Project and Enterprise Management

MSc Report

SUCCESSFUL PROJECT LEADERSHIP: AN ANALYSIS OF THE GREEK CONSTRUCTION MARKET

by

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ABSTRACT

Leadership has always been an issue of exceptional complexity, but at the same time an area of significant interest and challenge. Yet, research has been mainly focused on general management situations and not on the level of project management. Particularly, in relation to the Greek construction in reality there is a very limited bibliography on the issue of ***project leadership***, especially if taking into account how significant it is considered by the relevant professionals.

The objective of this research is to explore the issue of project leadership in the ***Greek construction market*** and provide a general overview of this topic. For this reason 12 successful construction companies were approached, asking them to suggest one of their best project managers to be interviewed. Interviews included both quantifiable questions (Likert scale) and qualitative ones (open-ended) in order to cover a variety of theory's aspects. The extracted data were used in establishing a thorough analysis over which traits and competencies are required to overcome conflicts, avoid inefficiencies, excel in financial performance and generally achieve ***success***, in relation to the way projects are led.

Personal details (scientific background, age), preferable ***leadership style***, concern for people and tasks (using the managerial grid), inclination towards either the transactional or transformational type of leadership and time orientation of ***project managers*** are only some of the issues that will be specified through the mathematical analysis of the extracted from the interviews data. Additionally, whether project leaders' personal estimation of their leadership style coincides with the corresponding results of quantitative analysis will be clarified. Finally, the characteristics/skills that they consider to be essential for successful project leadership and the connection of project leadership with corporate profitability are another two issues that will be under investigation.

Key words: project leadership, Greek construction market, success, leadership style, project managers.

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CSF: Community Support Framework
TEE: Technical Chamber of Greece
I.O.K.: Hellenic Institute of Construction Economics
GDP: Gross Domestic Product
LPC: Least Preferred Co-worker

CHAPTER 1 – INTRODUCTION

Leadership has always been a stimulating, yet difficult issue for researchers to examine and leaders to apply. Through that lens, the leadership of project teams is a demanding and challenging subject to examine. As Thoms and Kerwin (2004, pp.1014) suggest:

> *"The challenges for effective project leaders are quite many; successfully bringing about change, satisfying their stakeholders, and leading teams of contributors who may be involved in a short term basis".*

It is widely believed that when referring to projects, one of the first sectors (and probably the very first one) that comes to the mind is *construction*. It is really difficult to find another, so project-dominated sector, thus the interest it presents in relation to the topic of leadership and the applicability of the various relevant theories are indisputable. In the Greek construction environment, this particular scientific area- despite being greatly appreciated by all the professionals involved- has been, so far, hardly explored. This fact, combined with the current condition of the Greek construction industry; being volatile and in a climate of general re-adjustment, inspired the author to investigate the issue of project leadership in this particular context.

The fundamental objective of this research is to deeply explore the topic of project leadership in the Greek construction market while providing a consistent primary research for this issue. Throughout the analysis traits and capabilities that define a successful project manager as well as the techniques behind conflict avoidance, overcoming inefficiencies and excellence in performance, in relation to the way projects are led, will be examined.

Moreover, this research aims at comparing findings on project leadership style of Greek project managers in relation to theoretical suggestions, while drawing a series of useful conclusions (commonalities and differences) on issues like personality, experience, education, time-orientation etc. Hopefully, this report is going to stimulate further research in this area and contribute to a minor extent in establishing an analytical guide of project leadership in the Greek construction market.

- A Brief Overview of the Report

This report will continue with Chapter 2, which deals with the way that the Greek construction market has unfolded during recent years. A brief analysis of the whole sector will be provided together with the crucial classification of construction firms in 7 distinctive license classes according to the public works certificate they possess. Finally the issue of project leadership in the Greek construction industry will be introduced in relation to some dominant researchers on the subject.

In order to adequately grasp the issue of leadership, it is imperative to provide a sound theoretical framework taking into account general leadership theories that are considered to be valid and applicable in project leadership. This task will be performed in Chapter 3. Then, an attempt to explore construction industry specific issues affecting the way projects are managed is going to follow, accompanied by an examination of the project environment in construction. The 3rd chapter will also be enriched with a brief, yet systemic, review of the various project leadership competencies and the parameter of time orientation and how this is connected with project leadership.

Following that, Chapter 4 will be engaged in setting out the research methodology that is going to be adopted, involving the emerging question, the definition of research sample, the formation of structured interviews and the way relevant professionals were approached. The specific content of the interview questionnaire is also clarified at this chapter and the reasons for choosing these specific questions are justified.

The main body of the report is presented in Chapter 5, including the analysis of the extracted data and the statistical processing of it. The main focus will be on providing a mathematical depiction of both the quantitative and where possible, the qualitative results from the interviews, in order to reach safer conclusions. Utilising Excel Worksheets, various tables and figures- corresponding to different questions- will be formed, in order to give the reader an opportunity to pore over the actual research objectives.

This particular report is going to be finalised with a series of conclusions and recommendations on the issue of project leadership based on the various questions made to the project managers (and especially the qualitative ones), while attempting to prepare the ground for future research and applications.

CHAPTER 2 – UNFOLDING THE GREEK CONSTRUCTION SECTOR

2.1. A brief analysis of the sector

The Greek construction industry has always been tightly connected with the economic progress of the country and its interrelation to various economic trends is indisputable. As would befit a developing country (Croshtwaite, 2000), since the 1950s the industry's efforts have been geared towards the reconstruction of the post-war Greece, for the reprisal of the consequences of the war and the renewal of the country's infrastructure. From 1988 until 1995 construction activity in Greece presented a diminishing course, while from 1996 onwards, showed a significant recovery, which is mainly attributed to the de-escalation of the housing loans interest rates and the increased investments in real estate. The kingpins supporting this construction boom have mainly been:

- the new projects' financing methods,
- the need for the realization of public infrastructure works, and
- the expansion of the sector in new markets as well as the overall course of the Greek economy.

The main contribution, however, to the sector's ongoing boom, was the realisation of 2004 Olympic Games and the aid provided by the 1st, 2nd and 3rd Community Support Frameworks (CSFs). According to data extracted from the Technical Chamber of Greece during the last 5 years the following resources have been (or intend to be) invested in general infrastructure projects across the Greek territory.

Table 2.1: Support funding – Domestic investments for the period 2000-2006

Olympic Games 2004	3.5 billion Euros
3rd CSF (Infrastructure)	17.3 billion Euros

Source: Technical Chamber of Greece (TEE) (2005)

The aforementioned developments have rendered the Greek construction sector as probably the most important growth factor of the economy and a major contributor in the formation of the country's Gross Domestic Product.

Table 2.2: Contribution of Greek construction sector[1] in GDP

1997	6.5%
1998	6.8%
1999	7,4%
2000	8,0%
2001	8,3%
2002	8,6%
2003	9,0%
2004	9,1%
2005	9,4%
2006 (estimation)	9.6%

Source: Hellenic Institute of Construction Economics (I.O.K) (2005)

At the same time, these financial incentives provided a great opportunity for domestic construction companies. The challenge for them was to respond dynamically and effectively towards the "on-time", "in budget" and "to scope' completion of the projects. Following a research undertaken by the Hellenic Institute of Construction Economics in 2004, the total sum of domestic construction activities for the year 2003 was around 13.7 billion euros while estimated up to almost 18 billion Euros for the year 2004.

Table 2.3: Domestic construction activities (public and private projects)

YEAR	PUBLIC		PRIVATE (Legitimate activities)		TOTAL SUM	ANNUAL VARIATION (%)
	(Billion Euros)	(%)	(Billion Euros)	(%)		
1997	2.2	34,2	4.1	65.8	6.3	-
1998	2.6	35.8	4.6	64.2	7.2	14.29
1999	3.5	41.4	4,9	58.6	8.4	16.67
2000	4.6	47.4	5.1	52.6	9.7	15.48
2001	5.2	47.6	5.7	52.4	10.9	12.37
2002	5.8	47.5	6.4	52.5	12.2	11.93
2003	6.4	47.1	7.2	52.9	13.7	12.30

Source: I.O.K. (2005)

The aforementioned statistics provide an indicative illustration of construction activity in Greece which can be further divided in the following three isolated sectors of:

[1] The table refers to the narrow construction sector, as according to the Association of Civil Engineers in Greece (ACEG, 2005): "The *broad* construction sector in Greece constitutes the 'steam-engine' of the Greek Economy representing 16% of the GDP in year 2000 and it is estimated to reach 20% roughly during the next years".

- private projects
- public works, and
- co-financed projects.

Private construction activity refers mainly to the construction of office buildings and residences. The public works refer to infrastructure works- such as ports, bridges, motorways, hospitals etc- and constitute the most important demand-determinative factor of the sector. In the co-financed projects- which constitute a special form of self-financing- the companies participate, through joint ventures with constructors, in the projects' construction cost. The total construction activity is determined by factors such as the general condition of the economy, the development policy of the country, the international and national events as well as the prevailing general investing tendencies.

2.2. Distinction of Greek construction firms in 7 license-classes

In any case, construction activity is carried out by construction companies. In Greece, construction companies have been historically classified in accordance with their public works licence certificate, which specified the project types they could undertake based on their financial robustness as well as technical and construction experience. The latest fundamental change regarding the general structure of the sector took place over the period 2001 - 2002 when intense fermentations prevailed in the legislative framework of the market. Pursuant to Law 2940/2001 "Development, tax and legislative motives for the corporations of the construction sector and other stipulations[2]", 7 new license classes were created, in which all the contracting companies were classified after having previously been re-graded (Ministry of Environment, Physical Planning & Public Works, 2005). The mergers and acquisitions that followed the companies' efforts to an effective re-grading were considered to be an important step towards the extremely high fragmentation of the industry[3]. Successively, the year 2003 was the starting point of the construction

[2] Upon application of Law 2940/2001 (voted on 06.08.2001), construction companies during 2002 have also proceeded in reformation through merger that will allow exploitation of economies of scale and improvement in competition, in the domestic as well as foreign markets. According to this Law, there are seven classes of the Contracting Companies Registry plus two other special classifications - A1 and A2 - formed for small companies. In accordance to Law 2940/2001 all registered companies are obliged, to submit an application of an extra preliminary examination for their classification in the corresponding category and class in accordance with legal requirements, the Presidential Decrees and the Ministerial Decisions that will be issued.

[3] Some might argue that the true motives were slightly different, however.

companies' operation within this new framework[4]. On the basis of the old classification, 759 companies were registered in the 5 superior classes (4th up to 8th) while further to the mergers and re-gradation procedures, 374 contracting corporations were classified in the new 5 superior classes (3rd up to 7th)[5]. The new first tier class includes- up to now- the following companies:

Table 2.4: Companies belonging to the supreme class (up to 2005)

1	AEGEK S.A.
2	ATHINA S.A.
3	AKTOR S.A.
4	ALTE S.A.
5	ATTIKAT S.A.
6	VIOTER S.A.
7	EMPEDOS S.A.
8	EFKLIDIS S.A.
9	THEMELIODOMI S.A.
10	MICHANIKI S.A.
11	MOCHLOS S.A.
12	PANTECHNIKI S.A.
13	TERNA S.A.
14	J&P AVAX S.A.

Source: Technical Chamber of Greece (2005)

Undoubtedly, major construction companies appeared particularly reinforced by the aforementioned reformation, given that they were expected to utilize in a better way the production coefficients of the companies they had absorbed, exploiting thus potential economies of scale. As of this, they were expected to undertake the execution of the major projects that were under way in Greece in the following years. Due to their significant reinforcement, some of the companies lied before hopeful perspectives in the assuming of significant operation abroad, mainly in countries of the Euro-zone and South-eastern Europe. A general overview of the spread of workload among license-classes after the reformation of 2001-02 is provided by the Department of Statistical Analysis and Documentation of I.O.K. accompanied by financial data for the year 2003.

[4] Let it be noted that were reduced from 8 to 7

[5] for further details see Appendix A)

Table 2.5: General overview of the Construction Sector in Greece

Public Works Certificate	Turnover (in million €)	Number of companies	Average Turnover (in million €)	% of the total turnover of the sector
7th	2,811	14	201	58,76
6th	891	51	17	18,62
5th	520	65	9	10,90
4th	330	85	3	6,79
3rd	240	173 (485)[6]	1	4,92

Source: I.O.K. (2005)

2.3. The issue of leadership in the Greek construction market

These changes apart from dominating the construction industry of Greece during the last decade have also led to an evolution in the way construction projects are being managed and the significance of different "*leadership*" styles and capabilities related with their completion. Extensive restructuring that has been taking place across the whole sector created new challenges for the companies' management teams which are seeking to adapt to the newly formed conditions. In the same sense, the 2004 Olympic Games have been a milestone, which, apart from its benefits for the country, generated concerns over the topic of project leadership, related especially to issues such as quality compromises and cost overruns due to the lack of relevant capabilities by project managers. Pantouvakis (2004), in one of the few available pieces of relevant research, argues that despite the contemporary implementation of a large programme of infrastructure projects, construction management has remained stagnant, if not declining, characterised by phenomena of poor leadership and ineffective procedures. Moreover, according to Souflias (2005) Minister for the Environment, Physical Planning and Public Works:

> *"There is an unprecedented need for construction companies to change the way they have been managing projects so far, especially public ones, as ineffectiveness, lack of motivation, conflicts and corruption have been apparent for many years during construction projects execution ".*

Undoubtedly, this is a development that directly concerns Greek construction firms. Thus, a systematic and comprehensive analysis of project leadership in the Greek construction industry appears almost imperative today due to the rising importance of the matter and limited research on the topic.

[6] Out of 485 companies possessing a third class construction license, IOK has available data for only the 173 of them.

2.4. From introduction to literature review

The 2nd chapter provides a brief description of the Greek construction market[7]. The latest developments of the sector (especially during the last decade) and specifically how the Greek construction firms are divided in seven classes according to their contracting licences and performance[8] are explained in detail. Moreover, the contribution of construction activity in the formation of GDP was vividly illustrated rendering the construction sector as probably the most important growth factor of the country's economy. At the same time, some of the major problems that tantalise the sector are mentioned and an explicit link with the issue of project leadership is provided. To enhance this characteristic link, the author included the views of some analysts (Pantouvakis, 2004; Souflias, 2005) who are involved in the topic of *inefficient project leadership* in the Greek construction market while pointing the obvious lack of relevant researches on the subject.

To establish the theoretical background onto which this particular research is going to be built, the reader has to move forward to Chapter 3 which comprises a systemic and detailed literature review on the issue of leadership with a special focus on the area of construction project leadership.

[7] References to the long past of the Greek construction sector were deliberately avoided because it is an area that has been already examined by many scholars and would not offer anything new and constructive.

[8] In Appendix A the reader can identify the article 8 of Law 2940/2001 which was the main driver for the sector's reformation (Data from Athens Bar Association, 2005)

CHAPTER 3 – LITERATURE REVIEW

3.1. General concepts of leadership

Undeniably, leadership is a topic that has been examined and addressed by many practitioners and academics (Weber, 1947; Fiedler, 1967; House, 1971; Vroom & Yeton, 1973; Mant, 1984; Bennis, 1992; Evans & Russell, 1989; Batten, 1991; Mclean & Weitzel, 1991; Handy, 1993; Drucker & White, 1996; Greenberg & Baron, 2003). The main reason behind this is the great frequency of facing, in our daily round, activities involving or demanding the presence of a leader in order for them to be performed and successfully meet objectives. As Handy (1993, pp. 96) suggests:

> *"Anyone who has ever been responsible for organizing or coordinating the work of others, who has sought to get things done through other people, has encountered some of the problems of the leadership and management of groups".*

In parallel, a leader is defined as *an individual within a group or an organization who wields the most influence over the others* (Greenberg, & Baron, 2003, pp. 471). Thus, the contribution of leadership in terms of organisational success appears to be almost unchallengeable nowadays and leaders are believed to play a crucial role in shaping the fortunes of their organizations. However, one of the big questions is *whether leaders are born or made*. In this sense, Handy (1993, pp. 96) questions:

"Can anyone be a leader or only the favoured few?"

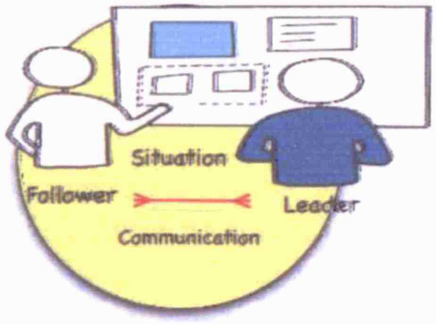
Researchers have responded to this question by developing different approaches to the issue of leadership. Bass (1990) suggests that there are three basic theories that can be used to explain leadership[9].

- *The Trait Theory:* Some personality traits may lead people naturally into leadership roles.
- *The Great Events Theory:* A crisis or important event may cause a person to rise to the occasion, which brings out extraordinary leadership qualities in an ordinary person.
- *The Transformational Leadership Theory:* People can choose to become leaders and they can learn leadership skills. It is the most widely accepted theory today and the premise on which many researches are based.

[9] The first two explain the leadership development for a small number of people

According to Thoms & Kerwin (2004), most of leadership theories fall into one of the following two categories: C*ontingency* or *universal.* Contingency leadership theories suggest that different times, tasks, and organisations may require different types of leaders or leadership behaviour. These models imply that leaders can- and do- change their behaviour as needs change. On the other hand, universal theories suggest that an effective leader is an effective leader regardless of the situation. These theories describe traits and behaviours that should work with any organisation. *But which are really the most important factors in leadership?* Clark (2005) identifies four major factors in leadership, shown in the figure below.

Figure 3.1: Major factors in Leadership



Source: Clark (2005)

Clark's (2005) definition of key four factors is as follows:

Follower

Different people require different styles of leadership. For example, a new employee requires more supervision than an experienced employee. A person who lacks motivation requires a different approach than one with a high degree of motivation. Leader must know their people! The fundamental starting point is having a good understanding of human nature, such as needs, emotions, and motivation. Leaders must become to know their employees' *be, know,* and *do* attributes.

Leader

It is imperative to have an honest understanding of who you are, what you know, and what you can do. Also, note that it is the followers, not the leader who determines if a leader is successful. If they do not trust or lack confidence in the *head*, then they will be uninspired. To be successful a leader someone has to convince his followers, not himself or his superiors, that he is worthy of being followed.

Communication

Leading takes place through a two-way communication. Much of it is nonverbal. For instance, when the head *sets the example* he communicates to his people that he would not ask them to perform anything he would not be willing to do. *What* and *how* a leader communicates either builds or harms the relationship between him and his employees.

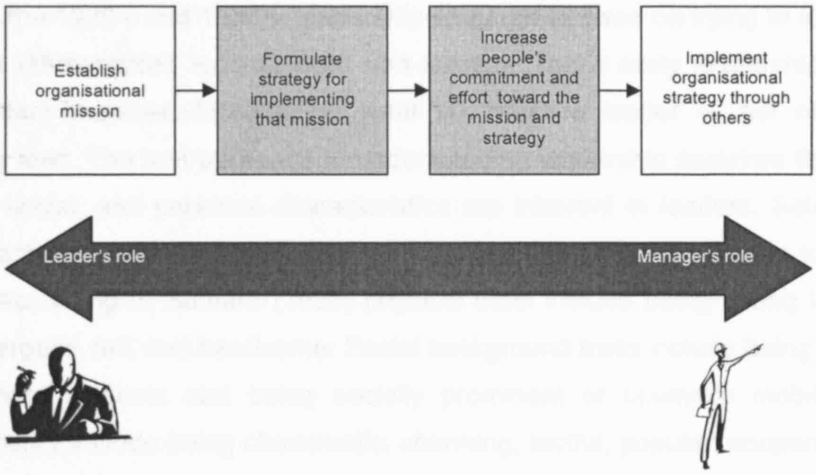
Situation

What you do in one situation will not always work in another. Leaders must use their judgment to decide the best course of action and the appropriate leadership style for each situation. For example, they may need to confront an employee for inappropriate behaviour, but if the confrontation is untimely or inappropriate the results may prove ineffective.

3.2. Leader vs. Manager

Before entering in detail into what each theory suggests and how the four factors outlined above are addressed, it would be useful to define the key distinction (at least in theory) between leaders and managers. Various analysts (Bennis, 1992; Handy, 1993; Greenberg & Baron, 2003; Smyth 2004, etc) demonstrate that the terms *leader* and *manager* are not identical and have to be clearly distinguished even though we sometimes understand the temptation of people to use them interchangeably. Greenberg & Baron (2003) suggest that the primary function of a leader is to establish the fundamental purpose or mission of an organisation and the strategy for attaining it. By contrast the job of a manager is to implement that vision. Although the differences are simple to articulate and to comprehend, the distinction between establishing a mission and implementing it is often blurred. This is so because leaders (like top senior executives) frequently, apart from creating a vision and formulating a strategy, are playing an active role towards the attainment of that vision. Correspondingly, managers (like project managers) while being charged with responsibility for implementing organisational strategy through others, are also often involved in helping to formulate strategy and in increasing people's commitment and effort toward implementing that plan. In other words, there are several overlapping roles played in practice- a fact that makes it difficult to distinguish between them (Greenberg & Baron, 2003). Still, some managers are considered leaders whereas others are not (see Figure 3.2).

Figure 3.2: Leaders and Managers



Source: Greenberg & Baron (2003)

The distinction is made clearer by observing the table shown bellow:

Table 3.1: Differences in styles

Managers focus on	Leadership focuses on
• Goals & objectives • Telling how and when • Shorter range • Organization & structure • Autocracy • Restraining • Maintaining • Conforming • Imitating • Administrating • Directing & Controlling • Procedures • Consistency • Risk-avoidance • Bottom line	• Vision • Selling what and why • Longer range • People • Democracy • Enabling • Developing • Challenging • Originating • Innovating • Inspiring trust • Policy • Flexibility • Risk-opportunity • Top line
Good managers do *things right*	**Good leaders do the *right thing***

Source: Bennis (1992)

Let us now address the leadership theories in turn, to a greater depth.

3.3. Trait theories

In the 1920's and 1930's, leadership research focused on trying to identify the traits that differentiated leaders from non-leaders. These early leadership theories were content theories, focusing on *what* an effective leader is, not on *how* to effectively lead. The trait approach to understanding leadership assumes that certain physical, social, and personal characteristics are inherent in leaders. Sets of traits and characteristics were identified to assist in selecting the right people to become leaders. According to Barnard (1938) physical traits include being young to middle-aged, energetic, tall, and handsome. Social background traits include being educated at the "right" schools and being socially prominent or upwardly mobile. Social characteristics include being charismatic, charming, tactful, popular, cooperative, and diplomatic. Personality traits include being self-confident, adaptable, assertive, and emotionally stable. Task-related characteristics include being driven to excel, accepting responsibility, having initiative, and being results-oriented.

One of the most widely known trait theories is the *great person theory*, according to which leaders possess traits that set them apart from others and these traits are responsible for their assuming positions of power and authority (Greenberg & Baron, 2003). Most recent researches supporting such approaches suggest that among others, leaders shall possess multiple domains of intelligence, such as:

- *Cognitive intelligence*: traditional measures of ability to integrate and interpret information).
- *Emotional intelligence*: the ability to be sensitive and to one's own and others' emotions (Goleman, 1998).
- *Cultural intelligence*: awareness of cultural differences among people.

During the last decades, trait theories have faded out as they have been criticized for a number of reasons. Handy (1993) suggests that possession of all traits becomes an impossible ideal while there are too many exceptions of people who do not have the major traits but are notably successful as leaders. Moreover, he argues that the traits are so ill defined as to be useless in practice. In the same sense, Dash (2005) demonstrated that no correlation could be seen between traits and actions; leaders' actions depended on the situations they were in and the roles they were adopting. Nevertheless, it would have been an omission to totally exclude or reject trait leadership theories, as in practice, most managerial selection schemes (like those of project managers), more or less, work on some assumed and often unspecified trait basis.

3.4. Behavioural theories

The next group of theories to appear were *behavioural* theories. Their focus was on finding patterns in what effective leaders *do* (rather than what traits or skills they *have*) that produce subordinates' satisfaction as well as high performance. According to Greenberg & Baron (2003), in order to describe the behaviour of leaders, a key variable involves how much influence they allow subordinates to have over the decisions that are made. The styles usually compared are the *autocratic* and *democratic*, a distinction that was firstly proposed by Harbison & Myers (1959). In the autocratic end, authority for decision-making, arbitration, control and reward or punishment is vested in the leader who alone exercises it. In the democratic style, on the other hand, these powers and responsibilities are shared with the group in some way or another (Handy, 1993). There are also supervisors who have been known to act in ways that fall between these extremes-that is, "leaders" that invite their employees' input before making decisions, are open to suggestions and allow subordinates to carry out tasks in their own way; but nevertheless make the decision on their own. That is called a *consultative* leadership style. The following table, modified from Handy (1993), clusters the various leadership styles in correspondence with the autocratic-democratic scale, according to various experts on the subject[10].

Table 3.2: Various leadership styles according to some dominant researchers

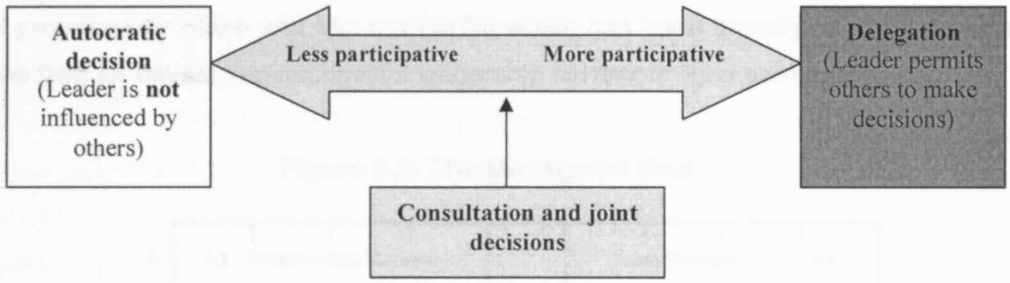
Autocratic			*Democratic*	
Harbison/Myers	autocratic	paternalistic	consultative	participative
Likert	exploitative	benevolent	consultative	democratic
Tannenbaum/Schmidt	leader control	shared control	shared control	group control
Vroom	leader decides	consults	shares	delegates
Ohio State Studies	initiating structure			consideration
Hersey/ Blanchard	telling	selling	participating	delegating

Source: Handy (1993)

Yukl (2002), provides a slightly different distinction of leaders, based on their tendency to permit decision making by their subordinates. This is the so-called autocratic-delegation model and an illustration of it is provided in the following figure.

[10] As Handy (1993, pp.100) highlights: *"The authors would rightly claim that such a terminology oversimplified their propositions".*

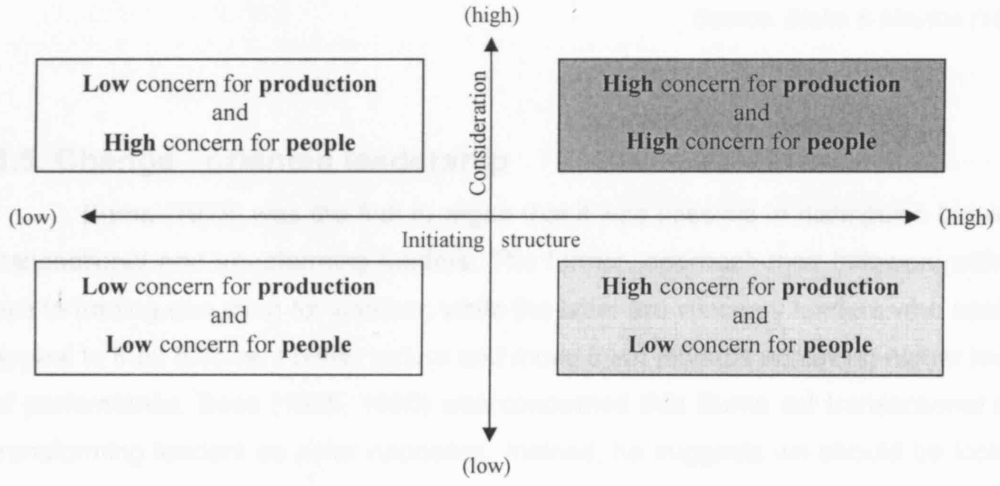
Figure 3.3: The Autocratic-Delegation Continuum Model[11]



Source: Yukl (2002)

Following Halpin & Winner (1957) and other Ohio State Studies, there is another major discrimination between leaders. Leaders differ greatly along the dimensions of *initiating structure* and *consideration*. Those at the high end of the first dimension are also known as *production-oriented leaders* and are mostly concerned with production and focus primarily on getting the job done. They engage in actions such as organising work, inducing subordinates to follow rules, setting goals, and making leader and subordinate role explicit. On the contrary, leaders at the high end of the second dimension, known as *people-oriented leaders*, are primarily concerned with establishing good relations with subordinates and being liked by them. They engage in actions such as doing favours for subordinates, explaining things to them, and taking steps to assure their welfare (Greenberg & Baron, 2003).

Figure 3.4: Two Basic Dimensions of Leader Behaviour

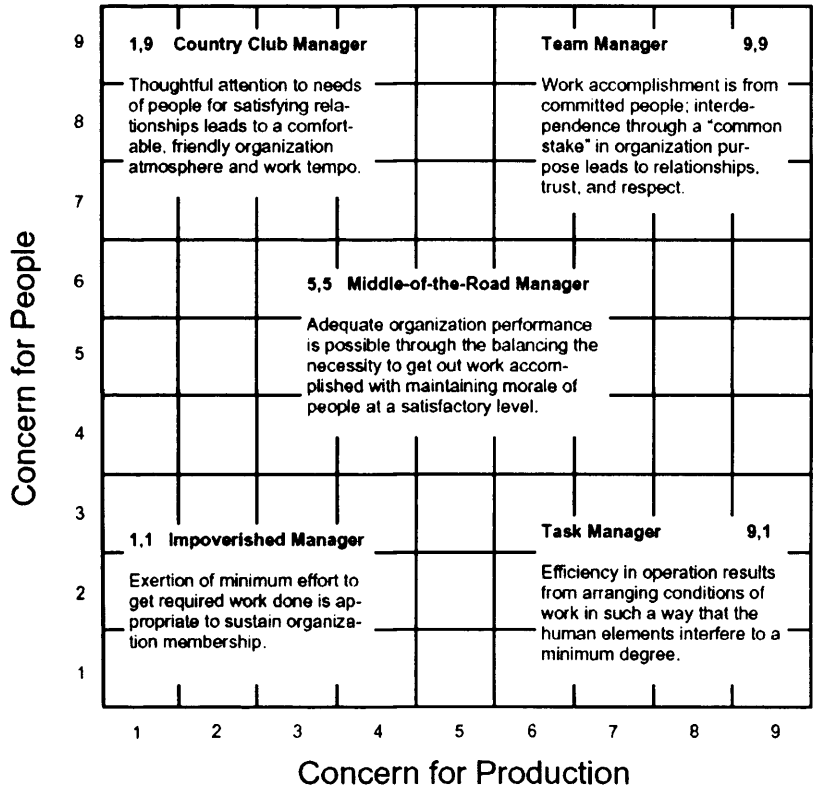


Source: Greenberg & Baron (2003)

[11] Consultation and joint decisions are intermediate forms of participation in decision making.

A leader's positioning on the two basic dimensions can also be illustrated by means of a diagram known as *managerial grid*. This is a very powerful and effective tool proposed by Blake and Mouton (1978) which has been broadly used by experts in the field for developing successful leadership behaviour (grid training).

Figure 3.5: The Managerial Grid



Source: Blake & Mouton (1978)

3.5. Change - oriented leadership

Burns (1978) was the first to argue that it was possible to distinguish between transactional and transforming leaders. The former, approach their followers with an eye to trading one thing for another, while the latter are visionary leaders who seek to appeal to their followers better nature and move them towards achieving higher levels of performance. Bass (1985, 1990) was concerned that Burns set transactional and transforming leaders as polar opposites. Instead, he suggests we should be looking at the way in which transactional forms can be drawn upon and transformed. The resulting transformational leadership is said to be necessary because of the more sophisticated demands posed on leading.

Wright (1996) comments that the *transactional leader* works through creating clear structures, which clarify what is required of subordinates and the rewards they get for following orders. Punishments are not always mentioned, but they are well-understood and formal systems of discipline are usually in place. The early stage of transactional leadership is in negotiating the contract whereby the subordinate is given a salary and other benefits, which give the company (and by implication the subordinate's manager) authority over him. *Transformational leaders* are considered to have *charisma* (among other characteristics) in transforming their organisations by adopting the following distinctive steps (Bass, 1990):

a) Developing the vision
b) Selling the vision
c) Finding the way forwards
d) Leading the change

In order to further clarify the difference, a contradistinction of the two concepts follows:

Table 3.3: Transactional vs. Transformational leadership

Transactional leadership behaviour	*Transformational leadership behaviour*
Clarify goals and objectives to obtain immediate results	Establish long-term vision
Create structures and processes of control	Create a climate of trust
Solve problems	Empower people to control themselves; manage problem-solving
Maintain and improve the current situation	Change the current situation
Plan, organise and control	Coach and develop people
Guard and defend the culture	Challenge and change the culture
Power comes from position and authority in the organisation	Power comes from influencing a network of relationships

Source: Bass (1985; 1990)

3.6. Contingency theories

There are several modern approaches to leadership, collectively referred to as *contingency theories*, which are a class of modified behavioural approaches that contend that there is no best way of leading and that leadership effectiveness may vary depending on the situation. Among these the five that are most well-known are *the esteem for least preferred co-worker theory (LPC) contingency theory*, *the situational leadership approach*, *the path-goal theory*, *the normative decision theory* and *the substitutes for leadership framework*.

3.6.1. Esteem for LPC contingency theory

LPC contingency theory was first put forward by Fiedler (1967) who developed a LPC scoring for leaders by asking them first to think of a person with which they worked that they would like least to work with again, and then to score that person on a range of scales between positive factors (friendly, helpful, cheerful, etc.) and negative factors (unfriendly, unhelpful, gloomy, etc.). A high LPC leader generally scores the other person as positive and a low LPC leader scores them as negative. High LPC leaders tend to have close and positive relationships and act in a supportive way, even prioritising the relationship before the task. Low LPC leaders put the task first and will turn to relationships only when they are satisfied with how the work is going. Three factors are then identified about the leader, member and the task:

- *Leader-Member Relations*: The extent to which the leader has the support and loyalties of followers and relationships with them are friendly and cooperative.
- *Task structure*: The extent, to which tasks are standardised, documented and controlled.
- *Leader's Position-power*: The extent to which the leader has authority to assess follower performance and give reward or punishment.

The best LPC approach depends on a combination of these three. Generally, a high LPC approach is best when leader-member relations are poor. When the task is unstructured and the leader is weak, a low LPC style is more appropriate.

Table 3.4: LPC Contingency theory

#	Leader-Member Relations	Task structure	Leader's Position-power	Most Effective leader
1	Good	Structured	Strong	Low LPC
2	Good	Structured	Weak	Low LPC
3	Good	Unstructured	Strong	Low LPC
4	Good	Unstructured	Weak	High LPC

5	Poor	Structured	Strong	High LPC
6	Poor	Structured	Weak	High LPC
7	Poor	Unstructured	Strong	High LPC
8	Poor	Unstructured	Weak	Low LPC

Source: Fiedler (1967)

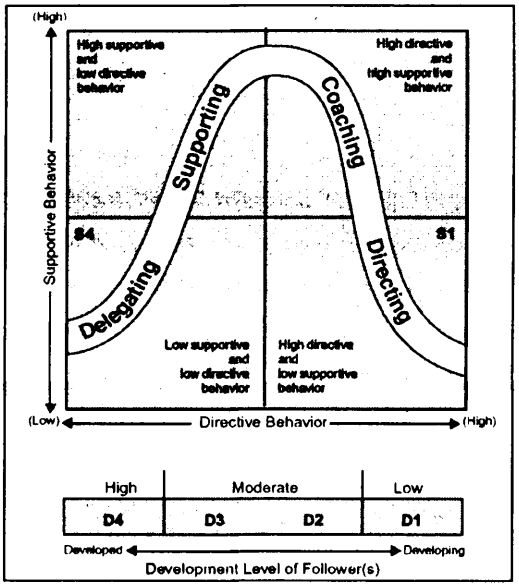
3.6.2. Situational leadership approach

The *situational leadership approach* proposed by Hersey & Blanchard (1993), includes four situational leadership styles:

- *telling (or directing)*
- *selling (or coaching)*
- *participating (or supporting)*
- *delegating*

According to these authors, a situational leader adopts behaviours related to two characteristics of the followers or employees. The *directing* style is appropriate when the employee is new or inexperienced, and needs a lot of help, direction, and encouragement to get the job done. The *coaching* style is useful when the employee is a somewhat responsible, experienced, and willing to do the task but does not have the necessary skills. The *supporting* style is a supportive style used when the employee has the ability to do the job but may be unwilling to start or complete the task. The *delegating* style is useful when the employee is willing and able to take responsibility for directing his own behaviour.

Figure 3.6: The basic dimensions of Situational Leadership approach

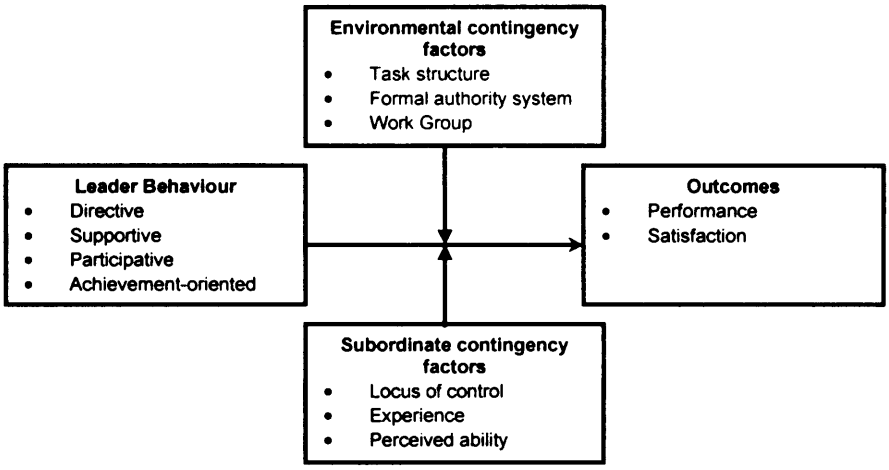


Source: *Hersey & Blanchard (1993)*

3.6.3. Path-goal theory

Path-goal theory (House, 1971) suggests that subordinates will be motivated by a leader only to the extent they perceive this individual as helping them to attain valued goals (Greenberg & Baron, 2003). At present, the theory appears to be another framework offering valuable insights into leadership and the many factors that determine the degree to which individual leaders are successful. The general framework of the theory can be seen in the following figure:

Figure 3.7: General framework of path-goal leadership theory



Source: House (1971)

3.6.4. Normative decision theory

Normative decision theory is a theory of leader effectiveness focusing primarily on strategies for effective decision making. Vroom & Jago (1988), who established and reformulated this theory, defined five different decision procedures. Two are autocratic (AI and AII), two are consultative (CI and CII) and one is group-based (GII).

Table 3.5: Potential strategies for making decisions

According to normative decision theory, leaders making decisions often adopt one of the five basic strategies described here.	
DECISION STRATEGY	**DESCRIPTION**
AI (autocratic)	Leader solves problem or makes decision unilaterally using available information.
AII (autocratic)	Leader obtains necessary information from subordinates but then makes decision unilaterally.
CI (consultative)	Leader shares the problem with subordinates individually but then makes decision unilaterally.
CII (consultative)	Leader shares problem with subordinates in group meeting but then makes decision unilaterally.
GII (group decision)	Leader shares problem with subordinates in a group meeting; decision is reached through discussion to consensus.

Source: Vroom & Jago (1988)

3.6.5. Substitutes for leadership framework

The *"Substitutes for leadership" framework* is one of the more recent theories on leadership. Although not many studies have been done so far to test them, these theories suggest certain different and interesting ways of looking at leadership. Under certain circumstances, leaders and leadership become superfluous and no longer necessary for employees' high performance and satisfaction. Factors that can substitute for leadership include:

- Individual characteristics: including ability, knowledge, experience, training, independence, and indifference toward organizational rewards.
- Task characters: including routineness, high structure, frequent feedback, and intrinsic satisfaction.
- Organizational characteristics: including clear plans and goals, rules and procedures, cohesive work groups, rigid reward structure, and physical distance between leader and subordinates.

3.7. From general leadership to construction project leadership

The aforementioned theoretical analysis was an attempt to introduce the reader to the broader issue of leadership. This attempt consisted of an initial reference to some general concepts of leadership followed by a clarification of the difference between leaders and managers. The next step was to dig in the most important theories of leadership as they have been proposed by acknowledged researchers. Thus, a detailed examination of trait, behavioural, change-oriented and contingency theories was performed. In the core of the aforementioned analysis were:

- The various leadership styles
- The basic dimensions of leadership behaviour (person vs. production oriented) expressed by the *managerial grid*,
- The differentiation between transactional and transformational leaders,
- The various contingency theories which contend that there is not one best way of leading.

Undoubtedly, apart from the aforementioned theories, there are many more approaches to the issue of leadership. The reason for reviewing these specific theories is because of their frequent use across project leadership literature and their major involvement in researches for construction project leaders/managers.

Especially trait, behaviour and change-oriented approaches have been the sound foundation onto which recent scholars have built the construction project leadership framework that follows. Let us now address construction project leadership in the following section.

3.8. Construction project leadership

3.8.1. Construction specific issues

As already mentioned, research on leadership has focused on general management situations and not so much on project management. In construction, Walker (2002) suggests that the management of a project has unique features such as the relationship with the client and the inter-organisational nature of the process. The project manager is usually in the position of leading contributors from a large number of commercially independent organisations over whom he has only limited formal authority. Furthermore, each contributor is subject to 'leadership' from both the construction project manager and the manager of the organisation where he is directly employed. This means that as long as both managers have the same objectives there should be no problems but the threat of the contributor's manager distorting the project manager's leadership is present.

So, what is essentially the notion of project leadership? Widerman (1995, pp. 3) provides a simplistic, yet consistent, distillation of the issue of leadership in a project context:

"Project leadership is an ability to get things done well through others".

At the same time, Winch (2002) supports that the distinctive challenges of construction project leadership derive from three particular features of project organisations:

- They are typically large and dispersed, and so leadership has to be 'broadcasted' over a wide area;
- They are typically diverse, in that the levels of education and organisational cultures of different resource bases vary enormously;
- The nature of the tasks changes significantly during the project life cycle.

Harvey & Ashworth (1993) recognise, apart from the project characteristics and the project life cycle, two more aspects specific to construction: Contractual arrangements and environmental factors.

3.8.2. Leadership styles in a project environment

This particularity of the construction industry, influenced by its project-based nature, almost certainly has an important influence on the managerial leadership styles of professionals working in the industry.

Giritli & Oraz (2004) manifest that in most project environments, there is a strong preference for a democratic style, but this may not be the most effective for all situations. In the same sense, Cleland (1995) argues that project leadership should be appropriate to the project situation because leadership is a continuous and flexible process. Yourzak (1998) proposed the following as the classic project leadership behavioural profile patterns which 'move in parallel' with the aforementioned behaviour theories.

1. *Analytical*[12]
2. *Driver*[13]
3. *Supportive*[14]
4. *Influencing*[15]

In this sense, probably each project manager would have to possess a mix of project leadership styles and not solely one of the aforementioned if he wants to be successful and effective in his job. As Naum (2001, pp.223), concludes:

> *"Leaders may thus have to switch from one style of leadership to another or combine elements of different styles until the right balance between concerns for tasks and concern for people is reached".*

For this reason, individuals involved in the management process of construction should be able to enact a range of leadership behaviours.

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[12] Project managers depend on their own technical knowledge and ability, and often make the technical decisions for the project, which they communicate to their teams. One-way communication may result while project managers will often ask questions to get the facts.

[13] Project managers having a dominant driver style are extremely self-motivated and control their teams by constantly giving directions. Their competitive attitudes drive the teams to win.

[14] Project managers with this behavioural style establish formal project-reporting channels linked to their organisations' structure. These project managers understand broad company perspective. When unsure of an issue requiring subjective judgement, they ask questions to find answers before making decisions.

[15] Project managers using the influencing style emphasize teamwork, team building, and team decision making. They work with their teams to influence project implementation.

3.8.3. Leadership qualities in construction

Winch (2002) believes that there would appear to be a particular personality type associated with being a construction project manager. He argues that the skills are not primarily technical, simply because the whole point of construction project management is to coordinate and integrate across a number of skill sets provided by the resource bases. However, analytical capabilities are significant – the ability to quickly grasp what the client, the architect or the operative are saying is vital, as is the ability to put those individual contributions in the broader context of the project mission.

Walker (2002) adduces the following examples of qualities[16] to give an outline of the good leader in construction project management:

Table 3.6: The qualities of a good project leader

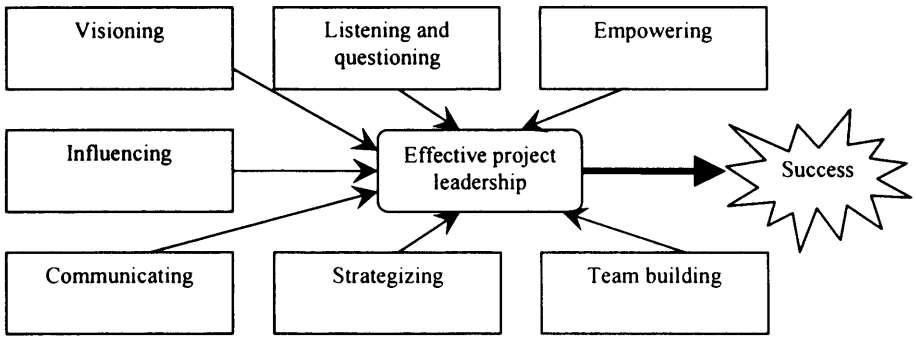
CHARACTERISTICS	SKILLS
Integrity	Persuasive ability
Preferred leadership style (tending towards democratic)	Negotiation skills
Self-confidence	Commercial expertise
Ability to delegate and trust others	'Political' awareness
Ability to cope with stress	Breadth of vision
Decisiveness	Integrative skills
Judgement	Ability to set clear objectives
Consistency and stability	Communication skills
Personal motivation and dedications	Management of meetings
Determination	Early warning antennae
Positive thinking	Skills of diplomacy
Openness and the ability to hear what others say	The skills of discriminating important information
Ease in social interactions with many types of people	Persuasive ability

Source: Walker (2002)

Moreover, a more synoptic illustration of the major thrusts needed for achieving successful project leadership is portrayed below.

[16] Divided in characteristics and skills.

Figure 3.8: Major project leadership skills



Source: Hellreigel et al. (1992)

The project manager is required to have an appreciation of all the specialist areas, whilst not needing to be a specialist in any. Nevertheless, certain aspects will be more significant to the project manager such as contract strategies, cost and time control and money management. What is interesting though is that the context of these qualities is proportional to the experience of the project manager (Walker, 2002). A respected leader has an amalgamation of characteristics, skills and experience which are recognised and respected not only by those he leads but by his superiors and peers in the construction field, as well. As Townsend (1984, pp. 337) says:

> *"They come in all ages, shapes and sizes and conditions. Some are poor administrators, some are not overtly bright. One clue: since most people per se are mediocre, the true leader can be recognised because, somehow or other, his people consistently turn in superior performance".*

3.8.4. Project Leadership and Time Orientation

According to recent researches every person has a *unique temporal alignment* (Thoms & Pinto, 1999). Temporal alignment is made up of a variety of psychological constructs or biases that relate to time (Thoms & Kerwin, 2004). Essentially, the meaning of that is that all people are oriented towards the *past*, *the present* or *the future*. This parameter has a series of implications to the way project leaders perceive things, process them and later on, act.[17]. Similarly with the aforementioned theories, different tasks may require different and/or unique time orientations. The applicability of this theory in the field of projects is obvious as different projects or different stages of the project require different temporal

[17] These implications are clarified further down, in the analysis of the three distinctive categories. Nevertheless, each time orientation has its own strengths and weaknesses

alignments. The ability for a leader to have the temporal alignment that the situation requires is called *attunement* (Thoms & Kerwin, 2004).

A comprehensive table regarding the major attributes and/or styles that a project manager shall possess throughout the different phases of the project life cycle was introduced by Verma & Wideman (1994).

Table 3.7: Leadership and the project life cycle

Phase	Major Attributes/Emphasis	Leadership Style/Blend
Feasibility Study (Pre-formulation)	• Sense of vision • "Big Picture" (conceptual) • Analysis	• Visionary • Creates future • Empowerment • Expansive
Conceptual (Formulation)	• Listening • Analysis • Alignment	• Analytical • Listener • Change master • Convergence
Development	• Participative/Acceptance and commitment • Cooperative	• Team builder • Power and influence • Integrator
Execution	• Re-alignment	• Decision maker • Balances work and fun • Trustworthiness • Team and synergy
Finishing	• Transfer of product and information	• Administrator • Closure

Source: Verma & Wideman (1994)

As already explained, effective leaders must occasionally behave in ways that fall outside of their temporal comfort zone in order to achieve their objectives. Understanding temporal alignment and adapting to various situations can make project leaders more effective (Thoms & Kerwin, 2004).

The Future-Oriented Project Leader

This particular type of leaders is desirable when a project environment is dynamic and changing. This is the kind of leader that is most apt to imagine a positive vision of the future and this is an automatic behaviour for them, still their major task is to transmit this vision to their followers. According to Thoms & Kerwin (2004) future-oriented leaders are very good at gathering information about what other organisations are doing to improve their effectiveness. They also tend to challenge current systems seeking ways to improve. They always seek for new opportunities-which may even be new projects. Disadvantages are that these project leaders

proceed in changes without waiting for their followers to catch up and that they are so focused on the future that they often fail to recognise past accomplishments. This may create discomfort among subordinates whose past performance is not appreciated. Sometimes this type of leaders is seen as 'off in the clouds' or 'in their own world'[18].

The Present-Oriented Project Leader

This is probably the most common of the three types of time-oriented leaders. They live for the present and are very effective at dealing with day-to-day issues. They are cognitively available on a daily basis and it is the type of project leader who is likely to be circulating around the work site talking, observing, anticipating concerns, and answering questions (Thoms & Kerwin, 2004). They are a good fit when leading projects similar to those they have done in the past. They are the typical example of *good problem-solvers* and because they are not reluctant to talk neither about the past (as future –oriented leaders) nor about the future (as past oriented ones), they are willing to research a problem and develop solutions for the future. In addition, if such a leader possesses good communication skills, he/she is able to provide information and data to team members and be charged with this responsibility.

According to Thoms & Pinto (1999), the downside of this particular type of leaders is that they may not make major contributions to the planning process. They may be too busy and may even sabotage the process if it will disrupt their operations. And in fact, what characterises today's projects is uncertainty and dynamic conditions while each project may present its own special difficulties. Brenner (2005) suggests that project oriented leaders find themselves often in the position of juggling multiple projects, all competing for resources, many of them late or over budget or floundering, thus showing a tendency to micromanage details and overlook the big picture.

[18] As Thoms & Kerwin (2004, pp. 1025) characteristically suggest: *"Because their orientation lends itself to taking advantage of opportunities and trying to make the future better, present oriented project leaders work best on flexible projects with open management styles. They thrive in situations where creativity is rewarded, where they have access to decision makers, where leaders empower followers to make decisions, and where intuition or hunches are encouraged".*

The Past-Oriented Project Leader

Thoms & Kerwin (2004) propose that past-oriented project leaders are very good at remembering and using the history of their project, department, and organisation. They are able to trace past meetings, decisions, behaviours and even patterns in their whole industry to identify valuable information and trends that may recur. They hold the same position against their subordinates, as they are likely to forgive recent performance gaps if they know that someone has a good performance history. They are good at tackling with projects of high turnover that pay a price in terms of flexibility (potential cost of bringing in new members), loyalty (lack of job security – temporary employees planning their future) and continuity of service to customers. Thoms & Kerwin (2004) identified as biggest disadvantages of past oriented project leaders the following:

- Previous performance can become a halo over the team member.
- They tend to respond well to trends but they are less likely to set them. They are hard to engage in planning.
- They frequently lack attention to day-to-day operations.

3.9. Linking theory with research methodology

The 3rd chapter comprised a systematic review on the issue of leadership according to some dominant academics and practitioners on the subject. Starting with an examination of general concepts of leadership along with a presentation of the characteristic differences between leaders and managers, an analytical reference to trait, behavioural, change-oriented and contingency theories took place in order to pore over the most prevalent leadership frameworks.

At the same time, the second half of the review dealt with the topic of project leadership in the specific environment of construction. At first we looked into specific issues that differentiate the construction industry from other markets and then we introduced a different terminology of leadership styles which still move in parallel with the general autocratic-democratic scale. Following that, an attempt to provide an outline of a good leader in construction project management was made by referring to specific qualities that are considered essential by some well-known researchers (Walker, 2002; Winch 2002, etc.) The final point of this theoretical analysis was the examination of the parameter of time and its relation to the way of leading a project along its life cycle while making the distinction between past, present and future oriented project leaders.

Chapter 4 will be devoted in setting the research methodology that is going to be followed in order to extract valuable evidence from project managers of successful Greek construction firms. This methodology will contribute in establishing a systemic comparison between the findings on project leadership styles and characteristics and the theory suggestions while helping in drawing a series of useful conclusions (commonalities & differences) on issues like personality, experience, education etc.

CHAPTER 4 – RESEARCH METHODOLOGY

4.1. Emerging question

As already mentioned, the issue of project leadership is of primary importance to the Greek construction industry. Construction firms and especially their project managers, face on a daily basis problems and challenges that call for special leadership skills and delicate manipulations. It is common knowledge that many shortcomings and delays during the construction works for the Olympic Games of 2004 could have been overcome if more effective project leadership was present. Nevertheless, this development was what triggered this particular attempt to deal with such a significant area of research while project leadership has been historically a topic that is considered to be attractive, involving many 'dark' and 'seductive' parameters for study. Moreover, it is an area that has been hardly examined by domestic analysts while there is an explicitly larger bibliography in other countries like the U.S., United Kingdom, China and Turkey.

Drawing from the body of theory presented in the literature review, the main question that this report seeks to examine is:

"What factors influence successful project leadership in the Greek construction industry?"

This exploratory study will involve identification of project leaders' style along the autocratic-democratic scale, their position in the managerial grid (concern for production vs. concern for people), as well as their preference in the 'transactional-transformational leader' dilemma. Moreover, whether the size of a firm or employing a particular project manager play an important role in the way he/she leads construction projects will also be under investigation. Special traits, qualities and behaviors that are considered to be significant by project leaders themselves will also be included in the analysis. Finally, project leadership in relation to the different phases of the project life cycle is going to be examined, together with a characterization of project leaders as either future, present or past oriented.

For academically valuable results to be obtained, certain and distinctive steps are going to be followed, starting from the formation of the appropriate research sample, a decisive step of this particular methodology.

4.2. Defining the research sample

Examining the central question that this report seeks to answer, reveals two primary parameters that have to be elucidated. First of all, it is imperative to embody in the sample a classification of the Greek construction companies in such a way as to make their examination and analysis feasible and applicable. As was explained in the 2nd chapter, a primary distinction of the construction firms was into seven license-classes pursuant to Law 2940/2001. However, for the purpose of this particular report contracting companies are going to de divided into three broader categories:

1. Small
2. Medium-sized
3. Large

The reason is that the seven-class categorization on its own is based on different criteria (number of professional engineer-licenses, public works only performance, etc), that do not subjectively define an appropriate sample for this specific research. Thus, the three-dimensional distinction is going to be used in order to serve the main aims of the research, both in terms of clarity/integration of the sample and in terms of analysis facilitation. It is also obvious that the aforementioned categorization will contribute in reaching much safer and constructive conclusions on the correlation between project leadership and the size of a firm. In order to appropriately identify the size of a firm, the author's preferred view over classification criteria is the following one combination of what the Investment Guide for Southeast Europe (2004) suggests (criterion 1), and what the Technical Chamber of Greece proposes (criterion 2):

- Criterion No 1: Net annual turnover
- Criterion No 2: Seven license-class categorization

It has to be indicated that after making the primary assortment according to a company's total sales, a cross check will take place in regard to the same company's license class. For example it has to be verified that, all the large, in terms of turnover, construction companies also belong to the 6^{th} or 7^{th} license-class while the small ones possess up to the 4^{th} contracting license. The reason for following such a tactic is to avoid the potential *oxymoron* of classifying a company in the small ones, while it holds a 7^{th} class public works license, just because it could have had a 'low turnover' at any single financial year. Substantially, the following table sets clearly the upper and lower boundaries of our research sample.

Table 4.1: Classification bounds for the research sample

Size of Greek Construction Companies	*Turnover bounds*	*License class*
Large	100 – 1,000 million €	6^{th} – 7^{th}
Medium-sized	10 – 100 million €	5^{th} – 6^{th}
Small	Up to 10 million €	Up to 4^{th}

Another issue that arises is the way of determining the term *successful* for the project leaders of the Greek construction firms. This will be accomplished by approaching firms that are considered to be successful in terms of their performance. Thereupon, as an objective indicator of successful corporate performance, their *mean annual profit* for the last three years has been chosen. In addition, all the approached firms have been asked to suggest as interviewee, one of their best project managers considering his/her skills and efficiency in leading construction projects[19]. Realizing how difficult it is to define success both in terms of a firm's performance but especially in terms of a project leader's effectiveness this particular process of defining the research sample was selected as the most objective and appropriate one for this report's purpose.

The final task of this process is to determine the size of the sample and make it as reliable as possible. It has been managed to approach four firms from each of the defined categories (small, medium-sized, large), forming a total sample of 12 companies to be interviewed. Thus, out of the 390 registered in the I.O.K. firms, the 12 chosen ones comprise just a 3.1% of the total, a percentage that is by somewhat greater than the 3% that Bartlett et al. (2001) defines as acceptable minimum for such surveys. But, as the report mainly focuses on successful construction companies, the sample size is sensibly larger and this is also proved by a research undertaken by the largest market research company in Greece, ICAP (2005):

> *"Around 30% of the construction firms in Greece have failed to present considerable profits during the last three years".*

Thus, the sample that has been formed is representative of the most successful Greek construction companies. The author would undoubtedly wish to have assembled a larger sample, but considering the available time lag (time-consuming structured interviews instead of questionnaires, pushing deadlines for the

[19] In fact, all the companies (and especially the large ones) suggested to the interviewer project managers who are in charge of major active projects.

report) and the repeated companies' unwillingness to cooperate, this particular result is considered to be fairly satisfying.

The classification of the construction firms approached is depicted in the following table. Turnover and annual profits' (average for the last three years) are provided where it is permitted[20] together with other relevant details[21].

The following table provides a rounded view of our sample.

Table 4.2: The identity of the research sample

S/n	Company	Turnover (in million €)	Net annual profits (in million €)	Public works Certificate	Classification
1	AKTOR S.A.	746.94	64.73	7th class	*Large*
2	THEMELIODOMI S.A.	155.09	2.87	7th class	*Large*
3	AEGEK S.A.	145.36	6.10	7th class	*Large*
4	METKA S.A.	140.74	12.80	6th class	*Large*
5	ATERMON S.A.	44.12	5.09	6th class	*Medium-sized*
6	MEKASOL S.t.c.i.A.	27.09	n/a[22]	5th class	*Medium-sized*
7	DE.KA. S.A.	15.07	n/a	5th class	*Medium-sized*
8	MPETOKAT S.A.	11.69	2.08	5th class	*Medium-sized*
9	VIER. S.A.	6.03	n/a	4th class	*Small*
10	VIOTEK Ltd	5.06	n/a	4th class	*Small*
11	STELMA S.A.	4.07	0,68	3rd class	*Small*
12	V & D ORFANIDI Ltd	1.07	n/a	3rd class	*Small*

The above classification will also comprise the fundamental base onto which the analysis of Chapter 5 will be built. That means that companies will be examined both according to the category they belong and as a single group, for the benefit of a more holistic analysis.

[20] Wherever a confidentiality restrain does not exist, the annual profits of the construction firms will be cited in order to justify their final selection as successful ones.

[21] It is worth mentioning that although the sample includes only 12 companies (3,1% of the total, as already mentioned), those represent the 24,3 % of the total output of the sector for the last three years.

[22] Wherever there is a sign n/a, it means that the companies did not want the author to publicize their financial data.

4.3. Formation of structured interviews

After defining the research sample, the formation of structured interviews has to follow. Taking into account that project leadership is an intricate and subtle issue, special care is required for its examination. Structured interviews constitute a very good solution to achieve the desired results and this method was chosen instead of impersonal and inflexible questionnaires. Structured interviews do not differ that much from a questionnaire, but still excel in that they provide an opportunity to the researcher to be in one-to-one contact with the respondent[23]. As Bell (1996, pp.135) states:

> *"A major advantage of the interview is its adaptability. A skilful interviewer can follow up ideas, probe responses and investigate motives and feelings, which a questionnaire can never do."*

Both closed-ended and open-ended questions will be included in our set of final questions, in order to encompass in the report both quantitative and qualitative analysis. According to Kline (1986) *closed-ended* are those, determined by the researcher, questions that provide a range of possible response and the respondent is simply asked to select from a range of possible answers. On the other hand, questions that are *open-ended* do not limit the nature of the response in any way and the respondent is simply provided with space to write in[24].

In more detail, the first part of the survey will use a *Likert scale* to distribute responses .This enables responses to be expressed on a numerical scale (DeVellis, 1991) and be used to extract the expected quantifiable conclusions on issues like leadership style and the position of project leaders in the managerial grid. As DeVellis (1991, pp. 267) characteristically suggests:

> *"In the attempt to classify (project) managers in various categories is legitimate to prefer questions that are more specific and thus can be more easily analysed."*

In Appendix B the reader can identify two different Likert scales used; one varying between 1-5, for questions concerning the position in the autocratic-democratic scale and the other ranging from 1 to 9, seeking to identify the actual standing of project managers in the managerial grid.

At the beginning there are 12 questions (statements) which are divided in three sub-categories. The first four correspond to an autocratic style of leadership,

[23] A term given to a participant who answers a pre-arranged set of questions.

[24] Or in interviews the researcher writes or records the answer.

the next four to a consultative one and the final tetrad to a democratic (free-reign) type of a leader. The highest of the three cumulative scores indicates what style of leadership the interviewee normally uses. If their highest score is 16 or more, it is a strong indicator of their normal style. The lowest of the three scores is an indicator of the style they least use. The lowest score being 8 or less, it is a strong indicator that they normally do not operate out of this mode. If two of the scores turn out to be close, the project leader might:

- Be going through a transition phase, either personally or at work,
- Not have a clear perception of the mode he/she operates out of (eg. new leader),
- Be a consultative leader, especially if he scores high in both the consultative and free-reign type of questions.

All the answers given by the project managers to questions 1-12, were gathered in scoring boards like the following. Indicatively, two scoring boards from two of the interviewed project leaders are shown bellow:

Table 4.3: Scoring board of "leadership style" questions

Item	**Score**	**Item**	**Score**	**Item**	**Score**
1	_____	5	_____	9	_____
2	_____	6	_____	10	_____
3	_____	7	_____	11	_____
4	_____	8	_____	12	_____
TOTAL	_____	**TOTAL**	_____	**TOTAL**	_____
	(autocratic)		**(consultative)**		**(democratic)**

Table 4.4: Scoring board of "leadership style" questions for AKTOR S.A.

AKTOR S.A. (Project Manager No 1: Mr Kalaitzis Spyros)					
Item	**Score**	**Item**	**Score**	**Item**	**Score**
1	___5___	5	___4___	9	___4___
2	___2___	6	___4___	10	___2___
3	___5___	7	___5___	11	___4___
4	___1___	8	___1___	12	___3___
TOTAL	**___13____**	**TOTAL**	**____14____**	**TOTAL**	**____13____**
	(autocratic)		**(consultative)**		**(democratic)**

Table 4.5: Scoring board of "leadership style" questions for METKA S.A.

METKA S.A. (Project Manager No 4: Mr Konstantinidis Simos)					
Item	**Score**	**Item**	**Score**	**Item**	**Score**
1	___4___	5	___4___	9	___4___
2	___1___	6	___4___	10	___1___
3	___4___	7	___5___	11	___3___
4	___3___	8	___1___	12	___3___
TOTAL	**___12____**	**TOTAL**	**____14____**	**TOTAL**	**____11____**
	(autocratic)		**(consultative)**		**(democratic)**

The next group of 10 questions attempts to determine the degree that a project leader is *task-oriented* and/or *people-oriented*. The process involves the transfer of the numerical results (1-9 scale) to the two respective columns provided below.

Table 4.6: Scoring board of "managerial grid" questions

Task (or Production)	**People**
Question	Question
13._____	14._____
15._____	16._____
17._____	18._____
19._____	20._____
21._____	22._____
TOTAL_____	**TOTAL _____**

The next step is to total the score in each column and multiply each total by 0.2[25]. For example, in the second column (people), if the interviewee answered 9, 6, 8, 4, 6 then his or her final score is = 33 X 0.2 = 6.6. The total score for the second column (people) is plotted on vertical axis in the *matrix* section, while the total score for the first column (task or production) is plotted on the horizontal axis. Again, we refer to the answers of two project managers to help the reader realise how this particular methodology works.

[25] The reason is that the range of the scoring in the managerial grid varies between (1,1) and (9,9). The reader can refer to paragraph 3.4 for further details.

Table 4.7: Scoring board for "managerial grid" questions of AEGEK S.A.

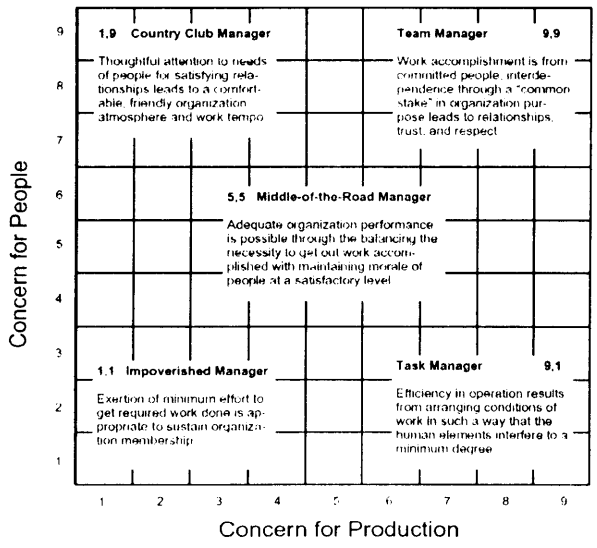
AEGEK S.A. (Project Manager No 3: Mr Rentzeperis Ioannis)	
Task (or Production)	**People**
Question	Question
13.___7___ 15.___7___ 17.___8___ 19.___7___ 21.___9___	14.___6___ 16.___8___ 18.___7___ 20.___6___ 22.___3___
TOTAL___38____	**TOTAL ___30___**
Multiplied: 38 X 0.2 = 7.6	**Multiplied: 30 X 0.2 = 7**

Table 4.8: Scoring board for "managerial grid" questions of ATERMON S.A.

ATERMON S.A. (Project Manager No 5: Mr Hassapopoulos Haris)	
Task (or Production)	**People**
Question	Question
13.___8___ 15.___4___ 17.___9___ 19.___5___ 21.___9___	14.___5___ 16.___9___ 18.___4___ 20.___8___ 22.___8___
TOTAL___35____	**TOTAL ___34___**
Multiplied: 35 X 0.2 = 7	**Multiplied: 34 X 0.2 = 6.8**

The final stage is to intersect the lines to see in what leadership dimension they normally operate out of:

Figure 4.1: The matrix section (managerial grid)



Finally, open-ended questions will complement the Likert-scale questions in order to allow respondents to provide more information. This will allow the researcher to better access the respondents' true feelings and opinions on a series of complicated issues like the connection between project leadership and profitability and the linkage with time orientation. The necessity of open-ended questions and the importance of qualitative analysis can not be stressed enough, especially in a research with an exploratory nature like the one being performed here (Kirakowski, 2000). Moreover, open-ended questions cut down on two types of response error; respondents are not likely to forget the answers they have to choose from if they are given the chance to respond freely, and open-ended questions simply do not allow respondents to disregard reading the questions and just *fill in* the survey with all the same answers (Czaja & Blair, 1996).

After carefully trying to avoid double-barrelled, biased, vague and above all, numerous questions, the author settled on eight open-ended questions, each of which served a different research objective. Those were:

- *What is your age and what is your "undergraduate studies" background?*

This question aims to offer a representative picture of the age range of the project leaders together with an illustration of their professionals disciplines both in the whole Greek construction industry and in the various categories separately (small, medium sized, large firms).

- *What type of a leader do you consider that you are?*

This is a question to be cross examined with the results drawn from the first 12 Likert scale questions. It examines whether the project leaders consider themselves to be in the same position of the autocratic-democratic scale that the quantitative analysis does.

- *Do you believe that different project stages (feasibility study, development, execution, finishing – handover) require different leadership approaches and which are these?*

In paragraph 3.7.4, there was an extensive reference to the project life cycle and the different stages it includes. The theory suggests that normally different leadership approaches (skills and styles) are required throughout a project, but whether this is true or not in the Greek construction industry will be clarified from this question. It

also gives a view over the issue of *attunement*, as Thoms and Kerwin (2004) suggest.

- *What is your reaction when a subordinate (or peer) makes a mistake? Do you tell them not to ever do that again while making a note of it?*

The objective here is to identify the time orientation of the project managers through the way they respond to their subordinates mistakes (Thoms and Kerwin, 2004

- *Do you usually challenge current systems while leading a project or do you prefer to follow secure and tested routes?*

Similarly to the previous one, this question attempts to recognise the *time alignment* of the project leaders. Challenging the current systems is a procedure that a future oriented project leader usually does whereas past oriented leaders tend to stick to time-tested and well-tried methodologies. Project managers that favour problem research and develop solutions for the future based on the current processes are characterised as present oriented.

- *Do you believe that best project managers/leaders are visionary? If yes how should they express their vision?*

What happens, in terms of vision, at a project manager level is what this questions deals with. In addition, vision is a major characteristic of transformational leaders contrary to transactional ones who have their "feet firmly on the ground" and concentrate on obtaining immediate results. In spite of being just an indicative question, it still provided the researcher the opportunity to develop interesting and deep discussions with his interviewees on this subject while offering the reader an opportunity to realise the opposite opinions of successful project leaders over this issue.

- *How closely do you think that project leadership and corporate profitability are connected and why?*

It would have been an omission not to refer to profitability in this interview, as the main driver of this research was to approach construction companies that are considered successful in terms of their annual profits. Despite the obvious initial reaction of the respondents, this question aimed at raising discussion over this subject.

- *According to your opinion, which are the five most important characteristics/skills that define a good project manager in the Greek construction market?*

Last but not least, this question was set in order to create a systemic collection of the competencies that are considered necessary for successful project leadership by the project managers themselves.

The main aim of these open-ended questions is to critically appraise a number of issues while drawing a series of collective conclusions and not just array numerical results. This task will be performed in Chapter 6.

4.4. Approaching the professionals

Our research methodology finalises with the procedure followed to approach the appropriate professionals. At first, construction companies were approached and asked to suggest one of their best project managers to be interviewed. This particular process included attempts to arrange meetings through e-mails, telephone or even by fax, which in a great extent, proved to be unsuccessful, thus the majority of the realised interviews was owed to personal contacts and acquaintances.

At this point, it has to be clarified that the firms that were approached belong to the broader construction sector of the Greek territory, including construction companies that specialise in technical erection activities, metallic and steel structures, civil works and general infrastructure projects.

Most of the arranged appointments took place in the companies' headquarters, but there were also cases that the interviews took place on site. Some of the interviews were recorded, but most of them were written by hand as the interviewees felt uncomfortable in the presence of a recorder. The interviewer tried to create a relaxed atmosphere in the conversation with the professionals while asking whether or not they wished confidentiality for their answers. Thankfully, none of the respondents asked that his/her answers and personal details are kept secret.

Finally, it has to be mentioned that when it was not possible to extract financial data (turnover, profits) from official publications of a company, the project managers were asked to provide the relevant information.

4.5. Summarizing the research methodology

The 4th chapter indicated in detail the proposed research methodology that has to be followed in order to achieve the research objectives. Synoptically, this process included the classification of the Greek construction firms in three broad categories (small, medium-sized and large) according to financial and institutional criteria, and the procedure of determining as successful project managers as possible to be interviewed. At the end, a research sample of 12 construction firms was formed, a number that is considered to be adequate enough for the purposes of this particular report. The next step was to form the interview questionnaire that aims to be the basic framework onto which the analysis is going to be built. For this reason both closed-ended and open-ended questions were included, the former expressed through a Likert scale questionnaire and the latter through free style questions.

Inevitably, the analysis of the extracted, from the interviews, data has to follow, a task that comprises the main body of this report and reveals the practical side of this scientific venture.

CHAPTER 5 – ANALYSIS OF RESEARCH

5.1. Brief introduction

A crucial point of this research is the analysis of the data extracted from the interviews. This process will be divided in three main parts, according to the interview and questionnaire format. Concerning our main analysis, the first part comprises the statistical processing of the first twelve Likert-questions related to the position of project leaders in the democratic-autocratic scale. This process includes the exposition of four different tables, one for each of the three categories of construction firms and one total view for all the 12 companies. The second part deals with the questions-statements No 13-22 in an attempt to identify the position of project leaders in the managerial grid and whether they are task or people oriented. This procedure is also going to be divided in the aforementioned four distinctive steps, offering the reader both a specific and general picture of the actual leadership direction of a series of successful project managers. A quantitative apposition of statistical data that can be extracted from the eight free-style questions is going to finalize this chapter.

5.2. Positioning project leaders in the autocratic-democratic scale

In this paragraph the focus is on identifying the position of the project leaders in the autocratic-democratic scale. At this point, it has to be mentioned again that when project leaders scored high in both the consultative and democratic type of questions that automatically meant that he/she had an inclination towards the consultative style of leadership. The next step is to analyze these results both in isolation and collectively.

Table 5.1: *Collective results of project leadership style for large firms*

	Autocratic	Consultative	Democratic
Project manager 1[26]		✓	
Project manager 2		✓	
Project manager 3		✓	
Project manager 4		✓	

[26] The project manager's number is not random but corresponds to his/her company's serial number in Table 5.1.

Table 5.2: Collective results of project leadership style for medium-sized firms

	Autocratic	Consultative	Democratic
Project manager 5		✓	
Project manager 6		✓	
Project manager 7		✓	
Project manager 8	✓		

Table 5.3: Collective results of project leadership style for small firms

	Autocratic	Consultative	Democratic
Project manager 9		✓	
Project manager 10		✓	
Project manager 11	✓		
Project manager 12	✓		

Table 5.4: An overall view for the leadership style of the 12 project managers

	Total number of project managers	Percentage % of the total sum
Autocratic style	3	25
Consultative style	9	75
Democratic (Free reign) style	0	0

5.3. The positioning of project leaders in the managerial grid

This particular analysis aims to characterize project leaders in accordance with two major parameters:

- Task (or production) orientation and
- People orientation.

It would be useful to remind here that *production-oriented* leaders emphasize the task and the technical aspects of the project (like range of activities, process issues, workload, etc) while the *people-oriented* leaders' major concern is the

employees. Thus, they mostly deal with building commitment and trust, satisfying subordinates' needs, providing good working conditions, etc. (Northouse, 1997).

The next step is to plot the numerical results using the managerial grid, first, according to size and then as a whole.

Figure 5.1: The Managerial Grid for the large companies

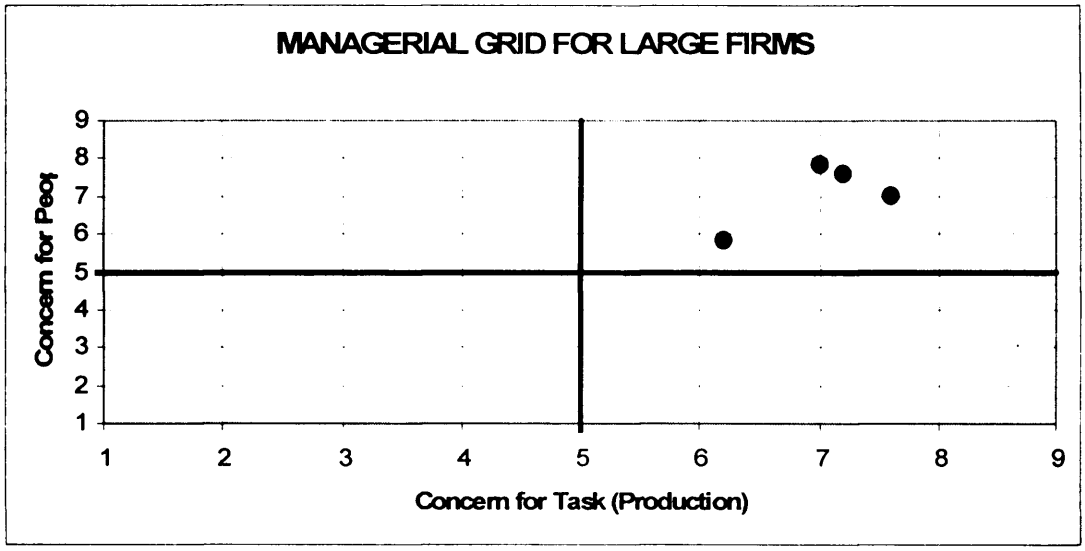


Figure 5.2: The Managerial Grid for the medium-sized companies

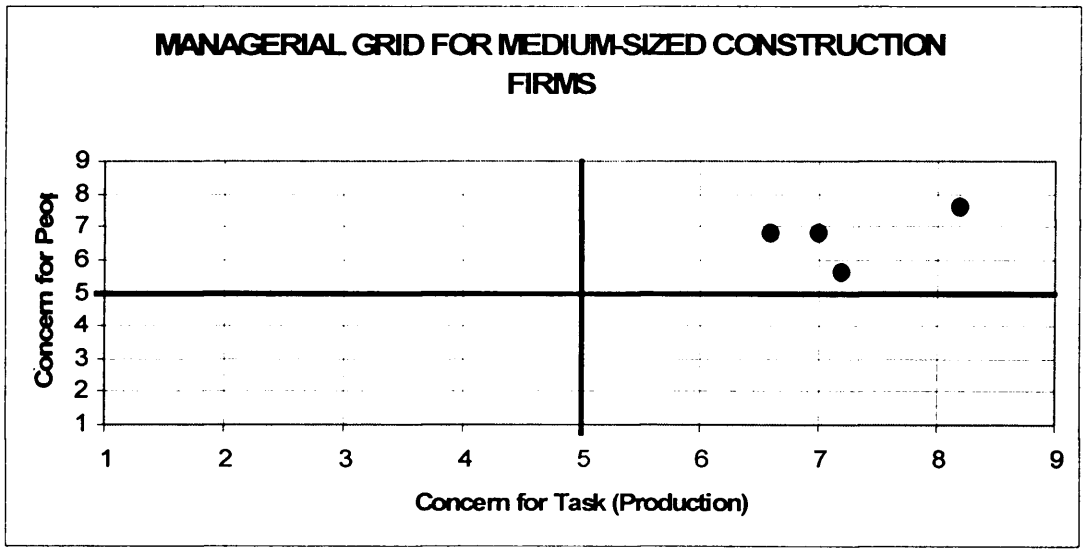


Figure 5.3: The Managerial Grid for the small companies

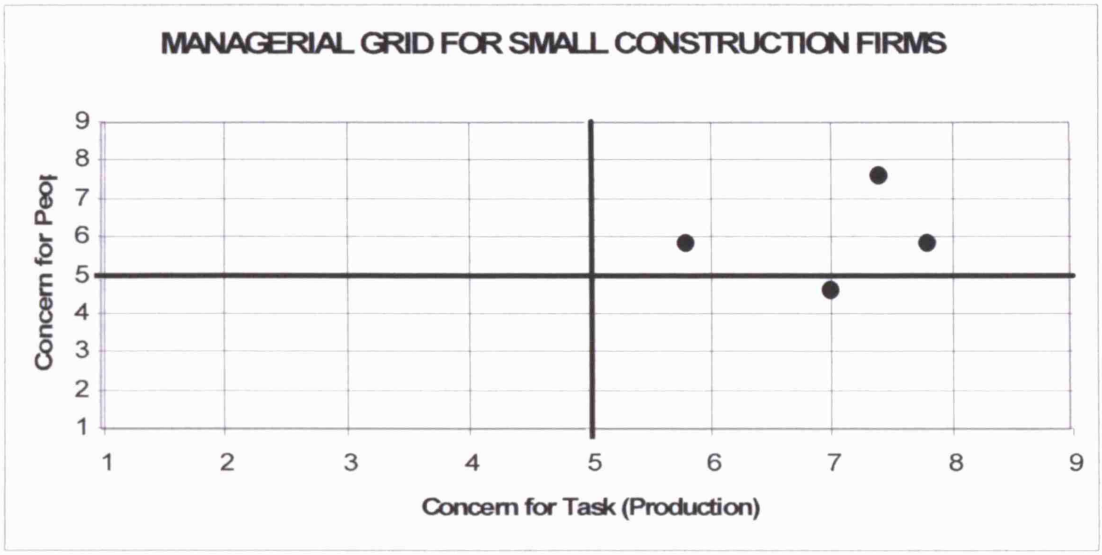
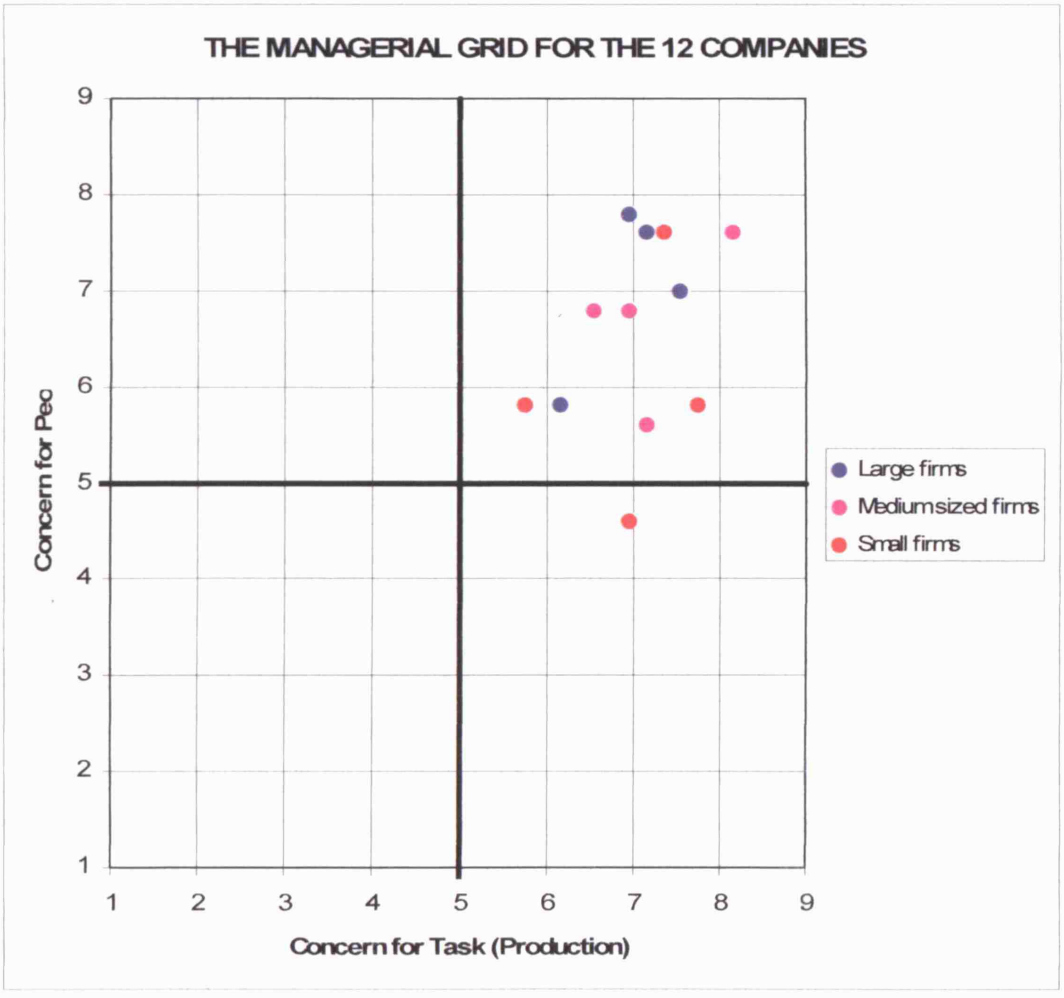


Figure 5.4: The Managerial Grid: An overall view



5.4. Analysis of open-ended questions

This paragraph aims to demonstrate a grouping of the answers given by the interviewees. Undoubtedly, the primary objective for setting these open-ended questions was to extract qualitative conclusions over a series of issues. However, a numerical illustration of some of these answers is not illegitimate while their qualitative analysis will be performed in Chapter 6. In order to avoid an extensive volume of analysis, there will be statistical results for both the entirety of the companies and for the distinctive categories, *only* where this is considered to be essential. Where partial examination has not much to offer only the overall analysis will be presented.

- An interesting point of this research is the range of ages of the project leaders as it presents a significant variation between 28 – 57 years old. At the same time, project managers appear to come from various disciplines but mainly from an engineering background. The following table summarises these findings:

Table 5.5: Summarising extracted data from question 23

Disciplines	Number of project managers
Mechanical engineers	4
Civil engineers	6
Mechanical-Electrical engineers	1
Architects	1
Age range	
28-35	3
36-43	5
43-50	2
50-57	2

- In addition, it would have been really interesting to look into what the project leaders, themselves, have responded in relation to their position in the autocratic-democratic scale. The following table also includes a comparison with the results that came up from the Likert questions 1-12 for every project manager.

Table 5.6: Comparative results for question 24

S/n	Classification from Likert scale questions 1-12	Personal classification	Comparison
Project manager 1	Consultative style	Democratic leader	✗
Project manager 2	Consultative style	Consultative leader	✓
Project manager 3	Consultative style	Consultative leader	✓
Project manager 4	Consultative style	Democratic leader	✗
Project manager 5	Consultative style	Consultative leader	✓
Project manager 6	Consultative style	Consultative leader	✓
Project manager 7	Consultative style	Paternalistic – Autocratic leader	✗
Project manager 8	Autocratic style	Consultative leader	✗
Project manager 9	Consultative style	Democratic leader	✗
Project manager 10	Consultative style	Consultative leader	✓
Project manager 11	Autocratic style	Paternalistic – Autocratic leader	✓
Project manager 12	Autocratic style	Consultative leader	✗
CONSONANCE OF RESULTS			**6/12**

- As already explained in the research methodology, the combination of Questions 26 and 27 (See Appendix B) aims to clarify whether a project manager is past, present or future oriented. The results are indicated in the following tables and further discussed in the next chapter.

Table 5.7: Concluding results for questions 26 & 27

Size classification	Time orientation			
	Past	Present	Future	Undefined[27]
Project leaders of large companies		3		1
Project leaders of medium-sized companies		2	1	1
Project leaders of small companies	1	3		
TOTAL RESULTS	***1***	***8***	***1***	***2***

- In the same sense, following question 28 we can provide an indicative statistical illustration of the characteristic differentiation of project managers between transactional and transformational type of leadership. The following table is based on these answers:

Table 5.8: Statistical conclusions drawn from question 28

Transactional vs. transformational leadership	Number of project managers of			*TOTAL RESULTS*
	Large Firms	Medium Firms	Small Firms	
Tending towards the transactional end	3	1		***4***
Tending towards the transformational end	1	2	3	***6***
Difficult to specify		1	1	***2***

[27] When the answers given to these two questions were contrastive and the general discussion could not lead to safe conclusions they were not classified in one of the three types of time orientation. For further information the reader can refer to Appendix B and specifically the answers of project leaders 4 and 6.

- Question 30 is of exceptional importance, as it seeks to briefly summarise the main competencies that a good project manager should have according to successful project leaders themselves. The corresponding results are depicted in the following table.

Table 5.9: Necessary competencies for a good project leader (based on q. 30)

Competencies	Frequency of appearance
Communication skills	7
Time management	7
Technical (scientific) background	6
Judgement	3
People management[28]	3
Patience & Persistence	3
Experience	3
Determination	3
Commercial expertise	2
Self confidence	2
Flexibility	2
Intelligence (in terms of I.Q.)	2
Openness and the ability to hear what others say	1
Emotional intelligence	1
Negotiation skills	1
Ability to analyse	1
Ability to delegate and trust others	1
Identification of the critical path	1
Early warning antennae	1
Leadership skills	1
Integrity	1
Respectability	1
Skills of diplomacy	1
Personal motivation and dedications	1
Corporate motives	1
Avoidance of accidents	1
"Political" awareness	1

[28] Everything regarding human resources was included in this category. For example answers like: employees selection, careful selection of human resources, etc is included here)

5.5. A synoptic view on the main analysis

This chapter dealt with providing a quantitative illustration of the extracted data. The main analysis was divided in three parts. At first, the project managers' positioning in the autocratic-democratic scale was identified according to their company's size. This positioning was based on questions 1-12 of the interview questionnaire. Then, their positioning in the managerial grid was proposed in the same way, based on the Likert scale questions 13-22. Each of the aforementioned tasks was enriched with a total view for all the 12 project leaders, in order to obtain a more general picture of our sample. This practically means that during the analysis:

1. Separate figures for small, medium-sized and large firms were provided in order to draw partial conclusions and
2. Overall figures including all of the 12 companies followed (to facilitate general conclusions).

Finally, a statistical analysis of the free style questions was presented.

Thus, the numerical analysis part of this research is complete but there is still space for a qualitative look especially in the open-ended questions. This task is going to be performed in the next chapter, accompanied by a concluding description of the whole content of this report and the corresponding recommendations from the perspective of the author.

CHAPTER 6 – CONCLUSIONS & RECOMMENDATIONS

6.1. Relating the findings to the theoretical framework

This part will include the conclusions drawn from the interviews with the project leaders and the analysis of the closed and open-ended questions that followed. While presenting these findings, a parallel attempt will be made to compare them with what theory suggests.

At first, it was rather expected that according to the Likert scale analysis, 9 out of 12 project leaders turned out to adopt a *consultative* style of leadership. Characteristically, seven out of the nine corresponded to the seven largest companies in terms of turnover. As it was suggested in the literature review, consultative style is the most common one (Handy, 1993; Walker, 2002) as project managers normally tend to ask their subordinates' opinion, but afterwards they are the ones who make the final decisions. The autocratic style of leadership can be more easily justified in small companies where the dominant figure of a project manager/leader (who might even be the only one) leads a small number of subordinates who literally operate under his commands. Nevertheless, it was rather surprising to realise that when the same question was directly set to the interviewees, only 6 out of the 12 responded in the same way with what the Likert analysis had yield. In particular, most of the leaders tended to "democratise" their leadership style, a reaction rather reasonable as few people feel comfortable and admit to exert autocratic methodologies.

Concerning orientation towards people and tasks, the main conclusion drawn from the designed managerial grids was that most project leaders (11 out of 12) lie between the patterns of *middle of the road* and *team* management. That means that they seek to balance the necessity to get work accomplished while maintaining morale of subordinates in a satisfactory level. The closer they stand to the (9,9) in the managerial grid the more they seem to have achieved interdependence with their subordinates through a "common stake". Nevertheless, the project managers' positioning in the managerial grid seems quite logical, as they are operating in an environment (construction) where both tasks and people are considered important and have to be optimally combined to achieve success. Another interesting point was that project leaders of large firms appeared to have higher scores (on average) than the leaders of the other categories in both the task and people orientation. This could be justified as an indication of possessing higher level managerial competencies.

One of the most difficult tasks to define was the time orientation of project managers. Two questions (number 26 and 27) corresponded to this issue and sometimes project leaders gave answers that were totally controversial. In fact, there were cases where a project manager while confessing to hold notes of his subordinates mistakes as a record (*past oriented*), at the same time claimed to enjoy challenging the systems and overlooking the time-tested methodologies (characteristic of *future orientation*). Still, the majority of project leaders in all of the three categories appeared to lean towards *present orientation* while leading projects. As Thoms and Kerwin (2004) suggest, this is the most common type of time-oriented leaders who are not reluctant to talk neither about the future nor the present and specialise in handling day-to-day operations. In other words, they tend to adapt very well in industries like construction that problem solving, circulation around sites and talking-observing people are on the core.

Furthermore, useful conclusions can be drawn by looking into what the respondents answered to the question over the importance of vision. The interviewer set the question in a dilemma form and the "decoding" of the responses revealed a strong inclination of large firms' project leaders towards the *transactional* type of leadership. Correspondingly, a clear tendency of project managers of small firms towards the *transformational* model was realised and finally a balanced result was derived from the managers of medium-sized firms. It is really interesting the fact that project leaders of large firms:

- Either underestimate the importance of vision throughout the project life cycle.

> *"There is room for vision only in the very beginning of the project. Then, it is difficult to find the appropriate conditions to envision."*

Project Manager 3 (See Appendix B-pp.78)

- Or believe that this is an activity that mostly senior managers should deal with.

> *"I don't believe in visioning. That might be true for senior managers and the highest levels of corporate hierarchy, but it is not the work of a project manager".*

Project Manager 4 (See Appendix B-pp.81)

The examination of extracted answers also revealed the great concern that project leaders have for the issue of company profitability. It is impressive that 11 out of the 12 project managers appreciated the contribution of successful project leadership to achieving corporate profitability. The only one with an equivocal answer was project manager 12 (see Appendix B, pp. 98).who stated that:

> *"I believe that they are not as connected as many managers believe they are. The reason is that success is a very subtle thing to define"*

Satisfying corporate motives attaches great responsibility to them, as most of them stated that it would be almost impossible for the company to ensure a promising future without having effective project leaders *behind the wheel*:

> *"The final goal when leading a project is to make money. You don't execute it for the glory and the honour! These ambitions are secondary and definitely of lower importance than achieving profitability for the organisation. And there are cases that a project was managed poorly and left profit, but still it would have been more beneficiary, had it been led more carefully and effectively".*

Project Manager 3 (See Appendix B-pp.78)

But, as we know, a project is divided in different project stages which according to the suggested theory require different leadership approaches. Among the twelve project managers, five responded positively to the question whereas seven believed that it is not a right approach to change leadership styles throughout the duration of a project. The main objection of the latter was that such a versatile leadership approach would have been taken as a weakness by their subordinates and peers. However, the most important finding was that all the leaders that responded in an affirmative way to the question, substantially coincided with what theory suggested. That is, a leader should be much more of a listener in the conceptual phase of the project and as the project moves towards its finishing-handover phase, he/she shall be the ultimate decision maker. The following words were indicatively chosen to verify the aforementioned position.

> *"As we move towards the finishing of a project, general conditions are solidified and solution methods tend to be more fixed than before. The project manager's leadership approach should then be tighter. On the contrary, during the initial phases of a project and in order to draw a certain and rounded view, you are more interested in listening to other people's opinions, you allow the making of mistakes (from others and yourself) and you tend to reconsider your initial plans".*

Project Manager 1 (See Appendix B-pp.74)

Last but not least, it shall be pointed out that table 5.9 comprises a significant indication of which characteristics and skills are considered significant for successful project leadership based on project leaders' spontaneous responds. The popularity among the answers of the three following competencies can not be ignored:

- *Communication skills*
- *Time management*
- *Scientific background*

Synoptically, it could be said that many theoretical suggestions have been verified by the analysis of the project managers' interviews. Many of the findings appeared to be reasonable while there were some that could not be justified by the theoretical framework proposed. However, what should be forgotten is that *all* the project managers interviewed were considered to be effective and competent by their own companies (as they were employed in their largest projects). Still, they presented so many differences (even contrapositions) in many aspects of their leadership approaches that it would be impossible to propose one best way of leading projects in the Greek construction market. Of course, the size of the firm is a significant parameter of differentiation, as the larger the company (and respectively the projects it undertakes) the larger the responsibilities and the figures. But even for firms belonging to the same size classification it was difficult to identify perfect commonality. In this sense, one last (but significant) conclusion that could be drawn is that successful project leadership in the Greek construction is really a multilateral issue involving such a vast amount of parameters and intricacies that calls for continuous research and big efforts to be fully examined.

6.2. An overview of the report

This report aimed to explore the issue of successful project leadership in the Greek construction market. The topic has been hardly examined by relevant researchers while being highly appreciated by all the professionals involved. The decision to deal with such an intricate subject and create a consistent and robust result was definitely difficult for the author, but at the same time challenging and appealing.

This particular venture commenced in Chapter 1, with an introduction on the issue of leadership and a clarification of the fundamental research objectives.

Following that, Chapter 2 was substantially an attempt to provide a synoptic description of the unfolding Greek construction market. Our main focus was on the latest developments of the sector (especially during the last decade) and specifically how contractors are, nowadays, divided in seven license-classes according to the public works certificate they possess. The importance of construction sector in the

country's economic growth was also underlined, while we referred to some of the major problems that tantalise the sector; thus making an explicit link with the issue of leadership. To enhance this characteristic link, the author included the views of the few domestic analysts who are involved in this topic while pointing the obvious lack of relevant bibliography.

The 3rd chapter comprised a systematic literature review according to a series of acknowledged researchers on the subject. This attempt consisted of an initial reference to some general concepts of leadership followed by a clarification of the difference between leaders and managers. The next step was to dig in the most important theories of leadership as they have been proposed by relevant researchers. Thus, a detailed examination of trait, behavioural, change-oriented and contingency theories formed the first part of our literature review. In the core of the aforementioned analysis were:

- The various leadership styles
- The basic dimensions of leadership behaviour (person vs. production oriented) expressed by the *managerial grid*,
- The differentiation between transactional and transformational leaders,
- The various contingency theories which contend that there is not one best way of leading.

The second half of the review dealt with the topic of project leadership in the specific environment of construction. The bibliography in this part of the analysis was undoubtedly less, still adequate enough to set off the special characteristics of construction industry that determine the way projects should be managed. The perspectives of some prevailing researchers (Cleland (1998); Walker (2002); Winch (2002); Morris & Pinto, 2004, etc) were adopted in order to depict the general framework of leadership (styles, qualities) in a project environment. The final point of this theoretical analysis was the examination of the parameter of time and its relation to the way of leading a project along its life cycle while making the distinction between past, present and future orientation.

Chapter 4 was devoted in setting the research methodology to be followed in order to extract valuable evidence from project managers of successful Greek construction firms. At the beginning an attempt to clarify the emerging question was made, a question that generated our concern over the issue of construction project leadership in Greece. After identifying the fundamental base of this particular research, the author proposed a carefully selected procedure to define the research sample. Synoptically, this process included the classification of the Greek

construction firms in three broad categories (small, medium-sized and large) according to a pair of criteria:

- The company's mean annual turnover for the last three years and
- Its public works certificate (or else contracting license class).

In this sense, successful companies in terms of their mean annual profits for the last three years were approached while they were asked to suggest one of their best project managers (in terms of efficiency and performance) to be interviewed. At the end, a research sample of 12 construction firms was formed. Following that, the interview questionnaire was formed, comprising the basic framework onto which the posterior analysis was built. The questionnaire had to be:

- *Short enough* (to avoid exhausting the interviewees),
- *Specific* (to achieve the desired results) and
- Broad enough (to cover a large part of the presented theoretical background).

Thus, both closed and open-ended questions were included, the former expressed as Likert scale statements and the latter through free style questions. This procedure provided an opportunity to include both statistical illustration of the extracted numerical data and qualitative examination of the issue of project leadership.

The next step was to perform the main research analysis in Chapter 5. At first, the project managers' positioning in the autocratic-democratic scale was identified, according to their company's size and as a whole[29]. Then, four managerial grids were proposed in the same way as before (separately for small, medium-sized, large firms and overall)[30]. Last but not least, a statistical depiction, in a legitimate extent, of the some of free style questions finalised this chapter.

This report was finalised in Chapter 6 with a qualitative analysis of open-ended questions and the comparison of general findings vs. theory suggestions. The aim of this task was to provide the reader with a rounded view over the realistic conclusions that can be drawn from this particular scientific venture.

6.3. Recommendations for future research

It was clarified from the beginning that this report targeted on becoming the onset for further research and applications. Project leadership is such a complex

[29] This particular result stemmed from the statistical analysis of Likert questions 1-12 of the interview questionnaire.

[30] These conclusions were based on the questions 13-22

issue that lasting and systematic efforts are required in order to examine it to a satisfying extent. Moreover, construction companies seem so absorbed and engaged in their struggle to achieve corporate objectives that tend to underestimate the importance of scientific research and the positive impact this could have for their own sake. At the same time, project leaders appeared to be considerably sensitive in this particular subject (as it is their job, at the end) a fact that became the main driver for me to proceed and complete this arduous task. Overall, construction industry in Greece, despite being in an upward performance slope, still is in a developing phase having much to learn from other, more advanced in construction terms, countries.

What could be recommended for the project managers of the Greek construction firms is that they should concentrate more on the "big picture" and escape from their primary focus on execution matters. This does not mean that they should overlook work on site; on the contrary they shall continue their good work but they shall also attempt to signify the importance of developing a project from its initial phase. Moreover, they shall pay attention in adopting modern procedures of conferencing with their subordinates and peers (internet, memos, voice mails, etc) as they seem to downgrade their contribution in creating sound and beneficiary networks of relationships. Regarding their leadership style and concern for people and tasks there are not many suggestions to make as this is such a subjective and intricate issue that cannot be univocally defined for all of them. Nevertheless, it was clearly demonstrated that they tend to "shake off" the picture of autocratic leader while theory did not totally confirm that. At the same time, many of them criticised a leader's hiding behind participative procedures, but when asked they seemed to favour democratic methods of leadership.

Thus, it would not be an exaggeration to say that, apart from researchers, successful project managers as well are in an exploratory phase over which is eventually:

- the best style to adopt,
- the best competencies to possess and
- the best techniques to utilise

in order to achieve successful project leadership in the Greek construction market.

Probably, taking the present report as a trigger and further building on it could solve these mysteries and eventually establish in the near future my personal vision:

"An analytical guide for project leadership in the Greek construction market".

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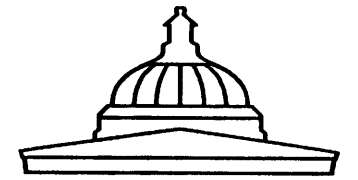


APPENDIX A

Author's remark

In order to avoid extensive usage of legalistic language in the main body of our report we have included Law 2940/2001 in the following three pages of Appendix A. This particular enactment corroborated the distinction of Greek construction firms into seven license classes (1^{st}–7^{th}) according to the public works certificate they possessed. The former categorization was into eight classes (A–H), again based on the public works license construction companies had. As our classification criteria in paragraph 4.2 were based on the seven-class distinction we have decided to place this particular law in the Appendix A, referring specifically to article 8 which is the only one that concerns our research (Data taken from Athens Bar Association, 2005).

BANK OF LEGAL INFORMATION DSA

ELEMENTS OF STATUTE

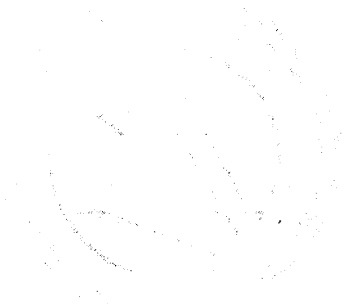
Type:	LAW
Number:	**2940**
Year:	2001
Official Journal of the Hellenic Republic:	**A 180** 20010806
It was placed in effect:	**06.08.2001**
Date of Signature:	02.08.2001
Title:	Development, tax and legislative motives for the corporations of the construction sector and other stipulations.
Preamble:	The CHAIRMAN of GREEK DEMOCRACY We publish the following law that voted the Parliament:
Comments:	Cf. with regard to the present law and the s/n D15/fin./14686 of 2001 (B'1324/11.10.2001).

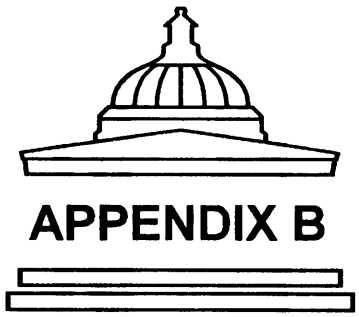
Article:	8
Date:	06.08.2001
Date placed in effect:	06.08.2001
Description of term of treasure:	CONTRACTING ENTERPRISES
Title of Article:	Transient provisions
Entries:	CONTRACTING ENTERPRISES, TRANSIENT PROVISIONS

Text of Article

1. Applications of contracting enterprises in suspense for registration or revision of registration in the M.E.EP., are examined with base provisions that were in effect at the year of their submission. 2. With the exception of the deletion by the certain or all categories or the demotion of order of enterprise after special revision that becomes with initiative of service, the force of certifications of registration in the M.E.EP. with base old classification is extended de jure up to the publication of decision of classification in the orders of new gradation of M.E.EP., as this is determined in article 4. Contracting enterprise, that emanates from merging of contracting enterprises of M.E.EP., up to the issuing of certification of registration and its classification in the M.E.EP., with base the provisions of this law, participates in the certain processes of choice of contractor of public work, either with the accumulative use all of all or some of the certifications of registration in the M.E.EP. that had been published with base that were incorporated. if by the competition is required attendance of consortia, or with use one only from them. 3. If the merging of contracting enterprises, with form of anonymous company or company of limited responsibility, has not been completed up to the deadlines that are fixed in article 4, paragraph 17, but the decisions of general assemblies of shareholders or partners on merging have been taken, they can participate in each tendering of choice of contractor of public work, only with one from the enterprises that are incorporated with the use of certification of registration in the M.E.EP., that has been published with base previous provisions. For contracting enterprise of any other form if has not been completed the merger up to the deadlines that are fixed in article 4 paragraph 17 but have been contracted the relative conventions of merger can participate in each tendering process of choice of contractor of public work, only with one from the enterprises that are incorporated with the use of certification of registration in the M.E.EP., that has been published with base previous provisions. 4. The contracting enterprises of M.E.EP., that are incorporated and function with the legal form of anonymous company or the company of limited responsibility, are compelled to notify in one month in the service of observation of M.E.EP. the decisions of general assemblies of shareholders or partners on the merger. The same obligation is in effect for the contracting enterprises that function with any other form, that are compelled to notify in one month in the service of observation of M.E.EP. the conventions of merger. 5. In cases of suspense open or closed (with pre-qualification) tendering processes, in which have been submitted offers from contracting enterprises before the decisions of general assemblies on merger or before the contracting of relative conventions of mergers, this offers maintain their force and

afterwards the completion of merger. At remaining it is applied the provision of paragraph 1. 6. In cases of processes of choice of contractors in suspense with the process of pre-qualification ("closed processes"), in which before the decisions of general assemblies on merger or before the contracting of relative conventions of mergers have been submitted separate applications of event of interest from the incorporated contracting enterprises (selfly-existent or as members of separate consortia or groups), the attendance of these enterprises becomes acceptable only if during the tendering process, only one offer is mainly submitted on behalf of them. For this aim it is allowed in the enterprises, consortia and groups that participated, at the event of interest and were pre-selected, to proceed in changes, with the constitution of new consortia or groups or the change of existing consortia or groups. The service that is responsible for the approval of result of tendering process can, in case where it appreciates that the capacity of the pre-selecting was considerably altered, decide the repetition of this evaluation, in order to realise whether the capacity of tender-participators is maintained in the level that is forecasted by the call for expression of interest. 7. In all the cases where it appears use of old certifications of registration in the M.E.EP., the provisions that are related with them continue to be applied, as for their effect, the extension of their effect, the limits of "undone" from other conventions, except the cases that are fixed differently in this law. 8. The provisions of article 1 are also applied in the conventions that were worked out before his coming into application. 9. The provisions of this article of 2 law are applied in what tendering processes for the choice of contractors of implementation of public work, are held with base statements that are published one month afterwards his coming into application.





APPENDIX B

PROJECT LEADER INTERVIEW QUESTIONNAIRE

NAME OF THE INTERVIEWEE:_____

POSITION:_____

CONSTRUCTION FIRM:_____

DATE:_____

PART A: LIKERT SCALE QUESTIONS

i) Please answer the following questions according to the following 1-5 scale:

Almost Always True	*(5)*
Frequently True	*(4)*
Occasionally True	*(3)*
Seldom True	*(2)*
Almost Never True	*(1)*

(1) I always retain the final decision making authority within my project team.

(2) I do not consider suggestions made by my employees as I do not have the time for them.

(3) I closely monitor my employees to ensure they are performing correctly.

(4) Employees must be directed or threatened with punishment in order to get them to achieve the project objectives.

(5) I always try to include one or more employees in determining what to do and how to do it. However, I maintain the final decision making authority.

(6) I ask for employee ideas and input on upcoming plans and projects.

(7) When things go wrong and I need to create a strategy to keep a project or process running on schedule, I call a meeting to get my employee's advice.

(8) I and my employees always vote whenever a major decision has to be made.

(9) I like to use my leadership power to help subordinates grow.

(10) To get information out, I send it by email, memos, or voice mail; very rarely is a meeting called. My employees are then expected to act upon the information.

(11) My workers know more about their jobs than me, so I allow them to carry out the decisions to do their job.

(12) Each individual is responsible for defining their job.

ii) And the following ones according to the following 1-9 scale:

never *sometimes* *always*

1 2 3 4 5 6 7 8 9

(13) Nothing is more important than accomplishing a goal or task.

(14) I enjoy coaching people on new tasks and procedures.

(15) The more challenging a task is, the more I enjoy it.

(16) I encourage my employees to be creative about their job.

(17) When seeing a complex task through to completion, I ensure that every detail is accounted for.

(18) When correcting mistakes, I do not worry about jeopardizing relationships.

(19) I manage my time very efficiently.

(20) I enjoy explaining the intricacies and details of a complex task or project to my employees.

(21) Nothing is more important than building a great team.

(22) Counselling my employees to improve their performance or behaviour is second nature to me.

PART B: OPEN-ENDED QUESTIONS

(23) What is your age and what is your "undergraduate studies" background?

(24) What type of a leader do you consider that you are?

(25) Do you believe that different project stages (feasibility study, development, execution, finishing – handover) require different leadership approaches and which are these?

(26) What is your reaction when a subordinate (or peer) makes a mistake? Do you tell them not to ever do that again while making a note of it?

(27) Do you usually challenge current systems while leading a project or do you prefer to follow secure and tested routes?

(28) Do you believe that best project managers/leaders are visionary? If yes how should they express their vision?

(29) How closely do you think that project leadership and corporate profitability are connected and why?

(30) According to your opinion, which are the five most important characteristics/skills that define a good project manager in the Greek construction market?

i. _____
ii. _____
iii. _____
iv. _____
v. _____

Thank you

Dimitrios Mamantzis

LIST OF INTERVIEWEES

S/n	PROJECT MANAGER	CONSTRUCTION COMPANY	DISCIPLINE	DATE
1	Kalaitzis Spyros	AKTOR S.A	Civil Engineer	23/8/2005
2	Hatzitheodosiou Nikos	THEMELIODOMI S.A.	Civil Engineer	25/8/2005
3	Rentzeperis Ioannis	AEGEK S.A.	Civil Engineer	23/8/2005
4	Konstantinidis Simos	METKA S.A.	Mechanical Engineer	22/8/2005
5	Hassapopoulos Haris	ATERMON S.A.	Mechanical Engineer	23/8/2005
6	Grigoriadis Charalambos	MEKASOL S.t.c.i.A.	Mechanical Engineer	19/8/2005
7	Georgiadis Mathaios	DEKA S.A.	Mechanical/Electrical Engineer	22/8/2005
8	Kozaitis Tryfonas	MPETOKAT S.A.	Mechanical Engineer	22/8/2005
9	Zountouriadis George	VIER S.A.	Mechanical Engineer	18/8/2005
10	Patsiala Irini	VIOTEK Ltd	Mechanical Engineer	23/8/2005
11	Spyrou George	STELMA S.A.	Civil Engineer	21/8/2005
12	Katsika Anthi	V & D ORFANIDI Ltd	Architect	23/8/2005

TAPE RECORDED ANSWERS

NAME OF THE INTERVIEWEE: ***KALAITZIS SPYROS***

POSITION: ***PROJECT MANAGER***

CONSTRUCTION FIRM: ***AKTOR S.A.***

DATE: ***23/8/2005***

PART A: LIKERT SCALE QUESTIONS

i) Please answer the following questions according to the following 1-5 scale:

(Q1) ***5***

(Q2) ***2***

(Q3) ***5***

(Q4) ***1***

(Q5) ***4***

(Q6) ***4***

(Q7) ***5***

(Q8) ***1***

(Q9) ***4***

(Q10) ***3***

(Q11) ***4***

(Q12) ***3***

ii) And the following ones according to the following 1-9 scale:

(Q13) ***6***

(Q14) ***5***

(Q15) ***6***

(Q16) ***8***

(Q17) ***8***

(Q18) ***7***

(Q19) ***6***

(Q20) ***6***

(Q21) ***5***

(Q22) ***3***

PART B: OPEN-ENDED QUESTIONS

(Q23) **I'm 43 years old and I'm a civil engineer. I haven't taken any Master degree.**

(Q24) **I'm a democratic leader.**

(Q25) **As we move towards the finishing of a project, general conditions are solidified and solution methods tend to be more fixed than before. The project manager's leadership approach should then be tighter. On the contrary, during the initial phases of a project and in order to draw a certain and rounded view, you are more interested in listening to other people's opinions, you allow the making of mistakes (from others and yourself) and you tend to reconsider your initial plans.**

(Q26) **Substantially, what we do is point out the mistakes to our subordinates. And this reaction does not target on avoiding the same mistake being done again (as this is rare), but on helping the employee to dismiss the rationale that led to this certain mistake. This is expressed in terms of better prediction, better and more thorough treatment of the project and consideration of all the project parameters (financial, administrative, technical, etc.). In case of a second mistake, I just realise that the employee's efficiency might be a little low and thus he/she should been allocated with complex and arduous tasks.**

(Q27) **To be honest I prefer a mix of these things. As the company has a certain system of handling these particular projects, we have a definite route to follow. But there is still room for individual creativity and this is something that is promoted by our company. Of course, as I said, there is always a certain base onto which we step from the initial phase of feasibility study to the final stage of handover. At any rate, any innovative solution is always welcome.**

(Q28) **For me the vision has to do with the successful completion of a project. In this instance, the information and experience that the project manager gathers during the project life cycle is what he/she is going to use for this future pursuits. Thus, for me vision is expressed as the future opportunity to take advantage of the present activities. A chance to think what I'm doing today, in what way I am doing it and how I can further improve it. In this sense, YES I believe that project managers should be visionary.**

(Q29) **The answer is obvious. They are "bounded" together, as mistakes in leading a project have a financial impact on the firm's profits. These mistakes are related to people selection, subcontractors' choice, procurement route preference, time**

scheduling, etc. The same things are valid in the case of cost accounting of a project, as effective project leadership can promote the company's financial performance in terms of cost savings.

(Q30)

- **Acceptance by his subordinates (emotional intelligence as it is said)**
- **Knowledge of the special conditions of the Greek construction market**
- **Communication skills with his client peers**
- **Determination**
- **Acceptance of his mistakes and good listening of the others**

TAPE RECORDED ANSWERS

NAME OF THE INTERVIEWEE: ***HATZITHEODOSIOU NIKOS***

POSITION: ***PROJECT MANAGER***

CONSTRUCTION FIRM: ***THEMELIODOMI S.A.***

DATE: ***25/8/2005***

PART A: LIKERT SCALE QUESTIONS

i) Please answer the following questions according to the following 1-5 scale:

(Q1) ***3***

(Q2) ***2***

(Q3) ***4***

(Q4) ***2***

(Q5) ***5***

(Q6) ***4***

(Q7) ***4***

(Q8) ***2***

(Q9) ***3***

(Q10) ***2***

(Q11) ***3***

(Q12) ***3***

ii) And the following ones according to the following 1-9 scale:

(Q13) ***7***

(Q14) ***8***

(Q15) ***6***

(Q16) ***9***

(Q17) ***8***

(Q18) ***9***

(Q19) ***6***

(Q20) ***6***

(Q21) ***9***

(Q22) ***6***

PART B: OPEN-ENDED QUESTIONS

(Q23) **I'm 57 years old and I'm a civil engineer.**

(Q24) **I am a consultative type of project leader.**

(Q25) **Yes, I strongly believe that. I am always more "flexible" in the beginning of a project than as we move towards its end.**

(Q26) **You cannot judge your subordinates by one or two mistakes they make. There are other things you can do like close monitoring and constant guidance to prevent big mistakes from happening.**

(Q27) **During the majority of the projects I lead, I tend to use both ways. I like to combine time-tested methods with innovative ideas where possible.**

(Q28) **It is good to step firmly on the ground. Realism is a great advantage for them that manage to possess it. Creativity, yes! Innovation, too. But vision is something intangible for which you have very little time during a project. If I owned a company myself I might envision more than now.**

(Q29) **Corporate profitability is the foremost goal. Besides, by completing in a successful way projects, satisfies my personal ambitions as well (both moral and financial). Project leadership has always to do with how a company performs and this is apparent in many companies that were driven to bankruptcy because they did not have good project managers.**

(Q30)

- **Negotiation skills at all levels**
- **Determination**
- **Communication skills**
- **Time management**
- **Judgement**

TAPE RECORDED ANSWERS

NAME OF THE INTERVIEWEE: ***RENTZEPERIS IOANNIS***

POSITION: ***PROJECT MANAGER***

CONSTRUCTION FIRM: ***AEGEK S.A.***

DATE: ***23/8/2005***

PART A: LIKERT SCALE QUESTIONS

i) Please answer the following questions according to the following 1-5 scale:

(Q1) ***4***

(Q2) ***1***

(Q3) ***5***

(Q4) ***2***

(Q5) ***3***

(Q6) ***4***

(Q7) ***4***

(Q8) ***2***

(Q9) ***4***

(Q10) ***1***

(Q11) ***1***

(Q12) ***1***

ii) And the following ones according to the following 1-9 scale:

(Q13) ***7***

(Q14) ***6***

(Q15) ***7***

(Q16) ***8***

(Q17) ***8***

(Q18) ***7***

(Q19) ***7***

(Q20) ***6***

(Q21) ***9***

(Q22) ***3***

PART B: OPEN-ENDED QUESTIONS

(Q23) **49. I'm a civil engineer and I have a Phd in System Mechanics.**

(Q24) **I'm the type of leader that likes to achieve certain and clear decisions. I don't want to hide behind participial procedures and leave the decisions to others, especially when they are bothersome. I like to listen to other people's opinions but the final decision maker is me.**

(Q25) **I don't think very positively about that. On the contrary, I believe that a project leader should have clear objectives which are the successful planning, execution and handover of the project and a certain leadership style throughout the project duration.**

(Q26) **We all make mistakes and especially those that work. Besides, the 95% of the mistakes can be fixed, so there is no reason to have a provocative attitude towards your subordinates. It is common knowledge that only through mistakes we manage to learn and improve. Undoubtedly, there have been cases that the mistake has had a significant impact on the project, but this is also a "part of the game". Still, the possibility to have a large mistake is minimised, as it is revealed by my previous answers, through close monitoring. My general opinion is that mistakes are essential and inevitable.**

(Q27) **I prefer to follow the secure and tested routes without, of course, prohibiting the searching of an innovative solution. But, especially in a conservative and not so technologically advanced sector like construction, this challenging does not happen very often.**

(Q28) **There is room for vision only in the very beginning of the project. Then, it is difficult to find the appropriate conditions to envision.**

(Q29) **They are directly connected, I think. The final goal when leading a project is to "make money". You don't execute it for the glory and the honour! These ambitions are secondary and definitely of lower importance than achieving profitability for the organisation. And there cases that a project was managed poorly and left profit, but still it would have been more beneficiary, had it been led more carefully and effectively.**

(Q30)

- **Good technical knowledge (know-how)**
- **Deep and thorough analysis of the various project tasks (avoid superficiality)**
- **Good people management**
- **Patience and persistence**
- **Self-control (especially in cases of crisis)**

TAPE RECORDED ANSWERS

NAME OF THE INTERVIEWEE: ***KONSTANTINIDIS SIMOS***

POSITION: ***PROJECT MANAGER***

CONSTRUCTION FIRM: ***METKA S.A.***

DATE: ***22/8/2005***

PART A: LIKERT SCALE QUESTIONS

i) Please answer the following questions according to the following 1-5 scale:

(Q1) ***4***

(Q2) ***1***

(Q3) ***4***

(Q4) ***3***

(Q5) ***4***

(Q6) ***4***

(Q7) ***5***

(Q8) ***1***

(Q9) ***4***

(Q10) ***1***

(Q11) ***3***

(Q12) ***3***

ii) And the following ones according to the following 1-9 scale:

(Q13) ***5***

(Q14) ***5***

(Q15) ***5***

(Q16) ***7***

(Q17) ***9***

(Q18) ***9***

(Q19) ***7***

(Q20) ***9***

(Q21) ***9***

(Q22) ***9***

PART B: OPEN-ENDED QUESTIONS

(Q23) **I'm 43 years old and I'm a mechanical engineer.**

(Q24) **I'm a democratic leader. I want my subordinates to have "a strong voice".**

(Q25) **I believe that leadership style should be stable all the time, otherwise the employees and peers will consider that as a weakness.**

(Q26) **To be honest, I almost always have "some kind" of reaction, but I never make a note of it. Of course, my reaction is a reasonable one and not outrageous. My main aim is to identify what went wrong.**

(Q27) **I usually tend to challenge the current systems, but it definitely depends on the nature of the issue/problem. There are some standard methodologies for sure, but there is always space for creativity and innovation.**

(Q28) **I don't believe in visioning. That might be true for senior managers and the highest levels of corporate hierarchy, but it is not the work of a project manager.**

(Q29) **I strongly believe that they are inter-connected and according to me this is the most important thing when leading a project. Substantially, we are talking for "almost the same thing".**

(Q30)

- **Experience**
- **Right person in the right position (effective delegation)**
- **Good time schedule**
- **Identification of the critical path**
- **Predictability and discernment ("see behind the wall")**

TAPE RECORDED ANSWERS

NAME OF THE INTERVIEWEE: ***HASSAPOPOULOS HARIS***

POSITION: ***CONSTRUCTION PROJECT MANAGER***

CONSTRUCTION FIRM: ***ATERMON S.A.***

DATE: ***23/8/2005***

PART A: LIKERT SCALE QUESTIONS

(Q1) ***5***

(Q2) ***1***

(Q3) ***5***

(Q4) ***1***

(Q5) ***3***

(Q6) ***5***

(Q7) ***5***

(Q8) ***1***

(Q9) ***5***

(Q10) ***2***

(Q11) ***4***

(Q12) ***1***

ii) And the following ones according to the following 1-9 scale:

(Q13) ***8***

(Q14) ***5***

(Q15) ***4***

(Q16) ***9***

(Q17) ***9***

(Q18) ***4***

(Q19) ***5***

(Q20) ***8***

(Q21) ***9***

(Q22) ***8***

PART B: OPEN-ENDED QUESTIONS

(Q23) **I'm 56 years old and I'm a mechanical engineer. I also possess an MSc in Welding technology and management.**

(Q24) **I believe that I am in the middle of the democratic-autocratic scale. I hear the voice of every one but I always take the final decision.**

(Q25) **For sure they require different leadership approaches, because the approach depends on the nature of the work. The nature of a feasibility study is different from the nature of a finishing-handover procedure of a construction project. Specifically speaking, these approaches vary so they cannot be pre-determined.**

(Q26) **No! Actually, what I try to do is always be a part of the project and I understand that by working you face a large possibility of making mistakes. Moreover, I believe that out of your mistakes you can always benefit and learn.**

(Q27) **Again, it depends on the nature of the project as sometimes you have to challenge the current system and produce innovative ideas and sometimes you just can't. The most important thing when you challenge a current system is to make sure that it will be fully adopted by the working team.**

(Q28) **Vision shall always exist and be alive, because it is necessary for the people. It shall be passed to the "lowest" worker of the hierarchy through the project manager's direction and advice.**

(Q29) **The answer is obvious. There is a direct relationship between leadership and profitability for the company and that affects every aspect of the project Statistically, poor leadership cannot lead to success.**

(Q30)

- Efficient policy regarding salaries and fridge benefits (good negotiation skills)
- Efficient people management
- High technical background
- Adequate handling of the human factor
- Selection of proper equipment and tools

ATERMON S.A.
GENERAL CONSTRUCTION COMPANY

TAPE RECORDED ANSWERS

NAME OF THE INTERVIEWEE: ***GRIGORIADIS CHARALAMBOS***

POSITION: ***PROJECT MANAGER***

CONSTRUCTION FIRM: ***MEKASOL S.t.c.i.A.***

DATE: ***19/8/2005***

PART A: LIKERT SCALE QUESTIONS

i) Please answer the following questions according to the following 1-5 scale:

(Q1) ***3***

(Q2) ***2***

(Q3) ***3***

(Q4) ***2***

(Q5) ***5***

(Q6) ***3***

(Q7) ***4***

(Q8) ***1***

(Q9) ***3***

(Q10) ***1***

(Q11) ***3***

(Q12) ***2***

ii) And the following ones according to the following 1-9 scale:

(Q13) ***7***

(Q14) ***9***

(Q15) ***9***

(Q16) ***9***

(Q17) ***9***

(Q18) ***8***

(Q19) ***7***

(Q20) ***7***

(Q21) ***9***

(Q22) ***5***

PART B: OPEN-ENDED QUESTIONS

(Q23) **32 years old – Mechanical Engineer.**

(Q24) **I believe that I belong between the democratic and consultative part of the scale. I like cooperating with my peers and employees and often ask for their opinion. The decisions are sometimes unanimous and sometimes personal.**

(Q25) **No, I don't think that you should change your leadership style at all.**

(Q26) **I try to get in touch with them without getting angry, but I make a note of it in my head and recall it in the future if necessary.**

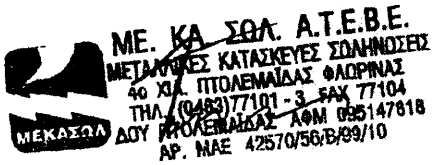
(Q27) **I love to challenge the current systems and I always try to be creative in my job.**

(Q28) **It is not necessary, as other more tangible things are considered to be more important in the project leader's work.**

(Q29) **They are very closely connected. It is imperative to have good project leadership if you want to achieve corporate profitability. Of course there exceptions but there exist to verify the aforementioned general rule.**

(Q30)

- **Scientific background**
- **Leadership skills**
- **Time management**
- **Patience**
- **Communication skills**



TAPE RECORDED ANSWERS

NAME OF THE INTERVIEWEE: ***GEORGIADIS MATHAIOS***

POSITION: ***PROJECT MANAGER***

CONSTRUCTION FIRM: ***DE.KA. S.A.***

DATE: ***22/8/2005***

PART A: LIKERT SCALE QUESTIONS

i) Please answer the following questions according to the following 1-5 scale:

(Q1) ***5***

(Q2) ***1***

(Q3) ***4***

(Q4) ***2***

(Q5) ***4***

(Q6) ***3***

(Q7) ***5***

(Q8) ***1***

(Q9) ***3***

(Q10) ***4***

(Q11) ***1***

(Q12) ***2***

ii) And the following ones according to the following 1-9 scale:

(Q13) ***7***

(Q14) ***7***

(Q15) ***8***

(Q16) ***8***

(Q17) ***5***

(Q18) ***8***

(Q19) ***6***

(Q20) ***5***

(Q21) ***7***

(Q22) ***6***

PART B: OPEN-ENDED QUESTIONS

(Q23) **37 years old and I'm a mechanical-electrical engineer.**

(Q24) **I'm a paternalistic type of a leader keeping for myself the final decision.**

(Q25) **I don't believe that different leadership approaches are necessary during different project stages.**

(Q26) **I never make a not of it, but I do show to him the right approach.**

(Q27) **I usually challenge the current systems. Secure routes tend to restrain a project's potential.**

(Q28) **Yes they should be. Without vision a project manager is very limited. The means of expressing this vision are the inspiration and guidance of his subordinates.**

(Q29) **Very close. A project manager is always forced to succeed the best possible financial result at the lowest possible cost. This has a direct and prominent impact to the firm's profitability.**

(Q30)

- **Technical knowledge**
- **Experience**
- **Communication skills**
- **Honesty**
- **Respectability**

TAPE RECORDED ANSWERS

NAME OF THE INTERVIEWEE: ***KOZAITIS TRIFONAS***

POSITION: ***PROJECT MANAGER***

CONSTRUCTION FIRM: ***MPETOKAT S.A.***

DATE: ***22/8/2005***

PART A: LIKERT SCALE QUESTIONS

i) Please answer the following questions according to the following 1-5 scale:

(Q1) ***3***

(Q2) ***2***

(Q3) ***5***

(Q4) ***1***

(Q5) ***4***

(Q6) ***3***

(Q7) ***2***

(Q8) ***1***

(Q9) ***2***

(Q10) ***1***

(Q11) ***3***

(Q12) ***3***

ii) And the following ones according to the following 1-9 scale:

(Q13) ***8***

(Q14) ***6***

(Q15) ***7***

(Q16) ***7***

(Q17) ***6***

(Q18) ***9***

(Q19) ***7***

(Q20) ***5***

(Q21) ***8***

(Q22) ***3***

PART B: OPEN-ENDED QUESTIONS

(Q23) **I'm 42 years old and I'm a mechanical engineer.**

(Q24) **I believe that I am a consultative type of project manager, but still a constantly changing leader. I like to adapt to each situation.**

(Q25) **Yes, I believe that feasibility study requires a more open to suggestions style. The development phase requires a consultative style, the execution phase a directing (paternalistic style) and during the final phase of a project the leader has to take almost all the decisions himself/herself.**

(Q26) **I try to explain to him what he has done wrong. I usually give him a second chance to correct his mistake.**

(Q27) **It normally depends on the project, but when I have the chance to be creative and this creativity ends in a successful way, I really enjoy it.**

(Q28) **I think that executive managers and shareholders of the companies have to be more visionary than us. Still, there are situations that I try to inspire my subordinates towards this goal.**

(Q29) **In just a few words I summarise:**

Effective project leadership ⟶ Corporate Profitability

(Q30)

- **Communication skills**
- **Flexibility**
- **Good time management**
- **Intelligence (High I.Q.)**
- **Diplomacy skills**

TAPE RECORDED ANSWERS

NAME OF THE INTERVIEWEE: ***ZOUNTOURIADIS GEORGE***

POSITION: ***PROJECT MANAGER***

CONSTRUCTION FIRM: ***VIER S.A.***

DATE: ***18/8/2005***

PART A: LIKERT SCALE QUESTIONS

i) Please answer the following questions according to the following 1-5 scale:

(Q1) ***5***

(Q2) ***2***

(Q3) ***1***

(Q4) ***4***

(Q5) ***4***

(Q6) ***3***

(Q7) ***5***

(Q8) ***2***

(Q9) ***4***

(Q10) ***2***

(Q11) ***2***

(Q12) ***3***

ii) And the following ones according to the following 1-9 scale:

(Q13) ***5***

(Q14) ***5***

(Q15) ***5***

(Q16) ***8***

(Q17) ***7***

(Q18) ***8***

(Q19) ***3***

(Q20) ***5***

(Q21) ***9***

(Q22) ***3***

PART B: OPEN-ENDED QUESTIONS

(Q23) **28 years old-mechanical engineer. I also have an MSc.**

(Q24) **I consider myself to be a member of my team.**

(Q25) **This is true, as you have to be more democratic in the beginning of a project and less towards the end.**

(Q26) **I hold notes for personal database, but I'm never offensive towards my subordinates.**

(Q27) **Both. It depends on the situation. If I had to choose I would go for the secure and tested routes choice.**

(Q28) **Yes, they should be. They shall mainly express it by following a certain time schedule which is clarified to everybody.**

(Q29) **They are connected for sure. But there are still situations of projects that were not led in a correct way, but still left profits.**

(Q30)

- **No accidents on site**
- **No accidents on site**
- **Good time scheduling**
- **Profitability for the company (corporate profits)**
- **Profitability for myself (personal motives)**

TAPE RECORDED ANSWERS

NAME OF THE INTERVIEWEE: ***PATSIALA IRINI***

POSITION: ***PROJECT MANAGER***

CONSTRUCTION FIRM: ***VIOTEK Ltd***

DATE: ***23/8/2005***

PART A: LIKERT SCALE QUESTIONS

i) Please answer the following questions according to the following 1-5 scale:

(Q1) ***5***

(Q2) ***1***

(Q3) ***4***

(Q4) ***1***

(Q5) ***4***

(Q6) ***5***

(Q7) ***5***

(Q8) ***4***

(Q9) ***4***

(Q10) ***3***

(Q11) ***3***

(Q12) ***2***

ii) And the following ones according to the following 1-9 scale:

(Q13) ***7***

(Q14) ***8***

(Q15) ***5***

(Q16) ***9***

(Q17) ***8***

(Q18) ***5***

(Q19) ***8***

(Q20) ***9***

(Q21) ***9***

(Q22) ***7***

PART B: OPEN-ENDED QUESTIONS

(Q23) **I'm 33 years old and I'm a mechanical engineer T.E. (Technological Education).**

(Q24) **I try to be democratic and low profile (dislike anger, conflicts, etc.)**

(Q25) **No, I don't think that it is necessary. On the contrary, you should have a standard leadership style.**

(Q26) **I never make notes of my subordinates' mistakes. I'm not a person seeking for revenge or attack. I just talk with them trying to find what went wrong.**

(Q27) **You always follow secure routes, but there are situations that you change your initial orientation. It might be because of problems or because of contingencies. Still, my primary concern is to follow the time-tested routes.**

(Q28) **Yes, In a way. You should not be a dreamer, but in terms of a project success there is some space for vision. They shall express it through the task allocation programme.**

(Q29) **Very closely. The objective is always to achieve profits for the company. Even in projects that are not supposed to leave great benefits, good leadership can lead to savings and cost reductions.**

(Q30)

- **Practical experience on site**
- **People management**
- **Time management**
- **Flexibility**
- **Determination**

TAPE RECORDED ANSWERS

NAME OF THE INTERVIEWEE: ***SPYROU GEORGE***

POSITION: ***PROJECT MANAGER***

CONSTRUCTION FIRM: ***STELMA S.A.***

DATE: ***22/8/2005***

PART A: LIKERT SCALE QUESTIONS

i) Please answer the following questions according to the following 1-5 scale:

(Q1) ***5***

(Q2) ***3***

(Q3) ***5***

(Q4) ***2***

(Q5) ***3***

(Q6) ***3***

(Q7) ***3***

(Q8) ***1***

(Q9) ***3***

(Q10) ***1***

(Q11) ***3***

(Q12) ***2***

ii) And the following ones according to the following 1-9 scale:

(Q13) ***8***

(Q14) ***7***

(Q15) ***9***

(Q16) ***9***

(Q17) ***8***

(Q18) ***5***

(Q19) ***6***

(Q20) ***4***

(Q21) ***8***

(Q22) ***4***

PART B: OPEN-ENDED QUESTIONS

(Q23) **I'm 40 years old and I'm a civil engineer.**

(Q24) **I like to have control while leading a project. However, I try to listen to my subordinates when necessary.**

(Q25) **No, it shall be a standard one.**

(Q26) **I tell him what he has done wrong and keep this "meeting" in my mind. However, I do not seek for an opportunity to unveil him.**

(Q27) **I always try to be creative and achieve cost savings for the company. Nevertheless, I follow the methodologies that the company has proposed as best ones.**

(Q28) **There is always room for vision. I like to have memos and pictures of slogans in my office, to remind me the vision in a daily basis.**

(Q29) **The one complements the other. As a project manager I shall always try to achieve corporate profitability.**

(Q30)

- **"Political" awareness**
- **Communication skills**
- **Self-confidence**
- **Judgement**
- **Commercial & technical expertise**

TAPE RECORDED ANSWERS

NAME OF THE INTERVIEWEE: *KATSIKA ANTHI*

POSITION: *PROJECT MANAGER*

CONSTRUCTION FIRM: *V & D ORFANIDI Ltd*

DATE: *23/8/2005*

PART A: LIKERT SCALE QUESTIONS

i) Please answer the following questions according to the following 1-5 scale:

(Q1) *4*

(Q2) *4*

(Q3) *3*

(Q4) *2*

(Q5) *4*

(Q6) *3*

(Q7) *4*

(Q8) *1*

(Q9) *3*

(Q10) *2*

(Q11) *3*

(Q12) *2*

ii) And the following ones according to the following 1-9 scale:

(Q13) *7*

(Q14) *2*

(Q15) *8*

(Q16) *6*

(Q17) *8*

(Q18) *7*

(Q19) *4*

(Q20) *7*

(Q21) *8*

(Q22) *1*

PART B: OPEN-ENDED QUESTIONS

(Q23) **I'm 44 years old, architect.**

(Q24) **I give great importance to the formation of a team and its efficiency. I like participating procedures with a clear final decision-maker.**

(Q25) **No, I think he/she should have the same approach throughout the project life cycle.**

(Q26) **It depends on the impact of the mistake, but I try to be as discrete as possible.**

(Q27) **Most of the times, I prefer not to risk the successful completion of a project by implementing innovative techniques.**

(Q28) **Sometimes you can be visionary, but most of the times you have to be a realist.**

(Q29) **I believe that they are not as connected as many managers believe they are. The reason is that success is a very subtle thing to define.**

(Q30)

- **Communication skills**
- **Emotional intelligence**
- **Strong academic (scientific) background**
- **Patience and Persistence**
- **Time management**