



**RELATIONSHIP BETWEEN FINANCIAL PERFORMANCE
AND WORKING CAPITAL
(A CASE STUDY OF OMAN CEMENT COMPANY SAOG, OMAN)**

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Abstract

The main purpose of the study was to know the longitudinal relationship between working capital variables and financial performance of Oman Cement Company SAOG for a period of ten years. Financial performance was analyzed by using gross profit ratio, operational profit ratio and net profit ratio. 12 working capital variables were grouped into four groups for the analysis. Correlation and regression analysis were done to know the relationship and impact between variables. The results indicate there was a significant relationship between OPR and TCLGFF (p value 0.0253) and between NPR and ARAP (p value 0.0163) and TCLGFF (p value 0.0408). GPR and OPR is related to the variation in CR, QR and NTC as the significant values of p is less than 0.05 and NPR is related to the variation in CR, QR, CCC and NTC as the significant values of p is less than 0.05.

Key Words: Working Capital, Financial Performance, Working Capital Position Ratio, Working Capital Activity Ratios, Working Capital Leverage Ratios, Working Capital Measuring of Liquidity Ratio.

JEL Classification: C12, G3, G32, L25.

Abbreviations

Working Capital Position Ratio: Current Ratio (CR), Quick Ratio (QR).

Working Capital Activity Ratios: Inventory Turnover(IT), Accounts Receivables Turnover (ART), Accounts Payable Turnover(APT).

Working Capital Leverage Ratios: Sales Divided by Net Working Capital (SWC), Long Term Debt Divided by Net Working Capital (LTDWC), Accounts Receivable by Accounts Payable(ARAP), Total Current Liabilities Divided by Gross Funds Flow (TCLGFF).

Working Capital Measuring of Liquidity Ratio: Cash Conversion Cycle(CCC), Net Trade Cycle(NTC), Operating Cycle (OPC).

Financial Performance: Gross Profit Ratio(GPR), Operating Profit Ratios (OPR) and Net Profit Ratio (NPR).

Introduction

Working capital means funds required to be invested in the business for a short period usually up to one year. It is also known as short term capital or circulating capital. Working capital is just like the heart of business. Working capital management is concerned with short-term financial capital and decisions. The short-term capital refers to the capital that companies use in their daily operations and it consists of companies' current assets and current liabilities. The researcher has reviewed the following studies related to the study in order to assess and identify the research gap.

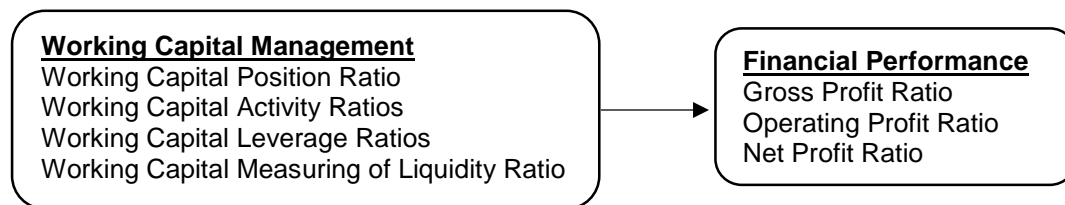
Gul, Khan, Rehman, Khan, Khan and Khan (2013) investigated the influence of working capital management (WCM) on performance of small medium enterprises (SMEs) in Pakistan. The duration of the study was seven years from 2006 to 2012. The data used in this study was taken from SMEDA, Karachi Stock Exchange, tax offices, company itself and Bloom burgee business week. The dependent variable of the study was Return on Assets (ROA) which was used as a proxy for profitability. Independent variables were Number of Days Account Receivable (ACP), Number of Day's Inventory(INV), Cash Conversion Cycle (CCC) and Number of Days Account Payable (APP). In addition to these variables some other variables were used which included Firm Size (SIZE), Debit Ratio (DR) and Growth (GROWTH). Regression analysis was used to determine the relationship

between WCM and performance of SMEs in Pakistan. Results suggested that APP, GROWTH and SIZE have positive association with Profitability whereas ACP, INV, CCC and DR have inverse relation with profitability. Omesa, Maniagi, Musiega and Makori (2013) examined the relationships between Working Capital Management and Corporate Performance of manufacturing firms listed on the Nairobi securities exchange. A sample of 20 companies whose data for 5 years from 2007-2011 was selected. For analysis Principal components analysis (PCA) is used due to its simplicity and its capacity of extracting relevant information from confusing data sets. From the results using PAC and multiple regression, working capital proxies Cash Conversion Cycle (CCC), Average Collection Period (ACP) and control variables Current Liabilities (CLTA), Net Working Capital Turnover Ratio (NSCA) and Fixed Financial Ratio (FATA) were significant at 95% confidence (p values are < 0.05) to performance as measured by Return on Equity (ROE). Further, ACP was found to be negatively related to ROE while CCC, CLATA, NSCA and FATA.

Shin and Soenen (1998) study the efficiency of working capital management and corporate profitability. In their study, they first introduce different measures of working capital management, and then test a large sample of 58,985 firm years for a correlation between WCM and profitability. Soenen (1993) concludes that shorter net trade cycles are usually correlated to higher profitability and vice versa. He does point out that the level of significance is not very strong. A significant relationship was found in 9 out of 20 industries studied.

The previous studies have focused on relationship between working capital and profitability between companies, but very few studies are undertaken on longitudinal relationship analysis of working capital variables and financial performance of a single company. So, the present study is done to meet the gap in the academic literature over this issue. The present study will address the longitudinal relationship between working capital variables and financial performance of Oman Cement Company SAOG for a period of ten years.

Conceptual Framework



The present study is carried out with the intention to explore the longitudinal relationship between working capital variables and financial performance for the period of ten years. Based on this, the researcher has the following research question for the study: What is the financial performance and working capital performance of the company? What is the impact of working capital variables on firm's performance? .

The following are the objectives of the study: To analyze the financial performance in term gross profit, net profit and operating profit ratios. To analyze and determine the working capital variables in terms of position ratios, activity ratios, leverage ratios and liquidity ratios. To examine and determine the impact of working capital variables on financial performance.

Research Methodology

For the present study, financial statement of Oman Cement Company SAOG for ten year from 2007 to 2016 are considered for analysis. The study is based on working capital variables in terms of twelve ratios as independent variables and financial performance in terms of three profitability ratios as dependent variables. In the present study the researcher followed the quantitative method for collecting the data. The researcher has used ratio analysis techniques for analyzing the working capital variable and financial performance. For analyzing the relationship between variables statistical tools like correlation and regression analysis are used.

Out of two cements companies listed in Muscat Securities Market, Oman Cement Company SAOG is selected for the present study. The reason for selecting this company is because it was established in 1978 and it also has 40 years of existence. The data collected for the present study is purely based on secondary data. The researcher collected audited financial data from 2007 to 2016 of Oman Cement Company SAOG from Muscat Securities Market. The research also used Journals, Text Books and online sources for reviewing data related to working capital and financial performance.

Results and Findings

Table 1: Analysis of Profitability Ratios

Ratios	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
GPR	40.54	21.83	38.44	43.78	35.08	36.89	34.22	31.64	31.67	29.28
OPR	34.86	17.27	34.77	33.72	28.05	30.55	26.85	24.27	23.58	22.23
NPR	34.53	19.74	35.49	48.26	26.71	30.91	30.56	25.61	22.43	22.75

Table 1 shows, the analysis of profitability ratios (dependent variables) in terms of GPR, OPR and NPR. GPR was highest with 43.78 in the year 2010 and lowest with 21.83 in 2008. GPR decreased from 2007 to 2009 but showed an increase in 2010 but after that till 2016 GPR has decreased. When compared from 2012 to 2016 GPR had a decreasing trend and showed a low ratio indicating that the company was unable to control its production cost. OPR was highest with 34.86 in 2007 and lowest in 2008 with 17.27. OPR had declined in 2008 then again from 2010 it showed a declining trend till 2011 but in 2012 it increased, after that till 2016 OPR showed a declining trend again. The company OPR was lowest and declined from 2012 to 2016 indicating the inability of the management in running the company.

NPR was highest in 2010 with 48.26 and lowest in 2008 with 19.74. NPR showed a decline in 2008 but after that increased till 2010 which was the highest ratio when compared to all years, again in 2011 it declines but it increased in 2012 then onwards it showed a declining trend till 2015 but in 2016 it increased very slightly. NPR showed a declining trend from 2010 to 2016 and low ratio indicates that the management was not efficiently managing its operational activities.

Table 2: Analysis of Working Capital Ratios

Ratios	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
CR	4.12	4.51	2.86	3.22	2.90	3.16	3.35	3.88	2.73	2.34
QR	3.56	2.88	1.95	2.47	2.03	1.99	2.26	2.92	1.36	1.17
IT	6.27	5.07	3.67	3.41	2.82	2.71	2.37	2.56	2.39	2.10
ART	10.40	12.29	14.13	14.16	13.29	14.11	13.46	13.44	13.22	15.35
APT	16.56	27.73	20.99	32.33	17.50	15.32	11.15	9.98	18.87	18.20
SWC	2.07	1.94	4.34	1.86	1.74	2.23	1.59	1.41	2.34	2.42
LTDWC	0.28	0.18	0.58	0.40	0.42	0.60	0.46	0.51	1.11	1.00
ARAP	2.76	2.37	2.94	3.83	1.84	1.67	1.21	1.19	1.81	1.57
TCLGFF	0.36	0.56	0.31	0.44	0.78	0.49	0.64	0.63	0.71	0.88
CCC	71.29	88.47	108.01	121.57	136.14	136.97	148.37	133.37	161.11	177.58
NTC	56.99	73.38	78.34	79.26	96.61	95.51	105.9	102	116.8	131.6
OPC	93.33	101.63	125.4	132.9	157	160.8	181.1	169.9	180.5	197.6

Table 2 shows, the analysis of working capital ratios (independent variables). CR was 4.51 in 2008 which was the highest and lowest in 2016 with 2.34. CR was above 1 in all the years. It also showed that the company was maintaining accepted standard of CR i.e. 2:1. It clearly showed that company was able to meet its short-term financial obligations on time.



QR was highest in 2007 with 3.56 and lowest in 2016 with 1.17. QR was above one in all the years and company was able to maintain the accepted standard level of 1:1. It means that the company could pay off its short-term obligation without selling any long-term assets and it also indicates that company was having more quick assets than current liabilities.

IT was highest in 2007 with 6.27 times and lowest was 2.10 times in 2016. The ratio showed a decreasing trend from 2007 to 2016 which indicates that inefficient use of investment in inventory. It indicates that company was not able to convert its inventory into sales immediately which led to low profits.

ART was highest in 2016 with 15.35 times and lowest in 2007 with 10.40 times. ART showed an increasing trend from 2007 to 2010 and decreasing trend from 2012 to 2015 but in 2016 again it increased. It showed that company was able to collect the amount from trade receivable maximum within 35 days. It can be concluded that company was able to convert its trade receivables quickly into cash and indicates prompt collections from debts. APT was highest in 2010 with 32.33 times and lowest in 2014 with 9.98 times. APT showed a fluctuating trend till 2010 then it had a declining trend till 2014 but in the 2015 it increased and in 2016 it again decreased. Overall on an average for the 10 years company was taking 20 to 25 days for paying dues to creditors. It shows that company was able to maintain the credit worthiness even despite reducing its profits.

SWC was highest in 2009 with 4.34 and lowest in 2014 with 1.41. It showed that company has a fluctuating trend over the selected period. But when compared to 2015 company had increased SWC in 2017 but less than in 2009 where SWC was highest. It shows that company had a better SWC ratio indicating efficient utilization of working capital for generating revenue.

LTDWC was highest in 2015 with 1.11 and lowest in 2008 with 0.18. LTDWC showed an increasing trend from 2008 to 2012 but declined in 2013, again till 2015 LTDWC increased and saw a dip in 2016. In 2016 LTDWC was less than 2015 where LTDWC was highest. In 2015 and 2016 it LTDWC showed a high ratio signifying decrease in profit of the company.

ARAP was highest in 2010 with 3.83 and lowest in 2014 with 1.19. ARAP showed a decreasing trend from 2010 to 2014. In 2016 ARAP was 1.57 which is less than 3.83 which was highest in 2010. Overall the APAR ratio was highest in all the years which showed that company had a good liquidity position even though there was an effect on the profitability.

TCLGFF was highest in 2016 with 0.88 and lowest in 2009 with 0.31. The ratio had increasing trend from 2009 to 2011 and 2012 to 2016. It is clear from the analysis that the ratio was high, causing to low profit for the company. CCC had increasing trend from 2007 to 2016 except in 2014.

CCC was highest in 2016 with 178 days (177.58) i.e. the company was taking almost 6 months for converting its investment in inventory into cash and lowest in 2007 with 71 days (71.29). It can be concluded that CCC was higher which leads to lower profits for the company.

NCT was highest in 2016 with 132 days (131.6) and lowest in 2007 with 57 days (56.99). NTC had an increasing trend from 2007 to 2016. NTC was also higher which leads to lower profits for the company. Which was similar as CCC. OPC was higher in 2016 with 198 days (197.6) and lowest in 2007 with 93 days (93.33). OPC also showed an increasing trend. It shows that company had a longer OPC indicating inefficiency in operating activities.

Correlation Analysis

Table 3: Correlations Analysis between GPR and Independent Variables

Independent Variables	R Value	Correlation Results	P Value	p< 0.05
CR	-0.2267	Negative	0.5288	Not Significant
QR	0.1543	Positive	0.6703	
IT	0.0993	Positive	0.7849	
ART	-0.0321	Negative	0.9298	
APT	0.0753	Positive	0.8362	
SDNWC	0.1849	Positive	0.6090	
LTLCNWC	-0.1163	Negative	0.7490	
ARAP	0.5332	Positive	0.1124	
TCLGFF	-0.5572	Negative	0.0942	
CCC	-0.1811	Negative	0.6165	
NTC	-0.3580	Negative	0.3097	
OPC	-0.1805	Negative	0.6177	

Correlation between GPR and Independent Variables

Ho – There is no significant correlation between GPR and Independent Variables.

H1 – There is significant correlation between GPR and Independent Variables.

From Table 3, it is understood that the correlation between:GPR and CR is -0.2267, GPR and ART is -0.0321, GPR and LTLCNWC is -0.1163, GPR and TCLGFF is -0.5572, GPR and CCC is -0.1811, GPR and NTC is -0.3580, GPR and OPC is -0.1805. The correlation is negative, and the intensity is not that much strong as the values are not close to negative one. Thus, it proved that GPR and CR, ART, LTLCNWC, TCLGFF, CCC, NTC, OPC are negatively correlated.GPR and QR is 0.1543, GPR and IT is 0.0993, GPR and APT is 0.0753, GPR and SDNWC is 0.1849, GPR and ARAP is 0.5332. The correlation is positive, and the intensity is not that much strong as the values are not close to positive one. Thus, it proves that GPR and QR, IT, APT, SDNWC, ARAP are positively correlated. Two tailed significance results show p value is greater than 0.50 for all the independent variables. Hence the null hypothesis is accepted, and it is concluded that there is no significant relationship between GPR and independent variables. There is no evidence to say that there is a relationship between GPR and independent variables.

Table 4: Correlations Analysis between OPR and Independent Variables

Independent Variables	R Value	Correlation Results	P Value	p< 0.05
CR	-0.1499	Negative	0.6793	Not Significant
QR	0.2192	Positive	0.5428	
IT	0.2490	Positive	0.4878	
ART	-0.1195	Negative	0.7422	
APT	0.0473	Positive	0.8967	
SDNWC	0.3732	Positive	0.9184	
LTLCNWC	-0.2033	Negative	0.5732	
ARAP	0.5549	Positive	0.0959	Significant
TCLGFF	-0.6961	Negative	0.0253	
CCC	-0.3435	Negative	0.3311	
NTC	-0.4948	Negative	0.1459	
OPC	-0.3345	Negative	0.3448	Not Significant

Correlation between OPR and Independent Variables

H₀ – There is no significant correlation between OPR and Independent Variables.

H₁ – There is significant correlation between OPR and Independent Variables.

Table 4 reveals, the correlation between:OPR and CR is -0.1499, OPR and ART is -0.1195, OPR and LTLCNWC is -0.2033, OPR and TCLGFF is -0.6961, OPR and CCC is -0.3435, OPR and NTC is -0.4948 and OPR and OPC is -0.3345. The correlation is negative, and the intensity is not that much strong as the values are not close to negative one. Thus, it proved that OPR and CR, ART, LTLCNWC, TCLGFF, CCC, NTC, OPC are negatively correlated.OPR and QR is 0.2192, OPR and IT is 0.2490, OPR and APT is 0.0473, OPR and SDNWC is 0.3732, OPR and ARAP is 0.5549. The correlation is positive, and the intensity is not that much strong as the values are not close to positive one. Thus, it proves that OPR and QR, IT, APT, SDNWC, ARAP are positively correlated. Two tailed significance results show p value is greater than 0.50 for all the independent variables except for TCLGFF. Hence the null hypothesis is accepted, and it is concluded that there is no significant relationship between OPR and all the independent variables except for TCLGFF. There is no evidence to say that there is a relationship between OPR and all the independent variables except for TCLGFF.But for TCLGFF shows p value (0.0253) is less than 0.50. Hence the null hypothesis is rejected, and it is concluded that there is a significant relationship between OPR and TCLGFF. There is evidence to say that there is a relationship between OPR and TCLGFF.

Correlation between NPR and Independent Variables

H₀ – There is no significant correlation between NPR and Independent Variables.

H₁ – There is significant correlation between NPR and Independent Variables.

From Table 5, shows the correlation between: NPR and CR is -0.0535, NPR and LTLCNWC is -0.3097, NPR and TCLGFF is -0.6524, NPR and CCC is -0.2961, NPR and NTC is -0.4764 and NPR and OPC is -0.3272. The correlation is negative, and the intensity is not that much strong as the values are not close to negative one. Thus, it proved that NPR and CR, LTLCNWC, TCLGFF, CCC, NTC, OPC are negatively correlated. NPR and QR is 0.2556, NPR and IT is 0.1848, NPR and ART are 0.0364, NPR and APT is 0.3817, NPR and SDNWC is 0.1553, NPR and ARAP is 0.7307. The correlation is positive, and the intensity is not that much strong as the values are not close to positive one. Thus, it proves that NPR and QR, IT, ART, APT, SDNWC, ARAP are positively correlated. Two tailed significance results show p value is greater than 0.50 for all the independent variables except for ARAP and TCLGFF. Hence the null hypothesis is accepted, and it is concluded that there is no significant relationship between NPR and all the independent variables except for ARAP and TCLGFF. There is no evidence to say that there is a relationship between NPR and all the independent variables except for ARAP and TCLGFF.

Table 5: Correlations Analysis between NPR and Independent Variables

Independent Variables	R Value	Correlation Results	P Value	p < 0.05
CR	-0.0535	Negative	0.8833	Not Significant
QR	0.2556	Positive	0.4759	
IT	0.1848	Positive	0.6092	
ART	0.0364	Positive	0.9204	
APT	0.3817	Positive	0.9166	
SDNWC	0.1553	Positive	0.6683	
LTLCNWC	-0.3097	Negative	0.3838	
ARAP	0.7307	Positive	0.0163	Significant
TCLGFF	-0.6524	Negative	0.0408	
CCC	-0.2961	Negative	0.4061	Not Significant
NTC	-0.4764	Negative	0.1636	
OPC	-0.3272	Negative	0.3560	

But for ARAP and TCLGFF shows p value is less than 0.50. Hence the null hypothesis is rejected, and it is concluded that there is a significant relationship between NPR and ARAP &TCLGFF. There is evidence to say that there is a relationship between NPR and ARAP &TCLGFF.

Regression Analysis

Regression Analysis of GPR (Y) and CR (X₁) & QR (X₂) Variables:

H₀ – The variation in GPR (Y) is unrelated to the variation in CR (X₁) and QR (X₂).

H₁ – The variation in GPR (Y) is related to the variation in CR (X₁) and QR (X₂).

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.872 ^a	.761	.692	3.44896
a. Predictors: (Constant), QR, CR				

The R Square value in the Table 6 represents that QR and CR accounts for 76.1% of the variation on the GPR. This means that 23.9% of the variation of the GPR is due to other factors.

Table 7: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	57.679	6.786		8.500	.000
	CR	-18.659	4.019	-2.026	-4.643	.002
	QR	16.983	3.725	1.989	4.559	.003
a. Dependent Variable: GPR						

From Table 7, the constant is the intercept of QR and CR. The B value shows that when the CR and QR is 0, the GPR is 57.679. The unstandardized B value for QR and CR reveals that for 1unit increase in CR will decrease the GPR by 18.659 units and 1 unit increase in QR will increase the GPR by 16.983 units. The significant value of p (CR is 0.002 and QR is 0.003) is less than 0.05 and there is a support to relate the variables as statistically significant. Thus, the null hypothesis is rejected, and it is proved that variation in GPR (Y) is related to the variation in CR (X₁) and QR (X₂).

Therefore, regression equation is $Y = 57.679 - 18.659 X_1 + 16.9836 X_2$.

Regression Analysis of GPR (Y) and IT (X₁), ART (X₂) and APT (X₃) Variables:

H₀ – The variation in GPR (Y) is unrelated to the variation in IT (X₁), ART (X₂) and APT (X₃).

H₁ – The variation in GPR (Y) is related to the variation in IT (X₁), ART (X₂) and APT (X₃).

Table 8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.135 ^a	.018	-.473	7.54518
a. Predictors: (Constant), APT, ART, IT				

The R Square value in the Table 8 represents that IT, ART and APT accounts for 1.8 % of the variation on the GPR. This means that 98.2% of the variation of the GPR is due to other factors.

Table 9: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	19.605	64.821		.302	.773
	IT	1.169	4.427	.253	.264	.801
	ART	.836	4.252	.178	.197	.851
	APT	-.019	.498	-.021	-.038	.971
a. Dependent Variable: GPR						

From Table 9, the constant is the intercept of IT, ART and APT. The B value shows that when the IT, ART and APT is 0, the GPR is 19.605. The unstandardized B value for IT, ART and APT reveals that for 1 unit increase in IT will increase the GPR by 1.169 units, 1 unit increase in ART will increase the GPR by 0.836 units and 1 unit increase in APT will decrease the GPR by 0.019 unit. The significant value of p (IT is 0.801, ART is 0.851 and APT is 0.971) is greater than 0.05 and there is no support to relate the variables as statistically significant. Thus, the null hypothesis is accepted, and it is proved that variation in GPR (Y) is unrelated to the variation in IT (X₁), ART (X₂) and APT (X₃).

Therefore, regression equation is $Y = 19.605 + 1.169 X_1 + 0.836 X_2 - 0.019 X_3$.

Regression Analysis of GPR (Y) and SDNWE (X₁), LTLCNWC (X₂), ARAP (X₃) and TCLGFF (X₄) Variables:
H₀ - The variation in GPR (Y) is unrelated to the variation in SDNWE (X₁), LTLCNWC (X₂), ARAP (X₃) and TCLGFF (X₄).
H₁ - The variation in GPR (Y) is related to the variation in SDNWE (X₁), LTLCNWC (X₂), ARAP (X₃) and TCLGFF (X₄).

Table 10: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.678 ^a	.460	.028	6.13100
a. Predictors: (Constant), TCLGFF, SDNWC, ARAP, LTLCNWC				

The R Square value in the Table 10 represents that SDNWE, LTLCNWC, ARAP and TCLGFF accounts for 46 % of the variation on the GPR. This means that 54% of the variation of the GPR is due to other factors.

From Table 11, the constant is the intercept of SDNWE, LTLCNWC, ARAP and TCLGFF. The B value shows that when the SDNWE, LTLCNWC, ARAP and TCLGFF is 0, the GPR is 43.665. The unstandardized B value for SDNWE, LTLCNWC, ARAP and TCLGFF reveals that for 1 unit increase in SDNWE will decrease the GPR by 2.902 units, 1 unit increase in LTLCNWC will increase the GPR by 10.125 units, 1 unit increase in ARAP will increase the GPR by 2.647 units and 1 unit increase in TCLGFF will decrease the GPR by 24.447 units.

The significant value of p (SDNWE is 0.455, LTLCNWC is 0.378, ARAP is 0.456 and TCLGFF is 0.267) is greater than 0.05 and there is no support to relate the variables as statistically significant. Thus, the null hypothesis is accepted, and it is proved that variation in GPR (Y) is unrelated to the variation in SDNWE (X₁), LTLCNWC (X₂), ARAP (X₃) and TCLGFF (X₄).

Table 11 Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	43.665	17.136		2.548	.051
	SDNWC	-2.902	3.587	-.383	-.809	.455
	LTLCNWC	10.125	10.465	.479	.968	.378
	ARAP	2.647	3.276	.360	.808	.456
	TCLGFF	-24.447	19.569	-.721	-1.249	.267

a. Dependent Variable: GPR

Therefore, regression equation is $Y = 43.665 - 2.902 X_1 + 10.125 X_2 + 2.647 X_3 - 24.447 X_4$

Regression Analysis of GPR (Y) and CCC (X₁), NTC (X₂) and OPC (X₃) Variables:

H₀ – The variation in GPR (Y) is unrelated to the variation in CCC (X₁), NTC (X₂) and OPC (X₃).

H₁ – The variation in GPR (Y) is related to the variation in CCC (X₁), NTC (X₂) and OPC (X₃).

Table 12: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.871a	.759	.639	3.73468

a. Predictors: (Constant), OPC, NTC, CCC

The R Square value in the Table 12 represents that CCC, NTC and OPC accounts for 75.9 % of the variation on the GPR. This means that 24.1% of the variation of the GPR is due to other factors.

Table 13: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	44.998	5.706		7.886	.000
	CCC	.501	.218	2.597	2.301	.061
	NTC	-1.133	.266	-4.030	-4.257	.005
	OPC	.208	.173	1.179	1.204	.274

a. Dependent Variable: GPR

From Table 13, the constant is the intercept of CCC, NTC and OPC. The B value shows that when the CCC, NTC and OPC is 0, the GPR is 44.998. The unstandardized B value for CCC, NTC and OPC reveals that for 1 unit increase in CCC will increase the GPR by 0.501 unit, 1 unit increase in NTC will decrease the GPR by 1.133 unit and 1 units increase in OPC will increase the GPR by 0.208 unit. The significant value of p (CCC is 0.061 and OPC is 0.274) is greater than 0.05 and there is no support to relate the variables as statistically significant. Thus, the null hypothesis is accepted, and it is proved that variation in GPR (Y) is unrelated to the variation in CCCB (X₁) and OPC (X₃). But for NTC significant value of p is 0.005 is less than 0.05 and there is support to relate the variable as statistically significant. Thus, the null hypothesis is rejected, and it is proved that variation in GPR (Y) is related to the variation in NTC (X₂).

Therefore, regression equation is $Y = 44.998 + 0.501 X_1 - 1.133 X_2 + 0.208 X_3$.

Regression Analysis of OPR (Y) and CR (X₁) & QR (X₂) Variables:

H₀ – The variation in OPR (Y) is unrelated to the variation in CR (X₁) and QR (X₂).

H₁ – The variation in OPR (Y) is related to the variation in CR (X₁) and QR (X₂).

Table 14: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.846 ^a	.715	.634	3.57424

a. Predictors: (Constant), QR, CR

Table 15: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	47.393	7.032		6.739	.000
	CR	-16.862	4.165	-1.928	-4.048	.005
	QR	15.930	3.860	1.965	4.127	.004

a. Dependent Variable: OPR

The R Square value in the Table 14 represents that QR and CR accounts for 71.5% of the variation on the OPR. This means that 28.5% of the variation of the OPR is due to other factors.

From Table 15, the constant is the intercept of QR and CR. The B value shows that when the CR and QR is 0, the OPR is 47.393. The unstandardized B value for QR and CR reveals that for 1 unit increase in CR will decrease the OPR by 16.862 units and 1 unit increase in QR will increase the OPR by 15.930 units. The significant value of p (CR is 0.005 and QR is 0.004) is less than 0.05 and there is a support to relate the variables as statistically significant. Thus, the null hypothesis is rejected, and it is proved that variation in OPR (Y) is related to the variation in CR (X₁) and QR (X₂).

Therefore, regression equation is $Y = 47.393 - 16.862 X_1 + 15.930 X_2$.

Regression Analysis of OPR (Y) and IT (X₁), ART (X₂) and APT (X₃) Variables:

H₀ – The variation in OPR (Y) is unrelated to the variation in IT (X₁), ART (X₂) and APT (X₃).

H₁ – The variation in OPR (Y) is related to the variation in IT (X₁), ART (X₂) and APT (X₃).

Table 16: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.339a	.115	-.327	6.80295

a. Predictors: (Constant), APT, ART, IT

The R Square value in the Table 16 represents that IT, ART and APT accounts for 11.5% of the variation on the OPR. This means that 88.5% of the variation of the OPR is due to other factors.

Table 17: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-9.649	58.445		-.165	.874
	IT	3.259	3.991	.744	.816	.445
	ART	2.256	3.834	.504	.588	.578
	APT	-.201	.449	-.234	-.449	.669

a. Dependent Variable: OPR

From Table 17, the constant is the intercept of IT, ART and APT. The B value shows that when the IT, ART and APT is 0, the OPR is -9.649. The unstandardized B value for IT, ART and APT reveals that for 1 unit increase in IT will increase the OPR by 3.259 units, 1 unit increase in ART will increase the OPR by 2.256 units and 1 unit

increase in APT will decrease the OPR by 0.201 unit. The significant value of p (IT is 0.445, ART is 0.578 and APT is 0.669) is greater than 0.05 and there is no support to relate the variables as statistically significant. Thus, the null hypothesis is accepted, and it is proved that variation in OPR (Y) is unrelated to the variation in IT (X₁), ART (X₂) and APT (X₃).

Therefore, regression equation is $Y = -9.649 + 3.259 X_1 + 2.256 X_2 - 0.201 X_3$.

Regression Analysis of OPR (Y) and SDNWE (X₁), LTLCNWC (X₂), ARAP (X₃) and TCLGFF (X₄) Variables:
H₀ - The variation in OPR (Y) is unrelated to the variation in SDNWE (X₁), LTLCNWC (X₂), ARAP (X₃) and TCLGFF (X₄).

H₁ - The variation in OPR (Y) is related to the variation in SDNWE (X₁), LTLCNWC (X₂), ARAP (X₃) and TCLGFF (X₄).

Table 18: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.724 ^a	.523	.142	5.46886

a. Predictors: (Constant), TCLGFF, SDNWC, ARAP, LTLCNWC

The R Square value in the Table 18 represents that SDNWE, LTLCNWC, ARAP and TCLGFF accounts for 52.3% of the variation on the OPR. This means that 47.7% of the variation of the OPR is due to other factors.

Table 19: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	36.774	15.286		2.406	.061
	SDNWC	-.541	3.200	-.075	-.169	.872
	LTLCNWC	5.083	9.335	.253	.545	.609
	ARAP	1.310	2.922	.188	.448	.673
	TCLGFF	-23.385	17.456	-.726	-1.340	.238

a. Dependent Variable: OPR

From Table 19, the constant is the intercept of SDNWE, LTLCNWC, ARAP and TCLGFF. The B value shows that when the SDNWE, LTLCNWC, ARAP and TCLGFF is 0, the OPR is 36.774. The unstandardized B value for SDNWE, LTLCNWC, ARAP and TCLGFF reveals that for 1 unit increase in SDNWE will decrease the OPR by 0.541 unit, 1 unit increase in LTLCNWC will increase the OPR by 5.083 units, 1 unit increase in ARAP will increase the OPR by 1.310 unit and 1 unit increase in TCLGFF will decrease the OPR by 23.385 units. The significant value of p (SDNWE is 0.872, LTLCNWC is 0.609, ARAP is 0.673 and TCLGFF is 0.238) is greater than 0.05 and there is no support to relate the variables as statistically significant. Thus, the null hypothesis is accepted, and it is proved that variation in OPR (Y) is unrelated to the variation in SDNWE (X₁), LTLCNWC (X₂), ARAP (X₃) and TCLGFF (X₄).

Therefore, regression equation is $Y = 36.774 - 0.541 X_1 + 5.083 X_2 + 1.310 X_3 - 23.385 X_4$

Regression Analysis of OPR (Y) and CCC (X₁), NTC (X₂) and OPC (X₃) Variables:

H₀ - The variation in OPR (Y) is unrelated to the variation in CCC (X₁), NTC (X₂) and OPC (X₃).

H₁ - The variation in OPR (Y) is related to the variation in CCC (X₁), NTC (X₂) and OPC (X₃).

Table 20: Model Summary

Model	R	R Square	Adjusted Square	Std. Error of the Estimate
1	.832 ^a	.692	.539	4.01113

a. Predictors: (Constant), OPC, NTC, CCC

The R Square value in the Table 20 represents that CCC, NTC and OPC accounts for 69.2 % of the variation on the OPR. This means that 30.8% of the variation of the OPR is due to other factors.

Table 21: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	40.695	6.128		6.641	.001
	CCC	.373	.234	2.038	1.597	.161
	NTC	-.957	.286	-3.584	-3.348	.015
	OPC	.191	.185	1.140	1.030	.343

a. Dependent Variable: OPR

From Table 21, the constant is the intercept of CCC, NTC and OPC. The B value shows that when the CCC, NTC and OPC is 0, the OPR is 40.695. The unstandardized B value for CCC, NTC and OPC reveals that for 1 unit increase in CCC will increase the OPR by 0.373 unit, 1 unit increase in NTC will decrease the OPR by 0.957 unit and 1 unit increase in OPC will increase the OPR by 0.191 unit. The significant value of p (CCC is 0.161 and OPC is 0.343) is greater than 0.05 and there is no support to relate the variables as statistically significant. Thus, the null hypothesis is accepted, and it is proved that variation in OPR (Y) is unrelated to the variation in CCCB (X₁) and OPC (X₃). But for NTC significant value of p is 0.015 is less than 0.05 and there is support to relate the variable as statistically significant. Thus, the null hypothesis is rejected, and it is proved that variation in OPR (Y) is related to the variation in NTC (X₂).

Therefore, regression equation is $Y = 40.695 + 0.373 X_1 - 0.957 X_2 + 0.191 X_3$.

Regression Analysis of NPR (Y) and CR (X₁) & QR (X₂) Variables:

H₀ – The variation in NPR (Y) is unrelated to the variation in CR (X₁) and QR (X₂).

H₁ – The variation in NPR (Y) is related to the variation in CR (X₁) and QR (X₂).

Table 22: Model Summary

Model	R	R Square	Adjusted Square	Std. Error of the Estimate
1	.714 ^a	.509	.369	6.64259

a. Predictors: (Constant), QR, CR

The R Square value in the Table 22 represents that QR and CR accounts for 50.9% of the variation on the NPR. This means that 49.1% of the variation of the NPR is due to other factors.

Table 23: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	50.572	13.069		3.870	.006
	CR	-19.490	7.741	-1.573	-2.518	.040
	QR	19.291	7.174	1.680	2.689	.031

a. Dependent Variable: NPR

From Table 23, the constant is the intercept of QR and CR. The B value shows that when the CR and QR is 0, the NPR is 50.572. The unstandardized B value for QR and CR reveals that for 1 unit increase in CR will decrease the NPR by 19.490 units and 1 unit increase in QR will increase the NPR by 19.291 units. The significant value of p (CR is 0.040 and QR is 0.031) is less than 0.05 and there is a support to relate the variables as statistically significant. Thus, the null hypothesis is rejected, and it is proved that variation in NPR (Y) is related to the variation in CR (X₁) and QR (X₂).

Therefore, regression equation is $Y = 50.572 - 19.490 X_1 + 19.291 X_2$.

Regression Analysis of NPR (Y) and IT (X₁), ART (X₂) and APT (X₃) Variables:

H₀ – The variation in NPR (Y) is unrelated to the variation in IT (X₁), ART (X₂) and APT (X₃).

H₁ – The variation in NPR (Y) is related to the variation in IT (X₁), ART (X₂) and APT (X₃).

Table 24: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.416 ^a	.173	-.241	9.31577
a. Predictors: (Constant), APT, ART, IT				

The R Square value in the Table 24 represents that IT, ART and APT accounts for 17.3% of the variation on the NPR. This means that 82.7% of the variation of the NPR is due to other factors.

Table 25: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-12.963	80.032		-.162	.877
	IT	2.423	5.465	.390	.443	.673
	ART	2.189	5.250	.346	.417	.691
	APT	.280	.615	.230	.455	.665
a. Dependent Variable: NPR						

From Table 25, the constant is the intercept of IT, ART and APT. The B value shows that when the IT, ART and APT is 0, the NPR is -12.963. The unstandardized B value for IT, ART and APT reveals that for 1 unit increase in IT will increase the NPR by 2.423 units, 1 unit increase in ART will increase the NPR by 2.189 units and 1 unit increase in APT will decrease the NPR by 0.280 unit. The significant value of p (IT is 0.673, ART is 0.691 and APT is 0.665) is greater than 0.05 and there is no support to relate the variables as statistically significant. Thus, the null hypothesis is accepted, and it is proved that variation in NPR (Y) is unrelated to the variation in IT (X₁), ART (X₂) and APT (X₃).

Therefore, regression equation is $Y = -12.963 + 2.423 X_1 + 2.189 X_2 - 0.280 X_3$.

Regression Analysis of NPR (Y) and SDNWE (X₁), LTLCNWC (X₂), ARAP (X₃) and TCLGFF (X₄) Variables:

H₀ - The variation in NPR (Y) is unrelated to the variation in SDNWE (X₁), LTLCNWC (X₂), ARAP (X₃) and TCLGFF (X₄).

H₁ – The variation in NPR (Y) is related to the variation in SDNWE (X₁), LTLCNWC (X₂), ARAP (X₃) and TCLGFF (X₄).

Table 26: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.805 ^a	.647	.365	6.66268
a. Predictors: (Constant), TCLGFF, SDNWC, ARAP, LTLCNWC				

The R Square value in the Table 26 represents that SDNWE, LTLCNWC, ARAP and TCLGFF accounts for 64.7% of the variation on the NPR. This means that 35.3% of the variation of the NPR is due to other factors. From Table 27, the constant is the intercept of SDNWE, LTLCNWC, ARAP and TCLGFF. The B value shows that when the SDNWE, LTLCNWC, ARAP and TCLGFF is 0, the NPR is 35.948. The unstandardized B value for SDNWE, LTLCNWC, ARAP and TCLGFF reveals that for 1 unit increase in SDNWE will decrease the NPR by 3.817 units, 1 unit increase in LTLCNWC will increase the NPR by 8.033 units, 1 unit increase in ARAP will increase the NPR by 5.869 units and 1 unit increase in TCLGFF will decrease the NPR by 25.452 units. The significant value of p (SDNWE is 0.372, LTLCNWC is 0.511, ARAP is 0.160 and TCLGFF is 0.285) is greater than 0.05 and there is no support to relate the variables as statistically significant. Thus, the null hypothesis is accepted, and it is proved that variation in NPR (Y) is unrelated to the variation in SDNWE (X₁), LTLCNWC (X₂), ARAP (X₃) and TCLGFF (X₄).

Table 27: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	35.948	18.622		1.930	.111
	SDNWC	-3.817	3.898	-.374	-.979	.372
	LTLCNWC	8.033	11.372	.282	.706	.511
	ARAP	5.869	3.560	.594	1.649	.160
	TCLGFF	-25.450	21.266	-.558	-1.197	.285

a. Dependent Variable: NPR

Therefore, regression equation is $Y = 35.948 - 3.817 X_1 + 8.033 X_2 + 5.869 X_3 - 25.450 X_4$

Regression Analysis of NPR (Y) and CCC (X₁), NTC (X₂) and OPC (X₃) Variables:

H₀ – The variation in NPR (Y) is unrelated to the variation in CCC (X₁), NTC (X₂) and OPC (X₃).

H₁ – The variation in NPR (Y) is related to the variation in CCC (X₁), NTC (X₂) and OPC (X₃).

Table 28: Model Summary

Model	R	R Square	Adjusted Square	Std. Error of the Estimate
1	.900 ^a	.810	.715	4.46133

a. Predictors: (Constant), OPC, NTC, CCC

The R Square value in the Table 28 represents that CCC, NTC and OPC accounts for 81 % of the variation on the NPR. This means that 19% of the variation of the NPR is due to other factors.

Table 29: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	49.986	6.816		7.334	.000
	CCC	.816	.260	3.147	3.140	.020
	NTC	-1.487	.318	-3.931	-4.676	.003
	OPC	.095	.206	.400	.460	.662

a. Dependent Variable: NPR

From Table 29, the constant is the intercept of CCC, NTC and OPC. The B value shows that when the CCC, NTC and OPC is 0, the NPR is 49.986. The unstandardized B value for CCC, NTC and OPC reveals that for 1 unit increase in CCC will increase the NPR by 0.816units, 1 unit increase in NTC will decrease the NPR by 1.487 unit and 1 unit increase in OPC will increase the NPR by 0.095 unit. The significant value of p (OPC is 0.343) is greater than 0.05 and there is no support to relate the variable as statistically significant. Thus, the null hypothesis

is accepted, and it is proved that variation in NPR (Y) is unrelated to the variation in OPC (X_3). But for CCC & NTC significant value of p is 0.020 & 0.003 respectively is less than 0.05 and there is support to relate the variable as statistically significant. Thus, the null hypothesis is rejected, and it is proved that variation in NPR (Y) is related to the variation in CCCB (X_1) and NTC (X_2).

Therefore, regression equation is $Y = 49.986 + 0.816 X_1 - 1.487 X_2 + 0.095 X_3$.

Major Findings

1. GPR had declined, it indicates that the company was unable to control its production cost. The company OPR was lowest indicating the inability of the management in running the company. NPR lowest indicating that the management was not efficiently managing operational efficiency of the company.
2. IT ratio showed a decreasing trend from 2007 to 2016 which indicates that company was not able to convert its inventory into sales immediately. LTDWC was high, signifying decrease in profit of the company. APAR ratio was higher in all the years which indicate that company had a good liquidity position. TCLGFF ratio was higher, causing low profit for the company. CCC and NTC was higher which leads to low profits for the company.
3. OPC showed that company had a longer OPC indicating inefficiency in operating activities. GPR and CR, ART, LTLCNWC, TCLGFF, CCC, NTC, OPC was negatively correlated. There was no significant relationship between GPR and independent variables as p value was greater than 0.50.
4. OPR and CR, ART, LTLCNWC, TCLGFF, CCC, NTC, OPC was negatively correlated. There was no significant relationship between OPR and all the independent variables as p value was greater than 0.50 except for TCLGFF (p value 0.0253).
5. NPR and CR, LTLCNWC, TCLGFF, CCC, NTC, OPC was negatively correlated. There was no significant relationship between NPR and all the independent variables as p value was greater than 0.50 except for ARAP (p value 0.0163) and TCLGFF (p value 0.0408).
6. IT, ART and APT accounts for 1.8 % of the variation on the GPR. The significant value of p (IT was 0.801, ART was 0.851 and APT was 0.971) is greater than 0.05 and there was no support to relate the variables as statistically significant. SDNWE, LTLCNWC, ARAP and TCLGFF accounts for 46 % of the variation on the GPR. The significant value of p (SDNWE was 0.455, LTLCNWC was 0.378, ARAP was 0.456 and TCLGFF is 0.267) is greater than 0.05 and there was no support to relate the variables as statistically significant. CCC, NTC and OPC accounts for 75.9 % of the variation on the GPR. The significant value of p (CCC was 0.061 and OPC was 0.274) is greater than 0.05 and there was no support to relate the variables as statistically significant but for NTC there was a support to relate the variables.
7. IT, ART and APT accounts for 11.5% of the variation on the OPR. The significant value of p (IT was 0.445, ART was 0.578 and APT is 0.669) is greater than 0.05 and there was no support to relate the variables as statistically significant. SDNWE, LTLCNWC, ARAP and TCLGFF accounts for 52.3% of the variation on the OPR. The significant value of p (SDNWE was 0.872, LTLCNWC was 0.609, ARAP was 0.673 and TCLGFF was 0.238) is greater than 0.05 and there was no support to relate the variables as statistically significant. CCC, NTC and OPC accounts for 69.2 % of the variation on the OPR. The significant value of p (CCC was 0.161 and OPC was 0.343) is greater than 0.05 and there was no support to relate the variables as statistically significant. But for NTC there was a support to relate the variables.
8. IT, ART and APT accounts for 17.3% of the variation on the NPR. The significant value of p (IT was 0.673, ART was 0.691 and APT was 0.665) is greater than 0.05 and there was no support to relate the variables as statistically significant. SDNWE, LTLCNWC, ARAP and TCLGFF accounts for 64.7% of the variation on the NPR. The significant value of p (SDNWE was 0.372, LTLCNWC was 0.511, ARAP was 0.160 and TCLGFF was 0.285) is greater than 0.05 and there was no support to relate the variables as statistically significant. CCC, NTC and OPC accounts for 81 % of the variation on the NPR. The significant value of p (OPC was 0.343) is greater than 0.05 and there was no support to relate the variable as statistically significant.

Major Suggestions

1. Analysis showed that company was taking more time to convert its inventory into sales. Poor merchandising, overstocking, outdated merchandise or poor marketing and sales can be the reasons for lower turnover. So, it is suggested to improve its inventory management system. The other reason for lower turnover can be the type of industry.
2. LTDWC was high as per the analysis indicating that company may be using long term debts for working capital. It is recommended to reduce the use of long-term debts for working capital which will help the company to improve profitability.
3. CCC, NCT and OPC showed a longer conversion cycle, this is due to poor inventory management because as per the analysis company is promptly collecting its debts and maintain good credit worthiness. So, it is suggested improving inventory management for shorter conversion cycle.

Conclusion

The present study is a longitudinal relationship between working capital variables and financial performance of Oman Cement Company SAOG for a period of ten years. The study concludes a negative correlation between dependent variables (GPR, OPR & NPR) and independent variables i.e. CR, LTLCNWC, TCLGFF, CCC, NTC, OPC but ART is having negative correlation only of GPR and OPR. The study also concludes that QR and CR accounts for 76.1% of the variation on the GPR and CCC, NTC and OPC accounts for 75.9 % of the variation on the GPR. QR and CR accounts for 71.5% of the variation on the OPR. CCC, NTC and OPC accounts for 69.2 % of the variation on the OPR. SDNWE, LTLCNWC, ARAP and TCLGFF accounts for 52.3% of the variation on the OPR. SDNWE, LTLCNWC, ARAP and TCLGFF accounts for 64.7% of the variation on the NPR. CCC, NTC and OPC accounts for 81 % of the variation on the NPR. The results showed in this analysis may vary from person to person, from industry to industry and the results depend on element selected and methods used.

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