The Role of Financial Analysis Ratio in Evaluating Performance

(Case Study: National Chlorine industry)

Abdel- Rahman kh. El- Dalabeeh

Accounting Department, Faculty of Finance and Business Administration, AL al-bayt University, Mafraq, Jordan

Abstract

This study aimed to identify the role of the management accountant in evaluating the companies' performance through using the financial analysis methods in evaluating the performance of the National Chlorine industries co.ltd. The analytical approach, which is based on the analysis of the financial statements for five years except 2003 , was adopted in this study and the Horizontal Analysis ,Vertical Analysis and Financial Ratios, which were the most common between 2003-2008, were applied. The study concluded that having an administrator accountant to analyze the financial statements of the National Chlorine industries co.ltd leads to identify and explain the deviations and the undesired extreme results. And through training the employees, it is possible to use other methods to analyze the deviations that help in evaluating the company through identifying the causes for these deviations. The researcher recommended establishing an independent department for the management accounting in the company to evaluate its performance through analyzing the deviations and treat them and to provide qualified employees; scientifically and practically to do the work of the company.

Keywords: Role ; Financial Analysis Ratio ; Evaluating Performance ; National Chlorine industry

1. Introduction:

The management accounting is considered one of the most important components of the system of the administrative information in the company by providing the economic and financial information and collecting information taken from other systems of information in the company so it looks as accounting for inner affairs that helps the administration in making decisions ,planning , controlling and evaluating the performance of the company's activities , therefore it is not restricted to the known accounting principles but it depends on basis and regulations concerning the content and the shape of the inner reports[1] .

And due to the competition circumstances between the projects for the resources and the markets in the local and international levels, the importance of using the methods of accounting arose in studying the historical and economic data to estimate the revenues and the appropriate costs of these decisions , and the management accounting role is to find solutions to these deviations in order to avoid them in future , and develop the company to achieve higher revenues and to have a place in the competitive market [2] .

[1] Meri`, Ateia(2008),Management Accounting : Basics of planning , making decisions ,controlling and evaluating the performance , Dar Alfath Atajleed Alfani, Alexandria

[2] Previous reference ,p 12.

1.1 The problem of the study:

The Industrial Corporations are considered distinguished companies in Jordan, and one of these companies is the National Chlorine industries co.ltd which tried to do its work properly through reducing the deviations to achieve its final target which is achieving high profits. The problem of the study is represented by answering the following questions:

What is the management accounting role in evaluating the performance of the National Chlorine industries co.ltd through using the methods of financial analysis (Horizontal Analysis ,Vertical Analysis and Financial Ratios) ?

1.2 Objectives of the study:

This study aims to achieve the following objectives:

1- To identify the role of management accounting in evaluating the performance of the National Chlorine industries co.ltd by using Vertical Analysis Method?
2- To identify the role of the management accounting in evaluating the performance of the National Chlorine industries co.ltd by using Horizontal Analysis Method?
3- To identify the role of the management accounting in evaluating the performance of the National Chlorine industries co.ltd by using Financial Ratios ?

1.3 Significance of the study

The importance of using the financial analysis methods in the National Chlorine industries co.ltd is represented by providing the appropriate and accurate information to know the reasons of the deviations and then to evaluate the company's performance .

2. Conceptual Framework and Previous Studies

2.1 An Introduction about the National Chlorine industries co. ltd

The National Chlorine industries co.ltd was established as limited public shareholding company by the law of companies N(1) to the year 1989 and registered in the record of the limited public shareholding companies under N(212) in 09/11/1991 and in 15/03/1992 the company has the right to start working . The company established its factories in Mowager, the southern area of the east of Amman. One of the company's goals is to establish a factory to produce Chlorine and caustic soda and their products, to buy raw materials, machines, necessary tools to achieve their goals in addition to sell, market the company's products and distribute them locally or export them abroad. The main Market of liquid caustic soda's product is in Jordan and its estimated volume of internal sales to Jordan is about (85%-90%) of Soda production and what remains is sold to Syria, Lebanon, and Iraq. While Jordan share's of Chlorine gas does not exceed (25%) of the production and what remains is exported to Iraq, Syria and Lebanon.The National Chlorine industries co.ltd is exposed to an external competition of Kuwaiti, Saudi and Egyptian products which have a whole custom exemption in Jordan where the companies , most of times, lowered their prices than at cost.

2.2 Methods of Management Accounting

The system of administrative accounting is considered the most important component of the administration information system in the project because it supplies the economic and financial information and do all the work of other branches of information system of the project and the main purpose of these processes which the system of administrative accounting does is to prepare the reports that include the necessary information for planning , controlling and evaluating the performance in order to take the appropriate decisions [3].

Meri` defined the administrative accounting as " It is an information system that collect and analyze data concerning useful issues , or phenomena , or economic phenomena in the field of information production help in taking decisions that have economic effect on the resources, the economic projects' commitment and the society fortune as a whole unit. And this information could be happened in the past or in the present and it is expected to last till near future or it is expected to happen in the future and it has no relation with past or present.[4] And Abu Alhasan, defined management accounting as "Information system specialized in collecting, analyzing, classifying and storing basic data or information resulted from other systems of information in the company to produce information which are naturally quantitative financially or non financially, then they are presented to the higher administration to use them in planning, taking decisions and controlling the plans' implementation". [5]

And regarding the importance of the administrative accounting in serving the employees of the company, its objectives from Hilton's point of view is [6] : "provide information for the sake of planning processes and making decisions, help the managers in guiding and controlling the operative activities and motivate the mangers and other employees, measure the performance, units, managers and the employees who work in the company and improve the company's competitive situation".

2.3 Performance Evaluation:

The performance evaluation is considered as the final step in a series of the administrative process where the administrative process starts by identifying the desired objectives as a result of utilizing the available resources to the administrative unit, then a plan is prepared to achieve these objectives followed by the control process over the implementation in order to identify the deviations of the actual results of what the plan and the objectives identified as expected results and the control process leads the evaluation process.

[3] Abo-Hasan,Ali,(1996) Advanced Management Accounting ,1st ed, Dar Jamea, Alexandria
[4] Meri`, Ateia(2008),Management Accounting : Basics of planning , making decisions ,controlling and evaluating the performance , Dar Alfath Atajleed Alfani, Alexandriap 11
[5] Abo-Hasan,Ali,(1996) Advanced Management Accounting ,1st ed, Dar Jamea, Alexandria
[6] Hilton, R.(2002). Managerial Accounting ,p6

The process of evaluation is the most difficult administrative tasks because it includes many different variables, some are descriptive and others are personal and because of this, it seems difficult to measure the performance. But having standards for evaluating the performance means the availability of a physical measurement could be applied for the individuals. The standards provide an effective model for evaluating the performance [7]. And evaluating the performance is one of the systematic control steps of the costs and these costs include the following : [8]

1- Preparing the approach : this step is done at the level of planning
2- The control: this step starts at the beginning of the implementation level and continues till the actual implementation level is over. And in this level the performance is evaluated in terms of the comparison between the authorized standards of planning level and the results of the actual performance and implementation.
3- The judgment: to evaluate to the performance and identify the level of the efficient productivity.
4- The treatment: writing a report of the urgent deviations and their causes to decisions as a treatment for them.

2.4 Evaluation the financial performance:

The financial evaluation performance has a big importance in world of economy and it was what the studies of accounting and administration focused greatly on.
The financial reports which are prepared in the company is considered as an important tool to evaluate the financial performance where analyzing these reports helps in identifying the company's points of weakness and strength and work on the weakness to find solutions. The financial ratio is the most common method used to analyze the financial reports and has an accurate evaluation to treat the points of weakness, effectively and efficiently. The financial ratios do not add new information but it is helpful in explaining the relation between the variables to come up with results.

2.5 Previous studies:

1- The study of Abdallah (2008) [9]aimed to identify whether the Jordanian industrial companies applied the modern management accounting and to identify the most important benefits the companies get from these methods . The results of the study showed that the most important benefits of applying these methods is providing the administrations with the appropriate information in appropriate time, improving the products' quality and reducing the costs.

2- The study of Emsley [10] aimed to clarify how the management accounting can design an analysis to the deviations to solve the problems at the level of operations. A case

[7] - Hetger, Listrai& Matoltch, Seirj(1988) , management Accounting , translation Hajaj, Ahmad, Ryadh , Saudia
[8] Kahala, Jebrael& Hanan,Radwan,(1998) Standard cost accounting : control and proof, 2nd , Dar Athagafa for publishing and distribution , Amman , Jordan .

[9] Abdallah, Ali(2008) , Financial Analysis and its uses for controlling the performance and revealing the deviations , Unpublished thesis , University of Open Arab Academy , Denmark
[10] Emsley, David(2001). Redesigning Variance Analysis for Problem solving . http://papers.ssrn.com/sol3/papers.cfm?abstract_id=261182

study was used to describe a number of improvements inserted into solving the practical problems in the company including changes in the system as the analysis deviation after discussing these improvement in group work. The study concentrated on four changes affect the deviation analysis and suggested four improvements. The results showed that three of these suggestions improved problem solution .

3- The study of Al-Hadidi(2005) [11] aimed to identify the extent of using the methods of management accounting by the Jordanian public industrial companies in the field of taking decisions, controlling and planning and it also aimed to reveal the degree of variance between applying these methods and the financial performance of these companies and to identify the difficulties which they faced using the management accounting methods in these companies . It was found that the common method used in taking decisions is the total cost , in planning is the operational budgets while in the control , the most common methods used is the comparison with the previous years , responsibility accounting , performance reports and calculating the deviations. The least methods used in making decisions is the system of Activity-Based Costing and in the control is balance score card.

3. Methods of collecting data

For the purpose of collecting data , the researcher depends on the following methods:

-Arabic and foreign Books, journals and other references which addressed the topic of the financial analysis and evaluating the performance were considered as the basic reference for the theoretical information about the topic of this study.

- And regarding the information of the applicable side , the researcher depends on the financial reports of the National Chlorine industries co.ltd with the help of Securities Commission-Amman-Jordan.

3.1Financial and Statistical methods used in the analysis:

There are many financial and statistical methods used in this research as:

1- Financial ratios as liquidity and profitability ratios.
2- Vertical and horizontal analysis of the financial statements

[11] Al-Hadidi ,Isra`,(2005). Extent of using methods of management accounting in the Jordanian public industrial companies and their effect on the performance , Unpublished thesis, University of Jordan, Amman Jordan

Table (1)
Balance Sheet (2003-2008)

Assets	2003	2004	2005	2006	2007	2008
Current assets						
Cash on hand and at bank	3,069	25,834	71,754	616,591	361,725	1,444,150
Accounts receivable	1,688,573	1,638,583	1,993,513	1,651,440	2,149,889	1,805,489
Documentary credits	39,874	136,434	113,524	110,837	41,204	23,380
Checks Under Collection	176,654	82,284	163,321	126,794	159,891	160,453
Short term loan	0	0	0	0	0	0
Goods	271,829	142,320	164,304	167,524	333,399	376,820
Warehouse, chemicals and spare parts	802,209	873,624	1,195,539	1,148,779	1,029,211	1,079,681
Total of current assets	2,982,208	2,899,079	3,701,955	3,821,965	4,075,319	4,889,973
Long term investment	0	0	0	0	0	0
Net fixed assets	12,148,568	10,725,450	9,543,921	8,503,652	7,822,942	6,869,638
Lands	0	0	0	0	0	0
projects under execution	0	0	0	0	72,081	377,312
Total of fixed assets	12,148,568	10,725,450	9,543,921	8,503,652	7,895,023	7,246,950
Other assets	0	0	0	0	0	0
Total of assets	**15,130,776**	**13,624,529**	**13,245,876**	**12,325,617**	**11,970,342**	**12,136,923**
Liabilities and equity						
Current liabilities						
Accounts payable	1,500,842	745,720	625,487	606,828	602,868	538,833
Credit banks	1,798,743	1,063,541	527,210	34,206	102,221	55,486
Short term loan	0	0	0	0	0	0
Current portion of long-term loans	710,000	708,998	153,276	73,518	0	0
other credit balances	239,773	414,569	421,508	465,076	400,297	338,451
Total of current liabilities	4,249,358	2,932,828	1,727,481	1,179,628	1,105,386	932,770
Long term loans	710,000	0	62,652	0	0	0
Corporate Bonds	0	0	0	0	0	0
Liabilities total	4,959,358	2,932,828	1,790,133	1,179,628	1,105,386	932,770
Equity						
Capital authorized	7,200,000	9,000,000	9,000,000	9,000,000	9,000,000	9,000,000
Capital, subscribed	7,200,000	9,000,000	9,000,000	9,000,000	9,000,000	9,000,000
Capital paid in	7,200,000	9,000,000	9,000,000	9,000,000	9,000,000	9,000,000
Compulsory reserve	433,054	529,001	708,136	822,639	894,282	1,013,922
optional reserve	260,579	260,579	360,579	410,579	410,580	250,674
Other reserves	0	0	0	0	0	0
Premium issue	1,350,000	0	0	0	0	0
Discount issuance	0	0	0	0	0	0
Treasure stock	0	0	0	0	0	0
Fair value total change,	0	0	0	0	0	0
profits forwarded profits	927,785	902,121	1,387,028	912,771	560,094	939,557
Total of equity ,stockholders	10,171,418	10,691,701	11,455,743	11,145,989	10,864,956	11,204,153
Minority rights			0	0	0	0
Total of equity ,stockholders & liabilities	**15,130,776**	**13,624,529**	**13,245,876**	**12,325,617**	**11,970,342**	**12,136,923**

Table (2)

Income list for(2008-2003)

	2003	2004	2005	2006	2007	2008
Sales	6,822,646	7,064,271	8,127,405	6,732,370	6,288,605	8,905,038
Cost of sales	4,995,471	5,269,848	5,316,833	4,945,646	4,706,025	6,221,747
Gross Profit	1,827,175	1,794,423	2,810,572	1,786,724	1,582,580	2,683,291
General & Administrative Expenses	242,622	327,506	325,549	372,966	350,900	431,777
Selling expenses	272,323	367,545	534,028	508,705	558,133	1,101,547
Financial expenses	269,074	158,270	102,796	49,428	8,695	7,745
Net operating income	1,043,156	941,102	1,848,199	855,625	664,852	1,142,222
Net **Revenue &other expenses**	122,073	79,424	9,295	325,792	51,577	54,176
Expenses &other expenses	98,872	120,804	138,780	95,167	66,433	98,151
Profit, year before tax provision	1,066,357	899,722	1,718,714	1,086,250	649,996	1,098,247
Net income b.tax	1,066,357	899,722	1,718,714	1,086,250	649,996	1,098,247
Income tax provision	18,660	19,439	54,672	46,004	31,033	13,924
Income tax, previous years	0	0	0	0	0	25,126
Year, profit	1,047,697	880,283	1,664,042	1,040,246	618,963	1,059,197
Minority rights	0	0	0	0	0	0
Net income of shareholder	1,047,697	880,283	1,664,042	1,040,246	618,963	1,059,197

Table (3)

Analysis of financial reports

(Horizontal analysis of balance sheet

Assets	2008-2003	2007-2003	2006-2003	2005-2003	2004-2003
Current assets					
Cash on hand and at bank	47056.04	11786.41	20090.94	2338.03	841.77
Accounts receivable	106.92	127.32	97.80	118.06	97.04
Documentary credits	58.63	103.34	277.97	284.71	342.16
Checks Under Collection	90.83	90.51	71.78	92.45	46.58
Short term investment					
Goods	138.62	122.65	61.63	60.44	52.36
Warehouse, chemicals and spare parts	134.59	128.30	143.20	149.03	108.90
total of current assets	**163.97**	**136.65**	**128.16**	**124.13**	**97.21**
long term investment	0.00	0.00	0.00	0.00	0.00
Net of current assets	56.55	64.39	70.00	78.56	88.29
Lands	0.00	0.00	0.00	0.00	0.00
projects under execution	0.00	0.00	0.00	0.00	0.00
total of current assets	**59.65**	**64.99**	**70.00**	**78.56**	**88.29**
Other assets	0.00	0.00	0.00	0.00	0.00
Total of assets	**80.21**	**79.11**	**81.46**	**87.54**	**90.05**
Liabilities and equity					
Current liabilities					
Accounts payable	35.90	40.17	40.43	41.68	49.69
Credit banks	3.08	5.68	1.90	29.31	59.13
Short tem loan	0.00	0.00	0.00	0.00	0.00
Current portion of long-term loans	0.00	0.00	10.35	21.59	99.86
other credit balances	141.15	166.95	193.97	175.79	172.90
total of current assets	21.95	26.01	27.76	40.65	69.02
long term loans	0.00	0.00	0.00	8.82	0.00
Corporate Bonds	0.00	0.00	0.00	0.00	0.00
Liabilities total	**18.81**	**22.29**	**23.79**	**36.10**	**59.14**
Equity					
Capital authorized	125.00	125.00	125.00	125.00	125.00
Capital, subscribed	125.00	125.00	125.00	125.00	125.00
Capital paid in	125.00	125.00	125.00	125.00	125.00
Compulsory reserve	234.13	206.51	189.96	163.52	122.16
optional reserve	96.20	157.56	157.56	138.38	100.00
Other reserves	0.00	0.00	0.00	0.00	0.00
Premium issue	0.00	0.00	0.00	0.00	0.00

Discount issuance	0.00	0.00	0.00	0.00	0.00
Treasure stock	0.00	0.00	0.00	0.00	0.00
Fair value total change,	0.00	0.00	0.00	0.00	0.00
profits forwarded profits	101.27	60.37	98.38	149.50	97.23
Total of equity ,stockholders	110.15	106.82	109.58	112.63	105.12
Minority rights	0.00	0.00	0.00	0.00	0.00
Total of equity ,stockholders & liabilities	**80.21**	**79.11**	**81.46**	**87.54**	**90.05**

The Horizontal analysis of the balance sheet of the National Chlorine industries co.ltd revealed the following :

1- The total of assets has decreased gradually , and the decrease was in the fixed assets and noticing that at the same time the current assets has increased gradually and this refers to the significant increase of cash in the box .
2- The total of liabilities has decreased gradually because of the shortage in all the liabilities as it is clear in the horizontal analysis statement of balance sheet.
3- Based on the horizontal analysis of balance sheet, the increase of the assets in general and the decrease of liabilities indicate that the company works properly.

Table (4)

Income statement analysis

	2008-2003	2007-2003	2006-2003	2005-2003	2004-2003
Sales	130.52	92.17	98.68	119.12	103.54
Cost of sales	124.55	94.21	99.00	106.43	105.49
Gross profit	146.85	86.61	97.79	153.82	98.21
General & Administrative Expenses	177.96	144.63	153.72	134.18	134.99
Selling expenses	404.50	204.95	186.80	196.10	134.97
Financial expenses	2.88	3.23	18.37	38.20	58.82
Net operating income	109.50	63.73	82.02	177.17	90.22
Net Revenue &other expenses	44.38	42.25	266.88	7.61	65.06
Expenses &other expenses	99.27	67.19	96.25	140.36	122.18
Profit, year before tax provision					
Net income before tax	102.99	60.95	101.87	161.18	84.37
Income tax provision	74.62	166.31	246.54	292.99	104.17
Income tax(previous years)	0.00	0.00	0.00	0.00	0.00
Year ,profit	101.10	59.08	99.29	158.83	84.02
Minority rights	0.00	0.00	0.00	0.00	0.00
Net income of shareholder	101.10	59.08	99.29	158.83	84.02

We notice from the horizontal analysis of the income statement of National Chlorine industries co.ltd , the following :

1- There are variance in profit during the years and that was because the sales were not in a fixed increase but sometimes they increase and other times decreased . And there is a correlation between sales and cost of the sales in that if sales increase , the cost increases and vice versa.
2- Sales have an influence on the general and administrative expenses and selling and distributing expenses . The more the sales are , the more administrative expenses needed for the employees and general expenses ,selling and distributing of the sales .

Based on the horizontal analysis of the income statement and with noticing that more sales means much more cost of sales and as a result of this ,the other costs increase. So the company has to increase the sales with finding ways to reduce the related costs of them and it is possible, if the company followed traditional methods to determine the costs , to follow up the costs' system which is based on the activities to determine the cost of each activity separately.

Table (5)
Analyzing financial statements
Vertical analysis of the balance sheet

Assets	2008	2007	2006	2005	2004	2003
Current assets						
Cash on hand and at bank	11.90	3.02	5.00	0.54	0.19	0.02
Accounts receivable	14.88	17.96	13.40	15.05	12.03	11.16
Documentary credits	0.19	0.34	0.90	0.86	1.00	0.26
Checks Under Collection	1.32	1.34	1.03	1.23	0.60	1.17
Short term investment	0.00	0.00	0.00	0.00	0.00	0.00
Goods	3.10	2.79	1.36	1.24	1.04	1.80
Warehouse, chemicals and spare parts	**8.90**	**8.60**	**9.32**	**9.03**	**6.41**	**5.30**
total of current assets	**40.29**	**34.05**	**31.01**	**27.95**	**21.28**	**19.71**
Long term investment	0.00	0.00	0.00	0.00	0.00	0.00
Net fixed assets	56.60	65.35	68.99	72.05	78.72	80.29
Lands	0.00	0.00	0.00	0.00	0.00	0.00
projects under execution	3.11	0.60	0.00	0.00	0.00	0.00
Total of fixed assets	**59.71**	**65.95**	**68.99**	**72.05**	**78.72**	**80.29**
Other assets	0.00	0.00	0.00	0.00	0.00	0.00
Total of assets	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**
Liabilities and equity						
Current liabilities						
Accounts payable	4.44	5.04	4.92	4.72	5.47	9.92
Credit banks	0.46	0.85	0.28	3.98	7.81	11.89
Short term loan	0.00	0.00	0.00	0.00	0.00	0.00
Current portion of long-term loans	0.00	0.00	0.60	1.16	5.20	4.69
Other balance credits	2.79	3.34	3.77	3.18	3.04	1.58
Total of current liabilities	**7.69**	**9.23**	**9.57**	**13.04**	**21.53**	**28.08**
Long term loan	0.00	0.00	0.00	0.47	0.00	4.69
Corporate Bonds	0.00	0.00	0.00	0.00	0.00	0.00
Total of liabilities	**7.69**	**9.23**	**9.57**	**13.51**	**21.53**	**32.78**
Equity						
Capital authorized	74.15	75.19	73.02	67.95	66.06	47.59
Capital, subscribed	74.15	75.19	73.02	67.95	66.06	47.59
Capital paid in	74.15	75.19	73.02	67.95	66.06	145.18
Compulsory reserve	8.35	7.47	6.67	5.35	3.88	8.73
optional reserve	2.07	3.43	3.33	2.72	1.91	1.72
Other reserves	0.00	0.00	0.00	0.00	0.00	0.00
Premium issue	0.00	0.00	0.00	0.00	0.00	8.92
Discount issuance	0.00	0.00	0.00	0.00	0.00	0.00
Treasure stock	0.00	0.00	0.00	0.00	0.00	0.00
Fair value total change,	0.00	0.00	0.00	0.00	0.00	0.00
profits forwarded profits	7.74	4.68	7.41	10.47	6.62	6.13
Total of equity ,stockholders	92.31	90.77	90.43	86.49	78.47	67.22
Minority rights	0.00	0.00	0.00	0.00	0.00	0.00
Total of equity ,stockholders &liabilities	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

We notice the following from the Vertical analysis of the balance sheet:

1- The importance of current assets increased during the years (2003-2008) where the total of the current assets was 19.71% in 2003 and become 40.29% in 2008 and this refers to the increase of the cash in the box and at the bank and the goods.
2- Fixed assets decreased during the years (2003-2008)respectively where the total of the fixed assets was 80.29% n 2003 and becomes 59.71% in 2008 , and this refers to the decrease in the fixed assets .
3- Total of liabilities decreased during the years (2003-2008) respectively where the total of liabilities was 32.78% in 2003 and becomes 7.69% in 2008 and this refers to the noticeable decrease in the accounts payables

Based on vertical analysis of the balance sheet , the company focused greatly on in the increase of current assets and in return reducing liabilities and this means the company's capability in facing its commitments on time for the availability of liquidity and this is a positive indication but the company has to determine liquidity ratio that should be available in the company to face these commitments and to increase its sales to achieve higher profits in the coming years.

Table (6)
Vertical Analysis of Income Statement

	2008	2007	2006	2005	2004	2003
Sales	100.00	100.00	100.00	100.00	100.00	100.00
Cost of sales	69.87	74.83	73.46	65.42	74.60	73.22
Gross profit	30.13	25.17	26.54	34.58	25.40	26.78
General & Administrative Expenses	4.85	5.58	5.54	4.01	4.64	3.56
selling expenses	12.37	8.88	7.56	6.57	5.20	3.99
Financial expenses	0.09	0.14	0.73	1.26	2.24	3.94
Net operating income	12.83	10.57	12.71	22.74	13.32	15.29
Net **Revenue &other expense**s	0.61	0.82	4.84	0.11	1.12	1.79
Expenses &other expenses	1.10	1.06	1.41	1.71	1.71	1.45
Profit, year before tax provision	12.33	10.34	16.13	21.15	12.74	15.63
Net income before tax	12.33	10.34	16.13	21.15	12.74	15.63
Income tax provision	0.16	0.49	0.68	0.67	0.28	0.27
Income tax(previous years)	0.28	0.00	0.00	0.00	0.00	0.00
Year ,profit	11.89	9.84	15.45	20.47	12.46	15.36
Minority rights	0.00	0.00	0.00	0.00	0.00	0.00
Net income of shareholder	11.89	9.84	15.45	20.47	12.46	15.36

We notice from the vertical analysis of the income statement the following :

1- The profit in the year 2005 was 20.47% and this was the highest ratio of profit during the years (2003-3008), and this refers to the great reduction of the sales' cost .

First : Analyzing Liquidity Ratios :

The liquidity ratios aimed to evaluate the company's financial capability for short term through measuring the company's capability to meet its short term commitments when they are due .

Table (7)
Financial ratios analysis

Liquidity ratios	2003	2004	2005	2006	2007	2008
Current Ratio = current assets / **Current liabilities**	0.70	0.99	2.14	3.24	3.69	5.24
Quick Liquidity Ratios = (current assets-inventory)/current liabilities	0.45	0.64	1.36	2.12	2.45	3.68
Cash ratio =cash + marketable **securities** / current liabilities	0.00	0.01	0.04	0.52	0.33	1.55
Net Working Capital = current assets - current liabilities	1,267,150-	33,749-	1,974,474	2,642,337	2,969,933	3,957,203

We notice from the table that liquidity rations were higher in 2008 than it was in the previous years , and this means the following :

1- Current ratios : the company's ability to cover its current liabilities
2- Quick Liquidity Ratios: the adequacy of sources of cash and cash equivalent in the company I meeting its short term commitments.
3- Cash ratio : the company's assets of cash are the most liquid assets in the company and therefore the company depends basically on them to fulfill its commitments especially if the company could not Liquidate other assets.
4- Net working capital: the current assets increased rapidly which led to an increase in the current liabilities .

And according the management accountant's point of view , the analysis of the liquidity ratios clarifies that the company has the ability to meet its commitment on time ,cover its liabilities but it should be known the extent of the company's preservation of the amount of the current assets especially the cash to face its commitments and the increase of cash in the company may lead to the risk of not utilizing the current assets. And the current assets ratios should be the double of the current liabilities so as the company can meet its commitments on time .

Second : The Analysis of Profitability Ratios :

The profitability ratios reflect the extent of efficiency by which the company takes its Investment decisions and measures the extent of the company management efficiency in achieving profit on the sales , assets and the owners' rights.

Table (8)
Financial Ratios Analysis

Profitability Ratios	2003	2004	2005	2006	2007	2008
return on **assets** = **Net profit**+ **Interest Expenses**-1) **tax ratio** /(**average total assets**	0.14	0.06	0.13	0.08	0.05	0.09
Return on owners' equity = net profit /average of owners' equity	0.10	0.08	0.15	0.09	0.06	0.09

We conclude the following from Profitability Ratios:

1- Return on Assets was high in 2003 where it was 0.14% and there was not a continuous increase in the ratio.

2- Return on equity was high in 2005 with 0.15% and there was not a continuous increase in the ratio.

based on this ,the company did not take its decisions in achieving the profit on sales efficiently.

According to the management accountant's point of view , it is necessary to know the reasons of the fluctuation of the profit ,to know the company's production and the sales' volume and to identify the most effective production lines and to control the least effective production lines to find out the reasons for this fluctuation and to use the modern methods to determine the cost of products as the method of activity based costing instead of the traditional methods and this in turn reduces the costs.

Third: Analyzing Debt Ratios

Debt ratios measure the extent of the company's dependence on others' money to finance its needs.

Table (9)

Debt ratios	2003	2004	2005	2006	2007	2008
Debt Ratio / shareholders' equity =total of liabilities / shareholders' equity	0.33	0.22	0.14	0.10	0.09	0.08
Long term debt ratio/shareholders' equity =long term shareholders 'equity /shareholders' equity	0.05	0.00	0.00	0.00	0.00	0.00

It is noticeable from the debt ratios the following : the company reduced its dependence on others in financing its needs which means risk reduction which the company may it face in case it did not fulfil its commitment to others. And according to the administrative accountant's opinion , the debt ratios are considered as a good indicator to the extent of the company's dependence on others money in financing its needs which means the company's capability to use its resources properly , to expand its business and dept repayment without the need to borrow from others.

Fourth : Analyzing Activity Ratios

Activity ratios are called Assets Management Ratios and it measures the efficiency of the company's management in distributing its financial resources properly for all types of assets and its efficiency in using its assets to produce as much as possible of goods and services .

Table (10)
Activity Ratios

Activity Ratios	2003	2004	2005	2006	2007	2008
Turnover of goods / day =balance average of goods /360* goods cost	9.79	14.15	10.38	12.08	19.16	20.55
average collection period /day =Average accounts receivable /360*net annual sales	44.55	84.78	80.44	97.45	108.81	79.95
Profitability ratios = total profit /net of sales	0.27	0.25	0.35	0.27	0.25	0.30
Net profit ratio /sales =net profit /net sales	0.15	0.13	0.23	0.13	0.11	0.13
Profitability ratios =net profitability before interest ,tax ,revenues,& other expenses) /(net sales	0.16	0.13	0.21	0.16	0.10	0.12
Account receivable turnover =net sales /account receivable average	8.08	4.25	4.48	3.69	3.31	4.50
Turnover of goods =cost of goods sold /balance of goods	36.75	25.45	34.68	29.81	18.79	17.52
Net working capital turnover =net sales /net working capital	- 10.77	- 10.86	8.38	2.92	2.24	2.57
Total assets turnover =net assets /average total assets	0.90	0.49	0.60	0.53	0.52	0.74

We notice the following from the analysis of activity ratios:

1- Turnover of goods was in 2008more than it was in 2003, and this is a good indicator of the extent of the efficiency and the effectiveness of the inventory management where the turnover inventory increased , the better it was .
2- The collection period was higher in 2007 where it reached 108.81% while it increased in 2008 to be 79.95% and this is not a good indicator because this percent indicates the extent of the efficiency of credit management and the extent of the efficiency of the credit and collection policies .
3- Net Working Capital Turnover was in an increase during the years 2003-2008 where it increases in 2008 to be 2.57% while it was 10.77% in 2003, and this indicates the efficiency of the company's management of Net Working Capital.
4- It is noticeable that the ratios' analysis regarding the profit varied during the years 2003-2008, where it was not in a continuous increase and this refers to what the company and sales achieved .

And according to the administrative accountant's opinion of the analysis of the activity ratios that there is instability in the efficiency of the company management in distributing its financial resources for all different types of assets and its efficiency in using its assets to produce as much as possible of goods and services so the company has to get benefit of managers and management accountants who are specialized to help the company to use its sources efficiently so as to achieve high returns.

Fifth : Analyzing Market Ratios

Table (11)
Market Ratios

Market Ratios	2003	2004	2005	2006	2007	2008
Market value ratio /book value=market share price/book value per share	1.88	1.57	1.63	1.10	1.03	0.90
return distribution ratio = earnings per share /Share market	0.00	0.05	0.07	0.07	0.00	0.00

We notice from analyzing the market ratios the following :

1- Market value ratio /carrying value is considered as an indicator to evaluate the investors of the company and it is expected that the investors to pay higher than the carrying value to the company's shares.

2- Return distribution ratio : used to judge on investment opportunities.

Based on this, we notice that Market ratios of the company fluctuated which is considered as a negative indication that leads to a decrease in the number of investors in the company and the opportunities in the company as well.

And according the administrative accountant the company has to increase its profits so as to increase the share's profit and so there will be an increase in the return distribution ratios , and this gives a positive image of the company to the investors which increase the company's investments , its profits and its sales.

4. Results and Recommendations:

4.1 Results of the study were as follows :

The management accountant has a role in the process of evaluating the performance , and there is an effect of using deviation analysis in the National Chlorine industries co.ltd that helps in identifying the causes of these deviations and therefore to adjust them. And there are no obstacles prevent using the deviation analysis in the National Chlorine industries co.ltd because it is easy to detect the deviation through using simple methods as financial ratios.

Based on these results, the researcher recommended the following :

It is necessary that the National Chlorine industries co.ltd pays attention of increasing its profits through increasing its sales and this can be achieved by controlling production lines and know which line achieved the highest production and which one achieved the lowest one and to find solutions. It is also necessary to pay attention of providing employees who are qualified scientifically and practically to implement the work of the company properly by utilizing and developing the available resources . It is important to establish an independent management accounting department to evaluate the performance of the company through deviation analysis in order to treat these deviations as the moment they occurred and to overcome them . The company has to provide and develop its software to complete the work in short time and save effort and labors.

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