IMPACT ANALYSIS OF LEADERSHIP ON CONSTRUCTION PROJECT MANAGEMENT IN THE LEBANESE CONTRACTING FIRMS

A Thesis

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the Faculty of Business Administration and Economics

at Notre Dame University-Louaize

In Partial Fulfillment

of the Requirements for the Degree

Master of Business Administration

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by

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ABSTRACT

Purpose – In project management, the appreciation of the behavioral and interpersonal dimension that interacts with subordinates is to be considered as crucial factors within project sustainability. Therefore, the ability to exercise leadership is not necessarily an asset, if it is not immediately coupled with managerial skills. The intrinsic qualities that a leader should possess in order to exercise his mandate will vary depending on the intended mission.

Design/methodology/approach – The study relies on a quantitative method. Such method purpose lies in the description, explanation, prediction and objective control of its causes and the prediction of its occurrence, basing its conclusions on a rigorous use of quantification. Both the collection results and its processing and analysis follow the logic of a hypothetic-deductive method.

Findings – A positive relationship has been found between transformational leadership and employees' empowerment, stimulation and project efficiency and effectiveness.

Research limitations– it was advisable to invest, before, into a qualitative method in order to understand through semi-guided interviews the perceptions and the intentions of project management's leaders. **Implications** – It is also important that the manager creates a caring environment, where employees can express themselves freely, are proactive and respected. Open communication is advocated regarding the objectives and responsibilities of each.

Practical implications – From a practical point of view, the study consisted of verifying three hypotheses. Findings have shown a positive relationship between leadership and employees' empowerment, employees' stimulation and project efficiency and effectiveness.

Originality/value – The literature review suggests that team management have an increasingly important influence on projects performance and on the overall organization performance as well. Many organizations are moving from a traditional hierarchical structure to a team-oriented structure to provide an environment conducive to performance. In such vein, leadership and empowerment of employees have become essential. In other words, when the time comes to assess the success of projects, managers should be interested in measurable indicators such as costs, schedule and scope, while having an adequate understanding of influences that impact project activities. All in all this research emphasis on the importance of team management and employee empowerment and its aims to reflect its impact in the Lebanese contracting firms. After following a quantitate approach, the research shows a positive impact of leadership on employees empowerment, employees stimulation and the project efficiency.

Keywords: Leadership, project management, sustainability, empowerment, motivation, stimulation.

CHAPTER 1

INTRODUCTION

1.1. General Background about the Topic

In recent years, several researchers have been interested in the joint study of project management and change management. Project management is an essential vector in the process of change management. Organizations want to make their changes more effectively by using the discipline of project management to improve their performance. The literature review suggests that team management have an increasingly important influence on projects performance and on the overall organization performance as well. Many organizations are moving from a traditional hierarchical structure to a team-oriented structure to provide an environment conducive to performance. In such vein, leadership and empowerment of employees have become essential. In other words, when the time comes to assess the success of projects, managers should be interested in measurable indicators such as costs, schedule and scope, while having an adequate understanding of influences that impact project activities (Hickson, R. C. , 2015).

However, in contemporary research these concepts have not received the attention they deserve. Research on leadership in a project management has effectively focused on managers as individuals, on their traits, capacities and actions, neglecting the effects of this leadership on projects and on team members. However, leadership is an important component of organizational performance (Nicolaides and al. 2014) and also at the level of project teams (Ammeter, A. P., & Dukerich, J. M., 2002). Moreover, many organizations are thus moving from a traditional hierarchical structure to a more team-oriented system in order to overcome the growing complexity of tasks (Zaccaro, S. J., & DeChurch, L. A., 2012). The objective of this

study is therefore to observe and illustrate interrelations dynamics; then, to observe the empowerment of employees, and its leadership influence on the team.

1.2. Research Question

Leadership and empowerment have become essential to increase the effectiveness of teams (Pearce, C. L., 2007). However, project leadership has not received the required attention, neither in project studies nor in leadership research (Müller, R., Sankaran, S., Drouin, N., Vaagaasar, A. L., Bekker, M. C., & Jain, K., 2018). That business science discipline is however recognized as fundamental to sciences that are interested in organizational behavior (Carter, D. R., DeChurch, L. A., Braun, M. T., & Contractor, N. S., 2015). In sum, leadership is often conceptualized as a process of top-down influence in which researchers isolate a single leader (D'Innocenzo, L., Mathieu, J. E., & Kukenberger, M. R., 2016). Indeed, research on leadership in projects has traditionally focused on managers traits, abilities and actions as a factor of success in organizations (Cicmil, S., Hodgson, D., Lindgren, M., & Packendorff, J., 2009), but it appears to be very few studies that have examined the effects of leadership on projects based on recent theories of team leadership (Clarke, N., 2012).

In this regard, the influence of team leadership on performance should be considered more carefully and clarified in existing theories of organizational and strategic leadership (Zaccaro, S. J., & DeChurch, L. A., 2012), although shared leadership is the subject for more and more studies (Binci, D., Cerruti, C., & Braganza, A. , 2016). Studies on empowerment of employees have a significant impact on the understanding of interactions within organizations; and continue to gain interest although several questions remain unanswered (Seibert, S. E., Sargent, L. D., Kraimer, M. L., & Kiazad, K., 2017). In their study, Chen and al. (2007) emphasize the importance of an

organizational context allowing the appearance of team empowerment. In addition, Xue, Bradley & Liang (2011) argue that empowerment is an essential construct for understanding the development of individuals, organizations and communities and for understanding the sharing of influence. The literature review has identified the most common leadership determinants that influence employee's empowerment and project efficiency and effectiveness. Such reflections lead to understand: ***"How leadership is exercised within a project team?"***

Such relationships are reflected through the following hypotheses:

H1: Leadership style practices positively affect employee's empowerment.

H2: Leadership style practices positively affect employee's stimulation.

H3: Leadership style practices positively affect project efficiency and effectiveness.

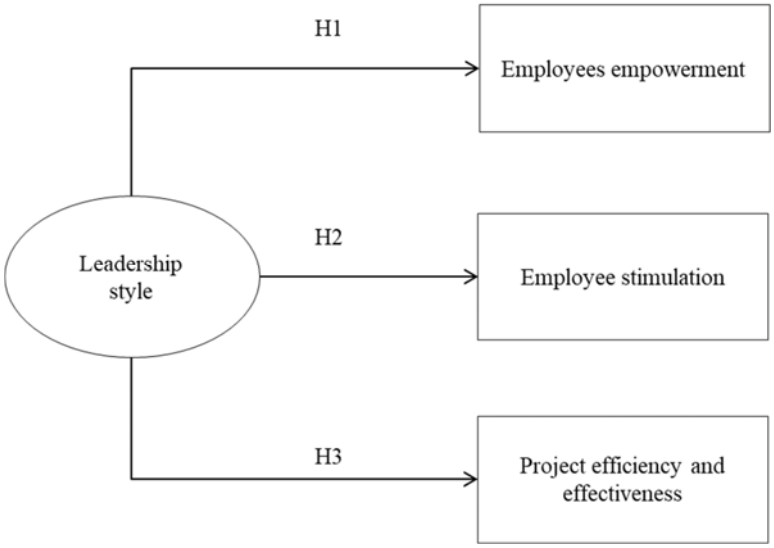


Figure 1: Conceptual model

1.3. Objective/aims of the study

In project management, serval scholars' as (Ika, L. A., 2009) focus their attention on the application of tools and techniques. However, such aspect of means and methods is certainly interesting, but in recent years, many authors (Meredith, J. R., Shafer, S. M., & Mantel Jr, S. J., 2017) have highlighted the factor of leadership as important in the conduct of projects.

However, in the leadership field, style and skills are the two most important aspects in the leadership field. Leadership is often used to define a managerial skill or some leadership talent, but it is ignoring the spirit that drives this concept.

Therefore, the ability to exercise leadership is not necessarily an asset, if it is not immediately coupled with managerial skills. The intrinsic qualities that a leader should possess in order to exercise his mandate will vary depending on the intended mission. The appreciation of the behavioral and interpersonal dimension that interacts with subordinates is to be considered as crucial factors within the present study development. In such perspective, pursued objectives will illustrate the exerted leadership style, the influence on subordinates, empowerment and motivation of employees and finally project management efficiency and effectiveness.

1.4. Benefiters of the study

In the actual financial crisis period in Lebanon, the construction field kept, somehow, its progress since it is dependent from suppliers and customers agreements and contracts. However, and in order to manage budgeted costs and project schedule, project managers should work to minimize waste of resources and to optimize fixed costs outcomes. In this regard, construction companies, real estate developers,

engineers, architects are the main benefiters of the study since they deal with an ongoing process for projects achievements.

1.5. Added value of the study

The present research identifies, first, the differences between a manager and a leader from the point of view project management and change management. Second, this research takes even a larger scope while integrating the field of leadership, and the influence of the latter on subordinates. In such, the leadership style study is appropriate for understanding project or change management. In that vein, a third added value allows the reader to understand the importance of the skills and required knowledge according to the project or the change initiated. Finally, the last added value is translated by the influence and interaction between the leader and his team for achieving project success.

1.6. Structure of the thesis

In the following chapters, a literature review presents the concepts and definitions of leadership. The main concept of the study is reflected through different contexts in order to approach leadership effects that enhance empowerment of employees. A methodological approach to answer the research question is proposed in chapter III while the analysis extends over chapters IV by discussing the results of the study and ending with a conclusion that highlights the main findings, limitations as well as the implications and recommendations of the study.

CHAPTER 2

LITERATURE REVIEW

In the context of new economy parameters, with globalization and accelerated development of technologies, the competitiveness of companies relies more and more on knowledge and on their capacities to innovate. In fact, product and technological innovation as well as the regeneration of knowledge contribute to the increase of competition between contemporary organizations. To respond to such increased competition, working organization methods are constantly reviewed to allow flexibility, a key factor that is favorable for knowledge and innovation development. Project teams are, thus, considered as preferred forms for working organizations.

Organizations progression and project teams' success has contributed to the reinforcement of certain requirements for the employees: the success of the organization, in particular by the achievement of the objectives of the project, depends among other things on the motivation of the employees for using their creativity and exerting considerable efforts. The business is often described as a dynamic system that lives in a fairly fluid and unstable external environment. And change is a necessary necessity for growth.

Project management has evolved and offers a vision that is no longer essentially technical and focused on time-cost quality but rather centered on a relationship between project management and change management. It is generally accepted that project management can be considered as an important vector in the management of change, especially when it is complex and radical (Gareis, 2010). This also explains why several concepts seem common to project management and change management, such as

communication and leadership (Lehmann, 2010). The present chapter will be drawn on contextual models that deal, first, with the concept of project management and its relation with employees' motivation. That is to say that relationship between a project management success and employees' motivation strongly depends from the manager leadership style for reaching aimed objectives. The Anglo-Saxon literature review will cover the study analysis that revolve around that relationship and which involve also the outcomes of leadership on project management success.

However, as far as, the literature review will help approaching such concepts, as far as it will tackle leadership scientific review that impregnates from Lebanese studies and contexts. So far, that literature review will help identifying contextual factors that reflect Lebanese leadership characteristics in relation with employees' empowerment, stimulation and influence, and finally project efficiency and effectiveness.

2.1. Project management and employees' motivation

Motivation is essential in project teams, because it allows members to work harder and thus the end result of the project is of better quality. In this sense, because motivation can inspire, encourage and stimulate individuals to achieve common goals through teamwork, it is in the interest of the project manager to see to the creation and maintenance of an environment motivating for all team members (Peterson, 2007).

2.1.1. Project team importance and composition

Modern organizations attach great importance for project teams' constitution and projects realization. Such importance depends among other things on the dynamics of this team. Therefore, project teams' management has become a very important element in modern management modes. Project team is generally subject to time and budgetary

constraints and aims to achieve project objectives. However and in the light of the thesis study, the literature review will mainly focus on the need for more in-depth examination of the relationship between project team leadership and project success. It is important to consider, therefore, differences that exist between a manager and a leader. The main difference between the manager and the leader depends mainly on the origin of his status. The manager owes it to the decision of his hierarchy, who appointed him to coach and supervise his team. As for the leader, he naturally takes this place and is recognized as such by the members of his team.

2.1.1.1. Project management approaches: a literature review perspective

Projects, by definition, are one-off and unique, associated with a sometimes unknown environment, and carried out in a climate of uncertainty. In project management, the question to ask is not whether plans will change, but rather when and how. A project manager should possess broad skills, including the ability to convince his subordinates of the need for making changes and to motivate them for working together towards the achievement of a common goal, despite an environment that is sometimes vague and always changing. A manager must also be, necessarily, able to clearly communicate his expectations, be a generalist with multiple skills equipped with a good sense of conciliation and negotiation. Such characteristics, if perceived by subordinates as having a positive influence while evolving in a team project, the manager is qualified as a leader.

A project manager, endowed to reinforce these elements, would therefore be more likely to be successful. One of the first essential steps for the success of the project is the ability to quickly establish the roles and responsibilities of each, as well as the

project milestones. The leader's task is to create a climate of collaboration and effective communication, to equip the teams who need it, to communicate the relevant information and to liaise between the client and all the stakeholders. In other words, a team leadership is a dynamic and social process (Burke and al. 2006) involving all the people who take part in the project. Project-based management involves the use of the project team, which is a group of members who work together to achieve certain objectives linked to a specific project (Gällstedt, M., 2003). The project team is therefore dedicated for a given project implementation and the team is built around it (Sydow, J., Lindkvist, L., & DeFillippi, R., 2004). Project team specific responsibilities, organizational structure, staff and number of members vary according to the nature, complexity, size and duration of the project (Lock, D. , 2007).

Merely grouping workers into a team for a project, however, does not mean that the members necessarily form a team. The project team is not just a group of people working on the same project. It is a group of people related to each other who work together to achieve the objectives of the project (Gällstedt, M., 2003).

"A group is defined by individuals who are interdependent in their tasks, who share a common responsibility towards expected results, who perceive and are perceived by others as embedded entity in a larger social system, and who manage their relationship across organizational boundaries " (Miller, D. M., Fields, R., Kumar, A., & Ortiz, R., 2000). Thus, the interdependence between members of a group can be social, structural and technical (Spreitzer, G. M., 1986).

The project team is a temporary organization. Indeed, once the project is completed or interrupted, the mission of the project team is so, and the project team is dissolved (Rauniar, R., Rawski, G., Morgan, S., & Mishra, S., 2019). In addition to being

temporary, the project team is also unique, that is, members are grouped together according to the requirements of the project (Gann, D. M., & Salter, A. J., 2000). The uniqueness of a project team means that participants are in fact chosen according to the project requirements. Overall, a good combination of professional skills of the team allows project's achievement (Pollack, J., & Adler, D., 2016).

The project team is, therefore, a diverse team. Usually, the project team includes project managers, project team members, consultants and project experts. Sometimes these roles do not have to be taken on by different people, as one person can play multiple roles (Yu and al. 2018).

In addition, the same authors illustrate that project team members often come from different administrative departments, different sectors, different organizations and different areas of expertise. Experts from various fields have complementary skills. They work in interdependence. Mutual trust and good cooperation to achieve project goals are therefore necessary. Therefore, the project team is a diverse multi-sectoral and multi-disciplinary team.

Thus, the project team is generally under the direct authority of a project manager who is in charge for achieving defined objectives. In such, successful achievements are related for members' joint efforts that are coordinated for various tasks in an efficient manner by a project manager. Without project leadership, there is no direction in project management. Leadership is the decisive factor in improving the chances of success of projects. Therefore, effective project management must be built on a solid foundation of project leadership.

2.1.1.2. Characteristics of a project team

As unique as the project itself, project teams are the same. Despite their uniqueness, it is possible to interrogate about the fact that a project team will be able to effectively carry out project management activities. In such regards, the literature review has identified three main aspects that define project team effectiveness. The first aspect is related to a reasonable division of tasks and cooperation.

A project team mission consists on carrying out tasks that are related to the project and the achievement of its specific objectives (Ren-yong, C., & Gen-nian, T., 2004). The tasks of each member are therefore related to the project objectives. They are divided among the members, but they are called to collaborate. The second aspect relates to a high degree of cohesion and a presence of a harmonious atmosphere. An effective project team is usually a highly cohesive team. Team cohesion is the strength that unites and motivates its members (Paul and al. 2016).

Team cohesion plays an important role in the success of the team. It is stronger when employees believe that the group members' will cooperate in achieving individual personal goals, to meet their need for affiliation or esteem, or to provide colleagues with support in difficult times (Vinokur-Kaplan, D., 1995). Team members can demonstrate enthusiasm for the success of the project by giving the required time and effort. The third aspect is related to a common goal. Each organization has its own goals. Members of the project team work together to achieve it. Sharing a common vision and goals and having the same understanding of monitoring progress towards that vision are key factors in the success of a project and a team. Collaboration is necessary for the team to achieve the vision and goals of the project. Likewise, the project vision should include the concept of collaboration; it must be part of the vision as well as the project

objectives. Collaboration is the means to achieve the goals and to approach the realization of the vision. It is a central part of every project.

The following five points are to be considered in terms of team objectives (Paul, R., Drake, J. R., & Liang, H., 2016):

1) The project team has a common vision. This is the reason for which a team exists. Each team member has a clear understanding of the project, can identify it, and is ready to realize this shared vision with the necessary effort.
2) The project team has a clear common goal. This goal is the specification of a shared vision in a concrete and objective environment, and is adjusted accordingly with changes in the environment. Each team member understood it as well and agreed upon its process.
3) Team members understand the importance of achieving common goals for the organization.
4) Common vision and common goals encompass personal vision and personal goals and fully reflect the will and interests of individuals. They are attractive enough and can inspire passion from team members.
5) Based on practical and realistic principles, the team can develop and implement effective strategies.

If the aim of that sub-section is to cover the characteristics of a project team, the following one will be based on the interactions among team members and the outcomes that should such individuals evolve jointly with in order to reach a certain success.

2.1.1.3. Employee mobilization and commitment in a project team

Motivation is a psychophysiological process that can hardly be observed directly. Motivation is measured through its effects on employees' attitudes and behaviors. However, other scholars take an interest in other concepts associated with motivation. They have been interested in studying motivation through individual mobilization and commitment. In fact, it reverts to the project leader to foster a collaborative culture conducive to teamwork.

Since organizations currently operate in complex environments and are subject to major and frequent changes, flexibility and staff commitment are at the heart of management debates. These concerns relate in particular to the mobilization of staff. Such phenomenon would constitute an important determinant of organizational performance and the well-being of employees.

Mobilization is defined as through performance of actions that are beneficial for the well-being of others, of their organization and to the accomplishment of a collective work (Van Stekelenburg, J., Klandermans, B., & Van Dijk, W. W., 2009). More precisely, Wils, Wils & Tremblay (2010) define three categories of mobilization behavior, namely respect for the employment contract, individual motivational behavior and collective motivational behavior.

Throughout such advancements, the same authors note that individual motivation is one of the components of mobilization. Motivation is essential to mobilization, but insufficient as a sole component to reach it. Motivation should be completed with commitment in order to reach mobilization.

Employee commitment is highly valued by contemporary organizations insofar as simple compliance with formal requirements does not make it possible to survive in a very dynamic competitive context (Taylor, S., Levy, O., Boyacigiller, N. A., & Beechler, S., 2008). Commitment constitutes a force that pushes an individual to take actions that are relevant to one or more targets (Meyer, J. P., & Herscovitch, L., 2001). The possible targets of commitment are multiple. It could be the organization, the union, the profession, the team, the immediate superior, the objectives or the career.

Commitment is defined as the involvement of the *"self"* of employees in their role at work and its expression during performance (Meyer, J. P., 2014). Schaufeli and al. (2002) define it as vigor, dedication and concentration at work. It is generally believed that commitment is related to increased productivity and lower staff turnover. In the literature, commitment can represent as much a psychological state, an aspect of performance, the attachment of the individual to his organization as an individual trait. Several concepts, used in organizational behavior, are related to commitment, including motivation, mobilization, involvement, commitment to the organization, and loyalty.

2.2. Leadership concept and approaches

It has been argued that leadership is understood as a complex phenomenon that can be approached from different perspectives. The traits and behaviors presented by the leader, in the attributions made by the followers or in the incidence of the context in the leader-follower influence process, are highlighted as a central theme. Leadership is often used to define a managerial skill or some leadership talent, but it is to ignore the spirit that drives this concept. What we could say is that leadership is in fact affirmed by the ancestry that the manager has in getting his employees or members of his group to perform various tasks in order to achieve a set objective. Therefore, the ability to

exercise leadership is not necessarily an asset, if it is not immediately coupled with managerial skills (Taguiri, 1995). The intrinsic qualities that a leader should possess in order to exercise his mandate will vary depending on the intended mission. The appreciation of the behavioral and interpersonal dimension of the work of leaders is important (Dessler, 2009).

Interpersonal skills are the understanding of interpersonal and group processes; the ability to understand people's motives, feelings and attitudes; the ability to maintain operational relationships with subordinates and the capacity for persuasion in oral communication. Such characteristics will contribute, therefore, for the understanding of subordinates' appreciation of their leader. In the same vein, those characteristics will be reflected through the survey statements in order to understand employees' perceptions in relation to this eventuality

In fact, the project manager is the soul of the project team. He is the key for projects success. The responsibilities of the project manager are to lead the team to the achievement of the project objectives and to coordinate the activities of the members so that they effectively complete their work. In addition to any skill specific to a given area and general management skills required for the project.

2.2.1. Evolution of leadership understanding

In recent years, many theories have emerged in an attempt to explain the phenomenon of leadership and measure its effectiveness in organizations. Yukl (2012) highlights the weakness of the many attempts to organize the literature on leadership theories according to the main approaches or the different perspectives. Many definitions of leadership have already appeared, but a characteristic common to these statements

clearly emerges: *"the leader is a person who has the capacity to influence other people and to bring them to reach a fixed objective"* (Seeman, M., 1960). These theories paint a robot portrait of leaders: they presuppose that they have things in common such as intelligence, integrity, self-confidence, extroversion, conscientiousness, a spirit of initiative and good judgment. These theories are based on the assumption that leadership skills are innate and not learned.

Over the course of research, the conceptualization of leadership has evolved considerably. Indeed, six schools of thought of leadership were identified, which in turn or in parallel develop knowledge; these are schools of traits, behaviors, contingent, charismatic and skills.

2.2.1.1. Leadership and the trait theory

In these years, many definitions of leadership have already appeared, but a characteristic common to these statements clearly emerges: *"the leader is a person who has the capacity to influence other people and to bring them to reach a fixed objective"* (Seeman, 1960).

These theories draw a robot portrait of leaders: they presuppose that they have things in common such as intelligence, integrity, self-confidence, extroversion, conscientiousness, a spirit of initiative and good judgment. These theories are based on the assumption that leadership skills are innate and not acquired.

First, the traits approach (1930-1940) is one of the earliest approaches for studying leadership. It focuses on the character traits that effective leaders within an organization can have, such as personality, motivations, values and skills. Trait theory explains leader skills but do not emphasize on specific traits that provide leadership skills. This

approach focused on the representation of traits emanating from the personality of an individual disregards his behavioral attitude in reaction to stimuli from his immediate environment.

The basis of this theory is that effective leaders are born, and cannot be made, that is, some people are natural leaders with certain traits, while others are not possess. The Great Man Theory combines the physical, mental (intelligence) and social[1] characteristics that an individual may have (Yukl, 2012). All of these traits have been the subject of empirical research. However, some researchers such as Stogdill (1974) concluded that existing studies had failed to demonstrate the utility of the feature approach. These studies have largely been abandoned, due to the lack of concrete results relating individual traits to leadership effectiveness. This lack of results was defined due to a too young and inexperienced sample (Yukl, 2012).

2.2.1.2. Leadership and the behavioral approach

Following the abandonment of the leader's traits approach, the universities of Michigan and Ohio have conducted numerous studies on the behavioral (1940-1950) approach to leadership. These researchers were primarily interested in how effective managers work within an organization.

Two major behavioral classes are attached to this theory. One is task-oriented where work techniques are emphasized such as planning, organizing and coordinating at work, as well as the importance of achieving performance. Achieving organizational goals productively (effectively and efficiently) requires that the organization, through its management, first make explicit the strategic plan and the operating plan corresponding

[1] Personality attributes.

to each unit of the organization, units that ideally should have participated in this process of planning. Second, it is necessary to clarify goals that are nothing other than objectives to which deadlines are assigned to be completed. Third, inspection, surveillance and monitoring by management is required in order to share the direction and destination of plans, animate the process, recognize partial achievements, correct the course where necessary and to audit individuals performance. To achieve this, behavioral leadership proposes to use both behavioral systems design oriented towards the mission that gives direction as well as the personal performance management to ensure achievement of goals, interest and involvement with the task and satisfaction of leaders and followers.

The other is more oriented towards the human relations that the leader can have with his employees within a work team. Michigan researchers point out that general supervision leads to better results in job satisfaction and motivation than closer supervision. Behavioral theory assesses the actions that effective leaders can take, but it also identifies ineffective behaviors. Like the character traits approach, the behavioral approach does not take into account the influence of the situation on the effective behaviors of leaders (Yukl, 2012).

In addition, researchers wanted to examine the influence of power on the leadership process. Behavioral leadership consists of managing personal and collaborator performance to achieve organizational goals productively, ensuring involvement and interest in the task and satisfaction. The leader is a permanent promoter of behavioral self-leadership. This theory wants to highlight the effectiveness of the leader according to the type of adopted power and the way in which this power is exercised within a work team. Power influences not only subordinates, but also stakeholders (Yukl, 2012).

In 1960, (Raven, B. H., 1992) identified five different power bases: coercive power, legitimate power, reward power, reference power, and expert power. Each power base can be effective depending on its specific circumstances and context.

How leaders influence and encourage their followers to be more productive does not depend on their power within the team. Influence will depend on several variables including the leader personality, skills and personalities of the followers, as well as the mission and tasks to be accomplished.

2.2.1.3. Leadership and the contingency approach

Subsequently, the contingency or situational approach (1960-1970) proposes that the organizational context or the work group influence the effectiveness of leadership. The main situational variables include the nature of the work performed by the team, the type of organization, followers' characteristics, and the nature of the external environment. This approach offers two categories.

On the one hand, it identifies how the leadership process may or may not be effective depending on a given situation. On the other hand, it tries to identify the elements of the situation that make the relationship between the leader's attributes[2] and his effectiveness. The idea is to demonstrate that certain attributes will or will not perform well in certain situations (Yukl, 2012).

Finally, in recent years, the integrative approach combines several types of leadership variables. However, it is still rare to find theories that include them all at once. An example of this approach is the self-concept theory of charismatic leadership. This

[2] Traits, behaviors, skills, etc.

explains how the leader takes exceptional measures in order to be able to achieve the team's objectives (Yukl, 2012). In fact, managing performance considers behavior contingencies that modify working behaviors and that result in significant gains for the achievement of goals. Stimulating a common interest implies arranging behavioral contingencies so that collaborators experience collateral emotions with the fulfillment of tasks. In addition, involving staff requires, in addition to a leader behavior, to add behavioral contingencies to increase the contact time of subordinates with related tasks to be executed. It is important to add at that level that promoting behavioral self-leadership should be the aspiration of every leader. This means helping staff members to incorporate into themselves self-management behavioral convictions so that each member of the organization's staff develops his competencies and acts in line with the organization's goals. It should be noted that contingency theories can help clarify the understanding of the leadership construct, in combination with charismatic leadership theories.

2.3. Differentiation between Leadership and Management

It is important to make a noticeable difference between leadership and management. Indeed, management is defined as the set of functions that plan, organize and control an organization. The manager is therefore the one who fulfills these functions formally by virtue of his position within the organization. In contrast, leadership is essentially about the influence a leader can have over his followers. This influence varies depending on multiple factors other than his authority or official position within the organization. Leadership can influence the motivation of followers and the creation of a favorable environment, in order to achieve common goals as a team (Yukl, G., 2012). In such, a manager may or may not be an effective leader.

In terms of behaviors, a significant literature discusses the impact of transformational leadership on the adoption of organizational citizenship behaviors (OCC). However, several of these studies have only found indirect relationships between these two variables; the transformational leader would thus have a positive impact on certain attitudes that would favor the adoption of OCC (Babcock-Roberson, M. E., & Strickland, O. J., 2010). Still in terms of behavior, it seems that transformational qualities are strongly related to subordinate performance, the group and / or the organization (Judge, T. A., & Piccolo, R. F, 2004).

A positive relationship between transformational leadership qualities and measures of effectiveness has been demonstrated in several studies exploring various countries, industries and / or categories of employees (Judge, T. A., Piccolo, R. F., & Ilies, R., 2004). Despite its strong influence on behavior, it has been shown that transformational leadership is often considered by his subordinates to be more efficient (Judge, T. A., Piccolo, R. F., & Ilies, R., 2004). In this regard, some Meta-analyzes has established a positive correlation between transformational leadership and subordinate satisfaction with their job and / or their leader.

Moreover, it appears that the transformational leader generally obtains the trust of his subordinates (Smith, M. A., 2011), while having a positive impact on their perception of organizational justice (De Cremer, D., Van Dijke, M., & Bos, A. E., 2007). According to Bass and Riggio (2006), such relationships are explained in part because of the integrity, dedication and values of fairness of the transformational leader. The charisma dimension of transformational leadership would also have a positive influence on the perception of support from the supervisor, which would promote the perception of organizational support (Barbuto, J. E., 1997).

Finally, according to Bass and Riggio (2006) each of the dimensions associated with transformational leadership plays a role in the development of the organizational commitment of subordinates. In this regard, several studies have suggested that the transformational leader elicits various forms of emotional attachment in subordinates (Hansbrough, T. K., 2012).

Thus, by sharing a common organizational vision and goals, the transformational leader would increase the level of cohesion between subordinates and, therefore, stimulate their organizational commitment. In sum, it seems that transformational leadership is recognized as having an important power of influence on the attitudes of its subordinates, in particular by fostering their emotional attachment.

2.4. Relation between Leadership and project management

Transformational leadership has been a topic of interest to many researchers for many years. Thus, there are a considerable number of studies on the influence of this type of leadership on organizational effectiveness and success. However, given the importance of this literature, the following sub-sections will focus on the repercussions of the leadership style on subordinates behaviors and attitudes towards working team.

2.4.1. Leader capabilities and knowledge management

Project Leader role focuses on the human concerns of the project. The person who performs in this position must ensure that involved persons in the project possess capabilities to produce collectively. More precisely, leaders must ensure that:

- Project participants produce and internalize coherent project messages;

- Project participants show an involvement and commitment towards the team orientation.

In fact, what the leader represents has taken on great importance in order to achieve a competitive advantage in any company within the scope of globalized businesses. Competency management is a tool that makes the organization more flexible by integrating the organizational dimensions, considering the management of people as the main protagonist in the creation of competitive advantages for the organization. This approach supports the training and development process, contributing to the improvement of human capital management and contributes to increased productivity and competitiveness. Researches as of Lee and al. (2010) stand out regarding the fact that it is the knowledge, their know-how, which really distinguishes such leaders, as long as they translate knowledge into practices, in a way that knowledge could be measurable and quantifiable. Despite the impact that leadership has on organizations, it is common to see that leaders generally meet needs in technical aspects, improvement in results, above the needs subordinates. That is the reason for which it is known that a leader should be a polyvalent person where he is the only referee for all the team members. In such, once a leaders' project provide a sharing of a common vision among all team members, he should enhance a tangible knowledge with clear directives. In return, subordinates can learn from their leader experiences and knowledge.

In every organization there is an observable pattern of behavior that mediates the way through which participants think, act and learn. This set of behaviors, shared values, ideas, symbols and normative forms is called organizational culture.

An organizational culture favors to a great extent effective leaders development and is related for necessary characteristics to meet environment of constant change needs and

where innovation and the generation of ideas or creative solutions are favored with a tendency to continuous improvement. In a more detailed approach, effective leadership will depend also on the level of development of subordinates. Thus, a high level of subordinates' development in competence and dedication will require a leadership style delegation. A subordinate with a variable dedication and medium-high competence will require an advisory leadership style. In contrast, a subordinate with low dedication and low competence will require a supervision leadership style.

In such perspective, knowledge project management aims for promoting effective leadership practices through the training of subordinates to meet expected project outcomes (Gasik, S., 2011). Moreover, it is possible to mention that the organizational culture, that reflects a vertical decision-making processes, tends to be bureaucratic due to the centralization of processes and do not favor the presence of effective leadership practices.

In such, collaborators maintain rigid and static behaviors where a passive stance in the face of a problem solving is plausible. However, some organizations see areas of opportunity while considering the importance of leadership and staff management. Such organizational cultures encourage learning and development. One of the main purposes of knowledge management is related to organizational learning (Yahchouchi, G., 2009). The same author added that in the case of the Lebanese context, a paternalistic leadership is assumed to be more compatible with the transformational pattern of behavior that is generally the result of national culture, religion, and the family ownership of firms.

De Vries and al. (2010) mention that organizations, that discover how to take advantage of learning capacity at all levels in the organization, will stand out and gain relevance

in the future. Perkins & Zimmerman (1995) explain that empowerment-oriented interventions aim to enhance well-being while promoting problem-solving, offering participants the opportunity to develop their knowledge and skills, and engage professionals as collaborators.

Enabling practices lead to greater employee initiative and motivation only to the extent that these practices provide elements that improve work effort, employee performance expectation, or sense of self-efficacy. Pearce & Sims (2002) stipulate that individuals, their behaviors and their environment are interrelated and in turn influence the team.

Thus, Rosch & Anthony (2012) finds a positive relation between the empowerment of a leader and that of the subordinates, who in addition show an increase in their performance and a more sustained commitment towards their company.

2.4.2. Leader capabilities and empowerment of employees

One of the main problems in project management is the lack of visibility. A blind project is a project doomed to failure. To ensure the success of a project, it is essential to plan it well and to monitor its progress in real time. For such reason, leaders need to enhance incentives that aim for promoting subordinates accountability and motivation. In this regard, leadership and empowerment have become essential to increase teams' effectiveness. However, project leadership has not received the required attention, neither in project studies nor in leadership research. The theme is however recognized as fundamental to the sciences which are interested in organization as a plurality of more or less divergent definitions exist.

The formal leader plays an active role in the empowerment of certain members of his team (Hohmann, S., Walter, F. H., Lam, C. K. et Zhang, Y., 2018). However, the level

of empowerment of the team does not correspond to the sum of the empowered individuals (Perkins, D. D., & Zimmerman, M. A., 1995). Empowerment studies have had a significant impact in understanding interactions in organizations and the theme continues to gain interest although many questions remain unanswered (Seibert, S. E., Wang, G., & Courtright, S. H., 2011). In their study, Kirkman & Rosen (1999) emphasize the importance of an organizational context allowing the appearance of team empowerment.

In addition, Perkins & Zimmerman (1995) argue that empowerment is an essential construct for understanding the development of individuals, organizations and communities and for understanding the sharing of influence. Empowerment can be recognized in several ways (Seibert, S. E., Wang, G., & Courtright, S. H., 2011).

Overall, leadership is often conceptualized as a process of top-down influence in which researchers focus on a single leader. Indeed, research on leadership in projects has traditionally been focused on the manager and his traits, capacities and actions as a factor of success in organizations. However, in a project team the emphasis is made on a shared leadership that enhances an overall empowerment of teams' members.

In the present study, the perspective leadership sharing approach consists on optimizing team effectiveness. Such approach is retained since it aims to better understanding and finding other sources of leadership. The focus of this study is therefore on a group in which leadership in the plural evolves.

Empowerment components include collective participation in achieving goals, the effort to access resources, and a critical understanding of the working environment (Martin, S. L., Liao, H., & Campbell, E. M., 2013). Same authors stipulate a distinction

between empowerment processes and their results since, iteratively, actions, activities and structures can be enabling and the results generated by these processes can give rise to a state of empowerment.

Hohmann and al. (2018) point out that a formal leader can help team members adopt a task orientation that allows them to better understand and perform their tasks in the context of the project. Leaders oriented towards the dimension of tasks are understood to be those who are defining quantitative objectives, insisting on obtaining them, exploring new means of efficiency, or adopting new methods to manage the knowledge, skills, information and understanding that their collaborators use to achieve the objectives. That is, that dimension in which the leader focuses his efforts on achieving the objectives established in the organization, seeks to facilitate the tasks and structure in a very clear way his role and that of his collaborators to achieve this end. Spreitzer (2008) explains that a relationship of support and trust with one's leader is an important contextual antecedent of team empowerment; while Angelle (2010) underlines that shared leadership brings joint responsibility and a commitment to the team which leads to enhanced loyalty and meeting organizational objectives. Such findings are shared with Al Ahmad, Easa & Mostapha (2019) who found that transformational style of leadership produce better outcomes for the banks by mobilizing employees to engage in innovative products and processes.

The literature review analysis contributes to a human dimension of leadership that enhances a motive for empowering employees. Leaders oriented towards a *"people dimension"* are understood by those who show mutual trust and support, promote participation, understanding, open communication, respect, good working conditions,

and equity or, in general, are those who are more oriented towards establishing a rewarding work environment.

Such leaders are always in pursuit of the well-being of group collaborators while showing a certain degree of consideration towards them, and thus seeking to satisfy their personal needs.

In such stream, the first research hypothesis is elaborated as the following:

H1: Leadership style positively affects employees' empowerment.

2.4.3. Transformational Leadership and subordinates' influence

Around the 1970s, other concepts related to leadership have emerged. Such concepts focus on effects that a leader's charisma can have on leadership effectiveness. This theory of transformational leadership is the meeting of the charismatic leader of House (1996) and the transformational leadership of Bass & Bass (1985). Through this concept, the leader is seen as an inspiring person for his followers, because he knows how to clearly formulate his vision and his objectives for his team members.

Transformational leadership refers to personal development and mutual trust in a work group, to go beyond short-term needs (Bass, B. M., & Steidlmeier, P., 1999). In transformational leadership, managers are in fluid and constant communication with the work group. Poor communication or lack of communication within a team can cause the project to fail. Nobody knows where the project is at and the collaborators isolate themselves, thus creating a negative atmosphere that is detrimental to the success of the project. In addition, project managers witness lack of time, in particular to formalize the work and to apply good project management practices.

As being knowledgeable leaders, project managers can improve objectives once teamwork shapes, collectively, different perceptions and strategies to achieve them. This view draws heavily on organizational theory and defines leadership as a process of interactive and dynamic influence between individuals in a group where the objective is to work mutually towards the achievement of the goals of the group and the organization. The focus of research is centered on the exercise of leadership in a group context.

Bass & Riggio (2006) identify four characteristics that a leader can adopt to be as effective as possible, such as: inspiration, charisma, intellectual stimulation and consideration. Through these strengths, he can increase his individual performance, as well as to develop his leadership by paying attention to his personal aspirations and needs. This theory differs from transactional leadership emphasizing the requirements for each of the roles and tasks given to followers, as well as the use of rewards and punishments based on their performance (Bass, B. M., & Riggio, R. E. , 2006).

Hoch (2013) argues that shared leadership can be developed through two behaviors, namely transformational leadership and empowerment leadership. The same author added that on the one hand, studies have proven that transformational leadership can motivate team members to go beyond their own best interests and focus on group goals. Indeed, this style of leadership promotes the sharing of a common vision among all team members.

As a result, this shared vision replaces individual goals with team goals to be achieved collectively. Transformational leadership positively influences cognitive aspects such as team thinking, knowledge sharing, and group learning. In addition, such leadership style inspires subordinates on an ongoing basis, and conveys their enthusiasm to the

team. Positive effects are provided within a team. In addition to the consequences of transformational leadership on the collective performance of the team, the behavior of transformational leadership increases organizational work performance, via intrinsic motivation, collective commitment to goals, team cohesion, shared values and mutual trust among team members (Hoch, 2013).

On the other hand, empowering leadership can directly and indirectly influence shared leadership. It promotes employees development in the work team, unlike traditional participatory leadership which only delegates decisions to authorities. Accountability can be done in two different ways.

On the one hand, individual empowerment involves the development of self-management skills of individuals. Behaviors, such as thinking about opportunities, fostering independence, rewarding, or personal development, are likely to foster this individual empowerment. On the other hand, team empowerment has direct effects on team members including the motivation for completing the task. To consolidate these positive effects, it is necessary to promote team collaboration through collective work, and by encouraging team members to share leadership among members.

Therefore, empowering leadership can directly create shared leadership, or can indirectly influence shared leadership through individual leadership skills development and member self-efficacy (Hoch, 2013). Several researchers emphasize the fact that other determining variables of shared leadership must be also considered.

First, Zhu and al. (2018) describe other characteristics distributed within a team that could promote the emergence of shared leadership, such as a high level of self-assessment, self-confidence, friendliness among members, support for the community,

extraversion, openness to experience and emotional stability. Second, Carson and al. (2007) explain that other contextual factors can influence shared leadership, such as recognition and reward systems, and skills training to cope with the requirements of leadership nature.

Third, other research has highlighted other aspects that can influence shared leadership. Hans & Gupta (2018) examined the effects of job characteristics on shared leadership and explore the moderating effects of perceived self-efficacy, and psychological safety on the relationship between job characteristics and shared leadership. Job characteristics' allow organizations to influence the psychological states of employees, such as job satisfaction, self-esteem, self-regulation, problem solving and intrinsic motivation at work. Therefore, it can help employees gain valuable skills as influencing and persuading others in order to achieve goals within a work team.

In sum, shared leadership within a work team is favorable in an internal team environment and in the presence of supportive coaching from a leader. Carson and al. (2007) point out that external coaching is all the more important when the team lacks a good internal environment and autonomy.

Following this view, leadership is largely distributed among a set of individuals rather than centralized on one person holding the role of superior. To this end, shared leadership is a characteristic of the team and that the team works best when members share the responsibility for leadership. In such, leadership should be treated as a collective activity rather than as the sum of the actions of a formal leader.

In this sense, collaborative leadership promotes collaboration rather than competition. From this perspective, the second research hypothesis is elaborated as the following:

H2: Leadership style practices positively affect employee's stimulation.

2.4.4. Transformational Leadership and subordinates' motivation

Motivation is an essential element for companies and projects' success. Combined with competence, motivation enables individuals to achieve objectives. More specifically, motivation is the result of the interaction between persons and a given situation. However, not all motivating factors are the same. They depend from the encountered situation. It should be, therefore, noted that the degree of motivation varies both from one individual to another and, within the same individual, from one situation to another.

Motivation is defined as the process by which an individual takes action, in order to achieve a given goal. It is a variable that accounts for fluctuations in the level of activation, that is to say the degree of alertness or vigilance of a person (Morgan, G. A., Harmon, R. J., & Maslin-Cole, C. A., 1990). From the point of view of psychology, the same authors added that motivation corresponds to the forces which lead to behavior oriented towards an objective, forces which allow these behaviors to be maintained until the objective is reached.

Thus, motivation provides the energy necessary for a person to act in his environment. Motivation confers three characteristics on behavior, whatever it may be: strength, direction, and persistence (Kanfer, R., 1992).

Indeed, according to the same author, behaviors are directed towards a goal (direction). The person attributes some value to this goal. The behavior of the person depends on both the vitality of the need from which they arise and on the social value with which the objective of the behaviors is associated.

The intensity (force) and the persistence of the action show the value that the person attributes to the goal he wishes to achieve, that is, the interest that the finality of the behavior represents for the person. In sum, motivation is the process by which an individual devotes intensity, direction and persistence to a task in order to achieve a goal; the set of energies that underlie this process.

2.4.5. Transformational Leadership and working relationship climate

In a climate where working relationships are perceived as positive, employees and management are recognized as having a cooperative relationship based on trust, respect and recognition of mutual interests (Snape, E., & Redman, T., 2010). That said the fact that the managers that hold transformational leadership qualities can become a determining factor in establishing and maintaining such a relationship.

In fact, transformational leadership has been related to several components of this management-union relationship. More specifically, it has been shown that transformational leaders promote the building of bonds of trust (Yang, Y. F., 2014) and demonstrate important qualities in terms of conflict resolution (Zhang, X. A., Cao, Q., & Tjosvold, D., 2011), two elements which are fundamental to achieving a climate of harmonious relations (Kammerhoff, J., Lauenstein, O., & Schütz, A., 2019). Shared leadership emerges with the distribution of responsibilities to the most able individuals and again the formal leader is not seen as solely responsible for success. In short, leaders operate in a social environment and integrate this information which is then used to guide problem solving and decision making. A routine context would imply faster and more effective decision-making by a team under directive leadership while an

unfamiliar context would be more conducive to decision-making by a team with shared leadership.

In fact, leadership emanates from a diversity of individuals with different objectives and trajectories and who co-evolve over time in parallel with the transformation of the project, this which can improve performance. Thus, project team employees' trust makes it possible to bind organizational members to their leader and would be, according to Zhang, Cao & Tjosvold (2011), prior to any attempt at collaboration among the team.

Moreover, it seems that the propensity of the transformational leader to sacrifice and devote himself would lead him to gain the trust of his subordinates because they recognize the voluntary nature of his actions (Bass, B. M., & Riggio, R. E. , 2006).

Also, recognized for his developed sense of ethics, the transformational leader would promote, through his integrity, the establishment of relationships of trust with those around him (Bass, B. M., & Riggio, R. E. , 2006). This integrity notion refers to the congruence between speech and actions and constitutes another necessary condition for a good working relationship climate.

Moreover, in a context of labor relations where the interests between the two parties generally tend to diverge, the conflict resolution approach adopted by the leader and the subordinates becomes a determining element in terms of the climate of labor relations. According to Kotlyar & Karakowsky (2006), a leader can be involved in organizational conflict in three different ways.

First, a leader can directly take part in a conflict; its approach to conflict resolution will then have a significant impact on the outcome of that conflict. Second, a leader may

sometimes have to intervene, as an intermediary, in a conflict involving his subordinates. Finally, the leader, through his leadership style, can foster the establishment of an organizational conducive context for the conflicts development. However, the first two situations call more on the conflict resolution skills of the one leader, while the last refers for the impact of leadership on the organizational context.

On this last point, Runde & Flanagan (2012) have shown that, apart from the intellectual stimulation dimension; transformational leadership qualities have the effect of reducing conflict. In addition, some studies have also investigated whether leadership style influences the leader's approach to conflict resolution.

To this end, Kotlya & Karakowsky (2006) established a positive and significant connection between transformational leadership qualities and the use of conflict management styles of integration and compromise. Indeed, subordinates, who attributed to their leader transformational qualities, favored an integrative and a compromise approach. At the same time, leaders with transformational qualities considered making greater use of integration and compromising strategies.

The integrative approach implies a high level of collaboration between the parties, more particularly, openness, the sharing of information and the consideration of differences to arrive at a solution acceptable to both parties (Runde, C. E., & Flanagan, T. A., 2012). The compromise approach refers, for its part, to conflict management advocating a mutually beneficial solution. Of course, this implies collaboration between the parties, but also certain concessions on their part.

The results of Bass and Riggio (2006) have moreover been suggested by several researchers. According to Rahim and al. (2001), transformational leadership would be

the most appropriate in conflict management because a transformational leader would lead organizational actors to be innovative, particularly in conflict resolution. Similarly, Dionne and al. (2004) argue that it is through the dimension of intellectual stimulation that the transformational leader would bring about a new way of conceiving conflict, which would encourage the use of non-traditional and more collaborative approaches to conflict resolution.

In short, the various empirical findings allow suggesting that the transformational leader possesses qualities that are favorable to a good working relationship context. Indeed, a transformational leader promotes the establishment of trusting relationships with actors that surrounds him, while favor a more collaborative conflict resolution approaches. Undoubtedly, the transformational leadership style combined with charismatic traits, fully account for the motivational aspects in the leadership process, collecting relevant aspects of each theoretical approach. Thus, transformational leadership considers leader skills and traits for creating vision and enhancing a clear communication with subordinates; to influence and provide his teammates with an inspirational motivation; without forgetting situational aspects in the sense of treating colleagues through intellectual stimulation. Communication is essential to the success of a project since it improves teamwork and helps build a climate of trust conducive for a team's productivity and creativity. In addition, for a project to be successful, it is essential that all the actors involved (project manager, project team, stakeholders) be informed of its progress in real time.

The last section of the present chapter, which refers for the relationship between leadership and project management, has elaborated the dimensions or variables that are directly related to a project team efficiency and effectiveness. Leadership distributed to

interactions between individuals is centered on individuals rather than on one person. The concept suggests that the individual characteristics of the project manager are less important than the behaviors of the group as a whole. Therefore, the third research hypothesis is stated as the following:

H3: Leadership practices positively affect project efficiency and effectiveness.

2.5. Conclusion

In light with the literature review analysis, it is clear that leadership is an ambiguous and complicated topic. Indeed, many researchers have tried to approach that subject and to define it from multiple perspectives. However, several discussions are still controversial, most notably on the consideration of leadership as such, namely, whether it is a specialized role given to one person in a formal way, or whether it is a process of leadership influence that is shared between different members of a team (Yukl, G., 2012). While traditional leadership is based on a vertical influence of an individual formally chosen by the organization, the emergence of a new style, called shared leadership, changes the norm of a traditional leadership.

Transformational leadership is an effective resource for companies and is assessed through the effects that a leader produces on his subordinates. Leaders with transformational characteristics cause changes by making subordinates aware of the importance and value of obtained results after carrying out the assigned tasks. In addition, the leader encourages followers to transcend their personal interests by promoting organization's objectives. This generates trust and respect on the part of the team members and they are motivated to achieve more than what was originally expected.

The interpretations of shared leadership differ from one reading to another. My definition of this concept concerns project teams, each member of which is specialized in his field of expertise, the whole constituting a unique and punctual group, formed for the sole purpose of carrying out a project within a given timeframe. In shared leadership mode, the project manager is not necessarily in a position of authority, and must assume more of his role of leader in the creation of a collaborative working environment and favorable to the achievement of objectives.

In any case, and for good reason, organizations need to optimize the efficiency of their teams which are, for them, an important tool in achieving their performance. In order to remain competitive and efficient in the market, companies are trying to re-manage their organizational structure.

In sum, in order to establish the conceptual model of the study and in the light of answering for the main research statement as "how leadership is exercised within a project team?" three research hypotheses have been developed. Accordingly, the conceptual model comprises three independent variables, namely employees' empowerment, employees' stimulation, and project efficiency and effectiveness. As for the dependent variable, the latter is entitled Leadership style:

H1: Leadership style practices positively affect employee's empowerment.
H2: Leadership style practices positively affect employee's stimulation.
H3: Leadership style practices positively affect project efficiency and effectiveness.

Based on the literature review advancements, the latter has helped elaborating the latent variables for each dependent and independent variables. In such, the formulated relationships will be tested on the selected sample. In order to resume, the relationships

between the research hypothesis and the main dimensions that can bring elements of answers for the main research statement are reflected into the following figure.

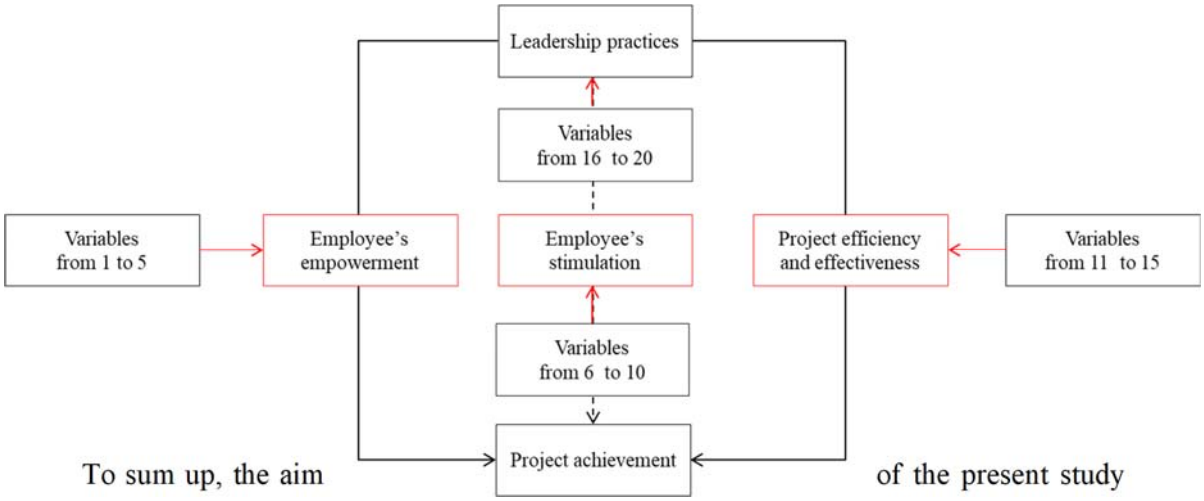


Figure 1: Relationships between latent variables and main research dimensions

To sum up, the aim of the present study is to identify leadership practices that aim to enhance employees' motivation and stimulation for reaching a better project management efficiency and effectiveness. As far as leadership influence is positively interpreted or perceived by employees' as far as the latter are they are able to reach organizational objectives with a least of resources loss.

What we have learned from chapter two is that shared leadership is a crucial application for organizations to optimize subordinates efficiency. The latter literature review illustrate that there is no specific identified guide lines to apply shared leadership. In this research our point of focus in the application of shared leadership through project teams. In the following chapters we will study all variables following a quantitate approach and identify the leadership practices that positively affect employee empowerment, employee stimulation and project efficiency and effectiveness in the Lebanese Contracting Firms. Thus, this research will help the latter organizations to apply shared leadership in their projects and enhance their team's performance.

CHAPTER 3

RESEARCH METHODOLOGY

3.1. Introduction

The aim of the present chapter is to cover the methodological design and approaches to conduct an empirical survey. In such, the research methodology and the purpose for its adoption should be highlighted first. In the case of this study, a research under a quantitative approach is so named since it deals with phenomena that can be measured through the use of statistical techniques for the analysis of the collected data.

Such method purpose lies in the description, explanation, prediction and objective control of its causes and the prediction of its occurrence, basing its conclusions on a rigorous use of quantification. Both the collection results and its processing and analysis follow the logic of a hypothetic-deductive method.

Thereafter, the research context as well as the hypotheses will be stated in order to highlight back the conceptual model to be studied. In line with the drawn hypotheses, the dependent and the independent variables definition will be stated as to provide a clear reading for the variables construct.

As the last part of this chapter, the data collection and treatment is approached through the data sample size and sampling technique as well as the steps and procedures through which the data analysis will be undertaken for the research hypotheses validation.

3.1. Epistemological paradigm and research philosophy

Current science is deeply controversial. Various researchers question the traditional postulates of scientific argumentation and its claims of universal knowledge of reality. Paradigms are built and emerge to apprehend increasingly complex realities, a new rationality emerges that measures total reality as a systemic ontology and holistic approaches offer a new perspective on the philosophy of science. There is a growing increase in complexity in both the natural and social world, which is why there is a need to generate an epistemology of complexity to address current scientific knowledge.

Positivism began as a research model in the physical or natural sciences and was later adopted in the field of social sciences (Sefotho, M. M., 2015). In a positivist paradigm, the knowledge generation methodology is based on data analysis procedures such as those established in the exact sciences. The exact sciences are the origin of this paradigm. In the social and behavioral aspects, it serves as a scheme to determine analysis of behavior patterns of human beings (Creswell, J. W. , 2014).

In a quantitative method, scientific knowledge is characterized by a rational and objective approach, based on what is observable and what is verifiable (Cuenya, L., & Ruetti, E., 2010). To be based on positivism is to accept knowledge that comes from the experience of the subject, empiricism. By means of the principle of verification of the propositions, only the knowledge that exists before experience and observation are valid; everything must be proven to be valid for science.

In this paradigm, experimentation has been the main way to generate formal theory. In sum, for positivism, reality is absolutely and totally comprehensible by the human being, it is governed by natural laws and mechanisms.

3.2. Quantitative research method

Positivism and post-positivism are the paradigms that guide quantitative research, which aim to explain the phenomenon studied, to ultimately predict and control it (Guba, E. G., & Lincoln, Y. S., 1994). Quantitative research uses the collection of information to test or verify hypotheses through the use of statistical strategies based on numerical measurement, which would allow the researcher to propose patterns of behavior and test the various theoretical foundations that would explain these patterns.

In fact, the objective of any science is to acquire knowledge and the choice of the appropriate method that allows the researcher to identify a reality is, therefore, fundamental. The inductive and deductive methods have different objectives and could be summarized as theory development and theory analysis respectively.

The inductive methods are usually associated with qualitative research while the deductive method is often associated with quantitative research. Social scientists that use qualitative approaches currently face epistemological and methodological problems that have to do with research ethics in the generation of data as well as with their external validity.

However, the quantitative approach is based on phenomena measurements that are studied through rigorous procedures that guarantee precision and objectivity. The most obvious differences between the two methodologies are shown in table 1.

Table 1: Quantitative and qualitative research approaches

Quantitative data collection methods	Qualitative data collection methods
Fixed and more structure techniques	Semi-structured or unstructured techniques
Instrument or test based	Not instrument or test based
Number-based to collect information	Text-based to collect information
Usually measurable	Not usually measurable
Used for statistical tests	Not used for statistical tests
Usually large sample size	Usually small sample size
Employs strong scientific control	Lacks strong scientific control
Data type is usually rational or interval	Data is usually ordinal or nominal
Interviews forms include closed-ended questions	Interview forms include open-ended questions

Source: (Hara, K., 1995)

The foundations of the quantitative methodology can be found in the positivism as a reaction to the empiricism that was dedicated to collecting data without introducing knowledge beyond the field of observation. The key to logical positivism consists in testing hypotheses probabilistically and, if accepted and proven in different circumstances, from them develop general theories.

Statistics have quantitative instruments to contrast research hypotheses and to be able to accept or reject them with a certain certainty. Therefore, the scientific method, after an observation, generates a contrasting hypothesis and subsequently issues conclusions derived from said hypothesis.

3.3. Deductive approach as a scientific reasoning

A deductive argument is legitimate, if its conclusion follows from its premises, as a logical consequence of them (Nickerson, R. S., 2004). The property for deductive arguments occurs because they are explanatory. In other words, deductive arguments should be contained in the initial premises of the study. In this way, the conclusion

makes a content explicit that is found, implicitly, in the initial premises. In other words, deductive reasoning goes from a general content to a particular one. Instead, inductive arguments go from particular cases to a general hypothesis. Therefore, inductive inferences are enlarging or non-explanatory: their conclusions go beyond what is contained in their premises.

The figure below contrasts between the two logics.

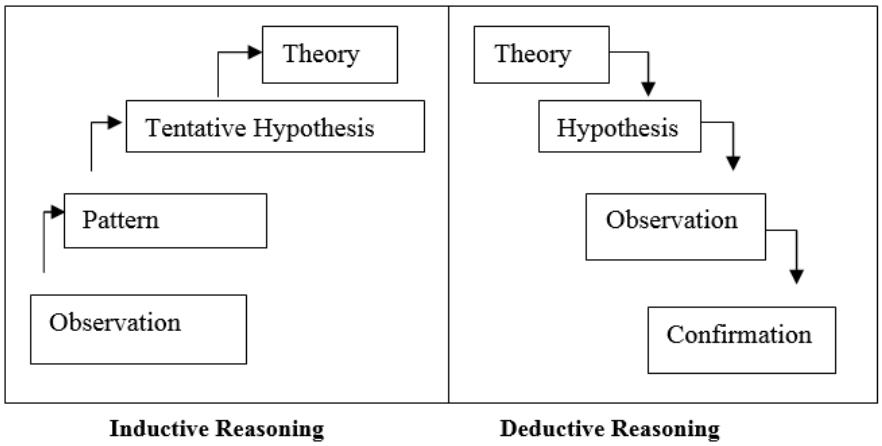


Figure 2: Inductive and deductive reasoning

Source: (Aliyu, A. A., Abdu, A. A., Kasim, R., & Martin, D., 2015)

In short, the deductive logic consists of the generation of hypotheses from premises, a universal one (scientific laws and theories) and another empirical to take it to the empirical test (Popper, R., 2008). It has the purpose of understanding the studied phenomena and explaining the origin or the causes that generate it. Its other objectives are prediction and control, which would be one of the most important applications supported, also, in scientific laws and theories.

3.4. Research context and hypotheses

The subject of leadership emanates from many methodologies, studies and theories that can be applied in different disciplines and perspectives. Leadership cannot be defined as the fashionable topic that appears suddenly, which can be used in the field of social psychology, organization, management or in other areas of research fields. In fact, its definition has been studied for several years trying to conceive a general and global concept. The importance of defining leadership in the face of diversity of concepts makes this competence recognized as a subject that cannot be generalized in a single expression. Despite the diversity of theoretical approaches in general, leadership can relate what is grounded as the notion of power and willing. It is suggested to define power, as the effectiveness of managing more competitive and organized project teams, for the development of assigned tasks. Wanting is related to teaching and showing motivation to the team, beyond satisfying one's own interests, putting the interests of the team first, in order to achieve the assigned objectives of projects to be executed.

Based on the previous definitions, a common factor can be perceived: leadership is positively influencing a team of people, in such a way that they work together to achieve a defined goal. As well, Leadership is strongly related to Project Management. Such relationship is understood as the discipline in charge of organizing and managing

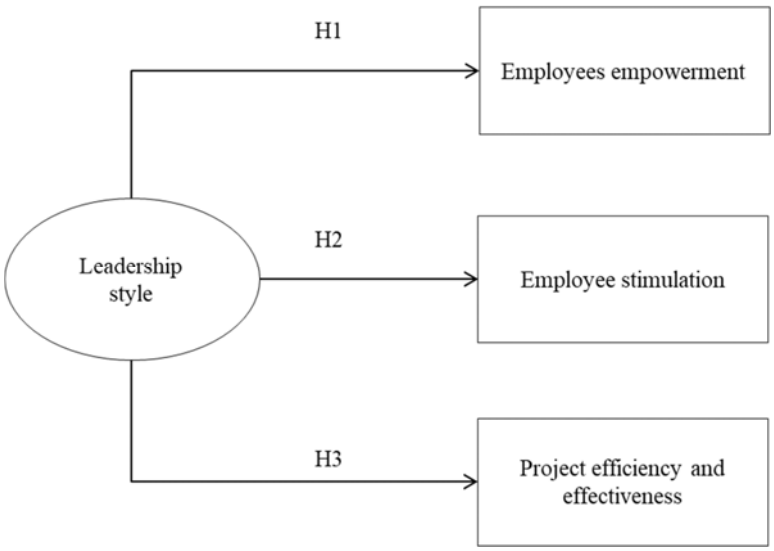
resources, so that a given project is completely completed within the scope, time and cost limitations set. However, not in all cases a manager is a leader, as Bennis (2009) has stated: *« managers are the people who do things correctly and leaders are the people who do the right thing »*. The same author complemented his statement by adding that: *« Leadership is the interpersonal influence exerted in a situation directed through the process of human communication to the achievement of one or several specific objectives »*.

In sum, based on the previous literature review analysis, three research hypotheses were established in a way to study the following conceptual model into contracting companies in Lebanon. The three hypotheses are stated as:

H1: Leadership style practices positively affect employee's empowerment.

H2: Leadership style practices positively affect employee's stimulation.

H3: Leadership style practices positively affect project efficiency and effectiveness



3.5. Dependent and independent variables definition

The aim of the present sub-section is to provide an illustration about the dependent and the independent variables construct. In other words, the literature review has helped developing the research hypothesis as well as the items that figure into the research survey. In addition, each variable is categorized in a table where a definition is provided for each.

Table 2: « Employee empowerment » dependent variable

1- Without employees empowering, objectives cannot be accomplished. 2- I, always, involve subordinates into collective participation to hold them accountable for commonly taken decisions. 3- I assume that empowering leadership can directly create shared leadership. 4- Employees gain valuable skills as influencing and persuading others in order to achieve goals within a work team. 5- When empowering subordinates, I have the feeling that, in return, employees provide valuable outcomes.	Variables from 1 to 5 illustrate the impact of the exerted the leadership style on subordinates' empowerment. That is to say that employee's outcomes and empowerment are measured through the involvement of managers in providing constant assistance, coaching and promoting cooperation within a project team.

Table 3: « Employee stimulation » dependent variable

6- Intellectual stimulation is considered as a main task for a leader to provide for his subordinates. 7- Increasing individual performance conveys with the leader's ability to meet subordinates' personal aspirations and needs. 8- I manage a project in a way to provide a sharing of a common vision among all team members. 9- Collective team performance is always on my mind. 10- Influencing positively subordinates expects, in return, positive outcomes.	Variables from 6 to 10 illustrate the impact of the exerted the leadership style on subordinates' stimulation. In such, it is said that team members witness a shared leadership that strive for reaching a performance that lead for answering, on the first hand, for employees expectations,

	and on another hand on sharing personal experiences and knowledge.

Table 4: « Project efficiency and effectiveness » dependent variable

11- Project teams are always re-composed in light of subordinates resources and the project characteristics. 12- To achieve better project completion, goals are split according to individual tasks description. 13- I, as a leader project, assist and coach my team in order to provide subordinates with a better tasks orientation. 14- I, as a leader project, bring joint responsibility and a commitment to the team which to meet project objectives. 15- Collective subordinates' interaction and participation leads for a better project efficiency and effectiveness.	Variables from 11 to 15 illustrate the impact of the exerted the leadership style on project efficiency and effectiveness. In such the exerted leadership style enhances the way employees' are empowered and stimulated in order to reach higher performance. Such performance which will lead for a better project accomplishment.

Table 5: « Leadership style » independent variable

16- The leadership style I exert conveys with the expectations and the motivation of my subordinates. 17- Usually, I proceed with a leadership based on sanctions and rewards. 18- Usually, I proceed with a leadership that favors subordinates participation, cooperation and motivation. 19- My leadership style favors subordinates working relationships. 20- My subordinates appreciate the way I intervene within the accomplishment of their responsibilities.	Variables from 16 to 20 illustrate the nature of the exerted the leadership.

3.6. Data collection and treatment

The survey technique is a widely used procedure in the business sciences. Once the questionnaire has been designed, the fieldwork will be ready to begin. The research survey has derived from the literature review analysis and personal perception regarding variables that have been used in previous scientific research. In order to disseminate the questionnaire the use of "google forms" is essential since it helps gathering the participants' answers into a ready Excel sheet file to be treated with SPSS software.

3.6.1. Data sample size and sampling technique

Prior to data collection, one needs to determine the sampling framework that is most suitable for acquiring adequate insight to validate the research hypotheses. Literature shows that there are mainly two types of sampling: probability and non-probability (Sharma, 2017). Probability sampling involves probability in the selection of a smaller number of representative cases from a pre-defined population that serves the research subject. Under probability sampling, one can choose from several sub categories, e.g. simple random sampling, systematic sampling, stratified sampling, and cluster sampling. On another note, non-probability sampling is a technique based on judgment. It provides the research with several sub categories to choose from, e.g. quota sampling, purposive sampling, self-selection sampling, and snowball sampling. In this study, non-probability purposive sampling is applied. The latter, also known as subject, judgmental, or selective sampling, banks on the judgment of the researcher in the selection process of the cases that are to be studied.

This sampling technique can provide with adequate justifications to infer the results observed in the studied sample. In view of the specificity of the topic and the limitation

relevant to any reported statistics about the pre-defined population, i.e. project managers of equivalent positions in Lebanese contracting firms, purposive sampling represents an efficient tool to examine the research hypotheses using reliable data provided by renown experts. One of the limitations of non-probability sampling in general, is the absence of any predefined formula or scheme to calculate the adequate size of the sample. It is utterly up for the researcher to define the required sample size. This induces some subjectivity and perhaps some bias to the collected data. Nonetheless, the latter issue is mitigated with purposive sampling, whereby the selection of experts is sought to ensure reliable data. Despite the circumstances under COVID-19 which limited access to people from pre-defined population, the sample size is 1172 respondents. The respondents are currently active member in the Lebanese contracting fields and are diversified covering all trades in the contracting field including Civil, Electrical, Mechanical, Engineering Managements and Architects. Our Respondent positions includes project managers, assistant project manager, senior project managers, project coordinators and directors of contracting firms.

3.6.2. Data analysis

Once collected, data are analyzed under different schemes. An exploration of the data is reported via descriptive statistics, whereby parameters of central tendency, dispersion and distribution are computed. Nonetheless, it is important to mention that the measurement model consists of four variables constructed in a reflective scheme from five manifests each. In this regard, exploratory factor analysis (EFA) is applied to explore the factor structure of the data as well as validity and reliability of the measurements (Fabrigar & Wegener, 2011). In a final step, simple linear regression models are applied to examine the research hypotheses (Bangdiwala, 2018). Summaries of both EFA and simple linear regression schemes are reported hereafter.

3.6.2.1. Exploratory factor analysis (EFA)

Exploratory factor analysis is usually used to determine the correlation among manifest variables. It also enables the researcher to extract a factor structure from the collected data, to examine sampling adequacy as well as the validity and reliability of the measurement model. EFA is used for non-nominal manifest that reflects the main variable of the study.

EFA is built about the principle of extracting factors. The latter can be achieved by the usage of three different methods, namely principal component analysis (PCA), principal axis factoring (PAF), and the maximum likelihood (ML). In this Thesis PCA is used due to its simplicity and efficiency. In order to extract the factors different rotation schemes can be used. These are classified into two types: orthogonal and oblique. In orthogonal rotation, one can choose from the Varimax, Quartimax, or Equimax schemes. In oblique rotation, one can choose from the direct oblimin or Promax schemes. In this Thesis, the Promax rotation scheme is applied because it is known to be computationally faster than other schemes and it is mostly applied for large datasets.

EFA provide a powerful tool to examine sampling adequacy through the Kaiser-Meyer-Olkin (KMO) statistic which values greater than 0.5 indicate an acceptable sample size. Therefore, sampling adequacy is said to be miserable if KMO is equal to 0.5, mediocre if KMO is equal to 0.6, middling if KMO is equal to 0.7, Meritorious if KMO is equal to 0.8 and marvelous if KMO is equal to 0.9.

EFA examines whether the manifests are correlated through Bartlett's test of sphericity where it assumes, if statistically significant, that the correlation matrix is not an identity matrix, i.e. the manifests are significantly correlated. This assumption is essential for

the EFA computations to converge as one cannot extract constructs from any given structure if its manifests, especially those who are sought to reflect the same construct are not significantly correlated. These manifests are expected not only to be correlated but also to be interchangeable. Moreover, EFA computes communalities which indicate the extent to which a manifest variable can correlate with all other manifests. The higher the communality is, the better the correlation will be. Communalities that lie from 0 to 0.4 are problematic. Manifests with such low communalities should be removed.

EFA also examines the validity of the measurements. Convergent validity indicates that manifests for the same variable are highly correlated. The latter is obtained when the loadings are sufficient. In the case of the sample size of 1172, a loading of 0.3 or more is sufficient to infer convergent validity. Discriminant validity indicates that factors are distinct and is obtained when no cross-loadings are found.

On another note, reliability is the consistent loading of manifests on the same construct. It is examined by Cronbach's alpha where values from 0.6 to 0.7 indicate an acceptable reliability, while values greater than or equal to 0.7 indicate a strong reliability.

3.6.2.2. Simple linear regression

After confirming the factor structure as well as its validity and reliability of the measurement model, it becomes possible to investigate the research hypotheses. The latter is done with three simple linear regression models. The usage of these models is justified by the fact that there is only one independent variables which is leadership style and three dependent variables which are employee's empowerment, employee's stimulation, and project efficiency and effectiveness. The concept of simple linear regression is based on the prediction of the value of a variable, the dependent variable, based on the value of another variable, the independent variable.

The analysis of any given data with a simple linear regression requires that several assumptions should be met. More precisely, there are six assumptions. The first assumption is that the two variables used in the simple linear regression model should follow either the interval or the ratio scales. In this Thesis, the main variables are construct obtained each from five 5-point Likert scale manifests. Nonetheless, the EFA scheme allows computing continuous composite scores for each construct which meets the first assumptions for simple linear regression model.

The second assumption is that there should be a linear association between the two variables used in the simple linear regression model. The third assumption is that there should be no significant outliers. The fourth assumption is that the observations should be independent which can be checked via the Durbin-Watson statistics where values near 2 indicate that this assumption is met. The fifth assumption is that the data needs to exhibit homoscedasticity. The sixth assumption is that the residual errors of the regression line should be approximately normally distributed.

Finally, it is important to mention that the coefficients are estimated to quantify the association between independent and dependent variables using the ordinary least square method. A research hypothesis is supported when the sign of a statistically significant coefficient is concomitant to the direction of causality as stated in the hypothesis.

3.6.3 Conclusion

To sum up chapter three, the methodology of this thesis will undergo a quantitative deductive approach, in which the use of data collected from a questionnaire filled by 1172 observations will be analyzed. First following exploratory factor analysis

to test the validity and reliability of the data collected, and second through a simple linear regression conducted between each of the three dependent variables in question and the leadership style which is the independent variables. Thus, we will be able to test each of the hypotheses.

CHAPTER 4

RESULTS DISCUSSION AND ANALYSIS

4.1. Introduction

This chapter reports all the results obtained from quantitative analysis. It starts with some statistics of sample's characteristics relevant to the age, gender, position of the respondents. Then after it elaborates on the descriptive statistics of the manifest variables relevant to selected measurements of central tendency like the mean, measurements of dispersion like the standard deviation, and measurements of distribution like skewness and excess of kurtosis. Then after, an exploratory factor analysis (EFA) scheme is applied to examine the reliability and validity of the measurement model as well as to compute composite factor scores. Those will be used afterward as inputs to a multiple regression model sought to investigate the three research hypotheses. Finally, the findings from the regression analysis will be discussed in view of the literature findings and explained in light of the theoretical framework of this thesis.

4.2. Characteristics of the sample

This section will present a decent profiling of the respondents where information will be provided with regard to their gender, age, and position at the firm. Figure 3 depicts the distribution of the sample by gender where about 55% are male and the remaining 45% are female.

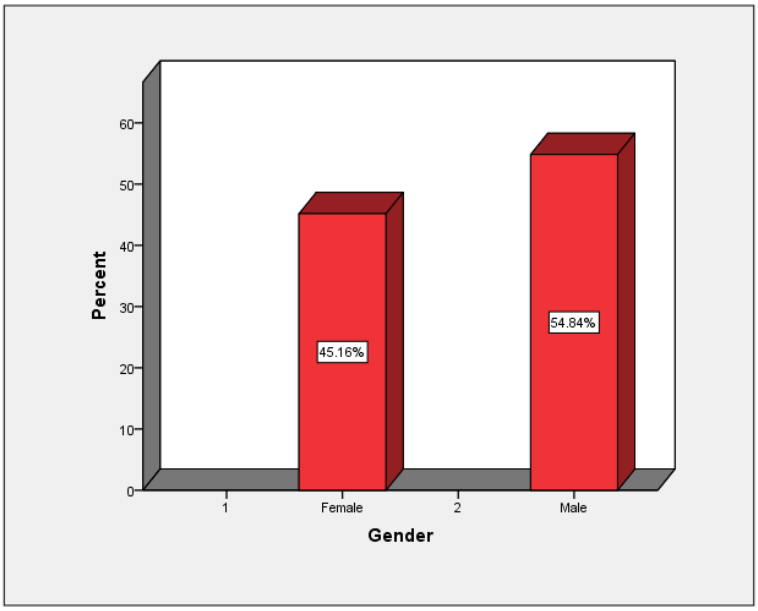


Figure 3: Distribution of the sample by gender

Figure 4 depicts the distribution of the sample by age category. It is clearly evident that majority of the respondents belong to one category where about 77% are between 25 and 35 years old. About 16% of the respondents are between 36 and 45 years old. The remaining 7% are between 46 and 55 years old.

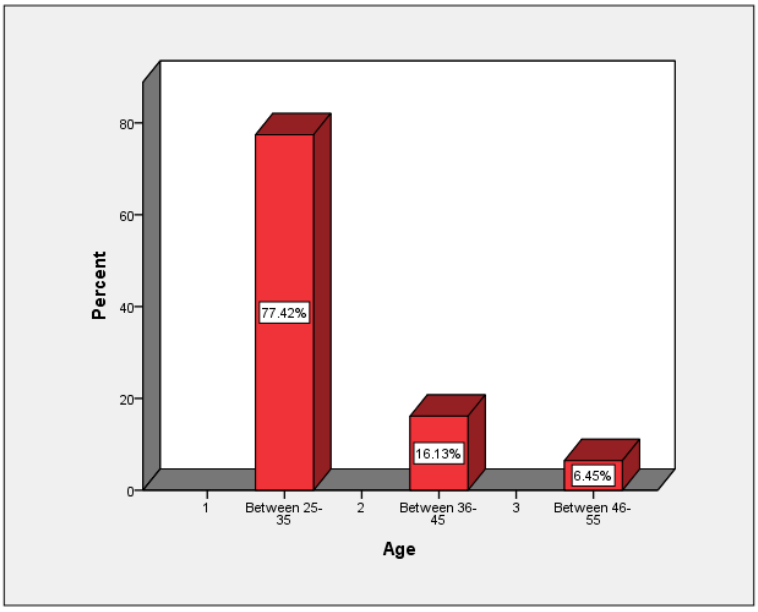


Figure 4: Distribution of the sample by age category

Figure 5 depicts the distribution of the sample by position. A majority of roughly 39% are project managers. Those are followed by about 15% that occupy the position of team supervisors. Then about 15% are directors of program management, followed by 11% which occupy the position of project coordinators. Senior project managers and assistant project managers have equal shares of 10% with regard to the total sample.

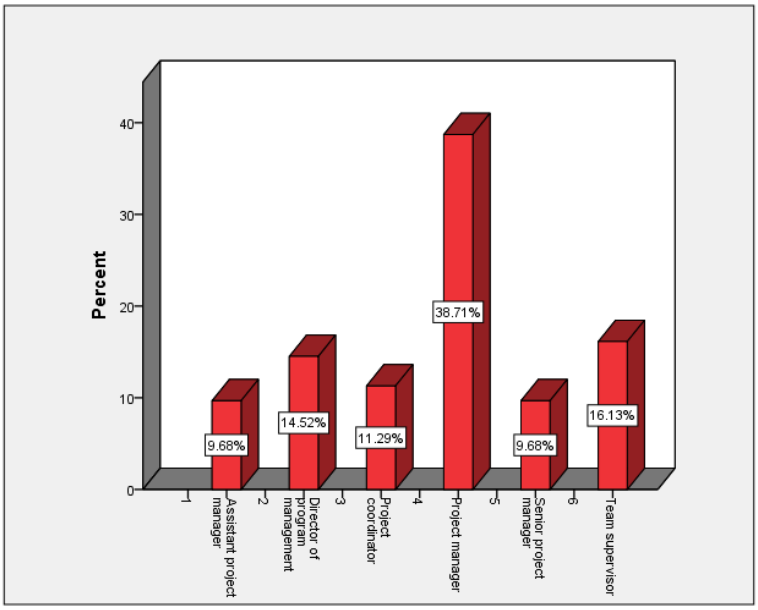


Figure 5: Distribution of the sample by position

To summarize the sample comprises mainly project managers that are between 25 and 35 years old and that are fairly distributed between men and women.

4.3. Descriptive statistics of the manifests

The measurement model applied in this Thesis a reflective one, i.e. the sought four variables, namely employee's empowerment, employee's stimulation, project efficiency and effectiveness, and leadership style are considered as constructs which are each reflected by five manifest variables. Those are measured at the 5-point Likert scale with values discretely ranging from 1 indicating a strong disagreement to 5

indicating a strong agreement. In this context, distribution statistics relevant to skewness and excess of kurtosis will not be interpreted in terms of the normality of data due to their measurement scale which is ordinal, i.e. neither interval nor ratio. Instead those statistics will be interpreted along with the mean and standard deviation to comprehend responders' perceptions trends toward the statements of the manifests.

Table 6: Descriptive statistics of the manifests

Manifest	Mean	Standard deviation	Coefficient of variation	Skewness	Excess of kurtosis
Q1 (EMP1)	4.40503	2.16574	49.16515892	0.530	0.509
Q2 (EMP2)	4.1920	0.82437	19.66531489	−0.781	0.045
Q3 (EMP3)	4.3464	0.75605	17.39485551	−0.967	0.439
Q4 (EMP4)	4.2892	0.77809	18.14067891	−0.967	0.439
Q5 (EMP5)	4.2688	0.78104	18.29647676	−0.876	0.313
Q6 (STIM1)	4.2892	0.80080	18.67014828	−1.008	0.674
Q7 (STIM2)	4.1305	0.86345	20.90424888	−0.829	0.441
Q8 (STIM3)	4.2116	2.03503	48.31964099	0.507	0.179
Q9 (STIM4)	4.4113	0.72161	16.3582164	−0.992	0.287
Q10 (STIM5)	4.3302	0.75822	17.51004573	−0.938	0.467
Q11 (EFF1)	4.1689	0.85825	20.58696539	−1.029	1.342
Q12 (EFF2)	4.3447	0.77136	17.75404516	−0.959	0.339
Q13 (EFF3)	4.4983	0.69584	15.46895494	−1.266	1.162
Q14 (EFF4)	4.4070	0.74342	16.86907193	−1.154	1.042
Q15 (EFF5)	4.4309	2.12572	47.97490352	0.368	−0.213
Q16 (LEAD1)	4.1169	0.85348	20.73113265	−0.671	−0.220
Q17 (LEAD2)	3.37312	1.21699	36.07906034	−0.252	−0.351
Q18 (LEAD3)	4.3311	0.75503	17.4327538	−0.941	0.505
Q19 (LEAD4)	4.2287	0.79102	18.70598529	−0.845	0.412
Q20 (LEAD5)	4.1792	0.85916	20.55800153	−0.927	0.570

Table 6 reports the descriptive statistics of the manifests. An overall review of this table shows that the means are all above the value to the exemption of the manifest Q17 (LEAD2) which exhibits a mean of 3.37312. The former indicates that on average the respondents tend to agree with the statements of the manifests while the latter shows that they tend to be neutral toward the statement of Q17 which is "Usually, I proceed with a leadership based on sanctions and rewards". For Likert scale items such as the manifests here, standard deviations are cumbersome to interpret directly as the dispersion of the responses for any given manifest about the mean. Instead, the coefficient of variation is computed as the standard deviation divided by the mean then the whole ratio is multiplied by 100. The coefficient of variation can be interpreted as the volatility of the responses, the smaller it gets the more coherent the responses are.

An overall inspection of the coefficients of variation in Table 6 show that all the manifests have a coefficient of variation that is roughly 18% which indicates that the variability to response ratio is not huge, i.e. the respondents exhibit a certain homogeneity in their perceptions toward the statements of the manifest. It is important to mention that only four manifests do not abide by the aforementioned trend, namely Q1 (EMP1), Q8 (STIM3), Q15 (EEF5), and Q17 (LEAD2) which exhibit coefficients of variation equal to 49.16516%, 48.31964%, 47.97490352 and 36.07906% respectively.

This shows that the respondents' perceptions toward the statement of these manifests are somehow less homogeneous than theirs toward the remaining manifests. The statements of these four manifests are "Without employees empowering, objectives cannot be accomplished" for Q1 (EMP1), "I manage a project in a way to provide a sharing of a common vision among all team members" for Q8 (STIM3), " Collective

subordinates' interaction and participation leads for a better project efficiency and effectiveness." For Q14 (EEF5) and "Usually, I proceed with a leadership based on sanctions and rewards" for Q17 (LEAD2). For the latter manifest the have larder dispersion around the mean than most of the other manifests.

On another note, the overall skewness and excess of kurtosis are less than 1 in absolute value for the manifests which indicates a bell-shaped symmetry of the distribution of those manifests. If the ordinal scale is to be compared to either an interval or a ratio scale, one can concluded that the data for these manifests are normally distributed. Only four manifests show a weak negative skewness which is synonymous of a downshift of the mean due a minority of respondents that perceived the statements of these manifests differently than the majority, i.e. the majority has an agreeing attitude while the minority had a neutral or disagreeing attitude.

These manifests are Q6 (STIM1) with a skewness of −1.008, Q11 (EFF1) with a skewness −1.029, Q13 (EFF3) with a skewness −1.266, and Q14 (EFF4) with a skewness of −1.154. Nonetheless, these negative skewness remains weak and should exhibit no significant hindering to data distribution. Furthermore, the absence of significant excess of kurtosis minimizes the probability of extreme events, i.e. respondents either strongly agreeing or strongly disagreeing with the statements of the manifests. Even though three manifests exhibit a weakly positive excess of kurtosis, they should not hinder the general trend of the data.

Those manifests are Q11 (EFF1) with a kurtosis of 1.342, Q13 (EFF3) with a kurtosis of 1.162, and Q14 (EFF4) with a kurtosis of 1.042. These positive excesses of kurtosis should only give slightly than normal thicker tails of the data distribution of these manifests which is still not thick enough to elicit higher probabilities of extreme events.

4.4. Validity and reliability of the measurement model

The measurement model applied in this Thesis a reflective one, i.e. the sought four variables, namely employee's empowerment, employee's stimulation, project efficiency and effectiveness are constructs each of which is reflected by five manifests. It becomes then necessary to examine the validity and reliability of this measurement model using exploratory factor analysis.

Moreover, EFA helps in determining the correlation among manifest variables, especially those that are designed to reflect the same construct. It also enables the extraction of a factor structure and the examination of sampling adequacy. In this Thesis the principal component analysis (PCA) is used as a factoring method along with the Promax oblique rotation. After several runs, the extracted factor structure retained 18 out of the initial 20 manifests. The manifests Q13 (EFF3) and Q15 (EFF5) were removed because they hindered the validity of the measurement model.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.866
Bartlett's Test of Sphericity	Approx. Chi-Square	11293.722
	df	153
	Sig.	.000

Figure 6: Sampling adequacy and Batlett's test of shpericity

EFA is an elaborate that provides valid information about the sampling adequacy through the Kaiser-Meyer-Olkin (KMO) statistic. Figure 6 reports a meritorious KMO with a value of 0.866. Also, Bartlett's test of sphericity is statistically significant, approximate $\chi^2(153) = 11293.773$ and $p = 0.0001$. This indicates that there are significant correlations among the manifests. Kaiser criterion was applied and factors

(constructs) with eigenvalues greater than or equal to 1 were extracted. After several runs, four factors were extracted. These can explain 63.318% of the variance of the model. Table 7 reports the validity and the reliability of the measurement model. The communalities indicate the extent to which a manifest can correlate with all the other manifests, ergo the higher the communality, the better. Further, communalities between 0 and 0.4 are low and problematic. Table 7 shows that all communalities are higher than 0.4 which means that any given manifest can correlate with all the other manifests.

Table 7: Validity and reliability of the measurement model

Construct	Manifest	Communalities	Loading	Cronbach's alpha
Employee's empowerment	Q1 (EMP1)	0.608	0.512	0.710
	Q2 (EMP2)	0.423	0.433	
	Q3 (EMP3)	0.473	0.504	
	Q4 (EMP4)	0.731	0.857	
	Q5 (EMP5)	0.480	0.492	
Employee's stimulation	Q6 (STIM1)	0.575	0.712	0.702
	Q7 (STIM2)	0.731	0.817	
	Q8 (STIM3)	0.423	0.421	
	Q9 (STIM4)	0.487	0.383	
	Q10 (STIM5)	0.485	0.625	
Project efficiency and effectiveness	Q11 (EFF1)	0.456	0.304	0.650
	Q12 (EFF2)	0.677	0.927	
	Q14 (EFF4)	0.462	0.452	
Leadership style	Q16 (LEAD1)	0.616	0.788	0.742
	Q17 (LEAD2)	0.455	0.613	
	Q18 (LEAD3)	0.402	0.327	
	Q19 (LEAD4)	0.597	0.520	
	Q20 (LEAD5)	0.695	0.484	

Table 7 also shows the loadings which reflect the correlation between the manifests and their relevant constructs. These loadings allow the examination of convergent validity, i.e. manifest sought for the same construct are highly correlated with that construct. As a rule of thumb, all loadings greater than or equal to 0.3 are considered sufficient. A review of table 7 shows that all loadings are greater than 0.3. Therefore, convergent validity is supported for the measurement model.

Along with convergent validity, EFA enables the examination of discriminant validity which is the extent to which the extracted constructs are different. The latter can be checked through the cross-loadings, i.e. loadings that are found for the same manifest on two or more constructs. These should either not exist or differ by more than 0.2 to infer discriminant validity. Since there were no cross-loadings, then discriminant validity is supported.

Finally, EFA enables the examination of face validity which indicates whether the extracted constructs make any sense. Table 7 shows that the manifest that loads on the same construct are the same as the manifests that were initially sought to reflect it. Therefore, convergent validity is supported. Thus the data collected are valid.

Now that the validity of the measurement model is supported, it becomes essential to examine its reliability. The latter indicates whether a set of manifests will consistently load on its intended construct. Cronbach's alpha can gauge reliability, where values from 0.6 to 0.7 indicate an acceptable reliability, while values greater than or equal to 0.7 indicate a strong reliability. By inspecting Table 7, one can conclude that employee's empowerment, employee's stimulation, and leadership style all have strong reliabilities with Cronbach's alpha coefficients equal to 0.710, 0.702, and 0.742 respectively. Project efficiency and effectiveness show an acceptable reliability with a Cronbach's alpha coefficient of 0.650.

Now that both validity and reliability are supported for the measurement model, the extracted constructs are henceforth represented each by a composite factor score that was computed implicitly in EFA. These scores will be used after to investigate the three research hypotheses.

4.5. Correlation analysis

After proving the validity and reliability of the measurement model, correlation analysis in undertaken to examine whether there are linear trends among the computed factor scores. The correlation matrix is reported in Figure 7.

Correlations

		Employee's stimulation	Employee's empowerment	Leadership style	Project efficiency and effectiveness
Employee's stimulation	Pearson Correlation	1	.678**	.571**	.575**
	Sig. (2-tailed)		.000	.000	.000
	N	1172	1172	1172	1172
Employee's empowerment	Pearson Correlation	.678**	1	.699**	.663**
	Sig. (2-tailed)	.000		.000	.000
	N	1172	1172	1172	1172
Leadership style	Pearson Correlation	.571**	.699**	1	.777**
	Sig. (2-tailed)	.000	.000		.000
	N	1172	1172	1172	1172
Project efficiency and effectiveness	Pearson Correlation	.575**	.663**	.777**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	1172	1172	1172	1172

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 7: Correlation matrix

Employee's empowerment and leadership style are positively correlated, r (1172) = 0.699 and p = 0.0001. Employee's stimulation and leadership style are positively correlated, r (1172) = 0.571 and p = 0.0001. Project efficiency and effectiveness and leadership style are positively correlated, r (1172) = 0.777 and p = 0.0001. These three correlations indicate that there is a linear trend between the independent and dependent variables, i.e. when either independent variable level increases, the level of the dependent variable tends to increase too. Therefore, when leadership style levels increase, levels of employee's empowerment, employee's stimulation, and project efficiency and effectiveness tend to increase.

4.6. Regression models to investigate the hypotheses

Although the correlation analysis established a linear trend of positive association between dependent and independent variables, it is not enough to support the research hypotheses. These are examined with three simple linear regression models as far as there are three dependent variables, namely employee's empowerment, employee's stimulation, and project efficiency and effectiveness.

Before reporting the three simple linear regression models, it is essential to examine the six assumptions necessary to validate any simple linear regression model. The first assumption is that the two variables used in the simple linear regression model should follow either the interval or the ratio scales. In this Thesis, the main variables are construct obtained each from five 5-point Likert scale manifests. Nonetheless, the EFA scheme allows computing continuous composite scores for each construct which meets the first assumptions for simple linear regression model.

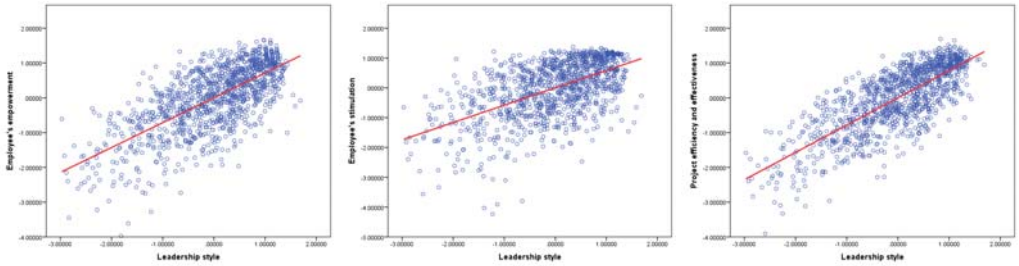


Figure 8: Scatterplots showing the linear relationship between the independent variable (leadership style) and the dependent variables (from left to right: employee's empowerment, employee's stimulation, and project efficiency and effectiveness)

The second assumption is that there should be a linear association between the two variables used in the simple linear regression model. This assumption is supported as far as the scatterplots in Figure 8 show the required linear relationships simulated by the red lines. In Figure 8, the blue dots represent the actual data.

The third assumption is that there should be no significant outliers. This assumption can also be checked by reviewing Figure 8, where no blue dots are found to be vertically far away from the red lines.

The fourth assumption is that the observations should be independent which can be checked via the Durbin-Watson statistics where values near 2 indicate that this assumption is met. The Durbin-Watson statistics are reported in Table 8 for the three regression models. The first model, where the dependent variable is employee's empowerment has a Durbin-Watson statistic of 1.867 which indicates that the observations are independent. The second model, where the dependent variable is employee's stimulation has a Durbin-Watson statistic of 1.963 which indicates that the observations are independent. The third model, where the dependent variable is project efficiency and effectiveness has a Durbin-Watson statistic of 2.043 which indicates that the observations are independent.

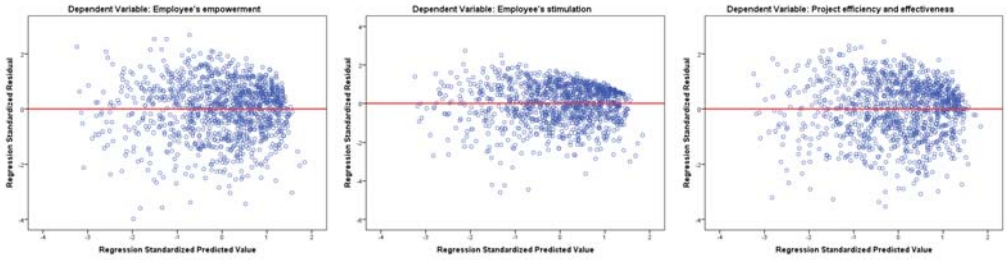


Figure 9: Scatterplots showing the homoscedasticity of data for the three regression models (from left to right: employee's empowerment, employee's stimulation, and project efficiency and effectiveness)

The fifth assumption is that the data needs to exhibit homoscedasticity. This assumption can be examined through the scatterplots of standardized predicted values as a function of standardized residuals. Theses plots are depicted in Figure 9 where the red line shows the line of best fit and where the blue dots shows for all three regression models that their variances remain similar as you move along the line of best fit. Therefore the

assumption of homoscedasticity is met for all three regression models. In other terms the variance of the dependent variable is the same for all the data. Uneven variance in any sample will result in biased test result.

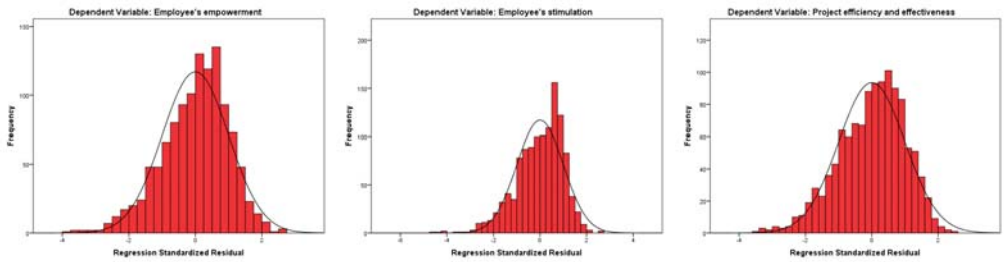


Figure 10: Histograms of the residual errors for the three regression model (from left to right: employee's empowerment, employee's stimulation, and project efficiency and effectiveness)

The sixth assumption is that the residual errors of the regression line should be approximately normally distributed. This assumption can be examined via the histograms of the residual errors where a histogram showing a good fit with a superimposed normal curve indicates that the assumption is met.

Figure 10 exhibits the histograms of the residual errors for the three regression models. All histograms show a good fit with their superimposed normal curve indicating that the sixth assumption is met for all three regression models.

Table 8: Simple regression models for hypotheses testing

	Employee's empowerment	Employee's stimulation	Project efficiency and effectiveness
Constant	1.087×10^{-16}	-4.844×10^{-17}	-8.149×10^{-17}
Leadership style	0.715*	0.581*	0.785*
	(t = 33.438)	(t = 23.783)	(t = 42.190)
R^2	0.489	0.326	0.603
F statistic	1118.088*	565.636*	1779.993*

Durbin-Watson	1.867	1.936	2.043

*Significant a $p < 0.0001$

Now that the six assumptions are met for the three regression models, it becomes possible to discuss the estimates obtained for each model and interpret them in view of the three research hypotheses. The estimates and statistics relevant to the three regression models are reported in Table 8.

The first model reports the effect of leadership style on employee's empowerment. The regression model exhibits a coefficient of determination R^2 equal to 0.489 which means that 48.9% of the variability of employee's empowerment can be explained by leadership style. The model is globally significant with F (1, 1170) = 11180.088 and p = 0.0001. Leadership style has a statistically significant positive effect on employee's empowerment due to its positive coefficient of 0.715, t (1170) = 33.348 and p = 0.0001. This indicates that when the level of leadership style increases by one point, that of employee's empowerment will increase by 0.715 point. Therefore, the research hypothesis H1 is supported and leadership style practices positively affect employee's empowerment.

The second model reports the effect of leadership on employee's stimulation. The regression model exhibits a coefficient of determination R^2 equal to 0.326 which means that 32.6% of the variability of employee's stimulation can be explained by leadership style. The model is globally significant with F (1, 1170) = 565.636 and p = 0.0001. Leadership style has a statistically significant positive effect on employee's stimulation due to its positive coefficient of 0.581, t (1170) = 23.783 and p = 0.0001. This indicates that when the level of leadership style increases by one point, that of employee's

stimulation will increase by 0.581 point. Therefore, the research hypothesis H2 is supported and leadership style practices positively affect employee's stimulation.

The third model reports the effect of leadership on project efficiency and effectiveness. The regression model exhibits a coefficient of determination R^2 equal to 0.603 which means that 60.3% of the variability of project efficiency and effectiveness can be explained by leadership style. The model is globally significant with F (1, 1170) = 1779.993 and p = 0.0001. Leadership style has a statistically significant positive effect on project efficiency and effectiveness due to its positive coefficient of 0.785, t (1170) = 42.190 and p = 0.0001. This indicates that when the level of leadership style increases by one point, that of project efficiency and effectiveness will increase by 0.785 point. Therefore, the research hypothesis H3 is supported and leadership style practices positively affect project efficiency and effectiveness.

4.7. Results findings and discussion

The present section illustrates the findings discussion.

4.7.1. Relationship between leadership and employees' empowerment

The relationship between the style of leadership exercised and its influence on employee empowerment has been the subject of much research and publication. Previous findings have shown that leadership style has a statistically significant positive effect on employee's empowerment due to its positive coefficient of 0.715, t (1170) = 33.348 and p = 0.0001. In fact, when a leader promotes the autonomy of his subordinates, he thereby recognizes his sense of responsibility, his creativity and his place in the company. These three elements are based on one of the fundamentals in all relationships, whether professional or not: trust.

Employees are all the more empowered to carry out their tasks when they can take initiatives on said tasks. This will stimulate their creativity and they will feel useful for the smooth running of the said projects. In other words, to feel that subordinates belong to an organization is also to share with them values in which a leader found on his proper conviction. Employees who share some of their values with the values of their company will be all the more motivated to work for them.

4.7.2. Relationship between leadership and employees' stimulation

Previous findings have shown that leadership style has a statistically significant positive effect on employee's stimulation due to its positive coefficient of 0.581, t (1170) = 23.783 and p = 0.0001. Sometimes the lack of autonomy is simply the result of an employee's inhibition. Business policies based on perfect results and the punishment for mistakes are doomed to fail in terms of professional motivation. Creation of interaction, organizing information meetings, moments of sharing, cohesion activities are all means to promote interactions and create this feeling of social and professional belonging. Of course, although favored by the leader, the feeling of social belonging is also the responsibility of the employee. If he adopts a rather solitary attitude and avoids interactive moments, his integration into a team will take longer. Each person is responsible for the side that belongs to him and is not responsible for the side belonging to the other.

4.7.3. Relationship between leadership and project efficiency and effectiveness

Previous findings have shown that leadership style has a statistically significant positive effect on project efficiency and effectiveness due to its positive coefficient of 0.785, t (1170) = 42.190 and p = 0.0001. When a leader promotes the expression of an

employee's skills, it gives him the opportunity to work in the flow. The need for competence is satisfied when an employee feels efficient and capable of performing tasks of different levels of difficulty. Moreover, the need for skills among employees is reflected by assigning subordinates tasks while respecting the balance between the difficulty of the task (the challenge that this task can represent) and the employee's skills to perform it.

In such, when the personal challenge is high and the skills that an individual possesses to carry it out are so high; the moment of the completion of the task is defined by optimal experience. Indeed, if the challenge is too high with regard to the skills of the employee, then the risk is the direct entry into a zone of stress, or even anxiety, sabotaging professional motivation. If on the other hand, the challenge to be met is below the skills of the employee, then he risks getting bored firmly and his motivation will still not be there.

4.7.4 Conclusion

All in all, the analysis illustrated in the latter chapter answers our research question ***"How leadership is exercised within a project team?".***

The three hypotheses in study are validated, and leadership style positively affect all three dependent variables employee empowerment, employee stimulation and efficiency and effectiveness. Referring to the literature review project teams is an essential tool to practice shared leadership within a team. Leadership practices such as involving subordinates, empowering subordinates, intellectual stimulation, sharing a common vision, guide subordinates and promote joint responsibility were found in the latter chapter as practices that positively affect the project team.

To conclude, the latter results shows similarity with the literature review which suggests that team management plays a major influence on project team and simultaneously on project performance. In such vein, leadership style and empowerment of employees are essential to maximize team performance. Finally this research contribute in guiding Lebanese contracting organizations to empower and stimulate their employees in order to increase their team's performance.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

In chapter 4, we presented the results of our research, highlighting the different postures relationships regarding the role that transformational leadership could play with project management sustainability and effectiveness. The present chapter concludes the study while reflecting the main findings, the research limitation, the theoretical and managerial implications, the future perspectives of the study and the research recommendations.

5.1. Main findings

Ultimately, the transformational leadership style stimulates and demonstrated employee empowerment and stimulation. These two variables (empowerment and stimulation, in turn, promote a positive performance for the organization because they constitute vectors of the effectiveness of human capital and are similar for determining factors for performance objectives achievement. These findings confirm the hypothesis that there is a positive relationship between leadership and employees' empowerment, between leadership and employees' stimulation and between leadership and project efficiency and effectiveness.

The study also shows the existence of an "oscillating" leadership which obviously emanates from the temporal and situational alternation of several sometimes contradictory styles of leadership. This therefore brings us back to the idea of an association of leadership models or more simply to the notion of situational leadership sometimes self-centered and directive, sometimes participatory and consultative. From there, leadership can be illustrated as a transversal approach whose success, in an

organizational context, lies in the leader's ability to adapt his style to subordinates' situations to bring them to fit into a more dynamic approach for achieving objectives in accordance with the desired orientation and project accomplishment.

With the aim of understanding the impact of individuals and groups on the behavior of actors in an organization, organizational behavior is a field of study that is part of the search for the keys to individual efficiency and groups in the organization. It thus gives an important place to the study of leadership in its relation to the performance of organizations. It is obviously for this reason that our study on the impact of leadership on employee empowerment and stimulation was part of this thinking process.

The findings that the research reaches for show that the combination of transformational and participatory leadership enabled the understanding of project management sustainability. Noting that, sometimes through authoritarianism, and sometimes through incitement and involvement, employees committed to the goals of the undertaken projects.

5.2. Research limitations

The research study is limited to a quantitative method. However, it was advisable to invest, before, into a qualitative method in order to understand through semi-guided interviews the perceptions and the intentions of project management's leaders. On another note, another qualitative technique could be referred for and is related to a focus group technique. At that level, the focus group is a group technical interview, an *"expression group"*, which collects information on a targeted topic. Conducting, first, a qualitative approach can impregnate the study from a more contextual approach. Thereafter, the confrontation between the literature review analysis and the qualitative

data leads for the establishment of situational research hypotheses that can be tested on a quantitative sample.

5.3. Theoretical and Managerial Implications

The theory of self-determination of Edward L. Deci and Richard M. Ryan, proposes that the type of motivation of an individual exists according to the degree of self-determination that the same individual has. When this degree is high and is generated by internal stimuli[3], then the intrinsic motivation is emphasized on. When this degree of self-determination is lower and is generated by external stimuli as rewards, punishments then an extrinsic motivation is underlined. Leaders who know how to motivate employees understand the internal motivation system and do everything to meet the three basic needs of their employees:

- The need for autonomy, which corresponds to the need to feel at the origin or the source of one's actions;
- The need for competence, which corresponds to the need to feel efficient and able to perform tasks of different levels of difficulty;
- The need for social belonging, which corresponds to the need to feel connected and supported by other people.

It is also important that the manager creates a caring environment, where employees can express themselves freely, are proactive and respected. Open communication is advocated regarding the objectives and responsibilities of each. In addition, ethical communication from the manager (leader) is necessary. This makes it possible to set

[3] As the sense of autonomy, skills mobilization and completion of meaningful tasks.

the ethical rules to be observed, thus promoting the responsibility and autonomy of each employee.

5.4. Future perspectives of the study

Future avenues of research could carry out the experiment of leadership transmission of knowledge and competencies. The research scope can cover the subordinate's characteristics rather than only the leadership style and study how each characteristic contribute to project team and share leadership. This latter study will help and guide cooperation and human resources while building a project team in order to create and promote shared leadership within projects.

5.5. Recommendations

Alongside the authoritarian-directive style, it is noted that the use of a less authoritarian and more rewarding style, can enhance a better interaction with subordinates and promotes a participatory style. Such leadership style, namely transformational, is expressed in particular through the desire to establish a relationship of trust with employees; this through the encouragement formulated by superiors and the use of possible means for supporting them in achieving the assigned objectives. Indeed, the employees emphasize on their commitment to the stimuli received through this management style which, although generating pressure, is a real input for their empowerment and stimulation. Transformational Leadership will aim to create a trusty and cooperative environment that will guide employees to put aside their personal interest and work, think and act for the interest of the team and project.

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APPENDICES

Appendix A- Questionnaire

	Gender:	☐ Male	☐ Female			Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	Without employees empowering, objectives cannot be accomplished.					o	o	o	o	o
2	I, always, involve subordinates into collective participation to hold them accountable for commonly taken decisions.					o	o	o	o	o
3	I assume that empowering leadership can directly create shared leadership.					o	o	o	o	o
4	Employees gain valuable skills as influencing and persuading others in order to achieve goals within a work team.					o	o	o	o	o
5	When empowering subordinates, I have the feeling that, in return, employees provide valuable outcomes.					o	o	o	o	o
6	Intellectual stimulation is considered as a main task for a leader to provide for his subordinates.					o	o	o	o	o
7	Increasing individual performance conveys with the leader's ability to meet subordinates' personal aspirations and needs.					o	o	o	o	o
8	I manage a project in a way to provide a sharing of a common vision among all team members.					o	o	o	o	o
9	Collective team performance is always on my mind.					o	o	o	o	o
10	Influencing positively subordinates expects, in return, positive outcomes.					o	o	o	o	o
11	Project teams are always re-composed in light of subordinates resources and the project characteristics.					o	o	o	o	o
12	To achieve better project completion, goals are split according to individual tasks description.					o	o	o	o	o
13	I, as a leader project, assist and coach my team in order to provide subordinates with a better tasks orientation.					o	o	o	o	o
14	I, as a leader project, bring joint responsibility and a commitment to the team which to meet project objectives.					o	o	o	o	o
15	Collective subordinates' interaction and participation leads for a better project efficiency and effectiveness.					o	o	o	o	o
16	The leadership style I exert conveys with the expectations and the motivation of my subordinates.					o	o	o	o	o

17	Usually, I proceed with a leadership based on sanctions and rewards.	○	○	○	○	○
18	Usually, I proceed with a leadership that favors subordinates participation, cooperation and motivation.	○	○	○	○	○
19	My leadership style favors subordinates working relationships.	○	○	○	○	○
20	My subordinates appreciate the way I intervene within the accomplishment of their responsibilities.	○	○	○	○	○

Appendix B- Data Collected