BEHAVIOUR OF PROJECT MANAGERS AND THEIR IMPACTS ON PROJECT PERFORMANCE

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DEDICATED

TO

MY FAMILY, TEACHERS AND COLLEAGUES

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(Jehanzeb Saulat)

TABLE OF CONTENTS

ACKNOWLEDGEMENTS ..... **IV**

TABLE OF CONTENTS ..... **V**

ABSTRACT ..... **IX**

CHAPTER 1 ..... **1**

INTRODUCTION **1**

1.1 BACKGROUND 1
1.2 PROBLEM STATEMENT 2
1.3 RESEARCH OBJECTIVES 2
1.4 RESEARCH SIGNIFICANCE 2
1.5 SCOPE OF THE RESEARCH STUDY 3
1.6 ORGANIZATION OF THE THESIS 3
1.7 SUMMARY 4

CHAPTER 2 ..... **5**

LITERATURE REVIEW 5
2.1 INTRODUCTION 5
2.2.2 WHAT IS A PROJECT? 5
2.2.3 ATTRIBUTES OF A PROJECT 6
2.2.4 DEFINITION OF PROJECT MANAGEMENT 7
2.2.5 ROLE OF PROJECT MANAGERS 7
2.2.6 PROJECT MANAGEMENT AND PROJECT MANAGERS' SKILLS 9
2.3 BEHAVIOURAL FACTORS OF PROJECT MANAGERS 10
2.3.1 GENERAL 10
2.3.2 Behavioural Factors through Literature Review 10
2.3.3 Selection of Key Variables for Construction Industry of Pakistan 14
2.3.4 Grouping of Key Factors 14
2.4 SUMMARY 14

CHAPTER 3 ..... **15**

RESEARCH METHODOLOGY **15**

3.1 INTRODUCTION 15
3.2 RESEARCH DESIGN 15
3.3 SURVEY DESIGN PROCESS 16
3.3.1 Identification of Research Unit of Analysis 17
3.3.3 Design of a Research Instrument 19
3.3.4 Data Collection 21
3.3.5 Strategy for Data Analysis 22

CHAPTER 4 ..... **23**

RESULTS AND DISCUSSION **23**

4.1 INTRODUCTION 23
4.2 DEFINING VARIABLES 23
4.2.1 Grouping of the Behavioural Factors 23
4.2.2 Sub-Factors Representing Each Behavioural Factor 24
4.3 RELIABILITY ANALYSIS 29
4.3.1 Behavioural Factors Data Reliability 30

4.4 DESCRIPTIVE ANALYSIS....30
4.4.1 Type of the Projects....31
4.4.2 Type of the Respondents....32
4.4.3 Ranking of the Key Factors....35
4.4.4 Rank Agreement Factors (RAF) & Percentage Agreement (PA)....36
4.5 SUMMARY....41

CHAPTER 5....42

CONCLUSIONS AND RECOMMENDATIONS....42

5.1 CONCLUSIONS....42
5.2 RECOMMENDATIONS....43
5.3 FUTURE DIRECTIONS....44

REFERENCES....44

APPENDIX I LIST OF PROJECTS....50

APPENDIX II COVERING LETTER FOR QUESTIONNAIRE....52

APPENDIX III SURVEY QUESTIONNAIRE....53

APPENDIX IV RELIABILITY ANALYSIS IN SPSS VER.19.0....57

APPENDIX V FREQUENCY TABLE AND MEAN VALUES IN SPSS VER.19.0....65

LIST OF TABLES

Table 3.1: Behavioural Factors……..... 21
Table 4.1: Major Grouping of Behavioural Factors 23
Table 4.2: Managing Emotions Factors …….....…. 24
Table 4.3: Building Trust Factors……..... 25
Table 4.4: Multicultural Awareness Factors……..... 25
Table 4.5: Effective Communication Factors…….....…. 26
Table 4.6: Motivating Others Factors……..... 26
Table 4.7: Influencing Others Factors…….....… 27
Table 4.8: Leading Others Factors……........ 27
Table 4.9: Team Building Factors……........ 28
Table 4.10: Conflict Management Factors…….....… 28
Table 4.11: Guidelines for Assessing Reliability Results …….....… 29
Table 4.12: Cronbach's Alpha for Behavioural Factors for Major Stake Holder..... 30
Table 4.13: Type of Projects.....……..... 31
Table 4.14: Number and Percentage of Respondents..... 32
Table 4.15: Number and Percentage of Respondents in Different Qualification Categories…….…. 33
Table 4.16: Number and Percentage of Respondents in Different Experience Categories…….. 34
Table 4.17: Relative Importance Index (RII) for each Behavioural Factor …….…. 35
Table 4.18: Relative Importance Index (RII) for each Delay Factor…….…. 37
Table 4.19: Percentage Agreement between Consultant & Contractor…….…. 38
Table 4.20: Percentage Agreement Between Client & Contractor ……..…..... 39
Table 4.21: Overall Ranking …….....…..…..... 40
Table 5.1: Most Important Factors Based on Overall Ranking……..... 43

LIST OF FIGURES

Figure 2.1: A Project without a Project Manager……..…..…..... 8

Figure 2.2: A Project with a Project Manager ……..... 9

Figure 3.1: Research Methodology Flow Chart…….....……... 16

Figure 3.2: Research survey Design Process……..... 17

Figure 3.3: Research Survey Location Map……..... 22

Figure 4.1: Percentage of Type of Projects…….....…..….....… 31

Figure 4.2: Percentage of Respondents…….....…….....… 32

Figure 4.3: Percentage of Respondents in Different Qualification Categories..... 33

Figure 4.4: Number of Respondents in Different Experience Categories….….... 34

Figure 4.5: Percentage of Agreement (PA) between Key Stake Holders..... 40

ABSTRACT

Project managers in construction are responsible for the overall success of delivering the owner's physical development within the constraints of cost, schedule, quality and safety requirements. As such they play a crucial role not only in the operational activities of architectural and engineering companies but also the development of infrastructure in every country.

It is recognized by academics and the community of practice that the management of people plays an important role in project management. Recent research about peoples managers behaviour and skills expresses the need to develop a better understanding of what good people management is.

Keeping this in view, it was needed that a study should be carried out to explore the factors which are directly or indirectly associated with the behaviour of project managers. Extensive literature review was carried out to find out different behavioural factors in the construction industry of Pakistan. Based on these factors, a questionnaire was developed which included a list of nine (09) factors gathered from the literature review, which further consists of seventy (70) sub-factors. Data was collected through a survey mainly from the twin cities (Islamabad & Rawalpindi), Kashmir and main cities of each province.

After collecting data from the field survey, reliability test of data was performed in order to validate the reliability of the collected data. Relative Importance Index was used to check the importance of each factor and based on the significance of factors; ranking of the factors was done.

The overall ranking was then done and it was concluded that among the behavioural factors of the project managers, Building Trust was at the top of the ranking, followed by Influencing Others and Multicultural Awareness. At the end, it was recommended that the project managers need to adopt appropriate behaviour to handle the situation, show open apprehension, influence team members and promote to others and apply an awareness of different cultures.

Chapter 1

INTRODUCTION

1.1 BACKGROUND

Since 1990s the importance of project plays in present and in coming tomorrow, in changing working practices and working environments has increased in a dramatic manner (Tuner, 1993; Gareis, 1990 and Cleland, 1994). In construction, much of the work of a project manager is to work and organize the team members and to bring the project to successful completion by identifying and determining solutions to the problems (Andi et. al., 2008). As the project team members are assigned to the project from their respective departments, so it is a challenging task.

Success of a project is a core concept for a project manager in project management but still it's definition is unidentifiable. The conventional definition for the success of a project, which revolves around quality, cost and time seems to be inadequate. More comprehensive definitions have been coined in recent years. According to Baker et. al. (1983) the success of project management is: *''If the project meets the technical performance specifications and/or mission to be performed and if there is a high level of satisfaction concerning the project outcome among: key people in the parent organization, key people in the client organization, key people in the project team and key users or clientele of the project effort, the project is considered an overall success"*. While the project members maintain their loyalties to their respective departments, it is must for a project manager to nurture development of personnel loyalty for the project. It is difficult for team members to develop a long term relationship and commitment as in permanent organization because of the temporary characteristic of construction project (Santoso et. al., 2008).

The deciding factor of a poject/situation will be the behaviour of the project manager depending in which direction he/she will take it. Blackburn (2001), Huemann (2002), Dainty et al. (2005) and Moore et al. (2003) have suggested further sagaciousness to support for new and improved associated behaviours of project managers and effective people skills.

1.2 PROBLEM STATEMENT

For the success of a project, understanding of project success factors and attributes of project mangers alone proved to be insufficient. For the behaviour of project manager and its impact on the success of the project' there is lack of understanding. Perception of the work environment is often referred to behavioural factors but can differ from one project to another. To examine how the behavioural factors can affect the effectiveness of a project manager specifically, some studies have been conducted. A lot more effort is required to be put in, in order to ascertain the true factors which are more specific to our own construction environment. Only by identifying these factors, ranking them and further study of high ranking factors in detail will make this effort justified. Such a study will also help to identify the critical factors that may be causing delay in construction of projects, thus enhancing the efficiency of project managers through counter measures.

1.3 RESEARCH OBJECTIVES

The main objectives of the present research study are:

a. To enlist the behavioural variables of different project managers and determine the most significant among them with respect to Construction Industry of Pakistan.

b. To ascertain ranking of these factors from the perspective of three major stake holders, Client, Consultant & Contractor as well as an overall ranking.

c. Based on the above efforts, making some recommendations to address key behavioural variable for improving efficiency of project managers.

1.4 RESEARCH SIGNIFICANCE

Some peoples' skills from the early management years such as negotiations, conflict management and effective communications have now become a part of general management practice, as referred by management experts. Some recent international publications suggest project managers or appropriate people skills manager to must have ability to manage emotions of people, being culturally aware, should have authentizotic behaviour and should be able to play act. This research will identify the variables to provide better understanding of project managers' behaviour

in the construction industry of Pakistan. Furthermore, the recommendations made towards the end of the research will improve the efficiency of project managers.

1.5 SCOPE OF THE RESEARCH STUDY

The scope of this research study is related to finding out behavioural factors of project managers and their impacts on project performance. A field survey from 109 Clients, Consultant & Contractor's from different projects was collected. Mostly projects were taken from Twin Cities, Rawalpindi & Islamabad; however province wise representative projects were also picked in order to cater for the variations in behaviour due to geographical factors.

1.6 ORGANIZATION OF THE THESIS

Chapter 1 provides a background and problem statement that developed the need of this research study. Study objectives, its significance and scope are also presented.

Chapter 2 is devoted to the literature survey. This chapter is designed to provide an overview of the survey of the literature. It is divided into two parts. The first part of this chapter provides brief overview of project management and the role of project manager in project management. The second part of the chapter describes the behavioural factors of the project managers. After going through the literature review, some of the key factors (9) for behaviour were sorted out. The selected factors were taken considering the construction industry of Pakistan.

Chapter 3 is concerned with the research methodology employed in the study. The process of survey design, selecting a study sample, development of a questionnaire and conducting full scale survey is presented for ranking of behavioural factors.

Chapter 4 describes the data analysis and results. The purpose of this analysis was to determine the ranking of various behavioural factors of the project manager.

Chapter 5 is concerned with the conclusions and future recommendations drawn from key research findings. Future directions are also identified at the end.

Survey questionnaire used for survey is available in the appendices. The appendices also contain copies of the reliability tests done using Statistical Package for the Social Sciences (SPSS Ver. 19.0)

1.7 SUMMARY

Brief summary of the research is introduced in this chapter. Starting by reviewing the past literature that developed a need of this research is highlighted. Significance aims & objectives are presented. Scope with outline of the thesis chapters is also discussed.

Chapter 2

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter is designed to provide an overview of the survey of the literature. It is divided into two parts. The first part of this chapter provides brief overview of project management and the role of project managers in project management. The second part of the chapter describes the behavioural factors of the project managers.

2.2 PROJECT MANAGEMENT

2.2.1 Introduction

A project manager is fundamental and mandatory in any type of project. While project management is only one of the many measure upon which project performance is dependent, it is also debatably the most significant as it is people formulating the processes and systems who deliver the projects (Pinto, 2012). Project management is one of the most vital tools for project managers and organizations, both in private and public works; to improve internal procedures, grasp swiftly to external opportunities and deal with the challenges. Project management is now considered a serious constituent of successful business operations in nationwide companies today. Effective project management will remain an obligatory service for flourishing companies in the coming days. More and more companies are arriving at the same conclusion and adopting project management as a way of life. Construction organizations are getting project savy and wanting their workforce to follow the same.

2.2.2 What is a Project?

A project has been defined differently by different authorities. Some of the definitions are given as follows:

- “A project is a temporary endeavor undertaken to create a unique product, service or result” (PMBOK, 2004).

- "A coordinated effort, using a combination of human, technical, administrative and financial resources, in order to achieve a specific goal within a fixed time period" (Graham, 1997).
- "Project is a one-shot, time limited, goal oriented, major undertaking requiring commitment of varied skills and resources, a combination of human and non-human resources pooled together in a temporary organization to achieve a specific purpose" (Project Management Institute, 2001).

2.2.3 Attributes of a Project

The attributes of a project may be described as temporary, unique and progressive elaboration (Adams and Campbell, 1990), which are discussed as follows:

- **Temporary:** Projects are temporary in nature. Temporary implies that they have a definite start and a definite end. The project ends when the objective is attained, or it becomes obvious that the objectives will not or cannot be achieved, or the need for the objective no longer exists and the project is terminated. Temporary does not imply that projects are short in duration. They may take considerable time to complete but they have a finite duration. They do not last forever and are not on-going efforts. The temporary nature of a project does extend to the opportunity for the project and to the project team and organization that carries out the project. The team and organization are disabled and reassigned to other tasks on the completion of the project.
- **Unique:** project deliverables what have to be delivered at the end of the project are unique. Projects create a unique product, service or result. They may create a product that is quantifiable, a capability to provide a service such as a business function or a result such as outcomes or documents.
- **Progressive Elaboration:** It implies developing in steps and ongoing in increments. The project scope may be described in broad terms to start with. But as the project team builds up a better understanding, the scope may be defined more explicitly and in greater detail. However, the project scope, that is, the work to be done, should be controlled. The project scope, time and costs are interrelated. If the scope increases, the time required increases and consequently the cost also increases.

2.2.4 Definition of Project Management

Project management is defined by Project Management Institute (2001) of USA as *"the application of knowledge, skills, tools and techniques to project activities to meet project requirements. It is accomplished through the application and integration of the project management processes of initiating, planning, executing, monitoring and controlling and closing."*

Some other definitions are as follows:

"Project management is the process of achieving project objectives through traditional organization structure and over the specialties of the individual concerned. Project management is applicable for any unique, one-time or one of a kind undertaking concerned with specific end objectives" (Kerzner, 2003).

"Project management is the application of skills, knowledge, tools and techniques to meet the needs and expectations of stakeholders for a project" (Charvat, 2003).

"Project management is the application of a collection of tools and techniques to direct the use of diverse resources towards the accomplishment of a unique, complex, one-time task, within time, cost and quality constraints. Each task requires a mix of these tools and techniques structured to fit the task environment and life cycle (from conception to completion) of the task" (Berkun, 2005).

2.2.5 Role of Project Managers

A project manager is responsible for project's execution from beginning to end. The project manager is appointed by the company, i.e., the company's management. Forming and running a team for a project is the responsibility of the project manager, for which he/she must have adequate authority. The project managers should have the relevant experience managing similar projects previously (Shaddan, 2006). A project manager has to manage a variety of people, some under his control and some over whom he has no control (Berkun, 2005).

Figure 2.1 shows typical project team without a project manager. It shows the multiple communications a company encounters without a project manager to supervise the work activities involved in completing the project (Shaddan, 2006).

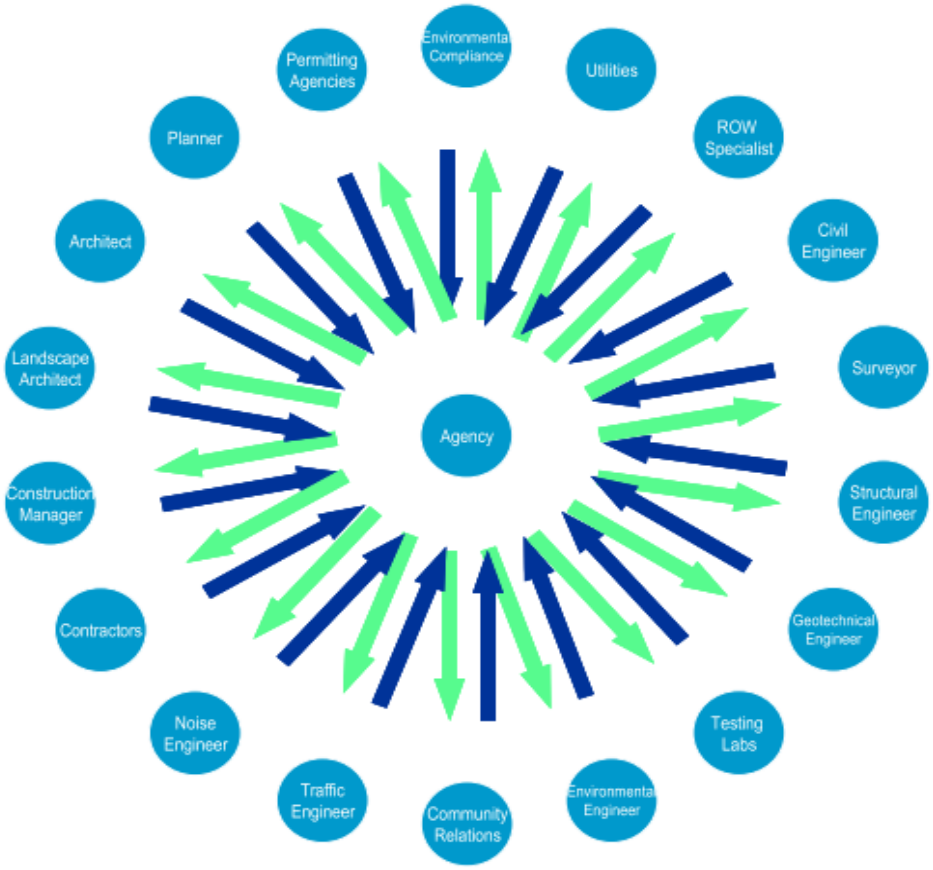

Figure 2.1: A Project without a Project Manager

Figure 2.2 shows a typical project organization with a project manager. It shows how a project team is organized with the assignment of a project manager to handle project work activities (Shaddan, 2006).

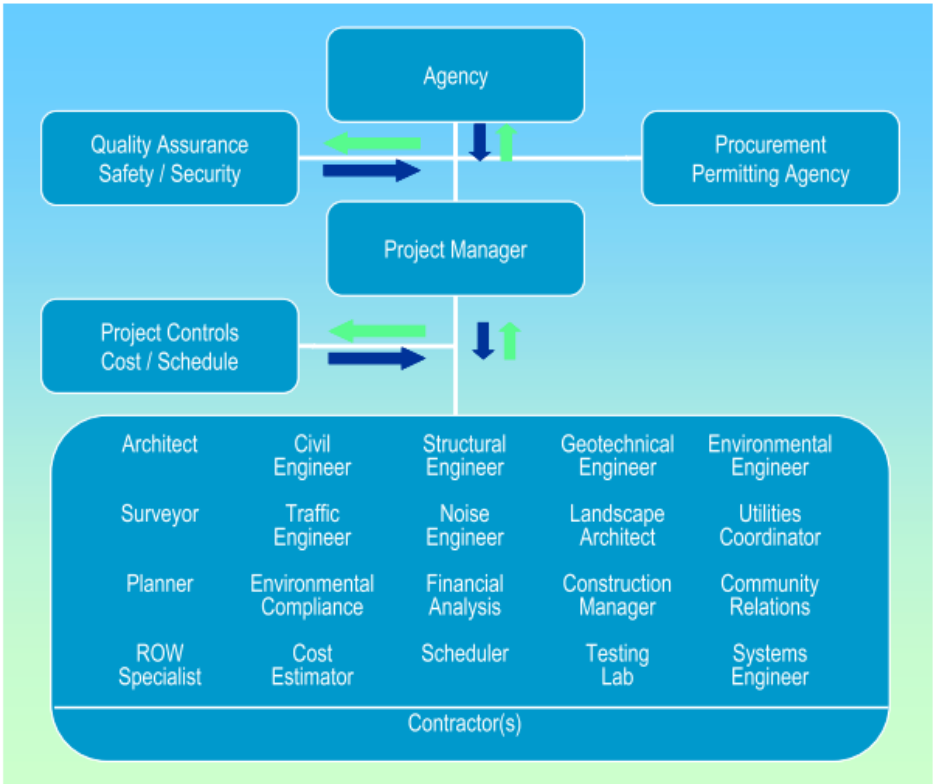

Figure 2.2: A Project with a Project Manager

2.2.6 Project Management and Project Managers' Skills

Project management is the basis of an excellent training institute for future managers/executives in most of the companies. One of the distinctive features of project management is the combination of technical and behavioural challenges. Project selection, budgeting and resource management, planning and scheduling, and tracking the projects are a few important aspects of technical side of project management. Whereas, at the same time, managing the behavioural or peoples side of the projects is equally a strong challenge for the project managers. Projects, being temporary events, demands quick molding of the project team into effective squad, manage conflict, provide direction and negotiation and appropriate behaviour, all in the name of project success (Pinto, 2012).

Two types of skills are developed for any particular type of a project. These are specific (technical) skills, which are related only to construction projects, specially the part that replicate their area of expertise; and general (behavioral) skills, which are transferable from one construction field to other arenas, but most

importantly from one area of construction to another. The general skills of the project manager will provide much of the basis for developing project management skills. They are often crucial for the project manager to work efficiently with their expert field of knowledge (Edum-Fotwe & McCaffer, 2000).

2.3 BEHAVIOURAL FACTORS OF PROJECT MANAGERS

2.3.1 General

As more organizations are adopting project management to deliver their work packages, hence the demand for project managers is growing and there is an increasing interest in people skills of project managers (Crawford, 2000). Blackburn (2001), Huemann (2002), Dainty et. al. (2005) and Moore et. al. (2003) supported the need for new and enhanced efficient people skills and associated behaviours for the project managers.

2.3.2 Behavioural Factors through Literature Review

If a general review of management literature is taken, one gets to know that early motivational theorists and authors like Mc Gregor (1967), Blake and Mouton (1964) and Likert and Hayes (1957) believed in attributes like sympathy, trust and showing concern for people's emotions for an effective manager. Honey (1988) developed a theory in early 80's in which he suggested that people, who want to achieve something useful with the help of others could use interpersonal skills which works like face to face behaviours.

According to Peters and Waterman (1982) competences and behaviours make an effective manager. In their view an effective people's manager should inspire others, show sympathy, leadership and communicates well. There has been some development in recent years that managerial competences solely don’t make an effective manager. The behaviours which underpin these competences act as driving force for not only bringing difference in effective management of people but also they are recognized now increasingly, says Fisher.

The highest consideration for any manager's agenda should be well functioning of an individual, says Kets de Vries (2001). According to him, managers

need to display their genuine and authentic behaviours with their project team if they want to make this relationship long lasting as behaviours are observable. He defines it as authentizotic behaviour where the manager should develop an understanding for other person's priorities.

Understanding of different cultures is an important people skill according to Trompenaars and Hampden-Turner (1993, 1997). A manager should respect other people's beliefs and values. In failing to do so, it will directly influence their work. Project manager needs to understand the differences in cultures and what works well in them. A manager needs to develop an understanding for the traditions, sequences and various trends for the people in order to manage them internationally in an effective manner.

After a general review of the project management literature, Kliem and Ludin (1992) are of view that a successful manager knows the art of managing people effectively thoroughly by applying managing people skills. They suggest that a project manager should respect others for what they are and empathize for others feelings too. He should put himself in their shoes in order to see things from their perspective.

Conflict management in a project environment is as inevitable as change according to Verma (1996). He suggests that there are a number of levels of conflicts and each level has a different approach to resolve it. Not only a project manager needs to understand these levels but also should adapt their behaviours while dealing with any level or type of conflict.

According to Thamhain (2004) effective project leaders always make their people proud of themselves to be a part of such mission and organization. A project manager has to be inspirational. For a unified team culture to emerge, purpose and alignment of personal and organizational goals and clarity are necessary. He suggests that effective people project managers show personal recognition for work achievements, encourage their people and make the details of contributions highly visible to others within the organization. This not only unites the team but also refuels and sustains their commitments.

Kadefors (2004) believes that the most important people competence for project managers to have is building of trust. She considers that the level of loyalty should be so well built between the two parties that both of them show what they stand for and also respect. There should be high levels of care and its display in a genuine open way.

Project managers are more likely to accomplish their tasks if they remain reasonable and polite and win the respect of their team members, says Rosenau (1998). Such approaches would be more favorably responded by people. Project managers will notice that their wishes would be voluntarily and frequently carried out with enthusiasm. He considers that effective people project managers must have superb communication abilities, strong leadership and must be people oriented. They must possess imagination, flexibility, adaptability to cope with a myriad of unexpected problems, creativity and imagination. Rather than having technical skills, project managers need effective and good people skills for their projects to manage people.

Edmondson et. al. (2005) believes that a conducive environment for team learning could only be achieved by effective leaders of the people. He suggests that project managers should be accessible so that others can make it clear that their opinions are valued and welcomed. The project managers need not to be aloof and should always be available. So project manager should create an information sharing environment that could be reinforced with the help of contributions made by team members on his explicit request.

Wysocki (2007) considers that encouragement of the team members by an effective people project manager, lets them think 'out of the box and they are able to think creatively to find solutions of their problems. And they also then make informed decisions based on the strength of evidence from collected information. Project managers need to encourage their team to take an active part in the resolution of conflicts and not to seek to create conflicts unnecessarily and also project managers should make a collaborative effort to resolve conflicts in projects.

According to Jiang et. al. (1999) being an effective people manager, there are some skills like effective conflict management and reinforcing messages to others through gestures and facial expressions, understanding what motivates individuals, showing empathy, being diplomatic and tactful when dealing with others. Barkley (2006) considers that effective people manager creates an environment of trust, open communications, pride of workmanship and commitment and honesty in the context of integrated project management (bringing components of the whole project together in an operating system).The project managers listen actively to others and develop a positive 'can do' attitude and they motivate team members to improve their work and perform better.

The behaviour profile of some superior project managers, working within the construction industry which is one of the most dynamic and complex project-based industrial sectors, has been investigated by Dainty et al.(2005) just to suggest what makes a good project manager. Their existing project management competency standards and review of the literature reveals that standards for the development and assessment of competence are grounded in performance-based competences and skills, rather than behavioural attributes which support effective performance in a functional role.

According to Cicmil and Hodgson (2006) of recent project management publications suggest that project managers apparently play-act rather than to apply behaviours which are authentic. They suggest that the project managers perhaps display acted behaviours in order to conform when they work within these constructed entities. Lewis (2006) believes that it does not matter what people say they believe in, it is sometimes possible to tell in what they really believe in if their behaviour is observed. He believes that people, if taken generally, behave consistently with their beliefs. Many project managers in a project management environment are supposed to be play-acting either to satisfy their own self-esteem needs or to live up to their expectations.

Project managers often act the part according to Whitty and Schulz (2006).They suggest that the cause of spread of project management is because of giving the appearance of capability for productivity rather than actual productivity,

well-adapted collection of memes and also usage of speech, rituals and gestures. So project managers are like actors in project management theatre where they use props, read script, wear costumes in front of audience which comprises of key stake holders and senior management.

The review of literature for both the general and project management publications reveals that from early management years, some people skills such as negotiations, conflict management and effective communication have now become a part of general management practice as said by management experts. The publications which are more recent suggest that effective people skills managers should have and adopt attributes like being culturally aware, authentizotic behaviour, management of people's emotions and some play-acting.

2.3.3 Selection of Key Variables for Construction Industry of Pakistan

After going through the literature review, some of the key variables (09) for behaviour were sorted out. The selected variables were taken considering the construction industry of Pakistan.

2.3.4 Grouping of Key Factors

The selected variables (09) were further supported by the sub-factors (70). Each sub-factor (70) was carefully sorted under the main variable (09).

2.4 SUMMARY

The first part of this chapter discusses the project management in brief. In the second part, the behavioural factors of the project managers are discussed from the past literature review. Subsequently, the development of key indicators for Pakistan and their grouping is discussed. The next chapter discusses the research methodology developed for this research study.

Chapter 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter describes the methodology used for the study in order to attain research aim and objectives that were sketched out in Chapter 1. Survey method was chosen as a research strategy, based on research questions and the whole survey design process has been comprehensively elaborated. The formation of a questionnaire, collection of data through field survey and data analysis approach is also discussed.

3.2 RESEARCH DESIGN

There are two major classification of research approaches, exploratory research and conclusive research for survey based researches (Panneerselvam, 2013). Research strategy defines the layout/design showing how the study will be carried out (Saunders et. al., 2003). It comprises of sampling and questionnaire development, data collection sources and considering research constraints. The research strategy is selected on the basis of research aim/objectives. Three different approaches are considered acceptable for the research in construction management. These are: quantitative methods, qualitative methods and combination of both quantitative and qualitative commonly known as 'mixed mode approaches'. Quantitative research methods use deductive approach and associated with collection of data and statistical analysis. Seymour & Rooke (1995) and Seymour (1997) strongly supports the use of qualitative approach. Easterby-Smith et. al. (1991) believed that most research studies in management are based on mixed approach. Root et. al. (1997) argued that the choice between quantitative or qualitative methods is highly dependent on the research aim/objectives. Based on the above, the objective of this research study was to rank the behavioural variables of the projects managers. For this purpose, data was required from different individual clients, consultants and contractors working on different projects. Quantitative approach was used for this research and survey method was selected for data collection.

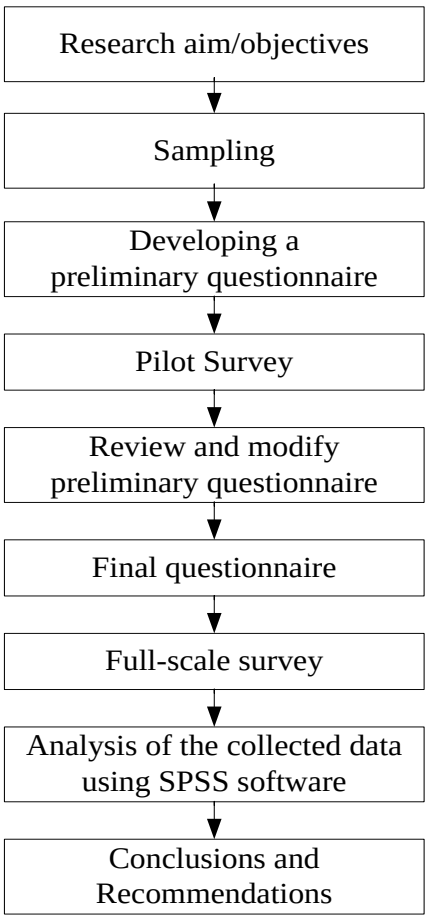

Figure 3.1: Research methodology flow chart

The research was carried out on the steps shown in the Figure 3.1. To carry out the study, a behavioural factors questionnaire was developed. Pilot study was taken in to consideration and carried out for purpose of the questionnaire validation, modification and upgrading. Having done a feasibility survey, full scale survey was conducted by visiting building projects to get the feedback of all the three key stake holders. Finally, statistical analysis, by using SPSS, was done for the collected data to rank the behavioural variables.

3.3 SURVEY DESIGN PROCESS

Survey is defined as "data collected from number of cases/projects through systematic measurement and then analyzed to yield the results" (Marsh, 1982). Trochim (1997) and Bryman (2004) argued that in applied social research, surveys are mostly carried out by questionnaire and interview surveys. Bryman (2004) referred surveys as cross-sectional studies and explained that the data collected from

the surveys are generally quantitative in nature and can be used to correlate two or more variables. Trochim (1997) suggests that several issues should be kept in mind when a survey is chosen as a research strategy: a) population, b) sampling and c) question issues. The survey design selected for this research is shown in the Figure 3.2 (adopted from Shuwei 2009).

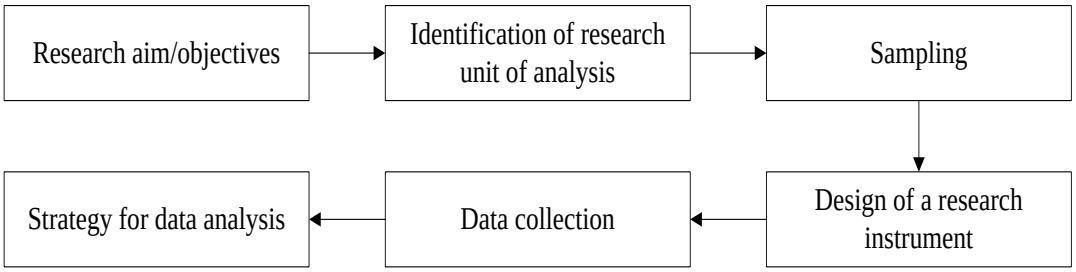

Figure 3.2: Research survey design process

3.3.1 Identification of Research Unit of Analysis

De Vaus (2002) has highlighted the importance of unit of analysis and argued that it is directly associated with the aim/objectives of the research. The objective of this research is to evaluate behavioural variables of project managers and there ranking. Clients, Consultants and Contractors are invited to provide their feedback about the behaviour of projects managers on each single project. Each respondent was taken as one case and opinion of each key stake holder i.e. owner, consultant and contractor was included in the study.

3.3.2 Sampling

Fellows and Liu (2003) defined the purpose of sampling as "*collection of data and carry out of the research components provided that the sample selected is a good representation of the study population*". Trochim (1997) argued that the process of sampling moves from study population to the sampling frame from which the research sample is selected. Study population and sampling frame have been explained by Saunders et. al. (2003) as "*population is a full set of cases from which a sample is drawn and sampling frame refers to a complete list of all the cases in the population".* It is important that the list of the cases should be clear, current and accurate (Shuwei, 2009). If list is not available, the researcher can develop and

complete the sampling frame (De Vaus, 2002). On the basis of the sampling frame, sample is selected from the study population (Shuwei, 2009). Johnson and Christensen (2004) suggested that if the researcher is quite confident that he knows the total population, the complete population can be taken in the study.

Due to record deficient, the sample size could not be drawn from the total population. Hence, the non-probabilistic sampling technique was used. For this purpose, convenience sampling was the most appropriate. This technique is used when the total population cannot be calculated. The sample size was found from the following formula used by (Shah and Abdul-Hadi 1993, Enshassi and Aqaad 2011).

$$[n' = S^2/V^2] \quad (3.1)$$

Where,

n' is the size of sample for unlimited population;

V is the standard error whose value for the confidence level of 95 per cent is 0.05;

S^2 is the population elements' standard error variance whose.

The formula for S^2 is as follows (Shah and Abdul-Hadi 1993, Enshassi and Aqaad 2011):

$$S^2 = P(1-P) \quad (3.2)$$

Where, P is the proportion of population element that belongs to a defined class

At the value of P = 0.5, S^2 is maximum. Hence, the size of the sample using the above equation (Shah and Abdul-Hadi 1993, Enshassi and Aqaad 2011) is calculated as:

$$n' = S^2/V^2 = (0.5)^2/(0.05)^2 = 100 \quad (3.3)$$

However, data was collected from 109 respondents by approaching individually or via emails.

3.3.3 Design of a Research Instrument

Based on the research aim/objectives i.e. to rank the behavioural variables of projects managers, a questionnaire was developed for full scale survey based on past literature review, researcher experience on the projects and after conducting a pilot survey. Measurement scale selection, attitude measurement and ranges of response category were taken in to consideration for the design of a questionnaire.

3.3.3.1 Selection of Measurement Scale

Measurement scale is generally divided into four different levels, namely nominal, ordinal, interval and ratio (Trochim, 2006). In this research study, client, consultant and contractor's perception was to be measured, so it was suitable to select the ordinal scale (also called ranking scale) for its measurement.

3.3.3.2 Attitude Measurement

Oppenheim (1992) argued that people's perception about some specific issue goes from low, through neutral to a degree of high level. Attitude measurement is suitable for measuring individuals' perception or feelings, called an attitude scale by Bell (2005). De Vaus (2002) and Saunders et. al. (2003) have named attitude scale as numeric rating scale and semantic differential rating scale. There are four commonly used methods of attitude scaling in social research: the Bogardus, Thurstone, Likert and Guttmann (cumulative) scales (Oppenheim 1992; Trochim 2006 and De Vaus 2002). Among them, Likert scale is widely used as it provides better reliability and is less laborious (Oppenheim 1992 and De Vaus 2002). Therefore, Likert scale was selected to take opinion of the entire three key stake holders, that is, client, consultant and contractor in this research.

3.3.3.3 Ranges of Response Category

According to De Vaus (2002), widely used response categories are 2, 5, 7 and 10. Several researchers have recommended 7-point scale (Alwin 1997 and De Vaus 2002); however, the fine distinctions can confuse and requires precision with greater accuracy (Shuwei, 2009). Therefore, based on the above, five point scale was adopted for the survey questionnaire to get feedback on each indicator and defined

scales as 1 for Extremely Important, 2-Highly Important, 3-Moderately Important, 4-Slightly Important and 5-Not Important to show their attitude towards each variable.

3.3.3.4 Pilot study

The purpose of a pilot survey also known as feasibility survey is to test a questionnaire for its reliability, consistency and validity (Thompson, 2010). De Vaus (2002) argued that while conducting a pilot survey, the emphasis should take on checking whether any problem exists with the questionnaire items, how long it will take to fill in and whether respondents are interested in filling the questionnaire. Shuwei (2009) believed that the number of pilot studies depends on research aim/objectives, size of the research study and available resources (time and money). For this reason, a pilot survey has been carried out to test the questionnaire. The questionnaire was personally presented to clients, consultants and contractors, 13 in total, followed by interviews with each participant. Experience of the respondents' ranged from 15 to 25 years in the construction projects. The responses provided by the respondents were helpful in refining and improving the questionnaire for conducting full scale survey. The results of the pilot surveys were also included in the data analysis as well. Saunders et. al. (2003) suggested that the questionnaire was also thoroughly discussed with colleagues and friends to pick any error and obtain the face validity of a questionnaire. After that, the questionnaire was refined and ready for carrying out a full scale survey. In the next section, questionnaire layout is presented.

3.3.3.5 Layout of a Questionnaire

Shuwei (2009) suggested that the survey questionnaire should be clear, precise and attractive for the respondents to fill in and return it. In this research, the questionnaire was developed in easy and understandable form and also keeping in view the context of Pakistani construction industry environment. The questionnaire was attached with a covering letter (Appendix II and III), describing the main purpose of the study and ensuring the respondents that the information provided by them will not be quoted anywhere else other than the academic study.

The questionnaire was divided in two parts, and the part I consisted of respondent's general information. The part II is the main body of the questionnaire which was divided in to ten (09) sub parts. These sub parts were actually the grouping of behavioral variables (09) that was obtained earlier through literature review. List of these behavioural variables are listed in Table 3.1.

Table 3.1: Behavioural Factors

Sr. No.	Behavioural Variables of Project Managers
1	Managing Emotions
2	Building Trust
3	Multicultural Awareness
4	Effective Communication
5	Motivating Others
6	Influencing Others
7	Leading Others
8	Team Building
9	Risk Management

In each of the above group, there are several key indicators contributing to the behaviour of project managers. So respondent from each stake holder category, client, consultant & contractor was desired to give input against each key indicator in the questionnaire (Appendix III).

3.3.4 Data Collection

3.3.4.1 Full Scale Survey

Bell (2005) argued that delivering questionnaires to respondents by hand have distinct advantages: respondents can get a better understanding of the research purpose, questionnaires can be filled through face to face communication, any difficulty in the questionnaires can be sorted out easily and high response rate can be obtained. Therefore, projects sites in Islamabad, Rawalpindi, Kashmir regions, plus the accessible projects of various provinces were visited and delivered questionnaires

to the client, consultant and contractor's representatives and some questionnaires were delivered via e-mail.

The location of various projects from where questionnaire was filled is shown in the Figure 3.3.

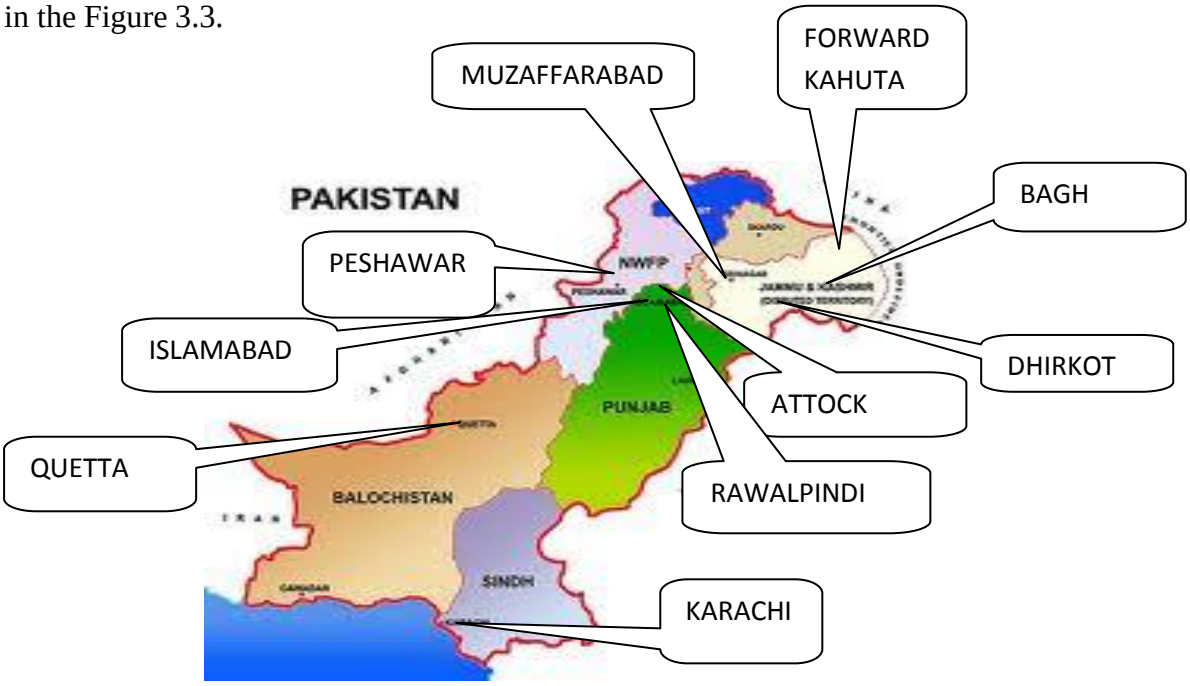

Figure 3.3: Research survey Location Map

3.3.5 Strategy for Data Analysis

The survey data collected for this research was an ordinal one and used a Likert scale; Cronbach's Alpha coefficient method was used to check the reliability of the collected data. Further the formula of Relative Importance Index (RII) was used to rank the variables for each stake holder. Overall ranking of categories of causes was also determined. The Rank Agreement Factor (RAF) and Percentage Agreement (PA) were further used to see the percentage of disagreement and agreement between the three stake holders regarding ranking of nine (09) behaviour variables of project managers. The analysis and results are presented in Chapter Four.

Chapter 4

RESULTS AND DISCUSSION

4.1 INTRODUCTION

In this chapter, detailed analysis of the collected data is presented. For this purpose, Statistical Package for the Social Sciences (SPSS) software, Ver. 19.0, was used. In this research, the client, consultant and contractor, all the three key stake holders gave their perceptions about behavioural characteristics. Different statistical tests such as reliability and descriptive statistics (mean, frequency etc.) calculation of Relative Importance Index (RII) for ranking of factors and percentage agreement between three stake holders was done in order to obtain the overall ranking of variables.

4.2 DEFINING VARIABLES

To conduct statistical analysis on SPSS software, behavioural factors extracted from the past literature review were grouped and abbreviated for contractor, client and consultant.

4.2.1 Grouping of the Behavioural Factors

To conduct the reliability test using SPSS software, each variable is first given a unique code. The behavioural factors extracted from literatures with their respective codes are shown in Table 4.1.

Table 4.1: Major Grouping of Behavioural Factors

Serial	Behavioural Factor	Code
1	Managing Emotions	ME
2	Building Trust	BT
3	Multicultural Awareness	MA
4	Effective Communication	EC

Serial	Delay Factor	Code
5	Motivating Others	MO
6	Influencing Others	IO
7	Leading Others	LO
8	Team Building	TB
9	Conflict Management	CM

4.2.2 Sub-Factors Representing Each Behavioural Factor

The major factors were further supported by sub factors which are indicated in tabulated list, along with the specific codes to be used in the reliability test in SPSS software. The sub factors along with its codes are shown in Table 4.2.

Table 4.2: Managing Emotions (ME) Factors

Serial	Sub-Factors	Code
1	Project manager's focus on work	ME1
2	Project manager's personnel issues at home	ME2
3	Project manager's relation with site staff	ME3
4	Project manager's relation with Sub contractors/Suppliers	ME4
5	Project manager's relation with Head Office	ME5
6	Project manager's relation with Client/Consultant	ME6
7	Client/Consultant representatives behaviour	ME7
8	Work Load on project manager	ME8
9	Duty timings on the project	ME9
10	Showing concern for sub ordinates	ME10
11	Unforeseen/Unanticipated hurdles	ME11
12	Size of Project	ME12

Serial	Sub-Factors	Code
13	Financial Stability of project manager	ME13

The sub factors of Building Trust along with its codes are listed in Table 4.3.

Table 4.3: Building Trust (BT) Factors

Serial	Sub-Factors	Code
1	Spying on staff to gather information	BT1
2	Project manager taking stand for staff	BT2
3	Level of authority empowered by head office	BT3
4	Support by Head office	BT4
5	Number of projects completed with the organization	BT5
6	Level of involvement in issues	BT6
7	Availability of information of issues/problems	BT7
8	Size of Company	BT8
9	Play acting with staff/ subcontractors/suppliers	BT9
10	Show open concern	BT10

The sub factors of Multicultural Awareness along with its codes are listed in Table 4.4.

Table 4.4: Multicultural Awareness (MA) Factors

Serial	Sub-Factors	Code
1	Working Experience in different localities	MA1
2	Self Awareness of surrounding areas	MA2
3	Communication skills with stakeholders	MA3
4	Interpersonnel skills of the project manager	MA4
5	Ability to speak different languages	MA5

Serial	Sub-Factors	Code
6	Project manager belonging from local area	MA6
7	Respecting others religious beliefs	MA7
8	Awareness of cultural differences of other team members	MA8

The sub factors of Effective Communication along with its codes are listed in Table 4.5.

Table 4.5: Effective Communication (EC) Factors

Serial	Sub-Factors	Code
1	Involving others before making decisions	EC1
2	Working period with staff/ subcontractors/suppliers	EC2
3	Organization's developed standard operating procedure for effective communication	EC3
4	Working period with the organization	EC4
5	Regarding Organization Chart	EC5
6	Type of Project (Building, Flyover, Roads etc.)	EC6
7	Attitude of Client/Consultant	EC7

The sub factors of Motivating Others along with its codes are listed in Table 4.6.

Table 4.6: Motivating Others (MO) Factors

Serial	Sub-Factors	Code
1	Freedom to express to others	MO1
2	Confidence Level of Project Manager	MO2
3	Experience/Age/Previous work place environment of Project manager	MO3
4	Nature/Attitude/Professional upbringing of project manager	MO4
5	Confidence building talks/meetings with staff	MO5

Serial	Sub-Factors	Code
6	Level of authority empowered to sub-ordinates	MO6
7	Off duty hour talks with sub ordinates	MO7

The sub factors of Influencing Others along with its codes are listed in Table 4.7.

Table 4.7: Influencing Others (IO) Factors

Serial	Sub-Factors	Code
1	Working hours on project of project manager	IO1
2	Activities (dealing with client/consultant, site management, procurement etc.) in which Project manager is directly involved	IO2
3	Making realize the importance of each individual on a project	IO3
4	Quick decision making ability of project manager	IO4
5	Respecting opinions of sub-ordinates	IO5

The sub factors of Leading Others along with its codes are listed in Table 4.8.

Table 4.8: Leading Others (LO) Factors

Serial	Sub-Factors	Code
1	Rewards given by project manager	LO1
2	Confidence on sub-ordinates	LO2
3	Work load/duty timing of Project manager	LO3
4	Risks handling ability of project manager	LO4
5	Self awareness/knowledge of work	LO5
6	Technical Proficiency	LO6
7	Communication skills with staff	LO7

The sub factors of Team Building along with its codes are listed in Table 4.9.

Table 4.9: Team Building (TB) Factors

Serial	Sub-Factors	Code
1	Working years of project manager	TB1
2	Confidence of project manager on team members	TB2
3	Past working experience with staff	TB3
4	Appreciating good work of sub ordinates	TB4
5	Level of commitment by project manager	TB5
6	Giving relaxations to Staff	TB6
7	Compliance of tasks	TB7
8	Focus on Goals	TB8

The sub factors of Conflict Management along with its codes are listed in Table 4.10.

Table 4.10: Conflict Management (CM) Factors

Serial	Sub-Factors	Code
1	Ability to Handle Pressure	CM1
2	Involvement of seniors in resolving conflicts	CM2
3	Support from Head Office	CM3
4	Tolerant and compromising	CM4
5	Locality of project	CM5

Before carrying out calculations of Relative Importance Index (RII) and Mutual Agreement Percentage Analysis of all three stake holders, it is strongly recommended to assess the reliability of the collected data.

4.3 RELIABILITY ANALYSIS

Repeating any measurement that produces the same result is considered a reliable measurement (Gaur & Gaur 2009). Leech et. al. (2005) argued that the reliability test is done to check whether each item in the scale is free from error of measurement. Hinton et. al. (2004) have also defined reliability as a questionnaire tested to study any topic at different times and across different populations, if produces same results, the questionnaire is a 'reliable one'.

There are many methods to assess the reliability. Test-retest method is used to ideally measure the reliability. According to this method, the measurement is done on the same object twice and comparing the results. If the results are identical, the measurement is reliable.

In SPSS software, widely used methods for evaluating reliability are Cohen's Kappa Coefficient for categorical data and Cronbach's Alpha for continuous data (Likert-scale type items). However, Cronbach's Alpha is most popular method (Hinton et. al. 2004 and Leech et. al. 2005). Cronbach's Alpha value range from 0 as un-reliable to 1 as reliable with 0.75 being considered the most sensible value. Hinton et. al. (2004) and Leech et. al. (2005) have also provided a guide line to assess the reliability of any data as shown in the Table 4.11.

Table 4.11: Guideline for Assessing Reliability Results

a.	0.9 & above	Excellent reliability	**b.**	0.7 to 0.9	High reliability
c.	0.5 to 0.7	Moderate reliability	**d.**	0.5 and below	Low reliability

In reliability analysis, un-dimensionality i.e. correlation of each item with the total scale can be checked as well. De Vaus (2002) and Hinton et. al. (2004) argued that if the item-to scale coefficient is below 0.3, the item should be removed. Since the data gathered was based on Likert-scale; therefore Cronbach's Alpha method was used to check the reliability in this research. The summary of the reliability analysis conducted on SPSS is presented in Table 4.12 and full results can be seen in the Appendix IV.

4.3.1 Behavioural Factors Data Reliability

After entering the data in the SPSS software, the data was checked for its reliability. The results for the Cronbach's Alpha values for behavioural factors for client, consultant and contractor are tabulated in the Table 4.12.

Table 4.12: Cronbach's Alpha for Behavioural Factors for Major Stake Holders

Serial	Delay Factor	Client	Consultant	Contractor
1	Managing Emotions	0.872	0.709	0.811
2	Building Trust	0.796	0.743	0.765
3	Multicultural Awareness	0.702	0.689	0.753
4	Effective Communication	0.586	0.714	0.724
5	Motivating Others	0.821	0.789	0.715
6	Influencing Others	0.862	0.523	0.559
7	Leading Others	0.763	0.708	0.694
8	Team Building	0.856	0.933	0.889
9	Conflict Management	0.588	0.623	0.682

According to the Table 4.12, Cronbach's Alpha values for all the major stake holders, Client, Contractor and consultant, all the values obtained were above 0.5, indicating that all the indicators in each group were retained basing on the reliability analysis.

4.4 DESCRIPTIVE ANALYSIS

Different construction projects were selected for this research all across Pakistan. Mostly, the projects from Twin Cities (Rawalpindi and Islamabad) along with the representative samples of all the Provinces and Kashmir were taken. Out of 109 valid questionnaires, forty three (43) were filled by contractor, thirty five (35) by client and thirty one (31) by consultants' representatives.

4.4.1 Type of the Projects

Almost all types of projects in the construction industry of Pakistan were included in the questionnaire survey. However, building projects were counted maximum in numbers. The summary of different types of projects considered for the survey is given in Table 4.13.

Table 4.13: Type of Projects

Type of Project	Number of Projects	Percentage
Buildings	33	75%
Flyovers	4	9.11%
Under Pass/Bridges	2	4.54%
Pipe Lines	2	4.54%
Miscellaneous	3	6.81%
Total	**44**	**100%**

A graphical representation of different types of projects shows that the maximum percentage of projects from where questionnaires were filled belongs to buildings project. Different percentages of projects visited are shown in Figure 4.1.

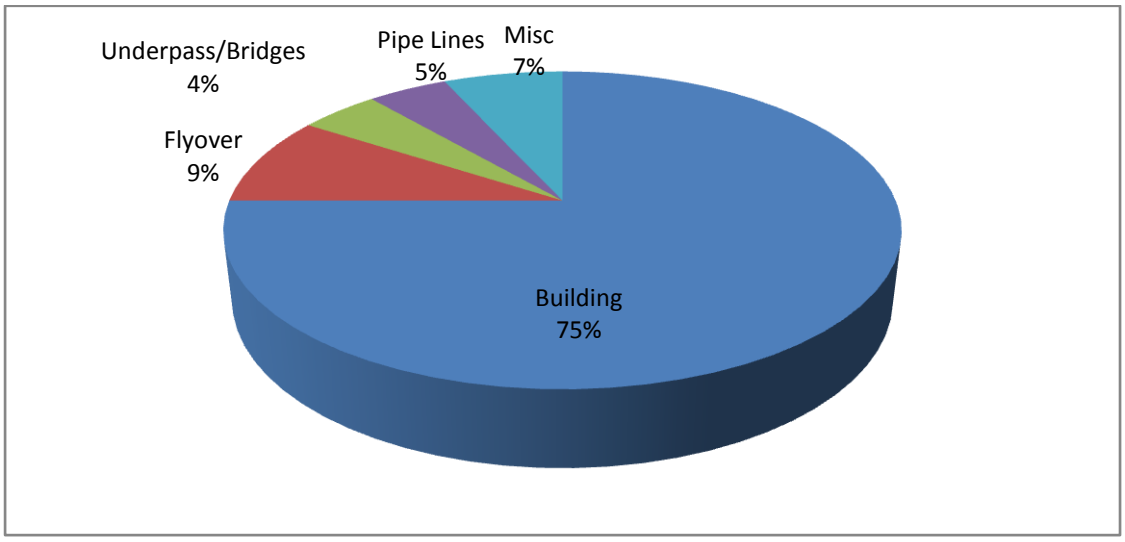

Figure 4.1: Percentage of Type of Projects

4.4.2 Type of the Respondents

All the three key stake holders i.e. client, consultant and contractors were consulted as part of field survey. This helped to ascertain the perspective of each stake holder regarding behavioural factors in the construction projects of Pakistan. The number and percentage of respondents is given in Table 4.14.

Table 4.14: Number and Percentage of Respondents

Type of Respondent	Client	Consultant	Contractor
Number of Respondents	35	31	43
Percentage of Total Respondents	32.11%	28.44%	39.45%
Total Respondents	109		

A graphical representation of the percentage of respondents i.e., client, consultant and the contractor is shown in the figure 4.2, which indicates that the maximum respondents belonged from the contractors' side.

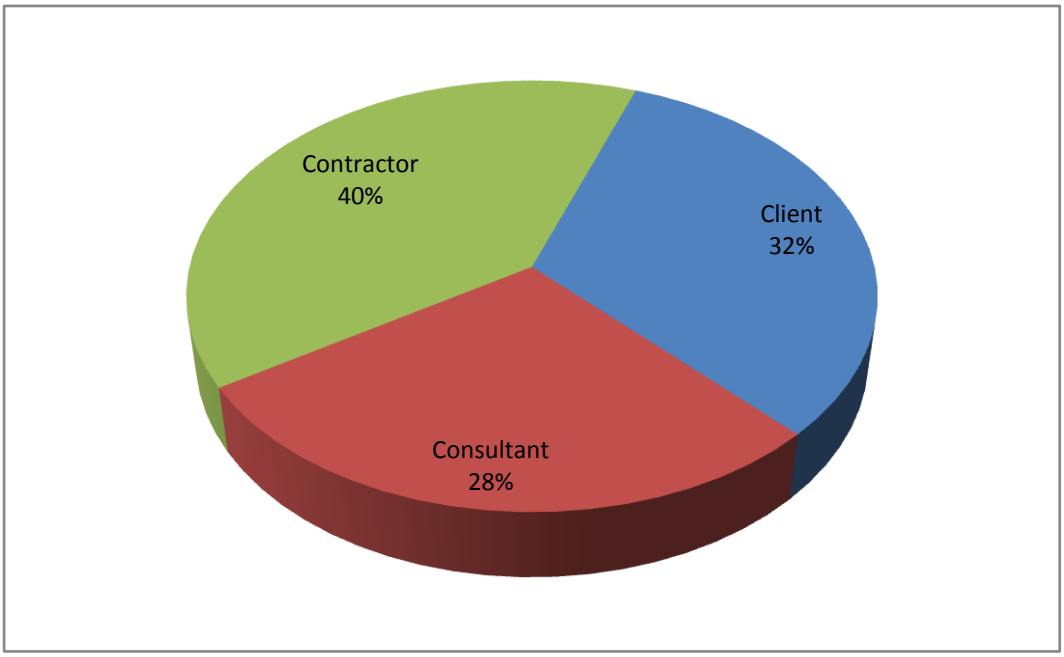

Figure 4.2: Percentage of Respondents

The data collected through the survey questionnaire from all the stake holders also presented the qualification of each respondent. The respondents belonged from different qualification categories which are shown in Table 4.15.

Table 4.15: Number of Respondents in Different Qualification Categories

Qualification	Client	Consultant	Contractor
Matriculation & Under	**0**	**0**	**5**
Diploma in Associate Engineering	8	7	14
B.Sc. (Engineering)	17	19	22
M.Sc. (Engineering)	9	4	2
Ph.D. (Engineering)	1	1	0
Total	**35**	**31**	**43**

A graphical representation of different percentages of respondents' qualification indicated that the maximum numbers of respondents from all three stake holders belonged from B.Sc. (Engineering) category. This is shown in Figure 4.3.

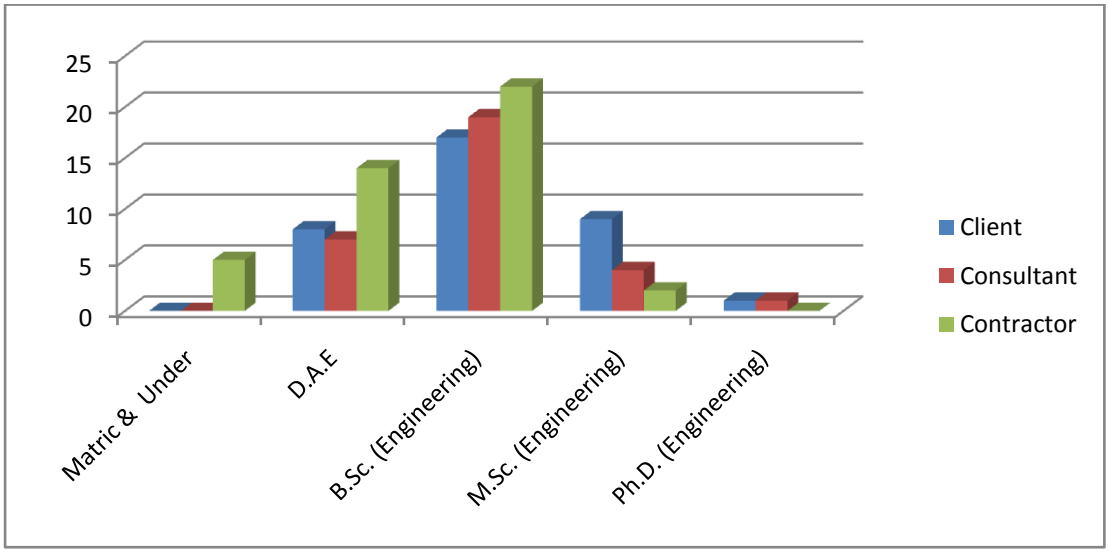

Figure 4.3: Number of Respondents in Different Qualification Categories

Similarly, the experience of all three stake holders was also extracted from the general information of the survey questionnaire. Different experience ranges of the respondents were categorized which is shown in Table 4.16.

Table 4.16: Number and Percentage of Respondents in Different Experience Categories

Category		Client	Consultant	Contractor	Total Number	Percentage
Experience (Years)	0 – 10	8	6	8	22	20.18%
	11 – 20	13	17	21	51	46.79%
	21 – 30	9	5	9	23	21.10%
	More than 30	5	3	5	13	12.12%

A graphical representation of the relationship between respondents and their experience in different construction projects indicate that the majority belongs from 11-20 years experience category, which is shown in Figure 4.4.

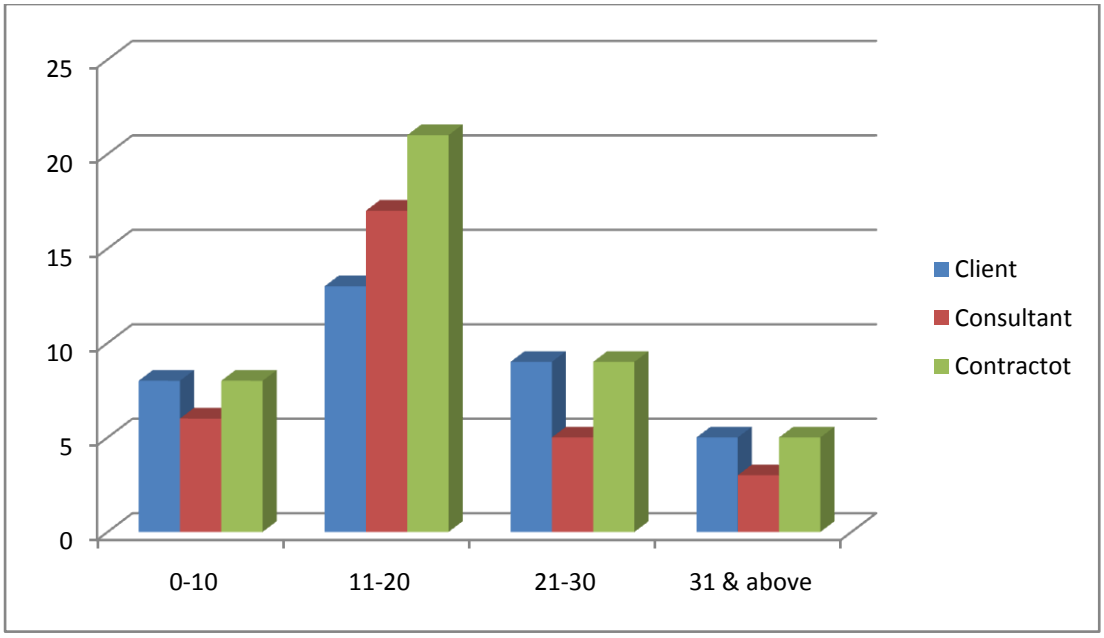

Figure 4.4: Number of Respondents in Different Experience Categories

4.4.3 Ranking of the Key Factors

For ranking the behavioural factors, descriptive statistics is applied using SPSS to rank using the mean scores, but then this ranking was further refined using Relative Importance Index (RII). The formula used for Relative Importance Index (RII) is as follows :

$$RII = \frac{\sum w}{A \times N} \quad \text{.....(4.1)}$$

Where,

w is the weighting as allocated by the respondent, ranging from 1 to 5, where 1 indicates extremely important and 5 indicates not important;

A is the maximum weight (5);

N is the total numbers in the sample.

The RII's corresponding to all the key stake holders, client, consultant and contractor for each category of behavioural factor computed as per the field survey of forty eight (48) sample projects is tabulated below in Table 4.17 :

Table 4.17: RII for each Behavioural Factor Category (All Key Stake Holders)

Behavioural Factor	Client	Rank	Contractor	Rank	Consultant	Rank
Managing Emotions	0.682	5	0.481	9	0.505	8
Building Trust	0.779	1	0.830	1	0.807	1
Multicultural Awareness	0.740	3	0.778	2	0.731	4
Effective Communication	0.528	8	0.552	8	0.550	7
Motivating Others	0.602	7	0.599	6	0.609	6
Influencing Others	0.770	2	0.754	4	0.739	3
Leading Others	0.710	4	0.763	3	0.746	2
Team Building	0672	6	0.703	5	0.697	5
Conflict Management	0.480	9	0.585	7	0.470	9

4.4.4 Rank Agreement Factors (RAF) & Percentage Agreement (PA)

Rank Agreement Factors (RAF) were next calculated with the help of the formula and method described by Okpala and Aniekwu (1988) to calculate the agreement among groups of project key stake holders, client, consultant and contractors. The RAF value 0 indicates perfect agreement while a higher value indicates disagreement. The percentage disagreement and percentage agreement are also calculated through formulae. Formulas related to these calculations are as under:

Absolute Difference = Di = | Ri1-Ri2| ……..…..(4.2)

Where,

Ri1 is the ranking of First Group;

Ri2 is the ranking of Second Group.

Maximum Absolute Difference = Dmax = | Rj1-Rj2|..……..….....(4.3)

Where,

Rj1 is the ranking;

Rj2 is the ranking with absolute maximum difference.

Rank Agreement Factor = RAF = ∑D/N …….……....…..…..(4.4)

Where,

D is the absolute difference;

N is the number of Categories.

$$\text{Percentage Disagreement} = \frac{PD}{RAFmax} = \frac{RAF}{Dmax/N} \text{ or } Di/N \quad \text{.....(4.5)}$$

Percentage Agreement = PA = 100% - PD..……..….....(4.6)

These above formulae were used to establish the percentage agreement between all the three key stake holders, i.e., client, consultant and contractor regarding ranking of major behavioural factors outlined using RII.

The results of percentage agreement between Client and Consultant are shown in the Table 4.18:

Table 4.18: Percentage Agreement (PA) between Client and Consultant

FACTOR NO.	FACTOR	RII		ABS	FOR MAX ABS DIFF		ABS
		CLIENT (Ri1)	CONSULTANT (Ri2)		Rj1	Rj2	
1	ME	5	8	3	5	5	0
2	BT	1	1	0	1	9	8
3	MA	3	4	1	3	7	4
4	EC	8	7	1	8	2	6
5	MO	7	6	1	7	3	4
6	IO	2	3	1	2	8	6
7	LO	4	2	2	4	6	2
8	TB	6	5	1	6	4	2
9	CM	9	9	0	9	1	8
			Di=	**10**	**Dmax=**		**40**

Di/N = 1.11 Dmax/N = 4.44

Percentage Disagreement = 25 % Percentage Agreement = 75 %

Using the rank agreement factor and percentage agreement equations, the results obtained show that the percentage agreement between the client and the consultant is 75% where as percentage disagreement is only 25%.

The results of percentage agreement between Consultant and Contractor are shown in the Table 4.19:

Table 4.19: Percentage Agreement (PA) between Consultant and Contractor

FACTOR NO.	FACTOR	RII		ABS	FOR MAX ABS DIFF		ABS
		CONSULTANT (Ri1)	CONTRACTOR (Ri2)		Rj1	Rj2	
1	ME	8	9	1	8	2	6
2	BT	1	1	0	1	9	8
3	MA	4	2	2	4	6	2
4	EC	7	8	1	7	3	4
5	MO	6	6	0	6	4	2
6	IO	3	4	1	3	7	4
7	LO	2	3	1	2	8	6
8	TB	5	5	0	5	5	0
9	CM	9	7	2	9	1	8
			Di=	**8**	**Dmax=**		**40**

Di/N = 0.890 Dmax/N = 4.440

Percentage Disagreement = 20 % Percentage Agreement = 80 %

Using the rank agreement factor and percentage agreement equations, the results obtained show that the percentage agreement between the consultant and the contractor is 80% and disagreement percentage is only 20%.

The results of percentage agreement between Client and Contractor are shown in the Table 4.20:

Table 4.20: Percentage Agreement (PA) between Client and Contractor

FACTOR NO.	FACTOR	RII		ABS	FOR MAX ABS DIFF		ABS
		CLIENT (Ri1)	CONTRACTOR (Ri2)		Rj1	Rj2	
1	ME	5	9	4	5	5	12
2	BT	1	1	0	1	9	10
3	MA	3	2	1	3	7	8
4	EC	8	8	0	8	2	6
5	MO	7	6	1	7	3	4
6	IO	2	4	2	2	8	2
7	LO	4	3	1	4	6	0
8	TB	6	5	1	6	4	2
9	CM	9	7	2	9	1	4
			Di=	**12**	**Dmax=**		**40**

Di/N = 1.33 Dmax/N = 4.440

Percentage Disagreement = 30 % Percentage Agreement = 70 %

Using the rank agreement factor and percentage agreement equations, the results obtained show that the percentage agreement between the client and the contractor is 70% and disagreement percentage is only 30%. The overall results of Percentage Agreement (PA) between all the three key stake holders, client, consultant and contractor, are plotted as shown in Figure 4.5.

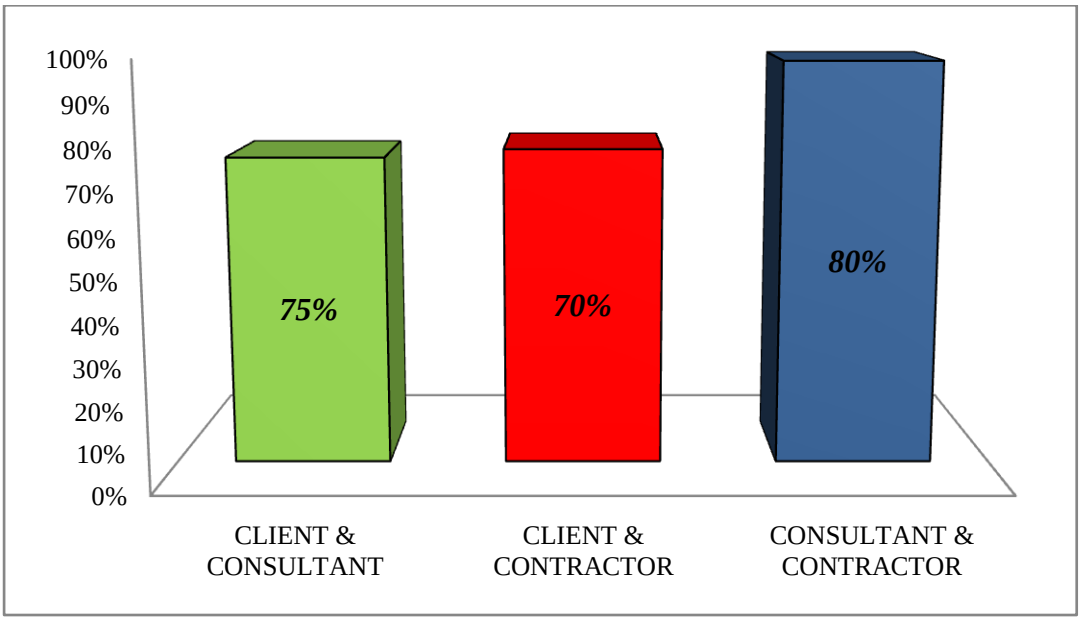

Figure 4.5: Percentage Agreement (PA) between Key Stake Holders

After obtaining the Percentage Agreement (PA) between all the three key stake holders opinion about Behavioural Factors it was observed that there was maximum (80%) agreement between Consultant and Contractor. The Percentage Agreement (PA) between Client and Contractor was (70%) and between Client and Consultant it was (75%). This implies that the results obtained from RII for ranking of each category of behavioural factor for each key stake holder holds good percentages of mutual agreement between each other. Basing on these results, the overall ranking of Behavioural factors was obtained which is outlined in Table 4.21.

Table 4.21: Over All Ranking

Behavioural Factors	Over All RII	Over All Ranking
Managing Emotions	0.558	**7**
Building Trust	0.808	**1**
Multicultural Awareness	0.750	**3**
Effective Communication	0.544	**8**
Motivating Others	0.603	**6**
Influencing Others	0.755	**2**
Leading Others	0.724	**4**
Team Building	0.650	**5**
Conflict Management	0.512	**9**

4.5 SUMMARY

In this chapter, detailed statistical analysis has been presented. The analysis carried out includes: reliability test, descriptive statistics, relative importance RII, rank agreement factor (RAF) and percentage Agreement (PA) thus presenting a final ranking of behavioural factors in Construction Industry of Pakistan. Significant Key Indicator in each factor is also ascertained. In the next chapter, the conclusions and recommendations are made based on results of the data analysis.

Chapter 5

CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

There were three objectives of the research study. The first objective was to ascertain the behavioural factors of project managers, which was done through the literature review. The behavioural factors of project managers are listed below:

1. Managing Emotions
2. Building Trust
3. Multicultural Awareness
4. Effective Communication
5. Motivating Others
6. Influencing Others
7. Leading Others
8. Team Building
9. Conflict Management

The second objective of the research study was to find out the ranking of the behavioural factors with perspective of all three key stake holders i.e., client, consultant and contractor, and the overall ranking. The overall ranking of the behavioural factors of the project managers were determined as:

1. Building Trust
2. Influencing Others
3. Multicultural Awareness
4. Leading Others
5. Team Building
6. Motivating Others
7. Managing Emotions
8. Effective Communication
9. Conflict Management

Further study of top three ranking categories was conducted in order to assess the most important factors in these categories. These factors are given in Table 5.1.

Table 5.1: Most Important Factors Based on Overall Ranking

FACTORS	SUB-FACTORS	RANKING
Building Trust	Number of projects completed with the organization	**1**
	Show open concern	**2**
	Taking stand for staff	**6**
Influencing Others	Making realize the importance of each individual on a project	**3**
	Respecting opinions of sub-ordinates	**4**
Multicultural Awareness	Adopting other people cultural behaviour	**5**
	Awareness of cultural difference of other team members	**7**

The third objective of the study was to make some recommendations based on the findings of the research to improve the efficiency of the project managers. These recommendations are listed in the following section.

5.2 RECOMMENDATIONS

Some recommendations are enlisted below based on the research findings and conclusions. These will help to enhance the efficiency of project managers:

1. Building Trust is at the top of the ranking of the behavioural factors.
    - The project managers are more comfortable with teams which they have worked with rather than new teams.
    - Project managers need to show open apprehension for all.
    - Acknowledge team members for what they are.
    - Authorize team members more and in return ask them to take more responsibilities.
    - Project managers need to be indisputable and be open and genuine with subordinates.
2. Influencing Others is second on the list.
    - Convince and influence others to support the agenda of the project manager and to have a specific impact or outcome on the project.

- Project managers need to influence team members by giving them the benefits.
- Influence team members and promote to others so that they influence other people to help them build up better.
- Share with team members how it feels to work in a highly-respected team and have consideration for opinions of others.

3. Multicultural awareness is at number three in ranking.
    - Build up, show and apply awareness about the cultural dissimilarities of other project associates.
    - Project managers need to show consideration and understanding of the ethics and values of other team members' cultures.
    - Consider other team members own city or province behaviours suitable to situations when dealing people from various societies and cultures.

5.3 FUTURE DIRECTIONS

The scope of this study was to enlist and rank the behvioural factors of the project managers. For future study, it is recommended that the financial stability of the projects should be incorporated with the behaviour of the project managers for better understanding of the managers.

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APPENDIX I LIST OF PROJECTS

SR. No.	*TITLE OF THE PROJECT*
1.	JORDON EMBASSY, ISLAMABAD
2.	KARAKORAM DIPLOMATIC ENCLAVE RESIDENTIAL APARTMENT AT SECTOR G-5 MARKAZ, ISLAMABAD
3.	CONSTRUCTION OF FAO BUILDING, ISLAMABAD
4.	NATIONAL BANK BUILDING, SECTOR G-5, ISLAMABAD
5.	CONSTRUCTION OF METRO BUS SYSTEM ALONG FEROZEPUR ROAD, LAHORE
6.	AJKC LODGES BUILDING, SECTOR F-5, ISLAMABAD
7.	AIR TRAFFIC CONTROL TOWER, NEW AIRPORT, JATEH JUNG
8.	6^{TH} ROAD CHOWK FLYOVER, RAWALPINDI
9.	NEW PAKISTAN SECRETARIAT BUILDING, G-5, ISLAMABAD
10.	NESPAK HOUSE BUILDING, ISLAMABAD
11.	DHQ HOSPITAL, BAGH, AJK
12.	RAWALPINDI INSTITUE OF UROLOGY, RAWALPINDI
13.	AIMS HOSPITAL, MUZFFARABAD, AJK
14.	CHANDNI CHOWK FYOVER, RAWALPINDI
15.	RAWALPINDI INSTITUE OF CARDIALOGY, RAWALPINDI
16.	NEELUM JHELUM HYDRO POWER PROJECT, CHATTAR CLASS, AJK
17.	PIPS BUILDING, ISLAMABAD
18.	MARI GAS & PETROLEUM OFFICE BUILDING, SECTOR G-10, ISLAMABAD
19.	AKLASC COMMERCIAL PLAZA, SECTOR G-10, ISLAMABAD
20.	DHQ HOSPITAL, FORWARD KAHUTA, AJK
21.	WIDENING OFMAREER CHOWK & OVER HEAD BRIDGE, RAWALPINDI
22.	COMMERCIAL PLAZA, MUZAFFARABAD, AJK
23.	NALUCHI BRIDGE, MUZAFFARABAD, AJK
24.	PRIME MINISTER HOUSE, MUZAFFARABAD, AJK
25.	MH HOSPITAL, RAWALPINDI
26.	GOLDCREST TOWER, DHA-II, ISLAMABAD
27.	INSTALLATION OF WATER METERS, PHE, KPK
28.	MULTIPLE CINEPLEX, I-8, ISLAMABAD
29.	FIRE, CRASH & RESCUE BUILDING, NEW AIRPORT, FATEH JUNG
30.	FORIGN SERVICES ACADEMY, F 5, ISLAMABAD
31.	LAYING OF 50” DIA MS LINE, FFC, KARACHI
32.	BALOCHISTAN PUBLIC SERVICE COMMISION OFFICE BUILDING, QUETTA, BALOCHISTAN
33.	INDIAN EMBASSY, ISLAMABAD
34.	PIRWADHAI FLYOVER AND UNDERPASS, RAWALPINDI
35.	CENTAURUS, ISLAMABAD
36.	TERMINAL BUILDING, NEW AIRPORT, FATEH JUNG

37.	FFCL TOWER, RAWALPINDI
38.	AJKC OFFICE-CUM-PARLIAMENTARY BUILDING, F-5, ISLAMABAD
39.	MINISTRY OF SCIENCE & TECHNOLOGY OFFICE BUILDING, ISLAMABAD
40.	GRAND HYATT HOTEL, ISLAMABAD
41.	DHQ HOSTIPAL, DHIRKOT, DIST. BAGH, AJK
42.	WIDENING OF KASHMIR HIGHWAY, ISLAMABAD

APPENDIX II COVERING LETTER FOR QUESTIONNAIRE

SCHOOL OF CIVIL & ENVIRONMENTAL ENGINEERING (SCEE)

Dear Sir,

The importance of project management plays in today's and tomorrow's changing working environments and working practices has increased quite dramatically. Project managers need to be skilled at influencing people whether it is in motivating the project team, controlling sub-contractors, persuading stakeholders to support the project or resolving a conflict.

In partial fulfillment of the requirements for the degree of Master of Science in Construction, Engineering & Management from NUST, H-12, Islamabad, the undersigned intends to enlist and rank the behavioural factors of the project manager for building construction in Pakistan. As a representative of the client/consultant/contractor, you are kindly requested to take few minutes from your valuable time to add your input to identify the behavioural variables of project manager.

All the information provided in this regard will only be used for academic purposes and kept confidential.

Thanking you for your support and cooperation in advance.

Yours Sincerely,

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APPENDIX III SURVEY QUESTIONNAIRE

MS RESEARCH THESIS QUESTIONNAIRE

Behaviour of Project Managers and their Impacts on Project Performance

General Information (will not be published)	
Name	
Qualification	
Experience in Construction Industry (Years)	
Name of Organization / Department / Firm / Company	
Designation	
Type of job (Contractor / Client / Consultant / Architect)	

Degree of Importance 1 = Extremely Important 2 = Very Important 3 = Moderately Important 4 = Slightly Important 5 = Not Important

I-Managing Emotions

Sr. No.	Behaviour of PM & its impacts	Degree of Importance				
		1	2	3	4	5
1	Project manager's focus on work					
2	Project manager's personnel issues at home					
3	Project manager's relation with site staff					
4	Project manager's relation with Sub contractors/Suppliers					
5	Project manager's relation with Head Office					
6	Project manager's relation with Client/Consultant					
7	Client/Consultant representatives behaviour					
8	Work Load on project manager					
9	Duty timings on the project					
10	Showing concern for sub ordinates					
11	Unforeseen/Unanticipated hurdles					
12	Size of Project					
13	Financial Stability of project manager					

II-Building Trust

Sr. No.	Behaviour of PM & its impacts	Degree of Importance				
		1	2	3	4	5
1	Spying on staff to gather information					
2	Project manager taking stand for staff					
3	Level of authority empowered by head office					
4	Support by Head office					
5	Number of projects completed with the organization					
6	Level of involvement in issues					
7	Availability of information of issues/problems					

Sr. No.	Behaviour of PM & its impacts	Degree of Importance				
8	Size of Company					
9	Play acting with staff/ subcontractors/suppliers					
10	Show open concern					

III-Multicultural Awareness

Sr. No.	Behaviour of PM & its impacts	Degree of Importance				
		1	2	3	4	5
1	Working Experience in different localities					
2	Self Awareness of surrounding areas					
3	Communication skills with stakeholders					
4	Interpersonnel skills of the project manager					
5	Ability to speak different languages					
6	Project manager belonging from local area					
7	Respecting others religious beliefs					
8	Awareness of cultural differences of other team members					

IV-Effective Communication

Sr. No.	Behaviour of PM & its impacts	Degree of Importance				
		1	2	3	4	5
1	Involving others before making decisions					
2	Working period with staff/ subcontractors/suppliers					
3	Organization's developed standard operating procedure for effective communication					
4	Working period with the organization					
5	Regarding Organization Chart					
6	Type of Project (Building, Flyover, Roads etc.)					
7	Attitude of Client/Consultant					

V-Motivating Others

Sr. No.	Behaviour of PM & its impacts	Degree of Importance				
		1	2	3	4	5
1	Freedom to express to others					
2	Confidence Level of Project Manager					
3	Experience/Age/Previous work place environment of Project manager					
4	Nature/Attitude/Professional upbringing of project manager					
5	Confidence building talks/meetings with staff					
6	Level of authority empowered to sub-ordinates					

Sr. No.	Behaviour of PM & its impacts	Degree of Importance				
7	Off duty hour talks with sub ordinates					

VI-Influencing Others

Sr. No.	Behaviour of PM & its impacts	Degree of Importance				
		1	2	3	4	5
1	Working hours on project of project manager					
2	Activities (dealing with client/consultant, site management, procurement etc.) in which Project manager is directly involved					
3	Making realize the importance of each individual on a project					
4	Quick decision making ability of project manager					
5	Respecting opinions of sub-ordinates					

VII-Leading Others

Sr. No.	Behaviour of PM & its impacts	Degree of Importance				
		1	2	3	4	5
1	Rewards given by project manager					
2	Confidence on sub-ordinates					
3	Work load/duty timing of Project manager					
4	Risks handling ability of project manager					
5	Self awareness/knowledge of work					
6	Technical Proficiency					
7	Communication skills with staff					

VIII-Team Building

Sr. No.	Behaviour of PM & its impacts	Degree of Importance				
		1	2	3	4	5
1	Working years of project manager					
2	Confidence of project manager on team members					
3	Past working experience with staff					
4	Appreciating good work of sub ordinates					
5	Level of commitment by project manager					
6	Giving relaxations to Staff					
7	Compliance of tasks					
	Focus on Goals					

IX-Conflict Management

Sr. No.	Behaviour of PM & its impacts	Degree of Importance				
		1	2	3	4	5
1	Ability to Handle Pressure					
2	Involvement of seniors in resolving conflicts					
3	Support from Head Office					
4	Tolerant and compromising					
5	Locality of project					

Comments (If Any):

_____

_____

APPENDIX IV RELIABILITY ANALYSIS IN SPSS VER.19.0

Reliability Analysis - CLIENT

Case Processing Summary

		N	%
Cases	Valid	35	100.0
	Excluded	0	.0
	Total	35	100.0

FACTOR 1

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.876	.863	13

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
ME - Project manager's focus on work	24.45833	35.743	.560	.754	.853
ME - Project manager's personnel issues at home	24.47917	35.617	.618	.951	.842
ME - Project manager's relation with site staff	23.83333	32.865	.625	.808	.847

ME - Project manager's relation with Sub contractors/Suppliers	23.75000	35.170	.480	.841	.857
ME - Project manager's relation with Head Office	24.47917	37.957	.497	.895	.852
ME - Project manager's relation with Client/Consultant	24.60417	34.715	.741	.958	.837
ME - Client/Consultant representatives behaviour	24.45833	34.986	.532	.785	.851
ME - Work Load on project manager	24.47917	38.085	.587	.654	.853
ME - Duty timings on the project	24.54167	34.509	.711	.929	.838
ME - Weather Conditions of the project vicinity	23.50000	35.787	.348	.789	.873
ME - Unforeseen/Unanticipated hurdles	24.70833	34.921	.716	.786	.840
ME - Size of Project	24.45833	35.998	.532	.785	.855
ME - Financial stability of project manager	24.47917	39.085	.687	.754	.851

FACTOR 2

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.796	.726	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
BT - Relation with staff/ subcontractors/suppliers in building trust	17.1892	21.690	.388	.213	.758

BT - Project manager taking stand for staff	16.6622	18.117	.689	.567	.685
BT - Level of authority empowered by head office	16.9865	18.315	.557	.338	.722
BT - Support by Head office	16.4730	18.143	.635	.516	.699
BT - Number of projects completed with the organization	16.3784	25.225	.280	.143	.770
BT - Level of involvement in issues	16.5541	23.867	.452	.445	.747
BT - Availability of information of issues/problems	16.5946	23.587	.448	.429	.746
BT - Size of Company	17.1892	21.690	.388	.213	.758
BT - Play acting with staff/ subcontractors/suppliers	16.6622	18.117	.689	.567	.685
BT - Spying on staff to gather information	16.9865	18.315	.557	.338	.722

FACTOR 3

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.702	.689	8

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
MA - Working Experience in different localities	18.7714	23.534	-.039	.267	.781
MA - Self Awareness of surrounding areas	18.5714	15.782	.756	.966	.574

MA - Communication skills with stakeholders	18.1714	17.087	.659	.783	.606
MA - Interpersonnel skills of the project manager	18.1429	21.361	.452	.333	.671
MA - Ability to speak different languages	18.5714	16.017	.727	.965	.583
MA - Project manager belonging from local area	18.4286	16.840	.698	.873	.597
MA - Respecting others religious beliefs	18.8857	23.634	.030	.240	.739
MA - Cultural awareness discussions/meetings	19.6571	24.173	.007	.109	.733

FACTOR 4

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.586	.646	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
EC - Relation with staff/ subcontractors/suppliers for effective communication	21.8857	11.987	.619	.842	.411
EC - Working period with staff/ subcontractors/suppliers	23.4000	30.306	-.882	.870	.891
EC - Organization's developed standard operating procedure for effective communication	21.8571	12.773	.788	.731	.391
EC - Working period with the organization	21.8286	11.087	.806	.777	.330
EC - Regarding Organization Chart	22.1714	11.382	.670	.739	.380

EC - Type of Project (Building, Flyover, Roads etc.)	21.8286	11.558	.802	.830	.347
EC - Attitude of Client/Consultant	21.3143	16.516	.360	.189	.545

FACTOR 5

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.821	.814	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
MO - Freedom to express to others	18.1429	27.067	.398	.229	.822
MO - Confidence Level of Project Manager	17.8571	25.479	.596	.565	.795
MO - Experience/Age/Previous work place environment of Project manager	17.7429	27.667	.338	.469	.830
MO - Nature/Attitude/Professional upbringing of project manager	17.8857	21.281	.727	.700	.766
MO - Confidence building talks/meetings with staff	17.8857	21.104	.778	.743	.756
MO - Level of authority empowered to sub-ordinates	18.0286	25.911	.470	.406	.812
MO - Respecting organizational chart	18.1143	22.810	.636	.599	.785

FACTOR 6

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.862	.852	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
IO - Working hours on project of project manager	17.4211	36.480	.771	.916	.821
IO - Activities (dealing with client/consultant, site management, procurement etc.) in which Project manager is directly involved	17.3158	35.784	.839	.821	.810
IO - Project manager staying excited & energized	17.4211	39.146	.632	.647	.843
IO - Quick decision making ability of project manager	17.3684	39.468	.713	.666	.831
IO - Respecting opinions of sub-ordinates	17.8421	54.140	-.058	.247	.902

FACTOR 7

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.763	.762	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
LO - Rewards given by project manager	16.3429	24.173	.758	.805	.683
LO - Confidence on sub-ordinates	15.7714	27.182	.455	.327	.740
LO - Work load/duty timing of Project manager	15.9143	22.316	.727	.649	.676
LO - Risks handling ability of project manager	16.4000	23.718	.615	.746	.704
LO - Self awareness/knowledge of work	15.1429	32.832	-.049	.236	.834
LO - Technical Proficiency	15.5143	22.257	.666	.639	.689
LO - Communication skills with staff	16.5143	28.081	.325	.418	.765

FACTOR 8

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.856	.854	8

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
TB - Working years of project manager	20.2286	56.064	.473	.307	.852
TB - Confidence of project manager on team members	20.0000	48.765	.829	.779	.811
TB - Past working experience with staff	20.2286	49.064	.746	.601	.820
TB - Communicating with respect to organizational chart in good team building	20.1429	48.950	.702	.586	.825

TB - Level of commitment by project manager	20.1143	57.869	.376	.387	.862
TB - Giving relaxations to Staff	19.5143	55.551	.538	.358	.845
TB - Compliance of tasks	19.8571	53.420	.572	.391	.841
TB - Focus on Goals	19.9143	52.139	.558	.621	.844

FACTOR 9

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.588	.694	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
CM - Ability to Handle Pressure	14.7429	20.314	-.397	.240	.925
CM - Involvement of Seniors in resolving conflicts	14.4000	10.482	.720	.749	.345
CM - Support from Head Office	14.2857	9.151	.801	.790	.256
CM - Locality of project	14.4571	10.079	.603	.745	.377
CM - Relations with local authority	14.1143	10.398	.698	.682	.349

APPENDIX V FREQUENCY TABLE & MEAN IN SPSS VER.19.0

Frequency Table-Client

Case Processing Summary

		N	%
Cases	Valid	35	100.0
	Excluded	0	.0
	Total	35	100.0

Factor 1

ME - Project manager's focus on work

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	2	5.7	5.7	5.7
	Very Important	12	34.3	34.3	40.0
	Moderately Important	12	34.3	34.3	74.3
	Slightly Important	4	11.4	11.4	85.7
	Not Important	5	14.3	14.3	100.0
	Total	35	100.0	100.0	

ME - Project manager's personnel issues at home

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	6	17.1	17.1	17.1
	Moderately Important	6	17.1	17.1	34.3
	Slightly Important	20	57.1	57.1	91.4
	Not Important	3	8.6	8.6	100.0
	Total	35	100.0	100.0	

ME - Project manager's relation with site staff

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	2	5.7	5.7	5.7
	Very Important	8	22.9	22.9	28.6
	Moderately Important	15	42.9	42.9	71.4
	Slightly Important	8	22.9	22.9	94.3
	Not Important	2	5.7	5.7	100.0
	Total	35	100.0	100.0	

ME - Project manager's relation with Sub contractors/Suppliers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	5	14.3	14.3	14.3
	Very Important	21	60.0	60.0	74.3
	Moderately Important	5	14.3	14.3	88.6
	Slightly Important	2	5.7	5.7	94.3
	Not Important	2	5.7	5.7	100.0
	Total	35	100.0	100.0	

ME - Project manager's relation with Head Office

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	21	60.0	60.0	60.0
	Very Important	9	25.7	25.7	85.7
	Moderately Important	3	8.6	8.6	94.3
	Slightly Important	2	5.7	5.7	100.0
	Total	35	100.0	100.0	

ME - Project manager's relation with Client/Consultant

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	2	5.7	5.7	5.7
	Very Important	23	65.7	65.7	71.4
	Moderately Important	5	14.3	14.3	85.7

	Slightly Important	4	11.4	11.4	97.1
	Not Important	1	2.9	2.9	100.0
	Total	35	100.0	100.0	

ME - Client/Consultant representatives behaviour

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	2	5.7	5.7	5.7
	Very Important	5	14.3	14.3	20.0
	Moderately Important	16	45.7	45.7	65.7
	Slightly Important	11	31.4	31.4	97.1
	Not Important	1	2.9	2.9	100.0
	Total	35	100.0	100.0	

ME - Work Load on project manager

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	22	62.9	62.9	62.9
	Very Important	5	14.3	14.3	77.1
	Moderately Important	6	17.1	17.1	94.3
	Slightly Important	2	5.7	5.7	100.0
	Total	35	100.0	100.0	

ME - Duty timings on the project

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	8	22.9	22.9	22.9
	Moderately Important	24	68.6	68.6	91.4
	Slightly Important	3	8.6	8.6	100.0
	Total	35	100.0	100.0	

ME – Showing concern for sub-ordinates

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Extremely Important	20	57.1	57.1	57.1
	Very Important	12	34.3	34.3	91.4
	Moderately Important	3	8.6	8.6	100.0
	Total	35	100.0	100.0	

ME - Unforeseen/Unanticipated hurdles

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	2	5.7	5.7	5.7
	Very Important	2	5.7	5.7	11.4
	Moderately Important	10	28.6	28.6	40.0
	Slightly Important	3	8.6	8.6	48.6
	Not Important	18	51.4	51.4	100.0
	Total	35	100.0	100.0	

ME - Size of Project

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	21	60.0	60.0	60.0
	Very Important	9	25.7	25.7	85.7
	Moderately Important	4	11.4	11.4	97.1
	Slightly Important	1	2.9	2.9	100.0
	Total	35	100.0	100.0	

ME - Financial stability of project manager

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	3	8.6	8.6	8.6
	Moderately Important	24	68.6	68.6	77.1
	Slightly Important	5	14.3	14.3	91.4
	Not Important	3	8.6	8.6	100.0
	Total	35	100.0	100.0	

Factor 2

BT – Spying on staff to gather information

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	2	5.7	5.7	5.7
	Very Important	24	68.6	68.6	74.3
	Moderately Important	3	8.6	8.6	82.9
	Slightly Important	4	11.4	11.4	94.3
	Not Important	2	5.7	5.7	100.0
	Total	35	100.0	100.0	

BT - Project manager taking stand for staff

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	14	40.0	40.0	40.0
	Very Important	12	34.3	34.3	74.3
	Moderately Important	4	11.4	11.4	85.7
	Slightly Important	3	8.6	8.6	94.3
	Not Important	2	5.7	5.7	100.0
	Total	35	100.0	100.0	

BT - Level of authority empowered by head office

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	14	40.0	40.0	40.0
	Very Important	13	37.1	37.1	77.1
	Moderately Important	1	2.9	2.9	80.0
	Slightly Important	4	11.4	11.4	91.4
	Not Important	3	8.6	8.6	100.0
	Total	35	100.0	100.0	

BT - Support by Head office

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	11	31.4	31.4	31.4
	Very Important	15	42.9	42.9	74.3
	Not Important	9	25.7	25.7	100.0
	Total	35	100.0	100.0	

BT - Number of projects completed with the organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	23	65.7	65.7	65.7
	Very Important	9	25.7	25.7	91.4
	Slightly Important	1	2.9	2.9	94.3
	Not Important	2	5.7	5.7	100.0
	Total	35	100.0	100.0	

BT - Level of involvement in issues

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	18	51.4	51.4	51.4
	Very Important	13	37.1	37.1	88.6
	Moderately Important	2	5.7	5.7	94.3
	Slightly Important	1	2.9	2.9	97.1
	Not Important	1	2.9	2.9	100.0
	Total	35	100.0	100.0	

BT - Availability of information of issues/problems

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	10	28.6	28.6	28.6
	Very Important	23	65.7	65.7	94.3
	Slightly Important	2	5.7	5.7	100.0
	Total	35	100.0	100.0	

BT - Size of Company

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	15	42.9	42.9	42.9
	Very Important	12	34.3	34.3	77.1
	Moderately Important	5	14.3	14.3	91.4
	Slightly Important	3	8.6	8.6	100.0
	Total	35	100.0	100.0	

BT - Play acting with staff/ subcontractors/suppliers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	12	34.3	34.3	34.3
	Very Important	18	51.4	51.4	85.7
	Moderately Important	3	8.6	8.6	94.3
	Not Important	2	5.7	5.7	100.0
	Total	35	100.0	100.0	

BT – Show open concern

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	20	57.1	57.1	57.1
	Very Important	14	40.0	40.0	97.1
	Slightly Important	1	2.9	2.9	100.0
	Total	35	100.0	100.0	

Factor 3

MA - Working Experience in different localities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	9	25.7	25.7	25.7
	Very Important	13	37.1	37.1	62.9
	Slightly Important	11	31.4	31.4	94.3

	Not Important	2	5.7	5.7	100.0
	Total	35	100.0	100.0	

MA - Self Awareness of surrounding areas

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	6	17.1	17.1	17.1
	Very Important	9	25.7	25.7	42.9
	Moderately Important	13	37.1	37.1	80.0
	Slightly Important	2	5.7	5.7	85.7
	Not Important	5	14.3	14.3	100.0
	Total	35	100.0	100.0	

MA - Communication skills with stakeholders

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	20	57.1	57.1	57.1
	Very Important	8	22.9	22.9	80.0
	Moderately Important	7	20.0	20.0	100.0
	Total	35	100.0	100.0	

MA - Interpersonnel skills of the project manager

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	6	17.1	17.1	17.1
	Moderately Important	17	48.6	48.6	65.7
	Slightly Important	12	34.3	34.3	100.0
	Total	35	100.0	100.0	

MA - Ability to speak different languages

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	6	17.1	17.1	17.1
	Very Important	9	25.7	25.7	42.9

	Moderately Important	13	37.1	37.1	80.0
	Slightly Important	2	5.7	5.7	85.7
	Not Important	5	14.3	14.3	100.0
	Total	35	100.0	100.0	

MA – Adopting other people cultural behaviour

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	21	60.0	60.0	60.0
	Very Important	9	25.7	25.7	85.7
	Moderately Important	3	8.6	8.6	94.3
	Slightly Important	2	5.7	5.7	100.0
	Total	35	100.0	100.0	

MA - Respecting others religious beliefs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	8	22.9	22.9	22.9
	Very Important	7	20.0	20.0	42.9
	Moderately Important	17	48.6	48.6	91.4
	Slightly Important	3	8.6	8.6	100.0
	Total	35	100.0	100.0	

MA – Awareness of cultural difference of other team members

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	21	60.0	60.0	60.0
	Very Important	9	25.7	25.7	85.7
	Moderately Important	5	14.3	14.3	100.0
	Total	35	100.0	100.0	

Factor 4

EC – Involving others before making decision

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	2	5.7	5.7	5.7
	Very Important	6	17.1	17.1	22.9
	Moderately Important	2	5.7	5.7	28.6
	Slightly Important	11	31.4	31.4	60.0
	Not Important	14	40.0	40.0	100.0
	Total	35	100.0	100.0	

EC - Working period with staff/ subcontractors/suppliers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	12	34.3	34.3	34.3
	Very Important	12	34.3	34.3	68.6
	Moderately Important	1	2.9	2.9	71.4
	Slightly Important	8	22.9	22.9	94.3
	Not Important	2	5.7	5.7	100.0
	Total	35	100.0	100.0	

EC - Organization's developed standard operating procedure for effective communication

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	6	17.1	17.1	17.1
	Moderately Important	1	2.9	2.9	20.0
	Slightly Important	20	57.1	57.1	77.1
	Not Important	8	22.9	22.9	100.0
	Total	35	100.0	100.0	

EC - Working period with the organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	3	8.6	8.6	8.6

	Very Important	3	8.6	8.6	17.1
	Moderately Important	1	2.9	2.9	20.0
	Slightly Important	16	45.7	45.7	65.7
	Not Important	12	34.3	34.3	100.0
	Total	35	100.0	100.0	

EC - Regarding Organization Chart

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	3	8.6	8.6	8.6
	Very Important	8	22.9	22.9	31.4
	Slightly Important	15	42.9	42.9	74.3
	Not Important	9	25.7	25.7	100.0
	Total	35	100.0	100.0	

EC - Type of Project (Building, Flyover, Roads etc.)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	21	60.0	60.0	60.0
	Very Important	8	22.9	22.9	82.9
	Moderately Important	4	11.4	11.4	94.3
	Slightly Important	1	2.9	2.9	97.1
	11.00	1	2.9	2.9	100.0
	Total	35	100.0	100.0	

EC - Attitude of Client/Consultant

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderately Important	5	14.3	14.3	14.3
	Slightly Important	11	31.4	31.4	45.7
	Not Important	19	54.3	54.3	100.0
	Total	35	100.0	100.0	

Factor 5

MO - Freedom to express to others

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	5	14.3	14.3	14.3
	Very Important	7	20.0	20.0	34.3
	Moderately Important	13	37.1	37.1	71.4
	Slightly Important	10	28.6	28.6	100.0
	Total	35	100.0	100.0	

MO - Confidence Level of Project Manager

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	2	5.7	5.7	5.7
	Very Important	7	20.0	20.0	25.7
	Moderately Important	14	40.0	40.0	65.7
	Slightly Important	10	28.6	28.6	94.3
	Not Important	2	5.7	5.7	100.0
	Total	35	100.0	100.0	

MO - Experience/Age/Previous work place environment of Project manager

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	2	5.7	5.7	5.7
	Very Important	6	17.1	17.1	22.9
	Moderately Important	13	37.1	37.1	60.0
	Slightly Important	11	31.4	31.4	91.4
	Not Important	3	8.6	8.6	100.0
	Total	35	100.0	100.0	

MO - Nature/Attitude/Professional upbringing of project manager

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	6	17.1	17.1	17.1

	Very Important	6	17.1	17.1	34.3
	Moderately Important	10	28.6	28.6	62.9
	Slightly Important	6	17.1	17.1	80.0
	Not Important	7	20.0	20.0	100.0
	Total	35	100.0	100.0	

MO - Confidence building talks/meetings with staff

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	5	14.3	14.3	14.3
	Very Important	6	17.1	17.1	31.4
	Moderately Important	14	40.0	40.0	71.4
	Slightly Important	2	5.7	5.7	77.1
	Not Important	8	22.9	22.9	100.0
	Total	35	100.0	100.0	

MO - Level of authority empowered to sub-ordinates

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	3	8.6	8.6	8.6
	Very Important	11	31.4	31.4	40.0
	Moderately Important	9	25.7	25.7	65.7
	Slightly Important	10	28.6	28.6	94.3
	Not Important	2	5.7	5.7	100.0
	Total	35	100.0	100.0	

MO – Off duty hours talk with sub ordinates

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	8	22.9	22.9	22.9
	Very Important	3	8.6	8.6	31.4
	Moderately Important	16	45.7	45.7	77.1
	Slightly Important	3	8.6	8.6	85.7
	Not Important	5	14.3	14.3	100.0
	Total	35	100.0	100.0	

Factor 6

IO - Working hours on project of project manager

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	5	14.3	14.3	14.3
	Moderately Important	25	71.4	71.4	85.7
	Slightly Important	4	11.4	11.4	97.1
	Not Important	1	2.9	2.9	100.0
	Total	35	100.0	100.0	

IO - Activities (dealing with client/consultant, site management, procurement etc.) in which Project manager is directly involved

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	5	14.3	14.3	14.3
	Moderately Important	26	74.3	74.3	88.6
	Slightly Important	3	8.6	8.6	97.1
	Not Important	1	2.9	2.9	100.0
	Total	35	100.0	100.0	

IO - Project manager staying excited & energized

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	21	60.0	60.0	60.0
	Very Important	10	28.6	28.6	88.6
	Moderately Important	3	8.6	8.6	97.1
	Slightly Important	1	2.9	2.9	100.0
	Total	35	100.0	100.0	

IO - Quick decision making ability of project manager

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	19	54.3	54.3	54.3

	Very Important	13	37.1	37.1	91.4
	Moderately Important	3	8.6	8.6	100.0
	Total	35	100.0	100.0	

IO - Respecting opinions of sub-ordinates

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	19	54.3	54.3	54.3
	Very Important	10	28.6	28.6	82.9
	Moderately Important	6	17.1	17.1	100.0
	Total	35	100.0	100.0	

Factor 7

LO - Rewards given by project manager

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	13	37.1	37.1	37.1
	Very Important	5	14.3	14.3	51.4
	Moderately Important	12	34.3	34.3	85.7
	Slightly Important	5	14.3	14.3	100.0
	Total	35	100.0	100.0	

LO - Confidence on sub-ordinates

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	6	17.1	17.1	17.1
	Very Important	5	14.3	14.3	31.4
	Moderately Important	15	42.9	42.9	74.3
	Slightly Important	7	20.0	20.0	94.3
	Not Important	2	5.7	5.7	100.0
	Total	35	100.0	100.0	

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	10	28.6	28.6	28.6
	Very Important	6	17.1	17.1	45.7
	Moderately Important	8	22.9	22.9	68.6
	Slightly Important	7	20.0	20.0	88.6
	Not Important	4	11.4	11.4	100.0
	Total	35	100.0	100.0	

LO – Work Load/duty timing of Project manager

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	17	48.6	48.6	48.6
	Very Important	4	11.4	11.4	60.0
	Moderately Important	6	17.1	17.1	77.1
	Slightly Important	6	17.1	17.1	94.3
	Not Important	2	5.7	5.7	100.0
	Total	35	100.0	100.0	

LO – Risk handling ability of project manager

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	4	11.4	11.4	11.4
	Very Important	5	14.3	14.3	25.7
	Moderately Important	4	11.4	11.4	37.1
	Slightly Important	15	42.9	42.9	80.0
	Not Important	7	20.0	20.0	100.0
	Total	35	100.0	100.0	

LO - Technical Proficiency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	19	54.3	54.3	54.3
	Very Important	10	28.6	28.6	82.9
	Moderately Important	6	17.1	17.1	100.0
	Total	35	100.0	100.0	

LO - Communication skills with staff

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	16	45.7	45.7	45.7
	Very Important	7	20.0	20.0	65.7
	Moderately Important	6	17.1	17.1	82.9
	Slightly Important	5	14.3	14.3	97.1
	Not Important	1	2.9	2.9	100.0
	Total	35	100.0	100.0	

Factor 8

TB - Experience of project manager

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	11	31.4	31.4	31.4
	Very Important	4	11.4	11.4	42.9
	Moderately Important	10	28.6	28.6	71.4
	Slightly Important	7	20.0	20.0	91.4
	Not Important	3	8.6	8.6	100.0
	Total	35	100.0	100.0	

TB - Confidence of project manager on team members

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	9	25.7	25.7	25.7
	Very Important	5	14.3	14.3	40.0
	Moderately Important	9	25.7	25.7	65.7
	Slightly Important	6	17.1	17.1	82.9
	Not Important	6	17.1	17.1	100.0
	Total	35	100.0	100.0	

TB - Past working experience with staff

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	13	37.1	37.1	37.1
	Very Important	4	11.4	11.4	48.6
	Moderately Important	7	20.0	20.0	68.6
	Slightly Important	5	14.3	14.3	82.9
	Not Important	6	17.1	17.1	100.0
	Total	35	100.0	100.0	

TB - Appreciating good work of sub ordinates

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	13	37.1	37.1	37.1
	Very Important	4	11.4	11.4	48.6
	Moderately Important	6	17.1	17.1	65.7
	Slightly Important	4	11.4	11.4	77.1
	Not Important	8	22.9	22.9	100.0
	Total	35	100.0	100.0	

TB - Level of commitment by project manager

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	8	22.9	22.9	22.9
	Very Important	8	22.9	22.9	45.7
	Moderately Important	9	25.7	25.7	71.4
	Slightly Important	5	14.3	14.3	85.7
	Not Important	5	14.3	14.3	100.0
	Total	35	100.0	100.0	

TB - Giving relaxations to Staff

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	20	57.1	57.1	57.1
	Very Important	10	28.6	28.6	85.7

	Moderately Important	4	11.4	11.4	97.1
	Slightly Important	1	2.9	2.9	100.0
	Total	35	100.0	100.0	

TB - Compliance of tasks

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	9	25.7	25.7	25.7
	Very Important	2	5.7	5.7	31.4
	Moderately Important	10	28.6	28.6	60.0
	Slightly Important	8	22.9	22.9	82.9
	Not Important	6	17.1	17.1	100.0
	Total	35	100.0	100.0	

TB - Focus on Goals

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	11	31.4	31.4	31.4
	Very Important	3	8.6	8.6	40.0
	Moderately Important	6	17.1	17.1	57.1
	Slightly Important	7	20.0	20.0	77.1
	Not Important	8	22.9	22.9	100.0
	Total	35	100.0	100.0	

Factor 9

CM - Ability to Handle Pressure

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	10	28.6	28.6	28.6
	Very Important	2	5.7	5.7	34.3
	Moderately Important	5	14.3	14.3	48.6
	Slightly Important	5	14.3	14.3	62.9
	Not Important	13	37.1	37.1	100.0
	Total	35	100.0	100.0	

CM - Involvement of Seniors in resolving conflicts

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	1	2.9	2.9	2.9
	Very Important	8	22.9	22.9	25.7
	Moderately Important	2	5.7	5.7	31.4
	Slightly Important	17	48.6	48.6	80.0
	Not Important	7	20.0	20.0	100.0
	Total	35	100.0	100.0	

CM - Support from Head Office

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	3	8.6	8.6	8.6
	Very Important	5	14.3	14.3	22.9
	Moderately Important	2	5.7	5.7	28.6
	Slightly Important	14	40.0	40.0	68.6
	Not Important	11	31.4	31.4	100.0
	Total	35	100.0	100.0	

CM – Tolerant and compromising

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	4	11.4	11.4	11.4
	Very Important	6	17.1	17.1	28.6
	Moderately Important	1	2.9	2.9	31.4
	Slightly Important	15	42.9	42.9	74.3
	Not Important	9	25.7	25.7	100.0
	Total	35	100.0	100.0	

CM – Locality of project

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely Important	2	5.7	5.7	5.7
	Very Important	4	11.4	11.4	17.1
	Moderately Important	2	5.7	5.7	22.9
	Slightly Important	15	42.9	42.9	65.7
	Not Important	12	34.3	34.3	100.0
	Total	35	100.0	100.0	

Mean Table-Client

Descriptive Statistics

	N	Mean
ME - Project manager's focus on work	35	2.9429
ME - Project manager's personnel issues at home	35	3.5714
ME - Project manager's relation with site staff	35	3.0000
ME - Project manager's relation with Sub contractors/Suppliers	35	2.2857
ME - Project manager's relation with Head Office	35	1.6000
ME - Project manager's relation with Client/Consultant	35	2.4000
ME - Client/Consultant representatives behaviour	35	3.1143
ME - Work Load on project manager	35	1.6571
ME - Duty timings on the project	35	2.8571
ME - Weather Conditions of the project vicinity	35	1.5143

ME - Unforeseen/Unanticipated hurdles	35	3.9429
ME - Size of Project	35	1.5714
ME - Financial stability of prject manager	35	3.2286
BT - Spying on staff to gather information	35	2.4286
BT - Project manager taking stand for staff	35	2.0571
BT - Level of authority empowered by head office	35	2.1143
BT - Support by Head office	35	2.4571
BT - Number of projects completed with the organization	35	1.5714
BT - Level of involvement in issues	35	1.6857
BT - Availability of information of issues/problems	35	1.8286
BT - Size of Company	35	1.8857
BT - Play acting with staff/ subcontractors/suppliers	35	1.9143
BT - Show open concern	35	1.4857
MA - Working Experience in different localities	35	2.5429
MA - Self Awareness of surrounding areas	35	2.7429
MA - Communication skills with stakeholders	35	1.6286
MA - Interpersonnel skills of the project manager	35	3.1714
MA - Ability to speak different languages	35	2.7429
MA - Adopting other people cultural behaviour	35	1.6000
MA - Respecting others religious beliefs	35	2.4286
MA - Awareness of cultural difference of other team members	35	1.5429

EC - Involving others before making decision	35	3.8286
EC - Working period with staff/ subcontractors/suppliers	35	2.3143
EC - Organization's developed standard operating procedure for effective communication	35	3.8571
EC - Working period with the organization	35	3.8857
EC - Regarding Organization Chart	35	3.5429
EC - Type of Project (Building, Flyover, Roads etc.)	35	1.8286
EC - Attitude of Client/Consultant	35	4.4000
MO - Freedom to express to others	35	2.8000
MO - Confidence Level of Project Manager	35	3.0857
MO - Experience/Age/Previous work place environment of Project manager	35	3.2000
MO - Nature/Attitude/Professional upbringing of project manager	35	3.0571
MO - Confidence building talks/meetings with staff	35	3.0571
MO - Level of authority empowered to sub-ordinates	35	2.9143
MO - Off duty hours talk with sub ordinates	35	2.8286
IO - Working hours on project of project manager	35	3.0286

IO - Activities (dealing with client/consultant, site management, procurement etc.) in which Project manager is directly involved	35	3.0000
IO - Project manager staying excited & energized	35	1.5429
IO - Quick decision making ability of project manager	35	1.5429
IO - Respecting opinions of sub-ordinates	35	1.6286
LO - Rewards given by project manager	35	2.2571
LO - Confidence on sub-ordinates	35	2.8286
LO - Work Load/duty timing of Project manager	35	2.6857
LO - Risks handling ability of project manager	35	2.2000
LO - Risk handling ability of project manager	35	3.4571
LO - Technical Proficiency	35	1.6286
LO - Communication skills with staff	35	2.0857
TB - Experience of project manager	35	2.6286
TB - Confidence of project manager on team members	35	2.8571
TB - Past working experience with staff	35	2.6286
TB - Appreciating good work of sub ordinates	35	2.7143
TB - Level of commitment by project manager	35	2.7429
TB - Giving relaxations to Staff	35	1.6000
TB - Compliance of tasks	35	3.0000
TB - Focus on Goals	35	2.9429
CM - Ability to Handle Pressure	35	3.2571
CM - Involvement of Seniors in resolving conflicts	35	3.6000

CM - Support from Head Office	35	3.7143
CM - Tolerant and compromising	35	3.5429
CM - Locality of project	35	3.8857
Valid N (listwise)	35	