

Benchmarking of Client's Financial Management Practices in the Construction Sector of Pakistan

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Abstract

The objective of this study is to describe financial management practices of Clients operating in Pakistan by means of qualitative and quantitative approaches. A total of 30 organizations were targeted as respondents. The research results refer to mean percentage of the frequency of the estimation of cost on the projects, methods used to determine whether the project is over or under billed, methods of recording cash flows, methods of checking financial status of projects, methods used for external financing, documents needed when applying for financing, methods used for financial decisions in different organizations and different causes of failure due to which any construction project could be unsuccessful.

The research is undertaken to discuss:

- The financial management practices which prevail in the local construction sector
- Financial management problems that causes the failure of projects in the construction sector of Pakistan and
- The mechanism to mitigate the present failure causes in local environment.

The findings of this study can be used for improving overall financial management practices of clients in local construction sector through awareness campaigns, training workshops and skill development programs. This should then presumably result in competitive performance of various firms, thereby improving the effectiveness of financial management of projects to avoid construction project failure.

Keywords: Financial Management Practices, Cash Flow, External Financing, Skill Development Programs

1. Introduction

"Project finance" refers to the financing of the project that is dependent on the project cash flows for repayment as defined by the contractual relationships within each project. Finance is one of the most important aspects of business management. Financial management is the application of the set of techniques that individual or organization use to manage their financial affairs, particularly the differences between income and expenditure and the risk of their investment. It is keenly observed that in any area of development, the basic necessity is the finance. There should be a proper system to know that from where and how the finance is raised and once the finance is obtained it is very important that it is being utilized in that specific project effectively for which it has been raised so that the ultimate goal can be achieved without any hindrances and loss of money. Second important factor which maximize the productivity of any project is the cycle of cash inflows and outflows. For this proper management and planning is required in order to prevent delays in projects. Pakistan construction industry mainly comprises of large number of clients, consultants and contractors who are working hand in hand to give eye catching, innovative, properly designed civil structure to the people, thereby instilling a need to use proper management of finance so that the completion of project within the budget on time and in compliance to user specifications becomes achievable.

Construction companies must 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).

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. and Waters, J.A,1989).

2. Literature Review

Financial practices are accompanied by scanning the economic situation of a particular market. Discussion of financial practices does not mean that the financial manager is able to control economic fluctuations. Rather, it suggests that the ability to control internal and external financial resources according to economic fluctuations; the goal of which is to maximize corporate performance. Economic fluctuations are reflected in changes in business cycles, implying a lot of financial transactions and decisions over the different phases of the cycle.

To be successful in business, it is imperative that top managers have a good understanding of the strategic nature of their industry so that they can effectively select optimal projects and allocate resources accordingly. The manager should understand how business cycles affect general economic conditions as well as the specific industry or firm in which he or she is engaged.

In addition, the manager must pay particular attention to the cycle's impact on money supply, interest rates, and stock prices. It is also helpful that the manager develop an awareness of the impact of changes in business cycles on the cost and availability of borrowed funds and the firm's cost of equity capital. In this regard, the manager must recognize and be able to forecast how his own firm's needs for funds will change over the cycle. Finally, it is prudent that the manager develop his or her timing skill so that the firm's additions and retirements of fixed and working capital can be timed advantageously in relation to cyclical changes (Jeong-Gil Choi, 2010).

The Chinese Government is beginning to restructure state-owned enterprises by giving them management autonomy and financial responsibility for their decisions. The state also started to reduce its stake in certain state owned enterprises by allowing them either to form joint stock companies and to list shares on domestic (Shanghai, Shenzhen or Hong Kong) or foreign stock exchanges (London, New York, Toronto), or to set up joint venture companies with foreign firms (Ernst & Young 1994).

The macro-economic results of this economic reform are impressive: the country's gross national product has grown considerably in the last 15 years at an annual rate of over nine per cent and living standards have doubled in comparison with the early 1980s (Ernst & Young 1994). In these circumstances sound financial management of the company becomes more important.

The aim of this paper was to describe financial management practices in a number of companies in the Shanghai region. The research results refer to: investment in fixed assets; financing methods and sources; dividend policy; working capital management; internationalization; and financial organization and financial departments (Hubert Ooghe 1998).

Effective management of projects is becoming increasingly important for any type of organization to remain competitive in today's dynamic business environment due to pressure of globalization. The use of benchmarking is widening as a technique for supporting project management. Benchmarking can be described as the search for the best practices, leading to the superior performance of an organization. However, effectiveness of benchmarking depends on the use of tools for collecting and analyzing information and deriving subsequent improvement projects (Prasanta Kumar Dey, 2002).

Cash flow management is one of the most important determinants of the success of construction project management. Overdraft, retainage, financing, payment and billing policies constitute the most significant financial issues that contractors must plan, control and manage for the successful completion of construction jobs (Qingbin Cui, Makarand Hastak, and Daniel Halpin, 2010). This article used a survey to identify the extent to which Australian manufacturing firms have adopted certain traditional and recently developed management accounting practices, the benefits received from those practices and the intentions to emphasize certain management accounting practices in the future.

The findings indicate that, overall, the rates of adoption of traditional management accounting practices were higher than recently developed techniques. However, newer techniques, such as activity-based costing, were more widely adopted than found in prior

surveys. Also, the benefits obtained from traditional management accounting techniques were higher than those of newer techniques. The evidence suggests that the majority of large Australian firms have adopted a range of management accounting techniques that emphasize non-financial information, and take a more strategic focus (Robert H. Chenhall and Kim Langfield-Smith, 1997).

One of the most effective means of developing engineers as managers is to encourage their active involvement in key decision-making areas linked to the financial implications of engineering operations. This paper describes how increasing awareness of financial issues is aiding overall management development in the national water-supply authority in Sri Lanka. By compiling budgets in operational terms, the cost implications of such management options as reducing unaccounted-for water, increasing water production, and increasing new connections can be quantified (Robert M. Bradley and Chris H. Tomasides, 1991).

The interview of D. Hugh Taylor by Mel Hensey addresses four financial issues that engineering managers must understand and address through their accounting staff to collaboratively provide for effective financial management of their consulting engineering or design firm. These areas are: basic financial data, accounting reports and support, other financial management essentials, and acquisitions of other firms. The paper provides basic background and parameters for successful financial management (D. Hugh Taylor, Melville Hensey, 1990).

Financial management for new principals and founders of small firms is introduced. Many small firms fail, or are not profitable due to principals not understanding the basics of financial management. Project accounting is often rudimentary and no tracking of project budgets takes place. Income is recognized when invoiced and unbilled work in progress is tracked. Expenses are incurred when bills are received, presenting a truer picture of profit and loss. Adequate cash for operations requires a budget and comparisons of unbilled work in process and tracking of billings and collection of accounts receivable. Also introduced are the basics of ratio analysis for computation of overhead, billing ratio, and other key factors that allow comparison with other firms (H. Edmund Bergeron, 1994).

Understanding and application of basic accounting principles are valuable tools in developing and implementing a successful practice management plan. A stepwise process for analysis of financial performance is described that should provide practice owners with comprehensive analysis of their current financial position in relation to other practices (benchmarking) and detailed knowledge of the costs and profit centers within their own practice. This information can then be used in ongoing and strategic planning. Three steps in the process are outlined: (1) financial statement analysis; (2) cost analysis: both the responsibility centre model and the fixed and variable costs model; and (3) budgeting and financial modeling (Mark Stallwood, 1996).

The level of insolvencies in the construction industry is high, when compared to other industry sectors. Given the management expertise and experience that is available to the construction industry, it seems strange that, according to the literature, the major causes of failure are lack of financial control and poor management. This indicates that with a good cash flow management, companies could be kept operating and financially healthy (Cristine do Nascimento Mutti and Will Hughes, 2002).

The literature shows that apart from poor management, lack of adequate financial control is the most common characteristic of declining firms (Slatter 1984). Several authors have investigated the causes of failure.

Their results have shown that cash flow problems and poor management are the main causes (Argenti 1976, Slatter 1984, Lowe 1997, Arditi, Koksal and Kale 2000). It is known that the levels of insolvency in construction are high (Hughes, Hillebrandt and Murdoch 1998). It ought to be possible to reduce these levels, since the major causes are known. Therefore, research on how to avoid the causes should be encouraged. In other words the most important step to take is to help construction companies to develop good cash flow management practices (Cristine do Nascimento Mutti¹ and Will Hughes, 2002).

2.1. Research Gap

A client's role during project development and implementation is crucial to the success of the project because he is the one who comes up with an idea to build and then finances it through thick and thin so that his strategic, business, social or any other perceived goals are achieved. However, there is growing concern over the failure of construction project to achieve its goals. As it is known that success of a project, to large extent depends upon the sound financial health of its initiator- the client. In comparison with the international industry the major causes of failure for the construction sector have not been explored to check whether the same reasons also pertain in the local construction industry or there are other reasons that cause failure. To lessen this gap a statistical record of the reasons of failure for the local industry is needed which this study aims to provide. More importantly to mitigate the present reasons there must be some level of financial management practice and as a first step towards development of sound financial management practices this study aims to determine the extent to which financial management is practiced in the local industry.

3. Objectives

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

1. To find client's understanding and perceptions regarding financial management practices and procedures.
2. To relate reasons of project failure with prevailing financial management practices.
3. Propose recommendations in order to improve the current financial management practices of clients.

4. Research Questions

1. What are the main causes of failure of projects in the construction sector of Pakistan?
2. What financial management practices are targeted at the mitigation of project failure causes?

5. Research Methodology

This research effort consisted of a literature review of the relevant secondary data. However, the study required an extensive primary data which was extracted from the local construction

sector using a simple survey exercise. It was initiated after questionnaire had been developed. The targeted respondents were different construction clients operating in the city of Karachi. The results obtained from the survey were then analyzed in order to draw conclusions and propose recommendations for improvement.

5.1. Data Sources

5.1.1. Primary Source

The general methodology of this study relies largely on the survey questionnaire responses which were collected from the clients, of the construction sector of Karachi. The questionnaire prepared for the survey was formulated by screening and comprehending the relevant literatures in the area of Financial Management.

5.1.2. Secondary Source

In order to aid the gathering of data through primary source it was vital that a thorough literature review is initially conducted to identify the financial management practices that affect the performance of construction industry as a whole. Prior relevant research and books forms the major part of secondary data source.

The study involves qualitative as well as quantitative analysis of the responses from the survey process. The quantitative analysis involves Frequency Analysis of the obtained responses in order to meet the objectives set for this study. 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.

5.1.3. Questionnaire Structure

The structured questionnaire is attached in Appendix A. The survey questionnaire is designed to probe the cross-sectional behavioral pattern of Financial Management practices in the local construction industry. The questionnaire survey is divided into five parts.

- A. It deals with the Personal Information of the respondent from an organization
- B. It deals with the Organization's Information participating in the survey
- C. It deals with the identification of Financial Management Practices and Procedures conducted in the respective organization.
- D. Identification of project failure causes.
- E. Suggestions.

5.2. Sample Size

A total of 30 responses were aimed to be collected from clients of Karachi in order in order to draw meaningful conclusions and recommendations.

5.2.1. Response Rate

Table 1 Response Rate of questionnaire

| Questionnaires Dispatched | Questionnaires Received | Valid Questionnaires | Response Rate |
|---------------------------|-------------------------|----------------------|---------------|
| 30 | 28 | 24 | 80% |

Baker (1998) reported that statistically reliable conclusions can be obtained from a sample size of twenty (20) or more, therefore the number of valid responses that were received can be used to for analysis and deduction of meaningful conclusions and recommendations.

6. Discussion and Analysis

6.1 Responsible Person for Managing Finance



Figure 1: Responsible person for managing project finances

The analysis of the responses suggests that majority of the times in their projects it is the responsibility of Finance Manager or Finance Department to manage the project finances followed by the Project Manager. The results also indicate that the clients in the local construction sector believe to follow a centralized approach towards maintaining all of the project finances and do not delegate the responsibility to respective managers of a project.

6.2 Responsibilities of the Person Who Manages Finance

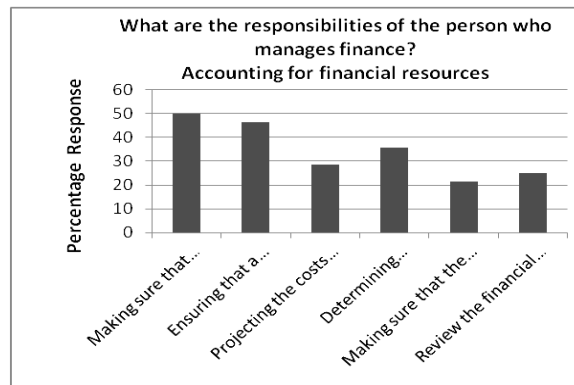


Figure 2 Responsibilities in Accounting for Financial Resources



Figure 3 Responsibilities in Managing Cash Flows

Figure 4 Responsibilities in Choosing among Financial Alternatives

From the analysis of the primary data obtained against the question inquiring about the responsibilities of the person who manages finance in terms of Accounting for Financial Resources; Managing Cash Flows and Choosing among Financial Alternatives the following points can be noted.

- The responsible person for management of finance is to a large extent involved in making sure that project and general overhead costs are accurately tracked.
- Followed by ensuring that a proper construction accounting system has been set up and functioning properly.
- When it comes to the Management of Cash Flows the prime responsibility revolves around ensuring that the organization has sufficient cash to take on an additional project, which is purely a business strategy decision based upon comprehensive knowledge regarding the financial position of the organization.
- However, the same person has limited responsibility towards the aspect of arrangement for financing to cover the needs of the construction organization.
- While choosing among financial alternatives it is more practiced by the clients that they are more interested in investing organization's limited resources in different areas of the business.

6.3 Frequency of Project Cost Estimation and Methods for Deciding Over/Under Billing of Projects

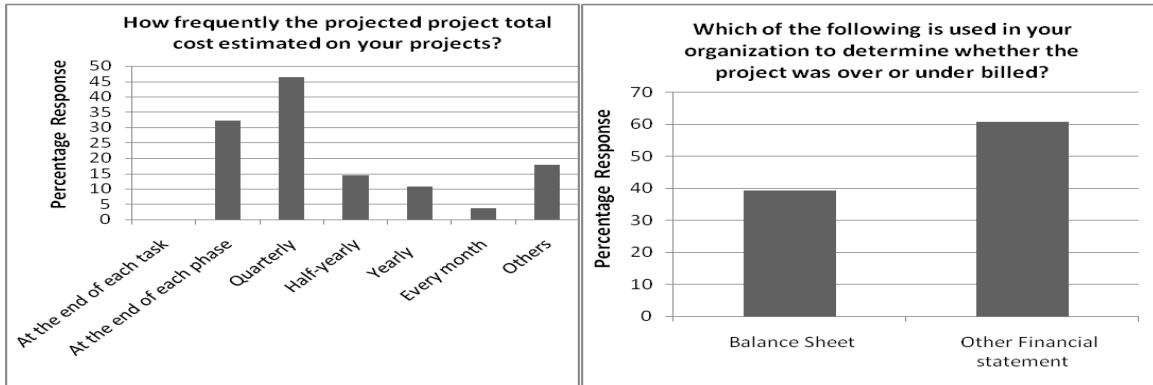


Figure 5 Frequency of the Estimation of the Projects

Figure 6 Methods Used To Determine Of Cost on Whether the Project Is Over or Under Billed

When asked about the frequency of the estimation of cost on the projects, the analysis of the responses suggest that majority of the times it is carried out on quarterly basis and closely linked with it were the responses on what financial statement is used to know whether the project is over or under billed and the results from the analysis suggest that Balance Sheet has a below average application while other financial statements such as Income Statement and Statement of Cash Flows are more in use.

6.4 Methods for Recording of Cash Flows and Evaluation of Financial Status of Projects.

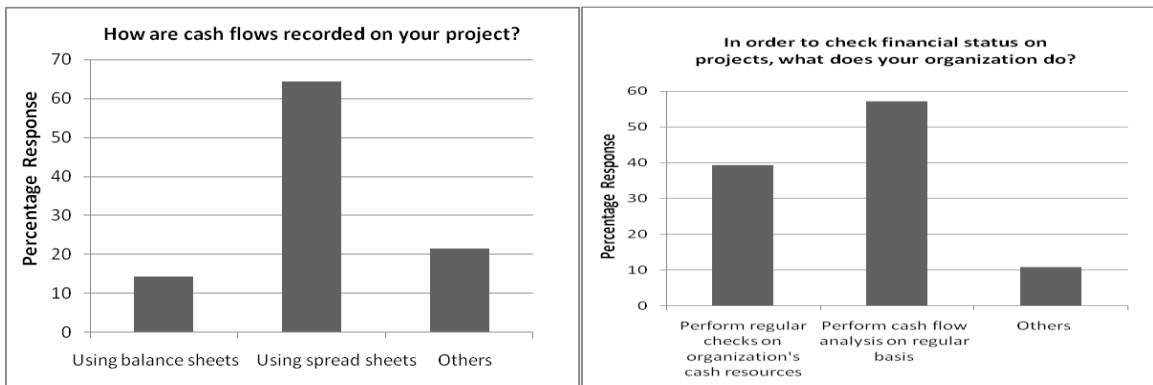


Figure 7 Methods of Recording Cash Flows

Figure 8 Methods of Checking Financial Status

The analysis of the responses on the question regarding the recording of cash flows indicates that spread sheets are the most widely used tool by the respondents, in conjunction with it when it was asked what the organization does to check the financial status of the project the majority of the respondents were of the view that they perform cash flow analysis on regular basis, this process is thought to be productive and accurate due to the fact that the finances are firstly being recorded in of electronic form like spread sheets, cost databases etc which

makes it easy to access and retrieval of information becomes rapid and then when the information is needed is acquired upon desire. This also shows some level of financial management is being practiced in the local construction sector.

6.5 Methods for External Financing and Documents Submitted When Applying for External

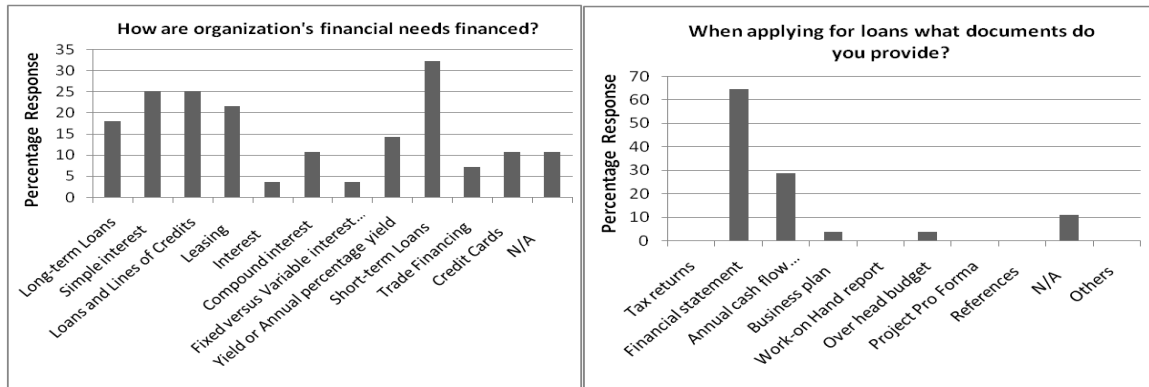


Figure 9 Methods Used For Financing

Figure 10 Documents Needed For Financing

The question regarding the modes of financing the financial needs of the organization, the short term loans is the most preferred method by the respondents followed by simple investments and credits, leasing has also been found to be preferred to some extent by the respondents of the survey. In a similar context the financial institutions which help the organization finance their financial needs require their financial statements majority of times so as to ascertain the financial health of the organization not only for the current fiscal year but over a period of time, so as to make sure that they (financial institution) is not opting for a risk prone business deal, a risk which they would not otherwise retain.

6.6 Tools Used for Making Financial Decisions

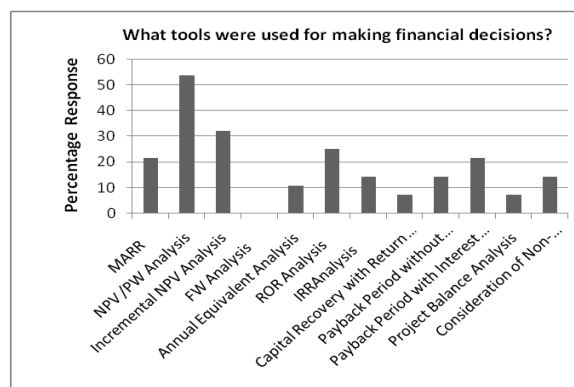


Figure 11 Methods Used For Financial Decisions

When asked about the methods used to make financial decisions, Net Present Value/Present Worth Analysis takes the lead among various other methods of making financial decisions as

suggested by the respondents of the survey, very few of the respondents were of the view that they take non-financial factors into consideration while making financial decisions suggesting a Stockholder approach rather a Stakeholder approach towards the business.

6.7 Summary of Project Failure Causes

The following table represents the summary of category wise project failure causes, the table comprises of a column for Project Failure Causes, Percentage Response and an Overall Relative Rank of each of the individual causes and similarly Relative Rank for Each Category.

Table 2 Project Failure Causes

| Project Failure Causes | Percentage Response | Overall Rank | Category Rank |
|---|----------------------------|---------------------|----------------------|
| Project Aspects (Category I) | | | |
| Poor plans and planning processes | 39 | 1 | 1 |
| Undefined objectives and goals | 32 | 3 | 2 |
| Scope creep | 29 | 4 | 3 |
| Financial Aspects (Category II) | | | |
| Insufficient resources (funding and personnel) | 39 | 1 | 1 |
| Inadequate or misused financial methods | 36 | 2 | 2 |
| Invalid budgeting process | 32 | 3 | 3 |
| Overruns of schedule and cost | 25 | 5 | 4 |
| Evaluation of proposals driven by initial price rather than long-term value for money | 21 | 6 | 5 |
| Enterprise management of budget resources | 11 | 9 | 6 |
| Project Team Aspects (Category III) | | | |
| Team weaknesses | 36 | 2 | 1 |
| Ignoring project warning signs | 36 | 2 | 1 |
| Unrealistic timeframes and tasks | 32 | 3 | 2 |
| Bad decisions | 32 | 3 | 2 |
| An imposed impossible deadline on project schedule | 29 | 4 | 3 |
| Poorly defined roles and responsibilities | 29 | 4 | 3 |
| Inadequately trained and/or inexperienced project managers | 25 | 5 | 4 |
| Poor communication | 25 | 5 | 4 |
| Stakeholder Aspects (Category IV) | | | |
| Stakeholder conflict | 29 | 4 | 1 |
| Lack of user input | 25 | 5 | 2 |
| Inadequate or vague requirements | 18 | 7 | 3 |

| Project Failure Causes | Percentage Response | Overall Rank | Category Rank |
|---|----------------------------|---------------------|----------------------|
| Management Aspects (Category V) | | | |
| Centralized proactive management initiatives to combat project risk | 25 | 5 | 1 |
| Lack of prioritization and project portfolio management | 25 | 5 | 1 |
| Poor leadership at any and all levels | 21 | 6 | 2 |
| Failure to adequately identify, document and track requirements | 18 | 7 | 3 |
| Lack of organizational support | 18 | 7 | 3 |
| Changes in Organizational priorities | 14 | 8 | 4 |
| No change control process | 14 | 8 | 4 |
| Meeting end user expectations | 14 | 8 | 4 |
| Lack of management commitment | 11 | 9 | 5 |
| Competing priorities | 0 | 10 | 6 |
| Engineering Aspects (Category VI) | | | |
| Inadequate testing processes | 25 | 5 | 1 |
| Estimates for cost and schedule are erroneous | 18 | 7 | 2 |

The overall rank of a particular failure cause is obtained when one cause is compared with all of the other causes whilst the category wise rank is obtained when a particular cause is compared with the causes lying in the same category. It is worth noting that among the top ten major causes of failure, several are directly linked to poor financial management or poor provision to incorporate financial management in the everyday business of projects in particular, and business operations of the organization in general. The top most financial reasons of project in descending order of significance: Insufficient resources (funding and personnel), Inadequate or misused financial methods, Invalid budgeting process, Overruns of schedule and cost, Evaluation of proposals driven by initial price rather than long-term value for money, Enterprise management of budget resources.

7. Conclusions and Recommendations

From the analysis of the responses the following conclusions and recommendations are deduced.

1. The role of project specific construction manager lacks in the local construction sector complementing to it is the fact that there is no project specific financial management and hence there is a great need to stress a micro-scale financial management by the construction managers appointed at various projects.

2. The person who manages project finance lacks in several responsibilities particularly in:
 - “Making sure that the needed financial management statements have been prepared”
 - And “reviewing the financial statements to ensure that the organization's financial structure is in line with the rest of the industry and try to identify the potential financial problems before they become a crisis”.

One cannot make fine decisions without good information and since this information is usually communicated through central channel requiring greater amount of time which unknowingly escalates the problem furthermore. On the other hand if this information is available with the managers, they will be in good position to tackle various unwanted fluctuations in the financial performance of their projects.
3. The financial managers are serving to their best possible competencies in their role to make financial decisions either in case of “ensuring that the organization has sufficient cash to take on an additional project” or “deciding to invest the organization's limited resources in different areas of the business”. It is commendable that they have been successful in doing so since there are far less insolvencies (or negligible) observed in the construction sector as compared to other business areas during these adverse times.
4. The quarterly estimation of project cost indicates continuous fluctuations in the labor, material, machinery cost of the local construction sector, which in itself has been a characteristic downside of this important economic hub. However, it is constructive that some form of information technology has now been implemented first of all to record cash flows which in turn allow financial decision makers to revise the cost estimation at such high frequency which is suggested by the analysis of the responses.
5. It is quite logical when majority of the financial needs are financed through external arrangements in terms of loans, credits and lease, the financial institutions would rely on genuine financial health indicators of the organization they are lending money, which is also evident from the analysis of the responses.
6. There is a wide mix of financial decision making tools on the respondents rely, since all of them operate in a stiff competition they normally neglect the non-financial factors while opting for an alternative and vice versa, this selfish “Stock Holder” perception has been the cause of several ill social-corporate practices, hence stress has to be laid to shift this perception to more favorable “Stake Holder” perception about the success parameters of the project.

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