٤

example, profitability rose and growth and cash conversion cycle grew. Delayed account receipts reduced the value of the company by instilling disbelief among investors and suppliers.

Working Capital Management (WCM)

A business technique called working capital management aids organizations in maximizing cash flow (CF) and making efficient use of their existing assets. Its focus is on making sure that immediate financial commitments and outlays can be covered while also advancing longer-term corporate goals. Increasing operational efficiency is the aim of working capital managements (Daruwala, 2023). The process that organizes a business to use its current assets and liabilities in the most efficient way to guarantee operating performance is known as working capital management (George-Carey et al., 2012). Therefore, maintaining cash flow and meeting short-term goals is made possible by working capital management, which includes unforeseen expenses and frees up cash that is often locked up in the balance sheet (Pike & 1., 2007). Hence, all assets that a business may turn into cash in the next year i.e. (12 months) are considered current assets. These are often very liquid and often consist of cash on hand and accounts receivable. Current assets can include accessible goods and short-term investments (Bintara, 2020). That’s why, any accounts payable and any other debt due during this period are examples of current liabilities that the Company must settle over the next 12 months. Ratio analysis is a common working capital management practice used by businesses (George-Carey et al., 2012).

مجلة الغري للعلوم الاقتصادية والادارية

مجلد (٢٠) عدد (٤) ٢٠٢٤

Liquidity (LIQ)

The efficiency or ease with which a security or asset can be converted into quick cash without adversely affecting its market price is referred to as liquidity. Cash is the most liquid asset. Consequently, the main factor determining how well a market performs is the availability of funds for these changes (George-Carey et al., 2012). The more liquid an asset may be, the more quickly and easily it can be exchanged for cash. Therefore, more time, effort, and money are to be spent on less liquid assets (Bintara, 2020). In other words, liquidity is the degree to which an item may be easily bought or sold in the market at a price that accurately reflects its inherent value. Everyone agrees that cash is the most liquid asset because it can be transferred quickly and easily (Holmstrom & Tirole, 2010).

Cash Flow (CF)

The net amount of cash and cash equivalents flowing into and out of a business is known as cash flow. Inflows are shown by money received, and outflows are shown by cash paid out. The ability of a business to optimize long-term free cash flow (FCF) and generate positive cash flow increases value for shareholders (Ali et al., 2018). Hence, the cash coming in and out of a company is referred to as cash flow (CF). Businesses charge expenses (output) and revenue (input) from sales. In addition, they could earn profits from investments, royalties, interest, and licensing deals in addition to selling goods on credit. Cash flow assessment is very important for determining the liquidity, adaptability and overall financial success of a business (Asiyah et al., 2024).

Leverage (LEV)

Leverage refers to the practice of obtaining finance by borrowing money. When firms invest in themselves for expansion, acquisition, or other growth strategies, they often use leverage (N. Ahmad et al., 2015). Therefore, the use of debt or borrowed money to fund an investment or activity is known as leverage. It is often used to increase the equity base of a business. Leverage is a concept that traders and investors use (Patel, 2014):

1. Leverage is a tool that investors use to enhance the potential profit of their investments dramatically use this tool. is a tool that investors use to enhance the potential profit of their investments dramatically use this tool.
2. Businesses can finance their assets using leverage. In other words, instead of issuing shares to raise funds, businesses can use debt financing to invest in operations and drive growth (Patel, 2014).

There are several methods for investors to obtain leverage indirectly if they feel uncomfortable employing it directly. Without raising their expenditure, they can invest in businesses that fund or grow operations using leverage in the regular course of business (N. Ahmad et al., 2015).

Net Profit Margin (NPM)

The net profit margin is compared to the amount of profit earned during a financial year after deducting interest and taxes from the total assets of the company (Indrati & Magfiroh, 2023). Whereas, if the net profit margin (NPM) of the company records a high level, it is considered by other parties and investors as a good indication that the company is in a

good financial position by controlling its costs in exchange for increasing profits (Sangawi et al., 2024). The result of the net profit margin varies from sector to sector as it is influenced by the environment in which it operates. Therefore, the higher this ratio, the better the financial situation of the institution (Alqsass et al., 2023). Most of the time, investors and competitors use the net profit margin (NPM) as a basis for making decisions. Therefore, the higher the NPM, the higher the company's performance, which increases its profitability. By earning these revenues, therefore, investors see a positive picture of the company's performance by seeing this profit margin. It is expected to grow further in the future and increase revenue (Heikal et al., 2014).

Accounting Profitability

Accounting profit, as determined under generally accepted accounting standards (GAAP), is the entire revenue of a company. By lowering the direct costs associated with a business, including taxes, interest, depreciation, and operating expenses (Morshed, 2020), Profit is a closely watched financial indicator that's frequently used to assess how well a business is doing.

Businesses frequently release different estimates of their profit in their financial reports. A portion of these numbers includes every item of revenue and cost listed on the income statement. Others are imaginative interpretations that management accountants have put together. Therefore, accounting profit, often known as accounting profit, financial profit, or net income, is the amount of money left over after all expenses have been deducted from total revenue. It essentially displays how much money a

مجلة الغري للعلوم الاقتصادية والادارية

مجلد (٢٠) عدد (٤) ٢٠٢٤

company has left over after subtracting the specific expenses associated with operating the business (Matuszak & ´nska, 2019).

Hypotheses Development:

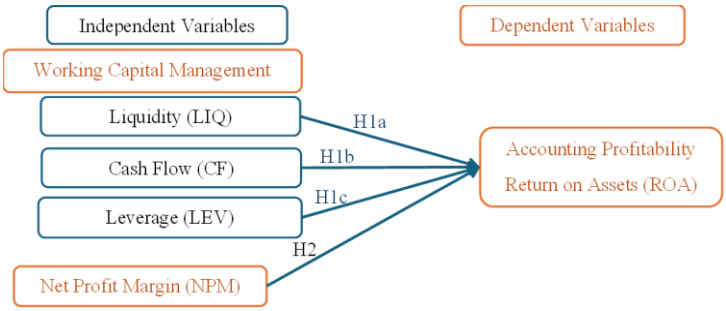
H1a: Liquidity significantly impacts the return on assets of manufacturing firms in Iraq.

H1b: Cash Flow significantly impacts the return on assets of manufacturing firms in Iraq.

H1c: Leverage significantly impacts the return on assets of manufacturing firms in Iraq.

H2: Net Profit Margin significantly impacts the return on assets of manufacturing firms in Iraq.

Figure 1: Theory of the Framework



Methodology of Research:

Research design

The quantitative research methodology used in this study is based on secondary data obtained from the audited annual financial statements of manufacturing companies in Iraq for the period 2016–2022, listed on the Iraqi Stock Exchange (www.isx-iq.net). To analyze the impact of working capital management and net profit margin (NPM) on accounting profitability, A purposive sampling method considering balanced panel

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (٢٠) عدد (٤) ٢٠٢٤

data was used for data derivation. One of the measures used is accounting profitability, measured by return on assets as the dependent variable. In contrast, each of the net profit ratios and working capital management, measured by liquidity (LIQ), cash flow (CF), and leverage (LEV), served as independent variables. Regression approaches using EViews 12, time series, and cross-sectional attribute (PLS) were used to analyze the relationship between the variables in our model.

Data collection

Table 1 presents the names of the companies operating in the manufacturing sector. For our study, their financial statements were used to analyze the impact of working capital management and net profit margin (NPM) on accounting profit, which is a case study of manufacturing companies for the period (2016–2022) listed on the Iraqi Stock Exchange. More than 28 companies are listed on the stock exchange until 2024, but out of these companies, only 10 had properly audited financial lists available on the stock exchange for the period 2016–2022.

Table 1: Examples of manufacturing companies

No	Name of companies	Code Number
1	Modern Chemical Industries Company	IQ000A0Q21A5
2	National Chemical and Plastic Industries Company	IQ000A0M7T09
3	Al Khazer Road Company	IQ000A0M9DB4
4	Modern Sewing Company	IQ000A0M7T66
5	Baghdad Packaging Materials Manufacturing Company	IQ000A0M7TW0
6	Al Mansour Pharmaceutical Industries Company	IQ000A0M7TZ3
7	Al-Kindi Company for Veterinary Vaccines Production	IQ000A0M7T41
8	Iraqi Carpets and Furniture Company	IQ000A0M7T33
9	Ready-made clothing production company	IQ000A0M9C89
10	Baghdad Soft Drinks Company	IQ000A0M7TT6

مجلة الغري للعلوم الاقتصادية والادارية

مجلد (٢٠) عدد (٤) ٢٠٢٤

Identification of Variables

Independent variables

Liquidity (LIQ)

Liquidity (LIQ), which has been used as one measure of working capital management, this ratio is used to assess the company's ability to meet its short-term obligations during a financial year. The liquidity (LIQ) result is found by dividing the current assets by the current liabilities; this equation was used according to the study (Salih et al., 2023).

$$LIQ = \frac{Current\ Assets}{Current\ Liability}$$

Cash Flow (CF)

Another metric that has been used to measure working capital management is cash flow (CF). This measure shows how much of the capital structure is cut from operating cash flow (OCF), investment cash flow (ICF), and financing cash flow (FCF). According to accounting data, cash flow in companies is a life cycle. This result was obtained as a result of summing operating cash flow (OCF), investment cash flow (ICF), and financing cash flow (FCF). According to the research (Tangngisalu et al., 2022).

$$CF = FCF + OCF + ICF$$

Leverage (LEV)

One of the metrics used to manage working capital is leverage (LEV). This ratio indicates how much of its capital is debt, i.e., how much of its capital consists of debt. where the leverage (LEV) result is found as a result of dividing total liabilities by total assets. According to the study (Daruwala, 2023), this equation was used.

مجلة الغري للعلوم الاقتصادية والادارية

مجلد (٢٠) عدد (٤) ٢٠٢٤

$$\mathbf{LEV} = \frac{\boldsymbol{Total\ Debt}}{\boldsymbol{Total\ Assets}}$$

Net Profit Margin (NPM)

Overall, this ratio shows how effectively manufacturing companies can convert the sales they make into profits. This ratio represents how much net profit manufacturing companies make from selling one dinar. The following equation is used to calculate the net profit margin (NPM) (Alqsass et al., 2023):

$$\boldsymbol{NPM} = \frac{\boldsymbol{Net\ Profit\ After\ Tax}}{\boldsymbol{Net\ Revenue}} * \mathbf{100}$$

Dependent variables

Return on Assets (ROA)

Accounting profitability, used as the dependent variable, is measured by return on assets. The result of the return on assets is obtained by comparing the profit earned after deducting the amount of taxes and interest against the total assets of the company. According to this equation taken from the study (K. K. Ahmad et al., 2024).

$$\boldsymbol{ROA} = \frac{\boldsymbol{Net\ Profit}}{\boldsymbol{Total\ Assets}} * \mathbf{100}$$

Data Analysis

In analyzing the results of the effect of working capital management and net profit margin (NPM) on accounting profit, multiple linear regression was used to test the hypotheses, and we used descriptive data analysis according to the results of the study (K. K. Ahmad et al., 2024). However, this model set up to analyze the relationship between the independent variables and the dependent variable in this study is taken

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (٢٠) عدد (٤) ٢٠٢٤

from the studies of (Shaik et al., 2023), (Patel, 2014) and (Hocky et al., 2023) with some modifications.

$$ROA = \beta 0 + \beta 1 LIQ + \beta 2 CF + \beta 3 LEV + \beta 4 NPM + e$$

Description:

ROA: Return on Assets (Dependent variables).

NPM: Net Profit Margin (Independent variables).

LIQ: Liquidity (Independent variables).

CF: Cash Flow (Independent variables).

LEV: Leverage (Independent variables).

β0: Constants

β1, β2 …. β3: Partial Coefficient Regression

e: Error

Results Discussion:

Background Information for Respondents

Analysis of the impact of working capital management and net profit margin on the evaluation of accounting profitability of manufacturing firms, which are the sector studied. The fourth part of this paper shows the panel regression model, which consists of tables of descriptive statistics, correlation, normality test, unit root test, and regression study.

Analyzing Descriptively

Table 2 shows the descriptive statistics of manufacturing companies in Iraq for each return on assets (ROA), with a mean value of 2.23 with a standard deviation of 7.42, a maximum value of 23.76, and a minimum negative value (-17.03). In contrast, the independent variable is defined by several variables. The first is the net profit margin (NPM), with a mean value of 0.08 a standard deviation of 1.48, a maximum value of 1.18, and a

مجلة الغري للعلوم الاقتصادية والادارية
مجلد (٢٠) عدد (٤) ٢٠٢٤

minimum negative value of -11.85. The second variable, liquidity (LIQ), has a standard deviation with a value (26.8) against the mean with a value (4.24) with a maximum and minimum value of (205.00) and (0.22). The penultimate variable, leverage (LEV), results show a maximum value (0.78) and a minimum value (0.00) against the standard deviation (0.20) and mean (0.1). The last and fourth variables, according to the equation that determines the result of cash flow (CF), have a mean value of (16704183) with a standard deviation of (1.68E+10), a maximum value of (7.22E+10), and a minimum value of (-5.38E+10).

Table 2: Descriptive Statistics

	ROA	***NPM***	***LIQ***	***LEV***	***CF***
Mean	4.712299	-0.030428	12.24320	0.158168	1.15E+09
Median	2.232299	0.077886	4.239777	0.097623	16704183
Maximum	23.76232	1.176213	205.0011	0.783786	7.22E+10
Minimum	-17.02657	-11.85001	0.217396	0.000000	-5.38E+10
Std. Dev.	7.416317	1.476437	26.80260	0.203211	1.68E+10
Probability	0.009359	0.000000	0.000000	0.000000	0.000000
Observations	70	70	70	70	70

Source: Data processed with EViews Vers 12

Results of Correlation

Table 3 shows the correlation between the variables used in our study according to Person's correlation. there is a relatively weak positive correlation between return on assets (ROA) and net profit margin (NPM) with a value of 0.29. However, the return on assets (ROA) has a weak negative relationship of -0.21 with liquidity (LIQ). At the same time, there is the same weak negative correlation with a value of -0.2 between asset returns and leverage (LEV). However, on the contrary, there is a very weak

positive relationship between return on assets and cash flow (CF) with a value of (0.08) in manufacturing companies listed on the Iraqi Stock Exchange for the period (2016–2022).

Table 3: Correlation Study

	ROA	NPM	LIQ	LEV	CF
ROA	1				
NPM	0.294849**	1			
LIQ	-0.209644**	-0.00281***	1		
LEV	-0.198435*	0.062678**	-0.184373	1	
CF	0.076043	0.011349*	-0.00992*	-0.047834	1

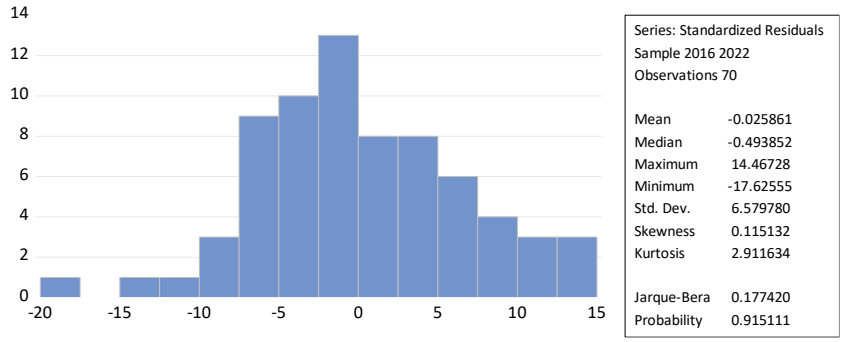
*Source: calculated by the authors. Note: *** p < 0001; ** p < 0,01; * p < 0,05; λ p < 0.10*

Source: Data processed with EViews Vers 12

Normality Test

Variables with a normal distribution show how reliable the outcome estimates are. The study made use of histograms to determine whether variables were normal. The transformed histograms indicate that ROA, NPM, LIQ, LEV, and CF do not show any abnormal signs. Since the p-value of 0.92 is greater than 0.05, this high p-value suggests that there is no significant evidence to reject the null hypothesis, i.e., the data are significantly in the normal phase.

Figure 2: Normality Test



Source: Data processed with EViews Vers 12

مجلة الغري للعلوم الاقتصادية والادارية

مجلد (٢٠) عدد (٤) ٢٠٢٤

Unit Root Test

The results in Table 4 determine whether the data time series contains a unit root, and the stationarity of each variable was checked. The variable is non-stationary and does not have a root of unity, according to the null hypothesis. The variable is stationary, according to the alternative theory. There is a significance level of 5%. We accept the alternative hypothesis and reject the null hypothesis if the p-value is less than 5%. Since the result of Table 4 shows that all the variables in the study have the same p-value for each variable (0.000), which is less than 5%, therefore, the null hypothesis is rejected, and all variables have roots of one. We used the techniques of Levine, Lin, and Chu in this study. However, there are more than one technique for measuring unit roots, such as Levine, Lin, and Chuwa; Im, Pesaran, and Shin; ADF, and PP.

Table 4: Unit Root Test

Panel unit root test: Summary					
Method	**Series**	**Statistic**	**Prob.****	**Cross-sections**	**Obs**
Null: Unit root (assumes common unit root process)					
Levin, Lin & Chu t*	**ROA**	-4.17273	0.0000	10	50
	LIQ	-8.74975	0.0000	10	50
	CF	-18.3355	0.0000	10	50
	LEV	-1408.72	0.0000	10	50
	NPM	-37.5831	0.0000	10	50
** Probabilities for Fisher tests are computed using an asymptotic Chi					
-square distribution. All other tests assume asymptotic normality.					

Source: Data processed with EViews Vers 12

Results of Regression

According to the results in Table 5, net profit margin as an independent variable has a significant positive impact on return on

مجلة الغري للعلوم الاقتصادية والادارية

مجلد (٢٠) عدد (٤) ٢٠٢٤

assets (ROA): prob has a value of 0.0066, which is smaller than 1%, and coefficient has a value of 1.478055. This result shows that hypothesis (H2) is accepted versus rejecting (H0). Meanwhile, the liquidity result (LIQ) significantly negatively impacts asset returns, with a coefficient of -0.097143 and a probe value of 0.0089, which is smaller than 1%. This result shows that hypothesis (H1a) is accepted versus rejecting (H0). The leverage result, however, significantly negatively impacts asset returns. with a coefficient of -8.795466 and a prob value of 0.0229, less than 1%. This result shows that the hypothesis (H1c), with a significant negative effect, is accepted against the rejection of (H0). However, at the same time, cash flow (CF) results show a non-significant positive impact on return on assets (ROA) with a value of prob (0.3055) more than 5%. This result shows that hypothesis (H0) is accepted versus rejecting (H1b).

Table 5: Regression Study

Dependent Variable: ROA				
Method: Panel EGLS (Period weights)				
Total panel (balanced) observations: 70				
Linear estimation after one-step weighting matrix				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	7.340696	1.127308	6.511704	0.0000
NPM	1.478055	0.526845	2.805484	0.0066
LIQ	-0.097143	0.036043	-2.695181	0.0089
LEV	-8.795466	3.773989	-2.330549	0.0229
CF	4.72E-11	4.57E-11	1.032935	0.3055
Weighted Statistics				
Root MSE	6.532664	R-squared		0.230223
Mean dependent var	4.999467	Adjusted R-squared		0.182852
Sum squared resid	2987.299	F-statistic		4.860003
Durbin-Watson stat	0.966789	Prob(F-statistic)		0.001719

Source: Data processed with EViews Vers 12

ROA = 7.34069578151 + 1.47805486272*NPM - 0.0971427052545*LIQ - 8.79546567407*LEV + 4.72041164068e-11*CF

The R-square results shown in Table 4 indicate the variations caused by the model. The independent variable explains the changes it causes on the dependent variable by 23%, while the other variables not mentioned in the study affect the dependent variable by 77%. This superimposed result for R-squared is required to range from (0 to 1) to explain the variations generated by the model.

Discussion

This study analyzes the impact of working capital management and net profit margin (NPM) on the assessment of the accounting profits of manufacturing companies for the period 2016–2022, listed on the Iraqi Stock Exchange. According to the results, net profit margin has a significant positive impact on asset returns. This result is considered to be very important for the company to achieve its planned financial goal of increasing profit against assets. Because the company relies on the amount of profit you make during a fiscal year, The higher this profit rate, the better the indicator of the company's working environment, which can grow further in the future. This result is the same as the results of the research (Indrati & Magfiroh, 2023), (Heikal et al., 2014), (Islam et al., 2023), (Minggus et al., 2020), and (Asiyah et al., 2024).

Thus, while working capital management is measured by (liquidity, cash flow, and leverage), for each of which the data shows a different result of impact on accounting profitability. Liquidity (LIQ) and leverage (LEV) have a significant negative impact on accounting profitability measured by return on assets (ROA). This result for cash indicates that the more current liabilities increase, the higher the costs, which in turn increases the cost

share of manufacturing companies in Iraq, which in turn reduces their accounting profits. This result suggests that manufacturing companies should rely less on debt in their capital structure to better manage the available capital. This result is the same as the result of the study (Silaban, 2017), but the result is the opposite of the results of the study (Shabbir et al., 2018), (Zaitoun & Alqudah, 2020). However, the results of the (Kurniani, 2021), and (Bintara, 2020), study show no relationship between the variables. At the same time, the leverage result shows the same result when the total debt increases, which causes the leverage (LEV) ratio to increase because, as a result of this increase, the company faces a portion of the debt that may not be recovered in the future. Review the increase in total debt to avoid the loss of debt. This result is similar to the results of the study (Shaik et al., 2023), (Daruwala, 2023), (Zaitoun & Alqudah, 2020), (N. Ahmad et al., 2015) and (Bintara, 2020). but at the same time, the opposite of the results of the study (Patel, 2014), (Al-Shamaileh & Khanfar, 2014), and (Islam et al., 2023). However, the cash flow (CF) data results show a non-significant positive impact on asset returns. This result is the same as the result of the study (Muniroh & Yuliati, 2021). However, on the contrary, the results of (Ali et al., 2018), (Elessa et al., 2023), and (Kamran et al., 2017) study show a positive relationship between cash flow (CF) and corporate profitability. Moreover, in general, the variables representing working capital management show a negative impact on accounting profitability in Vietnamese companies, according to the study (Hung & Dinh, 2022b). However, on the contrary, the results of the study (Vukovic et al., 2023) show that there is a positive relationship between

working capital management and profitability, which consists of two variables in our study.

Conclusion:

This study aims to investigate the effect of working capital management and net profit margin on operating accounting profitability. According to the results of the study listed in the tables above, we can say. that net profit margin (NPM) has a significant positive impact on accounting profitability. However, conversely, liquidity results (LIQ) and leverage (LEV) have a significant negative impact on accounting profitability. This while, cash flow has a non-significant positive impact on accounting profitability. This result may indicate that the cash flow policy is not designed for manufacturing firms in Iraq, or on the other hand, the cash flow (CF) policy is unscientific, which is contrary to the results of the (Tangngisalu et al., 2022) study. One possible reason for this difference is that the sample used in this study is only 10 manufacturing companies in Iraq. Therefore, it is expected that investors will take advantage of the results of this study when making investment decisions in this sector. In addition, investors can monitor the working capital management policies, capital structure, profit margins, and profit distribution policies of manufacturing companies based on the results of this study. The results of this study are expected to show that companies that implement the criteria to increase profitability will be a good incentive to attract more investors to the sector.

This study, despite contributing to the literature review, still has several limitations that could be an idea to discuss the relationship between working capital management and net profit ratio and accounting

profitability for prospective studies. Because this study was only on the manufacturing sector in Iraq, the sample size of the study consists of 10 companies. Therefore, it is suggested that future studies should include different sectors to generalize this result. In addition, future research should be able to include more variables to enrich theories such as capital structure and management policy. At the same time, this study emphasizes the need for investors that management policy working capital in firms as an important aspect should be evaluated.

References:

Ahmad, K. K., Salih, K. H., & Sangawi, S. S. (2024). The Impact of Operating Cash Flow on Corporate Profitability: Amman Stock Exchange case study. *Journal of Economics and Administrative Sciences*, *30*(140), 532–543.

Ahmad, N., Salman, A., & Shamsi, A. F. (2015). Impact of Financial Leverage on Firms' Profitability: An Investigation from Cement Sector of Pakistan. *Research Journal of Finance and Accounting*, *6*(7), 75–81.

Al-Shamaileh, M. O., & Khanfar, S. M. (2014). The Effect of the Financial Leverage on the Profitability in the Tourism Companies (Analytical Study- Tourism Sector- Jordan). *Business and Economic Research*, *4*(2), 251–264.

Ali, U., Ormal, L., & Ahmad, F. (2018). Impact of Free Cash Flow on Profitability of the Firms in Automobile Sector of. *Journal of Economics and Management Sciences*, *1*(1), 57–67.

Alqsass, M., Al-Haki, M., Dweiri, M., Qabajeh, M., Almajali, D., Ahmad, A. B., & Qubbaja, A. (2023). The Impact of Current Ratio on Net Profit Margin (Case Study: Based on Jordanian Banks). *Kurdish*

Studies, *11*(2), 2894–2903.

Asiyah, B. N., Huda, Q., Adlan, M. A., Aswad, M., Holle, M. H., Jamaludin, H. B., & Azira, S. N. (2024). PROFITABILITY ANALYSIS OF COAL MINING COMPANIES BASED ON INDONESIA SHARIA STOCK INDEX: A REVIEW OF NET PROFIT MARGIN, TOTAL ASSET TURNOVER AND COMPANY SIZE. *Proceedings of International Joint Seminar*, *1*(2), 13–30.

Bintara, R. (2020). The Effect of Working Capital, Liquidity and Leverage on Profitability. *Saudi Journal of Economics and Finance*, *4*(1), 28–35.

Daruwala, Z. (2023). Influence of Financial Leverage on Corporate Profitability: Does it Really Matter? *International Journal of Economics and Financial*, *13*(4), 37–46.

Elessa, M. S., Shanti, A. M. AL, And, M. H., & Weshah, S. R. (2023). The Effect of Discretionary Cash Flow on Profitability Ratios: Evidence from Jordanian Manufacturing Corporations. *Information Sciences Letters An International Journal*, *12*(5), 1539–1546.

George-Carey, R., Adeloye, D., Chan, K. Y., Paul, A., Kolčić, I., Campbell, H., & Rudan, I. (2012). An estimate of the prevalence of dementia in Africa: A systematic analysis. In *Journal of Global Health* (Vol. 2, Issue 2, pp. 1–13). https://doi.org/10.7189/jogh.02.020401

Heikal, M., Khaddafi, M., & Ummah, A. (2014). Influence Analysis of Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin (NPM), Debt To Equity Ratio (DER), and current ratio (CR), Against Corporate Profit Growth In Automotive In Indonesia Stock. *International Journal of Academic Research in Business and Social Sciences*, *4*(12), 101–114.

مجلة الغري للعلوم الاقتصادية والادارية

مجلد (٢٠) عدد (٤) ٢٠٢٤

Hocky, A., Pasaribu, Y. B., Junita, R., Putra, R., & Syahputra, H. (2023). The Effect of Price Earnings Ratio, Debt to Equity Ratio, Net Profit Margin, and Total Asset Turnover on Stock Returns on The Kompas 100 Index. *Proceeding of International Conference on Business Management and Accounting*, *2*(1), 271–281.

Holmstrom, B., & Tirole, J. (2010). *Wicksell lectures: Inside and outside liquidity*. *2010*.

Hung, N. T., & Dinh, T. S. (2022a). Threshold effect of working capital management on firm profitability: evidence from Vietnam. *Cogent Business & Management*, *9*, 2–25.

Hung, N. T., & Dinh, T. S. (2022b). Threshold effect of working capital management on firm profitability: evidence from Vietnam. *Cogent Business & Management*, *9*, 1–24.

Indrati, M., & Magfiroh, F. (2023). The Effect of Net Profit Margin, Debt Equity Ratio, and Tax Planning on Earnings Management. *INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH AND ANALYSIS*, *6*(5), 1933–1942.

Islam, H., Rahman, J., Tanchangya, T., & A, M. A. I. (2023). Impact of firms' size, leverage, and net profit margin on firms' profitability in the manufacturing sector of Bangladesh: An empirical analysis using GMM estimation. *Journal of Ekonomi 09*, *9*, 1–9.

Kamran, M. R., Zhao, Z., & Ambreen, S. (2017). Free Cash Flow Impact on Firm's Profitability: An Empirical Indication of Firms listed in KSE, Pakistan Muhammad. *European Online Journal of Natural and Social Sciences*, *6*(1), 146–157.

Kurniani, N. T. (2021). The effect of liquidity ratio, activity ratio, and

profitability ratio on accounting profit with firm size as a mediation Nadia. *Journal of Economics and Business Letters*, *1*(3), 18–26.

Matuszak, Ł., & ´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 Article*, *11*(183), 1–21.

Minggus, T., Wasil, M., & Dharmani, I. G. . A. N. (2020). The Impact of Current Ratio, Debt to Equity Ratio, Net Profit Margin, and Total Asset Turnover towards The Profit Changes of Mining Companies Listed on Indonesia Stock Exchange Period 2016-2018. *Quantitative Economics and Management Studies (QEMS)*, *1*(2), 171–180.

Morshed, A. (2020). Role of working capital management in profitability considering the connection between accounting and finance. *Asian Journal of Accounting Research*, *5*(2), 257–267.

Muniroh, I., & Yuliati, A. (2021). DO CASH FLOW AND ACCOUNTING PROFIT INFORMATION AFFECT STOCK PRICES? (Study of Food & Beverage Companies on the Indonesia Stock Exchange). *Journal of Accounting and Strategic Finance*, *4*(1), 108–121.

Nasreen, S., Khanam, F., & Pirzada, S. S. (2014). Impact of Working Capital Management on Firm'S Profitability. *Research Journal of Finance and Accounting*, *5*(11), 210–222.

Nunes, P. A. L. D., & Riyanto, Y. E. (2001). Policy Instruments For Creating Markets For Biodiversity: Certification And Ecolabeling. *Submitted to the Journal of Economic Perspectives*, 1–30.

O.N, A., & Ramanan, T. R. (2013). Working Capital Management and

Profitability: A Sensitivity Analysis Arunkumar. *International Journal of Research and Development - A Management Review (IJRDMR)*, *2*(1), 50–58.

Patel, D. J. B. (2014). Impact of Leverage on Profitability: A Study of Sabar Dairy. *RESEARCH HUB International Multidisciplinary Research Journal*, *1*(3), 1–6.

Pike, by C. L. P. and R. H., & 1. (2007). An Overview of Working Capital Management and Corporate Financing. *Emerrald Insight*, *10*(3), 1–11.

Salih, R. H., Sangawi, S. S., Salih, K. H., Ahmed, A. M., & Ahmad, K. K. (2023). The Impact of the Current Ratio and Profitability Ratio on Solvency Ratios: An Applied Study in the Tehran Stock Exchange. *Tikrit Journal of Administrative and Economic Sciences*, *20*(65P1), 314–330.

Sangawi, S. S., Ahmed, hadi M., A, H. M. N. M., & Salih, K. H. (2024). 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*, *19*(64P2), 720–739.

Shabbir, M., Iftikhar, U., & Raja, A. A. (2018). Impact of Working Capital Management on Profitability and Value of Firm: A Study of Manufacturing Sector of Pakistan. *IBT Journal of Business Studies*, *14*(2), 1–12.

Shaik, A. R., Ali, A., & Alanazi, I. D. (2023). Working Capital and Financial Performance in the Energy Sector of Saudi Arabia: Moderating Role of Leverage. *International Journal of Energy Economics and Policy*, *13*(3), 158–163.

مجلة الغري للعلوم الاقتصادية والادارية

مجلد (٢٠) عدد (٤) ٢٠٢٤

Silaban, P. (2017). The Effect of Capital Adequacy Ratio, Net Interest Margin and Non-Performing Loans on Bank Profitability: The Case of Indonesia. *International Journal of Economics and Business Administration*, *V*(3), 58–69.

Tangngisalu, J., Halik, A., Marwan, & Jumady, E. (2022). Effect of Cash Flow and Working Capital on Liquidity: The Mediation Role of Profitability. *JURNAL ILMIAH AKUNTANSI*, *5*(2), 426–439.

Tsagem, M. M., Aripin, N., & Ishak, R. (2015). Impact of working capital management, ownership structure and board size on the profitability of small and medium-sized entities in Nigeria. *International Journal of Economics and Financial Issues*, *5*(Special Issue), 77–83.

Vukovic, D. B., Spitsina, L., Spitsin, V., & Gribanova, E. (2023). The joint impact of working capital and platform-economy on firm profitability: The case of e-business model in transition country. *Journal of Open Innovation: Technology, Market, and Complexity*, *9*, 1–11.

Zaitoun, M., & Alqudah, H. (2020). The Impact of Liquidity and Financial Leverage on Profitability: The Case of Listed Jordanian Industrial Firm's. *International Journal of Business and Digital Economy*, *1*(4), 29–35.