The Link between Project Management Leadership and Project Success

A DISSERTATION PRESENTED TO THE SCHOOL OF MANAGEMENT OF BLEKINGE INSTITUTE OF TECHNOLOGY

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JUNE 2011
ABSTRACT

The main endeavor of this paper was to explore and uncover the correlations between leadership competencies and productive performance in project management. The aspiration was to shed light on key leadership attributes critical for project success and to underline the significance of implementing these competencies in a project environment. This research paper begins with a focus on the value of general leadership and elaborates on the effectives of each leadership style. In today’s world of multitasking and constant development, leaders are a fundamental component for any organization to succeed. Leaders take on large responsibilities and move organizations forward. This thesis underlines that, in the field of project management is typically more crucial, due to the involvement and constant integration of multiple projects in organizations. The unique demand and integration of projects creates a need of having qualified project managers, in particular leader those that bring a set of positive attributes to the project and the organization. This thesis presents a highly reflective and philosophical view of the ideal leadership attributes essential for a project manager; these competencies are grouped as managerial, emotional and intelligence characteristics. Idealistically, the study expanded on principals such as project performance, leadership behaviors, effective project competences and critical project manager traits. Through the combinations of these factors, we have established a strong ground of our findings and have introduced a research model that presented the relationship between project leadership theory and elements of project success. In principle, the research model along with an insightful survey was developed applying relevant qualitative and quantitative technicalities to further support and validate the data that was explored and evaluated in this research paper. Within the confinements of these studies, the objective was to uncover the key constructive factors that project managers ought to exercise to achieve effectiveness in project milestones.
ACKNOWLEDGEMENTS

First of all, we cannot express our deepest gratitude and appreciation in words to the faculty and staff that have been very supportive through our studies at Blekinge Institute of Technology. Thank you to every single faculty member and staff member that to some extent has contributed to our accomplishment up to this point of our studies. We would like to specially express gratitude to our tutor Dr. Thomas Danborg for providing us with very constructive and helpful suggestions. Additionally, we thank all the participants that took part in our research and analysis, even through very busy times they took the time to offer their expertise and support. A special thank you to our precious families for their genuine support and always being that ray of encouragement and breeze of unconventional patience.

Ricardo Grisales and Nick Lopez
Blekinge Institute of Technology
June 2011
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CHAPTER ONE: INTRODUCTION

This segment will focus on introducing the thesis topic and will provide an overview of the research paper; highlighting the topics that will be discussed and fully explored in the remainder of this document. This chapter explains the background of the research analysis introducing the main topics, major inquiries, highlighting the thesis objectives and presenting a breakdown of the research structure.

1.1 Background of Study

Project management is a field that emphasizes the ability to manage the complexity of project resources while at the same time focusing on the value that the project will bring to the organization. Project management is a very distinct field from traditional management; in project management, managers are constantly faced with completely new challenges, the environment changes from time to time and the resources are limited. Therefore, the components that make up leadership in project management are substantially different than those that are required for traditional management. However in the context of this thesis we will be narrowing our focal point to only those critical aspects that involve leadership as a key success performance factor for project management. Due to the broad topic of leadership and management, traditional management will not be used as a comparison. The focus will remain on analysis pertaining to solely highly effective leadership styles in project management.

In the field of project management technical abilities become secondary and the demand for proficient soft skills are ranked as a high priority. The chapters to follow within this document will present a definition of leadership styles and will highlight those soft skills or competencies that are key to project success. Additionally, the chapters will touch on several studies supporting leadership methodologies and the role of the project manager as a critical component to project success. The manager’s leadership role has a critical role in motivating people and creating an effective working environment. The project manager’s role can be more challenging than of a typical functional manager, due to the fact that project managers work across functional and organizational environments. The typical challenges that a project manager encounters have a higher complexity level, uncertainty is unavoidable and planning and forecasting is critical.

Although a number of very comparable researches have been conducted focusing on leadership and project management; the critical valuable factors for project success have not been fully exposed in
previous studies. Extremely scarce research has been conducted to support key variables in leadership that have a direct contribution to the success of complex projects. Accordingly, vast amounts of literature on project success factors have largely ignored the impact of a project manager and his or her leadership style on project success (Turner and Muller, 2005). Commonly, project managers have developed particular leadership behaviors in an attempt to cope with challenges and improve the performance of a project.

Through highly intense detail, this research will attempt to gather information from several professionals actively involved in project management to identify the most critical competencies that tend to be applied and are most favorable in performing productively in a project environment. In considering the points aforementioned the focus of this study will concretely aim on trying to demonstrate the relation between project leadership and project success.

1.2 Problem Discussion

It is important to underline that there is a strong correlation between project management and project leadership, and this relationship significantly translates to failure or success of the project. Effectively, every aspect relating to the development of the project is critical and the working environment for project managers and teams to execute their business operations, generate a special relation and a necessity for leadership.

The main arguments presented in this paper are that very little focus has been placed on the need for leadership competencies as requirements from project managers. Even though there has been a fair amount of research conducted to generally discuss leadership and project management, almost none have been conducted with the objective of selectively pointing specific competencies critical in effectively managing high level projects.

Therefore, there is a need to present an understanding of the fundamentals of each essential attribute that leads to project success and ultimately the company’s bottom line, profits. This document will abstain from analyzing project profits; the study is solely focus on leadership behaviours and its effects on project success. Hence, competencies such as modest confidence could help leaders manage project situations more productively. Another example would be trustworthiness – having to entrust in group members, in order to comply with schedules and budgets. Consequently, relating back to the factors that induce leadership, Goleman (2004) claimed that emotional intelligence might be the key attribute between outstanding performers and those merely adequate. Five components associated with emotional intelligence are studied in (Yanga, et al., 2009) founding that self-awareness, self-regulation, motivation, empathy, and social skill are critical for a project manager to successfully manage a project. Additionally, six schools of leadership have evolved over the past several decades; the visionary school discovered two types of leadership, transactional and transformational leadership, literature suggested that transactional and transformational leadership styles may be effective styles for project managers.
Other important topics that are highlighted in the context of this research are; that in order to manage tasks effectively in a project environment, a leader requires cooperation and teamwork from a large network of people and keeping key individuals within a network motivated by using every manner of persuasion (Dubrin, 2010). Project managers as leaders should evaluate teamwork and seek out means to improve the probability of project success. Project manager have to work with many stakeholders and it is essential to maintain a high level of motivation, especially in cases when interdisciplinary groups are added (employees from several different departments must work together). Finally, Dubrin (2010) explain that no leader is effective unless he or she is skillful with communication, which facilitates negotiations, resolutions and proper problem solving dialogue. In this similar approach, open communication between company leaders and group members can support an organization prevail through problems and attain success.

Highlighting the information aforementioned, it is important to question which leadership style is the most adequate for managing projects. Which specific attributes can bring forth benefits of success? Within many organizations both leadership and management co-exist however the degree to which each concept is exercised is closely associated with the management hierarchy structure. Leadership in an organization also depends highly upon the degree of authority given to particular roles (Westerveld, 2003). For this particularly research we are going to focus on project environments, where the project manager has complete authority for managing all its resources. Consequently, in a project setting, as opposed to a management atmosphere, the project manager becomes a partner and a facilitator for the project team and provides support to accomplish the work required. The project manager becomes the driving force for the project team creating the vision of desirable outcomes and provides the resources to successfully accomplish the objectives of the project.

1.3 Purpose

The focus of this work is to conduct a profound analysis of ideal leadership styles and evaluate attributes that add value to the productivity levels for a project manager. Many researchers and academia practitioners of project management consent and support that there is a need for effective leadership in managing resources and people in high complexity projects. Despite extensive studies in the areas of project management and studies of leadership, the extent to which leadership influences project success has not been fully explored nor have the styles of effective leadership in project environments. The major challenge is that projects continue to fail due to ineffective leadership. Within the parameters of this thesis; we will explore how a successful project manager must exercise a wide-range of critical leadership characteristics and management styles to effectively succeed in project management.

Leadership and project management can be a broad topic to research and its theories can expand to unlimited pages of analysis. In this thesis we have narrow down our focus and we will analyze only those critical factors that contribute value to project success such as, leadership styles and competences, as well as critical emotional, intellectual, managerial tools. Currently, there is very little information and limited understanding of the relations between leadership, project managers,
and performance. Therefore, this will be an important point of our analysis and will be included as part of the survey in order to further investigate critical components required for project success.

The study will focus on best leadership practices and attributes that are not only productive and valuable for the project manager but for the organization. The study will entail a series of steps, first the relevant leadership styles will be defined, second a very detail survey and questionnaire will be conducted to gather all raw applicable information. Third, conclusions will be drawn from the data collected and integrated with the literature theories to produce constructive facts and valuable analysis that project managers can confidently apply in a real environment.

We will conduct a statistical analysis in order to answer the research questions that are presented in this thesis document. The target audiences will be primarily project managers, project engineers and other professional in the project management field. Although by no means is this study and information limited to those individuals in project management, the study is applicable to any professional involved in managing project resources and people.

1.4 Objectives:

- To conduct an in-depth analysis and study of the leadership characteristics that are essential for a project manager for improving performance and successfully executing projects.

- To study and examine the relation between performance, leadership and project management success.

1.5 Research Questions.

- What is the correlation between project leadership styles, traits and the level of project performance exerted in a project?

- How are the project manager’s leadership core competencies such as managerial, intellectual and emotional abilities intertwined with the project’s success in delivering successful results?
CHAPTER TWO: RESEARCH METHODOLOGY

This chapter will explore several techniques and strategies that have been utilized in answering the research questions and will provide in depth detail of the composition of the research methodologies and the motives for selecting such approach. This insightful research methodology has been formulated within the parameters of this thesis and includes both qualitative and quantitative analysis.

2.1 Research Approach

Quantitative and qualitative were the two different approaches that were conscientiously selected and utilized in gathering information relevant to the research topic. The quantitative objective is to study the numerical properties and relations that arise from the data of each question and will contribute in reinforcing and strengthen the theory of the research at hand. Consequently, through these methods the researchers will make conclusions and answer questions relating to the topic by collecting numerical data and finding correlations through statistical models (Muijs, 2004).

In validating our findings and making appropriate conclusions, we will be conducting a well structured quantitative analysis; which will potentially present the opportunity to verify and measure theories while at the same time separate facts from speculations. Aptly, a qualitative approach has been chosen to elaborate on the conclusions made from critical thought, circumstances, behavior and emotions. In this thesis a mix methodology is applied; mainly using a qualitative approach as a primary source of analysis, and validating this method by a quantitative methodology; which plays an auxiliary role in the analysis of the research questions. The reason for selecting an integrating approach of the two techniques is to ensure that qualitative findings are applicable to the quantitative sample.

The focus of this methodology is present a comprehensible relation between project management principles and leadership attributes that lead to success in a project environment.

The approach within this research employs both qualitative and quantitative studies concurrently in order to gain a more robust understanding of the survey results and decisively presenting a full conclusion of the findings. As underlined by Hesse-Biber (2010) these methodologies allow the researcher to gain a fuller understanding of the research problem and helps clarify the data collected. Figure 2.1 illustrates how the research method will be conducted. The data obtained and analyzed in this research is project-specific; implying that the data collected is related to the levels of leadership within specific projects rather than the entire organization.
2.2 Hypotheses
In order to answer our research questions three hypotheses are proposed.

**Hypothesis 1:** The use of emotional intelligence is used by project managers as a key leadership factor which increases the success of a project.
**Hypothesis 2:** Special leadership traits are used by project managers as key leadership factors which increase the success of a project.

**Hypothesis 3:** Exercising leadership to help transform teams is an approach utilized by project managers as a key factor that increases the success of a project.

### 2.3 Qualitative Approach

A complete qualitative analysis will be carried out backed with the extensive relevant literature, the focal point will be to investigate and discover effective project leadership factors; and the key elements that affect overall project performance. The qualitative analysis is based on two main topics:

- General leadership theories, elaborating on factor models, and leadership approaches.
- Leadership characteristics, competencies and behaviors that are linked to success in a project environment more specifically in the field of project management.

A qualitative methodology was selected to gather critical data as it allows the opportunity to create essential models based on empirical research. Additionally, the strategy in proceeding with a qualitative analysis is to differentiate theory, assumptions and facts from information gathered from professionals in the field of project management.

In more general terms, a qualitative approach is an extended field of research that employs unstructured data collection methods, such as: raw data observations, documentation, literature reviews, surveys and questionnaires. Therefore, through this variety of data collections several conclusions were made to support the main theme of this thesis paper. Through qualitative approaches and vast amounts of literature collected; many questionable inquiries and speculations regarding leadership theories and project efficiencies have been uncovered and substantially explained. The technicalities of this thesis adopted a deductive approach, as defined by Hesse-Biber (2010), a deductive approach begins by looking at theory, produces hypothesis from that theory, relates to the focus of the research, and proceeds to test that theory. This research is also considered positivist due to the fact that it includes evidence of formal propositions (Data acquired from the Literature review), quantifiable measures of variables (Project Leadership Factors and Project success), hypothesis testing (semi qualitative approach), and the results of perspectives about a phenomenon from the sample tested (Myers, 1997). Additionally, a logic positivist focus is taken, promoting the idea of the experimentation strategy, testing theory, with the goal to increase the predictability and outcomes. In general, these techniques lead to one focal point; which is, enlightening the reader with valid data and presenting them with realistic findings that are rational and applicable.

### 2.4 Data Collection

An enormous amount of analysis has been planned to bring forth valid and concrete data from highly experienced professionals. The empirical approach applied in gathering the suitable data will
be based on formulating a questionnaire strategically centered on the principles of the proposed model. Each question will be critically selected and carefully developed to seek out valid responses from each participant. Although, each response is subjective to the individual experiences, the goal is to attempt to capture the fundamental competencies that are intertwined in leadership styles and can potentially enhance success in project management.

The questionnaire will be internet based, therefore easily accessible and conveniently capable of storing all the important data. The survey will consist of several critical questions and should take approximately ten minutes to complete. Additionally, a significant number of informal meetings will be conducted with key project management professionals in order to collect any complementary information that can add value to the research. Each participant will be well informed of relevance of the questionnaire and the significance of the information that is being gathered. Due to geographical limitations, the data will be largely collected from samples in Colombia and Canada. Even though the data is only being analyzed in this two geographical locations, it is critically important to highlight that the conclusions of the data are applicable to any region of the world where project management is being executed.

Ideally, the results of the survey will help identify key competencies from leadership styles that lead to great improvements, boost performance and ultimately command project success. The questionnaire will be developed within the context of the cited publications and specialized journals that have focus on leadership topics. Every detail of the survey will be taken into consideration in ensuring that it remains consistent with leading literature sources and academic findings of leadership competencies and project success.

2.7 Data analysis

In order to enhance the conclusions of the data analysis model, the factors of the analysis will be based on realistic project management experience; therefore including contestants and researcher’s with very extensive and closely related professional working experience. The proposed model will follow a similar approach to traditional mathematical and conceptual models. Statistical and numerical data will be collected and logical conclusions will be drawn from the results.

The project leadership model takes in consideration the following steps:

- First, through observation of the literature review identifying significant variables, this method will minimize errors and will present results in a practical and feasible way.
- Second, making a distinction between theory and real practices and making conclusion outlining the most effective model, then analyzing and considering hypothetical data.
- Third, comparing the proposed model, with tested and real models in order to identify deviations, then validation of the model using qualitative triangulation to validate the model. This analysis may produce some dynamic elements that are part of real practices that may not have been considered previously in the model.
Finally important facts for the analysis of the data will be completed through a quantitative approach. Statistics analysis such as percentages of the population means and standard deviation will be help support the findings and the appropriate conclusion will be drawn from the results from each question.

2.6 Sample selection

A small group of professional project managers were selected as a sample population, a group of 70 project managers were chosen for ease of convenience. As the key intention of the thesis is to evaluate the link between project leadership and project success; the analysis and data gathered came from project managers from two particular countries Colombia and Canada. The reason for selecting these particulars countries is due to the practicality and ease of collecting the relevant data as well as the convenient accessibility for the authors to exchange information with project managers. Additionally, the research conducted has a close relation with these particular countries however the survey information and the results are not particularly limited to Canada and Colombia; these new principles and theories are directly applicable to the topic of project management. The survey was composed of male and female participants their professional fields included industries such as telecommunications, construction, information technology and government. The composition of the projects varied in nature; each project differ in scope, costs, resources and organizational environment. The general requirement to complete the survey was for project managers to have more than three years of extensive professional experience in their field of expertise along with a profound practical experience of project management concepts. Justifiably, the findings associated with the successful project management principles and leadership competencies are equally applicable in any part of the world. The theories presented in this paper are not limited to two geographical areas Colombia and Canada; these areas were merely the basic research grounds for conducting these findings. The results of this extensive academic work are independent of its geographical areas and directly valid to the general principles of project success; hence applicable anywhere in the world.

2.7 Validity and Reliability

Golafshani (2003) explains that in order to ensure reliability in qualitative research, examination of trustworthiness is crucial. “Trustworthiness of a research report lies at the heart of issues conventionally discussed as validity and reliability”. The traditional criteria for validity find their origins in a positivist thinking, further positivism has been explained by a systematic theory of validity. Inside the positivist terminology, validity resided in the limits of empirical finds (respondents experience) (Golafshani, 2003). Taking Golafshani points, our validity will be based in the experience of the population which is asked to answer the survey, in order to compare it with our model proposed. Accordingly, it will also seek to find if there are any relations with the real statement of project management and leadership project success. The entire sample for the survey solely included professional with no less than three years of experience in managing projects. In this
same context Muijs (2004) explain validity by answering: are we measuring what we want to measure?. In this research we are trying to find the relation between project leadership and project success. By creating a survey questionnaire based on the literature review which has been well studied by other authors; emphasizes the validity of the results from the survey in finding meaningful answers to the research questions proposed. Also by implementing a statistical approach, we further supported and validated the meaningfulness in interpreting the data collected from the respondents.

2.8 Data Limitations

Some of the limitations would be that very restricted information was found on how closely related the projects were with the organizations goals, strategies and future objectives. The analysis focused directly on the project manager and critical factors for executing projects effectively. Other limitations include, aspects relating to distribution of resources allocated to each project and the level of technology supporting the management of each projects. Our findings will be limited to projects based in the geographical areas of Canada and Colombia, which limit the perspectives and validation of this research.

Finally the validity of that data for the research was based on real experience from project managers and practitioners who are actively involved as project leaders. Due to the broad topic, the analysis and research did not considered the views of project team members, thus giving a subjective analysis of project success. As a result, it may be implied that the results or data may not be complete as project team members did not participate.

2.8.1 Potential Supplementary Research Analysis

Future studies may expand on this topic analysis by continuing to study comparable subjects of interest and proceeding with more insightful research and focusing, project environments or particular industries. In conjunction, another approach would be to focus on leadership between traditional management versus project management. Practically, other researchers can greatly benefit from the finding in these studies and can continue to carry out similar analysis by further validating the data results collected in this thesis paper and aligning those with their project goals or organizations. Inconveniently, the study was limited to data collected from sixty-three project professionals from Colombia and Canada. Therefore, there is a great opportunity to expand and further validated the study by simply increasing the sample numbers and broadening the geographical areas. Expediently, another focal research topic can be future studies on project leadership styles and the interconnection within each ethnic culture. Finally, further research should consider an analysis on how functional managers perceive project leadership factors and thereby formulate a study that will add value and help improve the perspectives and performance of traditional management as it has been applied in project management.
CHAPTER THREE: THEORY

This segment of the thesis focuses on introducing and defining key leadership styles and their corresponding competencies that are most effective for project management. The findings and research analyses are supported with strong and relevant references from prominent and highly intellectual leadership and project management authors. The purpose for this segment is to present literature that will support elements that are closely related with project success and help highlight the important relationship between leadership and project management.

3.1 Literature Review:

The literature review will follow the Division steps as showed if Figure 3.1

![Figure 3.1 Subdivision of topics for the literature review.](image)

3.2 Leadership Theory Introduction

Leadership can have many interpretations; most importantly is the ability and skill to inspire confidence, support and motivate the people who are needed to achieve the organizational goals. In fact, not just simply applying rules or concepts constitutes the development of a leader; many other factors must be analyzed. A leader plays many roles such as a coach, mentor, figurehead, spokesperson, negotiator, team builder, team player, technical problem solver, entrepreneur and strategic planner (Dubrin, 2010). In analyzing different academic models, leadership can be best explained by evaluating its most important variables: leader behavior, leader style, leader
characteristics, group member characteristics, and the internal and the external environment (Dubrin, 2010).

A good leader has many roles and functions, ironically a leader must be a good follower as well as a good listener. Leaders have common characteristics but they do not necessarily behave the same way. Leaders are shaped and molded by their experiences, knowledge and backgrounds. There is a variety of leadership styles and each style is effective in its own right environment. Each leadership styles depending on the favorability of the leadership situation determine the leader’s role and influence: Leader-member relations: degree to which the leader is trusted and liked by members, Task structure: degree of clearness of a task and its instructions, Position power: leader power by virtue of organizational position (Turner and Muller 2005). Another important factor is emotional intelligence; leaders that lack this critical characteristic can fail to achieve their full potential despite their high cognitive intelligence (Dubrin, 2010). Figure A3.2.(See Appendix A) shows the century approaches to the study of leadership. In the following sections the analysis of leadership styles are presented to demonstrate the different approaches and management styles that are applicable in the realm of project management. At the same time, the theories of leadership styles are concepts that project managers should be very familiar and knowledgeable when choosing to take action. The leadership styles are presented not to conclude that one approach is more effective than another but simply to shed light on leadership techniques and emphasize that project managers can improve their effectiveness by embracing and practicing these variety of leadership approaches.

In regards to being effective in project management, it is not simply about being able to apply budgetary constraints or executing projects on time. An effective leader in a project environment must embody a collection of strong competencies in order to respond productively. Research shows that more than 60% of businesses fail to achieve their desired goals and the causes for failure are usually lack of strong leadership, lack of team skills, and lack of stakeholder engagement. Vittal (2010), highlighted the importance of motivation and the value of developing a comfortable environment for project teams.

3.3 Key Leadership Competencies and Styles

Most importantly, every leadership style is composed of a set of competencies and every personality prefers to exercise each one of these skills very differently. Some competencies are more appropriately suitable for a certain personality or simply more suitable for a certain working environment. However, no matter how distinct each personality tends to be and how different each working environment may be, project managers must be fully aware of the key competencies that can lead his team to project success. Generally, there is a variety of leadership styles that within their own realm are piece together by a very unique set of competencies. The pace-setting style is concerned with techniques in to set high levels for sizing the performance of the team. The democratic style is exercised in cases when project team members may want to have the contribution of every team member. It works well when the teams work together to make an effective decision and when there is a small group. The authoritative style is used when project
The manager does not want to involve every team member in decision making but rather take action and responsibility all to themselves. Occasionally, team members may feel under pressure to make contributions to the team as team leaders may pressure the team to focus on increasing production instead of following quality standards. The coaching style leader has the ability to focus team members on their strengths and weaknesses; the project leader motivates the entire team and increases the confidence level of team members (Harris, 2009). The Affiliative style is when the project leader pushes every person to think of themselves as a project team. Open communication, team cohesiveness and harmony are a few of the strong attributes of the affiliative leadership style. As long as the objectives are met, flexibility in how the work is done is allowed by the project leader using this style; one important aspect of this style is that it increases the team morale.

### 3.3.1 Leadership Traits

Looking back through history many leaders have inspire great masses of people to achieve unthinkable goals and remarkable achievements. Effective leaders have displayed common characteristics and very similar traits. An effective leader focuses on a goal and through intelligence, knowledge and passion the leader creates a realistic vision and a roadmap in accomplishing such endeavor. As Dubrin (2010) highlights common traits leaders displayed are courage, internal locus of control, passion, emotional intelligence, flexibility and adaptability. In the context of project management, the traits of an effective leader as Dubrin documented are highly critical; however additional traits are also highly important.

Turner and Muller (2005) documented the fundamental concepts behind the trait school are that most effective leaders share common traits. They essentially conclude that leaders are born, not made, unlike the fundamental theories of other schools of thought. Leadership traits focus on the leader’s values and beliefs; personality; need for achievement or acceptance; orientation to power, mental, physical, and emotional attributes. Effective project leadership traits and skills ought to be applied according to the specific stage of the project. Kloppenborg, et al. (2003) explains these tasks in Table A3.2 (See Appendix A). Turner, Muller and Dulewicz (2010), conclude the most important Traits a Project manager must have in order to succeed in any project. Table 3.3 resumes these Factors.

<table>
<thead>
<tr>
<th>Project Leadership Trait</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trustworthiness</td>
<td>The capacity of the Project Leader for inspiring people through trust.</td>
</tr>
<tr>
<td>Passion and Motivation</td>
<td>Doing the best effort to accomplish the objective proposed.</td>
</tr>
<tr>
<td>Approachability &amp; Friendliness</td>
<td>The most effective type of leader is an approachable one. Other team members have to be confident about communicating with the Project Manager without any restriction.</td>
</tr>
<tr>
<td>Confidence</td>
<td>The Project Leader must show ambition, it will lead to confidence to the rest of the team.</td>
</tr>
</tbody>
</table>
### Project Leadership Trait

<table>
<thead>
<tr>
<th>Project Leadership Trait</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to Listen</td>
<td>The Project Leader which listen well increase the chance to succeed in the project. Understanding all points of view.</td>
</tr>
<tr>
<td>Calmness</td>
<td>Project Leader trait to stay calm down under pressure when situation does not go according to plan.</td>
</tr>
<tr>
<td>Ability to Delegate</td>
<td>Project Leader must delegate. He/She can not do it all by themselves.</td>
</tr>
<tr>
<td>Charisma</td>
<td>Project Leader trait, regarding self confidence at the moment to communicate ideas.</td>
</tr>
<tr>
<td>Clarity</td>
<td>Project Leader must express all the Ideas Clear. Everyone is have as target the same objectives.</td>
</tr>
<tr>
<td>Human Understanding</td>
<td>Project Leader understands the team, values, and needs in all terms.</td>
</tr>
<tr>
<td>Adaptability and Flexibility</td>
<td>A Project Leader must be adaptable to change, especially with the unanticipated.</td>
</tr>
<tr>
<td>Wide Outlook</td>
<td>A good leadership trait is to be open mind, thinking out the box.</td>
</tr>
<tr>
<td>Sense of Humour</td>
<td>Helping to get ride in moments of high pressure.</td>
</tr>
<tr>
<td>Modesty</td>
<td>The Ability of being modest in all aspects.</td>
</tr>
<tr>
<td>Fairness/Equity</td>
<td>Project Leader must behave fair and with equity.</td>
</tr>
<tr>
<td>Hard Work</td>
<td>Project Leader have to work hard to succeed in the project.</td>
</tr>
<tr>
<td>Patience</td>
<td>A good leader needs to show their team, they have the chance to do Things good, and with enough time.</td>
</tr>
<tr>
<td>Celebration</td>
<td>A Good Project Leader must celebrate and motivate the team group.</td>
</tr>
</tbody>
</table>

Table 3.3. Project Leadership Traits. Adapted from Turner, Muller and Dulewicz (2010); Valdo (2008).

### 3.3.2 Behavioral Leadership

Xiong (2008) documents that behavioral theory of leadership is not focused on inborn traits but on rather on the actions of leaders. Three main categories of leadership behaviors are:

- Task Performance Behaviors – The leader efforts focuses on the more tangible measures for the team to achieve its goals such as work quality, quantity and efficiency.
- Group Maintenance Behaviors – The actions of the leader focuses on maintaining group cohesiveness, collaboration, team work and social stability.
- Participation and Decision Making – In this approach Leader can choose to make a decision autocratically or democratically. As a project manager the concepts of behavioral leadership are key in managing aspects of every project from determining how decisions will be made to the level of involvement the project manager chooses to have with the project staff.

In most cases, decision making is made very autocratically, as the project manager is working with urgent deadlines and most often with extremely inflexible budgets. However the nature of the project can also determine whether decision making would be more democratic and allow project staff to contribute in the decision making process. Laissez-faire is rarely applicable in project management as this approach would constitute a bottom up approach where decision making is left
up to the project staff. The most effective approach would vary on the nature of the project as well as the working environment for the project manager and project staff. A military project would require a project management style with high levels of structure as well as decision making with a top down approach and very rigid levels of communication. Whereas current Information Technology companies such as Google and Apple may choose to direct its projects in a democratic or laissez-faire leadership approach.

3.3.3 Visionary Leadership

One highly important element that every leader must have is the characteristic of having a vision. Without the ability to have a vision, the leader has no concept of direction and is unable to strategize. A visionary leader has the capacity to see beyond the horizon and limitations of the environment and foresees the challenges, opportunities and is able to prepare his/her staff to overcome difficulties and ultimately succeed. Having a clear concept of his/her vision, formulating an effective plan of action or a mission and motivating his/her team to reach the desired outcome. As Turner and Muller (2005) explained back during the 1980s and 1990s, the visionary school became well known and evolved from the study of successful business leaders leading their organizations through change. Bass and Avolio (1990) identified two types of leadership, transactional and transformational:

3.3.4 Transformational Leadership

Burns (1978) identified as the father of transformational theory of leadership, viewed transformational leadership as a requirement to achieve and successfully manage change amidst constantly changing world conditions. His model of transformational leadership refers to a transformation in the assumptions and thoughts of followers while creating a commitment for the strategies, objectives and mission of the firm, company or corporation. Transformational Leadership is significantly applicable to the functions of project management as it is a must have leadership trait that emphasizes positive change. The primary objective for a project manager is to plan, organize, coordinate, implement and most importantly create a tangible or intangible valuable asset. As a project manager with transformational leadership traits one must be capable of envisioning the future and anticipating variations in the project and the environment. A transformational project leader is capable of leading a team to success by transcending in any environment and excelling in any type of project. As a transformational leader, trust is a key factor with project staff as the success of the project is highly dependent on the contributions and sense of ownership from each team member. In order to lead as a transformational leader, project managers ought to be charismatic, able to lead by example and most importantly add intangible value to the success of the project. Create a sense of ownership, respect, moral value and aspiration to the work in the project and add a sense of personal dedication and personal commitment to the successful completion of the project. A transformational project leader molds change in a direction that best
suits the project and creates a masterpiece that other project leader may have envisioned as unachievable.

Transactional leadership takes on a different approach than transformational leaders as it focuses on tangible rewards and more of an autocratic role in managing projects. Within the context of transactional leadership, management of projects would be very structured with very little delegation and flexibility. The objective of this type of leadership is to maintain control and power at the top with very little distribution of power to other levels. It focuses on maximizing profits for the project with very little personal growth for the individual and concentrates on efficiencies at the expense of human values, principles and morals. Transactional leadership in project management would disregard the emotional element of fulfilling one’s potential in order to achieve something of value and something greater than oneself. However in order to make transactional an effective tool in Project Management, project managers must understand specifically what his/her staff value in terms of rewards and present the proper incentives to motivate them. Recognizing the efforts of each individual in a timely manner is extremely critical in this conventional approach of leadership as it’s based heavily on a reward system. Turner and Muller (2005) highlighted that in a project management context, Keegan and Hartog (2004) documented that a project manager’s leadership style needs to be more transformational than transactional, but found no significant link.

3.3.5 Servant Leadership

Significant research exist that focuses on servant-leadership, they focus on the difference of servant leadership and other leadership styles and expand on discussing the positive attributes of applying and practicing it across a broad spectrum of organizational forms. A servant as defined by many dictionaries is an individual willing and ready to serve. In the broader sense of the word, a servant humbly dedicates his/her efforts to best serve others before serving him/her self. Servant Leadership focuses on the principles of serving others with not expectations of rewards or payback. Serrat (2009) recites in a 1970 essay, the Servant as Leader, Greenleaf explained: “The servant-leader focuses on being a servant first before any rewards or status, he states that the initial emotion is the yearning or desire to serve then have the inner conscious to lead”. The servant leader personality is sharply different from the one who yearns to lead first; these characteristics may be the difference of the inner desire to acquire material possession, whereas the servant leader yearns for value and quality. The two approaches Leader-first and Servant –first are very different from each other, but within the two extremes there is a range of endless personalities and natural characters. Servant leadership leads by example by inspiring others to take on the same challenges and endeavors. A leader as a servant serves its subordinates, concern with the growth and well being of others and helps its team transcend and succeed in every way possible. The principles of Servant leadership are highly applicable in the context of project management. As a servant leader and project manager, the project leader would dedicate his/her efforts to contribute significantly to the growth of others and the project. As a servant the project manager’s efforts would build relationships based on trust, respect and admiration by his/her peers and subordinates. His devotion and personal involvement in the project would inspire others to put forth invaluable energy and effort for the success of the project.
3.3.6 Contingency Leadership

Based on the traditional school of thought the contingency leadership approach was very effective in the 1960’s and 1970’s. The most popular concept as highlighted by Turner and Muller (2005) describes the path goal theory which focuses on the ideology that the leader guides the team in finding the path to their primary goal. The principles of contingency leadership as described by Fiedler’s contingency model are highlighted by Gupta (2009) in figure A3.4. (See Appendix A).

The graph matches the type of leaders within a given situation, task oriented leaders and relationship oriented leaders would thrive in different environments; a mismatch can lead to ineffective leadership. Leaders are more likely to succeed in scenarios that best fits with their natural abilities. Contingency theory states that leadership styles are unchanged and therefore the project leader would not be effective in every environment and would only be effective in those situations that closely match his/her inborn abilities.

3.3.7 Competency Leadership

Turner and Muller (2005) noted in their research that at first sight, it might appear that the competence school signals a return to the trait school. However, in reality, the competence school encompasses a full range of the earlier schools. Competence can be defined as knowledge, skills, and personal characteristics that deliver superior results. Turner and Muller (2005) identified the 15 leadership competencies brought by Dulewicz and Higgs (2005). Seven are considered emotional (EQ) competencies, three intellectual (IQ) and five managerial (MQ) ones (Table A3.1). (See Appendix A). Turner and Muller (2005) explained that cognitive competencies were broken down into intellectual (intelligence and problem-solving abilities) and managerial (knowledge and skills of management functions). Emotional, behavioral and motivational were combined into one. Elsewhere, Turner and Muller (2005) documented that Dulewicz and Higgs (2005) show that intellectual competence (IQ) accounts for 27% of leadership performance, managerial competence (MQ) accounts for 16%, and emotional competence (EQ) accounts for 36%. Emotional competence is therefore the most significant, but so are the other two as well. Furthermore Turner and Muller (2005) claimed that different combinations of competencies can lead to different styles of leadership, appropriate in different circumstances, producing transactional leaders in situations of low complexity and transformational leaders in situations of high complexity. In addition, competencies can be technical or intellectual in nature. Although intellectual competencies tend to be more critical as technical competencies are more likely to be learned in a shorter time period. The theory of competency leadership style focuses on the leader’s competencies and highlights the concepts of find a balancing point between skills of intellectual, managerial and emotional nature. As a project manager it is important to identify the competencies in each group and apply these skills in the working environment as it can lead to better management of the project factors.

3.3.8 Situational Leadership

Based on a model developed by Hersey and Blanchard (1988) situational leadership is comprised of a supportive and a directive dimension, each applied as required in given. The situational leadership
model claims that there is no magical formula in influencing people and that there is no unique leadership style in effectively leading people. The style to be adopted depends on the readiness level of the people that the leader is attempting to influence (Hersey & Blanchard, 1988). In drawing an analysis within the context of project management and situational leadership theory, project managers should make and initial assessment of the situation at hand and match his/her leadership behaviors to engage in the most effective managerial approach. By altering his/her supervisory approach the project manager is seeking out to generate utmost performance from each project worker. Project managers are constantly changing working environments, working on different project and interacting with new and former internal and external stakeholders. As a result project managers should be able to adapt their managerial skills to support the traits of their subordinates and supervisors that achieve best results. Leaders should be flexible in their mindset and be able to mold their management style so that best results are attained from those individuals that require little supervision as well as those that must be constantly supervised.

3.4 Project Management and Project Manager Leadership Skills

PMI (2008) defines project management as the application of skills, tools, and techniques to develop project activities to meet project requirements. The development of project activities requires project managers who understand the objectives and limitations of the project, as well as the roles of each participant. Kloppenborg et al. (2003) explains that all projects have unlimited constraints in regards to how well and how fast the proposed goals can be achieved. These constraints may include budgets, costs, resources, scheduling, timelines and finally technological limitations. These limitations generate risks and tend to obstruct timelines in meeting objectives, it is critical for these risks to be identified and mitigated. Project managers are individuals assigned with the highest level of responsibility to manage and execute the project and obtain desirable results. Project managers must be capable of effectively applying technical and intellectual tools and strategies in order to manage the project successfully. Project managers are generalists with many skills in their repertoires; they are also problem solvers who wear many hats. Although project may vary in scale, scope and resources the fundamental requirements to tackle a project from start to finish are generally applicable in any environment.

In a high level generalization, the core skills for a project manager can be theoretically categorized in a declining scale of priority as: communication, organizational and planning abilities (PMI, 2008). These are all closely related and highly critical for every project managers to exercise to grow into an effective leader. Additionally, as communicators, project managers must be good negotiators, problem solvers, mediators and extremely effective motivators. Project managers, as planners and organizers, establish and manage timelines, scopes and budgets, the need to understand finances and accounting principles is highly critical (Turner and Muller 2005). Every single one of these skills is further broken down into smaller competencies. These competencies are the key combination of attributes that when piece together correctly for a mechanism that similar to an engine result in project success (Geoghegan and Dulewicz , 2008). Ultimately, this research will support the ideology that a successful project manager must have a combination of these key competencies that will be presented in the latter chapters.
3.5 Project Team Transformation

Most often, project teams are created to stimulate brainstorming and generate more ideas, in general teams have been confirmed to be more productive than individualistic work. Project manager must be able to identify each individual’s strengths and form groups accordingly while at the same time, providing an environment where individuals with differences can work together. Generally, most projects start with team members not knowing each other, it is very important that teams build cohesiveness. The project manager is primarily responsible to direct team members in the right direction, motivate them to reach particular objectives, and helping build team confidence. According to the PMI (2008) the definition of team building is focused in words of collocating a diverse group of people to work together efficient and effective trying to achieve the objectives planned. Certain companies place great focus on team building activities as this promotes higher productivity levels. This might involve events organized by the management team or individual actions designed to improve team performance (Heldman, 2004).

Previous studies have confirmed that there is significant correlation between cohesive teamwork (including team communication, collaboration, and cohesiveness) and high levels of team performance. Accordingly, Yanga et al. (2009) indicated that communication plays a critical role in team operations and team performance. Sound team communication result in higher levels of collaborations amongst team members and creates a more effective team environment. In previous research, team communication was found to be associated with a critical determinant of team performance (Thamain, 2004). The task of a project manager is to create team building activities as to bring different areas, group members to work efficiently together in order to meet certain objectives. As Yanga et al (2009) highlighted teamwork in terms of team communication, collaboration, and cohesiveness plays an important role in team performance. As demonstrated by Heldman (2004) leadership in a project environment requires emotional, cross-cultural and interpersonal skills to interact effectively and responsibly with different constituencies who may have a stake in solving the challenges of project management. Rightfully, Ammeter and Dukerich (2002) explain that one focal point for project organizations is using project teams, as to promote and ensure superior levels of performance. Lastly, Yanga et al. (2009) indicated that large project teams may achieve higher levels of project success when they experienced greater team.

3.6 Project Success

The end results of the project are highly dependable on the behaviour and actions of the project manager. Any successful outcomes or fallouts are accredited to the particular steps that the project manager deliberately decided to take. The success factors of each project are measured differently; projects may be quantified by cost savings, on-time deliverables or overall added value to the stakeholders. Although each project will be initially set with specific measurable factors to gauge success, the fundaments to aim and achieve overall project success require the ability to apply certain core leadership competencies. In this research paper, our focal point is to identify those competencies that are more generally applied in every project. Some of the high level leadership attributes that encompass the key set of competencies are planning, leading, team motivation and...
communication. The more tangible measurable factors are trivial in relation to the significance and value of the core competencies to achieve project success. Subsequently, within some of the analyzed literature the term project success has been classified different from project management success. Cooke-Davies (2002) explains that project success could be measured against overall objectives; however, project management success rather is measured against the traditional factors of performance such as completing project within time, cost, budget, scope and quality. Other research analysis, have stated that indications of successful project outcomes are the accomplishment of specific objectives of the project as defined by the project stakeholders and are dependent on the combined efforts of project management and the project team (Johnson, 1999).

Yang (2007), explains that project managers must continuously define and redefine how project outcomes will align with the long-term objectives of the organization. Particularly, project managers should be primarily concerned with how well the project integrates and aligns with the long-term goals of the organization as well as the short-term objectives of the project. According to the 1994 Standish CHAOS Report, there are top 10 factors found in successful projects. These factors are listed in Table A3.3. (See Appendix A)

Ika (2009) explains that project success can be defined as an analogy of a hexagon, where, in addition to the traditional dimensions of time, cost, and quality; other requirements must be met such as the strategic objectives of the client organization, the satisfaction of the end users, and the approval of other stakeholders. Respectfully, successful project outcome are measured by the extent to which the project accomplished complex endeavors that effectively met a specific set of objectives within the constraints of resources, time, and performance (Cleland, 1964; Thilmany, 2004). Typically the success criteria for a project are identified in the earlier stages, however, in reality; there are a certain number of unknown conditions that must be met in order for a project to be successful. The complexity of project management lies in the fact that not every project is exactly identical (Grosse, 2007). Every project has a certain degree of distinction; this particular disparity is almost as unique as a fingerprint, that no two are ever identical. Therefore, to achieve successful results in project management, certain fundamental factors must be exercised, in addition to meeting the remaining of the project’s unique conditions. Accordingly, Muller and Turner (2010) proposed many critical success factors and frameworks, these critical factors are showed in the Table 3.4.

<table>
<thead>
<tr>
<th>Success Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>End-user satisfaction with the project’s product or service</td>
</tr>
<tr>
<td>Suppliers’ satisfaction</td>
</tr>
<tr>
<td>Project team’s satisfaction</td>
</tr>
<tr>
<td>Other stakeholders’ satisfaction</td>
</tr>
<tr>
<td>Meeting project’s overall performance (functionality, budget and timing)</td>
</tr>
<tr>
<td>Meeting user requirements</td>
</tr>
<tr>
<td>Meeting the project’s purpose</td>
</tr>
<tr>
<td>Client satisfaction with the project results</td>
</tr>
<tr>
<td>Reoccurring business with the client</td>
</tr>
<tr>
<td>Meeting the respondent’s self-defined success factor</td>
</tr>
</tbody>
</table>

Table 3.4: Critical success Factors (Turner, Muller and Dulewicz, 2010)
3.7 Project Management versus Project Leadership

Project managers are responsible to oversee not only the detail tasks of a project but must also support the individual personalities of each project member. Therefore, the role or a project manager requires management and leadership skills where the emphasis lies on managing daily complexities of the project and effectively leading the project team.

Successful project management depends highly on the leadership competencies and the general management competencies of the project manager. Leadership and management are terms often used interchangeably (Turner and Muller, 2010). However, there is great distinction between the approaches in which the person in charge achieves their objectives. Project management can be more generally defined as a process that utilizes a system of tools and sequential procedures to track how the project resources are being efficiently managed. Project leadership however is significantly more valuable as it emphasizes a personal commitment from the project team and adds intangible value to the project’s objectives and aims for project success. Table A3.4 (See Appendix A) illustrates a graph highlighting the distinctions between leadership and management. It is important to note that leadership and management are quite distinct from each other, in particular in their approach in achieving their desirable objectives. Project managers to exercise project leadership effectively ought to be multidimensional in their behavior, approach and actions. In exercising project leadership, the project manager must establish a deep personal connection between the project’s objective and the team’s goals (Richmand, 2002). The project manager ought to engage the project members so profoundly that any setback or degree of failure in the project is unacceptable. In the ideal doctrine of project leadership the success of the project becomes the personal achievement and pride of the project team members. Project leadership transcends the conventional approach of project management. Accordingly, project leadership generates desirable visions, charismatically build trust and commitment to greatness, have high regard and consideration for the team, inspire team work and provide support and direction.
CHAPTER FOUR: RESULTS

This chapter will integrate theory and statistical results and will expand on the concepts of leadership through the development of a leadership model. In addition, a set of hypotheses will reinforce and validate the integrity of data that has been researched. The leadership model, hypotheses and leadership factors that will be introduced in this chapter are all highly intertwined and together generate a set of theories that present a path towards project success. This chapter will also include the structure of the survey that was utilized to collect the appropriate data. At the same time, the chapter will introduce the affiliation between the survey’s raw data and its association with the main research topics.

4.1 Model Proposed

The literature analyzed supports the fact that particular characteristics are crucial for a project manager to succeed in executing a project. With the support of extensive references and research studies, a project leadership model will be proposed. The extensive formulation of this model took many different research factors into consideration before its final design. The model was constructed based on the literature reviewed and primarily reinforced by other project management models including, mathematical, conceptual and descriptive, factors.

Other models with some degree of similarities have been developed and explored through years of studies from well renowned researchers. However, the model that will be proposed in this thesis interconnects elite leadership competencies with project management principles to achieve project success. The model proposed in this thesis was developed according to the following significant philosophies:

1. A set of three hypotheses will be presented to further explore the previously presented research questions; the hypotheses concentrate on factors underlined as critical elements for leadership and success in project management. The objective will be to analyze factors as independent units, and then proceed to observe these units collectively.

2. Here three main principal leadership topics are identified. The literature that we have analyzed highly support that following key leadership factors for project managers: Project leadership emotional intelligence, Project team transformation, and Project leadership traits.

3. The leadership factors and activities will be interconnected with arrows illustrating interdependencies between the different factors of leadership. The model was structured in a systematic method so as to group activities that generate an output together.
4. Structurally the proposed model has been designed to display the most important topics in the middle, therefore the project critical success factors are the focal point of the model as to spotlight the interrelation of the different leadership, behaviors styles and traits.

### 4.1.1 Project Leadership Model Description:

In higher level management, the most critical skills tend to shift from manual work to a more demanding task of mental work. A similar shift is encountered in project management, as the project manager becomes the intellectual guide of the project operations. The effectiveness of the project no longer relies on technical skills as a priority but instead moves towards the execution of higher level soft skills from the project manager. The responsibility to perform technical work is passed down to lower level employees that tend to be given one-dimensional mindset duties. Whereas, project managers need to exhibit well-rounded skills, most importantly high levels of soft skills and multi-dimensional thinking. The hypothesis presented earlier as H1, H2 and H3 highlight key soft skills and competences that project managers must exercise unlike the typical manager, this competencies may be desired but not highly critical to perform his/her job as a manager. Effective project management is a package that should rely heavily on the three hypotheses that have been presented. Although in the literature, many factors in regards with emotional intelligence, leadership traits, and project team transformation are highly studied and could be thousands, for this particular thesis, we collect the main ones according to the researchers expertise, also the ones which were more mentioned as being critical in the literature studied in this thesis. Table 4.1 shows the leadership factors and project success factors considered in our model. The analysis is further supported by various authors such as those highlighted in this table. Also, the model proposed (PLPM) is illustrated in graph 4.1.

**H1: The use of Emotional Intelligence is used by project managers as a key leadership factor which increases the success of a project.**

The Hypothesis 1 was developed with the rationale that in context of the literature reviewed; emotional intelligence is considered a critical leadership attribute that project managers ought to have in order to succeed in a project environment. Self-awareness, self-control, charisma and motivation are some of the most significant components that make up emotional intelligence. Self-awareness and self-control, has been recognized as the ability to understand, monitor and modify one’s own emotions. This particular attribute can help project managers make better and faster decisions. In order to lead as a transformational leader, project managers ought to be charismatic, able to lead by example and most importantly add intangible value to the success of the project. Charismatic behavior creates a sense of ownership, respect, moral value and aspiration to the work in the project and add a sense of personal dedication and personal commitment to the successful completion of the project (Turner and Muller, 2005). (Ren Yanga, et al., 2009; Vital, 2010), highlighted the importance of motivation and the value of developing a comfortable environment for project teams.
Hypothesis 2: Special leadership traits are used by project managers as key leadership factors which increase the success of a project.

Hypothesis 2 (H2) focal point is to find the relation between the different traits that are associated with project management success. Even though in the literature analyzed many leadership traits have been considered, we focus on narrowing down the most critical factor as enlighten by research experts in project management and referenced in this academic paper. The leadership factors analyzed in hypothesis II emphasize the following: good listener and open mind, delegation of tasks, hard working, inspiring team work flexibility, ethical behavior, vision strategic view and creativity.

Conclusively, the objective behind the philosophy of hypothesis 2, is to present applicable information that can alter the behaviors of project managers and lead them to establish themselves with a strong presence as leaders. These common functional traits have been underlined previously by the traditional trait schools of thought but rarely have they been linked to principles for project productivity. The set of practical traits that are accentuated in this hypothesis philosophy provide fundamentals as to key behaviors that can reform an average performing manager into a highly effective and productive project manager. Leadership traits are primarily focused on the leader’s values and beliefs; personality; need for achievement or acceptance; orientation to power, mental, physical, and emotional attributes

Hypothesis 3: Exercising leadership to help transform teams is an approach utilized by project managers as a key factor that increases the success of a project.

Hypothesis 3 (H3), shifts the spot light on team effort and focuses on realigning the mindset from individuality to collective work efforts. More specifically, the hypothesis concentrates on project leadership and team transformation which entails increasing people awareness, helping teams to self-fulfillment, transcending teams, building trust and commitment to greatness. The subject of commitment to greatness encourages higher levels of quality work in the project. When project managers learn to apply this principle, projects are viewed as personal achievements by team members; it generates respect and provides personal value. Building trust encourages team members to work together and rely on the abilities of each other. As a transformational leader, trust is a key factor amongst project team members; especially as the successful outcome of the project is highly dependent on the level of contributions and degree of commitment from each team member.
### Table 4.1: Leadership Factors and Measure of Projects Factors

<table>
<thead>
<tr>
<th>Leadership Factors</th>
<th>Measure of Project Success Factors</th>
<th>Sources</th>
</tr>
</thead>
</table>
| Project Leader Emotional Intelligence (H1)  
- Self-awareness and Self-Control  
- Motivation  
- Charisma. | TIME  
COST  
QUALITY  
STAKEHOLDER SATISFACTION | Clark’s (2004); Yanga et al (2009); Dubrin (2010); Jugdev and Müller (2005); Muller and Turner, 2010 |
| Project Manager Leader Traits (H2):  
- Good listener and open mind.  
- Delegation of Tasks.  
- Hard Work  
- Inspiring Team work  
- Flexible  
- Ethical Behavior  
- Vision  
- Strategic View  
- Creativity | | Burns (1978), (Dessler, 1999); (Galeman, 2004); (Thamain, 2004); Dulewicz & Higgs, (2005); Kloppenborg et al (2003), Jugdev and Müller (2005) |
| Project Team Transformation (H3):  
- Increasing people Awareness  
- Helping Team Group to self-fulfillment  
- Transcending Team  
- Building Trust  
- Commitment to greatness | | Ammeter & Dukerich (2002); Ika (2009); Lang (2007); Muller and Turner, 2010; Kloppenborg et al (2003); (Dubrin, 2010); (Hersey & Blanchard 1988); Dubrin (2010) |

The model in Figure 4.1 brings together the different leadership variables and factors in a relational diagram and intertwines the leadership theories with the framework of our research objectives. This model illustrates as a focal point four main factors that must successfully executed in order to execute project management effectively. In combining and carry out these factors together, project managers are capable of re-structuring his/her management approaches and produce strong performance levels that lead to outstanding project success.
4.2 Quantitative Approach

This thesis does not imply that the survey participants can radically change leadership theories in project management; however each professional individual that took part in the survey was able to identify what critical leadership factors are objectively necessary when executing projects their respective areas of expertise; and were able to identify details that displayed a strong sense of leadership in project management.
Considering that the project leadership model proposed (PLMP) is conceptual and even though it has been analyzed by many researchers. The project leadership model proposed has not been fully tested in a real practical environment; the objective was to create a well structured survey that could get the perspectives of the respondents. All the participants are professionals and current project managers that have extensive experience that has helped validate and support the proposed model.

4.2.1 Survey Developed

A highly structured survey was developed with the objectives to validate the concepts of the project leadership model proposed. The factors taken into consideration in the development of the survey have a significantly close relationship with the research objectives and the hypothesis for this thesis. The survey attempted to capture very complete and accurate information in regards to leadership factors in project management. Each question was organized in a strategic way so that the results would reflect those leadership and project management factors that are critical. The structure of the survey was created in a systematic way as to encourage respondents to provide accurate and reliable information.

The questions were set up in a random order and tactically formulated in order to validate the factors that contribute or hinder success in project management. Each question was analytically developed to focus on critical success factors that are necessary in managing complex projects. In order to validate the model and to corroborate the hypothesis, 25 questions were part of the survey. The questionnaire was web-based and was uploaded to a server in order to facilitate the approach in collecting the data and completing the survey. The survey was design to take approximately 10 minutes to complete. Several informal meeting were conducted to collect and develop a method that would help formulate the survey and facilitate the gathering of information. Every participant that took part in the survey was well informed of the primary objective of the questionnaire and research. From question 5 to 20 participants were asked to present their answer by scales as “Very Relevant” to “Very Irrelevant”. How relevant and helpful do you thing that the use of the following Leadership competencies contribute with leading successfully projects?. Questions 20 to 24 were formulated slightly different, individuals were asked to answer according to their experience when managing projects. Using a scale from one to five, with one being “strongly disagree” and five being “strongly agree “; the questions were set up such as the following example: To what do you extent are you agree or disagree that this factors are critical in terms of project completion success?. An example of the questionnaire is illustrated in Appendix B the results relevant to each question and the raw data are illustrated in Appendix C.
Question descriptions and objectives directly correlated with leadership factors and hypotheses

Q5. The Leader is self-aware of his or her own feelings and is able to recognize and control them
The objective of the question is to validate how the project leader’s self-awareness will contribute to the performance of project success. 71% of the total population evaluated, believed that this is very relevant.

Q6. The Leader uses his/her Self-Control to increase project success
Many researchers consider self-control a top factor to succeed in project environments and in any type of organization. Being aware of and understanding self control in any situation, especially when things go beyond the unknown is highly critical. 54% believe this factor was very relevant and 24% just relevant.

Q7. The Leader uses Motivation to the Team Group and drive energy to achieve clear results and make an impact to the project
Motivation to the team group is essential in project management. This question was developed with the goal that respondents validate how motivation increases project success. As showed in the literature, the more motivated the team, the higher is the chance to succeed in the project. 70% of respondents believe this was very relevant for the success of the project. This question is linked to H1, showing the relationship between motivation as project leadership and project success.

Q8. Leader uses Vision and imagination.
Vision allows creating better perspective of the project, also the use of imagination when solving problems. Respondents were asked for validate if this factor could increase project success. When problems arise, vision is the best option for managing unknowns. Q8 is linked to H2 helping to find the relation between vision as project leadership competency and project success.

Q9. The Leader employs Strategic perspective being aware of the wider issues identifies opportunities and threats
The objective of the question is to validate how the respondents value the leadership competencies of employing strategic perspectives and identify opportunities. This question is directly associated with H2. From the literature reviewed and the model proposed, project managers who are aware of the project strategy are more likely to have higher levels of productivity and success rate. Therefore a positive response would validate the hypothesis and provide a high indication that this factor is extremely critical for project success.

Q10. The Leader works always with ethics and with responsibility to the society and the organization.
The objective of this question is to validate and analyze how each project manager consider ethics and social responsibility a critical success factor in project management. The core intent of this question is to determine if the principles of ethics and moral responsibility have a deciding factor on the successful execution of projects. This question incorporates the issue of executing projects with proper ethics and being socially responsible for the projects outcomes. Therefore, the question seeks
from the participants how critical are these factors to consider a project successful. The question is directly correlated to H2.

**Q11. The Leader Organizes resources and co-ordinates them efficiently and effectively.**

Q11 is formulated with principles of H2. Organizing resources and coordinating them efficiently and effectively is considered as one of most important critical factors in leadership philosophy. In this particular context the goal of this question is to analyze how respondents perceive this particular leadership competency valuable for project success. The question is presented as to seek the degree of regard project managers lay on the competencies of proper resource allocation and coordination for project success. The question intents to validate as stated by historical research that the most organized leaders are resourceful and highly productive. Thus the question evaluates if the principles are equally applicable to project success.

**Q12. The PM delegate tasks and gives autonomy, also encourages team group to take new challenges, to solve problems and develop their proper ideas.**

Q12 is correlated with H2. The objective of Q12 is to find how project managers apply the leadership attributes of delegation in project management. This question captures information from project managers and determines the significance of delegating work and team encouragement in project environments. From the results the question will provide merit on whether these critical factors of leadership add value and lead to project success. The question is structured to focus on whether the project manager considers allocating work to its team members as a critical factor for project success. One indirect notion of this question is that as project manager delegate they have more time to accomplish the high level tasks and concentrate on the overall picture of the project performance.

**Q13. The Leader shows a commitment to greatness in order to obtain the objectives and implement decisions, personal and to the team.**

Q13 is determined to seek out how respondents validate H3 in terms of the leadership attributes relating to commitment to greatness; primarily a team leadership transformation factor that a project leader ought to have for increasing project success. This question focuses on whether project managers value changing the perspectives of team members to see their work as a greater value and personal growth.

**Q14. The leader analyses and judge in terms of gathering relevant information from a wide range of sources, probing the facts, identifying advantages and disadvantages.**

As a project manager, analyzing information is inevitable and extremely critical in order to succeed in a project environment. Survey participants were encouraged to validate how the attribute of strategic view contributes to increasing success in a project. Project manager exercise this leadership attribute by behaving strategically, gathering information from a wide range of sources and proceed with the best possible approach. The questions attempts to determine how critical is for the project manager to identify advantages and filter important information to execute the
project successfully. This factor is highly linked to H2 and helps validate whether applying the competence of having a strategic view is related to project success.

Q15. The Leader is hard worker and keep consistent performance in all situations.

Hard work has been historically researched to be a critical leadership factor, this question aims to validate that this leadership competency is also key in project success. This question is solely based on hypothesis II and attempts to capture the validity of this critical leadership factor as it is applied by project managers. Hard working is a project leader trait that is highly related to project success. The objective of this question was to find the validation of respondents in regards to hard work as a leadership trait. The more committed a project leader is to the project the higher are the chances for success.

Q16. The Leader has an open view of the situations, also take in to consideration the needs and perceptions of the team members.

The question here attempts to gather information on whether the project leader has a high regard for the needs or requirements that may be critical for the team. It attempts to gauge the degree of consideration the project leader will give to the perceptions of the team members. This question is associated with hypothesis 3, a “very relevant” or “relevant” result would validate that the project manager does apply the leadership principles of team transformation and that this factor in itself is critical. An “Irrelevant” or “Very Irrelevant” answer will equally indicate that this factor is not exercised by project leaders and therefore not critical in project management. As referenced in this thesis paper through historical research, team transformation has been identified by researchers as a primary subject of project success. This distinctive question has been formulated from the theories of team transformation and developed to determined if this in fact is valid.

Q17. The leader increase team members awareness, changing a viewpoint based on the understanding of their position and the recognition.

This question is focused on determining whether the project leader takes any initiative in trying to transcend the perspective of the team member from exerting ordinary work to contributing invaluable performance. The aim of the question is to determine if leadership factors regarding transformational traits in transcending teams are exercised by project leaders in a project environment. Consequently, the question is based on the philosophy of hypothesis 3 and tries to determine if the project leader applies and values the principles of changing the team’s awareness of their individual contributions.

Q18. The leader arrives at decisions and propose solutions to problems and challenges, by his/her own, also with team member.

Team work and team transformation is one critical leadership competence that has been identified by historical research and has been previously referenced in this thesis paper. The question’s
objective is to verify the level of team involvement along with decision making applied by the project manager for project success. This question evaluates and attempts to validate hypothesis.

Q.19. **The Leader encourages team members, to work together also to take challenging and demanding tasks, roles and responsibilities.**

This question seeks to validate hypothesis 3 and attempts to determine if leadership traits relating to team work are applied. Also whether any other competencies from any leadership styles have been applied in order to execute project management effectively. The question focuses on validating whether project managers exercises principles of building trust, commitment to greatness and overall inspiring team work.

Q20. **The Leader uses Creativity to solve problems and to create solutions.**

The focal point to be validated in this question is based on hypothesis 2, the purpose of the question is to determine if leadership traits such as creativity are ordinarily applied by project managers to achieve project success. This question was formulated to understand the degree of creativity that project managers utilized in managing projects. A high positive response would validate that this critical leadership competence is critical in project success.
4.2.2. Sample and Data Collection

Participants that took part in the survey ranged from project managers, project coordinators project engineers and other professionals. The sample was comprised of data collected from groups of professionals in Colombia and Canada. There is no direct relationship amongst the type of projects that the participants manage however their responsibilities are the same in terms of project performance. A total of 70 people were asked to answer the survey, however only 63 people took part in the questionnaire. Graph 4.2 and Table 4.2 show the results of the respondents.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>45</td>
</tr>
<tr>
<td>Female</td>
<td>18</td>
</tr>
<tr>
<td>Project Manager</td>
<td>38</td>
</tr>
<tr>
<td>Project Coordinator</td>
<td>16</td>
</tr>
<tr>
<td>Project Engineer</td>
<td>9</td>
</tr>
<tr>
<td>Colombia</td>
<td>36</td>
</tr>
<tr>
<td>Canada</td>
<td>26</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>35</td>
</tr>
<tr>
<td>Construction</td>
<td>7</td>
</tr>
<tr>
<td>IT</td>
<td>11</td>
</tr>
<tr>
<td>Government capital</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 4.2: Statistics Sample Collection and General information.

Figure 4.2: Pie representation of PM and practitioners, including Industry country and genre.
4.2.3. Survey Results

The questionnaire was formulated and designed to support the principles of the previously presented hypotheses. The information gathered from the responses of each questionnaire participant has been presented in quantitative form and is illustrated as bar charts in Appendix C.

**H1 - Project Leader Emotional Intelligence**

To gathered data that supports hypothesis-1 (H1) relating to project leader emotional intelligence; four questions were formulated in the questionnaire. The questions tried to evaluate the respondent’s results regarding self-awareness, self-control, motivation and charisma. The results of the data would verify, validate and support factors of project leadership that are critical when managing projects. Table 4.3 illustrate the results regarding Emotional Intelligence.

![Table 4.3: Statistics results, Q6 to Q8 regarding Emotional intelligence.](image)

<table>
<thead>
<tr>
<th></th>
<th>Q5</th>
<th>Q6</th>
<th>Q7</th>
<th>Q8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample</td>
<td>Percent</td>
<td>Sample</td>
<td>Percent</td>
<td>Sample</td>
</tr>
<tr>
<td>Very Relevant</td>
<td>34</td>
<td>54%</td>
<td>44</td>
<td>70%</td>
</tr>
<tr>
<td>Relevant</td>
<td>24</td>
<td>38%</td>
<td>16</td>
<td>25%</td>
</tr>
<tr>
<td>Neutral</td>
<td>5</td>
<td>8%</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td>Irrelevant</td>
<td>0</td>
<td>0%</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Very Irrelevant</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

N= 63

| Validation | 92% | 95% | 96% | 95% |

Table 4.3: Statistics results, Q6 to Q8 regarding Emotional intelligence.

**H2 - Project Leader Traits**

Hypothesis 2 (H2) underlines the significance of Project Leadership Traits. Seven questions were developed in support of the proposed model (PLMP); these questions evaluated the results regarding the following leadership criteria: Good listener, open mind, effective delegation of tasks, hard worker, inspiration of team work, flexibility, ethical behavior, vision, strategic view and creativity. The objective for these set of questions was to allow the research to validate and investigate the participant’s answers associated with traits that are necessary for project managers. At the same time, to analyze how project managers that participated in the survey interpreted successful leadership competencies in relation to project success. Table 4.4 displays the results for Project Leader Traits.
### Hypothesis 3 (H3) highlights the significance of project team transformation.

Table 4.4: Statistics results, Q9 to Q14 regarding Project Manager Traits.

<table>
<thead>
<tr>
<th>Q9</th>
<th>Q10</th>
<th>Q11</th>
<th>Q12</th>
<th>Q13</th>
<th>Q14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample</td>
<td>Percent</td>
<td>Sample</td>
<td>Percent</td>
<td>Sample</td>
<td>Percent</td>
</tr>
<tr>
<td>Very Relevant</td>
<td>42</td>
<td>68%</td>
<td>41</td>
<td>66%</td>
<td>40</td>
</tr>
<tr>
<td>Relevant</td>
<td>17</td>
<td>27%</td>
<td>17</td>
<td>27%</td>
<td>19</td>
</tr>
<tr>
<td>Neutral</td>
<td>1</td>
<td>2%</td>
<td>4</td>
<td>6%</td>
<td>3</td>
</tr>
<tr>
<td>Irrelevant</td>
<td>2</td>
<td>3%</td>
<td>0</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td>Very Irrelevant</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td>N= 63</td>
<td>Standard Deviation</td>
<td>0.290</td>
<td>0.281</td>
<td>0.281</td>
<td>0.306</td>
</tr>
<tr>
<td>Validation</td>
<td>95%</td>
<td>94%</td>
<td>95%</td>
<td>95%</td>
<td>90%</td>
</tr>
</tbody>
</table>

**H3 - Project Team Transformation** Hypothesis 3 (H3) highlights the significance of project team transformation. Five questions were developed with regards to (PLMP) theories. These questions evaluated how the participants ranked the following leadership factors: Increasing people awareness, helping team group to self-fulfillment, transcending team, building trust to team and commitment. Each question was developed in a way to capture and validate the actions of project managers and how they measure the significance of team transformation. The question focuses on how project manager views the value of teamwork and the significance of increasing team cohesiveness. The questions evaluate how team transformation improves project performance. Table 4.5 illustrates results for project team transformation.

Table 4.5: Statistics results, Q16 to Q20 Project team transformation.

<table>
<thead>
<tr>
<th>Q16</th>
<th>Q17</th>
<th>Q18</th>
<th>Q19</th>
<th>Q20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample</td>
<td>Percent</td>
<td>Sample</td>
<td>Mean</td>
<td>Percent</td>
</tr>
<tr>
<td>Very Relevant</td>
<td>40</td>
<td>63%</td>
<td>39</td>
<td>62%</td>
</tr>
<tr>
<td>Relevant</td>
<td>17</td>
<td>27%</td>
<td>21</td>
<td>33%</td>
</tr>
<tr>
<td>Neutral</td>
<td>5</td>
<td>8%</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td>Irrelevant</td>
<td>1</td>
<td>2%</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Very Irrelevant</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>N= 63</td>
<td>Standard Deviation</td>
<td>0.2630</td>
<td>0.2714</td>
<td>0.2897</td>
</tr>
<tr>
<td>Validation:</td>
<td>93%</td>
<td>73%</td>
<td>71%</td>
<td>72%</td>
</tr>
</tbody>
</table>

34
4.2.3 Project Critical Success Factors

In order to validate the topics and elements that are being researched such as the project critical success factors, four key questions will be included in the questionnaire to capture and validate these assumptions made in the model proposed. Additionally, the primarily objective in formulating a certain set of questions in the survey is to identify whether time, cost, quality and stakeholder satisfaction; were considered critical in productively executing complex projects. Table 4.6 illustrates the results presented by survey participants. For instance, the table displays that from a sample of 63 participants 47 strongly agree with the relevance of the information in question 21. A group of 13 participants agree, 1 participant was neutral and 1 completely disagreed. The information is also presented as a percentage basis including the total validation percentage.

<table>
<thead>
<tr>
<th></th>
<th>Q21</th>
<th>Q22</th>
<th>Q23</th>
<th>Q24</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sample</td>
<td>Percent</td>
<td>Sample</td>
<td>Percent</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>47</td>
<td>75%</td>
<td>43</td>
<td>68%</td>
</tr>
<tr>
<td>Agree</td>
<td>13</td>
<td>21%</td>
<td>15</td>
<td>24%</td>
</tr>
<tr>
<td>Neutral</td>
<td>1</td>
<td>2%</td>
<td>3</td>
<td>5%</td>
</tr>
<tr>
<td>Disagree</td>
<td>1</td>
<td>2%</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>N=</td>
<td>63</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>0.319</td>
<td>0.285</td>
<td>0.299</td>
<td>0.286</td>
</tr>
<tr>
<td>Validation</td>
<td>96%</td>
<td>93%</td>
<td>94%</td>
<td>86%</td>
</tr>
</tbody>
</table>

Table 4.6: Statistics results, Q21 to Q24 Project Critical Success factors.

The statistical analysis associated with validating project factors such as: completion of the project on time, cost, quality and stakeholder satisfaction revealed that on average 92 % of the responses either strongly agree or agree, emphasizing that these are strong indicators of successful project outcomes.
CHAPTER FIVE: ANALYSIS AND DISCUSSION

In this segment of the thesis, an analysis is conducted in determining the most critical aspects that contribute to the success of complex projects. This chapter concentrates on highlighting the factors that lead project managers to be highly effective and attributes that create a formula for success in project management.

5.1 Hypotheses Results and Testing

Creswell (2003) explains that using quantitative methods make it possible to quantify qualitative information. In this thesis a semi-quantitative method is used to validate the hypothesis proposed as well as the Project Leadership Model. Creswell (2003) also explain that hypotheses represent the formal statement of the researchers prediction and the link that exists between the variables which are investigated in this context. The hypotheses emerge from the model proposed which analyze the main leadership factors founded in literature review. As main factor hypothesis must be capable or being either confirmed or not confirmed (Creswell, 2003). Using the questionnaire as an instrument to confirm the hypothesis, not only are the research question answered it also provides additional support for the literature that further emphasizes the hypothesis.

The validation of the three hypotheses proposed were mainly focused in collecting the evidence of the respondents in regards to the project leadership competence which affects the success in a project. There was a main question directly connected to the three hypotheses. “How relevant and helpful do you thing that the use of the following Leadership competencies contribute with leading successfully projects?”. This question was purposely situated at the beginning of the thesis document, with the support of the rest of the question as they are linked to this main question. The objective was to collect information from the survey; participants were asked indirectly to answer Q5 to Q20 in terms in how the leadership factors and competencies contribute to leading and managing project successfully.

As mentioned in Item 4.2.1, previous informal meeting were conducted with each respondent in order to explain the objective of the questionnaire. To obtain credible and relevant information, the respondents were project management professionals and practitioners, they were aware of the value of each answer and the information being collected, also they were aware of the topics in regards with how these factors were relevant or irrelevant for increasing project success. This meeting was
conducted in order to avoid misinterpretation of the information requested, allowing to capture very complete and accurate information in regards to leadership factors in project management and project success.

The use of Statistics was incorporated on the questionnaire to validate the hypothesis since statistics, give us the chance to interpret how the respondents reacted to the questions proposed. Also standard deviation which is interpreted in how much dispersion exists from the expected value, provided a tool to find if respondents considered a highly relation between the different project leadership factors and the project success.

Through statistics, standard deviation is utilized as a tool to accept or reject the hypothesis proposed and in helping validate and associate the data with those leadership factors that are necessary in project management. The data collected from the online survey was used as an instrument to test the hypotheses and helped determined whether there is a relationship between factors of project success and project leadership. Each one of these two factors (Validation and Standard Deviation) must meet a minimal acceptable numerical level in order to accept or reject the hypothesis. Standard deviation presents a statistic indication the results from the survey and provides evidence on how closely the results are in relation to leadership factors. The levels of acceptance or rejection are showed in table 5.1.

<table>
<thead>
<tr>
<th>Level</th>
<th>Acceptance</th>
<th>Rejection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Deviation</td>
<td>Higher or Equal to 0.25</td>
<td>Lower than Acceptance Levels</td>
</tr>
<tr>
<td>Validation</td>
<td>Higher or Equal to 0.9</td>
<td></td>
</tr>
</tbody>
</table>

Table 5.1: Factor levels for accepting or rejecting the hypothesis proposed.
<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Question</th>
<th>Standard Deviation</th>
<th>Validation</th>
<th>Accepted/Rejected</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Q5</td>
<td>0.24617067</td>
<td>92%</td>
<td>Accepted</td>
</tr>
<tr>
<td></td>
<td>Q6</td>
<td>0.29740545</td>
<td>95%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q7</td>
<td>0.34734709</td>
<td>96%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q8</td>
<td>0.28734996</td>
<td>96%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>0.29456829</td>
<td>95%</td>
<td></td>
</tr>
<tr>
<td>H2</td>
<td>Q9</td>
<td>0.29008619</td>
<td>95%</td>
<td>Accepted</td>
</tr>
<tr>
<td></td>
<td>Q10</td>
<td>0.28110496</td>
<td>94%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q11</td>
<td>0.28154929</td>
<td>95%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q12</td>
<td>0.30654527</td>
<td>92%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q14</td>
<td>0.24688054</td>
<td>90%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q15</td>
<td>0.26296388</td>
<td>90%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q20</td>
<td>0.2858671</td>
<td>93%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>0.27721649</td>
<td>93%</td>
<td></td>
</tr>
<tr>
<td>H3</td>
<td>Q13</td>
<td>0.27138533</td>
<td>95%</td>
<td>Accepted</td>
</tr>
<tr>
<td></td>
<td>Q16</td>
<td>0.28968949</td>
<td>96%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q17</td>
<td>0.27685736</td>
<td>96%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q18</td>
<td>0.26664583</td>
<td>98%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q19</td>
<td>0.31913947</td>
<td>96%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>0.28955522</td>
<td>96%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q21</td>
<td>0.29913208</td>
<td>94%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q22</td>
<td>0.28656587</td>
<td>86%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q23</td>
<td>0.2858671</td>
<td>93%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q24</td>
<td>0.29913208</td>
<td>94%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q25</td>
<td>0.28656587</td>
<td>86%</td>
<td></td>
</tr>
</tbody>
</table>

Table 5.2 Resume the Test Levels of Acceptance and Rejection for each question asked to the respondents. The Sample of Data Collection was 63 people.
Hypothesis I (H1): The Use of Emotional Intelligence is used by project managers as a key leadership factor which increases the success of a project

The first hypothesis (H1) highlights project leader emotional intelligence and focuses on the theory that self-awareness and self-control, motivation and charisma are the soft skills that project managers should exercise to create a more productive working environment that can lead to the success of the project. As the project manager becomes aware of his/her actions and behaviors he/she can maximize labour effort, increase minimize employee turnover, minimize non monetary overhead costs and improve relations amongst employer and employee. Motivation and charisma are equally indispensable; motivation must be a daily continuous effort from the project manager to encourage team members to complete the project on time. The project manager should also present the team members with periodic rewards and recognize those individuals that have contributed to the success of the project.

According to the respondents self-aware was seen as a key leadership factors, the results showed that 92% of the participants agreed. Project leaders who manage self-awareness well are able to mold their feelings in a way that it benefits the team and increases the chance to success in a project. The motivation factor in the survey had a positive response of 95%.in agreement. Motivation is the drive and energy to achieve clear results and becomes the fuel and driving force of the project. Participants also considered charisma as a key leadership factor in managing projects, the results had a validation factor of 94 %. Clearly charisma is an important characteristic that helps project managers achieve better results in managing projects. A charismatic leader is much like a transformational leader, he/she has the confidence to take on challenges and the assurance to lead others. A charismatic leader can remarkable transcend the project to new heights and engage team members to overcome uncertainty and prevail over great challenges.

As previously mentioned, questions Q5 through Q8 cover the concepts and theory behind hypothesis I (H1). The results of the survey illustrated that the average standard deviation between questions Q5 to Q8 was 0.29 (levels above 0.25 are acceptable) and the validation was 95%. Following the test levels established, these results imply that the factors which were included in the model are full accepted by the respondents, therefore accepting Hypothesis H1.

Hypothesis II (H2): Special Leadership Traits are used by project managers as key leadership factors which increase the success of a project

The second hypothesis (H2) focuses on project manager traits; emphasizes leadership competencies that differentiate project managers that are highly productive to those that are least effective. These key competences must be skillfully balance and applied consistently thought-out the life of the project. As a highly effective leader a project manager ensures to inspire team work, keeps an open mind, and leads by creativity and ethical behaviour. Additionally, the project manager must exhibit actions that support hard work, demonstrate superior levels of creativity and willingness to share power by delegating tasks and sharing authority with team members. The objective behind the
theory of hypothesis II, is to present information that alters the behaviours of project managers that struggle in establishing themselves with strong presence as leaders.

Effective project management is a combination of finding an effective equilibrium of leadership tools, project knowledge and technical shrewdness. The traits that are underlined in hypothesis two provide a direction as to the key behaviours that can transform average performing individuals into highly effective project manager. It is important to note that the recommended characteristics are ultimately to add value to the project and to bring out the best from the project team members and the project manager. Success and failure of the project is highly dependable on the actions and behaviours of the project manager. Therefore, as the prime figure of the project, the project manager is always performing on a sensible stage and his/her actions have a ripple effect on the project. Consequently, in order to be an effective leader as a project manager it is extremely important for the project manager to have a well versed knowledge of the hypotheses presented in this thesis. At the same time, project managers must consistently display a combination of characteristics and competencies that were underlined by all three hypotheses in this research.

The results from the survey in particular questions (Q9, Q10, Q11, Q12, Q14, Q15 and Q20) showed that leadership traits are considered fundamental for leading project with success. The project manager characteristics of having an open mind and supporting team work obtained the highest scores in the survey with a statistical validation of 98%. This translates into the participants agreeing that project managers must maintain an open mind when managing people and resources. Additionally, project managers must encourage team work as a team effort adds more value to the project than individual effort. The bottom line is that productivity increases as teams work together and therefore the projects net profit benefit and its financials are more attractive.

Having the ability to strategize and possessing a strategic view is critical in project success, project manager must have the capacity to form strategic plans, make strategic decisions and take strategic actions. Project managers should also be able to forecast project requirements, resources and have the ability to plan accordingly. Respondents awarded a level of validation for this ability a positive response of 96%. Therefore, indicating that practicing project managers view this trait as an important component in succeeding as a leader in project management.

The results from the questionnaire highlighted that creativity was validated with a positive response of 95% and hard worker abilities with a validation of 93%. The significance of the results describe that creativity is a competence that is essential in managing projects. Creativity is necessary as project manager are able to solve problems more effectively, find solutions, finds new ways to outperform the competition, can work with uncertainties and challenges and can find new methods in successfully executing the project. Lastly, the ability to delegate tasks obtained a positive response of 95%. Project manager are seen as the ones that organizes resources and co-ordinates activities efficiently and effectively. This trait is very important to succeed in project management, as project managers have to delegate work to teammates constantly.
Questions 9 to 15 were generated to verify and collect data for hypothesis 2. The results for these questions showed an average of the standard deviation of (0.29) and a validation of (95%). By having a standard deviation that is greater than 0.25, the theory is that hypothesis II is fully accepted. Therefore, indicating that the results of questionnaire are finding that the theory in hypothesis II is relevant and crucial in executing projects and exercising leadership.

**Hypothesis III (H3): Exercising leadership to help transform teams is an approach utilized by project managers as a key factor that increases the success of a project.**

The third hypothesis (H3) project team transformation, directs the spotlight on team effort and shifting the mindset from individuality to collective work efforts. The role of the project manager is to help broaden the team's perspective in understanding that teamwork collectively adds more value to the project than work performed individually. The results obtained from questions (Q13, Q16, Q17, Q18 and Q19) relate to project team transformation and are associated with hypothesis 3 (H3). The results from the questionnaire presented a statistical validation of 96% for the segment focusing on transcending teams. This signifies that professionals that took part in the survey see team transformation as a critical component in leadership in project management. The project leader must be able to encourage team members to work together, to look beyond their differences and work towards the goal of the project.

The hypothesis underlines that the project manager must exercise his abilities to transcend the work effort from monotonous labour to actions that have higher meaning and add value to the project. The results of the survey displayed a validation of 96% for the attribute of showing commitment to greatness. Building trust and commitment to greatness is a constructive attitude for project managers to encourage from its team members as these actions lead to remarkable results in many projects. Commitment to greatness encourages higher levels of quality in the project. When project managers exercise this approach, projects are viewed as personal achievements by team members; it generates respect and provides personal value. Building trust encourages team members to work together and rely on the abilities of each other. Team members learn to have a higher regard for each other’s work and trust that the work is being completed with high levels of quality and on time. The conclusion is that project leadership transformation results, provided an average standard deviation of 0.28 and validation of 96%. These two values imply full acceptance of hypothesis by the respondents.
5.2 Final Considerations for Answering the Research Questions

What is the correlation between project leadership styles, traits and the level of project performance exerted in a project?

The field of project management is very diverse and its methodology has many layers. Today’s project management professionals should be well versed in the theories and practices of this corresponding subject as well as be knowledgeable of the details that distinguishes individuals from becoming leaders versus being part of the masses. This paper does not present a magic formula for becoming a leader or a special blend to becoming a super natural project manager, it simply sheds light on the world of project managers and the critical need for leadership skills in order to obtain effective and successful results in projects. The results show that the model proposed is fully accepted in terms of the three main leadership topics Emotional Intelligence, Project Team Transformation, and Project Manager Leader Traits. These factors have been deeply studied by many authors as working as separate units, however working as group could bring more benefits for project managers in order to increase project success. Respondents validate the (PLPM) by validating the three hypothesis proposed.

In the same context the subject of project management has not matured and has not been fully explored as many other managerial subjects. Project management is a recently discovered ground that has not been fully exploited. Only time can tell the degree of complexity that this field can eventually flourish into. The research studies, surveys and data collected through this thesis can aid project managers by providing direction and guidance as to the details and characteristics that should be exercised and continuously practice through the life of a project. An analogy similar to the construction of a regular small house can be made when describing the fundamentals of project management and leadership. The theories of project management lay the foundation for the project manager; it provides a good base to build upon other skills and to plan ahead as to the particular abilities that will be required in the future. Then, the structure is built, each piece of standing lumber representing the leadership skills that will developed into the character or molding of the leader’s persona. Ultimately, a highly effective project manager must learn and exercise a number of skills to be successful in his work and be capable of coping in times of uncertainty, risk and challenges.

How are the project manager’s leadership core competencies such as managerial, intellectual and emotional abilities intertwined with the project’s success in delivering successful results?

Measuring the success of the project manager and the success of the project depend largely on the scope and the project deliverables. Project managers should make an assessment of the culture of the company and parallel the objectives of projects with those of the company’s culture. The culture of an organization can determined if a project will be quality driven, cost driven or time driven. If the company’s culture is quality driven or value driven the project manager should focus his abilities on exceeding the needs of the customer, ethical practices, minimizing errors and exceeding industry’s standards. Most value or quality driven projects are managed through government organizations or research facilities that have backing for additional funding if needed.
For quality or value driven projects, project managers tend to have the flexibility to be highly creative, they are given more authority to distribute power and delegate tasks and authority to subordinates.

According to the results of the survey conducted for this thesis, a project manager can increase productivity by delegating power and authority as a leader. By decentralizing his position of power, the project manager not only has more control of the project, he/she has also increase employee morale. By sub dividing the projects into workable segments that can be delegated and subcontracted or co-managed by another party it, the project manager can allocate more time to the bigger issues and focus on quality, cost control and other critical factors. Additionally, if the project is cost driven the project manager should apply his/her analytical skills and engage himself/herself more deeply in the financial aspect of the project in order to have higher levels of cost control. Through his/her financial knowledge the project manager can determine whether to minimize labour hours, reduce quality, or simply increase expenses. Concurrently, as long as the profit margins remain accordingly and the company makes an adequate profit, the project is considered successful.

On the other hand, some projects are time driven, regardless the cost or the quality of the project. Although usually there is a minimal level of quality that should be met; however time driven projects required for the project manager to exercise superior time management skills, high level planning and extreme levels of communication. Even though all this skills are critical for any projects they are extremely indispensable for time driven projects.
CHAPTER SIX: CONCLUSIONS

This chapter presents the thesis conclusions drawn from the findings and analysis made in the previous chapters and also discusses the limitations of the study.

6.1 Conclusions

The concepts and theories of leadership are without argument immense; libraries all over the world are stocked with shelves with leadership books. We find ourselves here today, learning these theories by compiling and generating analysis and regurgitating historical and contemporary books on leadership theories. The concepts are highly intriguing and definitely provide a new perspective on not only becoming an effective leader but a high contributor that inspires and adds value to any environment. In essence, leadership is a key element that must be exercised in any environment in order achieve a particular outcome or objective. The actions and direction that a leader decides to take is extremely critical for the level of cooperation and the performance he/she will receive from his team members. Every individual is different, from different backgrounds different mindsets, therefore leaders should be aware that every individual is encouraged and driven by different factors.

The concepts of leadership highlight important topics on how a leader can move from the traditional person in charge role to the supportive role in order to generate better performance and at the same time improve the working environment for the team members. Leaders are no longer simply classified in the role of the “Boss” but rather are individuals of unique and extraordinary characteristics. A leader thrives in any environment and seeks out the best of people, the leader is unafraid to take risks and unconcern with failure. Ultimately and ideally, the actions of a leader should be exercised by a project manager in every phase of a project, a project manager should be knowledgeable of leadership styles, concepts of power, politics and strategies, the factors of influence tactics, the components of team-building, the effectiveness of motivation and coaching and the value of communication and conflict resolution.

The end goal to achieve effective leadership in project management and project success is definitely a long journey that is filled with obstacles, challenges but at the same time it is full of great opportunities and remarkable experiences. The path towards becoming a great leader in the field of project management entails courage, passion, perseverance, wisdom, patience and selflessness. Project management demands leaders with high levels of diverse skills in order to cope with the extreme mandates of the job, such as managing resources, supervising people, schedule timelines, negotiate contracts and so on. The competencies for an effective leader are not hereditary born-trait, these abilities are learned over time and experience. The effectiveness of leadership is a trial and error process that is exercised in the field of project management. Different leadership styles have a specific level of effectiveness on the project but it highly depends on the personality of the
leader, the environment, the organizational culture and most importantly the situation on hand. Every particular leadership style is as effective as any other it is as equivalent as any tool or weapon. It is in the hands and skill level of the beholder that the leadership style flourishes and takes on a higher level of effectiveness.

Today the field of project management continues to expand; the concepts of this field are fairly modern in comparison to other managerial theories. The focus of this research is to offer valuable empirical information along with a combination of substantial quantitative and qualitative that will add merit to current practices used in project management. This document reinforces the critical factors that are extremely necessary to successfully execute complex projects for current project manager, project engineers, and other practitioners in the field of project management. Great emphasis is placed on particular soft skills whereas technical skills become less critical in the higher ranks of project management. The transformation from typical managers to highly effective leaders relies heavily on applying the proposed critical soft skills that were underlined in the three hypotheses. The proposed competencies in each hypothesis are a product manufactured from many years of research and supported by various academies. These critical factors are not a direct formula for success; instead they are a guideline that if used effectively can produce significant positive results. One important point to highlight is that a project can only be as successful as the abilities of the project manager. The actions and behaviors of the project manager have an equally parallel effect on the project, therefore project managers must be knowledgeable, professional and continuously learning and evolving.

To summarize, in consideration of all factors aforementioned, the main conclusion is that project leadership behaviors, skills and styles must become a natural practical act in every task performed by project managers; the result would lead to significant improvements in performance and highly productive levels in project environments. Additionally in the same context, organizations can substantially benefit from supporting their project managers to develop as leaders. In conclusion, our suggestion is that any organization that operates in a multiple project environment should encourage and invest in project leadership training and strive to create a leadership culture; this will allow project managers to enhance and develop project skills beyond the traditional competencies. By creating an atmosphere that promotes personal and professional growth the organization in itself would be seeding the grassroots for highly loyal and resourceful project managers. Ultimately, project managers would be more productive in terms of completing milestones, keeping project on budget, time, and thus becoming invaluable contributing assets to the organization.
REFERENCES


Valdo, B. A. Ag., 2008.Slide Share. Effective Leadership as a key factor for project success,[online] Available at: <http://www.slideshare.net/valdob/effective-leadership-as-a-key-factor-for-project> [Accessed 18 April 2011].


APPENDIX A: Tables and Figures

Figure A3.1: Century Approaches to the Study of Leadership (Kloppenborg T et al., 2003)

Figure A3.2 Illustrates Fiedler’s Contingency Model.

Figure A3.3 Displays major leadership styles and the correlation between supportive behavior and directive behavior. (Turner and Muller, 2005)
Table A3.1. Illustrates fifteen leadership competencies and competence profiles of three styles of leadership as documented by Turner and Muller (2005)

<table>
<thead>
<tr>
<th>Category of Project Leadership</th>
<th>Project Leadership Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Initiating</td>
</tr>
<tr>
<td>Project Priorities</td>
<td>Align project with parent organization</td>
</tr>
<tr>
<td>Project Details</td>
<td>Perform risk analysis</td>
</tr>
<tr>
<td>Project Integration</td>
<td>Justify and select project</td>
</tr>
<tr>
<td>Human Resources</td>
<td>Select key project participants</td>
</tr>
<tr>
<td>Human Relations</td>
<td>Determine team operating methods</td>
</tr>
<tr>
<td>Project Promotion</td>
<td>Develop top management support</td>
</tr>
<tr>
<td>Project Commitment</td>
<td>Commit to project</td>
</tr>
</tbody>
</table>

Table A3.2: Stage-Specific Project Leadership Tasks (Kloppenborg et al, 2003)
Table A3.3: Project success factors (CHAOS, 1994)

<table>
<thead>
<tr>
<th>Project Success Factors</th>
<th>% of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Involvement</td>
<td>15.9%</td>
</tr>
<tr>
<td>Executive Management Support</td>
<td>13.9%</td>
</tr>
<tr>
<td>Clear Statement of Requirements</td>
<td>13.0%</td>
</tr>
<tr>
<td>Proper Planning</td>
<td>9.6%</td>
</tr>
<tr>
<td>Realistic Expectations</td>
<td>8.2%</td>
</tr>
<tr>
<td>Smaller Project Milestones</td>
<td>7.7%</td>
</tr>
<tr>
<td>Competent Staff</td>
<td>7.2%</td>
</tr>
<tr>
<td>Ownership</td>
<td>5.3%</td>
</tr>
<tr>
<td>Clear Vision and Objectives</td>
<td>2.9%</td>
</tr>
<tr>
<td>Hard-Working, Focused Staff</td>
<td>2.4%</td>
</tr>
<tr>
<td>Other</td>
<td>13.9%</td>
</tr>
</tbody>
</table>

Table A3.4: Interaction between Leadership and management (Turner and Muller, 2010)

Table 3.4: 

<table>
<thead>
<tr>
<th>Manager</th>
<th>Leader</th>
<th>Poor</th>
<th>Good</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>Fail</td>
<td>Dysfunctional: short-term appearance of success; long-term failure</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>Sustained but only moderate success</td>
<td>Sustained and high success</td>
<td></td>
</tr>
</tbody>
</table>
This Survey is designed to evaluate the Top leadership factors of Project Managers also the Critical factors in the success of a Project (CSP’s). The Survey is designed to be done in 10 minutes. There is no right or wrong answer, this is done just as a research objective in order to analyse the Link between Project Management Leadership and Project success.

The survey is divided in Two Sections.
SECTION NUMBER 1. Regarding Project Leadership Factors

SECTION NUMBER 2. Regarding Project Success Factors

* Required

1. Gender *
   Male

2. Profession *
   Project Manager

3. Country *
   in what country do you manage projects?
   Colombia
SECTION NUMBER 1.

For Questions 5 to 20 Answer according to your experience when managing projects. Using Scale 1 to 5, with 1 being "Very Relevant" and 5 being "Very Irrelevant" How relevant and helpful do you think that the use of the following Leadership competencies contribute with leading successfully projects?

5. The Leader is self-aware of his or her own feelings and is able to recognize and control them.
   - Very Relevant
   - Relevant
   - Neutral
   - Irrelevant
   - Very Irrelevant

6. The Leader uses his/her Self-Control to increase project success.
   - Very Relevant
   - Relevant
   - Neutral
   - Irrelevant
   - Very Irrelevant
7. The Leader uses Motivation to the Team Group and drive energy to achieve clear results and make an impact to the project. *
   - Very Relevant
   - Relevant
   - Neutral
   - Irrelevant
   - Very Irrelevant

8. The Leader uses Vision and Imagination. *
   - Very Relevant
   - Relevant
   - Neutral
   - Irrelevant
   - Very Irrelevant

9. The Leader employs Strategic perspective being aware of the wider issues identifies opportunities and threats *
   - Very Relevant
   - Relevant
   - Neutral
   - Irrelevant
   - Very Irrelevant
10. The Leader works always with ethics and with responsibility to the society and the organization.
- Very Relevant
- Relevant
- Neutral
- Irrelevant
- Very Irrelevant

11. The Leader organizes resources and co-ordinates them efficiently and effectively.
- Very Relevant
- Relevant
- Neutral
- Irrelevant
- Very Irrelevant

12. The PM delegate tasks and gives autonomy, also encourages team group to take new challenges, to solve problems and develop their proper ideas.
- Very Relevant
- Relevant
- Neutral
- Irrelevant
- Very Irrelevant
13. The Leader shows a Commitment to greatness in order to obtain the objectives and implement decisions, personal and to the team. *
   - Very Relevant
   - Relevant
   - Neutral
   - Irrelevant
   - Very Irrelevant

14. The Leader Analysis and judge in terms of gathering relevant information from a wide range of sources, probing the facts, identifying advantages and disadvantages *
   - Very Relevant
   - Relevant
   - Neutral
   - Irrelevant
   - Very Irrelevant

15. The Leader is hard worker and keep consistent performance in all situations. *
   - Very Relevant
   - Relevant
   - Neutral
   - Irrelevant
   - Very Irrelevant

16. The Leader has an open view of the situations, also take into consideration the needs and perceptions of the team members. *
   - Very Relevant
   - Relevant
   - Neutral
   - Irrelevant
   - Very Irrelevant
47. The leader increase team members awareness, changing a viewpoint based on the understanding of their position and the recognition. *

- Very Relevant
- Relevant
- Neutral
- Irrelevant
- Very Irrelevant

18. The leader arrives at decisions and propose solutions to problems and challenges, by his/her own, also with team members. *

- Very Relevant
- Relevant
- Neutral
- Irrelevant
- Very Irrelevant

19. The Leader encourages team members, to work together also to take challenge full and demanding tasks, roles and responsibilities. *

- Very Relevant
- Relevant
- Neutral
- Irrelevant
- Very Irrelevant

20. The Leader uses Creativity to solve problems and to create solutions. *

- Very Relevant
- Relevant
- Neutral
- Irrelevant
- Very Irrelevant
SECTION NUMBER 2.

For Questions 26 to 24 Answer according to your experience when managing projects. This facts are related to critical success factors. Using Scale 1 to 5, with 1 being "strongly disagree" and 5 being "strongly agree". To what degree do you agree or disagree that this factors are critical in terms of project completion success?

21. Completing Project On Time according to the time plan established.
   ○ Strongly Agree
   ○ Agree
   ○ Neutral
   ○ Disagree
   ○ Strongly Disagree

22. Completing Project on cost according to the cost plan established.
   ○ Strongly Agree
   ○ Agree
   ○ Neutral
   ○ Disagree
   ○ Strongly Disagree

23. Completing Project with higher standards of quality according to the quality plan established.
   ○ Strongly Agree
   ○ Agree
   ○ Neutral
   ○ Disagree
   ○ Strongly Disagree
24. Completing Project in terms of product success according to the plan established
- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

25. Establishing interrelation with all stakeholders of the Project.
- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

Submit
APENDIX C: Questionnaire Results and Graphs

1. Gender

- Male [44] 71%
- Female [18] 29%

2. Profession

- Project Manager [37] 60%
- Project Coordinator [16] 25%
- Project Engineer [9] 15%

3. Country

- Colombia [36] 56%
- Canada [26] 42%

4. Industry

- Telecommunications [34] 55%
- Construction [7] 11%
- IT [11] 16%
- Government capital [7] 11%
- Other [0] 0%
5. The Leader is self-aware of his or her own feelings and is able to recognize and control them.

- Very Relevant: 44 (71%)
- Relevant: 15 (24%)
- Neutral: 3 (5%)
- Irrelevant: 0 (0%)
- Very Irrelevant: 0 (0%)

6. The Leader uses his/her Self-Control to increase project success.

- Very Relevant: 34 (55%)
- Relevant: 23 (37%)
- Neutral: 5 (8%)
- Irrelevant: 0 (0%)
- Very Irrelevant: 0 (0%)

7. The Leader uses Motivation to the Team Group and drive energy to achieve clear results and make an impact to the project.

- Very Relevant: 43 (69%)
- Relevant: 16 (26%)
- Neutral: 2 (3%)
- Irrelevant: 1 (2%)
- Very Irrelevant: 0 (0%)

8. The Leader uses Vision and imagination.

- Very Relevant: 51 (82%)
- Relevant: 9 (15%)
- Neutral: 2 (3%)
- Irrelevant: 0 (0%)
- Very Irrelevant: 0 (0%)
9. The Leader employs Strategic perspective being aware of the wider issues identifies opportunities and threats

- Very Relevant: 42 (68%)
- Relevant: 17 (27%)
- Neutral: 1 (2%)
- Irrelevant: 2 (3%)
- Very Irrelevant: 0 (0%)

10. The Leader works always with ethics and with responsibility to the society and the organization

- Very Relevant: 41 (65%)
- Relevant: 17 (27%)
- Neutral: 4 (6%)
- Irrelevant: 0 (0%)
- Very Irrelevant: 0 (0%)

11. The Leader organizes resources and co-ordinates them efficiently and effectively...

- Very Relevant: 40 (65%)
- Relevant: 19 (31%)
- Neutral: 3 (5%)
- Irrelevant: 0 (0%)
- Very Irrelevant: 0 (0%)

12. The PM delegate tasks and gives autonomy, also encourages team group to take new challenges, to solve problems and develop their proper ideas.

- Very Relevant: 45 (73%)
- Relevant: 13 (21%)
- Neutral: 3 (5%)
- Irrelevant: 1 (2%)
- Very Irrelevant: 0 (0%)
13. The Leader shows a Commitment to greatness in order to obtain the objectives and implement decisions, personal and to the team.

- Very Relevant: 36 (58%)
- Relevant: 20 (32%)
- Neutral: 3 (5%)
- Irrelevant: 3 (5%)
- Very Irrelevant: 0 (0%)

14. The Leader Analysis and judge in terms of gathering relevant information from a wide range of sources, probing the facts, identifying advantages and disadvantages.

- Very Relevant: 40 (63%)
- Relevant: 16 (25%)
- Neutral: 4 (6%)
- Irrelevant: 2 (3%)
- Very Irrelevant: 0 (0%)

15. The Leader is hard worker and keep consistent performance in all situations.

- Very Relevant: 38 (61%)
- Relevant: 19 (31%)
- Neutral: 5 (8%)
- Irrelevant: 0 (0%)
- Very Irrelevant: 0 (0%)

16. The Leader has an open view of the situations, also take in to consideration the needs and perceptions of the team members.

- Very Relevant: 39 (63%)
- Relevant: 17 (27%)
- Neutral: 5 (8%)
- Irrelevant: 1 (2%)
- Very Irrelevant: 0 (0%)
17. The leader increase team members awareness, changing a viewpoint based on the understanding of their position and the recognition.

<table>
<thead>
<tr>
<th>Rating</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Relevant</td>
<td>38</td>
<td>61%</td>
</tr>
<tr>
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</tr>
<tr>
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18. The leader arrives at decisions and propose solutions to problems and challenges, by his/her own, also with team members.

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<tr>
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19. The Leader encourages team members, to work together also to take challenging and demanding tasks, roles and responsibilities.

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20. The Leader uses Creativity to solve problems and to create solutions.

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21. Completing Project On Time according to the time plan established

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22. Completing Project on cost according to the cost plan established

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23. Completing Project with higher standards of quality according to the quality plan established

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24. Completing Project in terms of product success according to the plan established

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