

e-ISSN: 2805-4741

http://iiecons.usim.edu.my

THE EFFECT OF WORKING CAPITAL EFFICIENCY ON EARNING MANAGEMENT IN JORDANIAN INDUSTRIAL COMPANIES LISTED ON THE AMMAN STOCK EXCHANGE: EMPIRICAL STUDY

Mohammad Abdul-Hamid Ahmed Masa'deh ^{1,a*}, Prof. Madya Dr. Mohamad Yazis Bin Ali ^{2,b}, Dr. Mohd Adha Bin Ibrahim ^{3,c}, & Dr. Nazratul Aina Binti Mohamad Anwar^{4,d}

¹ MUAMALAT USIM ²MUAMALAT USIM ³MUAMALAT USIM ⁴MUAMALAT USIM ^amohmmad_massadh@yahoo.commohmmad_massadh@yahoo.com ^byazis@usim.edu.my ^cmadha@usim.edu.my ^dnazratulaina@usim.edu.my

Abstract: This study aimed to find out the effect of working capital efficiency on earning management in Jordan. The study relied on the descriptive analytical approach. Where the study population consists of all Jordanian industrial companies listed on the Amman Stock Exchange for the period 2013-2022, which are 33 listed companies, and the collected data were analyzed through the STATA program. The results indicate that there is a significant effect between the working capital efficiency (Average Receivable Collection Period, Average Payable Period, Average Inventory Holding Period, Average Cash Cycle Period, Net Trading Cycle) on the earnings management of industrial companies listed on the Amman stock exchange. The findings of the study contribute to the literature on working capital management and earnings management and have important implications for the financial performance of firms in Jordan. Overall, working capital management is a crucial aspect of financial management for manufacturing firms in Jordan. Effective working capital management can help firms maintain their operations, manage their cash flow, and improve their financial performance of the conomy as a whole.

Keywords: Working Capital Efficiency, Earning Management, Jordan

1. Introduction

Working capital is the amount of daily operating liquidity that a company has available. Making decisions on the investment of available cash, keeping a particular level of inventories, and managing account receivables and account payables are all part of managing working capital. Working capital management, on the other hand, is critical due to its impact on the corporate sustainability (Sunday et al., 2023). Working capital management is a method for allocating current assets and liabilities effectively in order to boost short-term liquidity. Keeping track of the company's working capital ensures that it has the resources it needs to continue operations and has a strong chance of developing and remaining in business. Working capital, as a whole, and each of its constituent pieces, are critical to the success of any business (Bhattacheryay, 2023).

If a business can convert its operational cash flow into profit within the same operating cycle, it can be very profitable; otherwise, it will need to borrow money to cover its ongoing working capital

requirements (Bhattacharya, 2021). Making decisions on the quantity make up and financing of current assets are all part of working capital management (Kabuye et al., 2019). All other things being equal, the danger of running out of cash decreases with increasing relative amount of liquid assets. Effective working capital management affects profitability and liquidity and increases the firm's worth (Ilham et al., 2022).

Working capital management is an important aspect of corporate governance because it involves managing a company's current assets and liabilities, which are critical to the company's short-term liquidity and financial health (Yao et al., 2023). Effective working capital management requires a systematic and disciplined approach to managing cash, inventory, accounts receivable, and accounts payable, among other things. This, in turn, can have a significant impact on a company's financial performance, risk management, and long-term sustainability. In addition, effective working capital management is an important part of corporate governance because it can help to ensure that a company's financial resources are managed in a responsible and sustainable manner (Deliu, 2020). By managing its working capital effectively, a company can improve its cash flow, reduce financial risks, and enhance its short-term liquidity. This, in turn, can help to promote long-term sustainability and value creation for stakeholders.

Because of the improper management of working capital, industrial enterprises experience financial crises and difficulties. However, manufacturing companies unable to provide an appropriate level of cash flows to cover their expenses and pay their financial obligations which may negatively affect their existence and continuity (Sardo and Serrasqueiro, 2022; Giunipero, 2022).

In the earnings management literature review, a review of the literature revealed that little research has been done on the subject for Jordanian businesses. Existing studies relies on obsolete data and has methodological flaws, such as the use of improperly defined earning management measures and neglect of some basic control variables, such as company performance and company size. As a result, a comprehensive study is required to consider the limitations of previous researches in order to improve and update earning management research in Jordan, as well as to include some recent variables that have not been addressed by previous studies. According to the above, this study examines the impact of working capital efficiency on earning management in Jordan.

2. Working Capital

Total working capital is defined as the holding of assets that are converted into cash during a maximum period of one year, which represents the organization's total investment in current assets. Where this definition ignores current liabilities, it is based on dividing assets into current assets characterized by fast movement and fixed assets characterized by slow movement; As through each trading cycle, the state of cash, commodities, then debt, then cash to start a new cycle (Wheatley, 2017).

The total working capital is of particular importance as an indicator to identify its relative importance in an activity, as the higher this relative importance, the more it is a good indicator of the lowness of this company, and on the contrary, the relative importance may be one of the negative indicators of the company's position (Anton & Afloarei Nucu, 2020).

It means the company's total investments in current assets, which the company can convert into cash within a year or an operating cycle, whichever is longer, and it includes current assets items on cash, short-term securities, inventory, accounts receivable, prepaid expenses and receivable revenues, meaning that this definition did not It deals with current liabilities, but most of its attention was directed towards current assets (Kafi, 2017). This definition is based on dividing assets into non-current assets with a slow-moving character, and current assets with a fast-moving character, through the operational cycle that begins with a state of cash and from Then it is transformed into merchandise, then into debits, and then back into cash, to start again another cycle, and the operational cycles follow (Kwenda & Matanda, 2015).

2.1 Working Capital Dimensions

Receivables Collection Period: The receivables turnover ratio is calculated by dividing the business's net sales on credit for a given period by the average trade receivable amount during the same period. To determine the collecting period for receivables, first determine the turnover rate of the receivables, then divide this rate by 360 days, which is considered a one-year period. The outcome reveals how many days the company takes to recover its receivables. Evaluating the outcome on its own is not sensible, and comparing it to the preceding period rate yields a better result (Listiadi, 2022).

The term "average inventory holding period" refers to a financial ratio used to calculate how long it typically takes a company to sell off its entire current inventory. Using average inventory period data, firm management can easily monitor purchase patterns and sales trends of stock inventories in order to simply cut transportation and storage expenses. Finding fast-moving commodities could be beneficial to management. Thus, the average inventory period is a key indicator of how well a corporation can convert its inventory into sales (Wang et al., 2020).

Average Payable Period is a solvency ratio that gauges how long it typically takes a company to pay its credit card providers. It is also the typical time it takes a business to settle credit accounts payable. Credit agreements are frequently utilized as a form of payment when a business buys bulk goods or essential supplies. These straightforward payment plans provide the buyer a predetermined number of days to pay for the item (Singhania & Mehta, 2017).

A company's average cash cycle period (expressed in days) is the length of time it takes to transform its investments in inventory and other resources into cash flows from sales. This indicator takes into account how long it takes for the business to sell its merchandise, collect receivables, and make bill payments. (Boisjoly et al., 2020).

The Net Trading Cycle (NTC) shows how long cash is retained in the trade cycle until it is released as cash again. The net trade cycle (AP) is calculated by taking the average number of days that cash is held in accounts receivable (AR), inventory, and accounts payable. After tabulating the days for each, the total net trade days are computed by adding the AR days to the inventory days and subtracting the AP days (Glöersen, 2022). This net number of days can be positive (as is usually the case) or negative. As a result, the Net Trade Cycle calculates the number of days required for cash to complete the trade cycle and return to cash (Bhatia et al., 2021).

3. Earnings Management

The practice of managing earnings is using accounting methods to create financial statements that unduly favorably portray a company's operations and financial standing. The management of a corporation must make decisions in order to comply with many accounting regulations and principles. Earnings management manipulates financial accounts to exaggerate or "smooth" earnings by taking advantage of how accounting rules are applied (Yaghobnezhad & Tajiknia, 2023).

Earnings is the term used to describe the net income or earning management of a firm for a specific period, such as a fiscal quarter or year. In order to show more consistent earnings management each month, quarter, or year, businesses employ earnings management to smooth out earnings volatility. Large fluctuations in income and expenses may be a typical element of a business' operations, but investors who want to see stability and progress may be concerned by the changes (Sayidah et al., 2020). Depending on whether the profits beat or miss analysts' projections, a company's stock price will frequently increase or decrease following an earnings report. In order to meet financial expectations and maintain the company's stock price, management may feel under pressure to manipulate earnings. Numerous executives receive bonuses in accordance with their financial performance, and some may be qualified for stock options if the stock price rises. Auditing and mandatory SEC (Securities and Exchange Commission) reports eventually reveal several types of earnings manipulation (Christensen et al., 2022).

4. The Jordanian Capital Market

In March 1999 Amman Stock Exchange (ASE) was established as an autonomous, non-profit entity approved to act as a regulated securities trading market in Jordan. However, ASE was registered in 2017 under the name "The Amman Stock Exchange Company (ASE Company)" as a public shareholding company entirely owned by the government.

According to the Securities Commission's circular, if there is a discrepancy between these directives and any laws issued by the Central Bank of Jordan or the Insurance Department of the Ministry of Industry, Trade, and Supply, the companies under their supervision are required to notify the Authority of this discrepancy and provide clarification on it so that it can make the appropriate decision.

In order to achieve its objectives, the ASE Organization shall lay down its internal rules and regulations governing its management and shall also lay down, in accordance with best international practice, rules and regulations relating to the management of financial markets. The Amman Stock Exchange Company can calculate indices for listed securities and sign alliances or partnerships with stock markets and other derivatives within and outside of Jordan, data vendors and any other party that is necessary for strategic, commercial and investment agreements.

The ASE Business also cooperates and shares information inside and outside Jordan with other financial markets, regulators, government agencies, non-governmental institutions and other parties (ASE website www.ase.com.jo). It is anticipated that the ASE's conversion to a business will enhance its contribution to the national economy, enable it to offer better services, draw in new businesses and clients, and enable it to enter into regional and international agreements with various parties to increase its regional and international market share (ASE website www.ase.com.jo).

5. Hypotheses development

Jamil et al. (2015) studied the impact of working capital (WC) management effectiveness on the operational performance of industrial enterprises listed on the Muscat Securities Exchange (MSM). The effectiveness of the WC management is assessed using WC ratios such the cash conversion cycle, the current ratio, the turnover of current assets, and the net WC ratio (NWCR), whereas the performance of the operations is assessed using the net operating profit (NOP) and earnings before interest and taxes (EBIT). The regression findings showed that the first model is significant and that the only factors that have an impact on the NOP are the cash conversion cycle and the NWCR, while the second model is not significant.

To measure manipulation, deviation, and earnings management in the company, the classification of income list items can be done by classifying the usual and unusual paragraphs. This can be done by changing the classification of these regular paragraphs and making them unusual, and vice versa, so that the Earning number is changed. The best way to address inequality is to quantify company earnings and compare them to shifts in sales revenues without using estimates or earnings forecasts, where the relationship between earnings and sales behavior is loaded over a predetermined period and the contrast is calculated for measurement variables. Four basic categories can be used to categorize earnings management measurement techniques. the categorisation of items on the income list entry, Inequality, Accounting changes input, and the introduction of receivables (Hashim et al., 2019).

The influence of aggressive working capital practices and continuous improvement programs on accounts receivable turnover, inventory turnover, days payables outstanding, and cash conversion cycle is examined longitudinally by Boisjoly et al. (2020) from 1990 to 2017. They see statistically significant changes in the means and skew for these variables, which are consistent with more stringent financial control and less trade credit risk-taking. The results are best in the communications and transportation sectors and worst in the financial services sector.

In addition, Aduda & Ongoro (2020) critically reviewed literature on the relationship between working capital management and earnings management. The study's specific goals were to determine the existence of documented evidence on the relationship between working capital management and earnings management, the existence of target levels for both levels of management, as well as any knowledge gaps between the two study variables. Results for the first and second objectives were inconsistent, with some studies finding a positive relationship and others a negative relationship, while yet others were unable to draw any firm conclusions. The inconsistent operationalization of the study variables was a key factor in the inconsistent results, which were linked to disparities in conceptual, methodological, and contextual settings. According to the study, there is a predisposition to use accounting accruals as stand-ins for earnings management without taking into account non-accounting accruals such real earnings managements.

Mandipa & Sibindi (2022) claim that average age of inventory (AAI), average collection period (ACP), average payment period (APP), and cash conversion cycle (CCC) are good indicators of working capital management, while net operating profit margin (NOPM), return on assets (ROA), and return on equity (ROE) are good indicators of financial performance. The study's major conclusions showed the following: (1) The average collection period and financial performance are negatively correlated. (2) Financial performance metrics (NOPM and ROA) and average age of inventory were found to be negatively correlated. (3) Return on equity was found to be inversely correlated with the average payment duration. (4) It was discovered that the cash conversion cycle and the net operating profit margin variables had a negative relationship.

The effect of earnings management (EM) on the effectiveness of working capital management (WCM) and its components is studied by Sawarni et al. (2023). According to the study's M-Score analysis, which was based on the Beneish Model, EM may have a negative impact on a firm's WCM efficiency. EM managers frequently have lengthier cash conversion cycles and manage their inventories less effectively. The use of a different EM proxy based on the Modified Jones Model has further corroborated these findings.

Based on the above, the following hypotheses can be reached:

H1: Working capital efficiency significantly affect the earning management in Jordanian industrial companies listed on the Amman Stock Exchange.

H1.1: Average Receivable Collection Period significantly affect the Earning Management in Jordanian industrial companies listed on the Amman Stock Exchange.

H1.2: Average Inventory Holding Period significantly affect the Earning Management in Jordanian industrial companies listed on the Amman Stock Exchange.

H1.3: Average Payable Period significantly affect the Earning Management in Jordanian industrial companies listed on the Amman Stock Exchange.

H1.4: Average Cash Cycle Period significantly affect the Earning Management in Jordanian industrial companies listed on the Amman Stock Exchange.

H1.5: Net Trading Cycle Working Capital Management on Earning Management in Jordanian industrial companies listed on the Amman Stock Exchange.

6. Study Methodology

The study relied on the descriptive analytical approach. Where the study population consists of all Jordanian industrial companies listed on the Amman Stock Exchange for the period 2013-2022, which are 33 listed companies, and the collected data were analyzed through the STATA program, and the data was analyzed descriptively for all study variables, and the study consisted of the independent variable (Working Capital Efficiency Measurement) with its dimensions (Average Receivable Collection Period, Average Inventory Holding Period, Average Payable Period, Average Cash Cycle Period, Net Trading Cycle) and its impact on the dependent variable, and tested it through several descriptive statistical measures such as: the arithmetic mean, the standard deviation, the lowest value and the highest value, and multiple linear tests, including the values of the correlation coefficient and the variance inflation factor (VIF), in addition to Pearson correlation analysis, and the results of Heteroskedasticity test, Hausman test, and simple linear regression.

7. Research Model

The model was placed in its sports form as follows: (for each company I in the year T): **EMi,t = \alpha + \beta 1 ARCPi,t + \beta 2 AIHPi,t + \beta 3 APPi,t + \beta 4 ACCPi,t + \beta 5 NTCi,t + Ei,t Whereas: i** = 1,2,3.....n, It is the i company in cross-section. **t** = 1,2,3.....n, It is the time t in the time series. **Emi,t**: Earning Management measured by Z score. α : constant. **ARCPi,t**: Average Receivables Collection period (i) at time (t). **AIHPi,t**: Average Inventory Holding Period (i) at time (t). **APPi,t**: Average Payable Period (i) at time (t). **ACCPi,t**: Average Cash Cycle Period (i) at time (t). **NTCi,t**: Net Trading Cycle (i) at time (t). **Ei,t**: Error of estimation

8. Descriptive analysis of the study variables

This part of the chapter reviews the most important descriptive statistics for the study variables, such as the arithmetic mean and standard deviations. Table number (1) displays the arithmetic mean, standard deviation, and lowest and highest values for the data related to the study, in addition to a number of other indicators of the study variables.

Table Number (1)

Variables	Mean	Std.Dev	Min	Max
Working Capital Efficiency Measurement	19,234,174	66,108,651	-27,796,863	434,665,000
Average Receivable Collection Period	526634.78	2994107.86	0.83292	20,925,061
Average Inventory Holding Period	340.5046	866.0974	9.26823	6055.9757
Average Payable Period	281.6444	1903.0595	0.65391	30796.9596
Average Cash Cycle Period	526693.6372	2994094.35	-23986.41	20,925,006
Net Trading Cycle	2.7319	2.4268	0.02087	15.3071

The results of the descriptive analysis of the study variables

Observation (n)= 297

The average Working Capital Efficiency Measurement was 19,234,174; with a standard deviation of 66,108,651; between a minimum of -27,796,863; and a maximum of 434,665,000. The Average Receivable Collection Period was 526634.78, with a standard deviation of 2994107.86, between a minimum of 0.83292, and a maximum of 20,925,061. Where The Average Inventory Holding Period was 340.5046, with a standard deviation of 866.0974, between a minimum of 9.26823, and a maximum of 6055.9757. The Average Payable Period was 281.6444, with a standard deviation of 1903.0595, between a minimum of 0.65391, and a maximum of 30796.9596. Where The Average Cash Cycle Period was 526693.6372, with a standard deviation of 2994094.35, between a minimum of -23986.41, and a maximum of 20,925,006. The last variables was The Average Net Trading Cycle was 2.7319, with a standard deviation of 2.4268, between a minimum of 0.02087, and a maximum of 15.3071.

9. The results of the study model analysis

The impact of efficient working capital management and its dimensions (Net Trading Cycle, Average Inventory Holding Period, Average Cash Cycle Period, Average Payable Period, Average Receivable

Collection Period.) on achieving earnings performance for the manufacturing sector in Jordan: the moderating role of corporate governance.

To test the hypotheses, a simple linear regression analysis was performed:

H1: Working capital efficiency significantly affect the Earning Management in Jordanian industrial companies listed on the Amman Stock Exchange.

Table Number (2) The simple linear regression of the effect of working capital efficiency on Earnings Management

Dependent Variable	nt Model Summery			ANOVA			Coefficients				
variable	R	R ²	Adjuste	F	DF	Sig	Independent	В	standard	Т	Sig
			d R			F*	Variable		error		Т*
			Square								
Earning	.879	.773	.772	1003.70	1	.000b	Working	.879	.000	31.68	.000
Management				3			Capital			1	
							Efficiency				

Table (5.5) shows that the R-value of the first dimension was (.879), which indicates a positive correlation between the dimension (working capital efficiency) and the dimension (Earnings Management). It turns out that the result of the coefficient of determination is (R2 = .773), which means that the (working capital efficiency) domain explained (77.3%) of the variance in (Earning Management) when all other variables remain constant. It was also proved that at the level of confidence (sig = .000b), the value of (F) reached (1003.703), which confirms the importance of the regression at the level of significance ($\alpha \le 0.05$).

H1.1: Average Receivable Collection Period significantly affect the Earning Management in Jordanian industrial companies listed on the Amman Stock Exchange.

Table Number (3) The simple linear regression of the effect of Average Receivable Collection Period on Earnings Management

Dependent Variable	Model Summery			ANOVA			Coefficients				
vanable	R	R ²	Adjuste d R Square	F	DF	Sig F*	Independent Variable	В	standard error	Т	Sig T*
Earning	.030	.00	002	.272	1	.602b	Average	030	.000	522	.602
Management	а	1					Receivable				
							Collection				
							Period				

Table (5.6) shows that the B-value of the second dimension was (-.030), which indicates a negative correlation between the dimension (Average Receivable Collection Period) and the dimension (Earnings Management). It turns out that the result of the coefficient of determination is (R2 = .001), which means that the (Average Receivable Collection Period) domain explained (0.1%) of the variance in (Earning Management) when all other variables remain constant. It was also proved that at the level of confidence (sig = .602b), the value of (F) reached (.272), which confirms the importance of the regression at the level of significance ($\alpha \le 0.05$).

H1.2: Average Inventory Holding Period significantly affect the Earning Management in Jordanian industrial companies listed on the Amman Stock Exchange.

Table Number (3)

The simple linear regression of the effect of Average Inventory Holding Period on Earnings Management

Dependent Variable	Model Summery			ANOVA			Coefficients				
, and ote	R	R ²	Adjuste d R Square	F	DF	Sig F*	Independent Variable	В	standard error	Т	Sig T*
Earning Management	.058 a	.00 3	.000	1.013	1	.315b	Average Inventory Holding Period	058	.002	1.006	.315

Table (5.7) shows that the B-value of the second dimension was (-.058), which indicates a negative correlation between the dimension (Average Inventory Holding Period) and the dimension (Earnings Management). It turns out that the result of the coefficient of determination is (R2 = .003), which means that the (Average Inventory Holding Period) domain explained (0.3%) of the variance in (Earning Management) when all other variables remain constant. It was also proved that at the level of confidence (sig = .315b), the value of (F) reached (1.013), which confirms the importance of the regression at the level of significance ($\alpha \le 0.05$).

H1.3: Average Payable Period significantly affect the Earning Management in Jordanian industrial companies listed on the Amman Stock Exchange.

Table Number (4)
The simple linear regression of the effect of Average Payable Period on Earnings
Management

Dependent Variable	Model Summery		ANOVA			Coefficients					
Vallable	R	R ²	Adjuste d R Square	F	DF	Sig F*	Independent Variable	В	standard error	Т	Sig T*
Earning Management	.023 a	.00 1	003	.155	1	.694b	Average Payable Period	023	.001	394	.694

Table (5.8) shows that the B-value of the second dimension was (-.023), which indicates a negative correlation between the dimension (Average Payable Period) and the dimension (Earnings Management). It turns out that the result of the coefficient of determination is (R2 = .001), which means that the (Average Payable Period) domain explained (0.1%) of the variance in (Earning Management) when all other variables remain constant. It was also proved that at the level of confidence (sig = .694b),

the value of (F) reached (.155), which confirms the importance of the regression at the level of significance ($\alpha \le 0.05$).

H1.4: Average Cash Cycle Period significantly affect the Earning Management in Jordanian industrial companies listed on the Amman Stock Exchange.

Table Number (5)
The simple linear regression of the effect of Average Cash Cycle Period on Earnings
Management

Dependent Variable	Dependent Model Summ		mmery	ANOVA			Coefficients				
Variable	R	R ²	Adjuste d R Square	F	DF	Sig F*	Independent Variable	В	standard error	Т	Sig T*
Earning Management	.030 a	.00 1	002	.272	1	.602b	Average Cash Cycle Period	030	.000	522	.602

Table (5.9) shows that the B-value of the second dimension was (-.030), which indicates a negative correlation between the dimension (Average Cash Cycle Period) and the dimension (Earnings Management). It turns out that the result of the coefficient of determination is (R2 = .001), which means that the (Average Cash Cycle Period) domain explained (0.1%) of the variance in (Earning Management) when all other variables remain constant. It was also proved that at the level of confidence (sig = .602b), the value of (F) reached (.272), which confirms the importance of the regression at the level of significance ($\alpha \le 0.05$).

H1.5: Net Trading Cycle Working Capital Management on Earning Management in Jordanian industrial companies listed on the Amman Stock Exchange.

Table Number (6)
The simple linear regression of the effect of Net Trading Cycle on Earnings
Management

Dependent Variable	Model Summery			ANOVA			Coefficients				
Variable	R	R ²	Adjuste d R Square	F	DF	Sig F*	Independent Variable	В	standard error	Т	Sig T*
Earning Management	.119 a	.01 4	.011	4.224	1	.041b	Net Trading Cycle	.119	.602	2.055	.041

Table (5.10) shows that the B-value of the second dimension was (.119), which indicates a positive correlation between the dimension (Net Trading Cycle) and the dimension (Earnings Management). It turns out that the result of the coefficient of determination is (R2 = .014), which means that the (Net Trading Cycle) domain explained (1.4%) of the variance in (Earning Management) when all other variables remain constant. It was also proved that at the level of confidence (sig = .041), the value of (F) reached (4.224), which confirms the importance of the regression at the level of significance ($\alpha \le 0.05$).

10.Discussion

According to the above, the results show that there is a significant effect between the working capital efficiency (Average Receivable Collection Period, Average Payable Period, Average Inventory Holding Period, Average Cash Cycle Period, Net Trading Cycle) on the earnings management of industrial companies listed on the Amman stock exchange. Furthermore, Aduda and Ongoro (2020) reviewed literatures on working capital and earnings management, recommended that the mediating role of corporate governance in the relationship between working capital and earnings management should be investigated. Where there is a knowledge gap of the connection, in terms of corporate governance, between working capital management and earnings management. Boisjoly et al. (2020) have seen a statistically significant changes in the means and skew for "aggressive working capital practices and continuous improvement programs on accounts receivable turnover, inventory turnover, days payables outstanding, and cash conversion cycle ", which are consistent with more stringent financial control and less trade credit risk-taking. The results are best in the communications and transportation sectors and worst in the financial services sector. Where Mandipa & Sibindi (2022) claim that average age of inventory (AAI), average collection period (ACP), average payment period (APP), and cash conversion cycle (CCC) are good indicators of working capital management, while net operating profit margin (NOPM), return on assets (ROA), and return on equity (ROE) are good indicators of financial performance.

11.Conclusion

Based on the reviewed literature, there aren't many researches looking at the connection between business earnings performance and working capital efficiency. The research also complicated by the fact that there are few studies on corporate performance gain in Jordan. Therefore, a relationship was found between working capital management and earnings management.

Overall, working capital management is a crucial aspect of financial management for manufacturing firms in Jordan. Effective working capital management can help firms maintain their operations, manage their cash flow, and improve their financial performance, while also contributing to the development of the manufacturing sector and the economy as a whole.

In the manufacturing sector in Jordan, working capital management is often a challenging task. One of the key challenges is the high cost of financing, which can make it difficult for firms to access the necessary funds to manage their working capital effectively. The limited availability of credit and the high cost of borrowing can lead to cash flow problems, which can, in turn, impact the company's ability to pay suppliers, manage inventory, and meet other operating expenses.

However, by addressing these issues, among others, the study will provide Arab and Jordanian libraries in particular with relevant studies related to working capital efficiency and corporate performance gain. This strengthens the Amman Stock Exchange's and the Middle Eastern nations' roles. As this research focuses on identifying the impact of working capital efficiency and corporate performance gain; the results will help decision makers to understand companies' performance gains and ways to improve their performance, as well as contribute to improving the quality of financial reports, which will result in more reliable and accurate reports for data users, decision makers and shareholders.

The results may be suitable for researchers to know in detail the efficiency of working capital and its dimensions; also, it could be a base for other studies in the future. Therefore, this study will contribute to building more studies on this topic that can be used in other businesses. In addition, this study will allow researchers to compare the results with the results of studies for other sectors, and to compare the results of other countries with the results extracted in Jordan.

Also, the current study may provide tips for Jordanian companies to benefit from the efficiency of working capital in gaining the performance of companies. The results may be appropriate for managers and accountants in Jordanian companies. Therefore, the value of this study stems from the

following scientific and practical considerations. Draw attention to the efficiency of working capital in gaining the performance of Jordanian companies.

12. References

- Aduda, J., & Ongoro, M. (2020). Working capital and earnings management among manufacturing firms: A review of literature. J. Financ. Invest. Anal, 9, 71-79. <u>https://doi.org/10.47260/jfia/935</u>
- Anton, S. G., & Afloarei Nucu, A. E. (2020). The impact of working capital management on firm profitability: Empirical evidence from the Polish listed firms. Journal of risk and financial management, 14(1), 9. <u>https://doi.org/10.3390/jrfm14010009</u>
- Bhatia, P., Sivasankaran, N., Banerjee, A., & Chattopadhyay, S. (2021). Does firms' working capital efficiency matter in dividend payout: Empirical evidence from India. Vision, 09722629211063542. https://doi.org/10.1177/09722629211063542
- Bhattacharya, H. (2021). *Working capital management: Strategies and techniques*. New Delhi: PHI Learning.
- Bhattacheryay, S. (2023). Multinational working capital management a study on Toyota Motor Corporation. International Journal of Finance & Economics, 28(1), 236-256. <u>https://doi.org/10.1002/ijfe.2418</u>
- Boisjoly, R. P., Conine Jr, T. E., & McDonald IV, M. B. (2020). Working capital management: Financial and valuation impacts. *Journal of Business Research*, 108, 1-8. <u>https://doi.org/10.1016/j.jbusres.2019.09.025</u>.
- Christensen, T. E., Huffman, A., Lewis-Western, M. F., & Scott, R. (2022). Accruals earnings management proxies: Prudent business decisions or earnings manipulation?. Journal of Business Finance & Accounting, 49(3-4), 536-587. <u>https://doi.org/10.1111/jbfa.12585</u>
- Deliu, D. (2020). The Intertwining between Corporate Governance and Knowledge Management in the Time of Covid-19–A Framework. *Journal of Emerging Trends in Marketing and Management*, 1(1), 93-110.
- Giunipero, L. C., Denslow, D., & Rynarzewska, A. I. (2022). Small business survival and COVID-19-An exploratory analysis of carriers. *Research in Transportation Economics*, 93, 101087. <u>https://doi.org/10.1016/j.retrec.2021.101087</u>
- Glöersen, V. (2022). WORKING CAPITAL MANAGEMENT IN NORDIC SMALL AND MEDIUM-SIZED ENTERPRISES. <u>https://urn.fi/URN:NBN:fi-fe2022051235006</u>
- Hashim, F., Ahmed, E. R., & Huey, Y. M. (2019). Board diversity and earning quality: Examining the role of internal audit as a moderator. Australasian Accounting, Business and Finance Journal, 13(4), 73-91. <u>http://dx.doi.org/10.14453/aabfj.v13i4.6</u>
- Ilham, R. N., Irawati, H., Nurhasanah, N., Inuzula, L., Sinta, I., & Saputra, J. (2022). Relationship of Working Capital Management and Leverage on Firm Value: An Evidence from the Indonesia Stock Exchange. Journal of Madani Society, 1(2), 64-71. DOI: <u>https://doi.org/10.56225/jmsc.v1i2.129</u>
- Jamil, S. A., Al Ani, M. K., & Al Shubiri, F. N. (2015). The effect of working capital management efficiency on the operating performance of the industrial companies in

Oman. International Journal of Economics and Financial Issues, 5(4), 897-904. Retrieved from <u>https://dergipark.org.tr/en/pub/ijefi/issue/31971/352219</u>

- Kabuye, F., Kato, J., Akugizibwe, I., & Bugambiro, N. (2019). Internal control systems, working capital management and financial performance of supermarkets. Cogent Business & Management, 6(1), 1573524.
 <u>https://doi.org/10.1080/23311975.2019.1573524</u>
- Kwenda, F., & Matanda, E. (2015). Working Capital Management in Liquidity-Constrained Economy: A Case of Zimbabwe Stock Exchange Listed Firms in the Multiple Currency Era. *Public and Municipal Finance*, 4(1), 55-65.
- Listiadi, A. (2022). The Acceptance Effectiveness Through Accounts Receivable Billing Period Average. IJEBD (International Journal of Entrepreneurship and Business Development), 5(4), 699-707. <u>https://doi.org/10.29138/ijebd.v5i4.1897</u>
- Mandipa, G., & Sibindi, A. B. (2022). Financial performance and working capital management practices in the retail sector: empirical evidence from South Africa. Risks, 10(3), 63. https://doi.org/10.3390/risks10030063
- Sardo, F., & Serrasqueiro, Z. (2022). Determinants of working capital: empirical evidence on manufacturing SMEs. *Journal of Economic Studies*, 49(3), 506-521. https://doi.org/10.1108/JES-10-2020-0513
- Sawarni, K. S., Narayanasamy, S., & Padhan, P. C. (2023). Impact of earnings management on working capital management efficiency. *Finance Research Letters*, 54, 103778. <u>https://doi.org/10.1016/j.frl.2023.103778</u>
- Sayidah, N., Assagaf, A., & Faiz, Z. (2020). Does earning management affect financial distress? Evidence from state-owned enterprises in Indonesia. Cogent Business & Management, 7(1), 1832826. <u>https://doi.org/10.1080/23311975.2020.1832826</u>
- Singhania, M., & Mehta, P. (2017). Working capital management and firms' profitability: evidence from emerging Asian countries. *South Asian Journal of Business Studies*, 6(1), 80-97. <u>https://doi.org/10.1108/SAJBS-09-2015-0060</u>
- Sunday, A., Turyahebwa, A., & Byamukama, E. M. (2023). Working capital management practices and performance of small and medium enterprises in western Uganda. Kabale University Interdisciplinary Research Journal, 2(1), 4-21. ISSN 2790-1394
- Wang, Z., Akbar, M., & Akbar, A. (2020). The interplay between working capital management and a firm's financial performance across the corporate life cycle. Sustainability, 12(4), 1661. <u>https://doi.org/10.3390/su12041661</u>
- Wheatley, A. (2017). The Power of Currencies and Currencies of Power. Routledge.
- Yaghobnezhad, A., & Tajiknia, E. (2023). Earnings management of follower companies in response to the reporting of leading industry companies fraudulently. International Journal of Finance & Managerial Accounting, 8(29), doi: 251-270. 10.30495/IJFMA.2023.63262.1728
- Yao, R., Fei, Y., Wang, Z., Yao, X., & Yang, S. (2023). The Impact of China's ETS on Corporate Green Governance Based on the Perspective of Corporate ESG Performance. *International Journal of Environmental Research and Public Health*, 20(3), 2292. <u>https://doi.org/10.3390/ijerph20032292</u>