

Ratings of Iranian Cement Companies Based on Financial Ratio Analysis

Issa Heidari

Shoushtar Branch, Islamic Azad University, Shoushtar, Iran

Heidarissa@yahoo.com

Abstract: This research discusses Ratings of Iranian cement companies according to the analysis of their financial information. In this grading, it was determined how successful is the management of companies. In fact, Ratings companies is classifying them based on the ability of managers to maintain profitability of companies. In today's competitive world in which the most important issue is survival of organizations, managers are required to adopt appropriate strategies through studying market and competitors accurately. This way, they would be helpful for the organization like an accurate and planned program. The grade, which is allocated to a company, may be related to different factors; however, In this research, we have analyzed financial ratios and determined the grade and position of every 23 cement companies of Islamic Republic of Iran on profitability and determined their management level. [Issa Heidari. **Ratings of Iranian Cement Companies Based on Financial Ratio Analysis.** *Life Sci J* 2012;9(4):540-544] (ISSN:1097-8135). <http://www.lifesciencesite.com>. 81

Keywords: Ratings, profitability, competitive, management level, financial ratios,

1. Introduction

The present research has used financial ratios to determine the grade and management level of each company. While most business owners focus on providing exceptional products and services to their customers, they must also pay attention to the performance and health of their company. Financial ratios provide insight into the strengths and weaknesses of a business and give the managers indications of areas that need improvement. A thorough knowledge of which ratios to use and how to use them is a critical management skill.

The primary focus of every business is to make a profit, have enough liquidity to pay its bills and maintain control of borrowed funds. Several ratios give managers the tools to evaluate these areas and measure their performance. Businesses should constantly monitor these ratios to detect negative trends and identify areas that need improvement. However, it also helps for a manager to rank the performance of his company against major competitors and other businesses in the same industry. Two sources to find the average financial ratios for a wide range of industries are the Robert Morris and Associates Annual Statement Review, Almanac of Business and Industrial Financial Ratios, and the key business ratios published by Dun & Bradstreet. Managers should use the financial ratios that analyze profitability, liquidity and debt leverage to make the comparison and determine the ranking of their company relative to the industry averages [7].

A financial ratio (or accounting ratio) is a relative magnitude of two selected numerical values taken from an enterprise's financial statements. Often used in accounting, there are many standard ratios used to try to evaluate the overall financial condition of a

corporation or other organization. Financial ratios may be used by managers within a firm, by current and potential shareholders (owners) of a firm, and by a firm's creditors. Financial analysts use financial ratios to compare the strengths and weaknesses in various companies.[4] If shares in a company are traded in a financial market, the market price of the shares is used in certain financial ratios.

2. Purpose and types of ratios

Financial ratios quantify many aspects of a business and are an integral part of the financial statement analysis. Financial ratios are categorized according to the financial aspect of the business which the ratio measures. *Liquidity ratios* measure the availability of cash to pay debt. *Activity ratios* measure how quickly a firm converts non-cash assets to cash assets. *Debt ratios* measure the firm's ability to repay long-term debt [8]. *Profitability ratios* measure the firm's use of its assets and control of its expenses to generate an acceptable rate of return. *Market ratios* measure investor response to owning a company's stock and also the cost of issuing stock. These are concerned with the return on investment for shareholders, and with the relationship between return and the value of an investment in company's shares[2].

Financial ratios allow for comparisons

- between companies
- between industries
- between different time periods for one company
- between a single company and its industry average

Ratios generally are not useful unless they are benchmarked against something else, like past

performance or another company. Thus, the ratios of firms in different industries, which face different risks, capital requirements, and competition, are usually hard to compare.

3. Accounting methods and principles

Financial ratios may not be directly comparable between companies that use different accounting methods or follow various standard accounting practices. Most public companies are required by law to use generally accepted accounting principles for their home countries, but private companies, partnerships and sole proprietorships may not use accrual basis accounting[8]. Large multinational corporations may use International Financial Reporting Standards to produce their financial statements, or they may use the generally accepted accounting principles of their home country. There is no international standard for calculating the summary data presented in all financial statements, and the terminology is not always consistent between companies, industries, countries and time periods.

4. Literature

There are different grading systems in various branches of economy in the western countries and Russia, one of which is the American System of CAML, which is used by supervisors in banks.

The CAMEL ratings system is a method of evaluating the health of credit unions by the National Credit Union Administration (NCUA). The rating, adopted by the NCUA in 1987, is based upon five critical elements of a credit union's operations:[6]

- (C) Capital
- (A) Asset quality
- (M) Management
- (E) Earnings
- (L) asset Liability management

This rating system is designed to take into account and reflect all significant financial and operational factors examiners assess in their evaluation of a credit union's performance. Credit unions are rated using a combination of financial ratios and examiner judgment.

5. CAMELS rating

The CAMELS ratings or Camels rating is a United States supervisory rating of the bank's overall condition used to classify the nation's fewer than 8,000 banks. This rating is based on financial statements of the bank and on-site examination by regulators like the Federal Reserve, the Office of the Comptroller of the Currency and Federal Deposit Insurance Corporation. The scale is from 1 to 5 with 1 being strongest and 5 being weakest. These ratings are not released to the public but only to the top management of the banking company to prevent a bank run on a bank which has a bad CAMELS rating [1].

It is a tool being used by the United States government in response to the global financial crisis of 2008 to help it decide which banks to provide special help for and which to not as part of its capitalization program authorized by the Emergency Economic Stabilization Act of 2008 .

6. Components

The components of a bank's condition that are assessed:

- (C) Capital adequacy,
- (A) Asset quality,
- (M) Management,
- (E) Earnings,
- (L) Liquidity and
- (S) Sensitivity to Market Risk

Based these features Credit rating agencies rate instruments proposed to issue by the respective company [3].

Another system was used by Smatov .A. K (1996), a researcher from Republic of Tajikistan, which determines the position of each company in an industry. The researcher divides grading into 5 groups:

- Liquidity Ratios
- Leverage Ratios
- Profitability Ratios
- Activity Ratios
- Quality Management

Mr. Smatov carried out grading of companies based on these Financial ratios [5].

7. Methodology

The statistical population of this research includes 23 companies listed in Iran Stock Exchange. The present research was carried out based on the grading criteria of Mr. Smatov in the Iranian cement companies and it was prepared according to the characteristics of Iranian cement industry. Using such grading in the other branch of industry is limited; however, it does not mean that it is impossible to use it for the other industry.

In addition, we divided the following grading into 4 groups to determine the grade and position of the companies based on Smatov's grading system:

1. Companies with excellent management and high profitability (4.5 to 5)
2. Companies with average management and average profitability (4 to 4.49)
3. Companies with inefficient management and without profitability (3.5 to 3.99)
4. Companies with poor/bankrupt and loss-making management; with a grade lower than(3.49)

Profitability of companies determines management level. In the present research, management level refers to liquidity profitability and appropriate use of assets and investment. Consequently, economic profitability

of companies was evaluated by the following criteria based on the grading system:

Table 1. Grading criteria for cement production companies

Indicators	limitation	Higher ratings	Criterion corrected
<u>Shareholders Equitys</u> Assets	> 0.5	5,0	-0,05=-1,0
<u>Current Assets</u> <u>Current Liabilities</u>	>1,5	5,0	-0,2=-1,0
Inventory turnover ratio	To 60 п̄з	5,0	+30=-1,0
<u>Net Income</u> Sales	>25%	5,0	-6%=-1
<u>Growth in Income</u> <u>Growth in Sales</u>	>1.0	5,0	-0,1=-1,0
ROA	> 15%	5,0	-3,0%=-1,0
ROE	>40%	5,0	-8=-1,0
Cost one dollar sold	To 0,75	5,0	+0,05=-1,0
Percent Direct cost of sales	To 0,5	5,0	+0,04=-0,1
Percent Direct costs to total costs	To 0,7	5,0	+0,05=-0,1
Quality Management (1*2*3*4)	>5	5,0	-1=-1.0

Choosing these criteria shows management quality. It can be stated that each of these criteria, by itself, indicates management level. An informed manager does not allow level of debits increases and profitability and sales of company products decrease. As, in the economic literature, such criterion indicates management level. Following formula is used to calculate the real grade of a company:

$$A = Mb \pm \frac{b - c}{Ki}$$

A=the grade was calculated

Mb= Highest grade (maximum grade)

b = Size of indicator

C= Real size of indicator

Ki= Correction criterion of indicator

In addition, we used the following formula to calculate management level:

$$R = \frac{\sum Ki}{N}$$

R = Factory grade

$\sum Ki$ = Calculated grade for each criterion

N = Number of criteria

8. Research Result

To show the grade of each ratio of the ratios used in this research, for instance in 2010, the ratio of the salary of stockholders to the assets of cement companies was 0.49, which is 0.01 less than 0.5:

$$A = \frac{b - c}{Ki} = 5 - \frac{0,5 - 0,49}{0,05} = 5 - 0,3 = 4,7$$

The results showed that the ratio of the stockholders' salaries to the assets of the factory in 2010 was 4.7. The following result was obtained to show the management level of companies:

$$R = \frac{\sum Ki}{N}$$

$$\text{Management level} = \frac{4,7+2,9+3,8+5}{4} = 4,1 \text{ Ratings}$$

The result shows that the grade is 4.1, which indicates the position and grade of Iranian cement companies in 2010. The grades of the companies during 2008 - 2010 were as follows:

Table 2- The grades of companies obtained during 2008 – 2010

Group of Companies	Range	2010		2009		2008	
		Number of Companies	Percent	Number of Companies	Percent	Number of Companies	Percent
Companies with top management and high profitability	4,5-5,0	4	17,4%	7	30,4%	0	0,0%
Companies with middle management and above average profitability	4,0-4,49	7	30,4%	5	21,7%	4	17,4%
Companies Patient management and No profitable	3,5-3,99	3	8,7%	5	21,7%	9	39,1%
Companies With poor management or Bankruptcy and the loss	to 3,49	9	43,5%	6	26,1%	10	43,5%
Total	X	23	100%	23	100%	23	100%

The results extracted from this table shows that companies management was at a lower level in 2008, as 19 out of 23 companies were placed in Group 3 and 4; in other words, 82.6 percent of the companies had a poor management.

However, the managers of companies had a good performance in 2009, as 7 companies were placed in Group 1. It can be stated that 12 out of 23 companies were placed in Groups 1 and 2. It shows that the companies had successful managers and

number of successful companies exceeds half of the sample companies. Nevertheless, in 2010, the managers could not continue and the number of 7 companies, which used to be in Group 1 in 2009, descended to 4 companies. In 2010, totally, half of the companies, i.e. 11 companies were placed in Groups 1 and 2. Nine companies, 43.5% of them, were in Group 4. It shows that the companies are in an unpleasant situation.

The following table shows the grades obtained from analyzing financial information of the sample companies and the grade of each company, which were determined during 2008 - 2010.

Table 3 - The grade of each company during 2008 – 2010

Company Name	Rank		
	2010	2009	2008
Tehran	4,0	4,4	3,9
Bojnourd	2,9	2,1	2,4
Dapab	4,4	4,5	3,6
Dshststan	4,4	3,9	3,8
Doroud	3,1	3,7	3,8
Elam	2,8	3,7	2,6
Fares	3,8	4,3	3,9
Gharb	3,5	2,8	1,5
Hormozgan	4,5	4,8	3,6
Kerman	4,0	4,4	3,9
Khzar	1,7	2,1	2,5
Mazandaran	4,3	2,3	2,8
Arrowmyh	3,4	3,9	3,3
Sfyda Neiriz	4,5	4,6	4,3
Sepahan	3,1	3,2	3,3
Shmal	2,5	2,8	2,4
Svfyan	2,5	3,9	3,5
Gain	4,4	4,8	4,3
Kurdistan	4,7	4,5	4,0
Kash	3,8	4,7	3,8
Caron	3,2	4,0	3,2
Asfhan	4,4	4,5	4,2
Hegmatan	4,5	4,1	2,1
Iran	4,1	4,2	3,7

9. Summary

In the present research, we studied Ratings of 23 Iranian cement companies. The results obtained based on the analysis of their financial ratios during 2008 - 2010 showed that management of cement companies in Iran was in a favorable condition and their grades in 2008 - 2010 were 3.7, 4.2 and 4.1, respectively. However, the obtained results do not mean that all the companies enjoyed an excellent level of management. It can be stated that the Iranian.

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9/19/2012