## 1.0 Introduction:

> *"It is change, continuing change, inevitable change, that is the dominant factor in society today. No sensible decision can be made any longer without taking into account not only the world as it is, but the world as it will be. "– Isaac Asimov (1978)*

The financial crisis of 2007 to the present is a crisis triggered by a liquidity shortfall in the United States banking system caused by the overvaluation of assets (Ivry, 2008). It has resulted in the collapse of large financial institutions, the bailout of banks by national governments and downturns in stock markets around the world. In many areas, the housing market has also suffered, resulting in numerous evictions, foreclosures and prolonged vacancies. It is considered by many economists to be the worst financial crisis since the Great Depression of the 1930s (Reuters, 2009). It contributed to the failure of key businesses, declines in consumer wealth estimated in the trillions of U.S. dollars, substantial financial commitments incurred by governments, and a significant decline in economic activity (brookings.edu, 2010). Many causes have been suggested, with varying weight assigned by experts (Federalreserve.gov, 2009). Both market-based and regulatory solutions have been implemented or are under consideration (Whitehouse.gov, 2009), while significant risks remain for the world economy over the 2010–2011 periods (Forbes.com, 2009).

With liquidity drying up due to the reduced lending options from the financial institutions, severe effect on the other aspects of the economy also emerged. Tightening norms and aversion to high risk lending, resulted in organizations either shelving or slowing down upon the high investment projects. The roll-on effect saw the consumers tightening the strings of their purses further, which meant the spending fell further. During September 2008, the crisis hit its most critical stage. Withdrawals from money markets were $144.5 billion during one week, versus $7.1 billion the week prior. "This interrupted the ability of corporations to rollover (replace) their short-term debt" (Gullapalli, 2008).

The current economic crash and the financial turmoil engulfing the world has put a big question mark upon the practices being followed in the world. The current situation could be attributed to the faulty management models being followed. Hugh Hewitt argued that mismanagement caused the companies to fail, and they now deserve to be dismantled organically by the free-market forces (wikipedia.org, 2010).

It is generally felt that the key driving force towards the economic revival lies in the financial impetus and improved spending on the various projects. This resulted in the governments all over the world to introduce 'bail-out packages' for all major organizations affected by the financial meltdown. This is consistent with Keynesian economics which saw its popularity rise after the Great Depression of 1930s (Arthur and Sheffrin, 2003) and is in stark contrast to Friedman's ideas of 'monetarism', which are rooted in allowing the free market economy to correct itself, which Friedman believed could have prevented the Great Depression (Goldberg and Pavcnik, 2007). The bail-out packages neared a total of $ 3 Trillion by 2008-end. The Emergency Economic Stabilization Act of 2008 enacted on October 3, 2008 in USA, and also commonly referred to as a bailout of the U.S. financial system, is a law enacted in response to the subprime mortgage crisis authorizing the United States Secretary of the Treasury to spend up to US$700 billion to purchase distressed assets, especially mortgage-backed securities, and make capital injections into banks (Andrew, 2008). To offset the decline in consumption and lending capacity, the U.S. government and U.S. Federal Reserve have committed $13.9 trillion, of which $6.8 trillion has been invested or spent, as of June 2009 (fdic.org, 2009).

In USA, for the first time in history, a government spending program has been specifically framed in terms of projects. The execution of the projects funded by The American Recovery and Reinvestment Act (ARRA) will be closely watched by proponents and opponents, including lawmakers, the media, and taxpayers. ARRA Critical Success Factors Information released on its official website (www.recovery.gov) makes it clear that ARRA funds will be "*subject to unprecedented levels of transparency and accountability*". The five crucial objectives for Federal agencies stress that:

- Recovery funds are awarded and distributed in a prompt, fair, and reasonable manner
- The uses of all recovery funds are transparent to the public, and the benefits of these funds are reported clearly, accurately, and in a timely manner
- Recovery funds are used for authorized purposes and every step is taken to prevent instances of fraud, waste, error, and abuse
- Projects funded under the recovery legislation avoid unnecessary delays and cost overruns
- Projects meet specific goals and targets, and contribute to improved performance on broad economic indicators.

ARRA approved a spending of $552 billion by Senate and $545 billion by House. The Act specifies 45% or $357 billion is allocated to federal social programs and federal spending programs (recovery.org, 2010). This includes the various Infrastructure Investment projects amounting to around $105.3 billion comprising of:

1. Transportation

   Total: $48.1 billion
2. Water, Sewage, Environment, and Public Lands

   Total: $18 billion

3. Government buildings and facilities

    Total: $7.2 billion

4. Communications, information, and security technologies

    Total: $10.5 billion

5. Energy Infrastructure

    Total: $21.5 billion

6. Energy efficiency and renewable energy research and investment

    Total: $27.2 billion

7. Housing

    Total: $14.7 billion

8. Scientific research

    Total: $7.6 billion

On November 24, 2008, the U.S. government announced a massive bailout of Citigroup, designed to rescue the company from bankruptcy while giving the government a major say in its operations. In return the bank had to give US Government $27 billion of preferred shares and warrants to acquire stock. As a result, the government obtained wide powers over banking operations with Citigroup agreeing to modify mortgages, capping of executive salaries, and dividend payment has been reduced to 1 cent per share among other measures (Dash, 2008).

Similarly, on 13 October 2008, in a move aimed at recapitalizing the bank, it was announced that the British Government would take a stake of up to 58% in the RBS Group. In return, the Group had to sell off their English and Welsh RBS branded branches and the Scottish branches of Natwest following conditions set by the European Union and the British Government regarding state support. This was followed by GE Capital acquiring Royal Bank of Scotland's factoring business in Germany in March 2010 and ADCB (UAE) taking over the retail business of RBS in UAE in May 2010.

Summarizing, these bail-out packages were based upon the clear understanding from the various governments that the receiving organizations will need to alter their business models, trim excess weight, exhibit austerity in their spending and cut down on non-core business spending. Most of the organizations venturing into new business alternatives which were completely non-aligned and incompatible with core business expertise, had to liquidate these ventures causing the projects initiated through them to be stopped or slowed down.

As the situation slowly begins to stabilize, there is a need to re-think about the current management practices and their suitability to the emerging economic scenario. This is especially important to ensure that the fragility of the stabilization is not breached causing another round of economic slump which might be even more difficult to handle.

The financial crisis had an adverse affect on the various projects underway or planned for execution during the period of 2008 onwards. Some of these projects were either pushed back for execution later or slowed down as part of the wait-and-watch approach. Globally, firms financed $240 billion of capital expenditures using project finance in 2009, down from $409billion in 2008 as the financial crisis hit the capital markets (Esty, 2010).

The situation tends to be more complex and intriguing due to the changing market requirements with high levels of unemployment implying lower spending power for the consumers. The change of the market forces from seller-dominant to buyer-dominant, means that the objectives of the new or revived projects in their original charter might not fit into the revised organizational strategies.

The situation for the organizations may turn out to be tricky due to high levels of risks involved since the failing projects can put great pressure on their balance sheets taking them to the brink of collapse; and the unfavorable and uncertain market conditions worsening the pay-back periods. This situation is especially important for organizations dealing in capital-intensive industries, where substantial time can pass before projects can create value. The combination of uncertainty and complexity can make it difficult for these organizations to sort the web of prospective investments versus selecting the most promising ones.

Boris et al. (2004) argues that the decision-makers opt for simple approach by evaluating investment opportunities intuitively and considering few most obvious risks and uncertainties, instead of adopting a holistic approach to study the effect of relevant risks and uncertainties upon the possible project portfolio configurations, and its application to compile the project portfolio.

The organizations might need to initiate a complete overhaul of the project setup including redefining its aims and objectives, project team and alignment of the intended end-result with the rest of the project portfolio, by working to re-engineer its value.

The National Bureau of Economic Research, a panel of academic economists based in Cambridge, says the recession started in December 2007 and ended in June 2009, thereby lasting a total of 18 months (HuffingtonPost.com, 2010). But the same committee was skeptical with the progress made by US economy since then, warning the possibility of a "double-dip" or second recession starting later that year. During this time, the world stock markets rose briefly before falling back again. "There is growing concern over the possibility of a double-dip recession in developed markets," said Rob Carnell, chief international economist at ING Commercial Banking (gulfnews.com, 2010).

In a bid to jumpstart the economy, while the governments have provided the bail-out packages; the economy can only pick-up if the cash flow in the market improves. But, the financial institutions, investors and clients are exhibiting great prudence in their lending and/or investments. This shall mean that the organizations looking to revive their fallen projects might be required to initiate a complete redefinition of those projects, to cater to the revised economic scenario of the change from easily available money to harder lending terms.

As per an official report, by 2011, Dubai will complete the cancelation of property projects unlikely to ever be built, citing the chief executive of Dubai's real estate regulator (RERA). It was reported that many projects will be cancelled next year, mainly those deemed unfeasible or those that won't add any value to Dubai's economy. RERA has already cancelled 115 projects on which construction never started, at a time investors in many other projects in various stages of development are awaiting official cancellations before they are able to pursue payments made to the developers (Bloomberg.com, 2010). This is a prime example of realignment of corporate strategy with the revised outlook of markets from the highs of 2008 to the current lows in economic scenario.

The core question to be answered is that whether the management approach adopted in the pre-crisis era still holds valid? Those were the times of easy money, high spending with the resultant high growth rates. But, with the changed meaning of value and the required prudence during the economic recession, there might be a requirement for change in the Project Management Practices adopted till now, by analyzing their relevance and suitability to the changed environment. Essentially it is important to explore the robustness of project management practices against macroeconomic influences, particularly in periods of economic recession.

## 2.0 Conceptual Framework:

PMBOK® Guide (Project Management Institute, 2008) states that in a project lifecycle structure, the stakeholder influences, risk and uncertainty are greatest at the start of the project and decreases over the life of the project, while the cost of change is minimum at the project initiation and increases upon the project progress. (Figure 2.0.1)

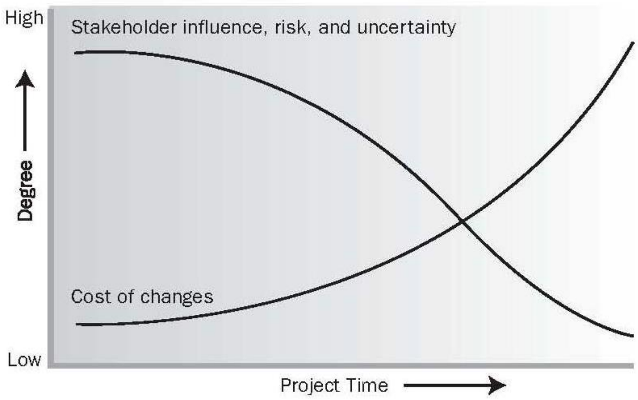



Figure 2.0.1 Impact of Variable based upon Project Time
Source: Project Management Institute (2008)

The stakeholder attitude and behavior may tend to change during varying times and differing economic conditions and affected most by the changing risk appetite and spending power of the consumers. Simultaneously, economists generally place the onus for the cause of depressions upon the bursting of speculative bubbles. This theory places finance and banks (Creditors) alongwith the Consumers at the center of the Economic Cycle. The Economic Cycle refers to economy-wide fluctuations in production or economic activity over several months or years. These fluctuations typically involve shifts over time between periods of relatively rapid economic growth (expansion or boom), and periods of relative stagnation or decline (contraction or recession). (O'Sullivan et al., 2003).

To understand the changing behaviors and attitudes during different phases of Economic Cycle, it is important to understand the relationship shared between the Key stakeholders of any project and their influence upon the final outcome of the project (figure 2.0.2). This is important and vital to understand their expectations from the other stakeholders and more importantly from the project itself. This calls for the first step of initiating the process of Stakeholder Management.

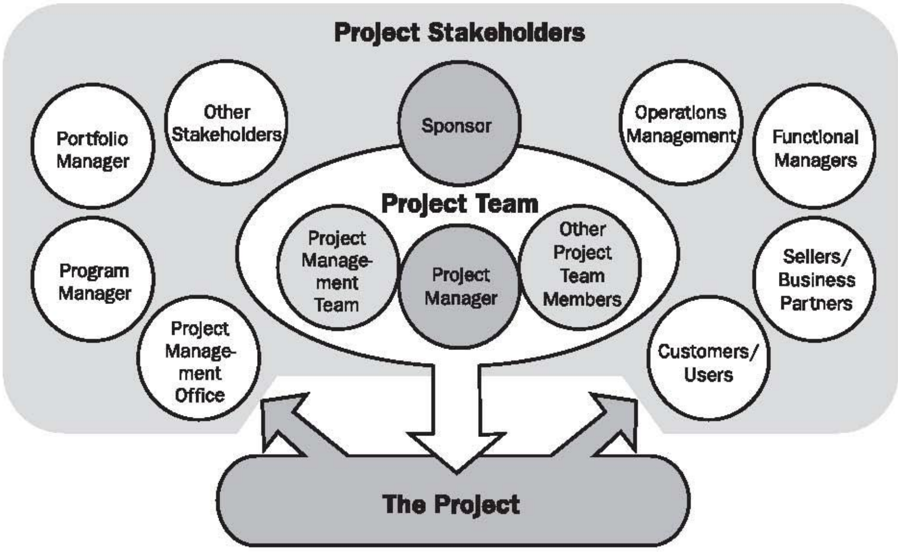



Figure 2.0.2 Project Stakeholders
Source: Project Management Institute, 2008

PMI (2010) describes stakeholders as “persons or organizations (e.g. customers, creditors, the performing organization, or the public) who are actively involved in the project or whose interests may be positively or negatively affected by the performance or the completion of the project”. Stakeholders are anyone who has an interest in the project. They may also exert influence over the project’s objectives and outcomes. The key stakeholders include creditors, customers, directors, employees, government (and its agencies), owners (shareholders), suppliers, and the community from which the business draws its resources. All stakeholders are not equal and different stakeholders are entitled to different considerations, based upon their power to influence the outcome of the project.

The importance of stakeholder management is to support an organization in achieving its strategic objectives by interpreting and influencing both the external and internal environments and by creating positive relationships with stakeholders through the appropriate management of their expectations and agreed objectives. Stakeholder Management is a process and control that must be planned and guided by underlying Principles. (Llewellyn, 2009)

Stakeholder Management prepares strategy utilizing information gathered through the processes of Identification, Analysis, Matrix, Engagement and Communicating Information

Mitchell et al. (1997) has proposed a classification of stakeholders based on their power to influence, the legitimacy of each stakeholder's relationship with the organization, and the urgency of the stakeholder's claim on the organization (Figure 2.0.3). The results of this classification may assess the fundamental question of "which groups are stakeholders deserving or requiring manager's attention, and which are not?" This is salience - "the degree to which managers give priority to competing stakeholder claims" (Mitchell et al., 1997).

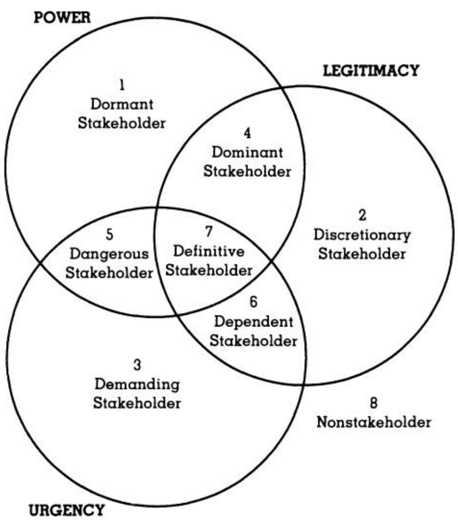



Figure 2.0.3 Classification of Project Stakeholders
Source: Mitchell et al. (1997)

In the context of capital projects being undertaken by the Client (referred as 'Developers' in Construction Industry), they can be classified as the 'Definitive Stakeholders'. Alongwith the Client, the Project 'Creditor' (Financial Institutions, State Governments etc.), are the next group of stakeholders who have a direct influence at the onset of the project and can be classified as 'Dominant Stakeholders'. The third set of stakeholders with an indirect but strong influence upon the final outcome of the project is the end-user or 'Customer' and can be classified as 'Discretionary Stakeholders'.

At the project initiation stage, it is worthwhile to consider the attitude and behavior and, the relationship of the 3 most important stakeholders – the 'Client', the 'Creditor' and the 'Customer'. Stakeholder Analysis is a term that refers to the action of analyzing the attitudes of stakeholders towards a project. It is frequently used during the preparation phase of a project to assess the attitudes of the stakeholders regarding the potential changes. Stakeholder analysis can be done once or on a regular basis to track changes in stakeholder attitudes over time (Babou, 2008).

Figure 2.0.4 illustrates the Economic Cycle for US between 1955 – 2005

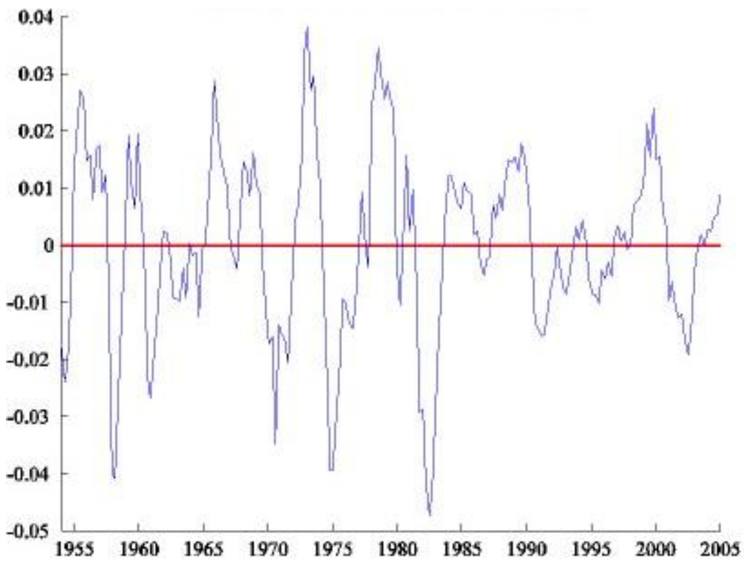



Figure 2.0.4 Economic Cycle for US between 1955-2005
Source: Friedman and Schwartz (1993)

(Friedman and Schwartz, 1993). The crests and troughs are evidently, evenly distrusted over the span of 60 years. But, still most of these fluctuations in economic activity do not follow a mechanical or predictable periodic pattern. Figure 2.0.5 is a simple graphical representation of typical period of economic growth following the period of economic recession followed by economic growth. But, during those periods of cont inuing highs representing the economic growth and the continuing lows representing the recession; the mindset may be much more clearer for the investors and the developers.

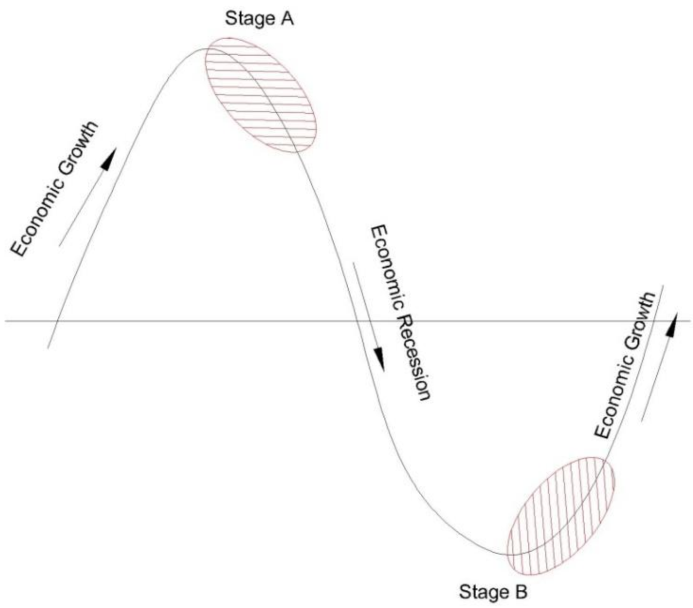



Figure 2.0.5 Typical period of Economic Cycle
(Source: Author)

During the persistent highs, the investors may not shy away from making investments and the developers may keep pursuing projects further due to expected returns owing to low levels of effect upon consumer spending. Similarly, during the period of sustained lows, the financial institutions almost completely tie up their hands, with the major organizations also cutting down on their project portfolio and staff strengths due to sustained low consumer spending.

The area of greatest concern is the period of most uncertainty, highlighted on the typical graph. These are the times, when there is an uncertainty if economic situation is going to persist in the similar pattern or not. At the Stage A, the creditors are mindful of the spending but don't refrain completely from investing further, expecting the market to recover. But, the situation is starkly opposite during the Stage B. At this stage, the creditors are extra cautious to invest, since there is no guarantee for the recovery to persist. The fear of another dip (also referred as 'Double Dip') is always looming large. A "double dip" recession or W-shaped recession, occurs when the economy has a recession, emerges from the recession with a short period of growth, but quickly falls back into recession (wikipedia.org, 2010).

The current round of recession might be tending to get over, but the project failure is always expensive and can cause disaster as in both good and bad times (Finch, 2009). The author calls on the organizations "to weed out the unprofitable work and improve (organization's) project management processes for increased profits and success".

Summarizing, the project creditor or creditors shall inevitably have a different approach to their investment and lending options, and the expected value generation from their projects, at the stage when the economic revival tends to build-up due to heightened uncertainty. Similarly, the mindset and expectations of the end-users are also going to be different due to the tightening pockets and decreased spending power.

This brings the 'Client' (Developer) into the center-stage, with a need to investigate their relationship with both the project 'Creditors' (Financer) and the 'Customers' (Consumer), in a bid to understand the mindset and expectations of the both towards the 'Client', especially during the times of economic distress and the duration when the economy is expected to pick up again. This, in turn, may form the basis for securing project finances and delivering an improved value for the customer, resulting in better realization of corporate goals for the developer. (Figure 2.0.6)

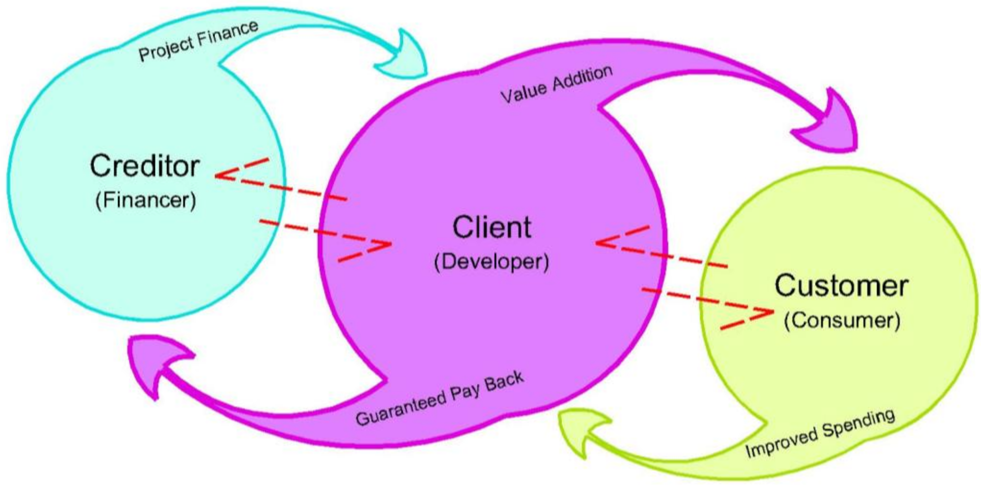



Figure 2.0.6 Relationship between Creditor-Client-Customer
(Source: Author)

Koller et al. (2010) suggests that while serious thinkers advocate fundamental changes to the ideas and perceptions about the market economies, but neither regulations nor new theories will prevent bubbles or crises in future. The reason – "…past ones have occurred largely when companies, investors, and governments have forgotten how investments create value, how to measure value properly, or both." (Koller et al., 2010). They suggest that on the contrary, crisis have been triggered due to value-destroying investments.

In Economic theories, Value can be defined as the worth of a good or service as determined by the market. Similarly, Value Management can be defined as "the application of established techniques to help define and refine business need, delivery strategy and the best value concept by setting customer objectives and values and determining success criteria for the project." (Ventureline.com, 2011)

## 3.0 Aims and Objectives

The research has tried to identify Project Management Practices (also known as competences) which are most widely adopted in the **construction industry** by the **specific set of stakeholders** – Project Developer *(also defined as Client and acting as Definitive Stakeholders)* in dealing with Project Creditors *(also defined as Financers and acting as Dominant Stakeholders)* and Customers *(also defined as Consumers and acting as Discretionary Stakeholders).*

These identified practices form the basis for the main aim of the research to study the **adaptability** of these current practices to the varying requirements in the post-economic crisis era (also represented by Stage B of Figure 2.0.5) and study how the organizations have evolved to synchronize them with the Organizational Strategic Value Management within the context of the organizational goals and portfolio management.

Main objective of the research is to test adequacy of application of identified PM practices by various organizations as a response to the revised economic scenario. For this purpose, this research has tried to study the behavior of various organizations before and during the period of economic recession.

The research further works on the objective of studying the key success factors employed by the organizations during project execution as a means for value enhancement for various stakeholders as well as the pursuing organization. For this purpose, this research studies the effect of the current practices upon the identified relationship of the client in dealing with the creditors and customers (figure 2.0.6).

The study is restricted to investigating the project management practices most widely employed at the **Project Planning and Initiation Stage** only.

Overall, based upon the results from the investigation of the Project Management Practices adopted before and during the period of economic recession, their contribution in adding value to the undertaken tasks has been analyzed. This may form the basis for providing a logical path for progressive development and a strategic plan for advancing project management improvement within the organizations pursuing projects.

## 4.0 Research Methodology

Research methodology adopted for this study first identifies management practices (also defined as competences) from IPMA Competence Baseline Version 3.0 (International Project Management Association, 2006) widely utilized in construction industry and to be explored further.

Most relevant elements of Technical and Contextual Competences with reciprocal/unilateral relationships (as defined in ICB IPMA Competence Baseline Version 3.0) have been identified in this step.

Research Methodology further encompasses 'Triangulation Method' to study the usage of identified management practices (also defined as competences).

Triangulation Method is a technique that facilitates validation of research data through cross verification from more than two sources. In particular, it refers to the application and combination of several research methodologies in the study of the same phenomenon (Bogdan and Biklen, 2006).

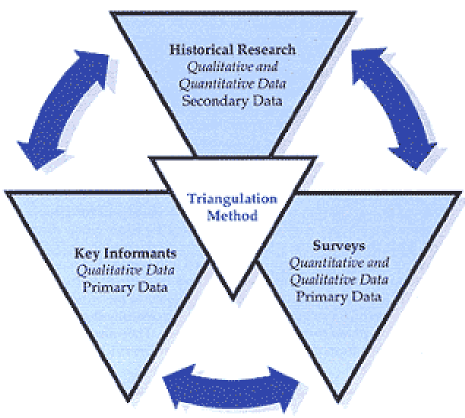



Figure 4.0.1 Triangulation Method
Source: University of Illinois (2006)

Concise Oxford Dictionary defines research as "the systematic investigation into and study of material, sources etc. in order to establish facts and reach new conclusions". Research must be carried out in scientific manner and, should be methodical and systematic. Holt (1997) classifies research into four divisions:

- Industrial / Academic
- Pure / Applied
- Conceptual / Empirical
- Qualitative / Quantitative

Quantitative research is based on objectivity and is analytical involving 'real' measures, which might use structured interviews, structured models, simulation or experiments. The importance of the classification is because it affects the ways in which data are collected and subsequently analyzed (Fellows and Liu, 1997).

Qualitative research is based on opinion, perception, feelings and attitudes. Qualitative research enables a subject to be explored without prior formulation. In this way, understanding can be gained and information and data collected such that new theories will emerge (Fellows and Liu, 1997).

Triangulation - using both qualitative and quantitative techniques together - can be a useful technique to gain insights and make inferences (Fellows and Liu, 1997) and as shown in Figure 4.0.2 (taken from Fellows and Liu, 1997).

For the purpose of current research paper, 2 step data collection i.e. both Quantitative Data Collection (DC1) and Qualitative Data Collection (DC2) methods have been utilised for further analysis.

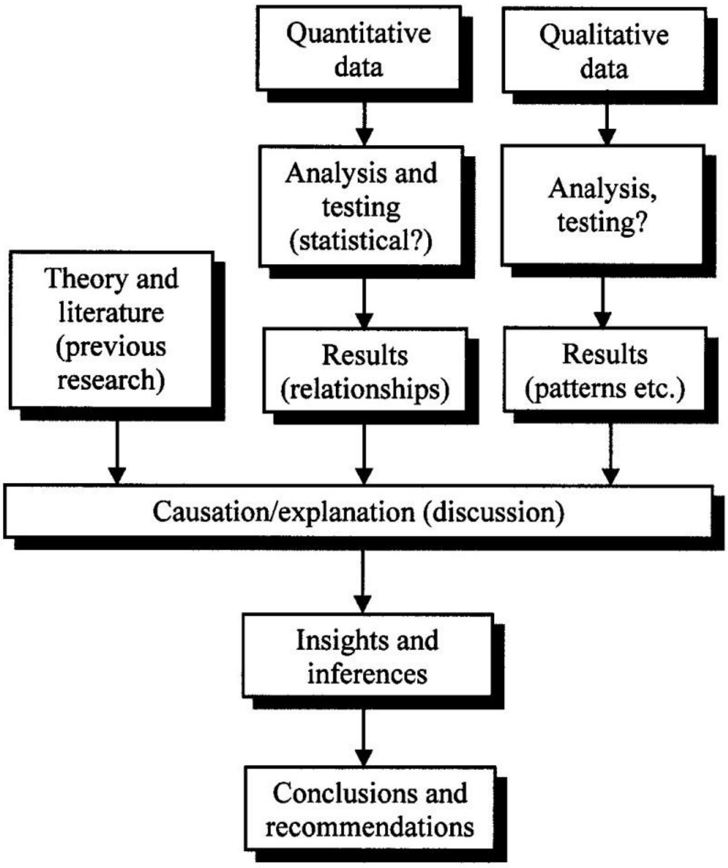



Figure 4.0.2 Triangulation of Quantitative and Qualitative Data
Source: Fellows and Liu (1997)

**Triangulation Source 1:**

First source for study and Data Collection is literature-based data collection (LDC) primarily utilizing internationally refereed journals. But, since there is limited literature available which investigates the direct effect of economic recession on the project management practices, therefore, the investigation at this stage further utilizes internet-research, by studying the opinion and views of the industry professionals on the subject through mediums like newsgroups, blogs and online discussion forums.

**Triangulation Source 2:**

Quantitative Data Collection (DC1) for the purpose of statistical analysis to test the validity of the current management practices as perceived by the project team members. This involves gathering the views of project team members through a web-based survey.

Quantitative research can be used to measure attitudes, satisfaction, commitment and a range of other useful market data and market metrics that can tracked over time and used as part of a wider business planning and business strategy process.

This exercise primarily concentrates upon gathering the data about the extent of usage of PM practices utilized in the participant's organizations and the effort disseminated towards their application in real-life scenario.

Accordingly, an online survey was distributed to various respondents who are involved in the field of Project management. This online survey comprises of a total of 60 questions which were been divided into 17 sections, and follows the logical sequence depending upon response from previous sections. Table 4.0.3 provides the details of these 17 sections and their descriptions.

| Table 4.0.3 Sectional details of the questionnaire distributed as part of online survey for Quantitative Data Collection (DC1) | | |
|---|---|---|
| **Section Details** | **Description** | **Questions** |
| **Section 1**<br>**General Information about the Respondents** | This Section gathers general and demographic information about the respondents | 1 - 3 |
| **Section 2**<br>**About Your Organization** | This section gathers information about the respondent's organizations.<br>If currently not working, please respond about the last organization affiliated to. | 4 - 8 |
| **Section 3**<br>**Employee awareness of Organization** | This Section gathers information about the awareness of employees regarding their organizations | 9 - 11 |
| **Section 4**<br>**Projectized Organizational Structure** | This Section gathers information about the kind of projectized structure in respondent's organization | 12 |
| **Section 5**<br>**Project Management Office** | This section gathers information about the existence of Project Management Office in the respondent's organizations | 14 - 22 |
| **Section 6**<br>**Usage of Project Management Office** | This Section gathers information about the usage of PMO in respondent's organizations | 13 |
| **Section 7**<br>**Projects undertaken in Your Organization** | This Section gathers information regarding projects being undertaken in the respondent's organization | 23 - 28 |
| **Section 8**<br>**Usage of PM Practices in Your Organization** | This Section gathers information about the extent of usage of PM practices in the respondent's organization | 29 - 30 |

| Table 4.0.3 Sectional details of the questionnaire distributed as part of online survey for Quantitative Data Collection (DC1) | | |
|---|---|---|
| **Section Details** | **Description** | **Questions** |
| **Section 9**<br>**Usage of Project Feasibility as a tool at the Project Initiation** | This section gathers information about usage of feasibilities studies in respondent's organization | 31 - 36 |
| **Section 10**<br>**Project Planning Stage** | This section gathers information about Planning Stage practices followed in respondent's organizations | 37 - 43 |
| **Section 11**<br>**Project Quality Plan** | This section gathers information about usage of Quality Planning in respondent's organizations | 44 - 47 |
| **Section 12**<br>**Project Portfolio Management** | This section gathers information Portfolio Management in respondent's organizations | 48 - 51 |
| **Section 13**<br>**Project Portfolio Management** | Continued from Section 12 based upon responses from Section 12 | 52 - 53 |
| **Section 14**<br>**Change Management** | This section gathers information about change management in respondent's organizations | 54 |
| **Section 15**<br>**Change Management** | Continued from Section 14 based upon responses from Section 14 | 55 - 56 |
| **Section 16**<br>**Application of Value Engineering (1)** | This section gathers information about usage of Value Engineering Techniques in respondent's organization | 57 |
| **Section 17**<br>**Application of Value Engineering (2)** | Continued from Section 16 based upon responses from Section 16 | 58 - 60 |

**Triangulation Source 3:**

Qualitative Data Collection (DC2) involves gathering views of Senior Management / Project Directors / Senior Project Managers (or alike) through Personal Interviews.

The exercise tries to gather the views of senior leaders about the pre-crisis and current management practices being followed in their organizations and the probable areas of improvement; alongwith its expected role and relevance in the revised economic scenario. The study further tries to gather the awareness of Senior Management and Project Managers for key economic principles and its application to enhance their organization's Project Management skills. During the course of interview sessions, the projects being undertaken by the organizations were also briefly reviewed against the management practices followed by these organizations. This exercise was undertaken to provide an independent assessment of the management practices as followed by the organizations in real-life scenario.

While all businesses and commercial organizations share a common goal of adding value, but the means and way are different for different organizations due to their varying sizes and business models. Due to the differing nature of their business models, zone of influence and meaning of value, the kind of projects undertaken also differ in type and scale. For this purpose, the developers (or clients) have been divided into 4 categories based upon their organizational strengths, business models and the perceived value of undertaken projects for these organizations.

Category 1 (C1) encompasses organizations which are mostly private-holding firms, with single or family ownerships. These organizations are mostly owned by nationals and have properties in freehold / leasehold areas. These properties are generally developed for the purpose of leasing out. These organizations cover commercial as well as residential developments and may be categorized as small-to-medium sized organizations due to their low organizational staff strength and limited zone of influence. This category mostly ventures into limited number of new development projects at any given point of time.

Category 2 (C2) encompasses organizations which may be categorized into medium-to-large sized organizations. This category deals with large scale developments which are mostly for selling of individual units upon completion. These organizations tend to deal with larger number of projects at any given time and are generally Limited Liability Companies (LLC). The organizations in this category have higher organizational staff strength and bigger zone of influence than C2. Therefore, these organizations tend to have a bigger influence upon the market and its speculative growth.

Category 3 (C3) organizations may be categorized alongside C2 organizations in terms of their organizational strengths and sizes, but are still very distinct due to their reasons for undertaking projects. The construction projects are generally undertaken by these organizations for their own internal usage. These projects are undertaken as Capital Projects to cater to their own needs for office, commercial and / or residential space.

Category 4 (C4) organizations are the biggest among all categorized organizations. These organizations tend to venture into master developments dealing in major townships or other mega land-use developments. While, major area of expertise of these organizations is master developments, they also actively deal in major construction projects within their master developments. The organizations in this category tend to have very high organizational staff strength and have biggest zone of influence compared to C1, C2 or C3. Most of the times, organizations from C1, C2 and C3 are directly dependent upon C4 organizations for their development projects.

# 5.0 Identification of Management Practices for further investigation using ICB (IPMA Competence Baseline) 3.0

ICB IPMA Competence Baseline Version 3.0 focuses on describing the knowledge and experience required to deal with the technical, behavioural and contextual issues of Project Management. The 'Eye of Competence' (Figure 5.0.1) represents the integration of all the elements of project management as seen through the eyes of the project manager when evaluating a specific situation.

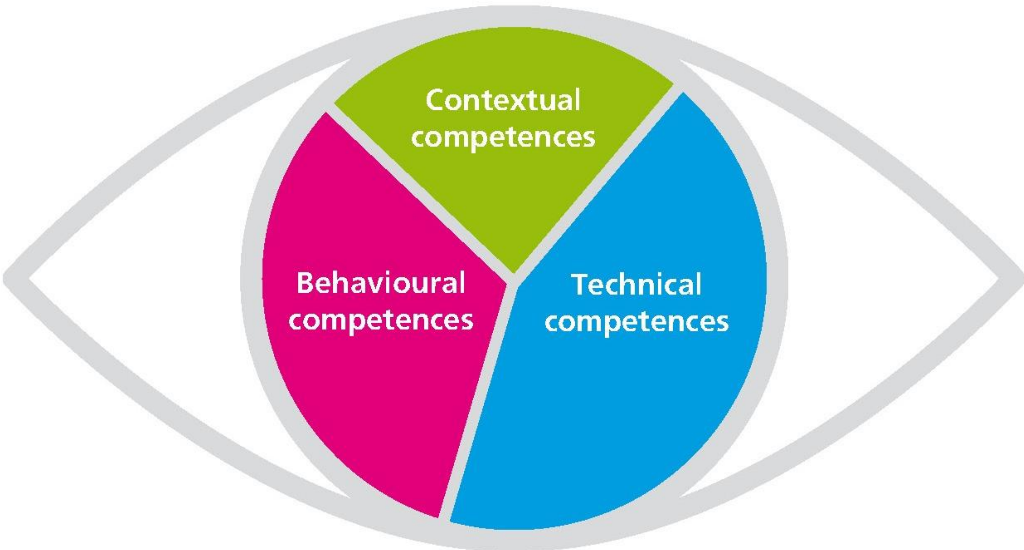



Figure 5.0.1 ICB 3.0 Eye of Competence
Source: ICB IPMA Competence Baseline Version 3.0

ICB breaks down professional project management into 46 competences (figure 5.0.2):

- Technical Competences – These 20 Elements are described by ICB as "to initiate and start, to manage the execution of, and to close a project". The Technical Competence Elements deal with the project management matters with the focus upon the interaction between the internal stakeholders and external stakeholders.

- Behavioral Competences – These 15 Elements are used to describe personal project management elements covering the project's manager attitudes and skills.
- Contextual Competences – These 11 Elements describe the concepts of project, program and portfolio. These further describe the linkage between these concepts and the organizations that are involved in the projects. The Contextual Competence Elements refer to the interaction within the project team in context of the project and the organization.

| 1. Technical competences | | 2. Behavioural competences | | 3. Contextual competences | |
|---|---|---|---|---|---|
| 1.01 | Project management success | 2.01 | Leadership | 3.01 | Project orientation |
| 1.02 | Interested parties | 2.02 | Engagement | 3.02 | Programme orientation |
| 1.03 | Project requirements & objectives | 2.03 | Self-control | 3.03 | Portfolio orientation |
| 1.04 | Risk & opportunity | 2.04 | Assertiveness | 3.04 | Project, programme & portfolio implementation (PPP implementation) |
| 1.05 | Quality | 2.05 | Relaxation | 3.05 | Permanent organisation |
| 1.06 | Project organisation | 2.06 | Openness | 3.06 | Business |
| 1.07 | Teamwork | 2.07 | Creativity | 3.07 | Systems, products & technology |
| 1.08 | Problem resolution | 2.08 | Results orientation | 3.08 | Personnel management |
| 1.09 | Project structures | 2.09 | Efficiency | 3.09 | Health, security, safety & environment |
| 1.10 | Scope & deliverables | 2.10 | Consultation | 3.10 | Finance |
| 1.11 | Time & project phases | 2.11 | Negotiation | 3.11 | Legal |
| 1.12 | Resources | 2.12 | Conflict & crisis | | |
| 1.13 | Cost & finance | 2.13 | Reliability | | |
| 1.14 | Procurement & contract | 2.14 | Values appreciation | | |
| 1.15 | Changes | 2.15 | Ethics | | |
| 1.16 | Control & reports | | | | |
| 1.17 | Information & documentation | | | | |
| 1.18 | Communication | | | | |
| 1.19 | Start-up | | | | |
| 1.20 | Close-out | | | | |

Figure 5.0.2 ICB 3.0 Project Management Competences
Source: ICB IPMA Competence Baseline Version 3.0

To limit the scope of research, Behavioral Competences having 15 Elements which primarily describe personal project management elements covering the project's manager attitudes and skills, have been kept out of scope of the current study.

The competences, their criterion for selection and their relevance to the investigation have been briefly explained in the Table 5.0.3.

| Legend and Color Coding for Table 5.0.3 | |
|---|---|
| Technical Competences | |
| Contextual Competences | |
| Competences identified for further investigation | |
| Competences NOT identified for further investigation | |

**Table 5.0.3 Definition of IPMA Competences and the explanation for identifying Competencies for further investigation**

| S. No | IPMA Competence | IPMA Definition (as defined in ICB 3.0) | Detailed Explanation for identifying for further investigation |
|---|---|---|---|
| **1.0** | **Technical Competences** | | |
| **1.01** | **Project Management Success** | IPMA defines the competence as "the appreciation of the project management results by the relevant interested parties." It is important not to view the project in isolation, but in context of the overall program and portfolio. The criterion to determine the success needs to be determined and agreed upon beforehand. | The competence attempts to integrate various project requirements, activities and results to achieve the intended successful outcome. Acting as the first step during the project initiation, the defined PM plan integrates different project plans, stakeholder management plan, communication plan, procurement, contractual obligations, deliverables etc., with appropriate detail provided for each of these. |
| **1.02** | **Interested parties** | It is imperative to identify the interested parties (or stakeholders), their interests and its importance to the project outcome. This may entail developing | It is important to recognize that the successful project outcome is constrained by the intent of the interested parties. Therefore, to manage |

| Table 5.0.3 Definition of IPMA Competences and the explanation for identifying Competencies for further investigation | | | |
|---|---|---|---|
| **S. No** | **IPMA Competence** | **IPMA Definition (as defined in ICB 3.0)** | **Detailed Explanation for identifying for further investigation** |
| | | of internal and external networks. | their expectations, the deliverables may be adjusted accordingly. |
| **1.03** | **Project requirements & objectives** | The success of the project outcome is determined by the attainment of project deliverables within agreed time-frame, budget and acceptable parameters of risk. The project requirements needs to be derived based upon the needs and expectations of interested parties. These need to be, in turn, based upon the opportunities and threats, and integrated with the vision of the organization. | A realistic project appraisal is vital at the initiation stage, and should form the basis for further project plans.<br>The outcome of a project may be considered more (or less) successful by some interested parties, compared to others; based upon the extents of meeting of their expectations from the project outcome. |
| **1.04** | **Risk & opportunity** | An ongoing process spanning all through the various phases of the project life cycle, risk and opportunity management has an important contribution towards the success of the current project and the portfolio, alongwith working as the foundation stone for the success of the | This involves a proactive involvement of the PM and the rest of the team, and keeping themselves aware of the possible risks and opportunities throughout the project. An assessment and ranking requires to be undertaken for the risks and |

| Table 5.0.3 Definition of IPMA Competences and the explanation for identifying Competencies for further investigation | | | |
|---|---|---|---|
| **S. No** | **IPMA Competence** | **IPMA Definition (as defined in ICB 3.0)** | **Detailed Explanation for identifying for further investigation** |
| | | future projects. | opportunities by ranking them based upon their impact and possibility of occurrence. The ranking in turn, helps in formulating the strategy to cope with these risks and opportunities. The resulting response plan needs to be controlled and updated continuously to accommodate new risks and opportunities or the variation of identified risks and opportunities varies. |
| **1.05** | **Quality** | Quality may be treated as the foundation of the project. The degree to which set of inherent characteristics are based in the project outcome determines the fulfillment of project quality. Project Quality Management covers the interface between the project, project portfolio and the organization. | Quality Management involves the validation of the functionality of the goals and needs to be carried out throughout the project lifespan. Ignoring the importance of the quality may result in the non-realization of the objectives of the whole portfolio besides the project itself. |
| 1.06 | Project Organization | This competence element covers the design and the | This competence primarily deals with framing of processes |

| Table 5.0.3 Definition of IPMA Competences and the explanation for identifying Competencies for further investigation | | | |
|---|---|---|---|
| **S. No** | **IPMA Competence** | **IPMA Definition (as defined in ICB 3.0)** | **Detailed Explanation for identifying for further investigation** |
| | | maintenance of appropriate roles, organizational structures, responsibilities and capabilities for the project. | and decision models; and usually changes as the project evolves through its lifecycle. Dealing with the allocation of resources, identification of various organizational units and team members involved etc., this competence is utilized after the sign-off of project charter and commissioning of the project. |
| 1.07 | Teamwork | Teamwork covers the management and leadership of the team building, operating in teams and group dynamics. | Dealing with the team development activities, this competence is utilized after the sign-off of project charter and commissioning of the project. |
| 1.08 | Problem Resolution | As the project progresses, identified and / or unidentified issues require reolution. Options to resolve problems may involve reducing the scope of project deliverables, increasing its time-frame, or providing more resources. | This competence is utilized after the sign-off of project charter and throughout the project lifecycle upon formal project initiation. |
| **1.09** | **Project** | The project structures | This breakdown into |

| Table 5.0.3 Definition of IPMA Competences and the explanation for identifying Competencies for further investigation | | | |
|---|---|---|---|
| **S. No** | **IPMA Competence** | **IPMA Definition (as defined in ICB 3.0)** | **Detailed Explanation for identifying for further investigation** |
| | **structures** | act as the basic mechanism governing the project. The structuring process involves breaking down the projects into their constituent parts from different perspectives – work breakdown, project organization, project cost, information and documents structure. | hierarchical order ensures that nothing is left to chance and unaccounted in a project, with adequate weightage and importance put across each activity. The breakdown also helps in analyzing the behavior and the influence of the various stakeholders during various phases of the project providing an opportunity to formulate the strategy to tackle these stakeholders. |
| **1.10** | **Scope & deliverables** | The project scope definition helps in determining the boundaries of the project, helping in evolution of the solutions to achieve the project scope. Upon integrating the market needs and other external influences with the expectations of the various stakeholders, the intended scope of the project is determined and tested to be in sync with the | The tangible and intangible assets created by a successful project and portfolio constitute the intended deliverables of a project. The project deliverables may be classified in terms of their priority upon agreement by all stakeholders. Upon analyzing the time and cost constraints and the external / internal influence, the project deliverables may be amended. |

| Table 5.0.3 Definition of IPMA Competences and the explanation for identifying Competencies for further investigation | | | |
|---|---|---|---|
| **S. No** | **IPMA Competence** | **IPMA Definition (as defined in ICB 3.0)** | **Detailed Explanation for identifying for further investigation** |
| | | organizational strategy. | But, the configuration and specification of the deliverables have to comply with the project requirements and objectives. |
| 1.11 | Time and Project Phases | The main aim of time scheduling and phasing is to determine which activities needs to be carried out and when, and to put these activities into a logical sequence on a timeline. | This competence is utilized during the project planning phase. Based upon the project delivery schedule in the project charter, further detailed scheduling, work packages and resources are computed. |
| 1.12 | Resources | Resource Management consists of resource planning, with the identification and allocation of resources with the appropriate capability. | This competence is utilized during the project planning and later phases. Based upon the detailed scheduling and work packages, resource allocation is computed. |
| **1.13** | **Cost and Finance** | Project Cost and Finance Management is the sum of all actions required for planning, monitoring and controlling costs during the project life-cycle, including project assessment and cost estimates in | Project financing covers the process of raising funds in the most prudent and favorable way. Various options exist for financing projects, programs and portfolios. These options needs to be |

| Table 5.0.3 Definition of IPMA Competences and the explanation for identifying Competencies for further investigation | | | |
|---|---|---|---|
| **S. No** | **IPMA Competence** | **IPMA Definition (as defined in ICB 3.0)** | **Detailed Explanation for identifying for further investigation** |
| | | the early phases of the project. | reviewed for the particular project and an appropriate one selected in sufficient time for the start of the project. |
| 1.14 | Procurement and Contract | Procurement involves obtaining the best value for money from the suppliers of goods or services to the project. Contract Management involves controlling the process of formalizing the contract and, upon sign-off, managing the contract during the project life-cycle. | Based upon the requirements of the activities identified in WBS, appropriate Procurement Strategies are worked out at the Project Planning and Execution Stage. |
| **1.15** | **Changes** | Changes are necessitated in a project due to the occurrence of unknown risks and result in an amendment to the project scope and deliverables determined at the onset. The change management process to be adopted requires to be agreed with the relevant stakeholders beforehand, and should preferably be formal and proactive | The changes need to be analyzed for its impact upon the stakeholders alongwith its effect upon the project portfolio. The project plan requires adequate adjustments upon formal approval of the changes. |

| Table 5.0.3 | Definition of IPMA Competences and the explanation for identifying Competencies for further investigation | | |
|---|---|---|---|
| **S. No** | **IPMA Competence** | **IPMA Definition (as defined in ICB 3.0)** | **Detailed Explanation for identifying for further investigation** |
| | | that can anticipate the need for change. | |
| 1.16 | Control and Reports | This element covers the integrated control and reporting of the project. This involves measuring the project performance and progress; and reporting it to the relevant stakeholders. | Carried out during the Project Control and Monitoring phase, it covers all project objectives and corresponding success criteria. |
| 1.1carried7 | Information and Documentation | This element deals with controlling the flow of information amongst various stakeholders as well as methodology for storing and retrieving of information. | This competence is much more applicable during advanced stages of project (planning, execution and close-out) |
| 1.18 | Communication | This competence deals with an effective exchange and understanding of information between various parties. It is important to ensure that the right party gets right information at right time in right format. | This competence is much more applicable during advanced stages of project (planning, execution and close-out), when the volume of correspondence is high. |
| **1.19** | **Start-up** | This competence forms the basis for an effective start during the project initiation. Project initiation is normally characterized by chaos and uncertainty. | This stage involves start-up workshops and formation of project teams alongwith finalizing of project charter. It is crucial that during this stage there is a close |

| Table 5.0.3 | Definition of IPMA Competences and the explanation for identifying Competencies for further investigation | | |
|---|---|---|---|
| **S. No** | **IPMA Competence** | **IPMA Definition (as defined in ICB 3.0)** | **Detailed Explanation for identifying for further investigation** |
| | | | interaction between project portfolio and project plan. |
| **1.20** | **Close-out** | Project Close-out stage deals with handover and closing of contracts. It is crucial that this stage is performed effectively to ensure that an expectation of all stakeholders is effectively met. | While, this competence is normally relevant at later stages, but it is important that the relevant stakeholders for close-out are involved from the initiation stage and the action plan is incorporated within project plan. |

| **3.0** | **Contextual Competences** | | |
|---|---|---|---|
| **3.01** | **Project orientation** | Project orientation refers to development of organizational setup to manage projects effectively and develop various PM competences and skills. | It is important that the organizations are adapting themselves to handle projects in a more effective manner and develop capabilities to manage projects. |
| **3.02** | **Programme orientation** | Programme orientation competence deals with the development of concept of managing decisions related to various projects in a more holistic manner. | It is important for the projects to be part of the overall organizational strategy to enable adequate allocation of resources. |
| **3.03** | **Portfolio orientation** | This competency deals with management of overall portfolio of projects covering the prioritization of projects and programs | Effective Portfolio Management ensures that all the projects are given due weightage and ensure that they complement |

| Table 5.0.3 Definition of IPMA Competences and the explanation for identifying Competencies for further investigation | | | |
|---|---|---|---|
| **S. No** | **IPMA Competence** | **IPMA Definition (as defined in ICB 3.0)** | **Detailed Explanation for identifying for further investigation** |
| | | to suit the whole organizational strategy. | each other and are working towards realization of organizational strategy. |
| **3.04** | **PPP implementation** | This competence involves process of continuous improvement of processes as part of implementation of portfolio management. | Continuous improvement within organizational processes are need to ensure that the organizational capabilities for project management are updated and remain optimum at all times. |
| 3.05 | Permanent Organization | This competence covers the relationship between project entities and other organizational entities. | This competence deals with the internal management of the project teams with other units. |
| **3.06** | **Business** | This competence deals with the impact of other business decisions on the project and project portfolios. | In order to effective, it is imperative that the project aligns itself with the business environment in which it is operating as well as overall organizational business strategy. |
| 3.07 | Systems, Products and Technology | This competence deals with the project requirement for products and technology for effective working. | This competence is more applicable during project planning and execution stages. |
| 3.08 | Personnel Management | This competence deals with the HR functions related to the project. | This competence is more applicable during project planning and |

| Table 5.0.3 Definition of IPMA Competences and the explanation for identifying Competencies for further investigation | | | |
|---|---|---|---|
| **S. No** | **IPMA Competence** | **IPMA Definition (as defined in ICB 3.0)** | **Detailed Explanation for identifying for further investigation** |
| | | | execution stages. |
| 3.09 | Health, Security, Safety and Environment | This competence deals with the processes related to appropriate functioning of organization related to health, security, safety and the environment. | This competence is more applicable during project planning and execution stages. |
| **3.10** | **Finance** | This competence deals with the financial requirements for the project. Effective cost and financial planning are needed for effective cash flow projections. | At the initiation stage itself, it is necessary for the project to be adequately covered and a funding model needs to be worked out at this stage to ensure no stoppage of works at later stages. |
| 3.11 | Legal | This competence deals with impact of applicable law and regulations on the project. | This competence is more applicable during project planning and execution stages. |

Based upon the analysis from Table 5.0.3, following competences from ICB (IPMA Competence Baseline Version) 3.0 have been identified for further investigation.

**1.0 Technical competences**

1.01 Project management success

1.02 Interested parties

1.03 Project requirements & objectives

1.04 Risk & opportunity

1.05 Quality

1.09 Project structures

1.10 Scope & deliverables

1.15 Changes

1.19 Start-up

1.20 Close-out

**3.0 Contextual competences**

3.01 Project orientation

3.02 Programme orientation

3.03 Portfolio orientation

3.04 PPP implementation

3.06 Business

3.10 Finance

ICB 3.0 further provides a relationship between one competence element and the others. The relationships help in application of competence elements in practical situations. In most situations, several competences are relevant for identifying the PM tasks. These relationships may be unilateral or reciprocal between 2 competences (ICB 3.0). ICB 3.0 defines these relationships as “multi-lateral and in principle, operated as communication channels open in both directions”.

Accordingly, Figure 5.0.5 represents:

01. **V1** - most relevant Customer focused practices at Project Initiation Stage from Technical Competences

    and,

02. **V2** - most relevant Creditor focused practices at Project Initiation Stage from Technical Competences

    and,

03. **V3** - most relevant Client focused practices at Project Initiation Stage from Contextual Competences

    and,

04. Elements of Technical and Contextual Competences with reciprocal/unilateral relationships (as defined in ICB IPMA Competence Baseline Version 3.0)

| | |
|---|---|
| | Elements of Technical Competences |
| V1 | Customer Focussed Practices at Project Initiation Stage |
| V2 | Creditor Focussed Practices at Project Initiation Stage |
| | Elements of Contextual Competences |
| V3 | Client Focussed Practices at Project Initiation Stage |
| | Unilateral / Reciprocal Relationship between Competences, but not for elements from V1 or V2 |
| X | Unilateral / Reciprocal Relationship between Competences and either of elements from V1 or V2 |
| X | Unilateral / Reciprocal Relationship between Competences and from elements of both V1 or V2 |

Legend for Figure 5.0.4

| | | Client Focussed Practices at Project Initiation Stage | V3 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Customer Focussed Practices at Project Initiation Stage | Creditor Focussed Practices at Project Initiation Stage | | Contextual Competence | 3.01 Project orientation | 3.02 Programme orientation | 3.03 Portfolio orientation | 3.04 PPP implementation | 3.05 Permanent organisation | 3.06 Business | 3.07 Systems, products & technology | 3.08 Personnel management | 3.09 Health, security, safety & environment | 3.10 Finance | 3.11 Legal |
| V1 | V2 | Technical Competence | | | | | | | | | | | | |
| | | 1.01 Project management success | | X | X | X | X | | X | | | | | |
| | | 1.02 Interested parties | | X | X | X | | | | | | | | |
| | | 1.03 Project requirements & objectives | | X | X | X | | | X | | | | X | |
| | | 1.04 Risk & opportunity | | | | X | | | X | | | | X | |
| | | 1.05 Quality | | | | | X | | X | | | | X | |
| | | 1.06 Project organisation | | | | | | | | | | | | |
| | | 1.07 Teamwork | | | | | | | | | | | | |
| | | 1.08 Problem resolution | | | | | | | | | | | | |
| | | 1.09 Project structures | | | | | X | | | | | | | |
| | | 1.10 Scope & deliverables | | | | | X | | X | | | | | |
| | | 1.11 Time & project phases | | | | | | | | | | | | |
| | | 1.12 Resources | | | | | | | | | | | | |
| | | 1.13 Cost & finance | | X | | | X | X | | | | | X | |
| | | 1.14 Procurement & contract | | | | | | | | | | | | |
| | | 1.15 Changes | | | | | | | X | | | | | |
| | | 1.16 Control & reports | | | | | | | | | | | | |
| | | 1.17 Information & documentation | | | | | | | | | | | | |
| | | 1.18 Communication | | | | | | | | | | | | |

Figure 5.0.4 Relationship between Competence Elements
Source for Relationship: ICB IPMA Competence Baseline Version 3.0
Source for Figure: Author

# 6.0 Triangulation Sources 1:
# Literature Based Data Collection

Project Managers need not be scared of the state of the economy (Nankivel, 2009). The adverse situations may only help bringing out the best in a person. The current economic climate is the time to really get back to the fundamentals of project management. Effective project managers may be categorized as those will be able to sell their skills as a way for business to save money and be successful. There should be a focus on each project's business case, and making sure it meets a real business need and ensuring that the expected benefits amount to something more valuable than the costs of the project.

When faced with a major capital investment, it is possible to have a substantial savings (Carter et al., 1996). This is possible by diverting the focus from merely budget and schedule to having a much more focus on capital productivity as well (Figure 6.0.1). This is possible through analysis at early stages regarding market, customer focus, and flexibility. This is should be followed by checking the relation between major stakeholders, followed by an adjustment between costs and risks.

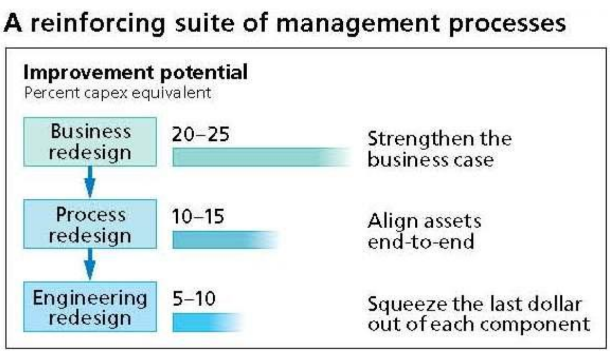



Figure 6.0.1 Business Redesign to improve Capital Productivity
Source: Carter et al. (1996)

While Capital Productivity can play a key role in profitable growth, capital investments rarely achieve the optimal potential (Carter et al., 1996). It is possible to improve the productivity of capital spent on major projects through management's insight and keenness. Accordingly they propose an approach called 'Clean Sheet Capital Redesign' (CSCR). The aim of CSCR is to garner maximum economic value from a project. "Starting with a clean sheet", the project team needs to be directed by the management on that route. This might require a redesign of the project proposals, thereby requiring a fundamental shift in project-management processes.

A project can be considered as a unique endeavour, a special task that has not been done before. Consequently, Anderson (1996) argues that it is very difficult or even impossible to know precisely at the initial planning stage what are all the activities that need to be carried out in order to complete the project, and what their cost and duration parameters are. For that reason some might even jump to a conclusion that planning is not necessarily helpful or even desirable. Andersen (1996) proposes to replace the standard planning approach with milestone planning, where a milestone is defined as a result to be achieved. Since a milestone describes what is to be done, but not the way it should be done, milestone planning promotes result-oriented thinking rather than activity-oriented thinking. He further advances the arguments against detailed activity planning at the early planning stage, instead suggesting the usage of a plan showing milestones (meaning results to be achieved) and preparation of result paths (highlighting what kind of results the project is aiming at).

There is a direct relationship between project planning efforts and project success. This has been examined by Dov et al. (2002), whose findings suggest that project success is insensitive to the level of implementation of management processes and procedures, which are readily supported by modern computerized tools and project management training. On the other hand, project success is positively correlated with the investment in requirements' definition and development of technical specifications. There is a significant positive relationship between the amount of effort invested in defining the goals of the project and the functional requirements and technical specifications of the product on one hand, and project success on the other, especially in the eyes of the end-user. End-user involvement should start at the first stage of the project and continue until its successful end. Of special importance is end-user involvement until the freezing of all end-product specifications. Formal planning is in the hands of the project manager while the development of requirements and specification is dependent on tight cooperation with the end-user.

The pre-project stage begins within organisation's strategic planning process and concludes once a proposal has either been abandoned or has become a fully-funded project. Woodhead (2000) has explored this complex process with the aid of various decision models. Client organisations divide the decision-making process among managerial roles; decision-approvers, decision-takers, decision-shapers. By questioning why one measure is seen as being more important than another, allows us all to step back and check if there is not a better way to leverage value and ultimately increase the client's return on investment. It is about attempting to be a master of circumstance rather then acceptance of being a victim of it. The ability to access untapped

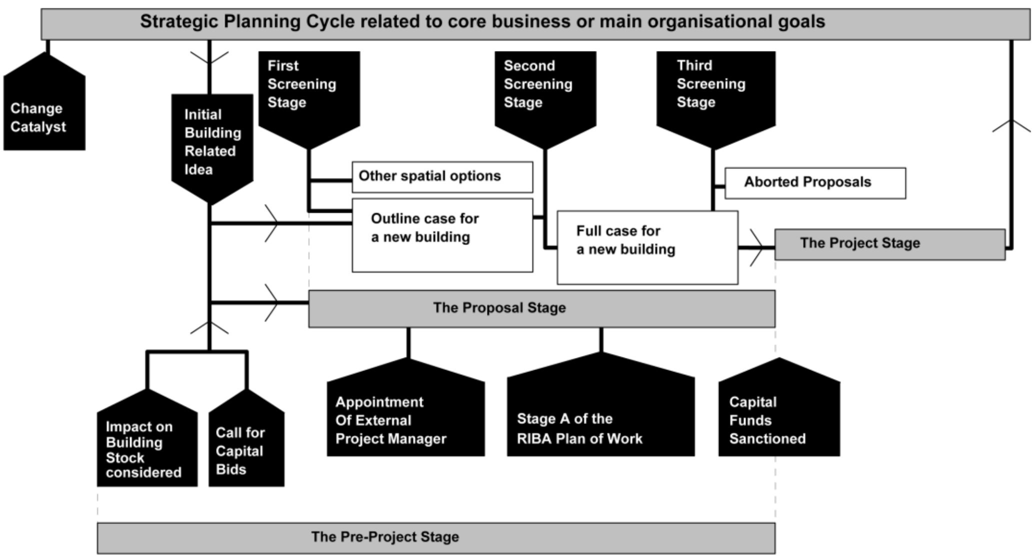



Figure 6.0.2 Pre-Project Decision Making Methodology
Source: Woodhead (2000)

sources of added value may be available to project managers who can operate as programme managers and achieve inter and intra-project synergy by anticipating how success will be recognised by a multitude of internal and external stakeholders. Figure 6.0.2 depicts the Pre-Project Decision making methodology put forward by Woodhead (2000).

Laufer and Tucker (1987) have tried to critically examine focus, role and process of planning in construction projects. They are of the opinion that failure of construction planning to achieve its goals, in spite of the considerable resources allocated to it, can be attributed to the Deficient Planning Techniques adopted. The planning effectiveness can be expected only after management modifies planning policy which will require a need to address the planning from a wider, holistic perspective to include organizational, human and information-handling aspects, in addition to planning techniques. Instead of the advanced formal planning setting the course of action, it is the execution that shapes the so-called formal plan. There is a need for the change of methods, modification of policies, adjustment in assumptions and re-examination of whole PM philosophy; in order for planning to become effective.

The advancement in the technology have given the chance to the planners, especially from the construction industry, to utilize the Virtual Planning in order to facilitate the improved co-ordination, communication and delivery of a project to programme. Chris and John (2008) have demonstrated the evidence that creating a 3D model over time assists in the planning process, with other practical advantages, as the programmes created through the 4D process are more complete and accurate whilst also achieving a better work flow. “Virtual planning helps everyone understand at the speed of thought” (Sawyer, 2005b). Incorporation of a Gantt chart or WBS environment into presentations, up or downstream from that environment, allows projects to remain on course even when problems are encountered. The most important aspect of using 4D is that it adds value to the process and saves time and money. The biggest constraints still appear to be cost and a lack of understanding of how the technology physically works. Heesom and Mahdjoubi (2004) states that “where 4D technology has been embraced, direct savings and an increase in productivity have been realised”.

Using the case study of a real project, Kaka et al. (2003) have assessed the extent of influence of planning and programming the works on the cash flow curves using 4 separate planners. Their research has concluded that the variations between the project duration produced by different planners may vary greatly, when constrained by specific client’s requirements. But, the results confirm that the variations in programmes produced less variation in cash flow curves than the errors to be expected from the usage of average curves derived from project groups. In other words, cost curves for projects are different because of differences in the project characteristics and not because different planners undertake them.

The efficacy of detailed front end construction planning (first planning) and its use for strategic or tactical purposes has varying and divergent views. Johansen and Wilson (2006) have investigated contrasting perspectives of office and site-based staff upon the accuracy of project timescales, together with their dissimilar methods of programme development and preferred first planning detail level. Significant role-based discrepancies in their approach to first planning are revealed and the potential for further research into cultural and behavioural motivators is highlighted. They have highlighted the need for the industry to find ways to develop some convergence of these views while also facilitating macro receptivity to more realistic construction durations, to ensure success in planning of projects.

The need for measuring construction project performance has led to development and implementation of various key performance indicators (KPIs). Haponava and Al Jibouri (2008) have tried to identify KPIs which offer a significant step towards process control within the pre-project stage. This provides a basis for further development to improve process transparency and to explain the relationships between the various sub-processes, and thereby offering a significant step towards process control within the pre-project stage. The identified KPIs provide a basis for further development to improve process transparency and to explain the relationships between the various sub-processes. Five KPIs identified as being relevant for process control, include:

01. Initial problem definition
02. Management of client requirements
03. Alignment of stakeholders' requirements
04. Design Solution
05. Stakeholder involvement

Munns and Bjeirmi (1996) have expressed an opinion that the distinction between the project and project management is less than precise. The objectives of a project and project management are different and the emphasis of project management is towards achieving specific and short-term targets compared to the wider aims of a project. The conclusion is that to make the project management team totally responsible for success would appear to be inappropriate and that the client should take an increased interest in the development and use of the project. Thus, there needs to be an improved appreciation of the role of project management within projects, and the project manager must allow the client to contribute actively in the planning and production phases and at the same time the project team involvement has to be extended into the utilisation phase.

Project sponsorship may be classified in terms of external focused client-representing activities and internal focused supporting/championing activities (Bryde, 2007). In both scenarios, the sponsor's role needs to change from traditional role starting and ending in the early stages of the project, and evolve to an active involvement throughout the project till handover, closure and benefit realisation.

Roberts (2009) feels that in the adverse situations like economic recession, being a good Project Manager is now the bare minimum. The goal should be to rise from being a ‘good’ PM to a ‘remarkable’ PM. The PM needs to exhibit their skills that benefit not only their project, but the business as a whole. This does not warrants a change in principles of Project Management, but a need to be more sensitivity to the current event in the organization. A good project manager would keep his project on track. A very good project manager would see that the economic situation changes the business case. A remarkable project manager does both of these, and provides options to his executive - such as delivering less, but earlier. Aim of the remarkable project manager is to deliver the benefit.

The challenges facing managers have just grown vastly in scale and quantity in the past year since the onset of recession (Oates, 2009). The new challenges force the need to cut costs or laying staff off, while wanting to preserve as many jobs as possible and preserve the company's reputation as a good entity to trade with. There is a challenge of maintaining the work life balance, as the workload on retained staff inevitably rises as some staff is made redundant and touch targets are imposed. At this stage, the managers face the apparent conflict between trying to drive up productivity and yet still be admired and respected for having great team leadership.

The companies handling an investment of daunting size and complexity face great uncertainty in their business ventures – it may be a long period, at time decades, before it actually creates value (Boris et.al, 2004).  The executives make an option for an overly simplistic approach, by considering the two or three most obvious risks and uncertainties, rather than conducting a systematic analysis to check the affect on the portfolio.

The usage of project management becomes even more important in a downturn (Dolfi, 2010). During a recession, good project management is needed more than ever since there is a greater need to engage key stakeholders, with a need to optimize resources, control project budgets and have good risk management. Project management provides the framework to accomplish these measures and a lot more.

Having studied 4,700 public companies, Gulati et Al. (2010) breaks down the accumulated data into three periods: three years before a recession, three years after, and the recessionary years themselves. Only a small number of companies (approximately 9% of their sample) flourished after a slowdown, doing better on key financial parameters than they had before it and outperforming rivals in their industry by at least 10%. The research shows that the companies that master the delicate balance between cutting costs to survive today and investing to grow tomorrow do well after a recession. Within this group, a subset that deploys a specific combination of defensive and offensive moves has the highest probability (around 37%) of breaking away from the pack. These companies reduce costs selectively by focusing more on operational efficiency than their rivals do, even as they invest relatively comprehensively in the future by spending on marketing, R&D, and new assets. Their multipronged strategy is the best antidote to a recession.

An organization with a portfolio of projects faces three big challenges during such a period. At this stage, there shall be considerable financial pressure, as the organizations look for ways to cut costs, alongwith more pressure to deliver projects, and the benefits that they are supposed to bring – on time and under budget. All this may compound many-fold as there may be a struggle to keep best people. In a downturn the people who leave are often the people the organizations least like to see leave.

The organizations need to undertake various steps for a better chance of delivering projects in tough times, and helping organisation manage on less money and, as the recession ends, to be in a much stronger position to compete in the future. Barrow (2008) recommends focusing on "must do" projects, and prioritising them by dividing them into two groups - projects that have to be completed, and projects that may not be completed or can wait. This may be followed by investing in key programmes. Once an action on current portfolio of projects has been taken, there shall be an opportunity to have a better focus on a smaller number of key programmes and the money to finance them from the projects that have been cancelled or suspended. Further, by getting top performers on key projects and programmes, the organization stands to increase chances of delivering.

Beinhocker (1997) studied the performance of 400 companies over 30 years and concluded that on an average the companies find it difficult to maintain higher performance levels than do their competitors for more than about five years at a time. Only continuous development of newer sources of temporary advantage can ensure the long-term superiority.

This brings into play the theory of 'Edge of Chaos' (Figure 6.0.3). The edge of chaos refers to a situation which is 'something more subtle than pursuing a moderate level of change. At the edge of chaos, one is simultaneously conservative and radical' (Beinhocker, 1997).

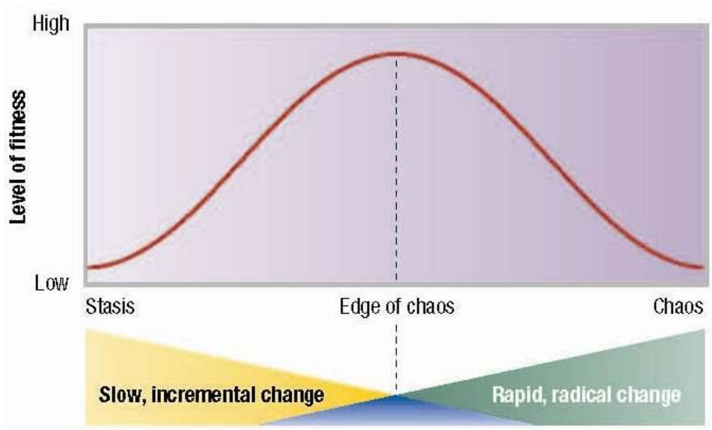



Figure 6.0.3 The 'Edge of Chaos'
Source: Beinhocker (1997)

In today's world which is full of uncertainty and unknown complexities, traditional deterministic approach to strategy has the risk of falling apart, but the strategy makers also don't need to leave the fate of their businesses to chance. Instead, Bryan (2002) proposes a 'just-in-time' strategy for the corporate world consisting of a 'portfolio-of-initiatives' approach. This approach has the potential to let the organizations identify and take optimum advantage from the available opportunities, and minimize the risk exposure.

Finch (2009) expresses that PMOs can draw a great deal of unwanted attention when a company is forced to cut costs. In order to survive, PMOs must be well-prepared to justify their existence to corporate decision-makers. There are three important factors for PMO managers to consider when trying to ensure their survival. First, they need to focus on the right strategic projects. Once they do so, they must ensure that these projects are successfully executed. Finally, they must effectively communicate the value of these projects to upper management.

Roberts (2009) says that while, we need to use the same project management techniques and principles as always, but we also need to recognize that the environment all of us work in has changed. That has implications for the projects – assumptions need to be checked, business cases need to be verified, timescales need to be examined, and so forth. Because in a recession, new project is to deliver a company that is stronger, better and fitter at the end of this recession.

There is a need to value the 'value' (Koller, 2010). The change in regulations governing the financial markets or promoting new economic models alone may not prevent the bursting of bubbles in future. Instead, the organizations alongwith the investors and government will new to remember the basics on how investments create value and in turn, how to measure the value properly. Koller argues that the primary reason behind the recent financial crisis has been the fact that the banks and investors forgot the principle of conservation of value. The competitive advantage which is the core concept of business strategy is a vital link to the principal of value creation.

The creation of value is directly proportional to the pace of the organizations in increasing their revenues and deploying more capital at attractive rates of return. The value is driven by the combination of the growth and return on invested capital (ROIC) relative to its cost.

ROIC is a financial measure that quantifies how well a company generates cash flow relative to the capital it has invested in its business (wikipedia.org, 2010). It is used to assess a company's efficiency at allocating the capital under its control to profitable investments. When the return on capital is greater than the cost of capital, the company is creating value; when it is less than the cost of capital, value is destroyed.

The core question for answering is – the meaning of 'value'? Value may be defined in economics as the worth of goods or services determined by the market. It depends upon the assessor's perception of the worth of the product than on its intrinsic value. As such, the value may be considered as contextual. Warren Buffet coined the quote – "Price is what you pay. Value is what you get." (valuequotes.net, 2010)

Most organizations base their investment decisions upon their expectations of ROIC. Instead of relying upon financial theories alone, it is important to take into account a long-term analysis of the market and industry trends (Jiang and Koller, 2006).

Oates (2009) recommends utilizing the adverse periods to undergo some personal development. Personal Development is the idea of starting personal change, gaining skills and improving behaviour. It's one of the most rewarding forms of activity because it comes from within. This has the benefits of bringing a more positive work environment and lower workload, improvise career prospects and invite a healthier attitude towards work life.

The organizations most likely to outperform their competitors after a recession are pragmatic (Gulati et al., 2010). The CEOs of realistic companies recognize that cost cutting is necessary to survive a recession, that investment is equally essential to spur growth, and that they must manage both at the same time if their companies are to emerge as post-recession leaders.

Working in a real estate development firm in Hong Kong, Lau and Yau (2010) puts forward that during a recession, the changes are very stark. The construction costs must be kept low due to low sale price, the quality needs to be better to attract customers and the timelines needs to be reduced to enable quicker revenue generation. Accordingly, they suggest Team Building, Value management, Research and Development and Interactive Project Management as the means to counter the effects of recession on an organization. They believe in “expanding our vision and scope whilst reducing wastage”.

Reh (2010) suggest that managing in a recession is the same as managing any other time. The manager has to set the goals, communicate them to the team, and motivate everyone to move toward the goal. But, certain areas differs during a recession and certain aspects of management become more important during a recession – finances, courage, and customers.

Structural Change’, a concept in economics popularised by economist David Hendry, appears when there is an unexpected shift in a (macroeconomic) time series, leading to huge forecasting errors and unreliability of the model in general (wikipedia.org, 2010). A structural break during hard times may be utilised by the organizations as an opportunity in disguise, by learning to exploit it (Rumelt, 2009). The biggest mistake during this time is to try and work on the same methodologies while, the old patterns were already pushed to its limit and is destroying values. This requires the same things to be done differently. The corporate structures require a simplification alongwith transforming business models.

The times of uncertainty require following a framework for determining the level of uncertainty surrounding strategic decisions and for tailoring strategy to that uncertainty (Courtney et al., 2010). The traditional approach to formulating strategy generally depends upon precise predictions, leading the executives to underestimate uncertainty. Alternatively, the executives need to have a more detailed and sophisticated understanding of the uncertainty and analyse its implications for strategy.

The interaction and communication between the various stakeholders and the Project Manager can be considered as the mainstay to achieve the project goals. The project sponsors invariably assume that the project shall be completed to specifications, but time and cost are the twin imperatives of the client (Wright, 1997). And it is unlikely that the twin imperatives shall be met, unless the acceptance and co-operation of the stakeholders is obtained.

Today’s economic environment is very volatile and difficult to predict. Therefore, the corporate strategy requires aligning itself with this fluid nature of external environment and be flexible enough to change constantly. Bryan (2002) suggests that “a CEO can think about corporate strategy not as a “portfolio of businesses” but as a “portfolio of initiatives” aimed at achieving favourable outcomes for the entire enterprise”. The core of this approach lies in realising that the future decisions and outcomes will vary from the initial outlook and hypothesis.

Most of the times, the executives take the investment options based upon traditional valuation tools like NPV etc. These hold good for the situations in low levels of uncertainty, but may not be the best options for projects with long-term investments and high uncertainty.  Leslie and Michaels (2007) recommend the analysis of 'real options' in these situations. Since the traditional valuation tools like NPV lack from the incorporation of the value of flexibility, the usage of real options can be potentially important and useful in strategic and financial analysis. (Figure 6.0.4)

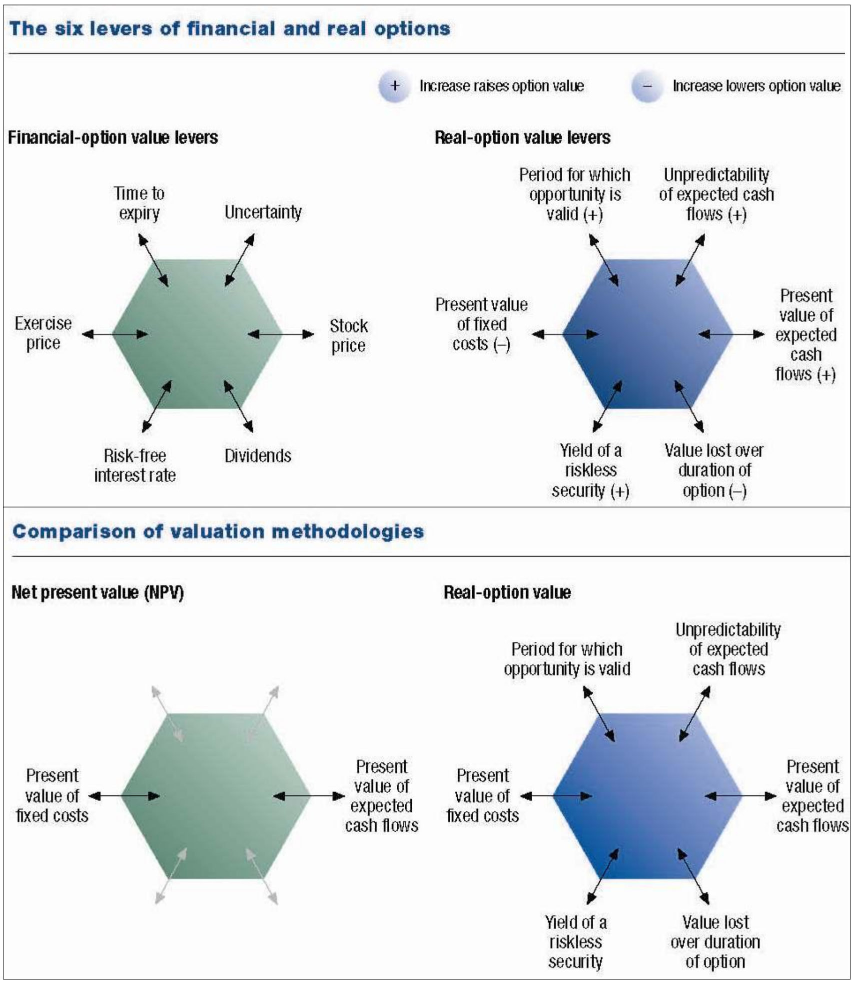



Figure 6.0.4  The Six levers of Financial and Real Options and their comparison as Valuation Methodologies
Source: Leslie and Michaels (2007)

The strategists have generally faced two paths – ‘shape’ or ‘adapt’. The starting point could be the available alternatives with the organization, since the shaping and adapting strategies may take differing forms. Shapers attempt to foresee the consequences and getting ahead of the uncertainty. The attempt is to drive the industry and market, and changing them to own way. For example, in 1970s, anticipating a heavy market demand, DuPont built its capacity in the Titanium Dioxide industry; thereby shaping its competitor’s expansion plans (Courtney, 2001). In contrast, the adapters conform to the existing and possible future industry structure, and define defensible positions within the industry’s existing structure like early alliances by Compaq Computer with Microsoft and Intel in 1980s or the hedging by software companies against the uncertainty by developing their products for all possible PC operating systems (Courtney, 2001).

“Strategy is a way of thinking, not a procedural exercise or a set of frameworks.” (Bradley et al., 2011). All organizations operating in a free market are influenced by customers, suppliers, competitors and potential entrants to the business. For the organization to beat the competition, it needs to beat and capture the market to enable it to gain economic surplus from its operations. To attain this goal, the organizations need to gain competitive advantage which has to be robust and responsive to the dynamics of the market changes.

Today’s competitive market with the organizations facing the daunting task of survival is forcing them to focus them upon other aspects of the business besides price control. The organizations are moving towards greater focus upon the customer with a great emphasis upon the customer satisfaction, whether it is internal or external customer Hayder (2010). Ignoring the market research cannot satisfy the market expectations. The “market expectations” may be considered equivalent to “customer’s concerns”. This brings into focus the concept of ‘Total Quality Management (TQM)’. Creating a culture of quality across the entire project will satisfy the customer.

TQM is based upon the concept that the quality of the products and processes is the responsibility of everyone involved with the creation or consumption of the products or services offered by the organization. TQM bases itself upon the involvement of management, workforce, suppliers, and even customers, in order to meet or exceed customer expectations (Cua et al., 2001). TQM tries to improve quality by improving conforming of the processes to internal requirements.

The concept of TQM was first put forward by Dr. W. Deming, who taught that the organizations can increase quality and simultaneously reduce costs, by adopting appropriate principles of management. When the organizations focus primarily on quality, quality tends to increase amid the fall in costs, as defined by the ratio: Quality = Results of Work efforts / Total Costs (Walton, 1986).

However, the primary focus of the organizations on costs has the reverse effect, leading to a rise in costs and decrease in quality over time. Deming theory known as ‘System of Profound Knowledge’ consists of four components (Walton, 1986):

01. Appreciation of a system
02. Knowledge of variation
03. Theory of knowledge
04. Knowledge of psychology

‘Six Sigma’ is a one of the tools utilized as a business improvement methodology with its roots in TQM. The Six Sigma process improvement has its origins in Motorola’s drive “towards reducing defects by minimizing variation in processes through metrics measurement” Anand et al. (2010). The basic difference between TQM and Six Sigma is the approach taken for process improvement, with Six Sigma focussing on improving quality by reducing the number of defects and impurities (Jacowski, 2007). Six Sigma is based upon the concept that focuses on continuous quality improvements for achieving near perfection by restricting the number of possible defects to less than 3.4 defects per million. The aim is to reduce the negative cost of quality (including errors, delays, rework etc.) which has the direct effect upon the customer satisfaction.

A business feasibility study can be defined as a controlled process for identifying problems and opportunities, determining objectives, describing situations, defining successful outcomes and assessing the range of the costs and benefits associated with several alternatives for solving a problem (Thompson, 2005). The result of this study indicates that the odds ratio coefficient is 1.317, indicating that emerging farmers who have done feasibility study have 31.7 % greater probability of making profit than those who do not have feasibility studies. This result confirms the importance of planning and feasibility studies in ensuring the profitability of farming enterprises and might also relate to the literacy levels.

The dilemma of project portfolio selection and the resolution of the problems associated with it have been researched using various mathematical programming tools and methods under the constraints of multiple evaluation constraints. The problem may be further compounded due to lack of adequate information and existence of project interdependencies. The budgetary constraints may be adjusted by factoring in the benefits that can be secured by resource expenditure at different levels (Lindstedt et al., 2008).

While, statistical models of decision-making should attempt to cover all aspects which may be deployed in different contexts, they need to be simple and flexible to gain ready acceptance by the practitioners (Archer and Ghasemzadeh, 1999; Cooper et al., 1999).

Robust Portfolio Modelling (RPM) is a framework for project portfolio selection covering wide range of project interdependencies (Liesio et al., 2007). They have tried to decompose large portfolio selection problems having incomplete information and several business units with local and shared budget constraints. This can help in determining the optimal project portfolio within each business unit and allocation of budget within these units.

Project Portfolio Management has its basis for evaluating, prioritizing and selection of projects within the whole organization based upon the corporate strategy (Spradlin and Kutoloski, 1999; Englund and Graham, 1999). The interview study by Cooper et al. (1997) indicates that the objective of PPM is to maximize the value and balance the projects with strategic initiatives, and the efficiency of PPM is directly related to the achievement of these goals.

According to the Standish CHAOS Report (2009), 68% of projects do not meet time/cost/quality targets. Only 32% of projects were completed on time, within budget and delivered measurable business and stakeholder benefits. There are many reasons for such failures. As per a KPMG survey of 252 organizations, technology is not the most critical factor. Inadequate project management implementation constitutes 32% of project failures, lack of communication constitutes 20% and unfamiliarity with scope and complexity constitutes 17%. Accordingly 69% of project failures are due to lack and/or improper implementation of project management methodologies.

# 7.0 Triangulation Sources 2: Quantitative Data Collection

An online survey was distributed to 189 respondents from various organizations in UAE and India. These respondents were further requested to distribute the survey amongst their colleagues to increase the overall population size. Accordingly it is anticipated that the survey was eventually distributed to a total of around 225-250 people.

Out of the total no. of respondents who received an invitation to participate in the online survey, a total of 79 responded. Out of the 79 responses, 52 were complete and therefore, taken up for survey.

**Summary:**

| | | |
|---|---|---|
| Population (N) | - | 225-250 |
| Total No. of Responses | - | 79 |
| % of Responses | - | 32 - 35% (approx.) |
| No. of Valid Responses | - | 52 |
| % of Valid Responses | - | 20-23 % (approx.) |

**Survey and its Brief Description:**

Title *(as mentioned in the distributed survey):*

Survey to explore the efficiency of current PM Practices for their role in Strategic Value Management in the build-up to Economic Revival

Description *(as mentioned in the distributed survey)*:

The main aim of the research is to investigate the current PM Practices and propose changes to ensure their better adaptability to the varying requirements in the post-economic crisis era.

Based upon the results from the investigation on the current Management Practices, their relevance and areas for improvement shall be analyzed. This may form the basis for providing a logical path for progressive development and a strategic plan for advancing project management improvement within the organizations.

Overall, the primary objective is to identify and weed out the faulty approach to current Management Practices and propose changes which may act as a safeguard to prevent future shocks of the similar nature.

**Descriptive Analysis of Survey Results:**

The gathered survey results have been utilised analysed by Descriptive Statistics. Descriptive Statistics are used to describe the basic features of the data in a study in a simple graphical manner. This provides a simple summary about the sample and the measures. Together with simple graphical analysis, they can form the basis for quantitative analysis of the data in a more meaningful manner and arranged according to the various summary sections. (socialresearchmethods.net, 2012).

Each question is analysed using a Pareto Chart below for its frequency and percentage of occurrence. Thereupon, each section in the survey is reviewed as a whole for analysis alongwith their correlation to results from other survey questions.

## Section 1

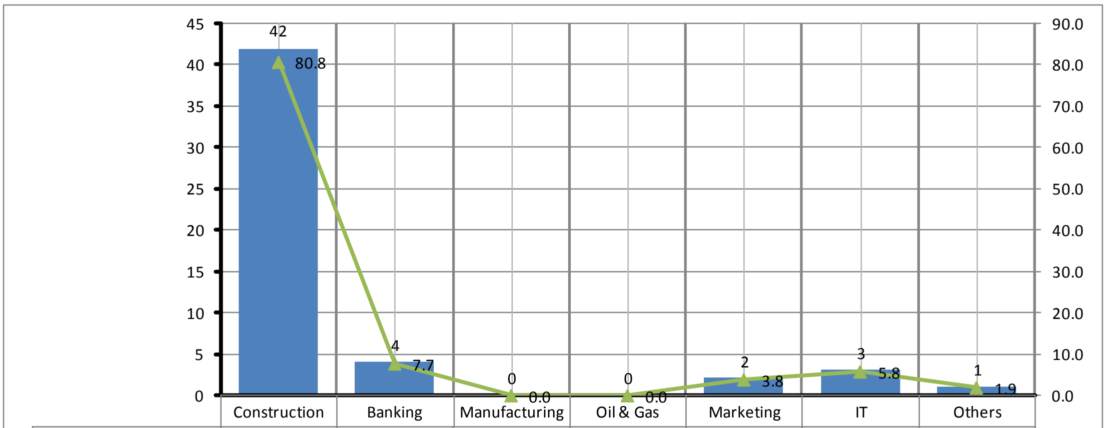
### General Information about the Respondents

*(This Section gathers general information about the respondents)*

### Q1: Your primary Industry of Expertise

Construction  Banking  Manufacturing  Oil & Gas  Marketing  IT

Others

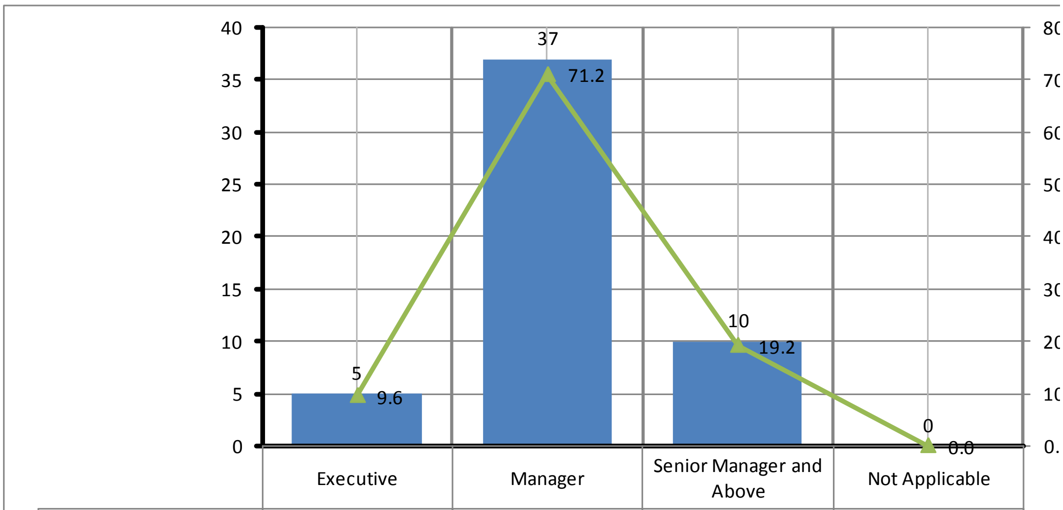


| | Construction | Banking | Manufacturing | Oil & Gas | Marketing | IT | Others |
|---|---|---|---|---|---|---|---|
| No. of Respondents | 42 | 4 | 0 | 0 | 2 | 3 | 1 |
| % of Respondents | 80.8 | 7.7 | 0.0 | 0.0 | 3.8 | 5.8 | 1.9 |

Figure 7.0.1

### Q2: Position *(if working)*

Executive  Manager  Senior Manager and Above  Not Applicable

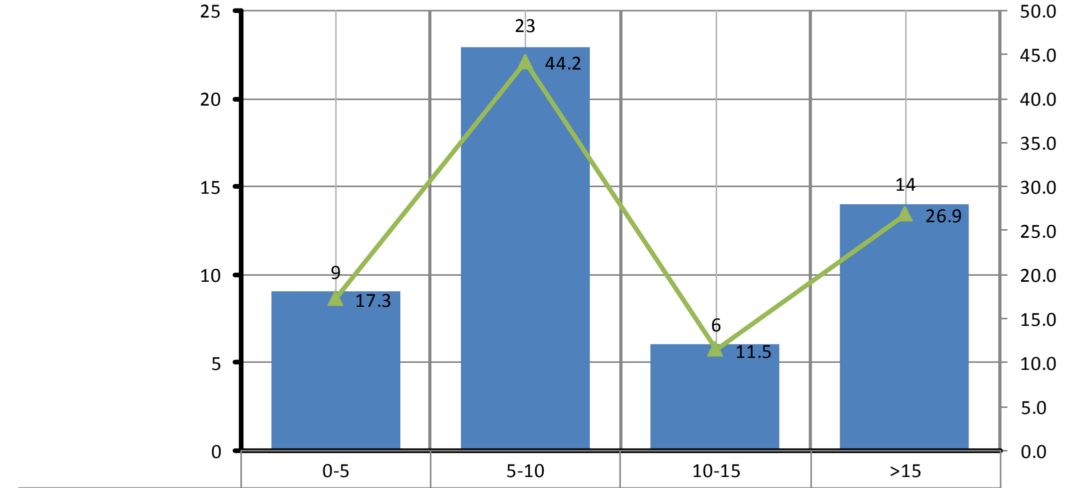


| | Executive | Manager | Senior Manager and Above | Not Applicable |
|---|---|---|---|---|
| No. of Respondents | 5 | 37 | 10 | 0 |
| % of Respondents | 9.6 | 71.2 | 19.2 | 0.0 |

Figure 7.0.2

### Q3: Professional Experience

○ 0-5 ◉ 5-10 ○ 10-15 ○ >15



| | 0-5 | 5-10 | 10-15 | >15 |
|---|---|---|---|---|
| No. of Respondents | 9 | 23 | 6 | 14 |
| % of Respondents | 17.3 | 44.2 | 11.5 | 26.9 |

Figure 7.0.2

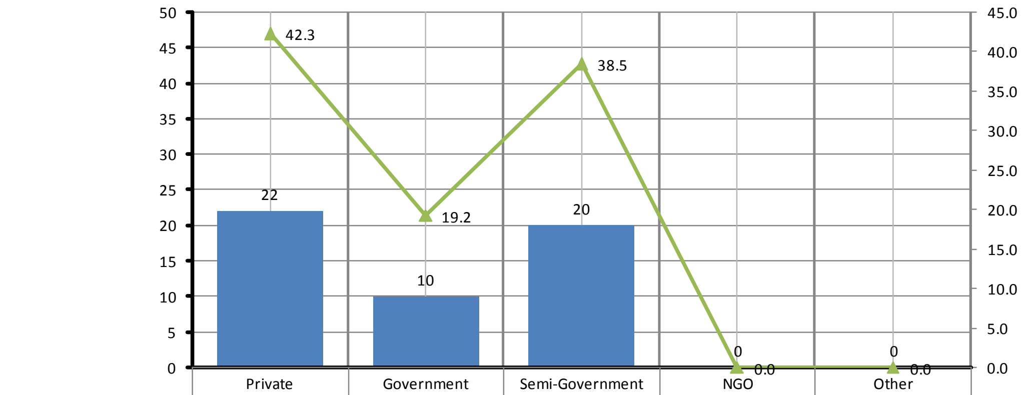
## Section 2

### About Your Organization

*(This section gathers information about the respondent's organizations.*
*If currently not working, please respond about the last organization affiliated to.)*

### Q4: Type of Organization

○ Private ○ Government ○ Semi-Government ○ NGO ○ Other



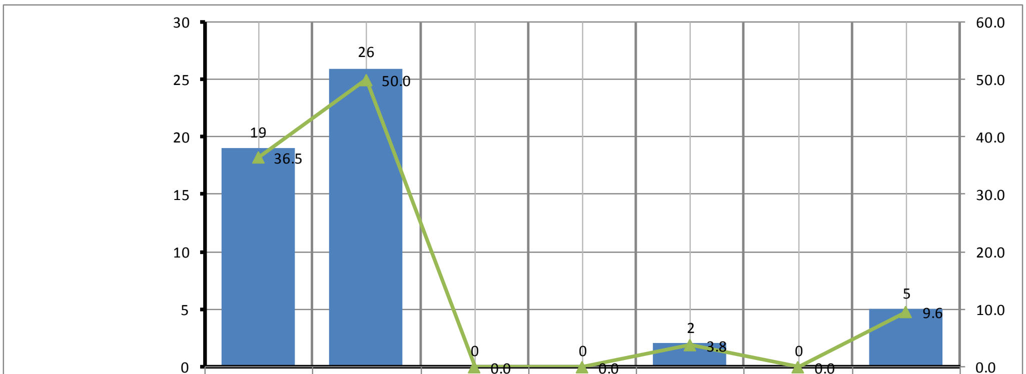
| | Private | Government | Semi-Government | NGO | Other |
|---|---|---|---|---|---|
| No. of Respondents | 22 | 10 | 20 | 0 | 0 |
| % of Respondents | 42.3 | 19.2 | 38.5 | 0.0 | 0.0 |

Figure 7.0.4

## Q5: Primary Area of Expertise of your organization

Construction Banking Manufacturing IT Marketing

Oil & Gas Other




| | Construction | Banking | Manufacturing | IT | Marketing | Oil & Gas | Other |
|---|---|---|---|---|---|---|---|
| No. of Respondents | 19 | 26 | 0 | 0 | 2 | 0 | 5 |
| % of Respondents | 36.5 | 50.0 | 0.0 | 0.0 | 3.8 | 0.0 | 9.6 |

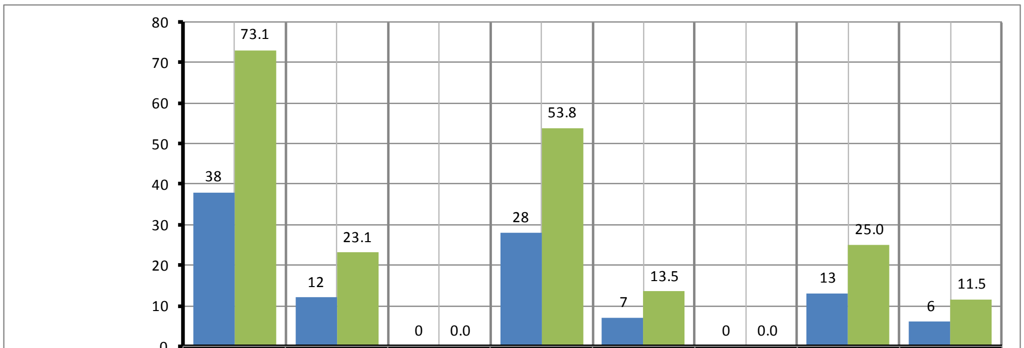
Figure 7.0.5

## Q6: Other Areas of Expertise of your organization

*(choose all the applicable)*

Construction Banking Manufacturing IT Marketing

Oil & Gas Other Not Applicable




| | Construction | Banking | Manufacturing | IT | Marketing | Oil & Gas | Other | Not Applicable |
|---|---|---|---|---|---|---|---|---|
| No. of Respondents | 38 | 12 | 0 | 28 | 7 | 0 | 13 | 6 |
| % of Respondents | 73.1 | 23.1 | 0.0 | 53.8 | 13.5 | 0.0 | 25.0 | 11.5 |

Figure 7.0.6

**Q7: Geographic Area of Business**
(choose all the applicable)

Gulf Countries  Gulf & Middle-East  Asia  Europe

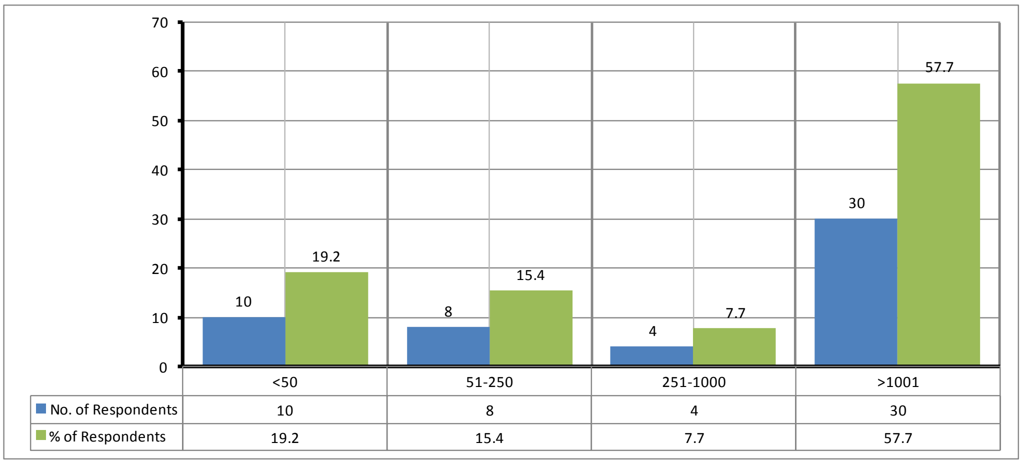
Americas  Australia


| | GCC | Gulf & Middle-East | Asia | Europe | Americas | Australia |
|---|---|---|---|---|---|---|
| No. of Respondents | 18 | 43 | 25 | 17 | 7 | 5 |
| % of Respondents | 34.6 | 82.7 | 48.1 | 32.7 | 13.5 | 9.6 |

Figure 7.0.7

**Q8: Total World-wide Organizational Strength**

<50  51-250  251-1000  >1001




| | <50 | 51-250 | 251-1000 | >1001 |
|---|---|---|---|---|
| No. of Respondents | 10 | 8 | 4 | 30 |
| % of Respondents | 19.2 | 15.4 | 7.7 | 57.7 |

Figure 7.0.8

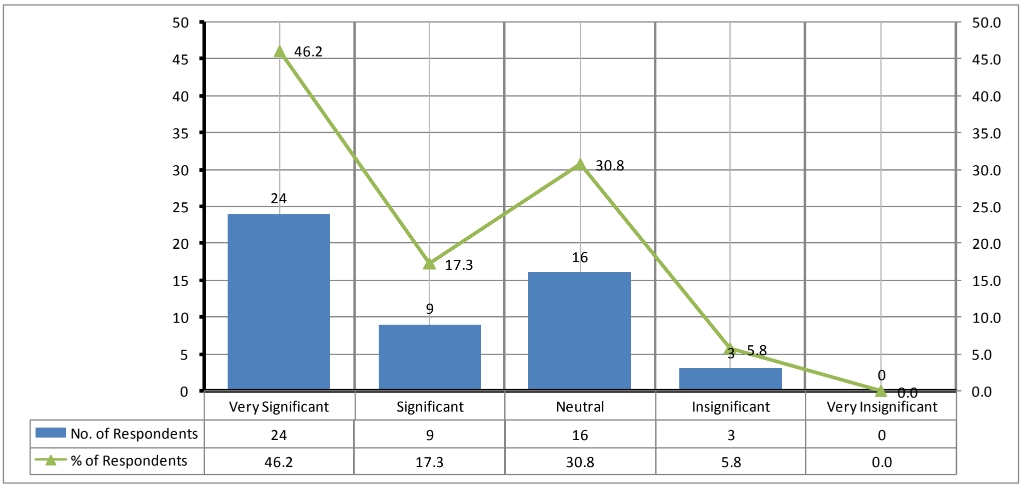
**Section 3**

**Employee awareness of Organization**

*(This Section gathers information about the awareness of employees regarding their organizations)*

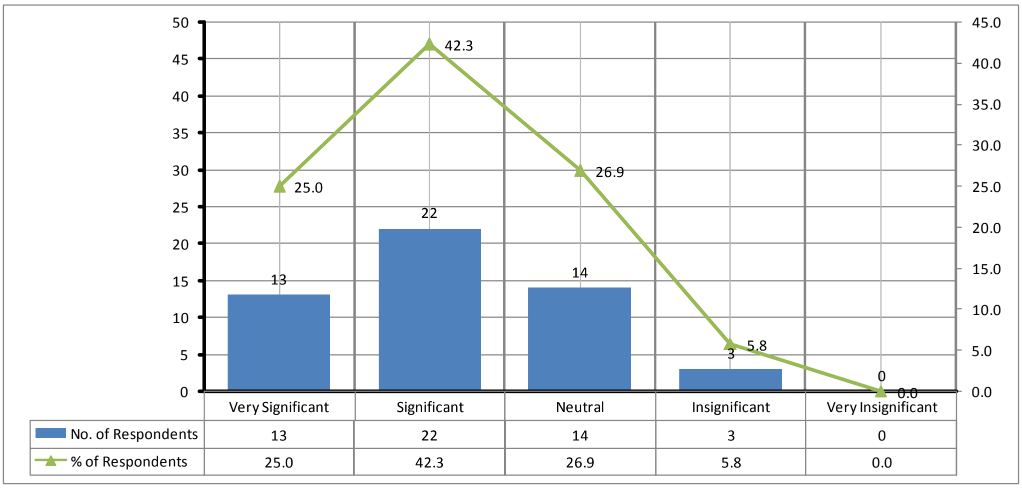
**Q9: Please rate your awareness regarding the Organizational -**

| | Very Significant | Significant | Neutral | Insignificant | Very Insignificant |
|---|---|---|---|---|---|
| **Vision and Mission** | | | | | |
| **Group Strategy** | | | | | |




| | Very Significant | Significant | Neutral | Insignificant | Very Insignificant |
|---|---|---|---|---|---|
| No. of Respondents | 24 | 9 | 16 | 3 | 0 |
| % of Respondents | 46.2 | 17.3 | 30.8 | 5.8 | 0.0 |

Figure 7.0.9a

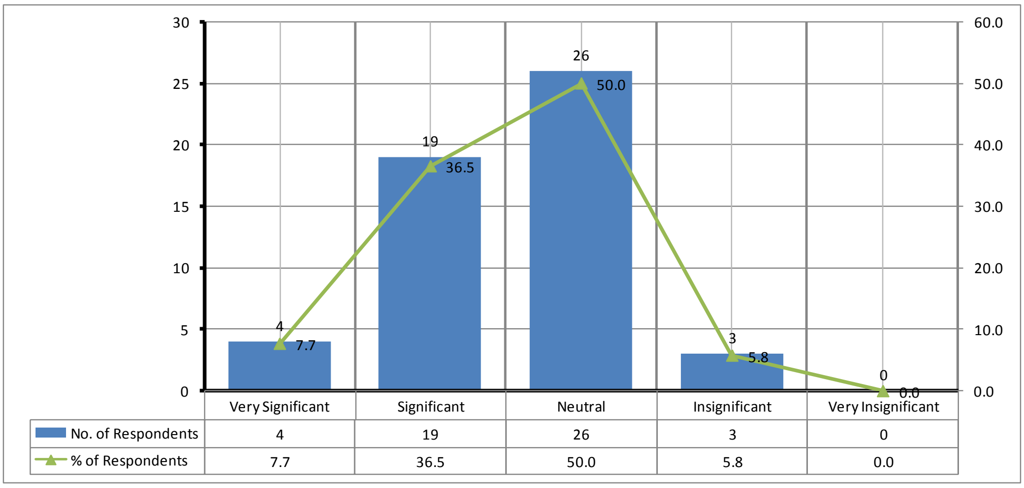



| | Very Significant | Significant | Neutral | Insignificant | Very Insignificant |
|---|---|---|---|---|---|
| No. of Respondents | 13 | 22 | 14 | 3 | 0 |
| % of Respondents | 25.0 | 42.3 | 26.9 | 5.8 | 0.0 |

Figure 7.0.9b

**Q 10: Please rate the overall involvement of the employees in influencing the Group Strategy**

Very Significant Significant Neutral Insignificant Very Insignificant

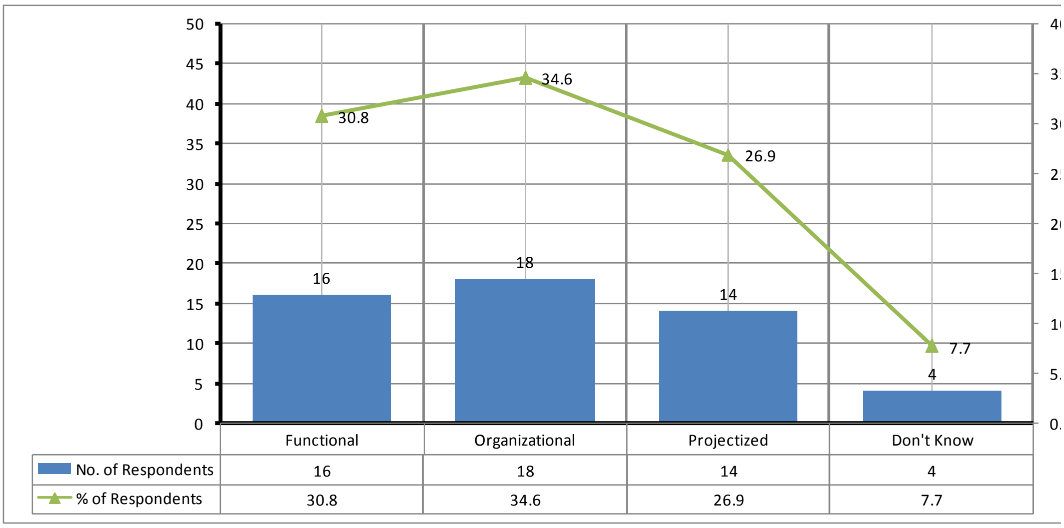



| | Very Significant | Significant | Neutral | Insignificant | Very Insignificant |
|---|---|---|---|---|---|
| No. of Respondents | 4 | 19 | 26 | 3 | 0 |
| % of Respondents | 7.7 | 36.5 | 50.0 | 5.8 | 0.0 |

Figure 7.0.10

**Q11: How would you best describe your organizational structure?**

Functional Organizational Projectized Don't Know




| | Functional | Organizational | Projectized | Don't Know |
|---|---|---|---|---|
| No. of Respondents | 16 | 18 | 14 | 4 |
| % of Respondents | 30.8 | 34.6 | 26.9 | 7.7 |

Figure 7.0.11

**Section 4**

**Projectized Organizational Structure**

*(This Section gathers information about the kind of projectized structure in respondent's organization)*

**Q12: How would you best categorize the Projectized environment in your organization?**

Pure Project Structure Matrix Structure Don't Know

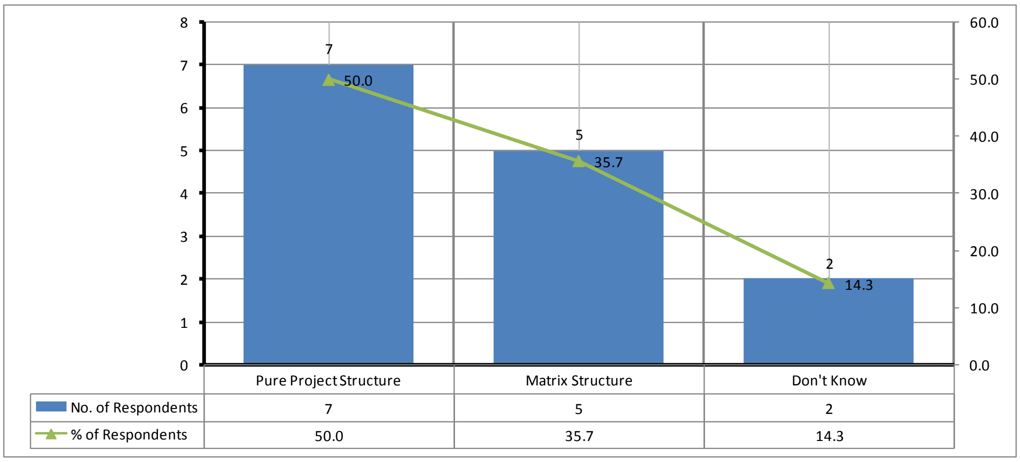



Figure 7.0.12

**Section 5**

**Project Management Office**

*(This section gathers information about the existence of Project Management Office in the respondent's organizations)*

**Q13: Does your Organization have a Central Project Management Office (PMO)?**

Yes No Don't Know

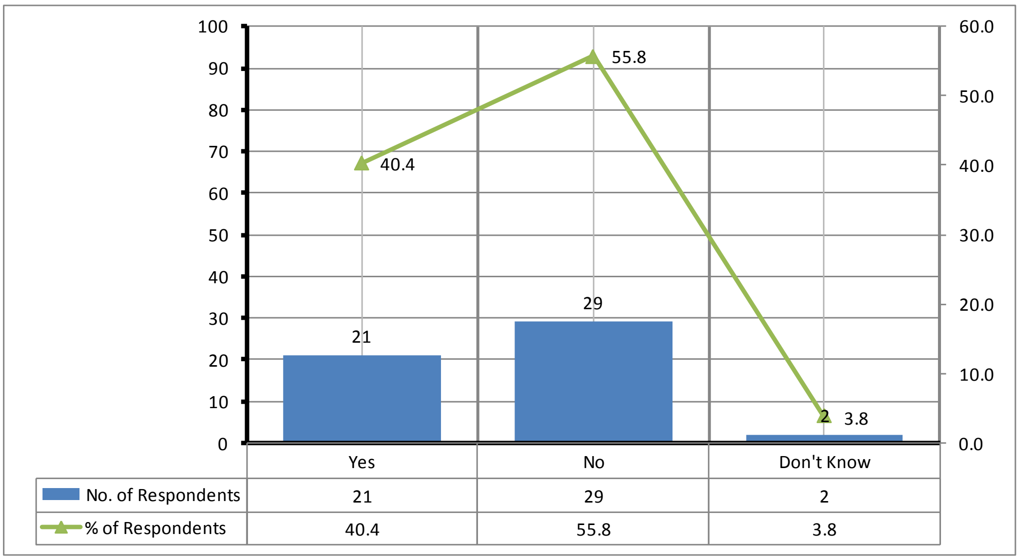



Figure 7.0.13

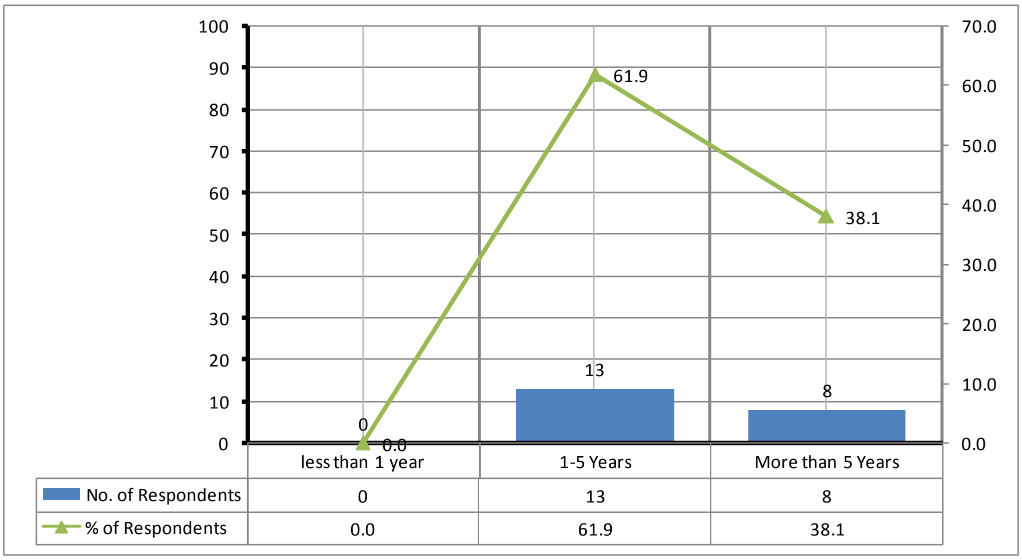
**Section 6**

**Usage of Project Management Office**

*(This Section gathers information about the usage of PMO in respondent's organizations)*

**Q14: For how long does your organization have a Project Management Office (PMO)?**

Less than 1 Year 1-5 Years More than 5 Years



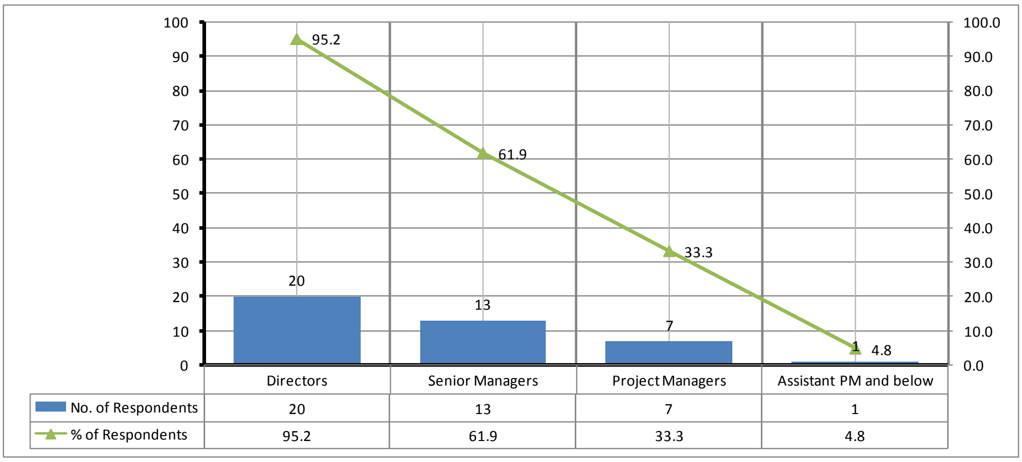

| | less than 1 year | 1-5 Years | More than 5 Years |
|---|---|---|---|
| No. of Respondents | 0 | 13 | 8 |
| % of Respondents | 0.0 | 61.9 | 38.1 |

Figure 7.0.14

**Q15: The decision-makers in PMO consists of:**

(choose all the appropriate)

Directors Senior Managers Project Managers Assistant PM

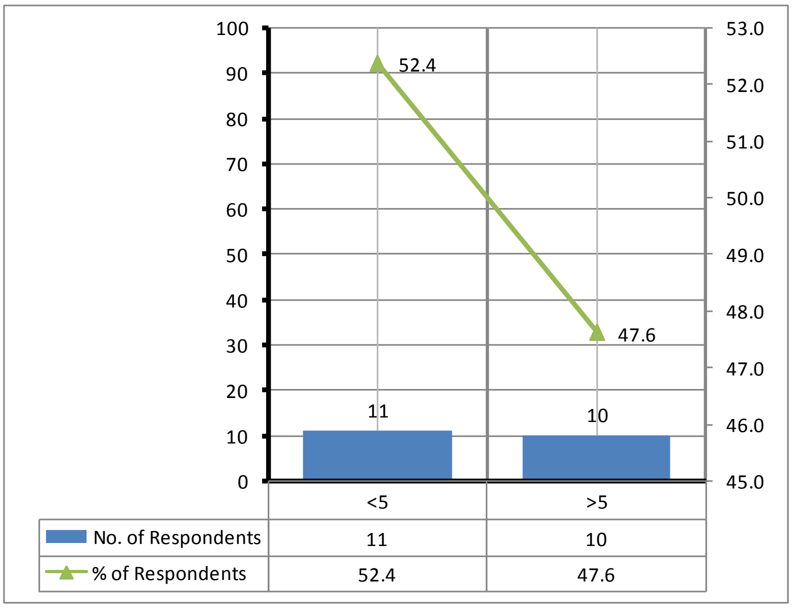



| | Directors | Senior Managers | Project Managers | Assistant PM and below |
|---|---|---|---|---|
| No. of Respondents | 20 | 13 | 7 | 1 |
| % of Respondents | 95.2 | 61.9 | 33.3 | 4.8 |

Figure 7.0.15

## Q16: Total no. of decision-makers in PMO

<5 >5

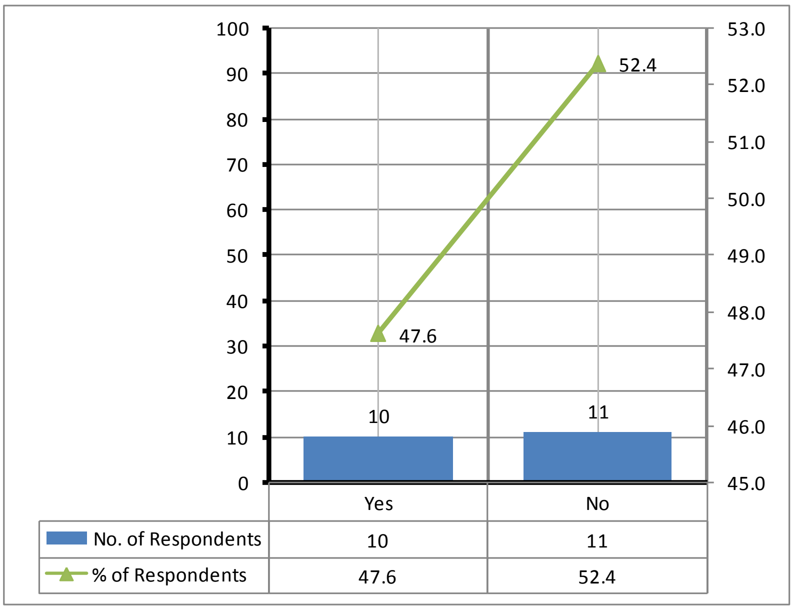



| | <5 | >5 |
|---|---|---|
| No. of Respondents | 11 | 10 |
| % of Respondents | 52.4 | 47.6 |

Figure 7.0.16

## Q17: Are you a member of PMO?

Yes No

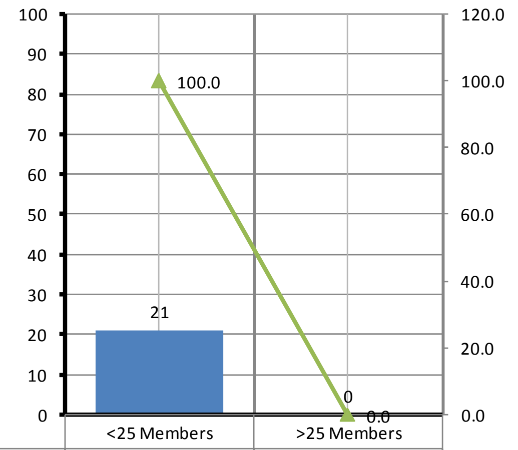



| | Yes | No |
|---|---|---|
| No. of Respondents | 10 | 11 |
| % of Respondents | 47.6 | 52.4 |

Figure 7.0.17

## Q18: Total Size of PMO

<25 >25 Members

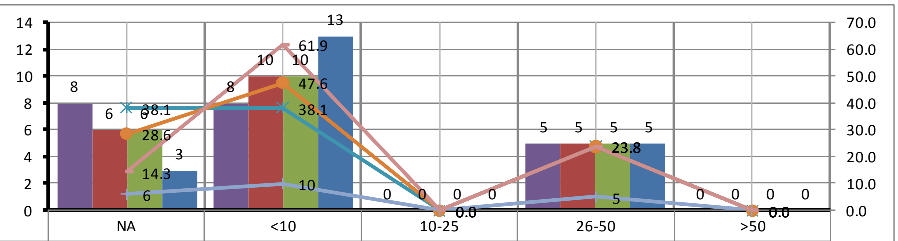



| | <25 Members | >25 Members |
|---|---|---|
| No. of Respondents | 21 | 0 |
| % of Respondents | 100.0 | 0.0 |

Figure 7.0.18

## Q19: Approximate no. of Projects Initiated by PMO in following years:

| | NA | <10 | 11-25 | 26-50 | >50 |
|---|---|---|---|---|---|
| 2010 | | | | | |
| 2009 | | | | | |
| 2008 | | | | | |
| 2005-2007 | | | | | |

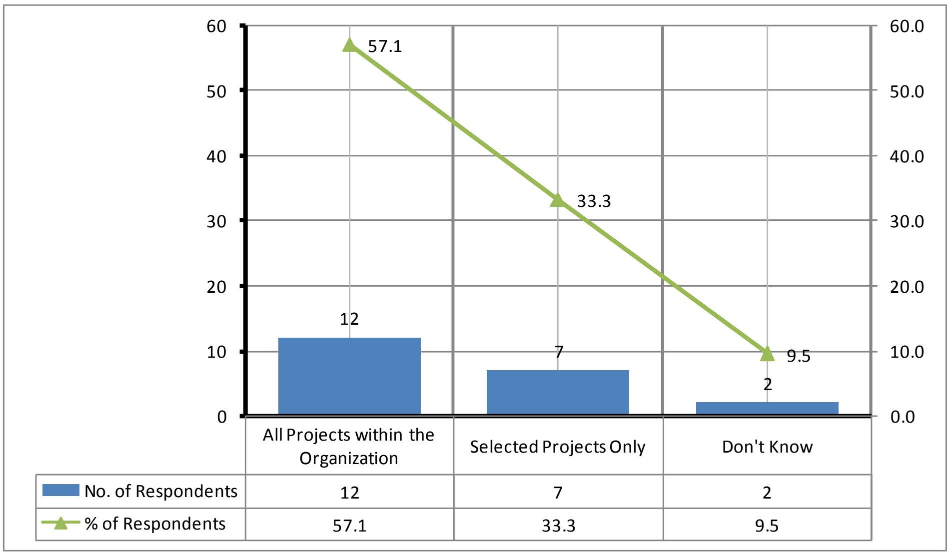



| | NA | <10 | 10-25 | 26-50 | >50 |
|---|---|---|---|---|---|
| Year 2005-2007 | 8 | 8 | 0 | 5 | 0 |
| Year 2008 | 6 | 10 | 0 | 5 | 0 |
| Year 2009 | 6 | 10 | 0 | 5 | 0 |
| year 2010 | 3 | 13 | 0 | 5 | 0 |
| Year 2005-2007 % | 38.1 | 38.1 | 0.0 | 23.8 | 0.0 |
| Year 2008 % | 28.6 | 47.6 | 0.0 | 23.8 | 0.0 |
| Year 2009 % | 6 | 10 | 0 | 5 | 0 |
| Year 2010 % | 14.3 | 61.9 | 0.0 | 23.8 | 0.0 |

Figure 7.0.19

## Q20: Kind of Projects Undertaken by PMO

All Projects within the Organization Selected Projects Only Don't Know

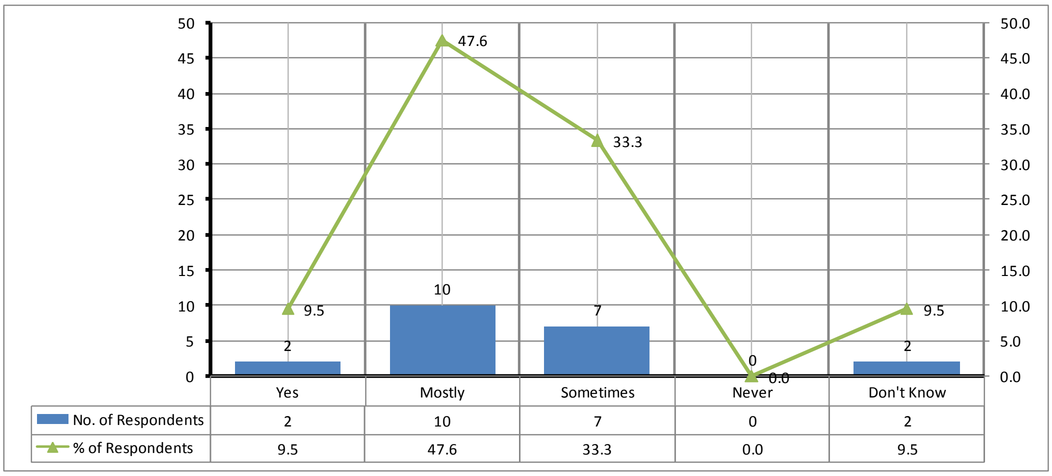



| | All Projects within the Organization | Selected Projects Only | Don't Know |
|---|---|---|---|
| No. of Respondents | 12 | 7 | 2 |
| % of Respondents | 57.1 | 33.3 | 9.5 |

Figure 7.0.20

## Q21: Does PMO analyses and controls the relevance of all the projects within the organization?

Yes Mostly Sometimes Never Don't Know




| | Yes | Mostly | Sometimes | Never | Don't Know |
|---|---|---|---|---|---|
| No. of Respondents | 2 | 10 | 7 | 0 | 2 |
| % of Respondents | 9.5 | 47.6 | 33.3 | 0.0 | 9.5 |

Figure 7.0.21

## Q22: What is the relevance of the PMO in regards to the final decision-making for the initiation of the project?

Final Decision-makers Recommendations to Management only Don't Know

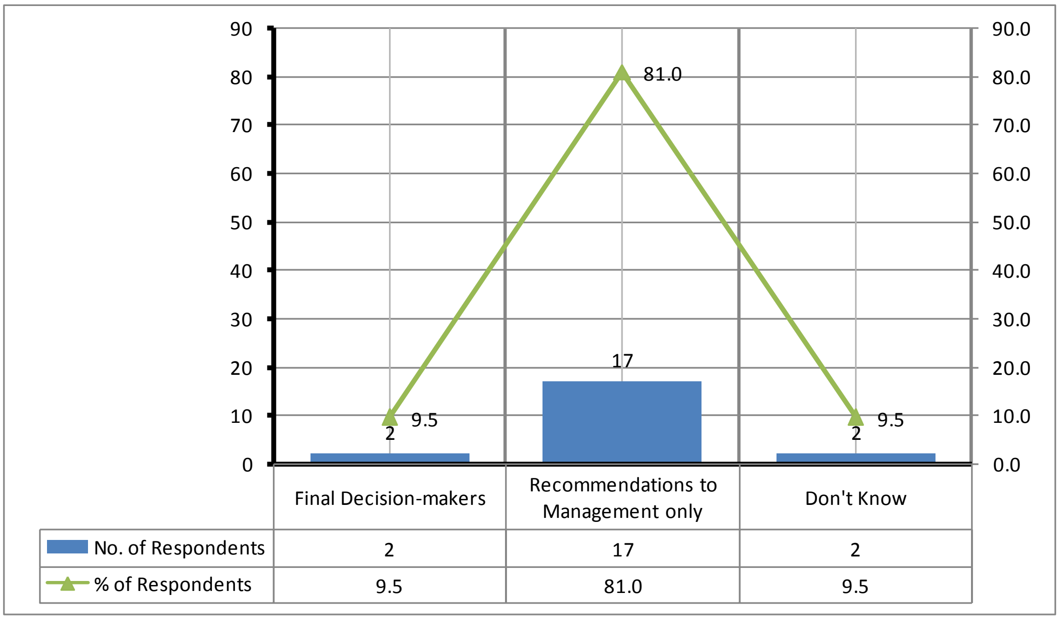



Figure 7.0.22

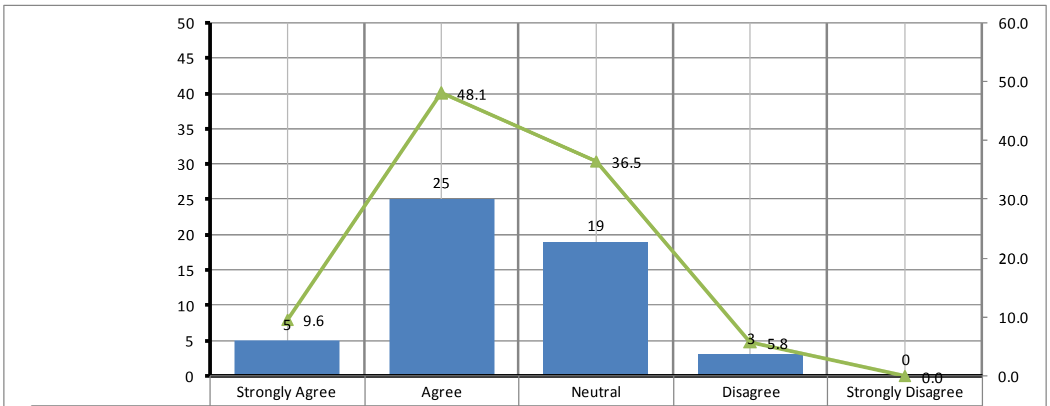
**Section 7**

**Projects undertaken in Your Organization**

*(This Section gathers information regarding projects being undertaken in the respondent's organization)*

**Q23: Do you think that the projects undertaken by your organization match with the group strategy?**

Strongly Agree Agree Neutral Disagree Strongly Disagree

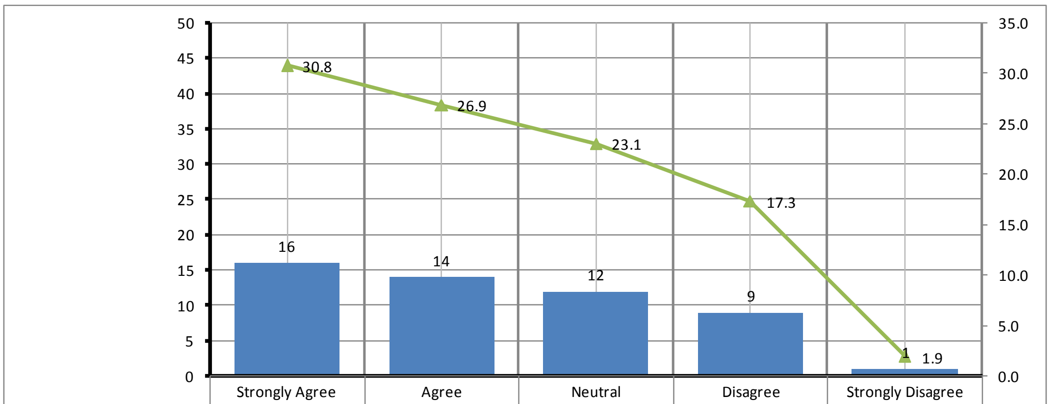



| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| No. of Respondents | 5 | 25 | 19 | 3 | 0 |
| % of Respondents | 9.6 | 48.1 | 36.5 | 5.8 | 0.0 |

Figure 7.0.23

**Q24: Has there been a significant staff reduction to manage the projects, since the onset of economic recession?**

Strongly Agree Agree Neutral Disagree Strongly Disagree

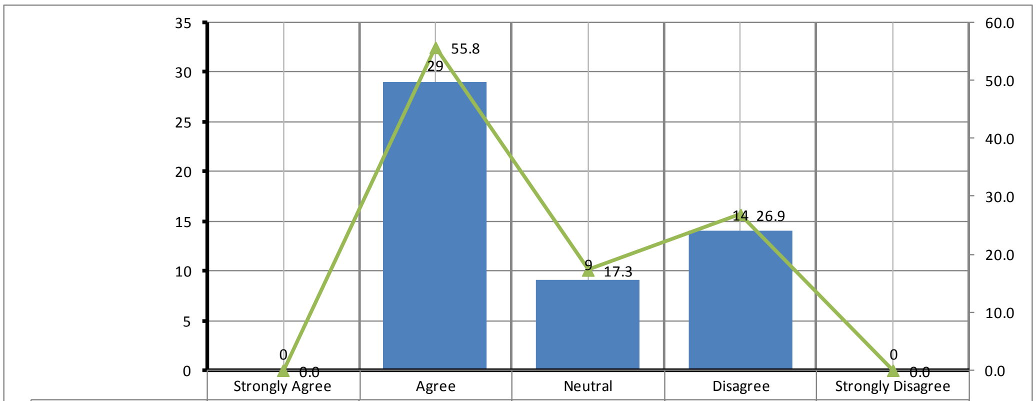



| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| No. of Respondents | 16 | 14 | 12 | 9 | 1 |
| % of Respondents | 30.8 | 26.9 | 23.1 | 17.3 | 1.9 |

Figure 7.0.24

**Q25: Do you think currently there is enough staff to manage the current projects?**

Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

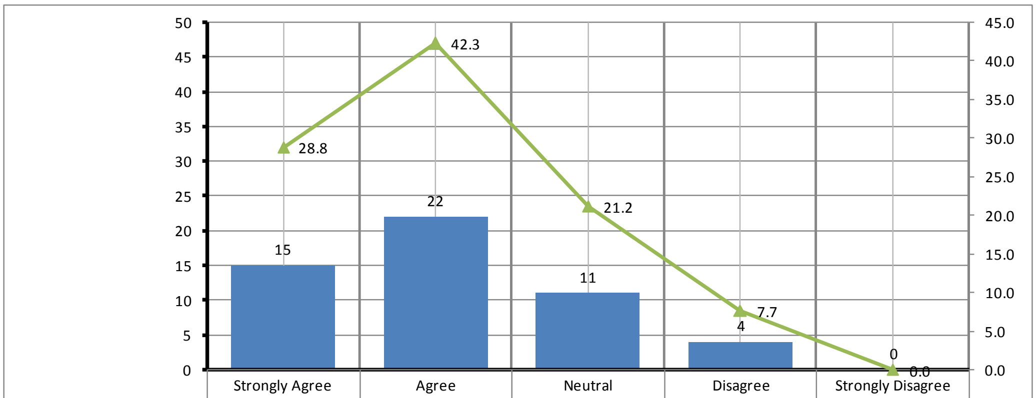



| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| No. of Respondents | 0 | 29 | 9 | 14 | 0 |
| % of Respondents | 0.0 | 55.8 | 17.3 | 26.9 | 0.0 |

Figure 7.0.25

**Q26: Do you think the economic recession has negatively affected the NUMBER of projects undertaken by your organization?**

Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

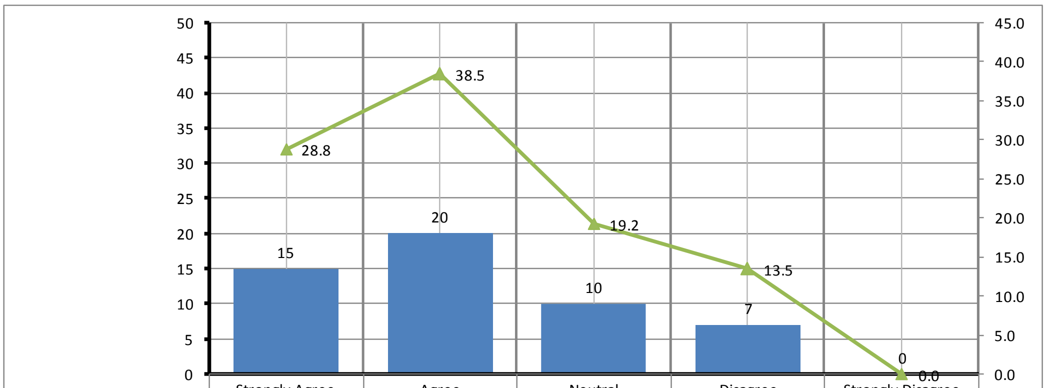



| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| No. of Respondents | 15 | 22 | 11 | 4 | 0 |
| % of Respondents | 28.8 | 42.3 | 21.2 | 7.7 | 0.0 |

Figure 7.0.26

**Q27: Do you think the economic recession has negatively affected the SIZE of projects undertaken by your organization?**

Strongly Agree   Agree   Neutral   Disagree   Strongly Disagree



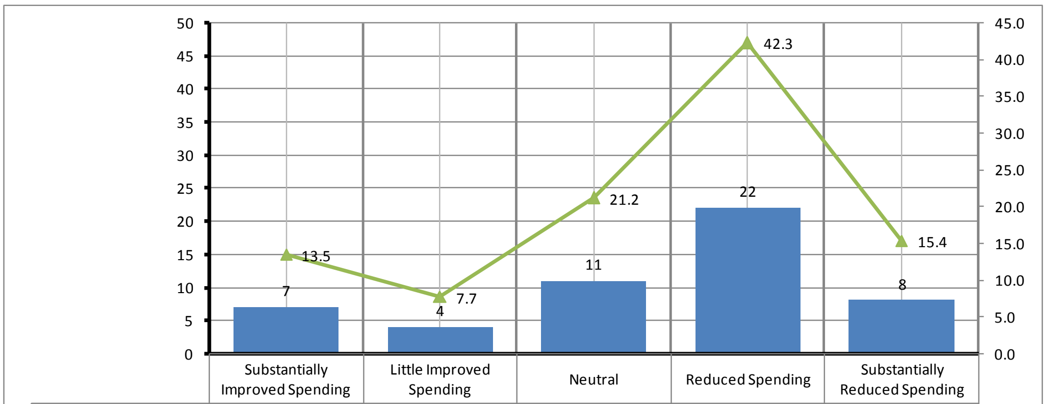
| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| No. of Respondents | 15 | 20 | 10 | 7 | 0 |
| % of Respondents | 28.8 | 38.5 | 19.2 | 13.5 | 0.0 |

Figure 7.0.22

**Q28: What has been the effect of the Economic Recession upon the Employee Development Programs and R&D works undertaken by the organization?**

Substantially Improved Spending   Little Improved Spending   Neutral

Reduced Spending   Substantially Reduced Spending



| | Substantially Improved Spending | Little Improved Spending | Neutral | Reduced Spending | Substantially Reduced Spending |
|---|---|---|---|---|---|
| No. of Respondents | 7 | 4 | 11 | 22 | 8 |
| % of Respondents | 13.5 | 7.7 | 21.2 | 42.3 | 15.4 |

Figure 7.0.22

**Section 8**

**Usage of PM Practices in Your Organization**

*(This Section gathers information about the extent of usage of PM practices in the respondent's organization)*

**Q29: Does your organization frequently analyzes the performance of all the projects against set Key Performance Indicators (KPIs)?**

Strongly Agree Agree Neutral Disagree Strongly Disagree

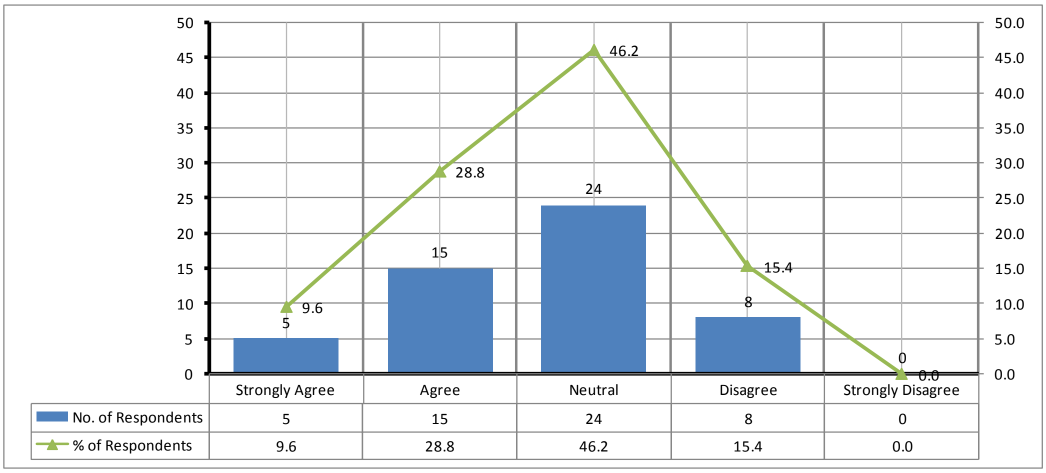



Figure 7.0.29

**Q30: Does your organization undertake Feasibility Studies at the initiation of the Project?**

Always Sometimes Never Don't Know

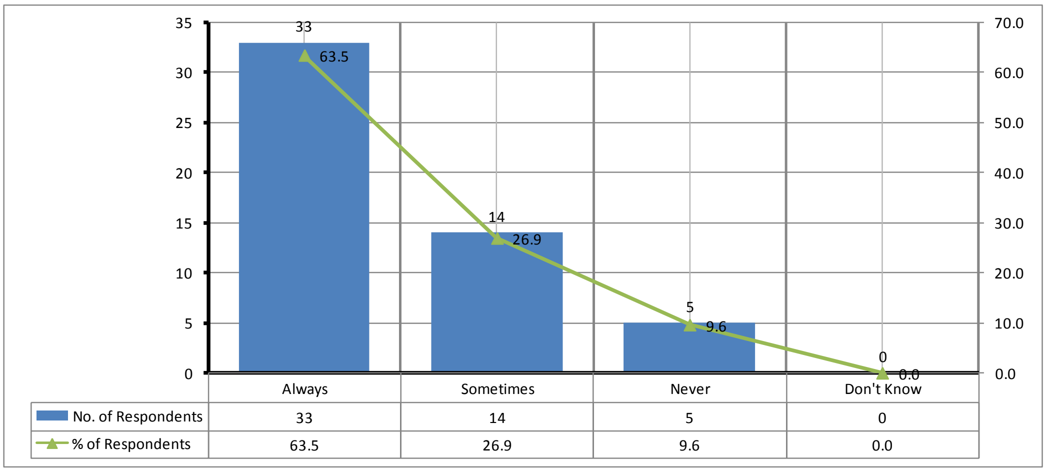



Figure 7.0.30

## Section 9

## Usage of Project Feasibility as a tool at the Project Initiation

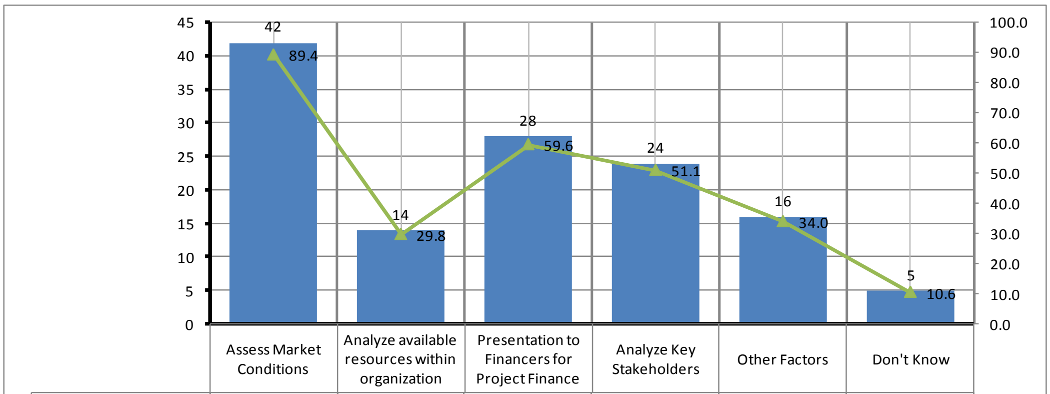
*(This section gathers information about usage of feasibilities studies in respondent's organization)*

**Q31: The Feasibility Studies are undertaken primarily to** (choose all as applicable):

Assess Market Conditions Analyze available resources within organization

Presentation to Financers for Project Finance Analyze Key Stakeholders

Other Factors Don't Know

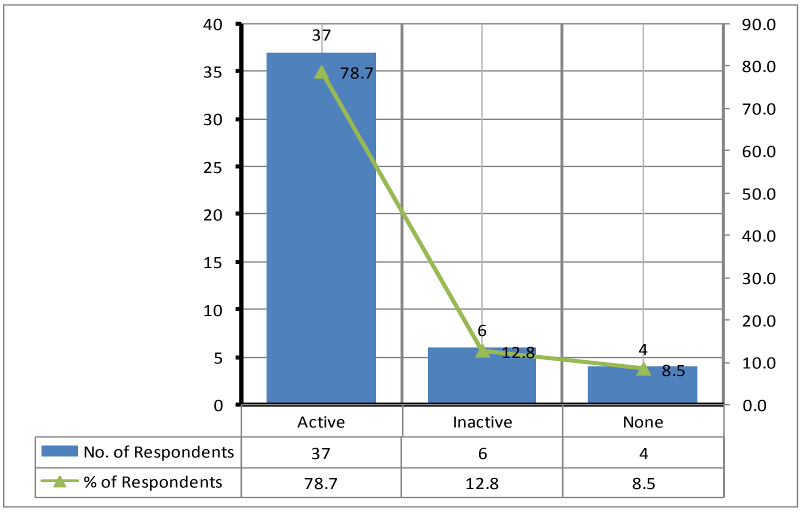



| | Assess Market Conditions | Analyze available resources within organization | Presentation to Financers for Project Finance | Analyze Key Stakeholders | Other Factors | Don't Know |
|---|---|---|---|---|---|---|
| No. of Respondents | 42 | 14 | 28 | 24 | 16 | 5 |
| % of Respondents | 89.4 | 29.8 | 59.6 | 51.1 | 34.0 | 10.6 |

Figure 7.0.31

**Q32: What is the extent of involvement of the Top Management during the Project Feasibility Study Stage?**

Active Inactive None

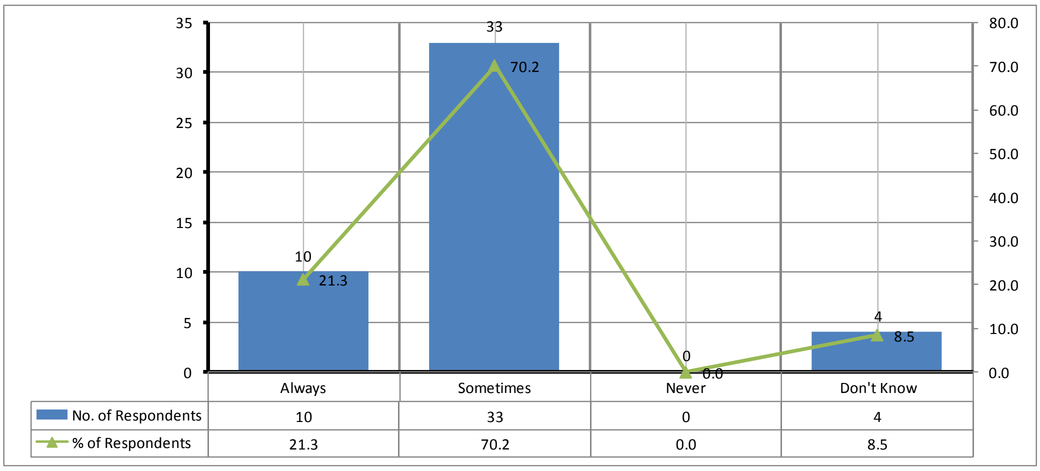


| | Active | Inactive | None |
|---|---|---|---|
| No. of Respondents | 37 | 6 | 4 |
| % of Respondents | 78.7 | 12.8 | 8.5 |

Figure 7.0.32

**Q33: Does your organization follow the outcome of the Primary Feasibility Studies?**

Always Sometimes Never Don't Know



| | Always | Sometimes | Never | Don't Know |
|---|---|---|---|---|
| No. of Respondents | 10 | 33 | 0 | 4 |
| % of Respondents | 21.3 | 70.2 | 0.0 | 8.5 |

Figure 7.0.33

**Q34: Has your organization discontinued further work on any project based upon the outcome of the Primary Project Feasibility Studies during last 2 years?**

Yes No Don't Know

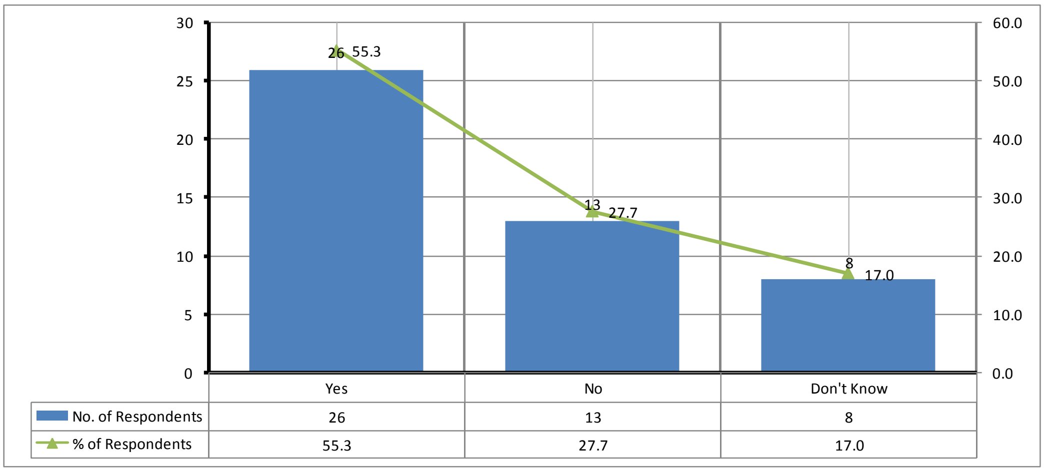



Figure 7.0.34

**Q35: Does your organization undertake Secondary Feasibility Studies during the Project Lifecycle to continuously monitor the relevance of the project?**

Always Sometimes Never Don't Know

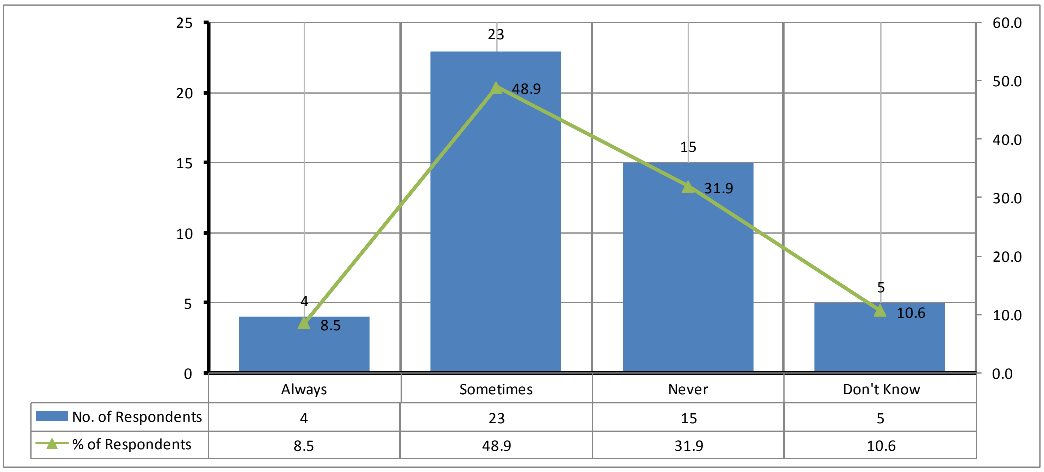



Figure 7.0.35

**Q36: Has your organization discontinued or made major changes on any project based upon the outcome of the Secondary Project Feasibility Studies during last 2 years?**

Yes No Don't Know

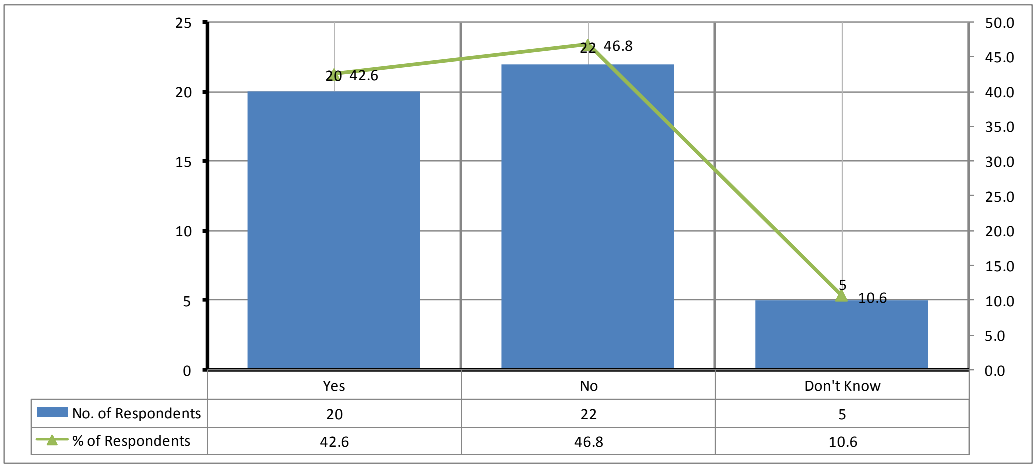



Figure 7.0.36

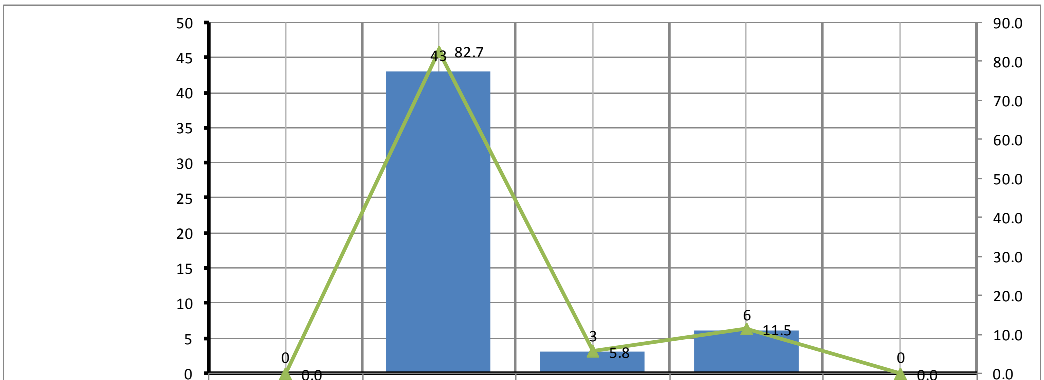
**Section 10**

**Project Planning Stage**

*(This section gathers information about Planning Stage practices followed in respondent's organizations)*

**Q37: Does your organization spend enough time and resources on Project Planning at the Initiation Stage?**

Strongly Agree Agree Neutral Disagree Strongly Disagree

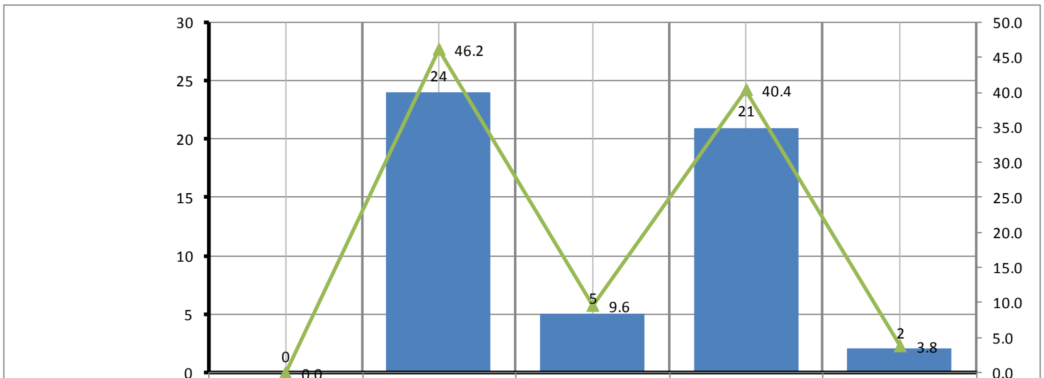


| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| No. of Respondents | 0 | 43 | 3 | 6 | 0 |
| % of Respondents | 0.0 | 82.7 | 5.8 | 11.5 | 0.0 |

Figure 7.0.37

**Q38: Is the whole Project Team involved in shaping the Project Planning?**

Always Mostly Neutral Sometimes Never



| | Always | Mostly | Neutral | Sometimes | Never |
|---|---|---|---|---|---|
| No. of Respondents | 0 | 24 | 5 | 21 | 2 |
| % of Respondents | 0.0 | 46.2 | 9.6 | 40.4 | 3.8 |

Figure 7.0.38

**Q39: What is the extent of involvement of Project Team Members in shaping the Project Planning?**

Very Large Large Neutral Small Very Small

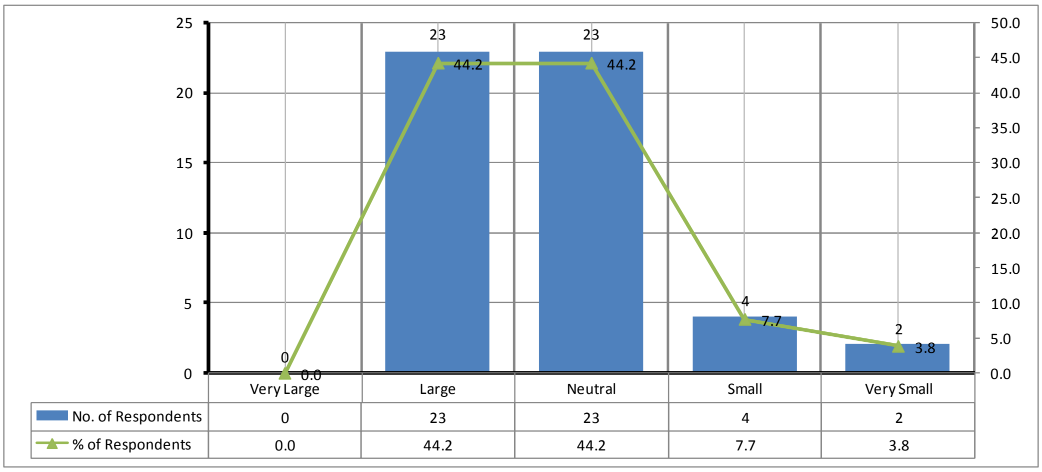



Figure 7.0.39

**Q40: What is the influence of the Project Team Members on the Project Planning?**

Very Significant Significant Neutral Insignificant Very Insignificant

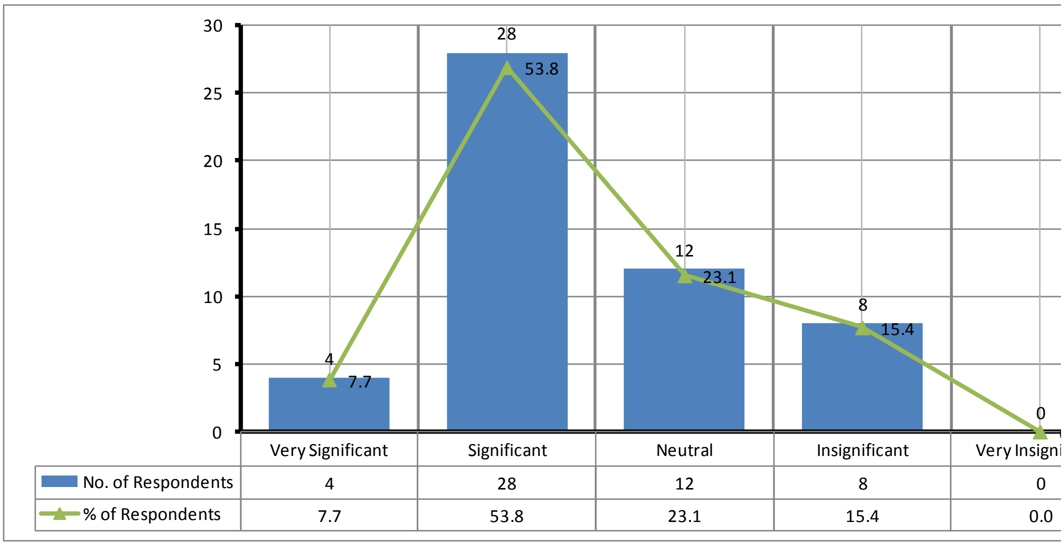
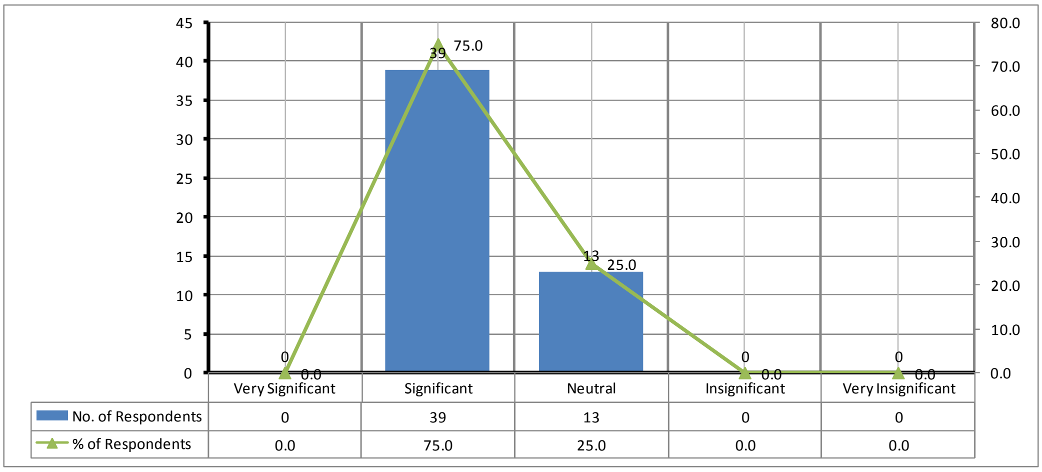



Figure 7.0.40

**Q41: What is the extent of involvement of Key Stakeholders in shaping the Project Planning?**

Very Significant Significant Neutral Insignificant Very Insignificant

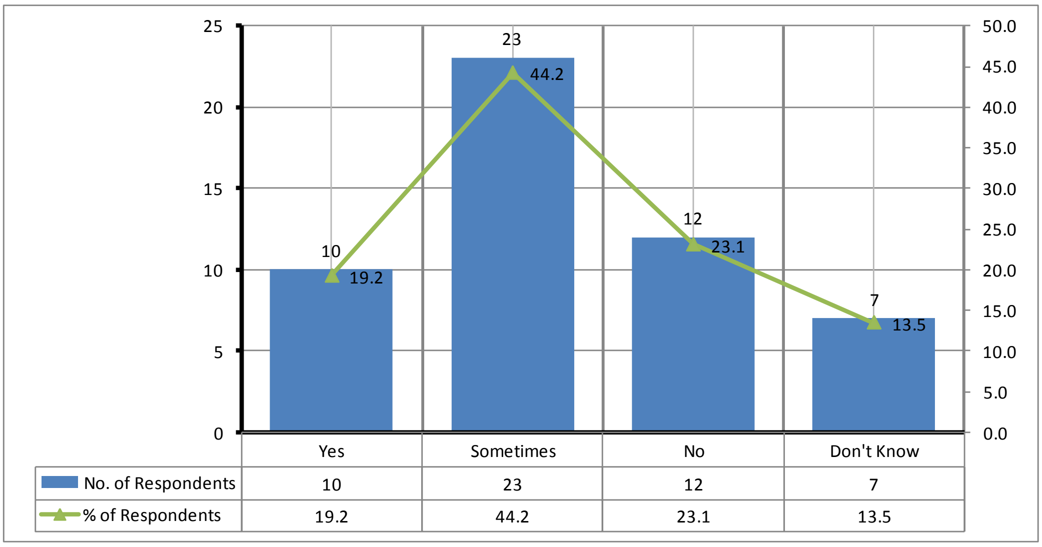



| | Very Significant | Significant | Neutral | Insignificant | Very Insignificant |
|---|---|---|---|---|---|
| No. of Respondents | 0 | 39 | 13 | 0 | 0 |
| % of Respondents | 0.0 | 75.0 | 25.0 | 0.0 | 0.0 |

Figure 7.0.41

**Q42: Does your organization employ the technique of Stakeholder Mapping?**

Yes Sometimes No Don't Know




| | Yes | Sometimes | No | Don't Know |
|---|---|---|---|---|
| No. of Respondents | 10 | 23 | 12 | 7 |
| % of Respondents | 19.2 | 44.2 | 23.1 | 13.5 |

Figure 7.0.42

**Q43: Does Project Planning includes identification of Risks and formulation of Risk Response Plan?**

Always Mostly Sometimes Never Don't Know

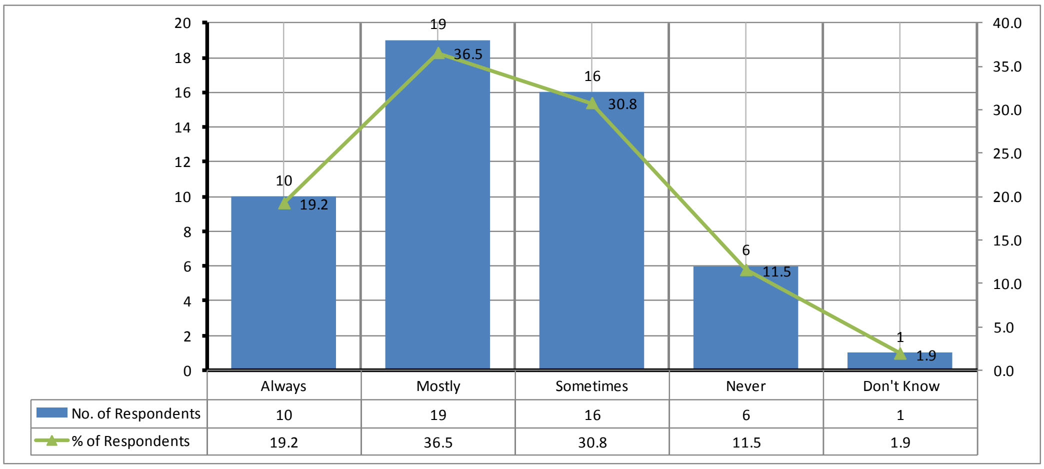



Figure 7.0.43

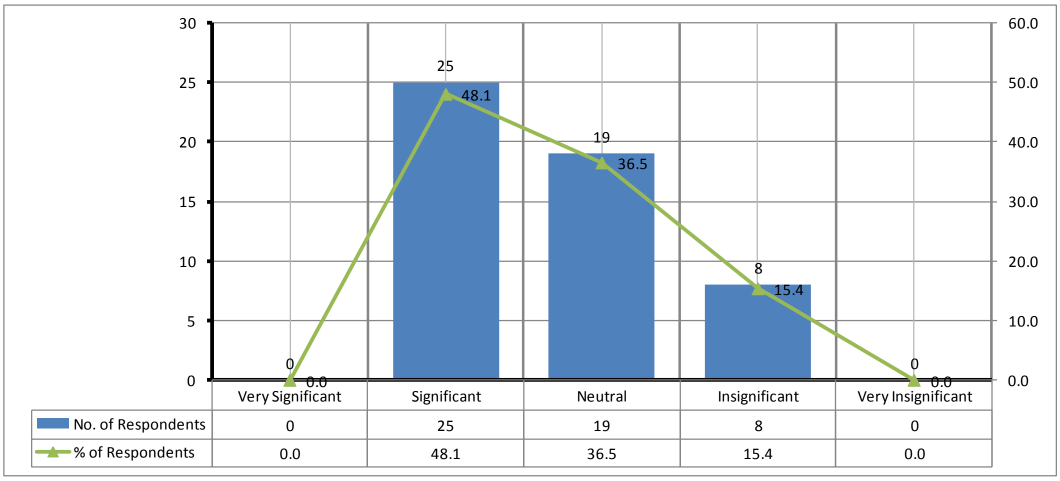
**Section 11**

**Project Quality Plan**

*(This section gathers information about usage of Quality Planning in respondent's organizations)*

### Q44: How much time is dedicated to the formulation, testing and finalization of Quality Plan at the Project Initiation Stage?

Very Significant Significant Neutral Insignificant Very Insignificant

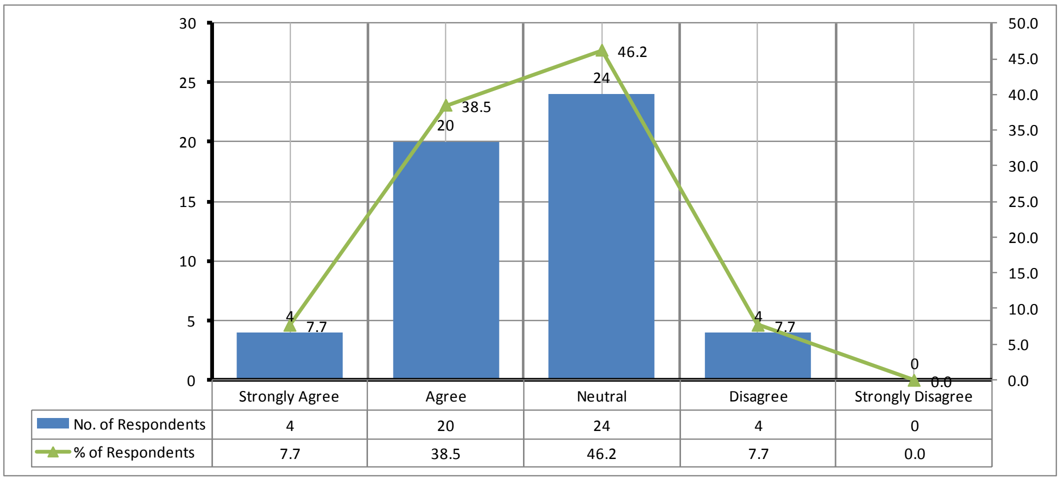



| | Very Significant | Significant | Neutral | Insignificant | Very Insignificant |
|---|---|---|---|---|---|
| No. of Respondents | 0 | 25 | 19 | 8 | 0 |
| % of Respondents | 0.0 | 48.1 | 36.5 | 15.4 | 0.0 |

Figure 7.0.44

### Q45: Is the formulated Quality Plan consistent with the Project Deliverables and Organizational Strategy?

Strongly Agree Agree Neutral Disagree Strongly Disagree

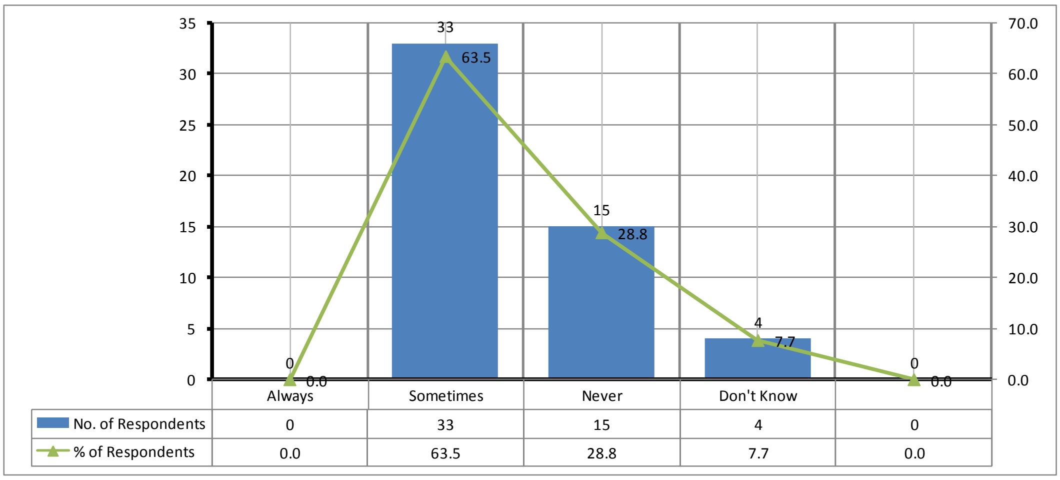



| | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
|---|---|---|---|---|---|
| No. of Respondents | 4 | 20 | 24 | 4 | 0 |
| % of Respondents | 7.7 | 38.5 | 46.2 | 7.7 | 0.0 |

Figure 7.0.45

**Q46: Were the deliverables at close-out stage in recently finished project consistent with the Quality Plan agreed at the Project Initiation?**

Strongly Agree Agree Neutral Disagree Strongly Disagree

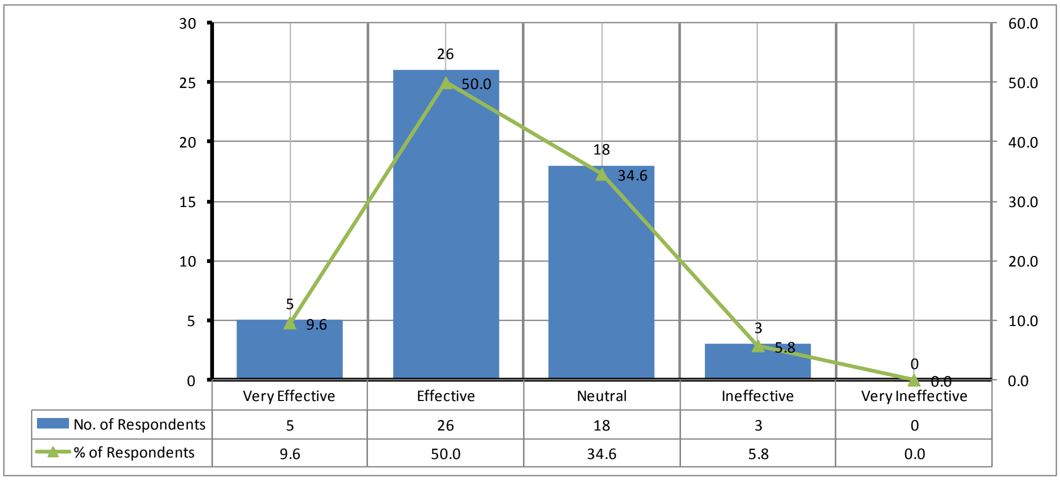


| | Always | Sometimes | Never | Don't Know | |
|---|---|---|---|---|---|
| No. of Respondents | 0 | 33 | 15 | 4 | 0 |
| % of Respondents | 0.0 | 63.5 | 28.8 | 7.7 | 0.0 |

Figure 7.0.46

**Q47: What is the influence of the management in ensuring the implementation of the Quality Plan?**

Very Effective Effective Neutral Ineffective Very Ineffective



| | Very Effective | Effective | Neutral | Ineffective | Very Ineffective |
|---|---|---|---|---|---|
| No. of Respondents | 5 | 26 | 18 | 3 | 0 |
| % of Respondents | 9.6 | 50.0 | 34.6 | 5.8 | 0.0 |

Figure 7.0.47

**Section 12**

**Project Portfolio Management**

*(This section gathers information about Portfolio Management in respondent's organizations)*

**Q48: Does your organization manage various projects as a PORTFOLIO instead of managing them as separate entities?**

Always Sometimes Never Don't Know

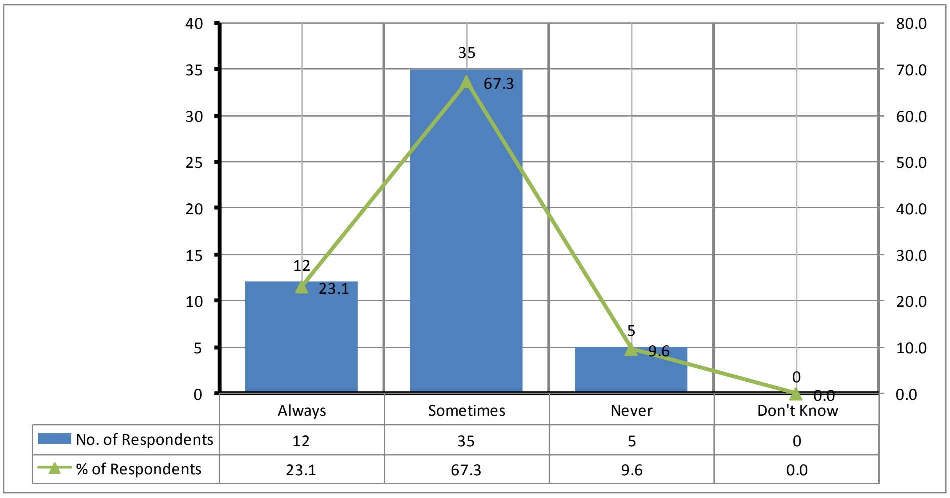



Figure 7.0.48

**Q49: Are the various projects ACTIVELY analysed for their relevance and effect upon other projects?**

Yes Sometimes No Don't Know

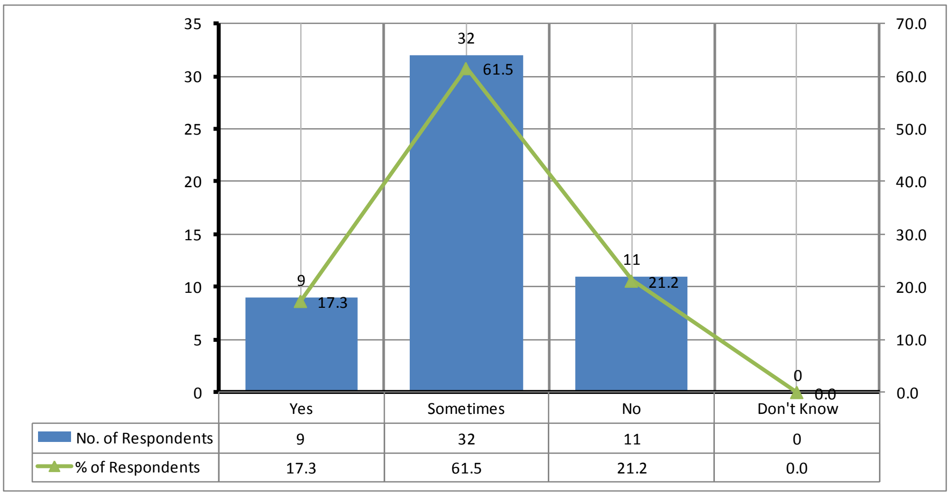



Figure 7.0.49

## Q50: How often does your organization's project portfolio been updated substantially in last 2 years?

Often Rarely Never Don't know

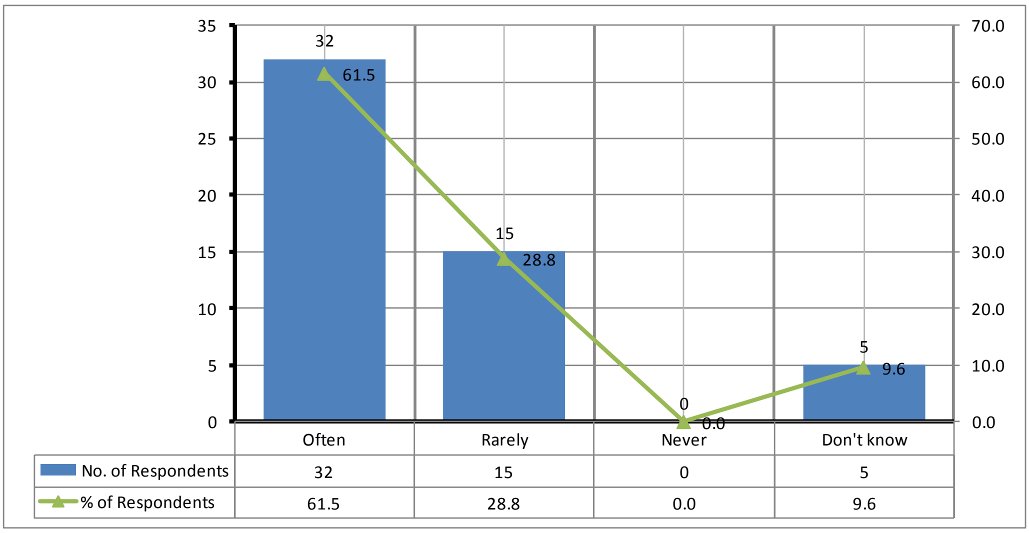



Figure 7.0.50

## Q51: Did your organization alter / stop any projects as a direct result of the economic crisis?

Yes No Don't Know

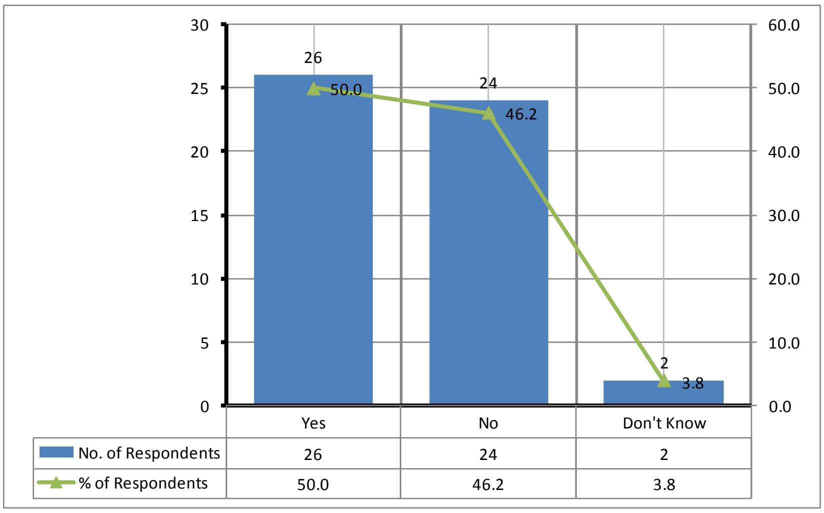



Figure 7.0.51

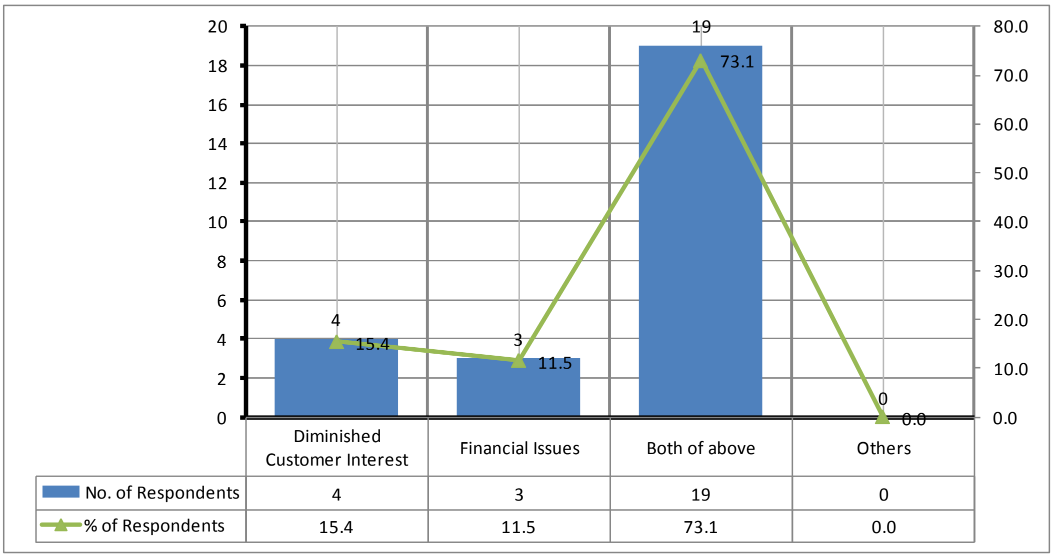
**Section 13**

**Project Portfolio Management**

*(Continued from Section 12 based upon responses from Section 12)*

**Q52: What was the prominent reason for the stoppage of these projects?**

Financial Issues  Diminished Customer Interest  Both of above  Others

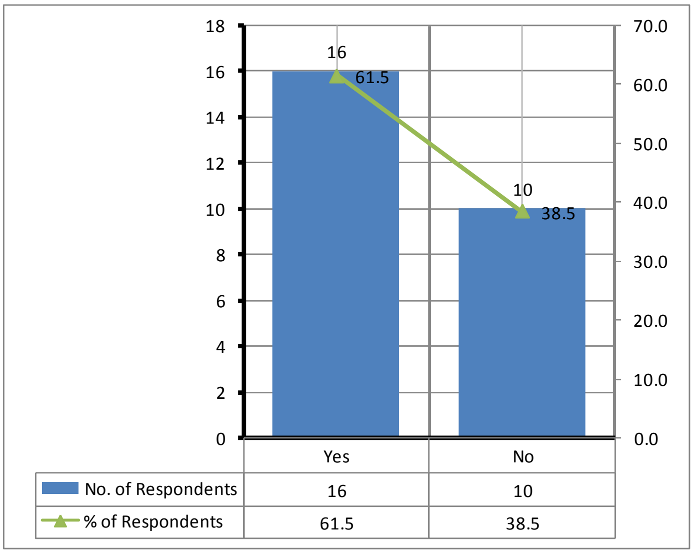



| | Diminished Customer Interest | Financial Issues | Both of above | Others |
|---|---|---|---|---|
| No. of Respondents | 4 | 3 | 19 | 0 |
| % of Respondents | 15.4 | 11.5 | 73.1 | 0.0 |

Figure 7.0.52

**Q53: Have any of these projects that were stopped been revived or being revived?**

Yes  No




| | Yes | No |
|---|---|---|
| No. of Respondents | 16 | 10 |
| % of Respondents | 61.5 | 38.5 |

Figure 7.0.53

**Section 14**

**Change Management**

*(This section gathers information about change management in respondent's organizations)*

**Q54: Are any / all of the revived or being revived projects being implemented with major changes from its original project charter?**

Yes No Don't Know

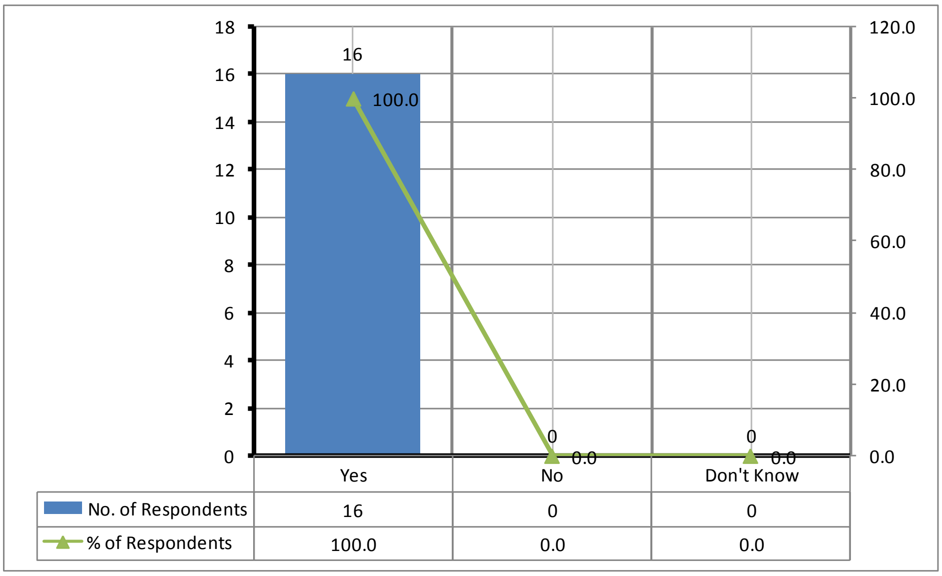



Figure 7.0.54

**Section 15**

**Change Management**

*(Continued from Section 14 based upon responses from Section 14)*

### Q55: What kind of changes are being implemented in these projects?

Scope  Split into Phases  Revised Delivery Schedule  Others, Please specify

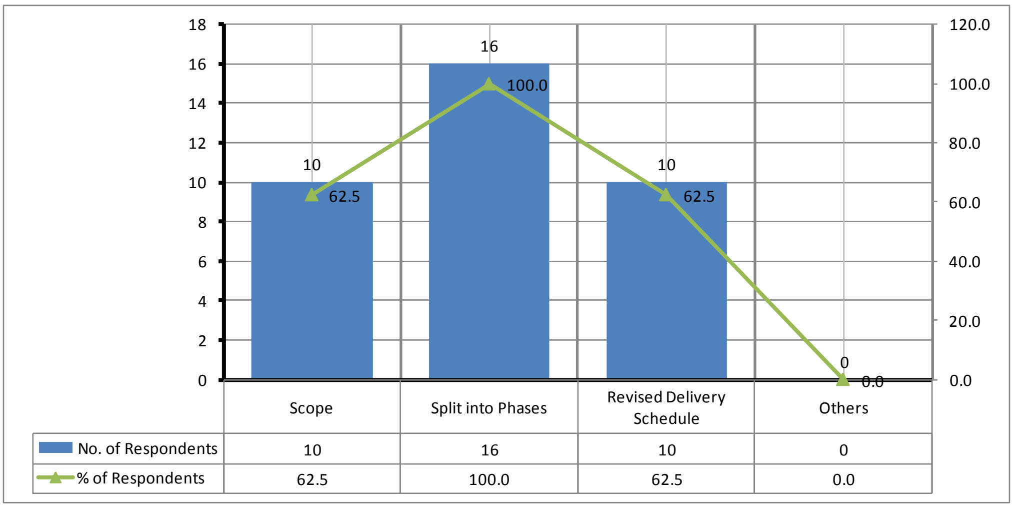



Figure 7.0.55

### Q56: What is the basis for these changes?

Revised Feasibility Study  Management Decision

Government Regulatory Requirements  Project Financer's Directives  Others

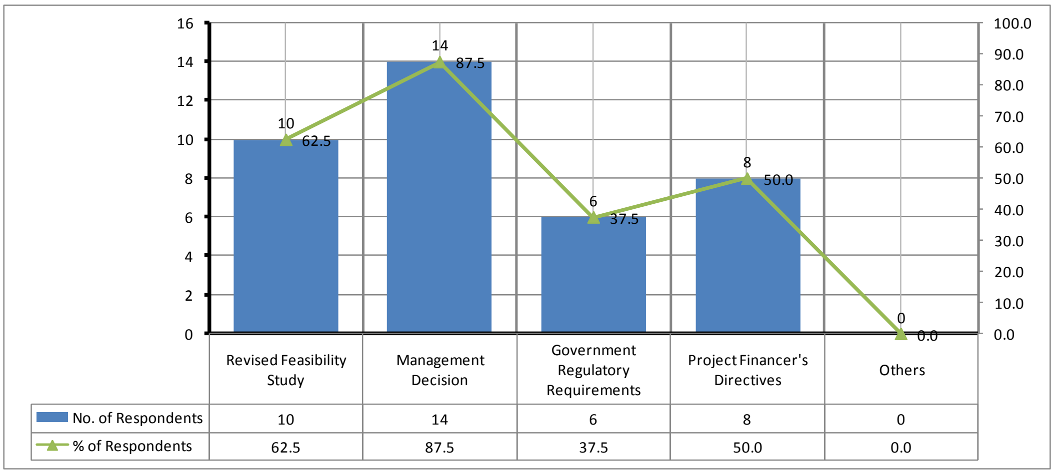



Figure 7.0.56

**Section 16:**

**Application of Value Engineering**

*(This section gathers information about usage of Value Engineering Techniques in respondent's) organizations)*

**Q57: Does your organization employs Value Engineering in projects?**

Always Mostly YES Mostly NOT Never Don't Know

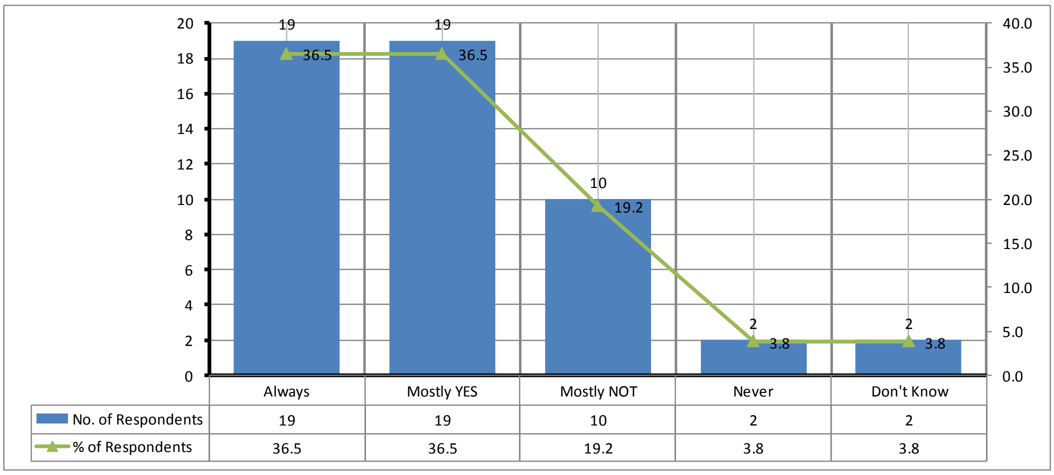



Figure 7.0.57

**Section 17**

**Application of Value Engineering** *(Continued from Section 16 based upon responses from Section 16)*

### Q58: What factor(s) are given emphasis in the application of Value Engineering?

Cost Reduction ONLY   Improving Value of Deliverable Product ONLY

Drawing a Balance between Cost Reduction and Value of Deliverable Product   Others

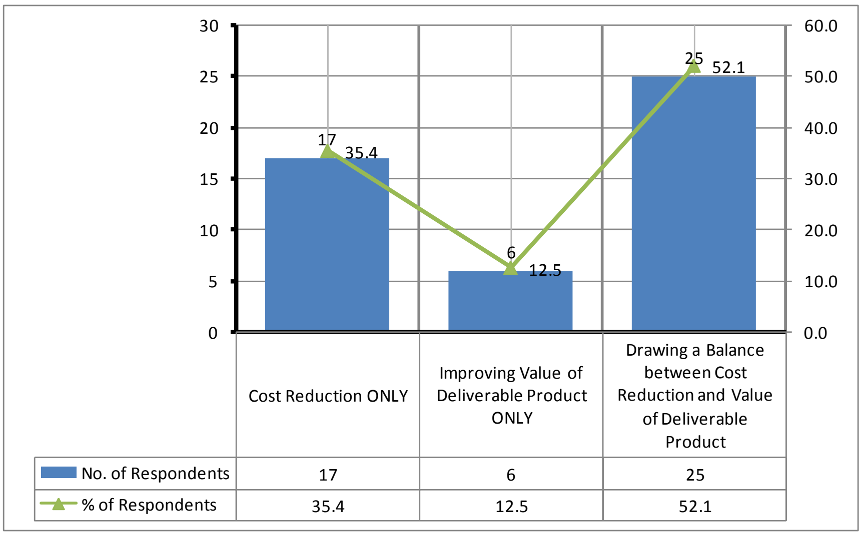



Figure 7.0.58

### Q59: Has there been a change in the emphasis since the onset of the current economic crisis?

Drastic Change   Marginal Change   No Change   Don't Know

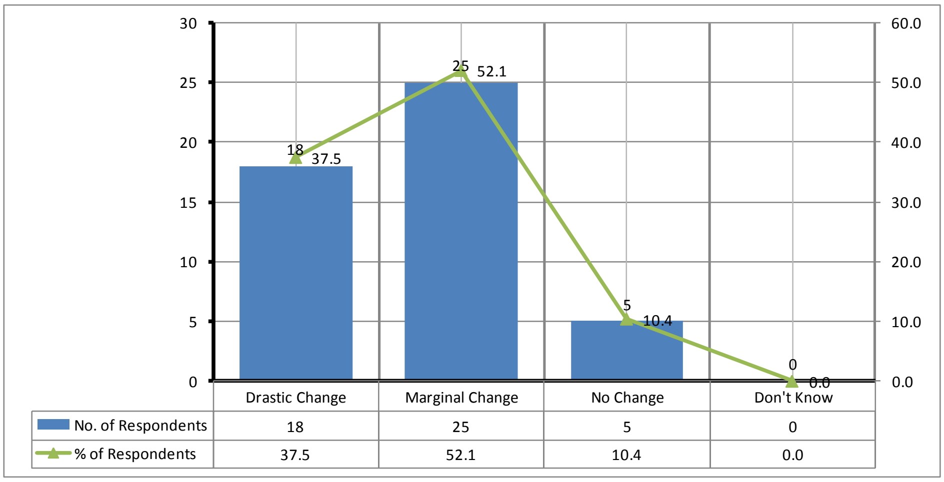
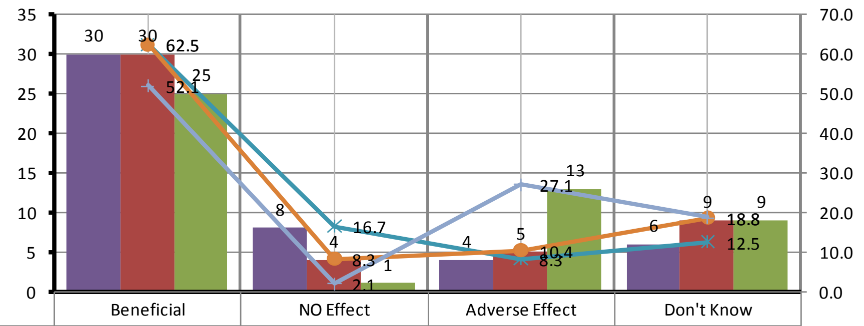



Figure 7.0.59

**Q60: In your opinion, what is the effect of application of these adopted Value Engineering Practices on the following stakeholders:**

| | **Beneficial** | **NO Effect** | **Adverse Effect** | **Don't Know** |
|---|---|---|---|---|
| **Organization** | | | | |
| **Project Financers** | | | | |
| **End-users** | | | | |




| | Beneficial | NO Effect | Adverse Effect | Don't Know |
|---|---|---|---|---|
| Organization | 30 | 8 | 4 | 6 |
| Project Financers | 30 | 4 | 5 | 9 |
| End-Users | 25 | 1 | 13 | 9 |
| Organization % | 62.5 | 16.7 | 8.3 | 12.5 |
| Project Financers % | 62.5 | 8.3 | 10.4 | 18.8 |
| End-Users % | 52.1 | 2.1 | 27.1 | 18.8 |

Figure 7.0.60

**Analysis and Discussion:**

Following analysis of the survey results is based upon the usage of descriptive statistics organized by various sections within survey questionnaire.

Introduction and Demographic Analysis:

From the results, it may be inferred that majority of the respondents (>80%) are representing Construction Industry, which has been the primary focus during the formulation of Aims and Objectives at the initiation of the research (Q 1, Figure 7.0.1).

Further, a high level of respondents (>90%) are from Managerial or above positions in their organizations (Q2, Figure 7.0.2), with a majority of respondents (>88%) having adequate experience of atleast 5+ years in their work profiles (Q3, Figure 7.0.3).

Overall, the range of respondents seems competent and well experienced to answer the survey, and in turn, may ensure that the survey results are meaningful.

While, government sector in today's world is also changing and adopting new practices and techniques, but still the pace of change in this sector is generally considered slow and full of bureaucratic 'red tape'. On the contrary, private and to a certain extent, semi-government sectors are generally considered quicker to adopt new techniques and undergo changes.

Both private as well as semi-government sector have been considerably affected by the current recession and recipient of government bail-out funds. As such, it is definitely an advantage that a high majority of respondents (>80%) are representing these sectors (Q4, Figure 7.0.4).

Organizations

Further, a high majority of respondent's organizations (>82%) have their operations in Gulf and Middle East; an area specifically targeted for the research.

While, the organizational strength cannot be considered as a direct factor for the quality of management practices being adopted within any organization, but bigger organizations which are competing in today's cut-throat competitive corporate world are much more likely to have processes and procedures which are implemented to ensure consistency. But, it is also likely that these big organizations are also a major contributor to the crisis, since they have been over-riding the set processes in pursuit of more profits (Hewitt, 2010).

Majority of respondents (>57%) have more than 1000 employees in their world-wide operations (Q8, Figure 7.0.8), and more than 23% of respondents 50-1000 employees in their world-wide operations (Q8, Figure 7.0.8). As such, this validates the type of organizations that have been selected for being studied further for their management practices and internal changes (if any) that are being implemented.

Employee awareness

Employees may be considered as the biggest asset of any organization. Both the organization and its employees have a direct influence upon each other's working. Any organization, no matter what their management practices might be, cannot be successful unless these are known to its employees. The direction for the employees is directly governed by their awareness about the organizational strategy, vision and mission, and their involvement in influencing it.

A healthy percentage of respondents (>65%) seemed to be (atleast) significantly aware of their organizational Vision, Mission and Group Strategy

(Q9, Figure 7.0.9). But, a smaller percentage of respondents (>43%) indicated their involvement in influencing the group strategy (Q10, Figure 7.0.10).

Smaller percentage of respondents work in a Projectized Structure (<27%), while significant number of respondents (>64%) work in Functional or Organizational Structures (Q11, Figure 7.0.11).

Organizational Analysis:

Literature review from earlier section suggests that Projectized Structures are more suitable for handling bigger and complex projects. But, Projectized Structures also have a tendency to be alienated from the project portfolio with the Project members not worried about the 'bigger picture' and only focused within their projects.

This correlation is studied further in following sections, which deal with the kind of Projectized organizations and the usage of Project Management Office in respondent's organizations.

Pure Project Organizations with their team members, who are often collocated, have most of the organization's resources involved in project work. Project managers have a great deal of independence and authority with departments either reporting directly to the project manager or provide support services to the various projects. (wordpress.com, 2008)

Matrix organizations are a blend of functional and projectized characteristics with Weak matrices maintaining many of the characteristics of a functional organization, while strong matrices have many of the characteristics of the projectized organization. But, the project manager role is more of a coordinator than that of a manager and may or may not have considerable authority and full-time project administrative staff. (wordpress.com, 2008)

Almost an equal number of respondents have Pure Projectized and Matrix Organizations (Q12, Figure 7.0.12). This is further analyzed in the following section.

Project Management Office

The Project Management Office (PMO) is being utilized as a department or group in organizations, with the primary role of defining and maintaining the standards of process with emphasis upon project management. One of the primary objectives of establishing PMO is “to standardize and introduce economies of repetition in the execution of projects” (wikipedia.org, 2012).

PMOs tend to be the point of contact between employees and organizations. Satin (2009) describes 7 characteristics of an effective PMO. Most prominent amongst them, the PMO helps to align the projects with the organizational goals, with an improved Project success rate and competence.

But, on the contrary, majority of respondents (>55%) do not have an established PMO in their organizations (Q13, Figure 7.0.13). This may have the possibility of an adverse effect upon the outcome of the projects and its alignment with the organizations goals.

Within the respondents having an established PMO, majority of these organizations have PMO created in and in existence for last 5 years (61.9%) while, rest have had a PMO in existence for more than 5 years (Q14, Figure 7.0.14). Majority of PMOs (>57%) in these organizations are involved in ALL Projects within their organizations (Q20, Figure 7.0.20), but only around 9.5% responded that PMO in their organizations analyses and controls the relevance of these projects for the organization (Q21, Figure 7.0.21). These figures improve to around 81%, wherein PMO is either ‘mostly’ or ‘sometimes’ involved in this exercise (Q21, Figure 7.0.21).

PMO within the organizations

Findings from this section can be correlated with the response for the general composition of PMO in these organizations. Normally, Directors in the organizational boards are not always expected to be involved in the implementation or analysis conducted by PMO. But, as per the findings, an extremely high percentage of organizations (>95%) have Directors as their decision-makers (Q15, Figure 7.0.15). The figures drop down gradually as the members go down in hierarchical positions. But, a more thorough analysis between the composition of decision-makers (Q15) and number of decision-makers in PMO (Q16, Figure 7.0.16) reveal that majority of PMOs have less than 5 members as decision-makers. This is inspite of the finding that all these organizations have more than 25 members (Q18, Figure 7.0.18). Accordingly, it may be inferred that inspite of the presence of Senior Managers and Project Managers in PMO, the decision-making capacity is limited to the Top management within the organizations. When analysed in context of the findings from Section 3 which suggested that while a healthy percentage of respondents (>65%) seemed to be (atleast) significantly aware of their organizational Vision, Mission and Group Strategy (Q9), but, only a smaller percentage of respondents (>43%) indicated their involvement in influencing the group strategy (Q10, Figure 7.0.10), this finding seems even more perplexing since a large number of responses (>81%) reveal that PMO acts as a body which only gives recommendations to the Top management (Q22, Figure 7.0.22). The PMOs in these organizations seem to be having an advisory position only at the project initiation stage.

"If executives and business unit heads can recognize that managing projects has a significant impact on an enterprise's bottom line and that their abilities to successfully manage projects depends on proper application of specific project management processes, knowledge, skills, tools, and techniques, then it makes sense to establish such an important business function at the executive management level of the enterprise." (Bolles, Hubbes, 2007)

Projects undertaken by Organizations

The health of any organization can be gauged from the amount and quality of work it undertakes. This may also act as an indicator for the change in status of its balance sheet over the preceding years. Also, it may be seen that during the economic slump, the work is scarce to source for most of the organizations. During such times, most of the organizations don't shy away from taking up work which they probably might not take up during better times. This is also highlighted in the following section for Qualitative Data Collection (DC2), wherein the interview sessions were conducted with senior executives of various organizations.

Majority of respondents (>58%) agree that the projects undertaken in their organizations match with the group strategy (Q23, Figure 7.0.23). While, around 37% of respondents have been neutral in their response, only around 6% of the respondents felt against it. Considering that around 60-65% of respondents showed awareness about their organizational strategy (Q9, Figure 7.0.9), there is no clear inference if there is due to a change in group strategy or not during adverse times of recession. This phenomena has been taken up for further review during DC2.

During the dire economic situations, all organizations are forced to adopt austerity measures. This holds well for large countries as well, like for example Greece. To enable it to secure bailout packages from European Union, Greece has been forced to adopt strict austerity measures which include an immediate spending cut of around 2.6 Billion Euros (cbsnews.com, 2012). The motive is simple – cut down the costs and unnecessary spending to bring back the accounts to black.

This simple thumb rule is also apparent in the current actions taken up the organizations during the economic slump. Majority of respondents (<71%) agreed that the current economic recession has resulted in lesser number of projects (Q26, Figure 7.0.26) being undertaken in their organizations and majority of respondents (>68%) also agreeing that the overall size of the projects has also decreased (Q27).

The above has seen an obvious impact upon the organizational strengths with more than 57% of respondents agreeing that there is a significant staff reduction since the onset of economic recession (Q24). But, this has clearly not resulted in the projects suffering due to a lack of manpower in most of the organizations, with majority of respondents (>55%) agreeing to having adequate staff to manage the current projects, and only a small number (<27%) thinking otherwise.

But, a clear suffering is visible upon the staff development and R&D works undertaken by the organizations in a bid to contain spending and adopt austerity measures. Less than 21% respondents have witnessed any improved or substantially improved, with a majority of respondents (>57%) witnessing reduced or substantially reduced spending on personal development projects for employees (Q29). Oates (2009) has advocated the usage of this period to initiate personal development which has the benefit of bringing in more positive work environment and improvising future career prospects.

A clear trend is visible to cut down the costs as a measure for survival, even if that can hamper the future competitiveness of the organization in post-recession era. While, cost-cutting is necessary, investment is also necessary for growth and to sustain leadership in future (Gulati et al., 2010).

PM Practices and their usage

Project Management Practices with its basis as a well researched tool can be an effective measure to ensure project success. The usage of effective project management is even more important in a downturn (Dolfi, 2010), especially considering that the resources may be scarce and availability of funding at a premium.

There didn't seem like a clear consensus over the usage of KPIs for analysing the project performance (Q29). While, large number of respondents (>38%) agreed that their organizations use KPIs for analysis, around 15% of respondents disagreed with its usage in their organizations. But, the majority of the respondents (>46%) were neutral in their opinion. As such, this is taken up further for meaningful results during Qualitative Data Collection (DC2).

A properly conducted and analysed Feasibility Study at the initiation stage may act as the foundation for project success in future. Estimates suggest that only around 1 in 50 business ventures end up being commercially viable (Thompson, 2005). The feasibility studies also act as a guard against waste of resources and investment (Gofton, 1997). A healthy 63% of respondents have their organizations always undertaking feasibility studies at project initiation (Q30).

The primary aim of Feasibility studies is to rationally gauge the strengths and weaknesses of the proposal, opportunities and threats, required the resources, and correlate these factors with the prospects for success (Justis, R. T. & Kreigsmann, 1979). "Two criteria to judge feasibility are cost required and value to be attained" (Young, 1970).

Organizations of most of the respondents (>89%) utilize the feasibility studies as a tool to assess market conditions, with internal assessments to analyze the resource availability (>29%), presentations to the key stakeholders like project financers (>59%) and analyze the role, responsibilities and involvement of other key stakeholders (>51%) as other major aims for primary feasibility studies (Q31).

It was noted in the earlier sections that in majority of organizations, senior management is an integral part of the decision-making body (Q15) and has an active role in shaping the decisions in the organization (Q22). This is visible in the feasibility study stage as well, wherein high majority of respondents (>78%) felt an active participation of their top management during the feasibility study stage (Q32). The extent of their involvement, roles and responsibilities, and their input for these feasibility studies has been discussed and analyzed further in the following section 6 (DC2) wherein interviews with top management from various organizations have been conducted.

With the top management involved actively in the feasibility study stage, the decision making process can be assumed to be simpler and straight-forward. More than 91% of respondents felt that the conducted feasibility studies act as the deciding factor for further works on the projects (Q33). Seriousness of the feasibility studies and following of its outcome within the organizations can be felt with the organizations of more than 55% respondents going to the extent of discontinuing further works on the projects as a direct result of the outcome from the feasibility studies (Q34).

Generally, feasibility studies precede project implementation, but there is a growing trend to conduct secondary feasibility studies during the project lifecycle, especially in construction sector. These secondary feasibility studies may be conducted during the initial and middle stages of project execution phase. These secondary feasibility studies give an opportunity to the organizations to realign the project deliverables with the end-user needs more closely in today's dynamic world.

This growing trend is noticeable in sizeable number of organizations with majority of the respondents (>57%) having their organizations conducting secondary feasibility studies during the various stages of the project lifecycle (Q35). The need and usage of these secondary feasibility studies has also been discussed and analyzed further in the following section 6 (DC2) wherein interviews with top management from various organizations have been conducted. But from this survey, more than 42% of respondents had their organizations making a productive usage of the secondary feasibility studies by either taking the drastic step of discontinuing the project itself or making major changes in the project. The kind of changes have also been discussed during interview sessions (DC2).

This section deals with the management practices at the planning stage as followed in respondent's organizations. Bart (1993) argues that there is a tendency for the traditional approach of planning and controlling projects to fail, since it involves too much formal control thereby resulting in curtailment of creativity and its role in execution of the project. Accordingly, Bart (1997) proposes to reduce the formal control and keep only a minimum required level. But, it is also arguable if there is a contribution of complete and accurate capture of end-user requirements alone resulting in project success (Chatzoglou, 1976). Still, Project Planning is central in modern project management practices (Dvir et al., 2003).

In a bid to reduce upfront expenses and announce the projects at the earliest, there is a tendency amongst various property developers to put in scarce resources at the project planning stage. This has a disadvantage of putting up unplanned and thereby, uncoordinated effort for the project, hampering the project success. Time and resources spent during the project planning needs to be capitalized instead of being curtailed. This is evident from the response from high majority of respondents (>82%) who agree that their organizations put in enough time and resources at the project initiation (Q37). The project team consists of all levels of personnel from various specialities, but it is not always necessary for the whole project team to have their inputs at the project planning stage itself. This is also visible from the responses which varied between all possibilities (viz. >46% mostly or >9% neutral or >40% sometimes), when queried about the involvement of whole project team in shaping project planning (Q38).

But this is not unduly affecting the involvement of the project team members in shaping the project planning with most of the responses (>44%) indicating extensive involvement of project team, and small numbers (<11%) indicating low levels of involvement (Q39). From the earlier section 7, most of the responses agreed that their organizations still have enough manpower and resources, even during the economic crisis, to manage the current projects (Q25). As such, it is prudent for the project team members to influence the project planning as a measure for project success. Majority of respondents (>61%) agree that the team members have significant to very significant influence upon the project planning (Q40).
This may imply that the project managers in these organizations favour the involvement of the team members for their inputs beginning from the planning stage. This has also been studied and analyzed further in the following section 6 (DC2) wherein interviews with top management from various organizations have been conducted.

The distinction between projects and project management needs to be diminished with major stakeholders involved during project planning and execution (Bryde, 2007). This will give the stakeholders an improved appreciation of the project management practices and their involvement in the project. This has the advantage of better alignment of their project goals with the project deliverables. Majority of respondents (>75%) agree that their organizations adopt the practice of extended involvement of major stakeholders in shaping project planning (Q41). Stakeholder mapping is a prominent practice which can improve the stakeholder involvement in the project. The practice is employed by the more than 64% of the respondent's organizations (Q42).

Big investments in uncertain times in business ventures where value creation can take long periods of time (Boris et.al, 2004). This should involve proper risk assessment and an adequate response plan at the project planning stage. This is agreed by most of the respondents (>55%) whose organizations tries to identify risks and formulate adequate response plan (Q43). But, a significant number of responses (~45%) were either not sure or didn't have adequate response planning conducted, a factor which can have the consequence of project failures.

American Society for Quality (ASQ) defines quality as "A subjective term for which each person has his or her own definition. In technical usage, quality can have two meanings – (a) The characteristics of a product or service that bear on its ability to satisfy stated or implied needs; (b) A product or service free of deficiencies." (asq.com, 2012). This has given rise to the concept of QA/QC (Quality Control and Quality Assurance) in all industries. ISO 9000 (International Organization for Standardization) defines Quality Control as "The operational techniques and activities that are used to fulfill requirements for quality" and Quality Assurance as "All those planned and systematic activities implemented to provide adequate confidence that an entity will fulfil requirements for quality" (iso.org, 2012).

Most of the interviewees during DC2 had the opinion that quality as an element is not just necessary for their current projects, but is required to be integrated as an underlying principal in their organization. Achievement of quality factors is invariably required to ensure that their client base is not eroded for their future projects. Most of these organizations rely upon 'return clients' and the quality of deliverables acts as the basis for their involvement in future projects. This has also been studied and analyzed further in the following section 6 (DC2), wherein interviews with top management from various organizations have been conducted.

With no respondent replying that their organization dedicates 'Very Significant' time, majority of respondent (>48%) have their organizations spending 'Significant' amount of time on formulation, testing and finalization of Quality Plan at the Project Initiation Stage itself (Q44). This is an important factor to ensure that the concept of Quality and its intended value is imbibed firmly in the project charter and understood by all in the project team. The ISO 9000 family addresses "Quality management" as the effort by the organization to fulfil - customer's quality requirements and applicable regulatory requirements. These need to be achieved alongwith enhancing customer satisfaction and achieving continual improvement of its performance in pursuit of these objectives (iso.org, 2012).

But, a majority of responses (~54%) have either been 'neutral' or 'disagreed' upon the consistency of the formulated Quality Plan vis-à-vis project deliverables and organizational strategy (Q45).

This may be seen as a small ‘gap’ in the overall perspective, considering that majority of responses (>63%) agreeing between consistency of the deliverables in recent projects and their agreed quality plan at the initiation stage (Q46).

Again, this may be interpreted due to an effective influence from the management in ensuring the implementation of the quality plan, with a majority of responses (~60%) agreeing to an effective management influence (Q47). This may also suggest‘iteration’ over the course of project due to an active involvement of the management (Q47), who are also majorly represented in PMOs (Q15).
‘Iterations’ in a project context may refer to “the technique of developing and delivering incremental components of business functionality, product development or process design” (Wikipedia.org, 2012).

Project Portfolio Management

Project Portfolio Management is used to collectively manage current or proposed projects by an organization. This management utilizes the analysis based on numerous key characteristics. These characteristics are dependent upon various external and internal factors, and therefore, subject to constant change to maintain its integrity and usefulness. The underlying concept for PPM is “is to determine the optimal mix and sequencing of proposed projects to best achieve the organization's overall goals” (Hubbard, 2007).
With the current volatility and turbulence in the financial markets, it is imperative that the project portfolio also keeps track with the revised economic scenario. This section deals with the usage of Portfolio Management in respondent’s organizations.

Close to 90% of respondents have their organizations giving adequate importance to the Project Portfolio without managing various projects in isolation (Q48). This may also be seen in the light of the reply from earlier sections which reveals an active participation from the top management (Q32, 38, 39, 40, 41, 47), their involvement in PMO (Q15) and the role of PMO (Q19, 20, 21, 22) within the organization.

Majority of respondents (>78%) have their organizations actively analysing the projects for their relevance and roll-on effect upon other projects (Q49). This analysis can act as the basis for changes within the Project Portfolio to reveal their true relation with respect to other projects. This has a direct result upon the Project Portfolio Management with majority of responses (>61%) revealing a substantial updating of project portfolio in last 2 years (Q50).

The updating of project portfolio which may be construed as a direct result of economic crisis, has resulted in majority of organizations (50%) altering the project deliverables or stopping the running projects (Q51). The reasons, its impact and their status upon altering / stoppage have been analyzed further in following sections.

From the earlier section, majority of respondents (50%) had their organizations altering or stopping a few projects as a direct result of organizational Project Portfolio Management, which in turn, may be directly related to the current economic crisis (Q51). A Skip-section based upon responses from Q51 of previous section, this section is a continuation of previous section to explore the reasons behind the affirmative response to Q51.

With the target group of major stakeholders (the developer, the customer or end-user and the financial institutions) as the core subjects for this study, a high majority of responses (>73%) have revealed that the basis for the alterations / stoppage of the projects lies in both financial issues being faced by the organization as well as the diminished customer interests in the deliverables from those projects (Q52). Either or both of the reasons are of utmost importance during the project lifecycle and handover. With the current regulations linking the customer payments to the construction progress and rest of the money lying in escrow accounts (source: RERA, Dubai Government, 2012), the developers face an uphill task of securing finances from the financial institutes as well as increased pressure from the customers for an optimized ‘value for money’. Therefore, these organizations faced with huge up-front investments and increased uncertainty in their business ventures; face an increased timeframe before their projects create value.

There are projects which were stopped have been revived or are being revived, as per the majority of the responses (>61%). The revival may be analysed alongside the responses from the earlier sections wherein >58% of respondents had their organizations monitoring the relevance of the project using secondary feasibility studies during the project lifecycle as well (Q35) and >42% of the respondents had their organizations undergoing changes in the projects as a result of secondary feasibility studies.

Managing the Change

The extent of the reasons playing their role forcing the changes, and the steps being undertaken has been discussed and collectively analyzed further in following sections of this survey and section 6 (DC2), wherein interviews with top management from various organizations have been conducted.

From the previous section, around 61% of respondents have witnessed revival of projects that were stopped (Q53). The major reasons for the stoppage were also identified (Q54). Therefore, it is only logical for the revived projects to witness major changes from the original project charter (Q54).

Detailed reasons for these changes, kind of changes and adopted strategy for change management have been discussed in further detail in following sections.

A Skip-section based upon responses from previous sections, this section deals with the change management being adopted for revived projects, and is a continuation of previous section to explore the reasons behind the affirmative response to Q54.

Change management refers to the process where involving the introduction and approval of changes to a project (Filicetti, 2007). The change management process involves a sequence of steps adopted by the change management team to apply change management to a project or change. Change management processes may contain three phases - Phase 1: Preparing for change, Phase 2: Managing change, Phase 3: Reinforcing change (Gunter, 2012).

The prominent reasons identified for the stoppage of the projects include financial issues faced by the organization and diminished customer interest in the original project deliverables (Q52). Accordingly, the change management has been based upon the implementing changes by altering scope (>62%), split into phases (100%) and revision of delivery schedule (>62%), which are a direct offset from the reasons identified earlier (Q56).

Change management has its basis in the identification of the need and forces affecting the current scope, agreeing and approving the changes and forming a strategy for the implementation of the changes. The changes are based upon the results from revised Feasibility Studies (>62%), direct management decision (>87%), changes in government / regulatory requirements (>37%) and directives from the project financers (50%).

Value Engineering

Value Engineering (VE) is a buzzword, which is used frequently by most of the developers now-a-days and utilised often by the interviewees in section 6 (DC2), wherein interviews with top management from various organizations have been conducted. But, more often than not, value engineering as a term is misunderstood and related more with cost reduction than other aspects.

As discussed earlier in Literature Review, VE can be described as a technique to analyze the functions of an item or process to determine its "best value," or the best relationship between worth and cost related to the process and deliverable. Cost reduction is often thought of as the sole criterion for a VE application because cost is measurable. However, the real objective of VE is "value improvement," and that may not result in an immediate cost reduction (Cooper and Slagmulder, 1997).

Value Engineering as a practice seems to be employed by most of the organizations, with around 73% of respondents agreeing to employment of VE practices (Q57). But, the opinion is much more balanced over the usage of these practices. Around 52% of respondents felt that their organizations are deploying these practices in right essence which is to draw a balance between cost reduction and improvement in value of deliverable product (Q58), while around 35% of respondents felt that their organizations are deploying these practices as a measure for cost reduction only. This may be seen in light of the current economic scenario wherein most of the organizations are looking to reduce their net costs as mean to survive. This has been discussed further in following section of Qualitative Data Collection (DC2) wherein interview sessions were conducted with top management from various organizations.

There is an old saying that 'Desperate times call for drastic measures' (source: unknown). This is visible in even greater emphasis laid by the organizations on VE since the onset of current economic crisis (Q59). Almost 90% of respondents felt that they are witnessing drastic to marginal change on the emphasis by their organizations on application of VE since the onset of economic crisis. This may be inferred as a means to tackle the severe economic situation. These VE practices should be able to create a balance to ensure that the benefits are shared between all stakeholders with no undue pressure or loss to any party. In this regard, majority of the respondents felt these VE practices are proving to be beneficial for organization (>62%) as well as for the project financers (>62%). While, a majority of respondents did agree to having practices proving to be beneficial for end-users as well, but a high percentage of respondents (>27%) felt that these VE practices are having an adverse effect upon the associated value of deliverables for the end-users. This may be attributed to ‘cut corners’ in the deliverables as means to reduce costs by the organizations. This has also been discussed further in following section of Qualitative Data Collection (DC2).

# 8.0 Triangulation Sources 3: Qualitative Data Collection

It is nearly impossible to generalize the management practices that will be followed by the different organizations. As discussed earlier in the methodology, the organizations have been divided into 4 categories based upon their organizational strengths, business models and the perceived value of undertaken projects for these organizations. Accordingly, 4 different categories happen to follow varying management practices due to their varying strengths and business models.

For this purpose, a number of organizations with presence in UAE and which could be categorized in the identified categories were approached. Due to the current economic scenario, personnel from most of the organizations were reluctant to come in open regarding their organizations or its strategies. A few of them agreed to discuss, but on the clear understanding that their or their organization's identities will not be revealed, nor will the identities of their projects will be revealed. Out of these, the first few who were approached also refused for their interviews to be sound recorded. Thereafter, all interviews were recorded through paper-mode only. Finally, personnel from a total of 6 organizations have been interviewed.

Brief Description of Organizations:

| **Category 1 (C1)** | |
|---|---|
| **Nomenclature** | **C1-1** |
| **Interviewee's Position in Organization** | Owner / Chairman |
| **Type of Organization** | Private / Family Holding |
| **Major Interests** | Property Management / Leasing for own properties |
| **Business Location** | Dubai |

| | |
|---|---|
| **Type of Properties** | Commercial and Residential |
| **Current Projects** | 2<br>(1 Commercial Tower &1 Residential Tower) |
| **Total Value of Current Projects** | AED 490 Million (approx.) |

| **Category 2 (C2)** | |
|---|---|
| **Nomenclature** | **C2-1** |
| **Interviewee's Position in Organization** | Chief Property manager |
| **Type of Organization** | Public Joint Sector Company |
| **Major Interests** | Urban Planning / Property Construction / Facilities Management / Leasing |
| **Business Location** | Dubai |
| **Type of Properties** | Master Developments, Commercial and Residential |
| **Current Projects** | Under Execution:<br>1 (1 Hotel)<br>Being Revived:<br>2 (Phase 2 Master Development, 1 Commercial)<br>On-hold:<br>3 (Phase 3 & 4 Master Development, 1 Commercial Tower, 1 Residential Tower) |
| **Total Value of Current Projects** | AED 282 Million (approx.) |
| **Total Value of Projects under Revival / On-hold** | AED 1.8 Billion (approx.) |

| Category 2 (C2) | |
|---|---|
| **Nomenclature** | **C2-2** |
| **Interviewee's Position in Organization** | Head of Projects |
| **Type of Organization** | Family Holding |
| **Major Interests** | Urban Planning / Property Construction / Leasing |
| **Business Location** | UAE, Egypt |
| **Type of Properties** | Master Developments, Commercial, Residential and Shopping Malls |
| **Current Projects** | Under Execution:<br>2 (Phase 2 Master Development, 1 Shopping Mall)<br>Being Revived:<br>1 (Phase 3 Master Development)<br>On-hold:<br>2 (2 Shopping Malls) |
| **Total Value of Current Projects** | AED 1.23 Billion (approx.) |
| **Total Value of Projects under Revival / On-hold** | AED 1.8 Billion (approx.) |

| **Category 3 (C3)** | |
|---|---|
| **Nomenclature** | **C3-1** |
| **Interviewee's Position in Organization** | Chief Strategy Officer |
| **Type of Organization** | Semi-Government, Public Joint Sector Company |
| **Major Interests** | Banking / Project Management / Property Construction / Leasing |
| **Business Location** | UAE, Egypt, Singapore, UK |
| **Type of Properties** | Office Buildings, Residential |
| **Current Projects** | Under Execution:<br>2 (2 Office Buildings)<br>Being Revived:<br>1 (Commercial-cum- Office Building)<br>On-hold:<br>2 (2 Residential-cum- Office Building) |
| **Total Value of Current Projects** | AED 350 Million (approx.) |
| **Total Value of Projects under Revival / On-hold** | AED 550 Million (approx.) |

| Category 4 (C4) | |
|---|---|
| **Nomenclature** | **C4-1** |
| **Interviewee's Position in Organization** | Chief Commercial Manager |
| **Type of Organization** | Free Zone, Limited Liability Company |
| **Major Interests** | Urban Planning / Property Construction / Leasing |
| **Business Location** | UAE, China |
| **Type of Properties** | Master Development, Hotels, Commercial, Office Buildings, Residential |
| **Current Projects** | Under Execution:<br>2 (Phase 1 Business Park, 1 Residential Villas)<br>Being Revived:<br>2 (Phase 2 Master Development, Phase 2 Business Park)<br>On-hold:<br>1 (Phase 3, 4, 5 Master Development) |
| **Total Value of Current Projects** | AED 410 Million (approx.) |
| **Total Value of Projects under Revival / On-hold** | AED 10 Billion (approx.) |

| Category 4 (C4) | |
|---|---|
| **Nomenclature** | **C4-2** |
| **Interviewee's Position in Organization** | Deputy General Manager |
| **Type of Organization** | Free Zone, Limited Liability Company |
| **Major Interests** | Urban Planning / Property Management |
| **Business Location** | Dubai |
| **Type of Properties** | Office Buildings, Residential |
| **Current Projects** | Under Execution:<br>1 (Master Development) |
| **Total Value of Current Projects** | AED 1.2 Billion (approx.) |
| **Total Value of Projects under Revival / On-hold** | - |

Prior to the interview sessions, the interviewees were provided with a set of questions that broadly revolved around the following areas for discussion:

01. What is your assessment of the current economic scenario?
02. What kind of Projects have your organization been undertaking in the past and current times?
03. What has been the impact of the economic crisis upon the number / size of the projects in your organization?
04. What has been the impact of the economic crisis upon your organizational staff strength?
05. What are your organization's future plans (Expansion / Consolidation) etc.?
06. What has been the difference in the attitude of the key stakeholders like Project Financers and Customers during the current economic scenario?

07. Has this led to an effect upon your Business Model and Corporate Strategy?
08. What changes have been incorporated into your organization’s Business Model in the recent past?
09. What changes have been initiated in the Organizational Strategy in the recent past?
10. Have any Management practices been altered and how?
11. What kind of practices does your organization adopts for Value Management?
12. How often does your organization reassesses the Value Management Model for the current projects?
13. What factors / criterions are adopted for above mentioned exercise?
14. What steps are adopted to initiate changes in the project goals to suit the new Value Management results?

## Discussion:

The first and foremost question to set the scene with all the interviewees has been the one that has plagued the world for last 4-5 years and has been part of all major financial discussions – "What is your assessment of the current economic scenario?" This is generally a difficult question to answer and seemed to have been answered quite diplomatically by most of the interviewees, probably an attempt to put a brave face and not reveal anything which can put their organization in bad light.

On surface, this question had a seemingly obvious reply that it has been a tough period since the downturn that started off in 2008. But, beyond this generic reply, there has been a sense of optimism in the replies concerning the current state of economic scenario. It was felt that an improvement is noticed in the cash-flow, consumer confidence is better and the market might just be picking up.

This is seemingly owed to the projects being undertaken in a more holistic manner and tested for their relevance not within the organizations, but an attempt is being made between the organizations and the government to create an environment which shall be conducive to the investment as well as improve consumer interest.

The major organizations revealed that they are having a much closer interaction with the governmental organizations and both are in turn, trying together to align the projects and infrastructure requirements. Master developers have begun to re-design and develop their mega developments in phases which is based upon market response. Governmental organizations are closely following the phased master developments and in turn, ensuring the availability of basic infrastructure accordingly. Similarly, the smaller organizations are also benefitting from the easing of government norms which help in improving external and internal investments.

All these organizations by virtue of their varying sizes and organizational strategies have been undertaking projects of varying nature and which are difficult to generalize or discussed as a group. But, a common thread is that all the organizations have been undertaking their projects with a different approach compared to the earlier times. This does not necessarily means that they have been undertaking different kind of projects, but their approach to undertake these projects has definitely been different. As in the words of Chief Strategy Officer of C3-1 – "…today the approach is not to grow, but to survive. Sunny days will be back again".

Introduction and launch of new projects in the market is definitely minimal unlike the peak period prior to 2008. This in turn, means that there is a fierce competition between various consultants / contractors to procure these projects. This amounts to an improved leverage to the clients in today's market to negotiate better deals compared to the earlier times. All of these factors along with falling construction costs result in making these projects much more commercially viable to execute. A comparison of construction costs reveal a fall of 15-25% for commercial office space between 2008 and 2011 in UAE (source: International Construction Cost Survey, 2011-2012, Turner & Townsend). Accordingly, the organizations have reworked on the feasibility studies to ensure that their project deliverables reflect the realities of the market based upon its current needs and expected growth generation.

The changes to the project deliverables need to be done carefully; else there is always a chance of undue cost and time overrun. To understand how these changes are getting implemented, the interviewees were questioned if this also involves changes in any of their management practices.

Almost all interviewees accepted that their organizations have gone leaner, involving major reviews of their human resource count in comparison to their strategic capabilities and quantum of available work. This again, does not necessarily mean that these organizations have witnessed mass redundancies across all ranks, but unnecessary 'fat' has been reduced or redistributed.

The action has its roots in the Business Process Reengineering (BPR) popularised during 1990s as an approach to analyse and redesign the workflow and processes in an organization in an effort to reduce cost, improve customer service, cut operational cost and gain world-class competitive edge. Organizations don't shy away from utilizing sophisticated and in an effort to support innovative business processes (United States General Accounting Office, 1997). BPR can be seen as a means for not just business improvising, but to support the organization's mission. In this pursuit, Hammer (1990) claims that the challenge for managers is to weed out the forms of works which do not add value. He argues that most of the work that does not add any value to the customers should be removed, for which


Figure 8.0.2 Business Process Reengineering (BPR)
Source: United States General Accounting Office (1997)

the organizations should reconsider their work process. This can help to maximize customer value and minimize the consumption of resources. Davenport (1993) defines BPR as "encompasses the envisioning of new work strategies, the actual process design activity, and the implementation of the change in all its complex technological, human, and organizational dimensions".

These concepts are being taken up for implementation again by organizations as part of their response to the economic challenges. Organization C4-2 was working on further planning and market feasibility studies on major projects valued at over AED 25 Billion during 2008. The organization had staff strength of over 2,500 personnel in 2002. All major projects related activities (except for site construction) were undertaken in-house. While, this gave the organization a direct control over the various project stages with minimal external dependencies, but this also meant that their overhead costs were very high. This paved way to the organizational strategy to reduce the staff cost from being spread out over internal projects alone, and several subsidiaries with specific specializations being launched. These subsidiaries were in turn changed to profit-centre and free to manage themselves by procuring external projects as well. This resulted in the staff strength rising to over 15,000 by 2008. While, the launch of subsidiaries meant that the staff cost was spread over variety of internal and external projects, but the staff cost as a liability still remained. The financial crash of 2008 meant that the total value of all running projects fell from AED 25 Billion to just over AED 1 Billion. The organization had to take a hard decision of slashing staff strengths drastically with total staff strength reducing to just over 1,500 from the peaks of 15,000.

This has been achieved by a careful assessment and analysis of staff requirements and adopting a mix of outsourcing and in-house capabilities. As discussed earlier, with a better negotiating power with clients due to low volume of available works, external consultancy costs have fallen drastically. This meant that the organization has been able to cut down on its design development and supervision costs, resulting in lower capex costs for the current projects.

Similar approach has also been adopted by the organization C4-1, who have been relatively new to the real estate industry having been constituted in 2005 and launching their commercial operations in 2007. As a start-up organization, they had a strategy to commence their operations with a very lean organization and outsource most of the project related activities. While, their flagship projects were affected due to curtailed lending by their financers, but they have been able to resume the works on few of their stalled projects very quickly since then. During the period 2008-10, they concentrated more upon market research, feasibility analysis, planning and negotiating better deals with their current external stakeholders. Based upon these studies, they have completely overhauled their project portfolio. They didn't shy away from shelving a few components of their master development, while changing the deliverables and scope of works for few other components. This in turn, resulted in theirs able to secure adequate financial infusion followed by a renewed market interest in their project.

From the initiation stage itself, C4-1 has followed the extreme case against the strategy adopted by C4-2 between period 2002-2008. They have tried to work out with low internal staff and outsourcing almost all critical project activities. While this has had a net result of lower overhead costs, but has also had a negative result on the achievement of project goals. As described in the words of their Chief Commercial Manager – "we risked playing in the hands of others. While, we managed to have the right start, the approach has shown some negative consequences along the project progress. We are now looking to take the matters back in our own hands".

The approach to outsource majority of works gave the problems of undue external dependency which came to light during the on-going Phase 1 of Business Park. To resolve, for phase 2, while on one hand they have now recruited adequate manpower, on the other hand they have also forged partnerships with a private consortium comprising of consultants, marketing and financial advisors. This sharing of liabilities has the result of further improved backing from financers and improved emphasis upon Quality Assurance / Quality Check and project deadlines.

All these factors seem to have been taken based upon the current and expected work pressure and a result of these organization's future plans. C1-1 by virtue of their small size has had the advantage of already being lean with low overheads. But, they have been quick to encash the low construction costs to their advantage. While, they had a few ambitious projects which would have been in the future high-demand zones, but due to sluggish economic activity, these zones don't seem to be picking up. But, this has not impacted their few projects which are situated in the hub of existing economic zones. With stabilizing expected yields and falling construction costs, the economic viability of these projects is much more.

The small sizes of these organizations give them a better chance to jump back, but also pose a problem when securing finances. With low collaterals to share and a general negative outlook, financers have been exercising extra due diligence with them. This is where the strength of the market feasibility studies has shown an impact. Based upon the strength of the feasibility studies, they have tried to work on some non-conventional financing options. These include partnering with their financers and giving them the charge of the premises upon handover and guaranteeing the utilization of all revenue to repay the loans, before they reap the profits themselves. The financers have an advantage of looking to recover their dues within a shorter duration, while the developers look at long-term strategy of building on their asset base. C1-1 has managed to revive 2 of their projects by adopting this financing model. These projects were otherwise, put on hold since 2009, due to difficulty with finances.

With better collateral to share and bigger existing asset base, securing finances for organizations like C2-2 might seem easier, but these family-owned organizations are traditionally very inward-looking and not audited enough to reveal their true strengths. This can have a negative impact upon their ability to secure finances, since financers are exhibiting much more prudence in lending to organizations whose accounts are not fully revealed. Head of Projects from C2-2 suggested that this has now resulted in their organization to change their organizational strategy of undertaking new projects. While, they haven't yet changed the kind of projects that they have been undertaking, but they have started to open up to forging new partnerships with private investors. This may seen as a step away from the very basis of family-owned organizations, but it gives them the advantage of sharing upfront liabilities. Besides, he also agreed that these partnerships have had the advantage of bring in fresh ideas and innovation in their approach to undertake these projects and the eventual alignment of the deliverables with its expected usage.

Similar views were also echoed by Chief Strategy Officer of organization C3-1 in their changing approach to conduct business. As part of their response to the deteriorating economic situation, they have had a successful merger with another similar organization of prominence. With improved asset base and financial capabilities due to this move, they have sold strategic stake in a few of their subsidiaries in a bid to improve their cash holding. With this move, while this resulted in diluting of their asset base, but the freed up cash also resulted in bring down their net liabilities and thereby, improving the health of their accounting registers. This has given them to improve their credit ratings and ability to secure finances for their new projects.

Strategy of the organizations is influenced by external and internal factors and can be summarised as a response to these influences (Porter, 2008). The economic uncertainty has had a definite impact upon the attitude of 2 of the major stakeholders – Financers and Customers. The shift in attitude of financers is well documented and shared with public, due to differing governmental regulations, but the same is extremely difficult to predict for the customers. As remarked by Chairman of C1-1 – "…today we are not building to compete, because there is no competition. Today we are doing more realistic work, which is of better use to our tenants and (therefore) profitable for us". With an oversupply and low demand, market dynamics favour the customer unlike the period till 2008, when it was a totally seller-biased market. The idea of 'sellable product' is also finding favours with the financers.

The shift in perception of the sellable is quiet visible in all the interviewees. All of them admitted that they have been rather 'forced' to alter their strategies and ensuing business models. Head of Projects from C2-2 discussed how their organization has rolled over from announcing and pursuing projects of mega size to dividing their projects into phases and announcing them at the stage when they are ready to be executed. This  in turn, means much more effort and time is spent on market analysis and project planning beforehand, besides helping to have a serious 'buy-in' of interest from the financers and customers.

There was a stage when major developers (like C3-1 and C4-1) would announce projects of great size and value. There would be a large number of projects which would be announced simultaneously. The announcement of these projects would be based upon very weak preliminary designs and studies. This system seemed workable in those days because the market would judge the organization by the number and size of their projects, rather the feasibility of these projects. The customer interest would be speculative rather than based upon ground reality. Similarly, financers also used to be more comfortable lending to these organizations.

Smaller organizations like C1-1 also seemed to be aligning their strategies and business models around these major development projects. These organizations had a business model which stood to gain due to their proximity to the master developments which had an air of prestige associated with them for the customers. While the major developers would offer A-grade office or residential spaces, smaller organizations were able to offer spaces which were of a bit lower quality, but still in high demand due to their location. The business model as quoted by Chairman of C1-1, "…we would align our projects and follow the trend as set by the master developers. Our stand alone projects were not expected to return higher yields compared to those projects".

This trend had an obvious drawback - mega projects announced were based more upon market speculation and a competition to outperform the rivals, instead of based upon firm feasibility studies and thorough planning. Chief Strategy Officer of C3-1 discussed how during days, they were (virtually) forced to announce new projects at short duration to ensure sustained market interest in their organization and ensure better response from the financers and customers. Most of the times, these projects were more 'visionary' than 'realistic', market feasibility studies would generally follow after their launch. Since most of the projects would be mixed usage, they would continue to alter the ratio as per the market demand. Project planning would be more 'dynamic' and continued to be iterative till later stages of project execution. Customers would be lured more by the 'glitter' surrounding these projects, similarly financers would also expect good returns due to high customer demand.

On the contrary, this trend has completely turned on its head. Chief Strategy Officer of Organization C3-1 revealed on how their organization is currently looking to consolidate their position in the market rather than focussing on expansion. They are currently aiming to finish their current projects and focussing on customer satisfaction. This may be viewed in contrast to the previous times. He stressed that in today's environment, gaining buy-in from customers and financers for new projects is directly influenced from their performance in current or delivered projects. As such, they are stressing much more on the value component of those projects before marketing their new projects.

The adoption of this strategy has also been emphasised and put up by Chief Property Manager of C2-1. He also reflected similar views on the heightened need for customer satisfaction. He was of the opinion that unlike earlier times, when there were more customers as 'speculators' and 'investors', today there are more customers who are direct users. As such, they have a changed perception of the intended value, "…instead of commercial returns on their investment, the usability and functionality of their purchase". He also emphasized that while their organization always had a focus upon quality, but there were times when this was partially compromised because of the volume of deliverables at the same time. But now, they have a dedicated customer care team which is focussed upon resolution of pre-delivery and post-delivery issues alone. He further added that this has helped them immensely in the market reviews and resulted in around 25% increase in revenue in 2011 since lows of 2010.

Smaller developers who are more focussed upon rental portfolio market also seemed to have also taken some corrective measures to improve the value of deliverables for their tenants. With their focus is upon 'tenant retention', Chairman of C1-1 explained some of the changes that they incorporated in their under-construction projects, besides initiating some retro-fitting in their current portfolio properties. While, these changes are causing additional money and thereby, causing higher CAPEX cost; but he expressed optimism that these changes will be very effective in attracting and retaining more tenants. The reason being that these changes will help in cutting down on the

OPEX budget of their tenants, and will be therefore, seen as additional value for these tenants. In one of their current commercial project, they have changed the complete Air-conditioning system for the tower from District Cooling to Water cooled chillers. This costed them around AED 18 Million (variation of around 8% from approved budget). But, this shall have a roll-on effect and advantage for the tenant who can expect around 45-55% reduction in their annual expenditure on air-conditioning. As per the revised feasibility study for this project, due to the incorporation of these value added features, it is expected that the developer will be able to get around 2-5% additional rental, which shall result in recovery of this variation in around less than 4 years.

Most of the interviewees agreed upon the need for strengthening of the Project Management Offices in their organizations. The falling costs and dearth of new projects have only helped them to strengthen PMOs in their organizations. While, larger organizations from Categories C2, C3 and C4 have tried to develop their PMOs further, smaller organizations from category C1 have also shown an inclination towards furthering of management practices in their projects by hiring the services of external project management service providers.

Chief Property Manager from C2-1 revealed that in last 12-18 months they have consolidated the working processes under their project and property teams. The new setup has been rechristened as 'Portfolio Management Office'. Project Management as well as Property Management units have been brought under same umbrella in order to achieve better cohesion amongst them. The new setup also includes members from more units like advertising & marketing and Facilities Management.

Under this new setup, C2-1 shall have the advantage of single-point responsibility for whole portfolio as well as new projects. With added focus upon improving deliverable value to the customers as well as careful analysis of organizational strategy, new projects have seen certain changes which are based upon direct input from other units. These include changes to ensure better deliverable output for the customer as well as focus upon keeping future management costs lower. Similarly, properties from existing portfolio have also been taken up as a project for upgradation and retrofitting of components for reducing operational expenses. They have also strengthened the reach of their marketing and property handover departments by bringing them in direct contact with the projects team. Both the teams based upon their inputs from the projects team, have been working to improve their customer service levels by tapping directly into the needs.

Initiative to improve management practices is also being taken by smaller organizations like C1-1, but in a different manner. Chairman of C1-1 revealed how they would undertake their past projects in an ad-hoc manner. With their small set-ups and low overheads, their dealings used to be with smaller contractors, suppliers and other organizations. Chairman of C1-1 told how during the highs of 2005-2008, it was almost impossible for their organization to work with bigger contractors or suppliers, since not only would these contractors/suppliers be more expensive, but also they would be more reluctant to work with their organizations due to lack of established practices. He also revealed that they attempted to bring in external Project Management organizations for their projects during those times, but due to high fees involved, the attempts were not always viable.

In comparison, in the words of Chairman of C1-1, they now see this is as “an opportunity to bring their house in order”. With a dearth of new projects and cut-throat competition amongst consultants and contractors; earlier ‘unapproachable’ organizations are also within their reach. Even Project Management organizations have dropped their fees to much more affordable rates for them. This has resulted in these smaller organizations to hire the services of external project managers for their projects. The usage of these organizations helps them to smoothen their work processes and dealings with their external vendors. Chairman of C1-1 revealed that their earlier projects were usually delayed and risked cost overruns, besides issues related to quality of deliverables. This was mainly due to lack of proper controls and checks during the course of projects. But, he expects their new projects to be better planned and executed due to the involvement of their appointed project management firms. While, undoubtedly, hiring of another stakeholder to manage projects will invariably result in additional cost, but it is balanced out by long-term benefits. Another reason for their organization to hire the services of external projects management firms is due the conditions imposed by their financers to continue the funding of their projects. Usage of proper management practices and involvement of specialised project management firms provides a surety to the financers over the smooth functioning of the projects and added chances of timely completion and budgetary controls.

# 9.0 Integrated Analysis

"Projects exist to address a business opportunity, and are initiated to create economic value and competitive advantage; they are in fact powerful strategic weapons which propel the organization forward" (von Hippel, 1988). Properly executed strategy leading to a proper execution of projects alongwith deployment of resources can bolster organization's strength to beat competitor's weakness and to create momentum and securing and business success for the organization.

As discussed earlier, there is no right-or-wrong approach to tackle any issue; the response is based upon the corporate strategy which in turn, is dependent upon the internal and external environment in which the organization is functioning (Piercy and Giles, 1989). To summarise, following competencies were identified for further investigation to study the response of various organizations to the economic crisis of 2008:

**1.0 Technical competences**

1.01 Project management success

1.02 Interested parties

1.03 Project requirements & objectives

1.04 Risk & opportunity

1.05 Quality

1.09 Project structures

1.10 Scope & deliverables

1.15 Changes

1.19 Start-up

1.20 Close-out

**3.0 Contextual competences**

3.01 Project orientation

3.02 Programme orientation

3.03 Portfolio orientation

3.04 PPP implementation

3.06 Business

3.10 Finance

These identified competencies were in turn, analyzed for validation using triangulation method involving following 3 sources:

01. Literature Review
02. Quantitative Data Collection (Survey)
03. Qualitative Data Collection (Interview and Case Studies)

The technical and contextual competencies are being utilized in differing manners and with differing weightage by different organizations depending upon their size and business areas. This section presents an integrated analysis of usage of these competencies and its application by the various organizations pursuing their projects.

**Analysis for Technical Competences**

During the peak period till 2008, at times, many important factors were ignored or overlooked, which can attribute to the loss of integration of various project requirements, activities and results to achieve successful outcome. Technical Competence of Project Management Success (1.01) specifically deals with this need. The need for this integrated approach is quiet vividly discussed and agreed by various authors as seen during literature review. Dov et al. (2002), Anderson (1996), Woodhead (2000), Laufer and Tucker (1987) have all highlighted the need for an integrated approach between organizational strategy, project planning, integration of stakeholder expectations, management processes and procedures; and project success. With most of the respondents from the survey having projectized or matrix organizations, there seems an emphasis upon getting away from the old organizational patterns and to adopt newer management and business techniques. But, with a lack of established PMOs in the organizations of the most of the respondents, the effort seems half-hearted and non-comprehensive. This was further corroborated during the interview sessions wherein the interviewees agreed for a need for adoption of comprehensive project plan which extends from the project inception and without ending at the project culmination, and upon handover also takes into account the user needs in long run and need to minimize associated operational costs. An established method to achieve this goal is by establishing new or strengthening existing PMOs, a need which was also evident from the revisions in strategy of the organizations whose personnel where interviewed. While, larger organizations have either been keen to establish their own PMO fully or partially by outsourcing some of the works to external Project Management firms; even smaller organizations are realizing a need for having proper management practices in place and taking the help of external Project Management firms to further streamline their projects.

A project is difficult to initiate and finish, if it fails to align itself with the requirements of its stakeholders, also defined as Interested Parties in ICB 3.0. Unless, the project aligns itself with stakeholders needs, true value for them from the outcome of the project cannot be determined. This requires a better understanding of their needs by establishing better network channels amongst various stakeholders, establishing and prioritizing the intended value for each of them and establishing management practices which can be helpful to achieve all of them. Considering that it might not be possible to fully satisfy all the stakeholders simultaneously, alternate methods to align the project goals and stakeholders needs can be devised and implemented. As an example, organizations finding it tough to gain a buy-in of their project plans from their financers have tried to involve them deeper with the project life cycle by having their representatives directly monitor the project progress and linking it to the release of interim payments. Similarly, to ensure that the interests of the other definitive stakeholder – the ‘buyer’ or the ‘end-user’ are fully met, an effort is being laid to follow the results from the Project Feasibility studies in a much more holistic manner.

Project Feasibility Studies conducted and appraised at the initiation stage may be a considered as a good starting point for the formation of any project plan. Project requirements and objectives need an alignment between stakeholder expectations and organizational vision. While, in the past, ‘mega’ projects announced by major developers seemed to be based upon the pursuit to beat the rivals and surge ahead of competitors, these projects were based more upon ‘instinct’ than reality; thereby failing to integrate with stakeholder requirements. This phenomenon is witnessing a reversal with more emphasis upon alignment of the projects with ‘reality’ and therefore stakeholder requirements and expectations.

Circumstances surrounding any project are constantly changing due to theirs being a part of the dynamic world. As such, the mix of the risks and opportunities involved with any project is also very fluid and requires project team members to be consistently aware of this change. This in turn, also means that the project team members need to be aware of the change in stakeholders’ expectations and requirements and ensuring that the project keeps itself abreast of these changes. Interim feasibility studies and risk / opportunity analysis can be helpful to ensure that the project outcomes are consistently aligned with the stakeholder requirements. While, some of the organizations would shy away from conducting proper and more realistic feasibility studies at the project initiation also, conducting of interim feasibility studies to check the continued relevance of the projects and their deliverables is being undertaken. This gives an opportunity to the organizations to ensure that the projects at any stage are still holding the same perceived value as at the project initiation stage.

Alignment of project goals with stakeholder requirements is important, but ensuring that the quality of the deliverables is as per stakeholder expectations is also of utmost importance. Quality management needs to be properly implemented to ensure that it covers the whole portfolio and not just the project. With the buy-in from stakeholders getting increasingly difficult, organizations seem to be laying renewed emphasis upon ensuring optimum quality output from the projects. These organizations seem to be taking the concept of having the quality as an underlying basis throughout the portfolio much more seriously now. Interviewees seemingly echoed the understanding of the underlying fact that the quality of the deliverable from their past and current projects can form the basis of buy-in of their rest of the projects from their portfolio. Similarly, the survey also revealed that the value engineering exercises being undertaken in the projects ensure that it does not amount to a loss of quality or benefits for the rest of the stakeholders.

Project structures acting as the basic mechanism governing the projects (ICB 3.0) can ensure that all the activities are accounted at the initiation stage itself. This also helps to chart risk monitoring, deployment of adequate resources and formulation of strategy to tackle various stakeholders. While, most of the respondents agreed that their organizations have undertaken retrenchments and initiated job layoffs, but most of them felt that there are still enough resources being deployed as per the project needs. Interviewees also echoed similar views that their organizations have devised varying strategies as a response to handle various stakeholders, especially since tendency to panic on minor incidents generally tends to be higher during acute time.

In financial terms, it is a well coined term that “profit is the blood of any business”. Current financial crisis plaguing the world has its roots in the ‘greed’ to garner more and more profits by the banking system by adopting unconventional and unsecured means of lending. But, since the collapse of Lehman Brothers in US, banks and financers have gone extremely cautious in their lending approach. As such, organizations are finding it difficult to raise and secure finances for their projects. As part of management practices, financers are expecting these organizations to exhibit much more detailed and comprehensive project plans which have their roots in adequate feasibility studies, resource allocation plans, as well as the past credit and project history of these organizations. Organizations pursuing new projects or trying to revive old projects are pursuing their discussions based upon these factors. While Business Process Reengineering (BPR) is being deployed as a means of cost reduction by trimming the employee base, it is also being worked alongwith resource planning to ensure that adequate levels of resources are available for projects. Other methods of integration of interests of financers and organizations are also being undertaken, which include ownership of financers over the operational profits for next 10-15 years to recover their costs, deployment of personnel from financers within the project team etc.

Financial crisis saw a number of major projects being shelved or stopped mid-way, besides a large of otherwise financially feasible projects being unable to be pursued further due to lack of enough finances or backing out by dominant stakeholders. This entails to bringing in major or minor changes (depending upon the stage of the project) to the overall project plan. These changes unless carefully analyzed for their impact upon various stakeholders as well as the portfolio of the organization, could be disastrous and a sources of discontent within the team of stakeholders. As described by one of the interviewees, in earlier times, most of the new projects or changes to on-going projects were based more upon ‘instinct’ of their top management rather than market research or feasibility studies. But now, these changes are being based upon properly conducted market researches and feasibility studies to ensure maximum value generation for the end-users as well as financers. Further, as per the survey results, with an increased emphasis upon development of PMOs (either through internal means or usage of external firms), the changes are expected to be analyzed for their adequacy to meet external stakeholder expectations as well as realization of objectives of whole portfolio.

Any new venture or project at the start-up stage can be characterized by highest levels of uncertainty and chaos. This can be analyzed using the theory of 'Edge of Chaos' (Beinhocker, 1997) discussed earlier. This period could easily be seen as make-or-break period for the project. This is also a period when project finances are being secured, market research is being undertaken to gauge end-user requirements and 'taste'; as well as forming of internal project teams and associated 'forming' and 'norming' processes are taking place within the project teams. This internal process can be more chaotic, if the work-load on the team members is expected to rise undesirably due to this new project and also owing to the fact that the organizations might be initiating excessive reductions in workforce levels to cut costs. Survey results show that most of the respondents felt that while, their organizations are also undergoing downsizing, but the workforce in their organizations is still adequate to fulfill resource requirements. Similarly, these respondents also agreed that their organizations are devoting much more and adequate time during the project initiation stage compared to earlier times, when as described by one of the interviewee that a number of projects required to be launched simultaneously and at regular intervals to keep the organization in limelight and high in the eyes of investors.

Compared to the project start-up stage, project close out stage can be considered less chaotic as for the project teams. But, considering a project as part of the overall portfolio, enough effort and resource allocation is also required to be dispensed at this stage. Unlike past, nowadays, organizational reputation is also dependent upon adequate value realization and achieved satisfaction for various stakeholders. As discussed with one of the interviewees, they are having an integrated project team composition which includes personnel from facilities, operations, marketing and client facing handover teams. This is to ensure that there is a better cohesion between the project goals and ease of transfer of responsibilities from the contractors to end-users including improved customer service and satisfaction during and after warranty periods.

**Analysis for Contextual Competences**

Organizations tend to pursue multiple projects at any given point of time and it is important that all these projects in isolation as well as in totality are aimed at furthering organizational goals. This requires a proper coordination of projects within portfolio as well as development of competences of project members pursuing these projects. Literature review suggests that the economic crisis may be utilized as a time for improving the skill base of the employees as well as the organizational knowledge base. But, majority of the respondents felt substantial reduction in spending on R&D works or employee development programs in their organizations. But, with majority of respondents also expressing their knowledge about corporate vision and mission, this can help them in understanding of the strategies and strategic goals that the organization adopts to achieve the objectives. With most of the respondents also expressing that their top management as part of the PMO, which is getting strengthened further, having an active involvement in the running of the projects; overall there is an application of the competence of Project Orientation (3.01, ICB 3.0) in devising the decision to manage by projects and development of project management competence.

Development of Project Orientation as a competence within the organization needs to be further corroborated with development of decision making matrix and Programme Management as a tool for the organization to implement their strategic plan, also defined as Programme Orientation (3.02, ICB 3.0). With survey results suggesting that the top management is part of the PMO alongwith the participation of team members from various projects, the composition of PMO seems comprehensive to ensure that the strategic goals and expectations are adequately known to all team members. This is also visible from the survey results that confirm that the relevance of any projects is actively analyzed for its effect upon other projects and overall project portfolio. Organizations seem to be putting in an effort to substantially update project portfolio as well as making adequate changes by either altering or even stopping certain projects. Portfolio Orientation as a competence (3.03, ICB 3.0) covers the prioritization of projects and programs within the organization to ensure optimum contribution by all projects to the organizational strategy.

Any business venture invariable has an impact upon rest of the business units within the organization (ICB 3.0). It is necessary to examine the impact of any business issue on the project and vice versa. Interviewees from various organizations discussed the need to integrate various business units and reach a common platform for them to enable any project to fit into overall business environment of the organization. This shall have the improved ability for the organizations to ensure better value delivery for all its stakeholders. Incorporation of business units like Facilities Management, Marketing, Finance and Customer Support under the purview of Core Portfolio Management Team shall have the effect of ensuring better alignment of organizational efforts towards the project and its alignment within the project portfolio.

Effective Financial Management is necessary to ensure availability of funds for the project in a timely and responsible manner. This shall further require to be further correlated with the overall project portfolio in an attempt to give fair weightage to all the running projects and ensure availability of funds for all the projects. Financers for the projects don’t always consider any project in isolation, rather they tend to rate the organization for its financial standing. Project teams under the umbrella of PMO are coming with various means to secure funds. This includes giving much more access to the financers to the project plans and progress to enable improved transparency for them.

## 10.0 Conclusions

Projects Management with its roots based upon scientific approach for getting the projects planned, executed and closed-out, needs to have certain management processes and procedures in place. These processes and procedures (also defined as ‘Competences’ in ICB 3.0) can act as guidelines for the project teams to tackle the issues involved in dealing with external and internal stakeholders as well as dealing with external and internal forces influencing the project.

Organizations either try to define their own or adopt best practices in process and project management from the established sources. They attempt to increasingly assign PMO to exert overall influence and roadmap for continual organizational improvement and realization of organizational strategy. The goal is unilateral – improving upon realized value from a project or endeavor in an attempt to reap maximum benefits and economic gains.

Economic recession of 2008 and the ensuing turmoil has casted a deep shadow over the activities and organizational strategies adopted by most of the organizations battling the economic slump. While, every organization, by virtue of their size and area of business alongwith a unique set of mission and vision which results in their organizational strategy, has different set of policies and procedures to conduct their business; there has to an underlying principle governing these guidelines.

It is widely documented that the major factor causing the economic crisis has been a lack of governance around the management practices. It was noted during the discussions with various interviewees that while their organizations had their own set of policies and procedures, they were not always strictly adhered to in earlier times. With a lack of PMO acting as a governance committee to ensure the alignment of projects with organizational strategy, projects were being undertaken in isolation rather than as part of overall project portfolio. Organizations are recognizing the need to strengthen PMOs without considering it as an unnecessary and additional cost. Strengthening of PMOs in turn, give a chance to these organizations to align their projects better with the organizational strategy.

It is important to note that in an attempt to tide over the adverse times, it is not the best approach by doing different things compared to earlier times, but doing same thing in a different manner during such times can yield better results. This ensures that the core strength of the organization is always utilized and the organization does not lose its focus in long run.

Sticking to the core strengths should not necessarily amount to having a rigid approach towards doing business; instead having a flexible approach may be more fruitful and ensure business continuity. Organizations can look for new avenues through getting into collaborations or joint ventures with other partners or venture into well-thought merger and acquisition processes.

Strengthening of PMOs can also give a chance to the organizations to reset their priorities and phase them in an order such that maximum value could be generated without putting undue strain upon scarce available resources. Phasing also ensures that the 'demand-supply' ratio in the market is maintained.

It is also important for the project management team to identify those stakeholders who affect the project to manage their differing demands through varying communication channels during the project initiation stage itself. Any project needs to be based upon a 'consensus' of agreed meaning of value for various stakeholders. Therefore, to ensure success of the project, it is imperative that the stakeholder expectations and value generation are fulfilled. During any crisis, stakeholders can have a tendency to go extra diligent in their dealings, especially project financers who would invariably curtail their lending.

Fewer options for availability of finance for projects mean that the organizations require providing extra evidence for the feasibility of the projects. Project feasibility studies at the initiation stage can set the platform for further works and provides direction to the project team members for further project development. Besides this, it is also helpful in giving confidence to the project financers regarding their chances for timely recovery of their dues.

Project feasibility studies are also acting as the primary requirement by the financers to continue lending for the projects stopped or put-on hold midway. Organizations are conducting revised feasibility studies during the course of the project execution as well, as a means to analyze the relevance and viability of their projects in the revised scenario. These studies help in determining the revised expectations for the end-users and thereby, ensure continued offering of optimum value to them.

As good times don't last forever, similarly organizations need to realize that the times of crisis will also not last forever; and sooner or later, the situation will improve. To ensure that their organizations don't lose the edge at the stage of economic revival and improved market conditions, they will require to ensure that their core strength is not lost, rather it should be competitive enough to meet the revised scenario. To meet this requirement, they will need to ensure that the organizational knowledge base is adequately updated and there is minimum loss of key resources. This can help them to bounce back quickly at a later stage.

Overall, it is of prime essence to ensure that the organizations march forward with a positive attitude without getting unduly pessimistic in their approach to conduct future business. The sense of optimism alongwith careful assessment of options can ensure better results and improved organizational ability to tide over dire circumstances.

# 11.0 Limitations and Recommendations

The current research has been of limited nature due to restricted size of output and available time. Organizational sizes can vary immensely even within any given geographic territory. As such, it is difficult to categorize them for the purpose of study, since there can be varying sub-categories of unique nature within each category. Therefore, for further research, each category may be taken up in further detail to study their behaviors further.

Also, the current study has been restricted to the relationship shared between project organizations (client) and 2 of their key stakeholders – project creditors (financers) and end-users (consumers at the project initiation stage. Considering the dynamic nature of the project progress, this relation can also vary when the influence of other stakeholders also start appearing in the picture during the course of project progress. As such, further research may also be conducted to study the matrix of relationships shared between more stakeholders.

The current study was restricted to interviewing 1 personnel only from the organizations represented in each category. The study can be elaborated further by increasing the population size of the conducted survey as well as interviewing more personnel from the construction industry. The results from the ensuing study may be further validated by conducting more extensive case-studies of the projects being undertaken by those organizations.