

Financial Health of the Construction Industry of Pakistan - A Perspective of Major Stakeholders

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Abstract

Construction sector and construction activities are considered to be one of the major sources of economic growth, development, and economic activities. Especially the current decade is witnessing massive infrastructure growth in Pakistan. At the same time there are indications to suggest, that during times of adverse conditions, the occurrence of insolvent conditions seem to be on the increase. Construction companies must therefore undertake regular evaluation of their performance in order to ensure the adoption of timely and appropriate strategies to survive in business. Such considerations should automatically form part of the strategic planning process. There are various ideas for formulating financial analysis methods for corporate evaluation. Of these approaches, ratio analysis has received the most attention. The use of such models by construction companies can provide an early warning mechanism which should serve as an effective monitoring tool for avoiding continued poor corporate performance or eventual insolvency. It was very early when ratio models in the international construction industry were used as a decision tool but even at the present moment Pakistan Construction Industry can not adopt such practice owing to scarce technical support and lack of awareness. Keeping this in view the following objectives have been set for this research.

1. Benchmarking the level of assessment of financial health of the construction industry.
2. Simple quantification of the financial health of the construction industry to pave way for better future for the construction industry.
- 3.

The analysis of the responses is carried out using frequency analysis and the results are presented in a consolidated table of percent usage and percent occurrence of value of each ratio in three levels namely "Less than One", "Equal to One" and "Greater than One" during the last fiscal year in construction industry of Pakistan.

Keywords: Insolvent conditions, Financial analysis, Ratio analysis, Strategic planning process, Corporate evaluation.

1. Introduction

Construction sector and construction activities are considered to be one of the major sources of economic growth, development and economic activities. (Khan, 2008). Compared to the past, the current decade is witnessing massive infrastructure growth in Pakistan. There are numerous infrastructure development projects in progress as well as under planning. All of these projects have the potential to lead the local industry to gain glory, status and international recognition but only when appropriate efforts are extended to achieve the same. (Farooqui, 2007). There are indications to suggest, that during times of adverse conditions, the occurrence of insolvent conditions seem to be on the increase. (Rwelamila et al, 1997).

Insolvency may be broadly defined as an inability of a business entity to meet pending financial commitments. For a construction firm, argues (De Valence, 1994), such a situation creates conditions whereby a business entity is unable to fulfill its contractual obligations with regard to work-in-progress or creditors owing. (De Valence, 1994). Construction companies must therefore undertake regular evaluation of their performance in order to ensure the adoption of timely and appropriate strategies to survive in business. Such considerations should automatically form part of the strategic planning process. To achieve this, some construction companies rely heavily on `signals' obtained from internal and external analyses to form the basis of their planning (McNamee, 1985). On the other hand, regular review of a company's financial health status is also a valuable practice. This sort of financial evaluation is a study of relativity. In order to understand a company's business health, it must compare itself with its peers. Companies must base their business decisions on accountable data for which information obtained from financial analysis is of utmost importance. (Ya Hsieh et al, 2001). (Edum-Fotwe et al., 1996) also provided various ideas for formulating financial analysis methods for corporate evaluation. Of these approaches, ratio analysis has received the most attention. By comparing selected financial ratios, ratio analysis can easily determine how the performance of one firm relates to the performance of either a group of peers or the entire industry. Similarly, (Cannon and Hillebrandt, 1991) are of the view that significant in the analysis is the financial aspect, and particularly financial ratios which often express the signals that planning assumptions are based on. Therefore financial ratio analyses are applied generally for various corporate appraisals, and in particular for strategic management which seeks to address the future survival of a construction business. (Edum-Fotwe et al., 1995). The financial function plays a significant role in ensuring that company objectives are compatible with its resources. Financial information usually serves as the basic instrument of strategic analysis, thus, through the use of published financial data, analysis of the behavior and competence of rival firms within the industry can be performed leading to judgments relating to a company's relative competitive position. (Mintzberg, H et al., 1989). The finance function, by its very nature, performs two complementary roles in ensuring the survival of a corporate establishment: monitoring and evaluating the implementation of its business strategy. (Edum-Fotwe et al, 1995)

2. Objectives

This study has been undertaken with the following objectives in mind.

1. Benchmarking the level of assessment of financial health of the construction industry.
2. Simple quantification of the financial health of the construction industry to pave way for better future for the construction industry.

3. Literature Review

Financial analysis can be grouped into the following: ratio analysis, sources and application of funds statement, and break-even analysis. However, financial analysis for corporate evaluation is often limited to ratio analysis (Edum-Fotwe et al, 1995).

3.1. Ratio Analysis

Ratio analysis provides a very quick and effective way of obtaining an insight into a company's operations and performance. When ratios for several consecutive years are graphically presented, a moving picture of a company's performance can be established. Also, by comparison with industry averages (competitor's ratio), judgments relating to the company's position within the industry can easily be made. Traditional ratio analysis involves calculating single ratio values by employing any two financial figures. There are four broad categories of traditional ratios, as discussed below, compiled from (Padget, 1991), (Jordan and Sons, 1993) and (Harris and McCaffer, 1995). The categories of ratio are:

- 1) *Liquidity ratios*: measure a company's ability to meet its short-term commitments.
- 2) *Profitability ratios*: measure the overall performance, which management has been able to achieve.
- 3) *Leverage ratios*: measure the extent to which a company has been financed by debt and shareholders' funds.
- 4) *Activity ratios*: measure how well a company has been using its resources.

The first category of ratio measures liquidity, which shows how a company can meet its current liabilities. Companies usually fail because they cannot meet their current liabilities. Ratios in this category include the current ratio and the solvency ratio. The current ratio gives an indication of a company's ability to honor its current liabilities from its current assets. The solvency ratio shows the extent to which the company can meet obligations of current liabilities from its liquid resources. According to (Harris and McCaffer, 1995), a value greater than 1 for both ratios is considered satisfactory for construction contractors.

The second category of ratio measures relates to the profitability of companies. The profit margin measures how well a company is doing in maximizing its sales and minimizing cost. The margin expresses the profit generated by each pound of sales. The return on assets measures the efficiency with which the assets a company are utilized to generate profit. This provides a means of assessing various options for investing corporate resources. The return on equity shows the profitability of a company in terms of the capital provided by the ordinary shareholders. The ratio focuses on the efficiency with which the company earns profits on behalf of its ordinary shareholders. The earnings per share ratio is employed as an alternative to the return on equity.

The third category of ratio measures deals with the capital structure of the company, and thereby shows the extent to which a company is exposed to financial risk. The gearing presents the proportion of a company's capital that is financed by borrowed funds. According to (Padget, 1991), there is no optimum level for this ratio, however low levels of gearing are associated with lower financial risks. The interest cover focuses attention on the relationship between liabilities of interest payments and the profits available from the company's business operations. (Solomon and Pringle, 1980) indicated that a higher interest cover is associated with a position of low financial risk.

The fourth category of the traditional ratio measures deals with the efficiency of the company's operations. The asset turnover expresses the performance of a company in generating sales from the assets at its disposal. Several variants of this ratio can be calculated. The stock turnover indicates the number of times a company's inventory (in the case of the construction contractor, the work-in-progress plus raw materials) is turned over in each financial year.

(Mason and Harris, 1979) suggested the application of the ratio model to assist in contractor selection by the client, in order to identify potentially insolvent contractors and to avoid awarding them contracts.

The use of such models by construction companies can provide an early warning mechanism which should serve as an effective monitoring tool for avoiding continued poor corporate performance or eventual insolvency. (Edum-Fotwe et al, 1995)

4. Research gap

“Financial ratio models are used in international construction industry from very early stage as decision tools but till today except for few organizations of Pakistan Construction Industry on the whole can not adopt such practice on the same lines of international practices owing to scarce technical support and lack of awareness. Hence there is a need to develop ingenious methods and methodologies that can help to rectify and improve the current practices of local construction sector. With this stated this research study is undertaken to answer the following research questions.

5. Research Questions

1. What is the present status of the financial health of the construction industry via its major stakeholders, considering the last fiscal year alone?
2. Which Financial Ratios forms the basis of assessment of the financial health of Pakistan Construction Industry by its major stakeholders?

6. Research Methodology

This research effort consisted of a literature review of the relevant secondary data in the form of research papers and books. For this purpose data was gathered and development of knowledge base for the exercise was undertaken. However, the study required an extensive Primary data. In order to acquire that a questionnaire survey exercise was initiated. The targeted respondents were contractors, clients, consultants, project managers. The questionnaires will be sent to the respondents via email and their responses will also be collected directly at NED University of Engineering & Technology.

6.1. Data Sources

6.1.1. Primary Source

The general methodology of this study relies largely on the survey questionnaire responses which were collected from the contractors, clients, consultants, project managers- major stakeholders of Pakistan Construction Industry. A mix of respondents was selected to obtain a representative data response. The questionnaire prepared for the survey was formulated by screening and comprehending the relevant literatures in the area of Financial Management, particularly in the area of Business Ratios.

6.1.2. Secondary Source

In order to aid the gathering of data through primary source it was vital that a thorough literature review was initially conducted to identify the business ratios that are used to assess the financial health of an organization. Prior Relevant Research and Books forms the major part of secondary data source. The study involves Quantitative Analysis of the responses from the survey process which involves Frequency Analysis of the obtained responses in order to meet the objectives set for this study. And since the data has been gathered from a representative sample of the construction industry it can be generalized for the construction industry as a whole.

6.1.3. Questionnaire Structure

The survey questionnaire is designed to probe the cross-sectional behavioral pattern of Financial Management practices in the local construction industry. The questionnaire survey was divided into four parts.

- Part A. It dealt with the identification of those business ratios that is currently used or can be used in the construction industry of Pakistan to assess financial health.
- Part B. It dealt with the quantitative estimation of various business ratios so that meaningful conclusions can be reached.
- Part C. It dealt with the general information of the respondents and the participating organizations.
- Part D. Suggestions.

6.2 Survey Analysis Methodology

As described in Section 6.1.3, the respondents provided data on the frequency of usage and/or suitability of usage of a respective business ratio to assess the financial health of the organizations where they are employed. Simple frequency analysis was carried out to screen out Highly (80% and above); Moderately (60%-70%); Low (50% and Less) used business ratios. Further more the respondents gave their responses by selecting the level i.e. Less than one (LT 1); Equal to one (EQ 1); Greater than one (GT 1), of the business ratios during the last fiscal year for their organization. Arithmetic mean is calculated on the responses provided respective to each level described above. This provided useful quantification of the responses for the meaningful conclusions to be made.

7. Analysis & Conclusions

7.1. Highly Used Ratios

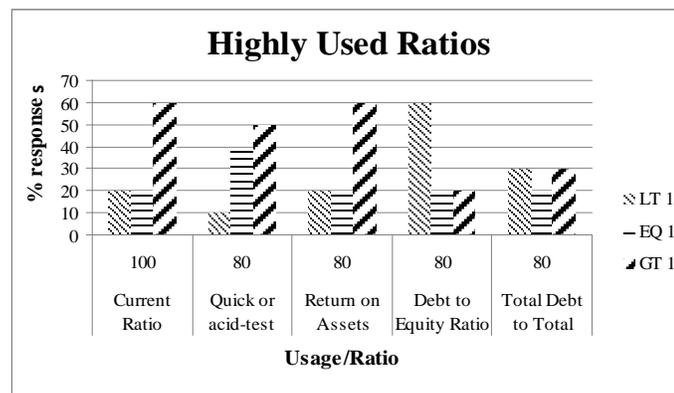


Figure.1 Highly Used Ratios

Business ratios such as Current Ratio, Quick Test, Return on Assets, Debt to Equity and Total Debt to Total Assets were found to be mostly used by organizations to assess their financial performance, further more it can also be concluded that these few ratios are mostly suitable to assess the financial performance as per the view of the respondents. Approximately 20% of the respondents said that their organizations have current ratio less than one or equal to one meaning that they have enough assets to pay off their liabilities and in some cases they have fewer assets as compared to their liabilities. But there were 60% of the respondents that responded that there organization have experienced current ratio of greater than one meaning that they have a strong financial position during the last fiscal year. The Quick Ratio of majority

of firms have remained approximately 50% of times greater than one indicating a trend that firms have ready fund available with them to pay off their liabilities.

7.2. Moderately Used Ratios

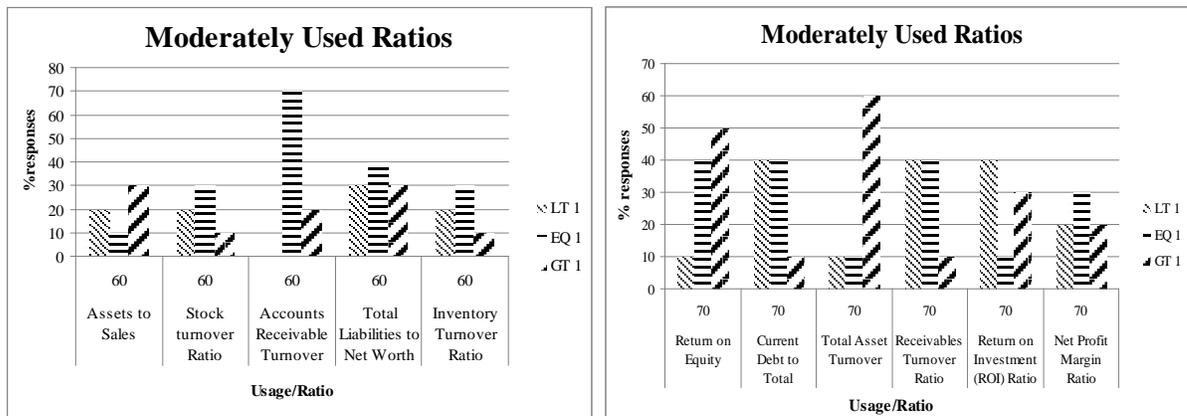


Figure 2 Moderately Used Ratios

Business ratios such as Return on Equity, Current Debt to Total Assets Ratio, Total Asset Turnover, Receivables Turnover Ratio, Return on Investment (ROI) Ratio, Net Profit Margin Ratio, Assets to Sales, Stock turnover Ratio, Accounts Receivable Turnover Ratio, Total Liabilities to Net Worth Ratio, Inventory Turnover Ratio are found to be moderately used by the construction industry for the assessment of financial health of the organization.

7.3. Less Used Ratios

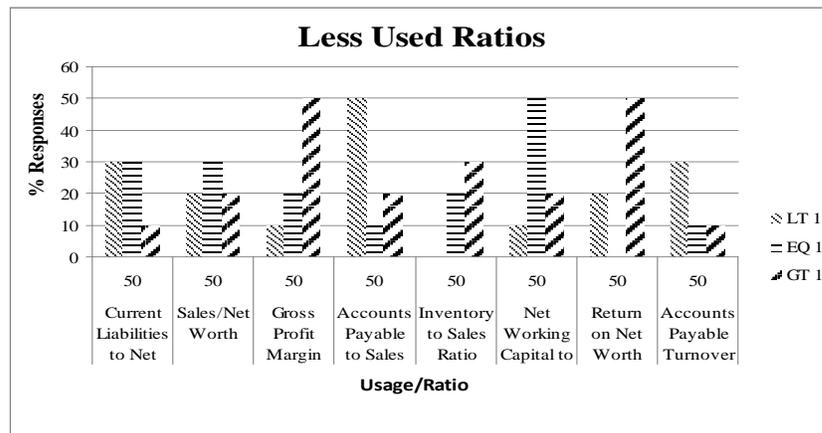


Figure.3 Less Used Ratios

The ratios such as Current Liabilities to Net Worth Ratio, Sales/Net Worth, Gross Profit Margin Ratio, Accounts Payable to Sales Ratio, Inventory to Sales Ratio, Net Working Capital to Sales Ratio, Return on Net Worth Ratio, Accounts Payable Turnover Ratio is not used to much extent in the present market setting as per the view of the respondents of the survey.

Table 1 represents the conclusion of the study, the table contains the list of those financial ratios that are found to be used 50 percent or more by the major stakeholders of the construction industry further it also includes the respective values of percentage usage, the percent of times a particular ratio has remained “Less than One- LT 1”, “Equal to One- EQ 1” and “Greater than One-GT 1” during the last fiscal year.

Table 1: Values of Percent Usage and Percent of times in each level

Name of Ratio	% Usage	% times *LT 1	% times **EQ 1	% times ***GT 1
Current Ratio	100	20	20	60
Quick or acid-test Ratio	80	10	40	50
Return on Assets (ROA) Ratio	80	20	20	60
Debt to Equity Ratio	80	60	20	20
Total Debt to Total Assets Ratio	80	30	20	30
Return on Equity	70	10	40	50
Current Debt to Total Assets Ratio	70	40	40	10
Total Asset Turnover	70	10	10	60
Receivables Turnover Ratio	70	40	40	10
Return on Investment (ROI) Ratio	70	40	10	30
Net Profit Margin Ratio	70	20	30	20
Assets to Sales	60	20	10	30
Stock turnover Ratio	60	20	30	10
Accounts Receivable Turnover Ratio	60	0	70	20
Total Liabilities to Net Worth Ratio	60	30	40	30
Inventory Turnover Ratio	60	20	30	10
Current Liabilities to Net Worth Ratio	50	30	30	10
Sales/Net Worth	50	20	30	20
Gross Profit Margin Ratio	50	10	20	50
Accounts Payable to Sales Ratio	50	50	10	20
Inventory to Sales Ratio	50	0	20	30
Net Working Capital to Sales Ratio	50	10	50	20
Return on Net Worth Ratio	50	20	0	50
Accounts Payable Turnover Ratio	50	30	10	10

*LT 1= Less than one **EQ 1= Equal to one ***GT 1= Greater than one

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