

Working Capital Management Efficiency and Corporate Performance: An Empirical Study of Manufacturing Companies Listed in Amman Stock Exchange

Mahmoud Abdul-Halim Alkhalaileh
Faculty of Business
University of Jordan.
m.khalaileh@ju.edu.jo

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Abstract

This study examines the association between working capital management efficiency and corporate performance using a sample of manufacturing firms listed in the Amman Stock Exchange (ASE). The study employed accounting-based measures of corporate performance (ROA & ROE) and market-based performance measures (stock return). In addition, the study considered conventional liquidity indicators (Current ratio & quick ratio), as well as, the widely used comprehensive measure of working capital management efficiency, the cash conversion cycle (CCC). Correlations and multiple regression analysis are used to test the study's predictions. Consistent with most prior related studies, findings indicate that CCC is significantly and inversely related to both profitability measures (ROA & ROE). Results suggest that firms with shorter CCC tend to be more profitable than other firms. However, empirical findings did not support a significant association between CCC stock return. The study's findings can be helpful for investors, creditors and managers guide financial decisions on working capital management.

Keywords: Cash conversion cycle, Stock Return, WCM, ROA, Working Capital Management.

Introduction:

The purpose of this study is to empirically examine the association between working capital management efficiency and corporate performance, using a sample of manufacturing firms listed in a small emerging market (Amman Stock Exchange). The main objective of a firm is to enhance the market value. Working capital management may have an impact on firm profitability, its risk, and thus its value. It has been argued that improving working capital efficiency contributes positively to firm profitability and firm value. Gentry et al. (1990) pointed out that improving the efficiency of working capital through processing and selling inventory more quickly, collating receivables more quickly, and slowing down payment to suppliers, enhances the efficiency of the internal operations of a firm and results in higher profitability, higher present value of cash flows, and higher market value of a firm. On the other hand, following an aggressive working capital policy involves reducing investment in working capital to the minimum would reduce the cost of capital tied up in inventories, receivables, and other current assets, and thus positively affect profitability. However, under this policy, firms may reduce investments in inventory below the optimal and run the risk of losing sales. In addition, reducing investment in receivables may limit the firm ability to

grant credit to customers which consequently may lead to sale reduction too. Therefore, efficient working capital management requires maintaining a balance between liquidity & profitability.

A considerable number of studies have empirically examined the association between working capital management, mostly measured by cash conversion cycle (CCC), and a firm's performance using different performance measures (e.g., Shin & Soenen, 1998; Deloof, 2003; Chang 2018; Doğan & Mustafa (2020). These studies were concentrated in well-developed economies and most of them provided findings indicating a positive association between the efficiency of working capital management (WCM) and profitability. However, one study (Abuzayed, 2012) at least, found a negative association between CCC and profitability, while other studies (e.g., Soenen, 1993) did not detect a statistically significant association between working capital management and profitability.

The limited studies that examined this issue in emerging economies produce also conflicting findings. An early study by Abuzayed (2012) examined the relationships between working capital management and a firm's performance using a sample of Jordanian manufacturing firms. Contrary to most prior studies' findings, the study's findings indicate a

positive association between the cash conversion cycle, a widely used measure of WCM efficiency, and profitability. However, this result is likely to be driven by influential observations and possibly data errors. For example, the study reports a highly extreme value for net operating income to assets ratio of more than 400% (table 3, p166) which is economically unfeasible. It is worth noting that the statistical tools (regression & correlations) employed by the study are highly sensitive to extreme observations. One motivation for carrying out this study is to validate the prior study's findings.

This study contributes to the literature by validating prior studies' findings using a different and more comprehensive set of performance measures than the one used by most prior studies. The study employed an accounting-based performance measure (ROA) as well as a market-based performance measure (stock returns) instead of net operating profit which has been used by most prior studies including Abuzayed (2012).

The study's Problem: The study's problem is formulated in the following questions:

Q1 Does working capital management related to firm performance Measured by ROA?

Q2 : Does working capital management related significantly to firm performance measured by ROE ?.

Q3: Does Working capital management significantly related to firm market performance Measured by Stock returns.

The remainder of this paper is organized as follows: the next section reviews the prior theoretical and empirical studies on working capital management and firm performance. Section three presents the sample and research design. Empirical results are presented and discussed in section four. The final section concludes the paper.

2. Literature Review & Hypotheses

1.1 Prior Studies: A considerable amount of research has examined the relationship between working capital management and corporate performance. The prior studies which addressed this issue were carried out in developed as well as emerging capital markets, most prior related studies concentrated in developed economies. An early study by Shin & Soenen (1998) examined the association between working capital management efficiency and a firm's profitability, using a Compustat sample of 58,985 firm-years over 20 years (1975-1994). The study used the net trade cycle (NTC) as a measure of working capital management efficiency which is equal to the CCC whereby its three components are expressed as a percentage of sales. Their study's findings indicate that the length of NTC is negatively and significantly associated with profitability (measured by operating income plus depreciation deflated by total assets). In addition, findings indicate

that shorter NTC is associated with high-risk-adjusted stock returns. These results indicate that managers can create value by reducing the cash conversion cycle to a reasonable minimum. In a similar study Deloof (2003) examined the relationship between working capital management and profitability, using a sample of 1009 nonfinancial Belgian firms, over the five years (1992-1994). The study used four working capital management measures. These include the number of days accounts receivable as a measure of trade credit policy, the number of days inventory as a measure of inventory policy and number of days accounts payable as a measure of payment policy, and the CCC as a comprehensive measure of working capital management. The study's findings indicate that profitability is negatively associated with the number of days in receivables and the number of days in inventory. Therefore, he suggests that managers can create value by reducing the average collection period for receivables and the average storage period for inventory. However, in contrast with earlier studies findings (i.e. Shin & Soenen, 1998), the study's findings did support a significant association between the cash conversion cycle (CCC) and profitability.

Lazeddis & Trayfonidis (2006) based on 131 firms listed in the Athens Stock Exchange for the five years (2001-2004) provide findings indicating a significant negative association between profitability and cash conversion cycle (CCC). Zariyawati et al. (2009) examined the association between working capital and a firm's profitability using penal data of 1628 firm-years, from six industrial sectors listed in Bursa Malaysia, over the 10 years (1996-2006). Consistent with most prior studies' findings, they provide empirical evidence supporting a significant and strong negative association between profitability and cash conversion cycle (CCC). Dong & Su (2010) carried out on firms listed on the Vietnam Stock Exchange over three years (2006-2008) and found a negative association between CCC & profitability. Abu Zayed (2012) investigated whether working capital management efficiency improves firm profitability and firm value, using a sample of 52 Jordanian firms over the 9 years (2000-2008). Contrary to most prior findings, the study's findings indicate that the cash conversion cycle is positively associated with profitability and concludes that more profitable firms are less motivated to manage their working capital. In addition, results failed to support a statistically significant association between Topin's Q (TQ) and CCC. In line with these results, The study's findings did not support a negative association between CCC and profitability measures (net operating income to sale ratio). However, results indicate that CCC deviation from its optimal level has a negative and significant effect on profitability.

A recent study by *Le (2019)* tested the effects of working capital management on firm valuation, profitability, and risk using 497 firms covering the period 2007 to 2016 and found negative relationship between net working capital (NWC) and firm valuation, profitability and risk. using a sample of 157 firms listed in Bosra Istanbul (BIST), examined the association between cash conversion cycle (CCC) and firm performance and found that CCC is negatively associated with firm's performance measured by return on assets (ROA). In a more recent study, *Blenman et al. (2022)* using a sample of Bangladeshi listed companies from 2001 to 2016, examined the impact of WCM on stock performance while considering the impact of firms' access to external capital in Bangladeshi markets. The findings show that excess stock returns rise as firms lower their NWC while firm risk decreases. However, this result is inconsistent with the one reported by *Aktas et al. (2015)* and *Le (2019)* which show a negative relationship between NWC levels and firm risk in US and Vietnamese firms.

Le (2019) examined the impact of WCM on firm performance, valuation and risk, using a panel data set of 497 firms covering the period 2007 to 2016. And found that firm performance, as measured in both market and accounting value, can be improved with efficient working capital management. *Muideen (2019)* examined the impact of WCM on a firm financial performance of quoted consumer goods firms in Nigeria. The result shows that average payment period and average receivable period respectively have significant positive and negative effect on financial performance. *Chalmers, et al. (2020)* examined the relationship between working capital and company performance for the SMEs firms included in IPO index of the Bombay Stock Exchange (BSE) for six years (2012 to 2017). The study's findings indicate a negative relationship between net working capital (NWC), accounts receivables (AR), and profitability. Conversely, accounts payables (AP) and inventory (INV) are positively related to profitability. *Wanyoike et al (2021)* examined the impact of WCM practices on the operational performance of selected supermarkets in Kenya and found that inventory and creditors' management practices had a very low effect on the operational performance of supermarkets in Kenya.

Luca & Maria (2022) examined the impact of WCM policies management policies on Argentine agro-industrial firms' profitability using a sample of 326 firms. The findings show that DSI, DPO and CCC are a negatively associated with firms' profitability, suggesting that investing in inventory and requesting greater extensions from suppliers leads to additional costs that cannot offset the resulting benefits.

A recent study by *Mahmood et al. (2023)* examined the moderating role of ownership status,

company size, and leverage level on the relationship between short-term-borrowings and profitability in six sectors of Chinese firms. The findings confirm the existence of an inverted U-shaped relationship between working capital finance and profitability in six sectors except the textile, and this relationship is significantly moderated by by Leverage level, ownership structure and company size. A more recent study by *Sofia et al (2024)* examined the relationship between the cash conversion cycle and firm performance within the five major emerging markets, namely Brazil, Russia, India, China, and South Africa (BRICS using a comprehensive dataset spanning over the period of 2009–2019. Findings indicate that cash conversion cycle is negatively associated with firm performance across all BRICS countries. Specifically, firms with longer cash conversion cycle periods exhibit lower profitability compared to those with shorter cash conversion cycle periods. The results were robust across various alternative measurements.

2.2 The study hypotheses: It has been argued by accounting and finance scholars that working capital management is critical to firm financial performance. Based on the review of the related theoretical and empirical literatures on this issue, the stud's hypotheses are formulated follow:

H1: Working capital management is related significantly to firm performance measured by ROA.

H2: Working capital management is related significantly to firm performance measured by ROE.

H3: Working capital management is significantly related to firm performance measured by Stock returns.

3. Data & Methodology

3.1 Data & Sample: The study's sample consists of all non-financial companies listed in Amman Stock Exchange (ASE) over the 8 years (2007-2015). For which all the data needed to compute the study's variable is available. The statistical tests carried out by this study are based on the final sample of 344 observations (firm-year) related to 43 firms.

3.2 Measurement of Variables The conventional measures of liquidity and working capital management efficiency, such as current ratio (CR) and quick ratio (QR), have been criticized by many scholars (e.g., Jose et al, 1996: 1998; Richards & Laughlin, 1980) as being static rather than a dynamic indicator of firm's liquidity position, and full short of adequately predicting future cash flows. In addition, their adequacy in measuring working capital management efficiency has been questioned by many researchers (e.g., kamath, 1989; Shin & Soenen, 1989) indicated that one deficiency of CR & QR is that they incorporate assets that are not readily convertible into cash and ignore the timing of cash conversion. These shortcomings led researchers and analysts to suggest and promote other liquidity

measures that are more indicative of the firm's future cash flows. The cash conversion cycle (CCC) has been suggested by many researchers (e.g., Gitman, 1974; Kamath, 1989; Gentry et al, 1990) as a replacement or a supplement to traditional liquidity measures (CR & QR) to assess the efficiency of working capital management. The CCC which initially introduced by Gitman (1974) and later refined by Gitman & Sachdeva (1982), as a dynamic measure of liquidity it simply refers to the average period from the point of cash payment for resources to the point of cash collections from product sales. It has been used by analysts and scholars as a comprehensive measure of working capital management efficiency since it encompasses the efficiency of trade credit policy, the efficiency of inventory policy, and the efficiency of the payment policy.

The cash conversion cycle (CCC) is calculated as [number of days accounts receivable + number of days inventories - number of days accounts payable]. The number of days accounts receivable is computed as [accounts receivable* 365]/sales and is commonly used as a measure of trade credit policy. Several day's inventories are computed as [inventories* 365]/cost of goods sold and commonly used as a measure of inventory policy. The number of days accounts payable is computed as [accounts payable* 365]/purchases and is commonly used as a measure of payment policy.

Following most prior related studies (e.g., Deloof, 2003; Shin & Soenen, 1998), two variables (Size, & Leverage) are added to the regression model to control for other variables that could affect firm performance, other than working capital efficiency measures(CCC,). Size is measured by the natural logarithm of total assets and. leverage is measured by dividing total debt by total assets for each firm year. The information needed to measure the other study variables was obtained from the financial statements accessible through the ASE website and companies' websites.

3.3 The General Test Model: the following regression model is used to test the study's hypotheses:

$$PM_{it} = \alpha_0 + \alpha_1 CCC_{it} + \alpha_2 Size_{it} + \alpha_3 LEV_{it} + e_{it} \dots (1)$$

Where,

PM_{it} : is a measure of firm performance (ROA, ROE or Stock realized return) for firm (i), year (t).

CCC_{it} : is the cash conversion cycle for firm (i), year (t)

$Size_{it}$: is the natural logarithm of total assets for firm (i), year (t).

Lev_{it} : is the sum of total debt divided by total assets for firm (i), year (t).

Most of the early studies that investigated the association between working capital management efficiency and firm profitability used net operating income as a measure of firm performance (Shin & Soenen, 1998; Deloof, 2003;). Deloof (2003) explained that the reason why he did not consider ROA as a measure of profitability when he investigated the relation between working capital management and a Belgian firm's performance, is because financial assets are a significant proportion of the total assets of firms covered, its operating activities will contribute little to overall return on assets.

However, this may not be the case for some subsequent studies including this study and AbuZayed (2012) which were carried out on Jordanian companies, where the financial assets are not large amounts of total assets. For firms covered by this study, financial assets are less than 20% of the total assets. In such a situation, ROA seems to be a more appropriate measure of profitability when examining the relationship between working capital efficiency and a firm's profitability. Schilling (1996), argued that return on investment is the more appropriate measure of profitability compared to other profitability measures when dealing with working capital management. Several related recent studies used return on assets (ROA) as a measure of profitability when examining the relationship between working capital management efficiency and a firm's profitability.

4. The empirical Results:

4.1 The Descriptive Statistics: Table (1) reports descriptive statistics. The reported CCC ranges from -150 to 693 days. The average value for CCC of 211 days seems comparable with prior related studies carried out on small merging markets. For example, Abuzayed (2012) reports an average CCC of 204 days for Jordanian nonfinancial firms. The ranges of CCC (-589-981) reported by Abuzayed (2012) for Jordanian nonfinancial firms seem to be much higher than the ones reported by this study. The notable differences in the range of CCC for Jordanian firms between this study and AbuZayed (2012) are primarily due to the highly extreme values in the data of AbuZayed (2012). As we indicated earlier in this paper, this study winterized the top and lowest 1% of all variables demonstrated extreme values, to control for outliers effect on the statistical analysis

Table (1)
The results of descriptive statistics for the study's variables

Variables	Min.	Max.	Mean	S. Dev.
CCC	-150	693	211	157.24
ROA	-.3263	0.5431	.0472	.1101
ROE	-.7682	.7815	0.0375	.1714
LEV.	.0029	.9152	.3004	.2129
SIZE	5.6673	8.9763	7.1338	.5713
SR	-.100	0.589	.035	.096
<p>ROA_{it} : is a return on assets for a firm (i), year (t). ROE_{it} : is the return on equity for a firm (i), year (t). CCC_{it} : is length of the cash conversion cycle in days for a firm (i), year (t) $Size_{it}$: is the natural logarithm of total assets for a firm (i), end of year (t). Lev_{it} : is the sum of total debt divided by total assets for a firm (i), end of year (t). SR_{it} : is the stock of firm i return a return on security of a firm (i), year (t).</p>				

The first profitability measure, ROA, ranges from -0.32 to a maximum value of 0.54 with an average value of 0.046. The average and the range of ROA seem to be comparable to other studies' findings carried out on small emerging markets. The ranges and the standard deviation of ROA, indicate high variations in this variable across firm-year observations. The second profitability measure, ROE, ranges from -0.695 to a maximum of 0.781 with an average value of 0.037. The range and the standard deviation of ROE indicates higher variations in ROE compared to ROA. This result is not surprising given that ROA, as a measure of profitability, is independent of debt financing's effect on profitability, while ROE as a measure of profitability reflects both operational activities and financial activities (external debt financing). Introducing debt to the firm capital structure supposedly enhances the variability of ROE due to additional risk assumed by debt financing.

The average leverage for the sample firms, across the study's period, is 0.30 indicating that Jordanian firms, in general, are not highly leveraged. This result suggests that, on average, only 30% of sample firms' assets are financed by Debt. This result is close to the one (0.34) reported by Almuharib & Alkhalaileh (2019) which was carried out on Jordanian firms. The reported average The average annual stock return is 0.18 for the sample firms across the study's period. The ranges and the standard deviation of stock return

indicate high variations in this variable across firm-year observations.

4.2 Correlations: Table (2) reports the pairwise correlations among the study's variables. Results indicate that both profitability measures, ROA and ROE, are negatively and significantly associated with CCC. The related correlation coefficients are statistically significant at the conventional levels ($\alpha=1\%$ for ROA and $\alpha=5\%$ for ROE). These results are consistent with the study's predictions and most prior related study's findings. Most prior studies which examined the working capital management and profitability relationship provide empirical evidences supporting the inverse relationship between the widely used comprehensive measure of working capital efficiency, the cash conversion cycle (CCC) and profitability measures (e.g., Jose et al., 1996; Shin & Soenen, 1998; Zariyawati et al., 2009; Dong & Su, 2010; Chang, 2018). The finding of these studies is in general consistent with the proposition that firms can enhance their profitability by reducing investment in account receivables and inventories to the reasonable minimum. The findings of most early empirical studies that examined the association between profitability and working capital management support the proposition that aggressive working capital policies enhance profitability (Garci'a-Teruel et al., 2007).

Table (2) The results of correlation analysis

Variables	CCC	ROA	ROE	SRET	Lev.	Ize
CCC	1					
ROA	-.139**	1				
ROE	-.118*	.686**	1			
SR	.0057-	.013	.042	1		
Lev	-.105	-.079	-.215**	-.039	1	
Size	-.208**	.244**	.273**	.122*	.112*	1
** Correlation is significant at the 0.01 level. *Correlation is significant at the 0.01 level.						

ROA_{it} : is a return on assets for a firm (i), year (t).
ROE_{it} : is the return on equity for a firm (i), year (t).
CCC_{it}: is length of the cash conversion cycle in days for a firm (i), year (t)
Siz_{it}: is the natural logarithm of total assets for a firm (i), end of year (t).
Lev_{it}: is the sum of total debt divided by total assets for a firm (i), end of year (t).
SR_{it} : is the stock of firm i return a return on security of a firm (i), year (t).

The correlation results regarding profitability and CCC associations are in general consistent with the proposition that firms can enhance their profitability by reducing investment in account receivables and inventories to a reasonable minimum. The findings of most prior empirical studies that examined the association between profitability and working capital management support the proposition that aggressive working capital policies enhance profitability (Garci'a *et al.*, 2007; Uyar, A. (2009).

Leverage is positively and significantly associated with both profitability measures (ROA & ROE). This result suggests that highly profitable firms tend to rely less on external debt financing. The correlation results are also consistent with prior studies' findings which provided empirical evidence supporting the inverse association between profitability and leverage (e.g. Deloof, 2003; Garci'a *et al.*, 2007; Abuzayed, 2012). The highest creation coefficient of 0.686 is between ROE and ROA. This result is in line with findings of prior studies (e.g., Alkhalaileh, 2008; Alshairiy et al.,2020) that carried out on Jordanian firms and report high and significant correlation between these widely used performance measures.

4.3 Regression Results: Table (3) reports the regression results for the main regression model when ROA is the dependent variable. The reported F-value (20.0) indicates that the regression model is statistically significant at the conventional level ($\alpha = 0.01$). The reported adjusted R²-squared of 0.217 suggests that around 22% of the variations in ROA are explained by the model's predictors. Consistent with the correlation results, size is positively and significantly associated with both profitability measures (ROA & ROE), while leverage is negatively and significantly associated with the two profitability measures. The regression coefficients for the tow independent variables (Size, & Leverage) are statistically significant at the conventional level ($\alpha = 0.01$). When we run the regression using the alternative profitability measure (ROE), as the dependent variable, the overall results (reported in Table 4) are qualitatively similar to the previous regression results when ROA is used as a dependent variable. CCC is significantly related to ROE at the conventional level ($\alpha = 0.10$). Leverage and size remain significantly associated with ROE and in the same direction.

Table (3) The results of multiple regression/dep var. :ROA

Model: ROA = $\alpha_0 + \alpha_1 \text{CCC}_{it} + \alpha_2 \text{Size}_{it} + \alpha_3 \text{Lev}_{it} + \text{e}_{it}$

Variables	Coefficients	T- value	Sig.(t)	VIF
(Constant)	-.239	-3.151	.002	---
CCC	-.104	-1.937	.054	1.053
LEV	-.120	-2.271	.024	1.019
SIZE	.233	4.346	.000	1.053
The dep. Var.: ROA Adjusted R ² = 0.072 F = 9.88 Sig.(F) = 0 .000				
**. significant at the 0.01 level. *. significant at the 0.05 level. ROA _{it} : is a return on assets for a firm (i), year (t). CCC _{it} : is length of the cash conversion cycle in days for a firm (i), year (t) Siz _{it} : is the natural logarithm of total assets for a firm (i), end of year (t). Lev _{it} : is the sum of total debt divided by total assets for a firm (i), end of year (t). SR _{it} : is the stock of firm i return a return on security of a firm (i), year (t)./				

Table (4) : The results of multiple regression/dep var. :ROE

Model: ROE = $\alpha_0 + \alpha_1 \text{CCC}_{it} + \alpha_2 \text{Size}_{it} + \alpha_3 \text{Lev}_{it} + \text{e}_{it}$

Variables	Coefficients	T- value	Sig.(t)	VIF
constant	-.488	-4.283	.000	
CCC	-.086	-1.666	.097	1.053
LEV	-.255	-5.010	.000	1.019
SIZE	.283	5.477	.000	1.053
The dependent Variable: ROE Adjusted R ² = 0.135 F = 17.735 Sig.(F) = 0 .00				
**. significant at the 0.01 level. *. significant at the 0.05 level. ROE _{it} : is the return on equity for a firm (i), year (t).				

CCCit: is length of the cash conversion cycle in days for a firm (i), year (t)
 Sizit: is the natural logarithm of total assets for a firm (i), end of year (t).
 Lev.: is the sum of total debt divided by total assets for a firm (i), end of year (t).
 SRit : is the stock of firm i return a return on security of a firm (i), year (t)./

Table (5) reports the regression results for the main regression model when stock return is used as a dependent variable. The reported F-value (0.447) indicates that the regression model is statistically

insignificant at the conventional level ($\alpha = 0.01$). The reported adjusted R^2 of 0.007 suggests the CCC along with the control variables failed to explained significant proportion of the stock returns variations.

Table (5) The results of multiple regression/dep. Var.: stock returns.

Model: SRETit T: $\alpha_0 + \alpha_1 \text{CCCit} + \alpha_4 \text{Sizeit} + \alpha_5 \text{Levit} + \epsilon_{it}$

Variables	Coef.	T- value	Sig.(t)	VIF
Constant	-.124	-.368	.713	
CCC	.056	.990	.323	1.068
LEV	.003	.058	.953	1.031
SIZE	.045	.790	.430	1.059
Dep. Var: SR Adjusted $R^2 = 0.004$ F = 0.447 Sig.(F) = 0.721				

Taking the correlation and the regression results together, there is sufficient empirical evidence supporting a significant inverse association between CCC and both profitability measures (ROA & ROE). However, the empirical findings did support a significant association between CCC and stock returns.

5. Conclusions, Limitations & future research.

5.1 Conclusion: This study examined empirically the association between working capital management efficiency and corporate performance, using an accounting-based measure of corporate performance (ROA & ROE) as well as a market-based measure performance measure (stock return). The study employs correlations and multiple regression analysis to test the study's predictions. Empirical findings indicate that CCC is inversely and significantly related to profitability. This result is independent of the profitability measure (ROA or ROE) used in the correlation and regression analysis and consistent with the study's predictions and most prior related studies' findings (e.g., Jose et al., 1996; Shin & Soenen, 1998; Deloof, 2003; ; Zariyawati et al., 2009; Dong & Su, 2010; Chang 2018; Doğan & Mustafa, 2020; Ardi et al., 2022). However, the results did not support a statistically significant association between CCC and stock returns. The results suggest that managers can enhance profitability by following a balanced working capital policies that involve shortening the company cash conversion cycle to the best minimum through reducing inventory to the lowest level possible to reduce inventory financing cost, speeding collection of receivable to reduce investment in receivables and delaying payment to supplier to the maximum period possible to minimize the need for the expensive external financing. However, empirical findings do not support a statistically significant association between CCC and stock returns.

5.2 Implications, limitations and future research:

The study findings can be helpful for investors, creditors and managers to guide financial decisions on working capital management. In addition , the study's findings could provide Jordanian firm managers with more insight on how to employ working capital policy to enhance a firm's profitability and firm's value. The study's results should be taken with couscous. The results are based on a sample of one sector in a single developing market. This should limit the generalizability of the findings beyond the Jordanian environment. Future research may expand this study to more than developing markets and consider another sectors. Another proposed extension of this study can be implemented by testing the moderating effect of other variables (e.g., Leverage or market conditions) on the WCM and a firm financial performance relation.

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إدارة رأس المال العامل وأداء الشركة (دراسة تطبيقية على الشركات الصناعية المدرجة في سوق عمان المالي)

محمود عبد الحليم الخلايلة

كلية الاعمال

الجامعة الأردنية

m.khalaileh@ju.edu.jo

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الملخص:

تناولت الدراسة اختبار أثر كفاءة رأس المال العامل على أداء الشركة، وذلك بالتطبيق على الشركات الصناعية المدرجة في سوق عمان المالي، واستخدمت الدراسة مقاييس الأداء المحاسبية، مثل: معدل العائد على الأصول، ومعدل العائد على حقوق الملكية، ومقاييس الأداء السوقية (معدل العائد السوقي للسهم). وتم استخدام معدل دورة تحويل النقدية (CCC)، المقياس الأكثر شيوعاً لقياس كفاءة إدارة رأس المال العامل. ولغايات اختبار فرضيات الدراسة؛ تم استخدام تحليل الارتباط الثنائي، والانحدار المتعدد. وتوصلت الدراسة إلى وجود علاقة عكسية بين معدل طول دورة تحويل النقدية (CCC)، وكل من معدل العائد على الأصول، ومعدل العائد على حقوق الملكية، وهذه النتيجة تدعم وجود أثر إيجابي لكفاءة رأس المال العامل على مقاييس الربحية، وفرضيات الدراسة ذات العلاقة، بينما لم تتوصل الدراسة إلى نتائج تدعم وجود علاقة ذات دلالة إحصائية، بين دورة تحويل النقدية والعائد السوقي للسهم. ويتوقع أن تساعد نتائج هذه الدراسة المستثمرين، والمقرضين، وإدارات الشركات، في اتخاذ القرارات، ورسم السياسات ذات العلاقة برأس المال العامل.

الكلمات المفتاحية: معدل دورة التحويل النقدية، معدل العائد السوقي للسهم، كفاءة رأس المال العامل، عوائد الأصول.