



Performance Effects of Working Capital in Emerging Markets

Turki Alshammari*

Department of Finance, College of Business Administration, Kuwait University, Kuwait. *Email: turki.Alshemery@ku.edu.kw
This research is supported by Kuwait University

ABSTRACT

This paper strives to provide evidence of the effect of working capital policies on corporate profitability in a new and different setting, the Gulf Cooperation Council (GCC) countries. As the corporate private sector receives lavish subsidies from local oil-rich governments, both the theoretical propositions and the worldwide accepted evidence are glitched. Employing a set of pooled regression models, this paper documents a trivial, if any, association between the efficiency of working capital management and the corporate profitability for a set of nonfinancial firms in all the GCC countries. The results are robust to the econometric model, the profitability measure, and the country.

Keywords: Working Capital, Tobin's Q, Debt Ratio, Profitability, Cash Conversion Cycle, Gulf Cooperation Council Countries, Firm Value

JEL Classifications: G3, G31

1. INTRODUCTION

Firm managers are usually very much occupied with day to day activities such as arranging trade payables with the longest time possible, selling on credit with the shortest time possible, deciding the optimal level of investment in inventory, minimizing the time at which funds are tied up in assets, ...etc. All these activities fall into the working capital management which tends to be about 60% of the daily managers' business practices.

Since working capital management necessitates huge investments in current assets¹, efficient management of working capital enables managers to arrange funding properly, trimly and timely without resorting to any long term and more expensive financing. This is accomplished by freeing some funding that is tied up in working capital items, hence increasing the firm's free cash flow which tends to be positively reflected on a firm value. In addition, profitability is enhanced as optimization of working capital requires good business practices and routines such as minimizing credit losses. Consequently, the theoretical propositions predict that an efficient working capital management should lead to a better profitability, hence, a higher firm value.

¹ A study by Duggal and Budden (2015) on the largest S and P 500 US firms find that net working capital averaged about 45% of sales of companies in the health care sector during the period 2009-2012.

However, that relation between virtuous management of working capital and corporate profitability might glitch if a different setting exists where corporate managers practices differ from those of universal practices due to a different business environment. The Gulf Cooperation Council (GCC)² that is comprised of Kuwait, Kingdom of Saudi Arabia, Qatar, Bahrain, United Arab Emirates and Oman, might provide an example of how business practices of working capital management might have weak effect on profitability. A common major matter among oil-rich GCC countries is that they all benefit financially from any rise in oil prices (i.e. government expenditures are a function of oil prices). Consequently, the whole economy benefits with all its sectors, including the private sector that is composed of all business concerns. Given the case of the government snuggling of the private sector, firm managers consider working capital management as of vivacious importance³, hence, managers are more inclined to implore government subsidies as a safe short-term financing instead of worrying about the optimal business

² GCC is a political and economic alliance that was established in 1981. Its main goal is to coordinate military and economic policies among member states.

³ Most firms in emerging markets are of small size, hence their access to long term financing is somewhat limited (Chittenden et al., 1998 and Saccurato, 1994). In addition, Berryman (1983) and Dunn and Cheatham (1993) document that failing small firms tend to have poor working capital management.

practices of working capital. Consequently, one would speculate a weak, if any, effect of working capital management on corporate performance. In other words, working capital management is not priced by investors in the financial market, hence, one would expect a weak or minimal effect of cash conversion cycle on profitability.

Therefore, this paper investigates the effect of the working capital policies on the performance of the nonfinancial firms in the GCC countries that share joint and coordinated economic policies, hence represent an expedient setting to test the predictions of the theoretical propositions with respect to working capital literature.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The optimal level of working capital and the way it is managed should have direct impact on a firm's performance. Studies that empirically examine the relation between working capital policies and the firm's performance are enormous.

In a study of the relation between working capital management and corporate profitability for firms listed in Athens stock exchange for the period of 2001-2004, Lazaridis and Tryfonidis (2006) employ several regression models and document a negative relation between cash conversion cycle and the accounting profitability. They also find a negative relation between corporate profitability and the level of accounts receivables as well as with the inventory number of days.

Teruel and Martinez (2007) examine the relationship between the cash conversion cycle and profitability for a panel of 8,872 Spanish small to medium-sized enterprises (SMEs) during the period of 1996-2002. As they consider the possible presence of the endogeneity problem, they conclude that SMEs managers can create value to their projects simply by cutting down their inventory level, the number of days for which the account receivables are outstanding and by shortening the cash conversion cycle.

Mansoori and Jorjiah (2012) employ pooled data analysis to examine the effect of working capital on firm profitability for Singapore firms for the period of 2004-2001. They also conclude that managers can boost their firms' profitability by similarly managing their working capital more efficiently. This can be carried out by having less cash conversion cycle, shortening receivables conversion period and inventory conversion period.

On the other hand, Thuvarakan (2013) investigates the impact of working capital management on corporate profitability of UK manufacturing, telecommunication, and construction firms for the period of 2007-2001. He documents no significant relationship between cash conversion cycle and profitability. Furthermore, he finds positive relation between receivable days and profitability.

Similarly, Oseifuah and Gyekye (2017) investigate the relationship between working capital management efficiency and the accounting profitability (i.e., ROA) as well as the market value of firms listed in Johannesburg stock exchange for the period of

2003-2012. They document an insignificant relationship between the cash conversion cycle and the ROA.

Abdulrahman et al. (2010) also employ panel data analysis to inspect the relation between working capital and firm performance for manufacturing firms listed in Karachi stock exchange for the period of 1998-2007. They find evidence that managing working capital efficiently can boost the operating profitability of firms as they prove a significant negative effect of cash conversion cycle on firm's operating profitability.

Wasiuzzaman (2015) employs several regression models to investigate the relationship between working capital efficiency and firm value and the influence of financing constraints on this relationship for 192 Malaysian firms over the period of 1999-2008. As predicted by theory, he documents negative impact of the net working capital on Malaysian firm values. He also documents a higher impact of cash on firm value.

Haron and Nomran (2016) examine the determinants of working capital management of 57 Malaysian firms for the period of 2002-2012, where they divide the whole period into three different periods relative to the 2008 financial crises. As they employ different pooled regression models, they find that profitability and firm size consistently and significantly affect the cash conversion cycle, which emphasizes the importance of working capital management irrespective of the time.

Kieschnick et al. (2013) investigate the relationship between corporate working capital management and shareholders' wealth for a set of US firms during the period of 1990-2006. They confirm that the value of the dollar held in cash is worth more than the dollar held in net operating working capital, for the average firm. Additionally, they find that a dollar invested in account receivables is worth more than a dollar invested in inventory, for the average firm.

Shin and Soenen (1998) analyze the working capital efficiency by investigating the relation between net trade cycle and profitability for about 2950 US firms during the period 1975-1994. They document a negative relationship between the firm net trade cycle and firm profitability measured either in accounting standards or in market-based standards which also confirms the idea that one way to create shareholder value is by efficiently managing working capital.

Deloof (2003) examines the relation between working capital efficiency and firm profitability for 1009 Belgium firms for the period of 1992-1996. He finds evidence of a negative association between firm profitability and each of the number of days in accounts receivables, the number of days in inventories and the number of days in account payables of Belgium firms.

As the previous literature concludes a positive relationship between corporate accounting performance and the efficiency of working capital management, this paper investigates the relation between working capital efficiency and corporate profitability in a different setting, in GCC countries, where the corporate sector depends highly on government supports and subsidies. That is, most firms in GCC countries prosper once the country budget flourishes due to a rise

in oil price, which tends to boost government expenditures in terms of more development projects that are usually carried out by private sector, and vice versa. As GCC governments embrace their private sector, firm managers are less inclined to the universal proper practices of working capital management. Hence, this paper conjectures a weak, if any, relationship between the efficiency of working capital management, as indicated by the length of the cash conversion cycle and both the corporate accounting profitability and the corporate market-based profitability, for a set of nonfinancial GCC firms. This is due mainly to the negligence of market investors to the role of the working capital in generating yields to firms in terms of more cash flows. This study also strives to use more recent data of a market-based performance measure in six different GCC countries. On the other hand, the literature of valuing the efficiency of working capital is already scarce and mostly devoted to developed countries. This paper adds decently to fill the gap for emerging markets.

Therefore, the following hypothesis is formulated:

Hypothesis 1: There is a significant and robust negative relationship between cash conversion cycle and corporate profitability for nonfinancial firms in GCC countries.

3. METHODOLOGY

On the basis of the hypothesized argument that the efficient working capital can create value to shareholders, this paper intends to investigate the relationship between working capital management and firm performance, hence, the following model is to be tested:

Performance = f {a working capital measure + control variables}

As the literature is full of different measures of firm performance, one popular accounting measure is employed, the operating income divided by total assets (analogous to the popular ROA). In order to corroborate the results, another market-based performance measure will also be employed, the Tobin's Q. As there are different versions of Tobin's Q, and no consensus is reached as to the best Tobin's Q ratio, the following measure will be used in this study:

$$TQ = (MVE + TA - EQ)/TA^4$$

Where MVE is the product of stock price (year close) by common stocks outstanding; TA is Total assets, and EQ is the book value of equity.

For the working capital measure, the cash conversion cycle will be employed to measure the efficiency of working capital management⁵. The cash conversion cycle (CCC) is measured as follows:

4 This ratio is used in other studies like David Hyland (1997). Chung and Stephen (1994) use a comparable ratio of Tobin's Q that has about 96% correlation with Q of Lindenberg and Ross (1981).

5 Shin et al (1998) present a theoretical illustration about what represents a good measure of the working capital management. They confirm a close association between the net trade cycle and the cash conversion cycle. The preliminary tests of this paper confirm their conjecture but those tests are excluded from the context for brevity purposes.

$$CCC = \{\text{days of AR} + \text{days of inventory} - \text{days of AP}\}$$

Where days of AR is the daily account receivables/sales; days of inventory is the daily inventory/sales; days of AP is the daily account payables/sales. That is, CCC represents the number of days that a firm needs to collect its cash that was disbursed on credit sales and inventory.

4. DATA

The sample contains all nonfinancial firms listed in the stock exchanges of all six GCC countries during the period of 2011 - 2016. All data are from Thomson Reuters and are in US dollars. Table 1 summarizes the sample data employed to draw the analysis. It is apparent

that the biggest firms are in KSA in terms of total assets while the smallest firms are in Oman. The cash conversion cycle is the longest in Saudi Arabia, 233 days, while it is the shortest in Bahrain, 102 days, followed by Qatar, 127 days. Kuwaiti firms seem to have the highest Tobin's Q of 2.2. It seems that the most indebted firms are in Emirates with a mean debt ratio of 56% versus only 27% (lowest) in Bahrain. Although Bahrain has the lowest Tobin's Q, its firms enjoy the lowest cash conversion cycle. This may indicate that investors may disregard any possible efficiency in managing working capital.

5. RESULTS AND DISCUSSION

This paper investigates the relationship between corporate performance and the efficiency of managing working capital. Table 2 shows the effect of the cash conversion cycle (a popular measure of working capital management efficiency) on corporate performance for a set of Kuwaiti nonfinancial firms. Model (1) shows, as predicted, that there is a significant negative effect of the cash conversion cycle on Tobin's Q. However, the effect tends to be trivial. That is, a decrease of cash conversion cycle by about 1 day would result in an increase by about 0.0007 (i.e. 0.07%) in Tobin's Q. In addition, adding the control variables of both the debt ratio and the firm size doesn't change the results in terms of the correct sign and the significant effect of working capital; however, the magnitude of the effect is still minimal. This result, nevertheless, contradicts those brought up by Lazaridis and Tryfonidis (2006), Mansoori and Jorah (2012), Deloof (2003), Abdulrahman et al. (2010) and Wasiuzzaman (2015), but it conforms to the conclusions of Thuvarakan (2013). The effect of both control variables is significant and both variables have the correct sign. That is, the effect of the debt ratio on corporate performance is negative as it is considered a financial burden. Also, the positive sign of firm size is expected as the large firm size tends to boost firm profitability. Models 2-4 show comparable results. In the variable effect model, all results are very similar to those in the fixed effect model in terms of the correct sign and in terms of the significance of the effect, except for model (4) which shows insignificant effect of cash conversion cycle on corporate profitability. However, when considering the pooled regression model, results become totally insignificant, except for model 2.

Table 1: Summary statistics of the available data

Variable	Mean	Median	SD	Obs.
Kuwait				
Net income	20 mn	9 mn	44 mn	215
Assets	683 mn	272 mn	1,130 mn	215
Debt ratio (%)	38	33	22	215
Tobin's Q	2.2	2.19	54%	215
CCC	150	122	134	215
Saudi Arabia				
Net income	248 mn	34 mn	210 mn	376
Assets	970 mn	610 mn	11 mn	376
Debt ratio (%)	40	39	22	376
Tobin's Q	2.06	1.7	1.4	376
CCC	233	114	204	376
United Arab emirates				
Net income	37 mn	14 mn	196 mn	184
Assets	620 mn	509 mn	370 mn	184
Debt ratio (%)	56	45	19	184
Tobin's Q	1.13	88%	1.2	184
CCC	122	124	156	184
Qatar				
Net income	263 mn	62 mn	570 mn	54
Assets	950 mn	819 mn	880 mn	54
Debt ratio (%)	37	36	19	54
Tobin's Q	1.8	1.6	56%	54
CCC	127	135	135	54
Bahrain				
Net income	59 mn	11 mn	122 mn	30
Assets	572 mn	136 mn	240 mn	30
Debt ratio (%)	27	23	17	30
Tobin's Q (%)	98	83	44	30
CCC	102	87	72	30
Oman				
Net income	9 mn	4 mn	16 mn	180
Assets	164 mn	101 mn	226 mn	180
Debt ratio (%)	41	40	23	180
Tobin's Q	1.4	1.2	58%	180
CCC	145	117	241	180

CCC: Cash conversion cycle. All figures are in US dollar except not applicable. SD: Standard deviation

One can glean from Table 2 that the effect of working capital management efficiency on Kuwaiti corporate performance is either insignificant or minimal at best. This partially asserts the conjecture of this paper that the influence of working capital management efficiency is weak at best.

Table 3 demonstrates the results of regressing corporate profitability on cash conversion cycle and the control variables for nonfinancial Saudi firms. Employing different regression tests, the results, show that the effect of working capital management on corporate performance is very inconsequential or insignificant and sometimes, doesn't hold the predicated sign. For example, when considering regressions 1 and 2 in all models, the effect is insignificant while in regressions 3 and 4 in all models, the effect appears trivial and doesn't hold the correct sign. The control variables, though, appear to be valid according to the theoretical propositions. The results in this table, similar to those in Table 2, illustrate the insignificant effect of working capital management efficiency on corporate performance.

Table 4 shows the results of regressing corporate profitability of Emirates nonfinancial firms on their cash conversion cycle. Similar to the previous results, Table 4 shows a trivial influence, if any, of the efficiency of working capital management on corporate profitability. That is, only when considering the accounting profitability and without adding the control variables, if the cash conversion cycle declines by 1 day, the operating income on assets tends to rise by 0.0001 (i.e., 0.01%), which is numerically insignificant.

The control variables almost have the correct sign in all regressions. Hence, in Emirates, it appears that there is a minimal effect of the cash conversion cycle on profitability.

Table 5 shows the results of testing the effect of the working capital management efficiency on Qatari corporate profitability.

Table 2: The effect of working capital efficiency on Kuwaiti corporate performance

	C	P	CCC	P	DR	P	Size	P	Obs.	Adj R2
The fixed effect model										
TQ (1)			-0.0007	0.004					215	0.73
TQ (2)			-0.0004	0.091	-2.205	0.001	0.101	0.100	215	0.76
Prof (3)			-0.0001	0.021					228	0.58
Prof (4)			-0.0001	0.634	-0.134	0.005	0.028	0.007	228	0.6
The variable effect model										
TQ (1)	2.313	0.001	-0.0006	0.015					215	0.73
TQ (2)	2.092	0.002	-0.0004	0.087	-2.089	0.001	0.052	0.092	215	0.77
Prof (3)	0.035	0.001	-0.0001	0.076					228	0.64
Prof (4)	-0.269	0.004	-0.0001	0.668	-0.089	0.003	0.017	0.006	228	0.6
The pooled model										
TQ (1)	2.25	0.001	-0.0002	0.47					215	0.003
TQ (2)	2.248	0.001	-0.0003	0.01	-2.07	0.001	0.043	0.028	215	0.64
Prof (3)	0.029	0.001	-0.0001	0.412					228	0.002
Prof (4)	-0.217	0.001	0.0001	0.259	-0.07	0.002	0.014	0.001	228	0.09

TQ is Tobin's Q = (market value of equity + total assets - equity)/total assets. Prof is profitability = operating income/total assets. CCC is cash conversion cycle = accounts receivables days + inventory days - accounts payables days. DR is debt ratio = debt/total assets. Size = log (sales). Since we have a cross-sectional data, heteroscedasticity was found to be significant. And since it is of unknown form, it was corrected by using White's (1980) consistent covariance matrix

Table 3: The effect of working capital efficiency on Saudi corporate performance

	C	P	CCC	P	DR	P	Size	P	Obs	Adj R2
The fixed effect model										
TQ (1)			-0.0001	0.136					376	0.68
TQ (2)			0.0001	0.268	-1.548	0.023	0.283	0.017	376	0.69
Prof (3)			-0.0001	0.000					398	0.79
Prof (4)			0.0001	0.002	-0.303	0.001	0.041	0.001	398	0.84
The variable effect model										
TQ (1)	2.063	0.001	-0.0001	0.486					376	0.69
TQ (2)	0.008	0.996	0.0001	0.803	-1.978	0.003	0.145	0.083	376	0.69
Prof (3)	0.081	0.001	-0.0001	0.071					398	0.79
Prof (4)	-0.630	0.001	0.0001	0.000	-0.306	0.001	0.043	0.002	398	0.86
The pooled model										
TQ (1)	2.056	0.001	0.0001	0.252					376	0.004
TQ (2)	0.953	0.426	0.0001	0.349	-2.207	0.001	0.102	0.116	376	0.08
Prof (3)	0.081	0.001	-0.0001	0.001					398	0.004
Prof (4)	-0.647	0.001	0.0001	0.001	-0.314	0.001	0.044	0.001	398	0.49

TQ is Tobin's Q = (market value of equity+total assets–equity)/total assets. Prof is profitability=operating income/total assets. CCC is cash conversion cycle=accounts receivables days+inventory days - accounts payables days. DR is debt ratio=debt/total assets. Size=log (sales). Since we have a cross-sectional data, heteroscedasticity was found to be significant. And since it is of unknown form, it was corrected by using White's (1980) consistent covariance matrix

Table 4: The effect of working capital efficiency on emirates corporate performance

	C	P	CCC	P	DR	P	Size	P	Obs	Adj R2
The fixed effect model										
TQ (1)			-0.0001	0.011					184	0.53
TQ (2)			0.0001	0.387	1.004	0.001	-0.081	0.426	184	0.92
Prof (3)			0.0001	0.649					196	0.52
Prof (4)			-0.0001	0.164	-0.133	0.005	0.106	0.057	196	0.66
The variable effect model										
TQ (1)	1.059	0.001	-0.0001	0.001					184	0.51
TQ (2)	0.278	0.664	-0.0001	0.926	0.991	0.001	0.016	0.641	184	0.91
Prof (3)	0.007	0.961	0.0001	0.001					196	0.01
Prof (4)	-0.676	0.000	-0.0001	0.005	-0.207	0.001	0.040	0.001	196	0.56
The pooled model										
TQ (1)	1.056	0.001	-0.0001	0.001					184	0.46
TQ (2)	0.275	0.531	-0.0001	0.505	0.933	0.001	0.017	0.435	184	0.83
Prof (3)	-0.006	0.747	0.0001	0.000					196	0.21
Prof (4)	-0.797	0.030	-0.0001	0.347	-0.186	0.005	0.046	0.018	196	0.62

TQ is Tobin's Q = (market value of equity + total assets – equity)/total assets. Prof is profitability = operating income/total assets. CCC is cash conversion cycle = accounts receivables days + inventory days – accounts payables days. DR is debt ratio = debt/total assets. Size = log (sales). Since we have a cross-sectional data, heteroscedasticity was found to be significant. And since it is of unknown form, it was corrected by using White's (1980) consistent covariance matrix

Except for the pooled model, all regressions yield significant results in terms of the statistical significance of the effect of cash conversion cycle on corporate performance. Nevertheless, the magnitude of the effect of the cash conversion cycle is trifling. For the pooled model, the effect is significant, except when adding the control variables to the model, the results become insignificant. In addition, the effect of the control variables is insignificant when considering the market based performance versus the accounting based performance measure which shows significant results. The conclusion of this table is that the efficiency of the working capital management is not effective in terms of its significant influence on firm performance.

Table 6 illustrates the results of testing the influence of cash conversion cycle on the performance of the nonfinancial Bahraini firms. The results show that there is no effect at all of the efficiency of the working capital management on corporate performance, in

all models and in all regressions. Also, the predicted effect of the control variables doesn't exist except in one model. The results in this table confirm the conclusions brought up by the previous results for firms in other GCC countries.

Table 7 examines the effect of working capital management efficiency on Omani corporate performance. This table also concludes that the effect, if any, is trivial. That is, only when considering the fixed effect model, there appears to be influence of the cash conversion cycle on the market based performance measure, although that effect is minimal. The results in this table also resemble those in other GCC countries.

In order to corroborate the results obtained so far, another test is carried out to examine the influence of the cash conversion cycle on corporate performance by pooling all nonfinancial firms in the GCC countries together. Results of this analysis are contained in

Table 5: The effect of working capital efficiency on Qatari corporate performance

	C	P	CCC	P	DR	P	Size	P	Obs	Adj R2
The fixed effect model										
TQ (1)			-0.0001	0.035					54	0.73
TQ (2)			-0.0009	0.085	0.406	0.487	0.116	0.492	54	0.72
Prof (3)			-0.0001	0.045					54	0.53
Prof (4)			-0.0001	0.362	0.100	0.065	0.049	0.018	54	0.68
The variable effect model										
TQ (1)	1.896	0.001	-0.0001	0.031					54	0.73
TQ (2)	-0.241	0.918	-0.0009	0.059	0.246	0.610	0.103	0.381	54	0.74
Prof (3)	0.087	0.001	-0.0001	0.085					54	0.54
Prof (4)	-0.444	0.034	-0.0001	0.158	0.084	0.059	0.025	0.017	54	0.62
The pooled model										
TQ (1)	1.885	0.001	0.184	0.420					54	0.01
TQ (2)	1.483	0.338	-0.0008	0.287	-0.497	0.160	0.029	0.711	54	0.01
Prof (3)	0.081	0.001	-0.0001	0.540					54	0.01
Prof (4)	0.241	0.210	-0.0001	0.473	-0.019	0.491	-0.008	0.422	54	0.01

TQ is Tobin's Q = (market value of equity+total assets - equity)/total assets. Prof is profitability=operating income/total assets. CCC is cash conversion cycle=accounts receivables days+inventory days - accounts payables days. DR is debt ratio=debt/total assets. Size=log (sales). Since we have a cross-sectional data, heteroscedasticity was found to be significant. And since it is of unknown form, it was corrected by using White's (1980) consistent covariance matrix

Table 6: The effect of working capital efficiency on Bahraini corporate performance

	C	P	CCC	P	DR	P	Size	P	Obs	Adj R2
The fixed effect model										
TQ (1)			0.0001	0.27					30	0.92
TQ (2)			0.0001	0.29	1.24	0.04	-0.15	0.24	30	0.93
Prof (3)			0.0001	0.68					30	0.92
Prof (4)			0.0001	0.62	0.16	0.32	0.04	0.06	34	0.37
The variable effect model										
TQ (1)	0.999	0.003	0.0001	0.79					30	0.92
TQ (2)	3.332	0.217	0.0001	0.36	1.19	0.02	-0.14	0.33	30	0.94
Prof (3)	0.999	0.003	0.0001	0.79					30	0.92
Prof (4)	-0.085	0.694	0.0001	0.60	0.03	0.86	0.01	0.56	34	0.94
The pooled model										
TQ (1)	1.033	0.001	0.0001	0.71					30	0.01
TQ (2)	1.929	0.039	0.0001	0.93	-0.27	0.63	-0.05	0.29	30	0.01
Prof (3)	1.929	0.039	0.0001	0.63					30	0.01
Prof (4)	-0.075	0.171	0.0001	0.41	-0.05	0.39	0.01	0.01	34	0.05

TQ is Tobin's Q = (market value of equity+total assets - equity)/total assets. Prof is profitability=operating income/total assets. CCC is cash conversion cycle=accounts receivables days+inventory days - accounts payables days. DR is debt ratio=debt/total assets. Size=log (sales). Since we have a cross-sectional data, heteroscedasticity was found to be significant. And since it is of unknown form, it was corrected by using White's (1980) consistent covariance matrix

Table 8. Dummy variables that represent the GCC countries versus Kuwait have been set to inspect any possible differences between the countries, a conclusion that is gleaned from the results of the all previous tables for firms in each country. First, it is obvious that the effect of the working capital management on firm performance is significant in the first three regressions but not regression 4. Second, the effect appears to be trivial. Taken together, the results in this table resemble the previous ones considering each GCC country by itself. Country differences appear to be insignificant except for Oman and Qatar which confirms the previous results as some differences exist between firms in the GCC countries.

6. CONCLUSION

The results in this paper suggest that the predictive power of the theoretical propositions with respect to the influence of working capital in creating value differs in different settings and environments. Business practices and norms as well as corporate

cultures could lay their effects on test results. GCC countries represents an alliance that is part of emerging markets. The results of the above analysis might represent an anomalous evidence or irregularity in financial markets that tend sometimes to fail to penalize inefficient managers with respect to their working capital management style or skills. Although the theory and the empirical evidence in different parts of the world are in consensus with regard to the effect of working capital management on corporate profitability, this effect appears to be susceptible in GCC corporate sector as part of the emerging markets. Therefore, nonfinancial firm managers in GCC countries need to pay close attention to more efficient working capital management in order to improve or boost the shareholders wealth as managers can create additional profits for their firms by correctly handling the cash conversion cycle and keeping each different component (accounts receivables, accounts payables, inventory) to its optimal level. As a final point, the results in this paper repudiate the main hypothesis which predicts a negative and significant effect of working capital management on corporate profitability.

Table 7: The effect of working capital efficiency on Omani corporate performance

	C	P	CCC	P	DR	P	Size	P	Obs	Adj R2
The fixed effect model										
TQ (1)			0.0001	0.001					180	0.71
TQ (2)			0.0003	0.001	-0.731	0.002	0.307	0.001	180	0.74
Prof (3)			-0.0001	0.586					188	0.71
Prof (4)			0.0001	0.941	-0.204	0.001	0.027	0.017	188	0.77
The variable effect model										
TQ (1)	1.347	0.001	0.0001	0.167					180	0.72
TQ (2)	-1.107	0.257	0.0002	0.037	-0.743	0.003	0.156	0.006	180	0.73
Prof (3)	0.071	0.001	-0.0001	0.429					188	0.72
Prof (4)	-0.216	0.0587	-0.0001	0.854	-0.185	0.001	0.020	0.002	188	0.77
The pooled model										
TQ (1)	1.383	0.001	-0.0001	0.340					180	0.01
TQ (2)	0.715	0.218	-0.0001	0.648	-0.839	0.001	0.057	0.0732	180	0.08
Prof (3)	0.074	0.001	0.0001	0.026					188	0.01
Prof (4)	-0.114	0.104	-0.0001	0.174	-0.140	0.001	0.014	0.007	188	0.17

TQ is Tobin's Q = (market value of equity+total assets - equity)/total assets. Prof is profitability=operating income/total assets. CCC is cash conversion cycle=accounts receivables days+inventory days - accounts payables days. DR is debt ratio=debt/total assets. Size=log (sales). Since we have a cross-sectional data, heteroscedasticity was found to be significant. And since it is of unknown form, it was corrected by using White's (1980) consistent covariance matrix

Table 8: The effect of working capital on all nonfinancial GCC firms performance

	TQ	TQ	Prof	Prof
C	1.508	0.6582	0.5671	-0.6243
	(0.0001)	(0.2304)	(0.0001)	(0.001)
CCC	-0.0003	-0.0004	-0.0001	0.0001
	(0.05)	0.0192	(0.0001)	0.1853
DR		-0.6749		0.2634
		(0.0001)		(0.0026)
Size		0.0709		0.1321
		(0.3122)		(0.0001)
UAE		0.038		-0.0433
		(0.6064)		(0.3774)
Bah		-0.0271		0.1915
		(0.7919)		(0.0002)
Qatar		0.795		-0.1864
		(0.0001)		(0.0018)
KSA		1.0978		-0.0488
		(0.0001)		(0.2047)
Oman		0.4649		0.168
		(0.0001)		(0.0001)
Obs	874	874	908	908
Adj R2	0.01	0.21	0.004	0.08

TQ is Tobin's Q = (market value of equity + total assets - equity)/total assets. Prof is profitability = operating income/total assets. CCC is cash conversion cycle = accounts receivables days + inventory days - accounts payables days. DR is debt ratio = debt/total assets. Size = log (sales). Numbers between parenthesis are probability values testing the hypothesis that the coefficient is zero. Since we have a cross-sectional data, heteroscedasticity was found to be significant. And since it is of unknown form, it was corrected by using White's (1980) consistent covariance matrix

and the cash conversion cycle. Some financial variables of a sample of nonfinancial firms from the GCC six countries have been analyzed employing cross sectional and pooling methods. The results are unique in the sense they contradict the theoretical propositions as well as the mass of the previous literature. That is, this paper finds a feeble, if any, relationship between cash conversion cycle and corporate profitability. This paper conjectures that firms in GCC countries, being part of the emerging markets, solicit lavish government subsidies which provide enough, cheap and continuous financing for working capital. Therefore, managing working capital efficiently becomes less enviable.

The empirical tests show abstemiously (i.e., few regression models) that there is a negative relationship between the cash conversion cycle and the corporate accounting and the market performance but that relationship is very minimal. Other tests show insignificant relationship. The control variables, the debt ratio and the firm size, appear to be according to the theoretical predictions and conform to the related empirical studies.

REFERENCES

- Abdulrahman, A.T., Qayyum, A., Bodla, M. (2010), Working capital management and corporate performance of manufacturing sector in Pakistan. *International Research Journal of Finance and Economics*, 47, 156-169.
- Berryman, J. (1983), Small business failure and bankruptcy: A survey of the literature. *European Small Business Journal*, 1(4), 47-59.
- Chung, K., Stephen, P. (1994), A simple approximation of Tobin's Q", *Financial Management*, 23(3), 70-74.
- Deloof, M. (2003), Does working capital management affects profitability of Belgian firms? *Journal of Business Finance and Accounting*, 30(3), 573-587.
- Duggal, R., Budden, M. (2015), Further evidence of the creation of value through the management of net working capital: An analysis of S&P 500 firms. *Journal of Business and Economics Research*, 13(1), 79-82.
- Dunn, P., Cheatham, L. (1993), Fundamentals of small business financial management for start-up, survival, growth, and changing economic circumstances. *Managerial Finance*, 19(8), 1-13.

To conclude, this paper investigates how corporate working capital management affects corporate performance by examining the relationship between corporate accounting and market performance

- Haron, R., Nomran, N. (2016), Determinants of working capital management before, during, and after the global financial crisis of 2008: Evidence from Malaysia. *The Journal of Developing Areas*, 50(5), 461-469.
- Hyland, D. (1997), *Why Firms Diversify: An Empirical Examination*. A Doctoral Dissertation, Ohio State University.
- Kieschnick, R., Laplante, M., Rabih, M. (2013), Working capital Management and shareholders' wealth. *Review of Finance*, 17(5), 1827-1852.
- Lazaridis, I., Tryfonidis, D. (2006), Relationship between working capital management and profitability of listed companies in the athens stock exchange. *Journal of Financial Management and Analysis*, 19(1), 26-35.
- Lindenberg, E., Ross, A. (1981), Tobin's Q ratio and industrial organization. *Journal of Business*, 54, 1-32.
- Mansoori, E., Jorlah, D. (2012), The effect of working capital management on firm's profitability: Evidence from Singapore. *Interdisciplinary Journal of Contemporary Research in Business*, 4(5), 472-486.
- Oseifuah, E., Gyekye, A. (2017), Working capital management and shareholders' wealth creation: Evidence from non-financial firms listed on the Johannesburg stock exchange. *Investment Management and Financial Innovations*, 14(1), 80-88.
- Shin, H., Soenen, L. (1998), Efficiency of working capital management and corporate profitability. *Financial Practice and Education*, 8(2), 37-45.
- Teruel, G., Martinez, S. (2007), Effects of working capital management on SME profitability. *International Journal of Managerial Finance*, 3(2), 164-177.
- Thuvarakan, S. (2013), *Impact of Working Capital Management on Profitability in UK Manufacturing Industry*. Available from: <https://www.ssrn.com/abstract=2345804orhttp://dx.doi.org/10.2139/ssrn.2345804>.
- Wasiuzzaman, S.H. (2015), Working capital and firm value in an emerging market. *International Journal of Managerial Finance*, 11(1), 60-79.