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Working Capital Management of Manufacturing Companies Listed in GCC

Dr. Jeena Ann John

Assistant Professor, AMA International University

Abstract: ***The present research studies the effect of the components of the working capital over the performance of 23 manufacturing firms listed in Gulf Cooperation Council (GCC). The working capital components, namely capital gearing ratio, current assets to current liabilities, inventory holding period, the size of the firm and cash turnover ratio were used to access the profitability of manufacturing companies. Database of 23 companies is randomly selected from the Gulfbase.com site for 6 year period from 2009-2014. The result of the study indicates that manufacturing companies has massively investmented cash in working capital By using multiple regression models, it shows that there are no significant relations between the size of the firm to Gross Profit Ratio, Operating profit margin for average collection period and CA_TA to ROA. In other words, management can increase the profitability by focusing on Capital Gearing Ratios.***

Keywords: Working Capital, Profitability, Gearing Ratio, ROA, GCC

1. Introduction

The economy of the world changes rapidly. The global crisis had a significant impact on the financial and business activities in GCC. The Gulf Corporation Council (GCC) countries have been performing well during the time period 2003-08. From 2008 as the global crisis has affected Gulf Corporation Council (GCC) countries, there was a gradual decrease in performance of trade and financial channels. The profitability of the non-financial sectors has declined in many Gulf Corporation Council (GCC) countries. It is very important for the companies to maximize the liquidity and cash flow, as to maintain the concern and the confidence of the investors. Finance is one of the major elements that activate the overall growth of the economy. A well-knit financial system directly contributes to the growth of the economy. An efficient financial system calls for the efficient performance of the institutions, financial instruments, and financial markets. Finance which acts as the lifeblood of the modern business and it is one of the most important considerations for an entrepreneur-company. While implementing, expanding, diversifying, modernizing or rehabilitating any project the meaning of finance is better understood. Finance is a science of managing money and other assets. It is the process of channeling of funds in the form of investment capital, credits, or loans to those economic agents who are in need of funds for productive investments or otherwise. In general, finance is that business activity which is concerned with the acquisition and conservation of capital funds in meeting financial needs and overall objectives of a business. Working capital is vitally important for the manufacturing sectors. A rapid change in economic and financial conditions affects the result of Working capital in GCC firms. The firms respond to the deteriorating environment by lowering the level of cost on production, cutting cost and delaying the expenditure incurred on capitals.

2. Overview on Past and Present Development of GCC

Over the past decade, the level of manufacturing and share of the non-oil sector in GDP were growing. After oil production, the largest contribution towards GCC economy is from Manufacturing and Aluminum sectors. According to Arab News (2015), 11% overall growth has been seen in leading manufacturing companies. For a long period, the industrial sector of GCC has been focusing on manufacturing. Mouawiya Al Awad (2010) reveals that between 1997-07 annual growth rate for the manufacturing sector in Oman (18.9%), Qatar (12.4%), UAE (9.3%), Bahrain (8.6%), Saudi (7.5%) and Kuwait (1.2%).

3. Literature Review

Senthilmani Thuvarkan (2011) "impact of working capital management on profitability in UK manufacturing industry" In this study it shows that largest listed European companies compared to UK companies has unnecessarily tied up working capital in 2011, which could have been utilized or released, if proper working capital management has been performed by the organization. It could be also analyzed that most efficient sector of UK companies completes the cash conversion cycle in 19 days followed by service sector (23 days), telecommunication sector(26 days), oil and gas (88 days), pharmaceuticals (85 days) and manufacturing (104 days). It is evident from the study that the total debt and the size of the firm affect the profitability. As stated in the study "working capital management and firm performance in the emerging market :the case of Jordan" done by Bana Abuzayad (2012), it is revealed that due to the increase of financial crisis the firm has been urged to efficiently utilize their available resources, at this particular crisis period the firms liquidity and short-term investments are considered to be more important for the firms existence .As per the trade-off theory, the firm has to keep a balance between the liquidity and the profitability. Liquidity can meet the short-term obligations and expenses of the firm, it guarantee continues to cash flow and profitability venture. The firm should run the business more efficiently and profitability.

On the other hand, too much focus on the liquidity will have a negative impact on the profitability. 52 firms were considered for the study and it is evidently proved that there is a positive relationship between firm's profitability and cash conversion cycle.

Bhunia and Das (2012) examined the relationship between the working capital management and profitability of Indian private sector small-medium steel companies obtained from CMIE database. Working capital management indicators and profitability indicators over the period from 2003 to 2010 are molded as a linear regression system in multiple correlations and regression analysis. The study shows a small relationship between WCM and profitability. Multiple regression tests confirm a lower degree of association between the working capital management and profitability.

Chisti Khalid Ashraf (2012) "The relationship between working capital efficiency and Profitability" the objective of this research is to investigate the relationship between the effectiveness of the working capital and profitability. The developed hypothesis has been tested in three different ways such as the graphic presentation of variables, descriptive analysis and correlation & regression techniques to determine the relation between depended and independent variable. The graphic analysis reveals that net operating profit has significantly negative relation to CCC. The result of the correlation analysis reveals that a negative correlation exists between net operating profit and days of inventory turnover. By using the descriptive analysis the researcher interprets that between the companies there are significant changes in the ratios of NOP, CCC and CR.

4. Statement of the Problem

The objective of every firm is to increase profit. Majority of the business fails is due to mismanagement of the components of the working capital and success of the firm depends on the regularity to generate cash and make prompt payments. To effective control and manage these components is the important function of financial management in any business or organization. It is the particular amount blocked in working-in progress until the product reaches the final stage of the sale. The objective of the working capital management in businesses is to maintain an optimal balance of the components of the working capital and balancing between risk and efficiency.

Following are the research questions framed to study the relationship and impact of working capital.

- What is the working capital management scenario of manufacturing companies of GCC?
- What is the relationship between the working capital and financial performance of the companies?
- What is the relationship between the working capital and firm's profitability?
- What are the factors that influence the working capital?

5. Objectives of the Study

In the light of the above research questions, following objectives were framed:

- To study the working capital management of the selected manufacturing companies listed in GCC.
- To analyze the financial performance of the selected manufacturing companies listed in GCC.
- To identify the factors that influence the working capital in the selected manufacturing companies listed in GCC.
- To offer suggestions to improve the working capital management of manufacturing companies listed in GCC.

6. Scope of the Study

Working capital management is the process of planning for the acquisition and usage of short-term assets and liabilities. It is the flow of readily available funds necessarily required for continuous operations of an enterprise. The ultimate goal of the working capital management is to ensure that firms are able to continue their operations with sufficient cash flow that will service their long-term debts and satisfy both maturing short-term obligations (debt) and upcoming operational expenses. The GCC which comprises UAE, Bahrain, Saudi Arabia, Qatar, and Oman. Hence, the Current study is about the working capital management of the selected manufacturing companies listed in GCC. The results of the study shall establish the relationship between the working capital and the financial performance of the companies, the profitability of the companies and identify the factors that influence the working capital of these selected companies.

7. Significance of the Study

The main purpose of this study is to analyze the working capital management of manufacturing companies listed in GCC. Firms that are listed on Gulfbase.com are taken into consideration for the study within the time period from 2009 – 2014, to comparing on the components of working capital management with the financial ratios and understanding on the firm's performance and could provide valid suggestion to improves on managing the components of the working capital. The findings of the study will benefit management and staff of the companies under study, by gaining insight into how these companies can effectively manage their working capital to enhance their financial performance. The results of the study will also assist policymakers and regulators to implement a new set of policies and regulations regarding working capital management in the manufacturing sector. The study will also benefit the investing crowd such as security analysts, investment managers, stockbrokers and other big and retail investors whose knowledge of the relationship between working capital management and the financial performance is an important input into investment analysis and portfolio construction.

Hypotheses of the Study

In order to establish the ground for the research, some hypotheses about the study are framed. On the scrutiny of the past research studies and with the foresight of the current research study, following hypothesis are framed.

- H01: There is no significant relationship between selected profitability ratios namely gross profit ratio, operating profit ratio, return on investment.

- H02: There is no significant relationship between current assets to total assets, current liabilities to total assets, capital gearing ratio, inventory holding period, average collection period.
- H03: There is no impact of the size of working capital on the profitability of the selected aluminum product manufacturing companies.

The Data Collection and Statistical Technique

The current study is based on secondary data obtained from Gulfbase.com database. In order to analyze the efficiency of Working Capital in the selected manufacturing companies different financial and statistical techniques are used. Financial tools include ratio analysis and statistical tools include descriptive statistics and measures of variance, compound annual growth rate, correlation, and multiple regression are used to establish relationships.

Correlation

Correlation is a statistical technique that helps in analyzing the covariation of two or more variables. The problem of analyzing the relationship between variables.

The formula for computing correlation is

$r = n\sum xy - (\sum x)(\sum y) / \sqrt{n\sum x^2 - (\sum x)^2} \sqrt{n\sum y^2 - (\sum y)^2}$

		Gross Profit	Operating Profit	ROA
Gross Profit	Pearson Correlation	1	.985**	.454**
	Sig. (2-tailed)		.000	.000
	N	132	132	132
Operating Profit	Pearson Correlation	.985**	1	.471**
	Sig. (2-tailed)	.000		.000
	N	132	132	132
Return on Assets	Pearson Correlation	.454**	.471**	1
	Sig. (2-tailed)	.000	.000	
	N	132	132	132

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

The correlation result indicates that there is a high degree of positive correlation between gross profit margin and operating profit margin (.985), the relationship between gross profit margin and return on assets (.454), operating profit margin and return on assets (.471) is statistically significant. The relationship between gross profit margin and operating profit margin, return on investment shows significant correlation.

8. Regression Analysis

For regression analysis, the following dependent and independent variables are estimated and used. The dependent variables are related to different measures of profitability and the independent variables are related to different components of working capital.

The dependent variables are

Y1 – Gross Profit Margin (GPM)

Y2 – Operating Profit Margin (OPM)

Y3 – Returns on Assets (ROA)

The independent variables are

X1 – Size of the firm - FSize

X2 – the degree of capital gearing is measured as a ratio of total outsider's liabilities to equity shareholders fund (known as the Gearing ratio) - GEAR

X3 - the degree of effective utilization of current assets is measured in terms of Current Assets to Turnover Ratio – CATURN

X4 - the size of Current Assets is measured in terms of proportion of Current Assets to total assets - CA_TA

X5 - the inventory holding period is measured in terms of number of days of inventory carried by the firm - INVDYS

X6 - the average collection period is measured in terms of the number of days of average receivables – ARDYS

Models estimated

Step-wise multiple regression models are estimated for each of the dependent variable. The models are as follows:

GPM it= α+ βFSizeit+ βGEARit+ βCATUNit+ βCA_TAit+ βINDYSit+ βACDYSit + εit

OPM it= α+ βFSizeit+ βGEARit+ βCATUNit+ βCA_TAit+ βINDYSit+ βAPDYSit + εit

ROA it= α+ βFSizeit+ βGEARit+ βCATUNit+ βCA_TAit+ βINDYSit+ βAPDYSit + εit

The regression result reveals that all selected independent variables viz firm size, capital gearing ratio, current assets turnover, current assets to total assets, inventory holding period, average collection period, are collectively explains 61 percent of variation in gross profit, 61.4 percent of variation in operating profit margin and 34 percent of variation in return on assets.

Regression Analysis with working capital components and gross profit margin

The regression result also indicates that the working capital components namely capital gearing ratio, current assets to current liabilities, inventory holding period, average collection period and cash turnover ratio are found significantly influencing the gross profit margin of selected aluminum companies. The relationship between other components and gross profit margin is not significant. Hence, the null hypothesis is partly accepted that there is no significant relationship between gross profit margin and size of the firm. Therefore, companies should improve its capital gearing ratio, current assets to current liabilities, inventory holding period, average collection period and cash turnover ratio in order to maximise its gross profit margin.

Regression Analysis with working capital components and operating profit margin

The result also indicates that the working capital components namely capital gearing ratio, current assets to current liabilities, inventory holding period, size of the firm and cash turnover ratio are found significantly influencing the operating profit margin of selected aluminum companies. The relationship between average collection period and operating profit margin is not significant. Hence, the null hypothesis is partly accepted that there is no significant relationship between operating profit margin and average collection period. Therefore, companies should improve its capital gearing ratio, current assets to current liabilities, inventory holding period, average collection period and cash turnover ratio in order to maximise its operating profit margin.

Regression Analysis with working capital components and Return on Asset Ratio

The result also indicates that the working capital components namely capital gearing ratio, average collection period and size of the firm are found significantly influencing the return on assets of selected aluminum companies. The relationship between current assets to total assets, inventory collection period, cash turnover ratio and operating profit margin is not significant. Hence, the null hypothesis is partly accepted that there is no significant relationship between return on assets and current assets to total assets, inventory collection period, and cash turnover ratio. Therefore, companies should improve its capital gearing ratio, average collection period in order to maximise its return on assets.

9. Suggestions of the Study

- Reduce the investments in current assets out of total assets in order to improve the working capital management.
- Keep optimum current assets in order to enhance the short-term debt-paying ability of the firm.
- Companies should try to improve the management of inventory by identifying the item into “A”, “B” and “C” categories.
- Companies should maintain the proper credit policy.
- Companies should raise their investment in working capital in order to meet the regular operating expenses.
- Proper production planning and investment decisions, should adopt to enhance the profitability of the firm.
- The low solvency ratio indicates that solvency and financial position of these firms are weak. Hence it is advised to keep sufficient assets to meet the long-term liabilities.
- The variables namely capital gearing ratio, current assets to current liabilities, inventory holding period, size of the firm and cash turnover ratio have strongly influenced the profitability of the selected companies. Hence it is suggested that the companies should increase the efficiency of these variables in order to increase the profitability.

10. Limitations of the Study

Every research activity is, more or less accompanied with some limitations and this study is not an exception. The study is likely to have the following limitations in spite of the best efforts:

- The data used are secondary data sourced from Gulfbase.com
- The field of the study relates only to the manufacturing companies.
- The period of the study is limited to 6 years between 2009 to 2014

11. Conclusion

Working capital plays a vital role in the company’s operations and requires the efficient management. The management of working capital concerns the management of cash, inventories, accounts receivable and accounts payable. It is necessary for a company to monitor its working capital properly and maintain its balance at the appropriate level. Shortage of working capital may lead to lack of liquidity as well as loss of production and sales; on the contrary, excess balance of working capital could be seen as a loss of investment opportunities. From this study, the researchers find that most of the manufacturing companies have large amounts of cash invested in working capital. The study found that the working capital components, namely capital gearing ratio, current assets to current liabilities, inventory holding period, size of the firm and cash turnover ratio are significantly influencing the profitability of manufacturing companies. Therefore, the companies should increase these variables in order to raise the profitability of these companies

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