

# **The Role of Non-Financial Aspects in Project Appraisal –The Practice of Portuguese Firms**

**Nuno Moutinho**

ESTiG – Polytechnic Institute of Bragança

Campus de Sta. Apolónia – Apartado 134

5300-857 Bragança – Portugal

Telephone: +351 273 313 050

Email: [nmoutinho@ipb.pt](mailto:nmoutinho@ipb.pt)

**MDS Lopes**

Faculty of Engineering (DEIG); University of Porto

Rua Dr Roberto Frias, 4200-464

Porto – Portugal

Telephone: +351 22 5081761

Email: [mdlopes@fe.up.pt](mailto:mdlopes@fe.up.pt)

## Abstract

Project appraisal has traditionally put its emphasis on the financial aspects of projects, mainly the quantitative ones, underestimating other areas of analyses where factors of a qualitative nature, intangible and subjective, may also affect the implementation and value of projects.

Non financial evaluation supply information about less tangible factors and is expected to identify competitive advantages and risks that financial techniques cannot capture. In general there are few empirical studies addressing these other aspects. Most surveys are addressed to the financial techniques. With our work we aimed to identify the importance of non financial aspects at the decision making process and the evaluation of projects, in practice, in particular to investigate the practices of Portuguese companies in this field, that is: investigate to what extent are non financial aspects taken into account in investment decisions; which non financial aspects are most relevant; which procedures are adopted to minimize the non financial risks; and which evaluation methods are used to incorporate non financial elements at the decision-making process.

The results of our study support the importance of incorporating non financial aspects into the appraisal of projects, and show how some of those aspects have greater relevance than that attributed to the financial elements. The study also points to the strategic and technical aspects of projects as the most relevant non financial factors considered by Portuguese firms. The financial analysis, according to the empirical data collected, comes only in third place of importance, both at the appraisal and at the decision-making stages. Commercial factors, showed similar relevance to the financial ones.

This work also allows us to differentiate the importance of the different areas of analysis, and the way this analysis is done, according to the characteristics of the company and the project, the company's administration and the project manager. In this way, we find that, type of industry, size and debt of the company, type, duration, size and risk of the project, the academic background of the chairman of the board, and of the project manager, and also the tenure of the board's chairman, are among the factors that have the most influence in the importance attributed by firms to the different areas of project appraisal.

*Key words:* Real Investment Projects; Evaluation; Non-Financial Analysis

*JEL classification:* G310 - Capital Budgeting; Fixed Investment Studies  
G390 - Corporate Finance and Governance: Other

# 1. Introduction

The relation between investment decisions and value creation for the firm has long been established, being the work of Modigliani and Miller (1958) one of the pioneer references in these matters. We would therefore expect that, by now, all aspects that can affect investment decisions, would be thoroughly analysed before firms undertake their projects.

For a long time, theory put the emphasis on the financial issues in investment project evaluation, not taking into account other aspects. Pike (1983) was one of the pioneer authors calling the traditional emphasis a myopic view. Many other authors have now emphasised the need to take a broader look at projects: Pruitt and Gitman (1987), Skitmore et. al. (1989), Proctor and Canada (1992), Chen (1995), Lopes & Flavell (1998), Adler (2000), Meredith and Mantel (2000), Mohamed and McCowan (2001), Love et al. (2002), to name just a few. All these authors share the view that the investment analysis and decision-making process must cover a wide range of aspects, financial and non-financial, as a way to identify all issues that can influence its viability.

Skitmore et al. (1989) present a list of factors that influence the success of building projects, and they conclude that besides the financial area, there are 44 non-financial relevant factors. Adler (2000) points out the evaluation of qualitative aspects that cannot be included in *cash flow* for strategic decision-making. Chen (1995) identifies the following non-financial aspects in evaluation projects: strategy, quality, flexibility, potential future growth, market tendency, ethic and social considerations, prestige and legal issues. Meredith and Mantel (2000) suggest a list of production, marketing, financial, administrative and personnel factors. Love et al. (2002) find evidence of the importance of studying aspects related to organizational, financial, human, technical, political, social and environmental factors. Lopes and Flavell (1998) suggest the study of various non-financial areas: strategic, technical, political, social, environmental, organizational, and management.

The problem is that there are many non-financial aspects that are not easily translated into monetary terms, because some factors are difficult to estimate and can produce evaluation errors easily. The difficulty in evaluating these aspects is related to their intangible nature and measurement problems, which make this analysis highly

subjective. This might be one of the reasons why the practice of firms still has a long way to go.

Many studies have showed that, in most cases, firms make subjective adjustments in risk or, in alternative, use this method in simultaneous with quantitative methods. In the Portuguese context, a survey by Rodrigues (1999) have evidenced that in about 25% of the projects a formal evaluation is not performed and that more than half of Portuguese firms have used non-financial criteria. However, the study did not identify this other criteria and have a very restricted scope. We therefore decided to take the study of Portuguese practices further and this time to concentrate on non financial areas.

The importance of our study is therefore related not only to the impact that investment decision-making has in firm value, but also to the need to understand the importance that non-financial issues assume in the practice of project analyses. We wanted to know the relevance of non-financial aspects in the decision-making process and investment evaluation, given this in an area greatly neglected.

In our work, we seek to inquire: how do firms consider non-financial aspects in the investment decision; what are the most relevant non-financial aspects in firms' investment decision; and what procedures are adopted to minimize non-financial risks.

We were looking at financial, strategic, technical, commercial, political, social, environmental, organizational, and human resources issues. The perspective through which we study these dimensions consists in the identification of the various factors that can influence the evaluation of a project (see figure 1).

[FIGURE 1 HERE]

Beyond assuring the successful integration of the various non-financial concerns, there is the recognition of some of the problems that can arise and the suggestion of ways to overcome them. We also analyse the context of the project, namely its main characteristics and constraints that influence appraisal and implementation, as well as the satisfaction of *stakeholders' needs and objectives*, and paid attention to basic principles and strategies of evaluating projects.

The results of our study support the importance of the analysis of various non-financial aspects and show how some of those aspects have a greater relevance than that attributed to financial elements. As the most relevant elements, the strategic and technical aspects stand out. The data suggests that the analysis of financial aspects is considered only the third most important area, both in project appraisal and in decision-making. Commercial factors appear with a relevance that is similar to financial aspects. From the areas studied, the least relevant in firms' project appraisal are the social and political areas.

This work also allows us to distinguish the importance of the different areas of analysis, and the way this analysis is done according to certain characteristics of the company, the project, the company's administration and the project manager. We found that industry, size and debt of the company, type, duration, size and risk of the project, as well as the academic background of the chairman of the board and of the project manager and also the tenure of the chairman of the board are among the factors that have the most influence in the importance attributed to the different aspects of project appraisal.

The rest of this paper is organized as follows. In section two, we present the research methodology of this work. Section three includes a detailed analysis of the data, discusses the results concerning the practices of Portuguese firms in project appraisal, with emphasis to the non-financial aspects, and identifies the aspects that contribute to a project's success. Finally, in section four we present our conclusions. We placed most of the tables, summarising the survey answers, at the end of the paper, in Annex 1 till 12 due to their large extension.

## 2. Research Methodology

We have used a questionnaire to gather information since this method permits a better understanding of firms' investment practices. Because we did not know of published surveys specifically addressed to non-financial aspects of projects, we create a new questionnaire for our purpose. We used a preliminary version to make a few personal interviews, intending to validate the questions included in the questionnaire and to make sure they were clearly formulated, to guarantee a unique interpretation of questions. The people interviewed were chosen to have a similar profile to the ones selected for the postal questionnaire.

The population of this survey is composed of the 1.000 larger Portuguese firms. There were three reasons for this selection: large firms have a higher probability of having taken investments in recent years; they are also the most likely to have performed an appraisal including non-financial aspects; and finally, these firms tend to have more and better human resources than smaller ones.

We have considered that in general a response rate near 20% would be a good mark. However, given the length and depth of our survey we expected somewhat less. Our response rate (approximately 10%) is comparable to other recent academic surveys. For example, Brounen et al. (2004) obtained a 5% response rate; Graham and Harvey (2001) obtained a 9% response rate in a survey mailed to 4.440 CFO; and Trahan and Gitman (1995) obtained a 12% response rate in a survey to 700 CFO.

The questionnaire was mailed to firms on April of 2005. Given the length, depth and complexity of the questionnaire, we decided to implement certain procedures to attempt to increase the response rate, namely, making phone contacts and sending an electronic questionnaire version later on.

Ninety nine completed surveys were returned, from which three could not be validated, giving a final response rate of 9,6%. Given the size and complexity of our questionnaire, and comparing it to other surveys, we consider this response rate satisfactory.

The follow up phone calls gave us a very positive feedback. Almost everyone showed interest in this subject (the non financial appraisal) and in the survey's conclusions. They considered the survey well structured and referred that it made them think about investment procedures and techniques that they usually do not think about, providing this way a learning experience.

We worked on our survey data using some statistical tools. We intended to know the way that different factors can affect the study of all dimensions of the analysis, given the characteristics of the company, the project, the company's administration and the project manager. In order to determine this relation, we need to isolate the impact of each of the characteristics of the company, and of the project. With that in mind, we divided the sample according to the characteristics of the company or the project considered to be the most relevant, and for each subgroup we calculate averages (for characteristics and risk factors) and percentages of items chosen (in risk minimizing procedures).

To find out if conditional characteristics of the aspects analysed has significant statistical difference at 1% (\*), 5% (\*\*) or 10% (\*\*\*) level, we performed statistical test as in Siegel and Castellan (1988) and Kvanli et al. (2000). The statistical tests allow us to verify the behaviour similarity (i.e. are there any differences). We have performed the *t* test for two independent samples, the Mann-Whitney test and the Kruskal-Wallis test, according to sample characteristics.

## 3. Data and Discussion of Results

### 3.1. The Sample

In tables 3.1 till 3.8 we present the main characteristics of our sample concerning the types of firms, projects, administration (CEO) and project managers.

#### *Characteristics of Firms*

Tables 3.1 and 3.2 give us information about the firms. From Table 3.1 we can see that 39,8% of firms are in the *manufacturing sector*, 25,8% in the *commercial sector* and 17,2% are in *transportation / energy sector*. We verify that 58,3% are *private national firms* and nearly a third are *foreign firms*. Almost half the firms pay dividends, 60% of these in year 2004. In 15,6% of the companies, *the debt has been rated* and only 8 are *listed* companies.

[TABLE 3.1 HERE]

Table 3.2 indicates a high variation in terms of the firms accounting information (sales, total assets, total net worth, total debt, cash flow, and *number* of employees). For instance, sales go from a minimum of €2.408.000 to a maximum of €4.716.926.854, and *number of employees* range from 9 till 38.281.

[TABLE 3.2 HERE]

### ***Characteristics of the Project***

Table 3.3 shows that nearly half the projects are *expansion investments*, 39,6% are *modernization investments* and 16,7% are *substitution investments*. On average, the *investment amount* is 70.525 thousand euros, the project is implemented during 20 months and there are 64 employees directly involved in executing the project. However, these sample values are highly variable (see table 3.4). Only six projects (6,2%) were not in the *same industry as the company's*.

[TABLE 3.3 HERE]

Table 3.4 shows that, on average, the *amount of the investment* is nine times greater than *sales* and represent 25,9% of *total asset* in the firm.

[TABLE 3.4 HERE]

### ***Characteristics of Firm's Administration***

Concerning the main characteristics of firms' CEO, we can see from table 3.5 that 46,7% of the CEO have a *university degree* and 27,2% a degree higher than that. On the other hand, nearly a quarter of the CEO have secondary *education* only.

[TABLE 3.5 HERE]

CEO, as we can see from table 3.6 below, are, on average, 52 *years old* and have a 10-year *tenure* as chairman of board. We can also see that in 45,1% of the companies more than 20% of the *firm is owned by Management*, and in nearly half of the sample no part of the firm is owned by Management (49,5%).

[TABLE 3.6 HERE]

### ***Project Manager Characterization***

Nearly two thirds of Project Managers have a *university degree*, are *44 years old* and 42,2% of them belong to the firm's administration, as we can see in panel A of table 3.7. On panel B of the same table, we observe that half of the project managers have large experience in project management and that more than half of them take fixed reward as *form of compensation* – this compensation consists in manager's normal wage and there is no further reward.

[TABLE 3.7 HERE]

### ***Variable Transformation***

In order to create homogeneous classes, so that we can analyse homogeneous behaviour inside each group of firms, we construct classes for each variable, as defined in table 3.8.

[TABLE 3.8 HERE]

When we refer to the different variables as “large”, “great”, “long” and similar, we are referring to the third class of that variable, and we use the opposite term to aggregate the other two classes.

## ***3.2. The Importance of Non-Financial Areas in Project Analysis***

We will now present and briefly discuss our main results concerning each area of analysis surveyed, starting with general aspects in section 3.2.1, and following (from section 3.2.2 to section 3.2.10) with each of the areas previously referred

(financial, strategic, technical, commercial, political, social, environmental, organizational, and human resources).

### 3.2.1. Overall Aspects in Project Implementation

#### *Importance of each area of analysis in project appraisal*

From [Annex 1](#) we observe that the most important areas in project appraisal are *strategic* (91,7%) and *technical analysis* (86,5%). *Financial analysis* (75%) only appears in third place, together with *commercial analysis* (75%). These results confirm the importance of analysing the factors that influence project appraisal, besides the financial ones. *Political* (20,8%) and *social analysis* (33,3%) are the least relevant areas in this context.

We must highlight the evidence in favour of the importance and contribution that non-financial areas, just as much as the financial area, can assume in project appraisal. This idea is also suggested by Meredith and Mantel (2000), Love et al. (2002), Datta and Mukherjee (2001) and Lopes and Flavell (1998).

From a thorough analysis of panel A of [Annex 1](#) we observe a significantly different importance between each of the non-financial analyses according to certain characteristics of the company, the project, the company's administration and the project manager. Companies from the commercial sector, relatively to other sectors, attribute more importance to commercial, organisational and human resources analyses. On the other hand, large companies attribute more importance to technical, political, financial, social and environmental analyses than small companies. Firms that have implemented expansion projects consider more important, *strategic analysis* and *commercial analysis* and less important the *technical analysis*. For firms with long-duration projects the *political*, *environmental*, *organizational* and *human resources* aspects are more important, while in large projects *technical*, *political*, *social* and *environmental analysis* are more important than in small ones.

In what concerns the company's administration and the project manager, we note that when CEO's education is lower, firms attribute more importance to *strategic, commercial* and *project manager analysis* and less importance to *environmental analysis*. The younger the CEO and project manager, the more importance is attributed to *human resources*. On the other hand, the greater the CEO tenure, the greater is the importance attributed to *commercial* aspects and less importance to *technical* aspects. When the project manager has a position in the administration, the most important analysis is the *political* one. On the other hand, when the person responsible for the decision to implement the project is in the administration, there is a tendency to consider the *commercial analysis* more important and *technical* aspects less important. We must point out that high successful projects consider technical, financial and project manager dimensions the more important ones.

### ***Project valuation***

Observing panel D of **Annex 1** we can detect that the issues most evaluated in project appraisal are *strategic analysis* (95,8%), followed by *financial, technical and commercial analysis*, for which we obtain 85,4%, 83,3% and 78,1% of responses, respectively. On the other hand, nearly 40,6% of firms consider *social aspects* and 43,8% *political aspects*, in project appraisal. Note that, from the firms in the sample, only 5 have projects implemented outside Portugal, so we could not obtain relevant conclusions concerning this issue, consequently we do not analyse this area.

### ***Decision-Making***

In relation to the importance of each of these areas (financial and non-financial) in decision-making, panel C of **Annex 1** shows us a high relevance of *strategic analysis* (97,8%). However, there are also other areas that are relevant, namely *technical analysis* (79,6%), *financial analysis* (76,3%) and *commercial analysis* (72%). The *social analysis* (15,1%) and the *political analysis* (16,1%) are the least considered by portuguese firms in project decision-making.

Also from panel C, we find that, firms from the commercial sector consider *technical analysis* to be less important in decision-making than firms from other sectors, and those firms from manufacturing and commercial sector attribute less importance to *strategic analysis* than firms from other sectors. On the other hand, large firms consider *strategic analysis*, *political analysis* and *environmental analysis* to be more important, relatively to small firms. When it comes to projects, firms with expansion projects attribute more importance to *commercial analysis* and less importance to *technical analysis*, relatively to firms with other types of projects. On the other hand, firms with long-term projects attribute more importance to *technical analysis*, *political analysis*, *social analysis*, *environmental analysis* and *organizational analysis* than firms with short term projects. In large projects *strategic*, *political* and *environmental analysis* assume greater importance than in small projects. As for CEO characteristics, we verify that the higher the CEO education, the more importance is attributed to *political* and *environmental* aspects. The younger the CEO the more important are *organizational aspects*, while older managers attribute more relevance to *political and social aspects*. When management does not own any percentage of the firm less importance is attributed to *organizational aspects* than when they own it. When the project manager does not have a position in the administration the *technical aspects* are more important. On the other hand, when the decision-maker has a position in the administration, there is a tendency to attribute more importance to *strategic aspects* and less importance to *political aspects*. Lastly, the most successful projects are associated to more importance being attributed to *financial analysis* and *project manager analysis*.

### ***Influence over the Economic Value of the Project***

In what concerns the factors that most influence the economic value of the project, from panel B of [Annex 1](#) we discover the importance of *strategic analysis* (94,8%), followed by *technical analysis* (78,1%). The *Financial analysis* (74%) is only the third most important area. The *Political* (19,8%) and *social analyses* (21,9%) are said to have little influence over the economic value of the project.

Panel B shows evidence that firms from the commercial sector consider the *technical analysis* less important than firms from other sectors, and that firms from the manufacturing and commercial sectors considers the *project manager analysis* less

important (relatively to other sectors). On the other hand, firms of big dimension consider the *political analysis* and *environmental analysis* more important than small firms. As for projects, in the expansion types the *commercial analysis* is more important and the *technical analysis* less important, relatively to others types of projects. On the other hand, firms with long project duration consider the *technical analysis*, *political analysis* and *environmental analysis* more important than firms with short duration projects. In large projects the *political analysis* and *environmental analysis* are more important, relatively to small ones. Lastly, when decision-making is performed by the administration of the firm the *strategic analysis* and *organizational analysis* are more important than when the investment decision is not taken by the administration.

### 3.2.2. Financial Analysis

Although the financial area was not a specific purpose of this survey we took the opportunity to contribute to an update of the financial techniques used by Portuguese firms [Annex 2](#). Panel A shows evidence of the importance of many financial techniques in project appraisal. We verify that the *internal rate of return* (IRR) is considered the most relevant decision criteria, with 74,4% of the sample firm considering this technique at least *important* in the questionnaire scale. Portuguese firms have also considered important the *net present value* (NPV) (68,3%), *scenario analysis* (65,9%), *payback period* (65,9%) and *reward/cost ratio* (61%), results similar to the Graham and Harvey (2001) study. The least relevant financial techniques are *real options* (14,6%), *accounting rate of return* (31,7%), *break-even point* and *simulation risk analysis* (both with 37,8%).

From Panel A we can also verify some differentiation as to the importance of the different techniques according to firm sector and size, project type and duration, and characteristics of the CEO.

Regarding financial risk factors, panel B of [Annex 2](#) presents the most relevant factors: *project's size* (48,8%) and *business cycle risk* (43,9%).

Panel C shows that larger firms attribute more importance to *interest rate risk*, *risk of alterations in the gap of interest rates*, *business cycle risk* and *exchange rate risk* than small firms. Firms that implement expansion projects consider more important *unexpected inflation risk* and *interest rate risk* than firms with other types of projects. In firms with large projects *exchange rate risk* is more important than in firms with smaller projects.

Concerning the discount rate used for the project, we find, from table 3.9, that nearly half the companies in the sample use the *Company's cost of capital* and about 30% use the Project's cost of capital. These figures are in the same order as in the studies of Graham and Harvey (2001) and Brounen et al. (2004).

[TABLE 3.9 HERE]

In what concerns real options analysis, during the implementation of the project 47,6% of firms considered the *Implications in future projects*, 35,4% consider the possibility of *Changing inputs* and 32,9% consider *Changing outputs* (table 3.10). Although we verify, from [Annex 2](#), that little importance is attributed to real options in project appraisal, we also confirm that these options are considered in the process of analysis. This might mean that firms do not consider the real option methodology in a conscious way.

[TABLE 3.10 HERE]

### 3.2.3. Strategic Analysis

The way Portuguese firms deal with strategic aspects is reported in [Annex 3](#). We verify from panel A, that *contribution of the project to the company's strategic goals* is mentioned by almost all firms as the most relevant characteristic in project valuation, as we find in Kenny (2003), Cooke-Davies (2002) and Lopes and Flavell (1998). Also, the relevance attributed to the *impact on the company's global risk* (56,5%) and the *impact*

*on future projects* (53,3%) confirm the importance attributed to these factors by Lopes and Flavell (1998).

Based on panel A of [Annex 3](#) we show that in long-term projects the *Impact on the company's global risk* has a greater importance than in shorter-term projects, as well as in larger projects the *Impact on the company's global risk* and the *Impact on future projects* has more importance, relatively to small projects. Note that the success of a project tends to be greater when firms attribute more importance to any of the strategic aspects analysed.

Analysing panel B of [Annex 3](#), we see that the most important goals for investment decision are the *development of company's current business* (91,3%), *exploring opportunities/strengths* (85,9%), *meeting the market's needs* (83,7%) and, in a lesser degree, *profit maximization* (71,7%).

Panel B shows us that in the commercial sector the *development of company's current business* is more important than in other sectors. As for project characteristics, in expansion projects *profit maximization* and the *development of company's current business* are more important, and *minimizing threats/weaknesses* less important, relatively to other types of projects. On the other hand, in long-term projects *minimizing threats/weaknesses* of the firm is more important and *profit maximization* is less important than in short-term projects. In larger projects the *entry into new markets* is more important than in smaller projects. On the other hand, firms where the CEO has, at least, a college graduation, attribute less importance to the *development of the company's current business* than when the CEO has other/lower degrees of education. In projects where the administration is also the firms' owner, more relevance tends to be attributed to exploring opportunities/strengths than when management does not own any part of the firm. In case of less experienced project managers and when the administration is in charge of the project's decision-making, more importance is attributed to *meeting the market's needs*. We must point out the greater importance of *profit maximization* when there is a greater perception of success.

Panel C of [Annex 3](#) illustrates the importance attributed to various strategic risk factors. Here we find that the most important factor is the *use of new resources* (52.2%), seconded by the *strategic complexity of the project* (43,5%).

Analysing panel C we conclude that the *strategic complexity of the project* has a greater importance in the manufacturing sector and in long-term projects, and less importance in expansion projects. *Abrupt rupture with the past* assumes a greater relevance in sectors other than commerce and manufacturing, in large firms, and in long-term projects, and less importance in expansion projects. *Risk concentration* is the most important factor in larger firms, in long-term projects, and in large projects, and the *incompatibilities between business units* is more important in larger firms.

The main procedures used to minimize the project's strategic risk, panel D of [Annex 3](#), are, as in Lopes and Flavell (1998), the need to have a *clear a priori definition of goals* (84,4%), *analysing the capability to implement the project* (53,3%) and the *definition of priorities* (56,3%).

#### **3.2.4. Technical Analysis**

The Technical Analysis is reported in [Annex 4](#). Analysing panel A of this Annex we find that the most relevant technical characteristic is the *level of technology incorporated in the project* (81,3%), as found in Kantel (2002) and Kenny (2003), followed by *personnel's level of technological know-how* (67,5%) and *innovation* (63,8%). On the contrary, the *execution of the Research and Development strategy* and *implementing routine techniques* assume little importance.

Also from panel A we observe that manufacturing sectors firms attribute more importance to the *level of technology incorporated in the project* than firms from other sectors; firms from manufacturing and commercial industry attribute less importance to *execution of the Research and Development strategy* than firms from other sectors. Note that when the project manager does not have a college graduation, is inexperienced in

project management, and when the administration is in charge of the investment decision-making, *innovation* is the most relevant technical aspect to deal with.

With respect to technical risk factors, presented in panel B of [Annex 4](#), we find that the most important are, *specialized personnel's qualification and capability* (75%), *delays in execution* (67,5%), *incorrect use of technology* (63,8%) and *technical complexity of the project* (62,5%), as in Lopes and Flavell (1998).

Firms from manufacturing and commercial sectors consider less important the *specialized personnel's qualification and capability* than firms from other sectors. Firms that implement expansion projects attribute less importance to *specialized personnel's qualification and capability* and *implementing new production techniques* than firms with other types of projects. On the other hand, the data allows us to conclude that firms with long-term projects consider *implementing new production techniques* and the *technical complexity of the project* more important than firms with short-term projects. Firms with larger projects attribute more importance to *changes in the project's specifications* and *technical complexity of the project* than firms with shorter-term projects.

Note also that firms where there are younger CEO, attribute more importance to *implementing new production techniques*, relatively to firms with older CEO. We also verify that, when the reward of the project manager is not fixed Portuguese firms consider *specialized personnel's qualification and capability* more important than in other situations. In firms where project success is greater, *inadequate choice of technology*, *incorrect use of technology* and *technical complexity of the project* is considered more important than in firms that report the project as less successful.

As a way of minimizing technical risk factors, confirming the conclusions of Lopes and Flavell (1998), various procedures were pointed (panel C of [Annex 4](#)) with emphasis to *using experienced and trained personnel* (77,5%) and *using tested technology instead of cheap technology* (62,5%).

### 3.2.5. Commercial Analysis

On panel A of **Annex 5** we can observe the factors that carry more weight in a project's commercial evaluation: *studying market needs* (81,3%), *ability to seize opportunities* (76%) and *analysing the company's capacity* (72%). Of all factors, *promotion policy* is the least relevant. Almost all factors are considered important or very important for, at least, 50% of the companies in the sample. These results confirm the studies of Savvides (1990; 2000).

Panel A of **Annex 5** shows us that firms from manufacturing and commercial sector consider *identifying and analysing competitors* more important than firms from other sectors, and in large firms the *promotion policy* is more important than in small firms. Concerning the type of project, in the expansion ones *studying market needs*, *defining the relevant market* and *identifying and analysing competitors* are more important than in other types of projects. In large projects, *studying market needs*, *placement policy* and *promotion policy* have more importance than in small projects.

We find that when administration owns a participation in the firm, the project manager is young, has little experience and has a *fixed reward*, *identifying and analysing competitors* is considered more important. We can also verify that in more successful projects *analysing the company's capacity* is more important than in less successful projects.

While *inadequate commercial capabilities* (36%) has little relevance in commercial risk valuation, all other commercial risk factors assume a high importance (superior to 70%), as we can perceive from panel B.

Still from panel B of **Annex 5** we observe that commercial sector firms attribute more importance to *commercial return* than firms from other sectors. It is also noticeable the greater importance of *market's size* for long-term projects, relatively to short-term projects. We also verify that when managers are owners of the firm, the project manager is inexperienced and has a fixed reward, and when the CEO does not have a college graduation, a higher importance is attributed to *inadequate commercial capabilities*.

When the decision-maker belongs to the firm's administration, there is a greater worry about *competition*, and the project's success tends to be greater when *business volume* and *commercial return* have more importance.

The procedures pointed out to minimize the project's commercial risk are more homogeneous than in the previous areas of analyses. However, *understanding the client's needs* (56%) stands out as the most important factor (panel C of [Annex 5](#)).

### 3.2.6. Political Analysis

The findings related to this area can be checked in [Annex 6](#). From panel A we see that two political aspects stand out as particularly important: the *investment subsidies* (73,8%) and the government's *environmental policy* (71,4%). These aspects have been previously referred by Lopes and Flavell (1998) and by OECD (1997), respectively.

Also from panel A, we conclude that companies belonging to the manufacturing sector consider government's *environmental policy* more important than companies in other sectors, and that large companies attribute a greater importance to the government's *fiscal policy* than small ones. As for type of project, in expansion ones, *budgetary* and *fiscal policies* are less important than in other types. While for large projects the *political support for the project* and *exclusive concession/exploration agreements* are more important than for small projects, for these small projects *investment subsidies* are more important than for large projects. Note also that a younger CEO, project managers that also have a place in the company's administration, and those with less experience attribute a greater importance to national *legislation*, *market regulation* and *regulation on patents/intellectual property*, among others. On the other hand, *regulation of product and factors markets* and *the micro and macroeconomic policies* are more important when the project is perceived as being successful.

In panel B we can see that the most important perceived risk factors are *bureaucracy*, (64,3%) and *financing possibilities* (66,7%). By contrast, *expropriation* (19%), *fiscal changes* (19%) and the existence of *different expectations from the government's*

(23,8%) are found to be less important factors (note that these aspects have importance in the context of international projects, as reported by Lopes and Flavell (1998), which was not the case in our sample).

As for type of projects, for expansion ones, the *possibility of financing* and the *changes in PIDDAC* are considered less important than for other types. On the other hand, in long lasting projects more importance is attributed to *bureaucracy* as a risk factor than in short lived projects, whereas in large projects the *lack of definition of rules* and the *need for permission or authorization* assume higher importance than in small projects. Lastly, in projects with the least success, more importance is attributed to *bureaucracy* and the *need for permission or authorization* than in more successful projects.

As a way to minimize political risks, panel C of [Annex 6](#), confirms some of the ways pointed out in Lopes and Flavell (1998): the *development of relationships of trust with local decision-makers* (57,1%), the *acknowledgement of political implications of decisions* (50%) and, fundamentally, *obtaining investment subsidies* (73,8%).

### 3.2.7. Social Analysis

The data referring to the relevance of social factors in the project's evaluation is shown in [Annex 7](#). The most relevant aspects (panel A) are: the *adoption of an environmental policy* (92,3%) and the study of the *effects of the project on quality of life* (71,8%), as referred in McPhail and Davy (1998) and US Department of Commerce (1994), respectively. By contrast, we observe that the concern with *ethnic and racial issues* (15,4%) and the *analysis of social consequences for similar communities* (20,5%) are considered as the least important by those answering the questionnaire (again we have to remember that in our sample the majority are national projects that do not face at all this type of problems).

From panel A of [Annex 7](#) we perceive that manufacturing industries consider the *adoption of an environmental policy* more important than companies in other industries. On the other hand, large companies tend to consider the *availability of social*

*infrastructures, the need for job and/or housing creation and the effects on the wealth of the population* more important than small companies. In expansion projects, the *understanding of standards, values, beliefs and traditions of the population* is more important than in other types of projects. In long term projects a greater importance is attributed to the *adoption of an environmental policy* and to the *effects on quality of life* and, on the other hand, less importance is attributed to the *adoption of a social policy* and *ethnic and racial diversity* than in short term projects. In large projects, the *community's opinion, the understanding of standards, values, beliefs and traditions of the population, the analysis of social consequences in similar projects, the analysis of social consequences for similar communities* and the *analysis of local sociological reality* have a greater importance. Also note the added importance of the availability of social infrastructures when the CEO's tenure is short, when the administrator is not also one of the company's owners, when the project's manager has higher qualifications and when the manager is young. As for project's success, it is greater when greater importance is attributed to *understanding standards, values, beliefs and traditions of the population, and the analysis of social consequences for similar communities.*

From panel B of [Annex 7](#) we observe that firms place the existence of *environmental damage* (66,7%) at the top of the social risk factors, followed by *concerns with litigation, opposition or public discontent* (53,8%) and *the authorities' social demands* (48,7%), as found in Juslén (1995) and Lopes and Flavell (1998).

Based on panel B we observe that manufacturing and commercial companies find the *negative economic impact on those affected* as less important than companies in other industries. In large companies, the *availability/offer of work* is more important than in small companies. On the other hand, in large projects, *litigation/public opposition* and the *social demands of the authorities* are more important than in small projects. Lastly, the companies that perceive their projects as more successful consider the *social demands of the authorities, the cohesion of the affected community, impact on public health, impact on social infrastructure or cultural values* and *changes in local quality of life* as more important than companies whose projects are less successful.

To minimize these risk factors (panel C of [Annex 7](#)), companies adopted as their main procedures, in accordance with Lopes and Flavell (1998), McPhail and Davy (1998) and US Department of Commerce (1994): the *creation of well-being (employment, housing, water/sewage, health)* – 56,4% ; the *involvement of qualified personnel* (53,8%); the *technical teams not underestimating these aspects* (51,3%); the *early knowledge of social consequences* (48,7%); and the *compatibility of the project with local values* (46,2%). Note also the fact that none of those who answered the questionnaire have mentioned the *attribution of financial benefits to the population* as a way of minimizing risks and only three refer the *request of external mediation in the relationship with the population*.

### 3.2.8. Environmental Analysis

[Annex 8](#) reports on the main findings related to the environmental area. We should also bear in mind, as we saw in the previous analysis that many environmental aspects are behind social risks. The most relevant aspects ([Annex 8](#), panel A) considered in environmental analysis are: first of all the *environmental legislation* (96,7%), as in Tribe (1996), and to a second degree (about two thirds of the sample) *licenses depending on environmental compliance*, and the *impact on air quality* (like in Thérivel, 1997).

Also from panel A we can see that manufacturing and commercial companies consider *environmental legislation* less important than companies in other industries. As for project type, the *penalties for environmental damage*, the *licenses depending on environmental compliance*, *State's environmental control* and the *identification of natural resources with potential impact*, have a greater importance in expansion projects than in other types of projects. On the other hand, in long term projects *environmental legislation* is more important than in short term projects. Note also that in large projects more importance is attributed to *environmental legislation*, *penalties for environmental damages*, *licenses depending on environmental compliance*, *State's environmental control*, *analysis of local environmental situation*, *impact on soil*, *impact on water*, *sound impact* and *impact on landscape* than in small projects. On the other

hand, *sound impact (noise)* tends to be more important, among other factors, when the CEO has higher qualifications and short tenure, when the administrator is not also an owner and when the Project manager is inexperienced. As for success, it tends to be greater when the *penalties for environmental damages* have greater importance in the analysis and the *impact on landscape* has less importance.

As for the environmental risk factors, presented in panel B, we observe, as would be expected in view of the characteristics of the companies analysed, that the importance of the *influence on stock price* is almost non-existent (6,8%). The most relevant risk factors are *environmental changes in the project's location* (42,4%) and *loss of image and reputation* (40,7%).

In panel B we can also observe that the commercial companies consider the *influence in stock price* more important than companies in other industries, whereas manufacturing and commercial companies attribute less importance to *environmental changes in the project's location* than companies in other industries. On the other hand, companies with large projects consider *environmental changes in the project's location*, the *inefficient use of resources* and *social opposition to the project* more important than companies with small projects.

In order to minimize the environmental risk factors (panel C) Portuguese companies mainly adopt – as referred in Buysse and Verbeke (2003), Lopes and Flavell (1998) and Gray and Shadbegian (1997) – the following measures: *meeting environmental legislation standards* (76,7%), *using technology that is compatible with environmental care* (63,3%), *continual analysis of environmental effects* (53,3%) and *internally setting standards for critical environmental issues* (53,3%).

### **3.2.9. Organisational Analysis**

Panels A to D, in [Annex 9](#), show the critical organisational aspects considered by Portuguese companies in project appraisal. As for the relevance attributed to the different forms of organizing the project (panel A), we observe a high concern for the

*cooperation between functional areas* (87,9%), the *definition of personnel's abilities* (82,8%), the *definition of responsibilities and levels of authority* (75,9%) and the *existence of a horizontal organisational structure* (72,4%), in accordance with Lopes and Flavell (1998), Keegan and Turner (2000) and Lee-Kelley et al. (2003). By contrast, little importance is attributed to the existence of a *permanently changing organisational structure* (12,1%) and the *vertical organisational structure* (15,5%).

Still from panel A we observe that companies that are not in the manufacturing and commercial industries consider *activities coordinated formally* more important and the existence of *few hierarchic levels* less important than others. According to type of project, in expansion ones, the *activities coordinated formally* is considered more important than for other projects, and the *cooperation between functional areas* is considered the less important. In short term projects, the *activities coordinated formally*, the *definition of staff's competencies* and the *permanently changing organisational structure* are considered more important than in long term projects. On the other hand, in large projects the existence of *many hierarchic levels* is more important and the *few hierarchic levels* is less important than in small projects. It is also noteworthy that the *activities coordinated informally* and the *definition of staff's competencies* is more important in the more successful projects.

Panel B deals with different types of communication. It is noticeable, as in Love et al. (2002), Muller (2003) and PMI (2000), the importance attributed to *sharing of information between members* (89,7%) and to the *flexibility in the information system* (74,1%). Note also the relevance attributed to factors such as *present (informal) communication* and *written/documentated (formal) communication* – 60,3% on both.

It is also evident from panel B that in large projects the *sharing of information between members*, the *informal communication* and *abundant channels of communication* are more important and *rare channels of communication* are less important than in small projects. Note also that in the more successful projects the *flexibility of the information system* and *abundant channels of communication* are more important than in the less successful projects.

**Annex 10** shows that one of the most relevant aspects in the organization of an investment project has to do with the need to create a partnership towards its implementation. Around 25% of the companies inquired felt this need, and this number grows to 40% when only the companies that include organisational issues in their project appraisal are considered.

From the aspects mentioned in this area, two stand out: the importance of the *initial definition of a project leader* (100%) and *initial definition of the responsibilities of each partner* (95,8%). The *initial definition of exit terms*, was the factor to which less importance was attributed (41,7%).

As for risk factors, panel C of **Annex 9** shows as more important: *slow decision-making* (64,2%), *inexistence of multidisciplinary concerns* (54,7%) and *lack of knowledge of what other teams are doing* (52,8%). To a smaller degree, and related to the communications system, another factor is also mentioned – *inefficient communication system* (50,9%).

According to type of companies, we identify a smaller importance of *constant changes in the information system* for manufacturing and commercial companies than for others. In large companies, the *sudden changes in the environment*, the *slowness in decision-making* and *constant changes in the information system* are more important than in small companies. On the other hand, when expansion projects are implemented, the *inefficiency of the information system* is more important than in other types of projects.

As for the measures to minimize organizational risks, from panel D of **Annex 9** we see that portuguese companies, in line with Badir et al. (2003), PMI (2000) Meredith and Mantel (2000), Lopes and Flavell (1998) and Kuprenas (2003) adopted: *sharing information between members* (75,5%), the *use of electronic communication channels* (60,4%) and the *constitution of teams from various functional areas* (58,5%). As a way to reduce risk between partners, the main aspects referred are the *analysis of operational capability of the partners* (30,2%) and the *analysis of contacts/relationships between partners* (28,3%).

### 3.2.10. Human Resources and Project Manager Analysis

#### Human Resources Analysis

The aspects related to human resources are detailed in [Annex 11](#). In panel A we verify the attribution of greater importance to human resources requisites such as *technical knowledge* (83,3%), *problem-solving ability* (81,8%) and *ability to work as a team* (80,3%). The *ability to work for common goals* (75,8%), the *trust between team members* (75,8%) and the *incentives to team spirit* (72,7%) are also factors that deserve some emphasis, as in Zita-Viktorsson et al. (2003), Johns (1995), Belout (1998) and Lopes and Flavell (1998). Note also the insignificant relevance attributed by portuguese companies to *unionized workers* (4,5%).

Large companies place more importance, relatively to small companies, on *interpersonal relationships*, the *ability to work as a team*, *joining people with complementary skills*, *problem-solving ability*, the level of *unionized workers*, *attribution of autonomy*, *authority and responsibility*, *incentives to team spirit* and *collective decision-making*. In expansion projects, compared to other types, less importance is attributed to the *ability to evaluate risks*, *joining people with complementary skills*, *trust between team members*, *incentives to team spirit* and *collective decision-making*. In long term projects greater importance is attributed to the *ability to evaluate risks*, the *ability to work for common goals* and *trust between team members*, and less importance is attributed to *external recruiting*. Note also that *internal recruiting* tends to be more important in companies where the CEO's tenure is short, and when the project manager is also on the board/administration. We also see that when CEO's tenure is short, when the project manager is young, and when the decision is made by someone who is not on the administration, the *perspectives of future employment in the company* takes on added importance. On the other hand, success is greater when *joining people with complementary skills* is more important.

Among the most relevant human risk factors we find, from panel B of [Annex 11](#), the *lack of coordination between team members* (73,1%) and the *absence of motivation* (70,1%) – as in Belout (1998) and Johns (1995).

In panel B we observe that commercial companies consider the risk of *conflicts between team members* to be more important than those in other industries. In large companies, the risks of *lack of coordination between team members* and *absence of motivation* are more important than in small companies. In expansion projects we find *conflicts between team members* to be more important than in other types of projects. On the other hand, in large projects the *lack of coordination between team members*, *conflicts between team members*, and the *absence of motivation* are more important, whereas the *implementation of inadequate tasks* is less important than in small projects. Note also that in projects perceived as successful, the *conflicts between team members* are more important, and the *implementation of inadequate tasks* is less important, than in less successful projects.

Of the wide array of procedures adopted to minimize risks (panel C) stands out: the need to *formulate clear objectives for the project* (70,1%), the *correct identification of the type, methods and conditions of the work to be performed* (61,2%), the *capacity of workers to develop technical skills* (59,7%), the *analysis of the employee's education/qualification* (56,7%) and the *analysis of the employee's experience* (50,7%), as mentioned in Fabi and Pettersen (1992).

### **Project Manager Analysis**

The choice of a Project Manager (PM) being the leader of the project needs special attention. **Annex 12** concerns the attributes to look for in a PM (panel A) and the role of a PM (panel B).

For those who answered our questionnaire, the role of the project manager is mainly related with *understanding the business's environment* (83%) and *delegating and attributing responsibilities* (81,1%). As for the attributes identified as needed, as we can see in panel A, *management skill* (92,5%), *decision-making skill* (90,6%) and *leadership skill* (90,6%) stand out as the most important – as in Shenhar et al. (1997), Turner and Muller (2003, 2005), Pozner (1987), Pettersen (1991) and Thoms and Pinto (1999).

Also in panel A, in large companies, *management and leadership skills* are more important and the *project manager's success within the organisation* is less important than in small companies. In expansion projects, the *project manager's management skills* and *multidisciplinary knowledge* are more important than in other types of projects. On the other hand, in short term projects, the *appropriate exercise of authority* and the *manager's creativity* are more important than in longer term projects. In small projects the *project manager's success within the organisation, ambition and energy* are more important and the *management skill* is less important than in larger projects. Lastly, in those projects viewed as least successful *manager's technical and motivational skills* are more important than in more successful projects.

### 3.3. Responsibility for Decision and Evaluation

In our survey we also look into the responsibility for the investment decision and the evaluation process: who decides to implement the project, and who evaluates the different areas of analysis. We find (see table 3.11 below), that in portuguese companies 75,8% of investment decisions are taken by the *administration*.

[TABLE 3.11 HERE]

As for the people who are in charge of the different areas of analysis (table 3.12 below) we verify that the strategic issues are, fundamentally, evaluated by the *company's administration* (84,9%); the technical aspects are evaluated by *technical personnel* (in 55% of the companies that analyse this area), by the *project manager* (47,5%) and by the *administration* (36,3%); the commercial issues are mainly evaluated by the *company's administration* (58,3%) and by the *commercial director* (48,6%); the political aspects are evaluated by the *administration* (83,3%); the financial analysis is performed by the *CFO* (67,5%) and by the *administration* (55%); the social analysis is made by the *administration* (52,6%) and by the *project manager* (34,2%); the environmental issues are evaluated by the *administration* (42,9%), by the *project manager* (33,9%) and by *technical personnel* (32,1%); the organisational issues are

evaluated by the *administration* (50%) and by the *project manager* (43,1%); the human resources are analysed mainly by the *administration* (50,8%) and by the *project manager* (40,7%); and the aspects related to the project manager are examined by the *administration* (86,8%).

[TABLE 3.12 HERE]

### 3.4. Project's Success Factors

Finally we wanted to know the factors behind project success and see whether the level of perceived success can be associated with the way companies perform the evaluation (mainly with the areas analysed).

The project's success, whose definition remains ambiguous because it may carry different meanings for different people due to the various perceptions of success they may have (Lie e Walker, 1998), is the result of a previous analysis of financial and non-financial issues, that may lead companies to a decision towards investment.

The existing literature, points to a set of factors of a varied nature that lead to a project's viability and success (Ashley *et al.*, 1987; Belassi and Tukel, 1996; Lopes and Flavell, 1998; among others). These factors fall mainly within the scope of strategic, technical, commercial, political, social, environmental, organisational, human resources and project manager analysis.

#### *Level of Success*

When questioned about the project's level of success, the respondents attributed, on average, a level of success to their projects of 5,89 (the projects were classed as 0 – "Abandonment" to 7 – "Total Success"), a value that indicates that the projects developed had relative success. We note that 36,5% consider success with a grade six, 32,3% with grade seven (total success), 21,9% with grade five, 4,2% with grade three and 5,2% with the remaining grades (see table 3.13).

[TABLE 3.13 HERE]

### ***Critical Success Factors***

As a way to identify the main critical success factors, the companies were questioned about the “most relevant critical success factors for the Project”. A careful analysis of these factors has allowed us to verify the dispersion and diversity of the relevant critical factors, and also to identify factors originating from the various analyses considered in this work. The table below presents a summary of these success factors, by area of analysis.

[TABLE 3.14 HERE]

From the above table, we see that a wide array of non financial aspects was considered as critical in project evaluation. The factors most often mentioned are related with commercial issues, followed by technical, strategic and financial aspects. Beyond the aspects related to the various areas of analysis, we also find “deadline”, “quality”, “customer’s satisfaction”, “rapidity in implementation” and “partnership with clients” among the mentioned ones.

### ***Is the success of the project associated with the analysis of each of the areas considered?***

One of the advantages in grouping factors of various homogenous dimensions is that although it is often difficult to identify the specific success factors, it is much easier to identify whether success or failure is related to each of the dimensions analysed. In this way, we try to discover whether the project’s success is associated with the analysis of each of the areas considered.

Although many authors have appointed several criteria and measures of success, de Wit (1988) concludes that “to think one can objectively measure a project’s success is an

illusion”. Therefore, Baker *et al.* (1998) suggest the use of the term “a project’s perceived success”.

To estimate the impact of the determinants of a project’s success, we estimated the following equation:

$$SUC_i = \beta_0 + \beta_1 FIN_i + \beta_2 STR_i + \beta_3 TEC_i + \beta_4 COM_i + \beta_5 POL_i + \beta_6 SOC_i + \beta_7 ENV_i + \beta_8 ORG_i + \beta_9 HUM_i + \beta_{10} PRM_i + \varepsilon$$

Where:

$SUC_i$  is the level of success perceived by company i;

$FIN_i$  is a dummy variable that equals 1 if the company performs financial analysis in project evaluation and 0 otherwise;

$STR_i$  is a dummy variable that equals 1 if the company performs strategic analysis in project evaluation and 0 otherwise;

$TEC_i$  is a dummy variable that equals 1 if the company performs technical analysis in project evaluation and 0 otherwise;

$COM_i$  is a dummy variable that equals 1 if the company performs commercial analysis in project evaluation and 0 otherwise;

$POL_i$  is a dummy variable that equals 1 if the company performs political analysis in project evaluation and 0 otherwise;

$SOC_i$  is a dummy variable that equals 1 if the company performs social analysis in project evaluation and 0 otherwise;

$ENV_i$  is a dummy variable that equals 1 if the company performs environmental analysis in project evaluation and 0 otherwise;

$ORG_i$  is a dummy variable that equals 1 if the company performs organisational analysis in project evaluation and 0 otherwise;

$HUM_i$  is a dummy variable that equals 1 if the company performs human resources analysis in project evaluation and 0 otherwise;

$PRM_i$  is a dummy variable that equals 1 if the company performs project manager analysis in project evaluation and 0 otherwise;

Table 3.15 shows the correlation coefficients among the variables. As we can observe, some of those correlations are statistically significant. However, the correlations are not sufficiently strong to question the regression illustrated above.

[TABLE 3.15 HERE]

Table 3.16 gives us the coefficients of the analyses performed in the appraisal of projects perceived as successful. It stands out that when a project is successful, strategic, political, and human resources aspects are analysed. This analysis also allows us to conclude that, for the companies in our sample, social and organisational issues are not directly related with project's success.

[TABLE 3.16 HERE]

## 4. Conclusion

This work aimed to identify the practices of Portuguese companies in relation to the evaluation and decision-making processes of investment projects, in particular concerning the relevance of non financial factors in those processes.

The information gathered allows us to verify the importance of the financial analysis in relation to the non-financial one. The results showed that the most important areas considered by Portuguese firms in their project appraisal and decision making processes, are strategic and technical. The financial aspects come only in third place, together with commercial factors, both in project appraisal, and at the decision making process. With less relevance in Portuguese companies' project appraisal we found social

and political analyses. Note that less than half of the companies inquired consider political and social issues in their project appraisal.

The detailed study of each area of analysis allowed us to identify the most relevant aspects checked during the appraisal, the risk factors and procedures used to minimize them, as well as the main perceived success factors.

With the data we collected we also aimed to identify the characteristics of the company, the project, the administration and the project manager, that influence the importance attributed to each of the financial and non-financial aspects considered. According to our findings, there seems to be evidence that industry, size of the company, type, duration, size and risk of the project, education of the CEO and of the project manager, and CEO's tenure, are among the characteristics that most influence the degree of importance attributed to the different areas of analyses in project appraisal, and to the various aspects inside each area. The results of the questionnaire showed also that in Portuguese companies, the decision to invest is taken by the administration, which also have the role of main analyst for the non-financial aspects evaluation.

Our study indicates an overall relevance of non-financial aspects in the project appraisal and decision making processes of Portuguese companies. Yet, in some areas (mainly social, political and environmental) it was surprisingly low the “numbers” obtained across nearly every aspect inquired (relevance of the area, contribution to the success of the project, etc). We think this study has now to be **deepened** and complemented by interviews through which we can find the reasons behind some of the answers we got. **In a manner to verify our study results, it is important to apply this questionnaire in another country and to choose some specific industries.**

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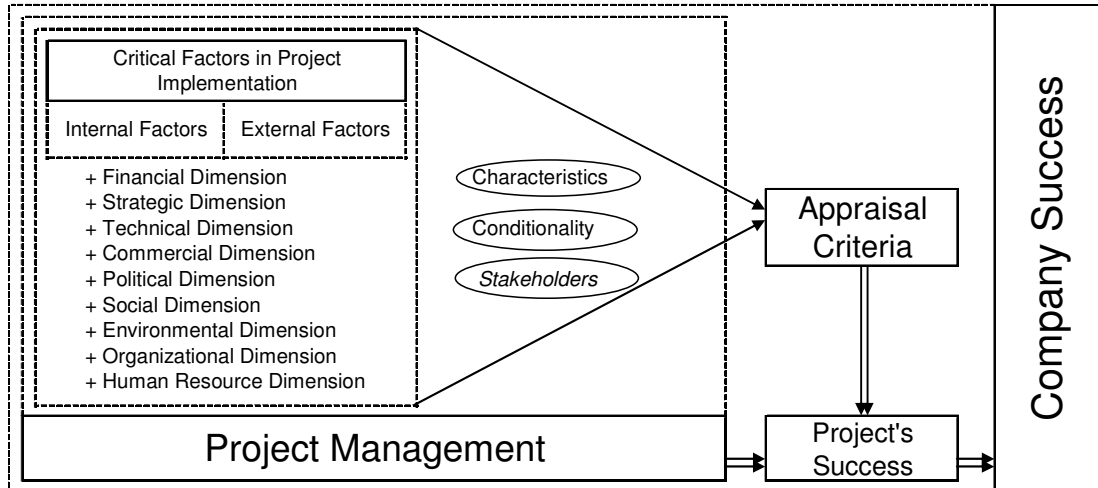
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**FIGURE 1: PROCESS THAT CREATE COMPANY SUCCESS THROUGH PROJECTS**



**Source:** Adaptation from Belout (1998), Cooke-Davies (2002), Datta and Mukherjee (2001), Lee-Kelley et al. (2003), Lim and Mohamed (1999), Love et al. (2002) and Westerveld (2003).

**TABLE 3.1: DESCRIPTIVE CHARACTERISTICS OF FIRMS**

		<b>N</b>	<b>Freq.</b>	<b>%</b>
Industry	Commercial	93	24	25,8%
	Mining and Construction	93	8	8,6%
	Manufacturing	93	37	39,8%
	Transportation / Energy	93	16	17,2%
	Communication / Media	93	2	2,2%
	Banking / Finance / Insurance	93	0	0,0%
	Technology (software, biotechnologies,...)	93	3	3,2%
	Agriculture / Fishing	93	4	4,3%
Listed Company		96	8	8,3%
Pay Dividends		96	48	50,5%
in 2004		48	29	60,4%
before 2004		48	19	39,6%
ownership	Private	96	56	58,3%
	Public	96	9	9,4%
	Foreign	96	33	34,4%

**TABLE 3.2: FIRMS' ACCOUNTING INFORMATION**

	<b>N</b>	<b>Average</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>Median</b>	<b>Maximum</b>
Sales	89	243.897.476	768.624.028	2.408.000	41.705.990	4.716.926.854
Total Asset	93	231.116.815	509.114.986	2.459.102	44.631.675	2.564.156.702
Total Equity	93	65.477.691	144.145.193	-10.574.898	17.815.594	1.047.058.000
Total Debt	93	165.639.124	415.706.811	442.791	25.147.150	2.380.259.193
Cash Flow	82	22.028.184	58.782.787	-16.568.621	3.145.017	390.100.000
Employees (n.º)	91	807	3.999	9	225	38.281

**TABELA 3.3: TYPE OF PROJECT**

		N=96	Freq.	%
Type of Project	Substitution	96	16	16,7%
	Modernization	96	38	39,6%
	Expansion	96	47	49,0%
	Innovation	96	8	8,3%
	Diversification	96	3	3,1%
	Other	96	4	4,2%
In Same Industry of Company		96	90	93,8%

**TABLE 3.4: PROJECT CHARACTERISTICS**

	<b>N</b>	<b>Average</b>	<b>Standard Deviation</b>	<b>Moda</b>	<b>Minimum</b>	<b>Median</b>	<b>Maximum</b>
Duration (months)	88	20	18	24	2	14	80
Employees (n.º)	86	64	412	5	1	6	3.828
Cost of Project	84	70.524.937	323.324.305	1.000.000	50.000	3.000.000	2.402.435.399
Dimension relative to Sales	79	9,065	56,039	0,032	0,00056	0,043	425,638
Dimension relative to Total Asset	82	0,259	0,569	0,486	0,00064	0,059	3,593

**TABLE 3.5: CEO EDUCATION AND PROJECT MANAGER EDUCATION**

	N	Primary	Secondary	Baccealorate	University Course	MBA	Post- Graduation	Master	Doctorate
CEO	92	2 2,2%	22 23,9%	0 0,0%	43 46,7%	12 13,0%	8 8,7%	2 2,2%	3 3,3%
Project Manager	93	1 1,1%	10 10,8%	4 4,3%	62 66,7%	3 3,2%	7 7,5%	4 4,3%	2 2,2%

**TABLE 3.6: CEO AND PROJECT MANAGER CHARACTERIZATION**

<b>Panel A - CEO and Project Manager Age</b>								
		<b>N</b>	<b>Average</b>	<b>Standard Deviation</b>	<b>Moda</b>	<b>Minimum</b>	<b>Median</b>	<b>Maximum</b>
CEO	Age	89	52	9	48	32	51	84
	Tenure	88	10	8	10	1	9	40
Project Manager	Age	89	44	9	40	28	43	71

<b>Panel B - Percentage of Firm Owned by Management</b>					
	<b>0%</b>	<b>0-5%</b>	<b>5-10%</b>	<b>10-20%</b>	<b>&gt;20%</b>
N=91	45	1	2	2	41
	49,5%	1,1%	2,2%	2,2%	45,1%

**TABLE 3.7: OTHER PROJECT MANAGER INFORMATION****Panel A - Position of Project Manager in the Company**

<b>N</b>	<b>Administration</b>	<b>Financial Administration</b>	<b>Project Director</b>	<b>Production Manager</b>	<b>Technical Director</b>	<b>Management Control</b>	<b>Others</b>
90	38 42,2%	8 8,9%	9 10,0%	10 11,1%	7 7,8%	5 5,6%	13 14,4%

**Panel B - Experience in Managing Investment Projects**

<b>N</b>	<b>Zero</b>	<b>One</b>	<b>Two</b>	<b>Three</b>	<b>Four</b>	<b>More Than Four</b>
85	3 3,5%	5 5,9%	11 12,9%	14 16,5%	9 10,6%	43 50,6%

**Panel C - Compensation Form of the Project Manager Take**

<b>N</b>	<b>% completion</b>	<b>Goals for Each Stage</b>	<b>Fixed</b>	<b>Other</b>
86	1 1,2%	12 14,0%	48 55,8%	25 29,1%

**TABLE 3.8: TRANSFORMATION AND CHARACTERIZATION OF QUALITATIVE VARIABLES**

			Values in thousand of euros (except *)			
Variable	Classrooms	Criteria's Choice	N	Classroom One	Classroom Two	Classroom Three
Sales	1: until 36.245,04 2: between 36.245,04 and 96.810,54 3: more than 96.810,54	median 3.º quartil last quartil + outliers	89	40 44,9%	20 22,5%	29 32,6%
Total Asset	1: until 35.142,19 2: between 35.142,19 and 107.636,32 3: more than 107.636,32	median 3.º quartil last quartil + outliers	93	40 43,0%	20 21,5%	33 35,5%
Equity	1: until 12.416,26 2: between 12.416,26 and 93.316 3: more than 93.316	median 3.º and 4.º quartis outliers	93	38 40,9%	39 41,9%	16 17,2%
Total Debt	1: until 14.797,83 2: between 14.797,83 and 68.927 3: more than 68.927	median 3.º quartil last quartil + outliers	93	40 43,0%	20 21,5%	33 35,5%
Cash Flow	1: until 2.573,82 2: between 2.573,82 and 35.730 3: more than 35.730	median 3.º and 4.º quartis outliers	82	35 42,7%	36 43,9%	11 13,4%
Employees (n.º)*	1: until 175 2: between 175 and 371,25 3: more than 371,25	median 3.º quartil last quartil + outliers	91	41 45,1%	21 23,1%	29 31,9%
Duration of the Project* - months	1: until 11,9 2: between 11,9 and 23,9 3: more than 23,9	median 3.º quartil last quartil + outliers	88	30 34,1%	23 26,1%	35 39,8%
Employees of the Project (n.º)*	1: until 5,1 2: between 5,1 and 10,1 3: more than 10,1	median 3.º quartil last quartil + outliers	86	37 43,0%	22 25,6%	27 31,4%
Cost of the Project	1: until 2.499 2: between 2.499 and 7.260,56 3: more than 7.260,56	median 3.º quartil last quartil + outliers	84	36 42,9%	19 22,6%	29 34,5%
CEO Age* - years	1: until 46,1 2: between 46,1 and 57,75 3: more than 57,75	1.º quartil 2.º and 3.º quartil last quartil + outliers	89	26 29,2%	40 44,9%	23 25,8%
Tenure* - years	1: until 4,1 2: between 4,1 and 8,1 3: more than 8,1	1.º quartil 2.º quartil 3.º and 4.ª quartil + outliers	88	22 25,0%	22 25,0%	44 50,0%
Project Manger Age* - years	1: until 37,1 2: between 37,1 and 50,1 3: more than 49,9	1.º quartil 2.º and 3.º quartil last quartil + outliers	89	27 30,3%	37 41,6%	25 28,1%
Dimention Relative to Total Assets*	1: until 4,279% 2: between 4,279% and 11,845% 3: more than 11,845%	median 3.º quartil last quartil + outliers	82	36 43,9%	19 23,2%	27 32,9%

**TABLE 3.9: WHAT DISCOUNT RATE DID THE COMPANY USE FOR THE VALUATION OF THIS PROJECT?**

N	Company's cost of capital	Project's cost of capital	Country's cost of capital	Division's cost of capital (from the department that is implementing the project)	A different discount rate for each cash flow component with different risk characteristics	No discount rate was used	Groups Company's cost of capital
79	39 <b>49,4%</b>	23 29,1%	10 12,7%	2 2,5%	0 0,0%	4 5,1%	1 1,3%

**TABLE 3.10:** WHILE THE PROJECT WAS BEING IMPLEMENTED, HAVE YOU EVER CONSIDERED:

N=82	<b>Freq.</b>	<b>%</b>
Abandoning the project	1	1,2%
Changing the scale of the project	20	24,4%
Implications in future projects	<b>39</b>	<b>47,6%</b>
Changing inputs	29	35,4%
Changing outputs	27	32,9%
Postponing the project	15	18,3%

**TABELA 3.11: WHO HAD THE RESPONSIBILITY TO DECIDE WHETHER OR NOT TO IMPLEMENT THIS PROJECT?**

N=91	<b>Freq.</b>	<b>%</b>
Administration	69	75,8%
Shareholder	5	5,5%
Financial Director	3	3,3%
Administration and Shareholder	11	12,1%
Administration and Commercial Director	1	1,1%
Administration and Project Manager	2	2,2%

**TABLE 3.12: WHO EVALUATED THE VARIOUS ASPECTS OF THE PROJECT?**

Evaluation Area	Strategic	Technic	Commerci al	Politic	Finance	Social	Environm ent	Organization	Human Resource	Project manager
N	93	80	72	36	80	38	56	58	59	53
Administration	84,9%	36,3%	58,3%	83,3%	55,0%	52,6%	42,9%	50,0%	50,8%	86,8%
Financial Director	11,8%	3,8%	6,9%	11,1%	67,5%	15,8%	3,6%	13,8%	13,6%	9,4%
Commercial Director	3,2%	1,3%	48,6%	2,8%	1,3%	2,6%	1,8%	1,7%	6,8%	3,8%
All Areas	7,5%	5,0%	5,6%	5,6%	7,5%	15,8%	12,5%	17,2%	15,3%	3,8%
Technical persons	4,3%	55,0%	4,2%	0,0%	3,8%	7,9%	32,1%	19,0%	13,6%	5,7%
Externals expers	2,2%	3,8%	5,6%	2,8%	2,5%	13,2%	16,1%	1,7%	3,4%	0,0%
Project Managers	17,2%	47,5%	19,4%	16,7%	17,5%	34,2%	33,9%	43,1%	40,7%	11,3%
Human Resources	0,0%	0,0%	0,0%	0,0%	0,0%	2,6%	0,0%	0,0%	8,5%	0,0%
Shareholders	1,1%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
Environmental Director	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	3,6%	0,0%	0,0%	0,0%

**TABLE 3.13: PROJECT SUCCESS CLASSIFICATION**

<b>N</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>Others</b>
96	0 0,00%	1 1,04%	4 4,17%	1 1,04%	21 21,88%	35 36,46%	31 32,29%	3 3,13%

**TABLE 3.14: CRITICAL SUCCESS FACTORS BY AREA OF ANALYSIS**

	Critical success factor 1	Critical success factor 2	Critical success factor 3	Critical success factor 4	Critical success factor 5	Critical success factor 6	total
Strategic	15	5	4	3	5	2	34
Technic	9	8	6	9	6	---	38
Commercial	11	10	5	9	7	4	46
Politic	2	---	---	---	---	---	2
Finance	1	9	10	5	4	5	34
Social	---	---	---	---	---	1	1
Environment	---	---	---	---	1	---	1
Organization	---	4	5	---	1	1	11
Human Resource	2	4	5	3	---	3	17
Project Manager	---	---	---	---	---	1	1
Time	4	2	3	2	---	1	12
Quality	1	4	---	---	---	---	5
Satisfaction of the Customer	3	1	---	---	---	1	5
Quickly implementation	2	---	---	---	---	---	2
Partnership with customer	2	---	---	---	---	---	2

**TABLE 3.15: CORRELATION MATRIX**

Variable	SUC	FIN	STR	TEC	COM	POL	SOC	ENV	ORG	HUM	PRM
SUC	1										
FIN	0,053	1									
STR	0,003	0,062	1								
TEC	-0,071	,211(*)	0,047	1							
COM	0,051	,353(**)	0,016	0,034	1						
POL	-0,008	,245(*)	0,184	,338(**)	0,111	1					
SOC	-,248(*)	,222(*)	0,172	,256(*)	0,13	,596(**)	1				
ENV	0,11	0,107	-0,054	0,173	0,163	,466(**)	,422(**)	1			
ORG	-,276(**)	0,097	0,156	0,105	-0,005	,224(*)	,219(*)	0,05	1		
HUM	-0,045	,307(**)	-0,024	,254(*)	0,146	,260(*)	,359(**)	,240(*)	,644(**)	1	
PRM	-0,1	-0,016	0,022	0,159	,334(**)	0,161	0,191	0,124	0,191	0,137	1

\* Correlation is significant at the 0.05 level (2-tailed).

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



Annex 1- Conditional analysis of each area	% Import and very Import	Average	Industry			Total Sales		Total Debt		Dividends		State Company		Type of Project		Duration of the Project		Cost of the project		Relative Dimension		Project Success	
			Manufacturing	Commerce	Other	High	Low	High	Low	Yes	No	Yes	No	Expansion	Others	Long	Short	High	Low	Big	Small	High	Low
			N=37	N=24	N=33	N=29	N=60	N=33	N=60	N=48	N=47	N=9	N=87	N=47	N=49	N=35	N=53	N=29	N=55	N=30	N=52	N=67	N=29
<b>Panel A - What is the importance of each of the following areas in the project's valuation?</b>																							
Strategic	91,7%	3,45	3,59	3,50	3,27	3,38	3,47	3,33	3,52	3,48	3,40	3,33	3,46	3,70	3,20 *	3,49	3,42	3,52	3,45	3,57	3,42	3,52	3,28
Technical	86,5%	3,28	3,38	2,92	3,42	3,59	3,12 **	3,52	3,15 **	3,44	3,15	3,56	3,25	3,06	3,49 **	3,46	3,23	3,59	3,13 **	3,50	3,15 ***	3,37	3,07 ***
Commercial	75,0%	2,9	2,62	3,38	2,88 *	2,97	2,87	2,82	2,98	2,85	2,96	2,44	2,94	3,13	2,67 **	2,83	2,96	2,83	2,87	2,93	2,87	2,99	2,69
Political	20,8%	1,47	1,30	1,50	1,67	1,86	1,32 **	2,06	1,17 *	1,31	1,60	2,67	1,34 *	1,34	1,59	1,94	1,11 *	1,93	1,09 *	1,83	1,12 *	1,34	1,76
Financial	75,0%	2,97	2,89	3,13	2,88	3,28	2,85 **	3,21	2,87 **	3,13	2,81 ***	2,89	2,98	2,89	3,04	2,91	2,98	3,03	2,80	3,17	2,75 **	3,15	2,55 *
Social	33,3%	1,8	1,43	2,04	2,06 ***	2,41	1,48 *	2,24	1,57 *	1,63	1,96	2,11	1,77	1,96	1,65	2,00	1,58	2,03	1,49 ***	2,23	1,38 *	1,82	1,76
Environmental	55,2%	2,3	2,35	1,92	2,58	2,86	1,98 *	2,79	1,98 *	2,15	2,43	3,00	2,23	2,43	2,18	2,60	2,00 **	2,90	1,82 *	2,97	1,69 *	2,46	1,93
Organizational	57,3%	2,43	2,49	2,75	2,18 ***	2,38	2,47	2,52	2,43	2,23	2,62 ***	2,44	2,43	2,49	2,37	2,66	2,25 ***	2,48	2,33	2,80	2,17 **	2,43	2,41
Human Resource	53,1%	2,3	2,32	2,71	2,09 ***	2,52	2,20	2,55	2,22	2,17	2,45	2,22	2,31	2,30	2,31	2,60	2,11 ***	2,45	2,11	2,57	2,06 ***	2,31	2,28
Project Manager	69,8%	2,71	2,73	2,79	2,73	2,83	2,63	2,67	2,73	2,77	2,66	2,56	2,72	2,74	2,67	2,89	2,58	2,93	2,55	3,10	2,44 *	2,79	2,52 ***
<b>Panel B - To what degree each of the following analyses has influenced the economic value of the project?</b>																							
Strategic	94,8%	3,44	3,46	3,54	3,33	3,38	3,42	3,33	3,48	3,42	3,45	3,22	3,46	3,57	3,31	3,51	3,47	3,48	3,45	3,47	3,44	3,51	3,28
Technical	78,1%	3,06	3,30	2,42	3,27 **	3,07	3,02	3,00	3,08	3,02	3,13	2,89	3,08	2,74	3,37 *	3,34	2,85 *	3,10	2,98	3,10	2,96	3,04	3,10
Commercial	67,7%	2,68	2,41	3,00	2,73	2,76	2,62	2,64	2,72	2,67	2,70	2,56	2,69	3,02	2,35 **	2,46	2,79	2,45	2,75	2,80	2,60	2,76	2,48
Political	19,8%	1,28	1,08	1,13	1,64	1,69	1,02 **	1,82	0,95 *	1,13	1,40	2,44	1,16 **	1,43	1,14	1,66	0,91 *	1,72	0,82 *	1,57	0,85 **	1,22	1,41
Financial	74,0%	2,91	2,68	3,17	2,91	3,07	2,83	3,03	2,83	3,00	2,81	3,00	2,90	2,89	2,92	2,94	2,81	3,00	2,67	3,17	2,58 *	3,01	2,66
Social	21,9%	1,31	1,35	1,08	1,39	1,34	1,20	1,39	1,25	1,04	1,55 **	1,67	1,28	1,40	1,22	1,40	1,11	1,41	1,07	1,77	0,85 *	1,34	1,24
Environmental	44,8%	1,99	2,19	1,54	2,09	2,38	1,68 **	2,21	1,80	1,73	2,21	3,11	1,87 **	2,09	1,90	2,31	1,66 **	2,76	1,45 *	2,77	1,35 *	2,06	1,83
Organizational	45,8%	1,98	2,00	2,21	1,82	1,76	2,07	1,97	2,03	1,67	2,28 **	2,11	1,97	1,94	2,02	2,20	1,79	1,83	1,95	2,10	1,85	1,94	2,07
Human Resource	36,5%	1,85	1,89	2,13	1,64	1,86	1,80	1,76	1,93	1,63	2,09 ***	1,56	1,89	1,94	1,78	1,80	1,83	1,62	1,78	2,20	1,50 **	1,87	1,83
Project Manager	44,8%	1,96	1,68	2,04	2,30 ***	2,17	1,77	1,91	1,93	1,77	2,15 ***	1,56	2,00	1,98	1,94	1,80	1,96	1,86	1,82	2,10	1,65 ***	1,97	1,93
<b>Panel C - How important was each of the following areas in the decision to implement the project?</b>																							
Strategic	97,8%	3,67	3,53	3,63	3,87 *** **	3,82	3,57 ***	3,77	3,59	3,66	3,67	3,75	3,66	3,74	3,59	3,76	3,69	3,89	3,58 **	3,76	3,64	3,73	3,50
Technical	79,6%	3,02	3,22	2,33	3,29 * *	2,86	3,05	2,97	3,03	2,87	3,24 ***	3,25	3,00	2,64	3,41 *	3,30	2,87 **	3,07	2,91	3,07	2,88	3,09	2,85
Commercial	72,0%	2,76	2,50	3,17	2,74	2,71	2,76	2,68	2,83	2,70	2,89	2,75	2,76	3,09	2,43 *	2,52	2,88	2,50	2,81	2,83	2,68	2,85	2,54
Political	16,1%	1,11	1,14	0,75	1,35	1,46	0,90 **	1,65	0,80 *	0,89	1,36 ***	2,25	1,00 **	1,11	1,11	1,70	0,65 *	1,43	0,75 **	1,41	0,70 **	0,97	1,46
Financial	76,3%	3	2,92	3,13	2,90	3,18	2,97	3,10	2,98	3,02	2,96	2,88	3,01	3,02	2,98	2,88	3,04	2,96	2,89	3,31	2,74 *	3,12	2,69 ***
Social	15,1%	1,22	1,25	1,08	1,23	1,43	1,03	1,48	1,07	0,96	1,51 **	1,50	1,19	1,17	1,26	1,48	0,92 **	1,21	0,96	1,45	0,82 **	1,19	1,27
Environmental	44,1%	1,96	2,33	1,46	1,90 ** **	2,39	1,64 **	2,13	1,80	1,68	2,29 ***	2,63	1,89	1,94	1,98	2,27	1,67 ***	2,46	1,49 *	2,66	1,28 *	2,09	1,62
Organizational	46,2%	1,97	2,17	2,21	1,58	1,89	2,00	2,10	1,97	1,70	2,29 **	2,13	1,95	1,79	2,15	2,36	1,73 **	1,82	1,91	2,14	1,78	2,00	1,88
Human Resource	32,3%	1,78	1,86	2,00	1,55	1,64	1,83	1,77	1,81	1,57	2,04 ***	1,88	1,78	1,79	1,78	1,91	1,65	1,61	1,68	2,07	1,46 **	1,90	1,50
Project Manager	41,9%	2	1,89	2,21	2,10	2,32	1,86	2,10	1,98	1,98	2,07	1,63	2,04	1,94	2,07	2,06	1,98	1,89	1,92	2,24	1,78	2,18	1,54 **
<b>Panel D - Were the following issues evaluated for this project?</b>																							
		Freq.	%																				
Financial	82	85,4%	91,9%	75,0%	87,9%	93,1%	85,0%	87,9%	85,0%	87,5%	83,0%	77,8%	86,2%	85,1%	85,7%	91,4%	81,1%	86,2%	81,8%	90,0%	80,8%	89,6%	75,9%
Strategic	92	95,8%	94,6%	95,8%	100,0%	100,0%	93,3%	97,0%	95,0%	95,8%	95,7%	100,0%	95,4%	100,0%	91,8%	100,0%	94,3%	100,0%	92,7%	100,0%	92,3%	97,0%	93,1%
Technical	80	83,3%	94,6%	45,8%	100,0%	89,7%	81,7%	90,9%	78,3%	77,1%	89,4%	100,0%	81,6%	76,6%	89,8%	94,3%	73,6%	100,0%	78,2%	93,3%	80,8%	82,1%	86,2%
Commercial	75	78,1%	67,6%	79,2%	90,9%	82,8%	75,0%	78,8%	78,3%	77,1%	78,7%	66,7%	79,3%	85,1%	71,4%	74,3%	79,2%	82,8%	76,4%	86,7%	75,0%	82,1%	69,0%
Political	42	43,8%	43,2%	12,5%	69,7%	62,1%	36,7%	66,7%	30,0%	35,4%	51,1%	88,9%	39,1%	38,3%	49,0%	65,7%	26,4%	69,0%	27,3%	66,7%	26,9%	46,3%	37,9%
Foreign	5	5,2%	5,4%	8,3%	3,0%	6,9%	5,0%	12,1%	1,7%	4,2%	6,4%	0,0%	5,7%	4,3%	6,1%	5,7%	5,7%	0,0%	7,3%	3,3%	5,8%	6,0%	3,4%
Social	39	40,6%	35,1%	29,2%	57,6%	51,7%	35,0%	54,5%	31,7%	29,2%	51,1%	66,7%	37,9%	44,7%	36,7%	42,9%	34,0%	55,2%	29,1%	60,0%	25,0%	38,8%	44,8%
Environmental	60	62,5%	73,0%	45,8%	63,6%	75,9%	53,3%	72,7%	55,0%	58,3%	66,0%	88,9%	59,8%	63,8%	61,2%	68,6%	58,5%	86,2%	52,7%	80,0%	53,8%	68,7%	48,3%
Organizational	59	61,5%	64,9%	54,2%	63,6%	69,0%	60,0%	81,8%	51,7%	60,4%	61,7%	55,6%	62,1%	59,6%	63,3%	71,4%	54,7%	58,6%	60,0%	53,3%	65,4%	56,7%	72,4%
Human Resource	67	69,8%	73,0%	70,8%	69,7%	79,3%	68,3%	84,8%	63,3%	64,6%	74,5%	55,6%	71,3%	68,1%	71,4%	74,3%	66,0%	75,9%	65,5%	76,7%	67,3%	73,1%	62,1%
Project Manager	53	55,2%	45,9%	50,0%	72,7%	69,0%	46,7%	54,5%	53,3%	52,1%	57,4%	22,2%	58,6%	55,3%	55,1%	45,7%	60,4%	55,2%	52,7%	53,3%	51,9%	56,7%	51,7%

Annex 1 - Conditional analysis of each area	% Import and very Import	Average	CEO Education		CEO Age		CEO Tenure		Owned by Management		Project Manager Education		Project Manager Age		Project Manager Position		Experience		PM Compensation		Decision-Making		
			University Course	Others	>57,75	Younger	Long	Short	0%	>0%	University Course	Others	>=50	Younger	Administrat	Other	+4	Other	Fixed	Other	Administrat	Others	
			N=68	N=24	N=23	N=66	N=44	N=44	N=45	N=46	N=78	N=15	N=25	N=64	N=38	N=52	N=43	N=42	N=48	N=38	N=69	N=22	
<b>Panel A - What is the importance of each of the following areas in the project's valuation?</b>																							
Strategic	91,7%	3,45	3,35	3,71 **	3,43	3,44	3,41	3,45	3,33	3,52	3,40	3,73	3,48	3,45	3,61	3,35	3,44	3,50	3,48	3,42	3,46	3,55	
Technical	86,5%	3,28	3,41	2,88	3,43	3,21	3,05	3,48 **	3,62	2,93 *	3,31	3,33	3,52	3,22	3,29	3,33	3,33	3,21	3,23	3,34	3,22	3,55 ***	
Commercial	75,0%	2,9	2,75	3,21 ***	2,74	2,94	3,16	2,55 *	2,80	2,91	2,91	2,73	2,96	2,88	2,97	2,79	2,79	2,98	2,94	2,82	3,07	2,36 *	
Political	20,8%	1,47	1,59	1,17	1,48	1,45	1,30	1,64	1,64	1,24	1,51	1,53	1,68	1,41	1,79	1,23 **	1,44	1,52	1,44	1,58	1,52	1,41	
Financial	75,0%	2,97	3,04	2,71	2,96	2,97	3,05	2,89	2,89	3,07	3,04	2,87	2,96	3,03	3,03	3,00	2,95	3,07	2,96	3,05	3,03	2,91	
Social	33,3%	1,8	1,79	1,83	1,57	1,86	1,86	1,68	1,89	1,63	1,82	2,00	1,88	1,78	2,00	1,65	1,70	2,00	2,02	1,63	1,90	1,55	
Environmental	55,2%	2,3	2,57	1,50 *	2,22	2,32	2,14	2,45	2,44	2,15	2,42	2,00	2,60	2,23	2,47	2,23	2,47	2,19	2,44	2,32	2,23	2,36	
Organizational	57,3%	2,43	2,37	2,63	2,22	2,48	2,41	2,43	2,24	2,57	2,42	2,87	2,28	2,59	2,66	2,35	2,30	2,74 ***	2,46	2,58	2,42	2,36	
Human Resource	53,1%	2,3	2,32	2,38	1,96	2,45 ***	2,34	2,25	2,22	2,35	2,35	2,53	2,04	2,50 ***	2,55	2,19	2,05	2,74 *	2,29	2,53	2,36	2,14	
Project Manager	69,8%	2,71	2,66	2,88 ***	2,57	2,76	2,66	2,77	2,78	2,65	2,74	3,00	2,76	2,78	2,76	2,77	2,72	2,83	2,71	2,87	2,68	2,77	
<b>Panel B - To what degree each of the following analyses has influenced the economic value of the project?</b>																							
Strategic	94,8%	3,44	3,40	3,54	3,30	3,47	3,52	3,32	3,44	3,37	3,41	3,53	3,36	3,48	3,42	3,44	3,42	3,50	3,46	3,39	3,54	3,27 **	
Technical	78,1%	3,06	3,19	2,67 ***	3,13	3,08	2,86	3,32 *	3,27	2,87 **	3,08	3,20	3,12	3,16	2,95	3,27	3,12	3,17	3,13	3,13	3,00	3,27	
Commercial	67,7%	2,68	2,65	2,88	2,74	2,73	2,86	2,57	2,67	2,72	2,65	2,73	3,00	2,50 ***	2,63	2,65	2,77	2,52	2,58	2,82	2,74	2,50	
Political	19,8%	1,28	1,49	0,75 **	1,13	1,36	1,23	1,45	1,42	1,20	1,29	1,47	1,80	1,13 **	1,42	1,21	1,42	1,19	1,29	1,45	1,23	1,73	
Financial	74,0%	2,91	2,91	2,79	2,78	2,98	3,02	2,75	2,93	2,89	2,97	2,80	2,72	3,08	3,29	2,75 **	2,86	3,07	2,90	3,03	2,93	2,95	
Social	21,9%	1,31	1,38	1,13	1,22	1,36	1,39	1,25	1,33	1,28	1,32	1,47	1,48	1,28	1,47	1,21	1,44	1,26	1,40	1,37	1,32	1,41	
Environmental	44,8%	1,99	2,19	1,50 ***	1,96	2,06	1,80	2,27	2,22	1,80	2,06	1,87	2,28	2,00	2,18	1,96	2,19	2,02	2,08	2,13	1,99	2,00	
Organizational	45,8%	1,98	1,99	2,08	1,52	2,18 **	2,16	1,89	1,69	2,28 **	1,95	2,40	1,84	2,13	2,18	1,90	1,86	2,29	2,04	2,05	2,12	1,59 ***	
Human Resource	36,5%	1,85	1,81	2,13	1,52	2,05	1,93	1,84	1,62	2,13 ***	1,86	2,13	1,80	1,97	1,97	1,85	1,86	2,12	2,00	1,97	1,96	1,68	
Project Manager	44,8%	1,96	1,93	2,17	1,83	2,06	1,98	2,02	2,00	1,98	1,91	2,53	2,12	2,00	1,87	2,12	2,19	2,07	2,08	2,16	2,01	1,95	
<b>Panel C - How important was each of the following areas in the decision to implement the project?</b>																							
Strategic	97,8%	3,67	3,72	3,58	3,64	3,69	3,76	3,58	3,72	3,60	3,71	3,47	3,83	3,63	3,57	3,76	3,78	3,63	3,67	3,68	3,72	3,50 **	
Technical	79,6%	3,02	3,15	2,63	3,32	2,98	2,90	3,16	3,16	2,91	2,99	3,33	3,42	2,95	2,81	3,28 ***	3,10	3,05	2,93	3,27	3,01	3,00	
Commercial	72,0%	2,76	2,69	2,96	2,95	2,77	2,95	2,56	2,65	2,84	2,77	2,67	2,83	2,69	2,78	2,70	2,76	2,63	2,63	2,81	2,79	2,59	
Political	16,1%	1,11	1,29	0,63 **	1,09	1,17	0,95	1,35	1,12	1,11	1,12	1,27	1,71	0,90 **	1,24	1,02	1,22	1,05	1,17	1,19	0,99	1,64 ***	
Financial	76,3%	3	3,05	2,88	2,77	3,14	3,17	2,86	2,93	3,11	3,11	2,73	2,83	3,18	3,22	2,98	3,00	3,22	3,04	3,14	3,03	2,82	
Social	15,1%	1,22	1,29	1,00	1,27	1,25	1,29	1,19	1,23	1,18	1,23	1,40	1,63	1,10 ***	1,30	1,18	1,22	1,29	1,24	1,35	1,19	1,36	
Environmental	44,1%	1,96	2,18	1,38 **	1,91	2,08	1,79	2,16	2,09	1,84	2,05	1,73	2,17	1,97	1,97	2,02	2,05	2,10	2,02	2,19	1,88	2,18	
Organizational	46,2%	1,97	2,02	1,92	1,64	2,16 ***	2,02	1,98	1,58	2,33 *	1,99	2,20	1,79	2,15	2,19	1,90	1,88	2,32	1,91	2,27	1,99	1,91	
Human Resource	32,3%	1,78	1,80	1,83	1,64	1,94	1,79	1,81	1,58	2,00	1,84	1,80	1,67	1,92	1,97	1,72	1,80	1,98	1,74	2,05	1,87	1,59	
Project Manager	41,9%	2	1,98	2,04	1,82	2,11	2,10	1,95	2,00	2,04	2,05	2,00	2,08	2,06	2,08	2,02	2,29	2,00	2,11	2,22	2,03	1,82	
<b>Panel D - Were the following issues evaluated for this project?</b>																							
		Freq.	%																				
Financial		82	85,4%	85,3%	83,3%	78,3%	87,9%	86,4%	81,8%	86,7%	82,6%	88,5%	66,7%	80,0%	85,9%	89,5%	80,8%	79,1%	88,1%	91,7%	76,3%	88,4%	77,3%
Strategic		92	95,8%	95,6%	95,8%	87,0%	98,5%	97,7%	93,2%	95,6%	95,7%	96,2%	93,3%	96,0%	95,3%	94,7%	96,2%	100,0%	92,9%	95,8%	94,7%	97,1%	95,5%
Technical		80	83,3%	89,7%	75,0%	73,9%	90,9%	77,3%	97,7%	95,6%	76,1%	83,3%	80,0%	80,0%	84,4%	73,7%	90,4%	76,7%	90,5%	91,7%	76,3%	81,2%	86,4%
Commercial		75	78,1%	76,5%	87,5%	82,6%	78,8%	84,1%	75,0%	77,8%	80,4%	80,8%	66,7%	84,0%	75,0%	76,3%	78,8%	79,1%	76,2%	83,3%	73,7%	81,2%	68,2%
Political		42	43,8%	51,5%	29,2%	39,1%	48,5%	40,9%	54,5%	53,3%	39,1%	46,2%	40,0%	56,0%	40,6%	42,1%	46,2%	48,8%	40,5%	45,8%	47,4%	39,1%	54,5%
Foreign		5	5,2%	5,9%	4,2%	8,7%	4,5%	6,8%	4,5%	4,4%	6,5%	6,4%	0,0%	8,0%	4,7%	7,9%	3,8%	4,7%	7,1%	6,3%	5,3%	5,8%	4,5%
Social		39	40,6%	41,2%	45,8%	39,1%	42,4%	43,2%	43,2%	46,7%	37,0%	41,0%	46,7%	44,0%	39,1%	39,5%	40,4%	37,2%	42,9%	50,0%	31,6%	39,1%	40,9%
Environmental		60	62,5%	70,6%	45,8%	65,2%	63,6%	61,4%	65,9%	62,2%	65,2%	67,9%	40,0%	64,0%	65,6%	71,1%	59,6%	65,1%	64,3%	66,7%	63,2%	63,8%	54,5%
Organizational		59	61,5%	66,2%	58,3%	43,5%	71,2%	61,4%	68,2%	53,3%	73,9%	64,1%	60,0%	56,0%	67,2%	63,2%	63,5%	53,5%	76,2%	68,8%	57,9%	65,2%	59,1%
Human Resource		67	69,8%	72,1%	75,0%	56,5%	77,3%	70,5%	72,7%	68,9%	73,9%	75,6%	53,3%	56,0%	78,1%	65,8%	75,0%	58,1%	85,7%	83,3%	60,5%	73,9%	54,5%
Project Manager		53	55,2%	52,9%	66,7%	52,2%	57,6%	50,0%	65,9%	60,0%	54,3%	56,4%	53,3%	64,0%	53,1%	39,5%	67,3%	62,8%	52,4%	56,3%	63,2%	55,1%	54,5%

Annex 2 - Conditional analysis of financial area	%	Average	Industry			Total Sales		Total Debt		Dividends		Type of Project		Duration of the Project		Cost of the project		Relative Dimension	
	Import and very Import		Manufactoring	Commerce	Other	High	Low	High	Low	Yes	No	Expansion	Others	Long	Short	High	Low	Big	Small
			N=37	N=24	N=33	N=29	N=60	N=33	N=60	N=48	N=47	N=47	N=49	N=35	N=53	N=29	N=55	N=30	N=52
<b>Panel A - What is the importance of the following techniques in this project's analysis?</b>																			
Net Present Value (NPV)	68,3%	2,76	2,82	2,56	2,90	3,41	2,37 *	3,03	2,57	2,86	2,67	2,83	2,69	2,91	2,72	3,00	2,58	2,89	2,62
Adjusted Net Present Value	41,5%	1,87	2,09	2,06	1,55	2,11	1,73	1,86	1,90	1,76	1,97	1,83	1,90	1,72	1,93	1,24	2,02 **	1,78	1,76
Internal Rate of Return (IRR)	74,4%	2,95	3,12	2,61	3,00	3,48	2,63 *	3,10	2,84	2,95	2,92	3,13	2,79	3,06	2,86	3,40	2,71 **	3,37	2,69 **
Payback Period	65,9%	2,74	2,50	3,22	2,76	2,96	2,69	2,69	2,86	2,81	2,64	3,13	2,38 **	2,13	3,18 *	2,12	3,11 **	2,48	3,00 ***
Profitability Index	51,2%	1,98	2,03	2,44	1,69	2,07	1,94	1,83	2,12	1,81	2,15	2,20	1,76	1,84	1,95	1,44	2,11 ***	1,93	1,88
Accounting Rate of Return	31,7%	1,55	1,53	2,11	1,27 ***	1,56	1,55	1,24	1,76 **	1,50	1,59	1,95	1,16 **	1,16	1,84 **	1,04	1,64 ***	1,56	1,38
Reward/Cost Ratio	61,0%	2,44	2,38	2,72	2,41	1,96	2,61 **	2,17	2,57	2,00	2,92 **	2,48	2,40	2,72	2,14	2,20	2,40	2,37	2,29
Critical Point Analysis	37,8%	1,84	1,62	2,72	1,62 **	2,41	1,57 **	1,86	1,90	2,00	1,67	1,98	1,71	1,59	2,09	1,48	1,93	1,93	1,71
Sensitivity analysis	56,1%	2,39	2,47	2,83	2,10	3,07	2,08 *	2,86	2,22 ***	2,45	2,31	2,65	2,14	2,59	2,33	2,76	2,13 ***	2,89	2,07 **
Cenario analysis	65,9%	2,57	2,53	2,67	2,58	3,11	2,31 *	3,10	2,33 *	2,79	2,33 ***	2,68	2,48	2,91	2,39 **	3,08	2,24 *	2,81	2,43
Simulation Risk analysis	37,8%	1,7	1,35	1,56	2,24 ***	2,41	1,24 *	2,10	1,47	1,57	1,77	1,50	1,88	1,69	1,58	1,52	1,40	1,37	1,52
Real Options	14,6%	0,88	0,91	1,17	0,69	0,78	0,94	1,21	0,73 **	0,64	1,10	0,75	1,00	0,97	0,70	0,56	0,80	0,85	0,64
<b>Panel B - What discount rate did the company use for the valuation of this project?</b>																			
Discount rate								N=49	N=28	N=49		N=36	N=38	N=41	N=31	N=42	N=23		N=25
Company's cost of capital	49,4%	50,0%	50,0%	46,4%	65,4%	42,9%	53,6%	46,9%	61,9%	33,3%	42,6%	46,3%	51,6%	47,6%	47,8%	53,3%	36,0%	50,0%	
Project's cost of capital	29,1%	31,3%	22,2%	32,1%	30,8%	26,5%	35,7%	26,5%	16,7%	44,4%	14,9%	39,0%	35,5%	23,8%	34,8%	20,0%	40,0%	13,5%	
<b>Panel C - What is the importance of the following financial risk factors in the project's valuation?</b>																			
Unexpected inflation risk	19,3%	1,39	1,24	1,67	1,41	1,37	1,43	1,52	1,35	1,21	1,51	1,63	1,16 ***	1,41	1,30	1,32	1,27	1,78	1,00 *
Interest rate risk	37,8%	1,9	1,56	2,44	2,00	2,37	1,67 **	1,97	1,84	1,74	2,05	2,23	1,59 ***	1,88	1,86	1,88	1,80	2,19	1,57 ***
Risk of alterations in the gap between long and short term interest rates	28,0%	1,68	1,47	1,67	2,00	2,15	1,49 **	2,03	1,51	1,64	1,69	1,70	1,67	1,78	1,60	1,68	1,60	1,93	1,48
Business cycle risk	43,9%	2,07	1,94	2,56	2,00	2,48	1,92 ***	1,93	2,22	2,14	2,03	2,18	1,98	1,94	2,16	1,92	1,96	2,52	1,62 *
Exchange rate risk	3,7%	0,76	0,79	0,50	0,90	1,30	0,49 *	0,90	0,67	0,79	0,72	0,70	0,81	0,72	0,77	1,04	0,56 **	1,07	0,52 *
Bankruptcy risk	1,2%	0,48	0,41	0,67	0,45	0,48	0,49	0,34	0,55	0,36	0,56	0,50	0,45	0,53	0,44	0,28	0,56	0,59	0,38
Project's size	48,8%	2,16	2,09	2,22	2,28	2,26	2,14	2,41	2,08	1,95	2,41	2,18	2,14	2,41	2,00	2,16	2,00	2,15	2,05
Company's stock price (recent)	0,0%	0,18	0,15	0,22	0,21	0,26	0,16	0,28	0,14	0,17	0,18	0,18	0,19	0,16	0,21	0,08	0,20	0,19	0,14

Annex 2 - Conditional analysis of financial area		% Import and very Import	Average	CEO Education		CEO Age		CEO Tenure		Owned by Management		Project Manager Education		Project Manager Age		Project Manager Position		Experience		PM Compensation		Decision-Making	
				University Course	Others	>57,75	Younger	Long	Short	0%	>0%	University Course	Others	>=50	Younger	Administrat ion	Other	+4	Other	Fixed	Other	Administrat ion	Others
				N=58	N=20	N=18	N=58	N=38	N=36	N=39	N=38	N=69	N=10	N=20	N=55	N=34	N=42	N=34	N=37	N=44	N=29	N=38	N=17
<b>Panel A - What is the importance of the following techniques in this project's analysis?</b>																							
Net Present Value (NPV)	68,3%	2,76	2,93	2,35	2,67	2,81	2,58	2,89	2,95	2,47 ***	2,94	2,10 ***	2,75	2,82	2,68	2,93	2,68	2,95	2,91	2,69	2,47	2,82	
Adjusted Net Present Value	41,5%	1,87	1,81	1,95	1,78	1,90	1,95	1,89	1,54	2,21 **	1,97	1,50	1,40	2,05 ***	2,26	1,62 ***	1,50	2,35 **	2,07	1,93	2,21	2,06	
Internal Rate of Return (IRR)	74,4%	2,95	3,16	2,50 ***	3,06	2,93	2,68	3,22	3,05	2,79	3,14	2,10 ***	2,90	3,02	2,88	3,10	2,94	3,08	3,11	2,86	2,79	3,18	
Payback Period	65,9%	2,74	2,64	3,15	2,72	2,74	2,89	2,64	2,62	2,89	2,81	2,70	3,05	2,71	2,91	2,67	3,03	2,73	3,09	2,62	2,89	2,65	
Profitability Index	51,2%	1,98	1,84	2,30	2,33	1,83	2,11	1,92	1,82	2,08	2,00	2,20	1,80	2,09	2,26	1,76	1,76	2,30	2,18	1,90	2,08	2,24	
Accounting Rate of Return	31,7%	1,55	1,38	1,90	1,44	1,55	1,63	1,47	1,36	1,76	1,62	1,40	1,40	1,67	1,76	1,43	1,71	1,57	1,64	1,72	1,76	1,76	
Reward/Cost Ratio	61,0%	2,44	2,24	2,75	2,83	2,28	2,24	2,58	2,13	2,68 ***	2,28	3,60 *	2,90	2,35 ***	2,50	2,43	2,41	2,57	2,45	2,45	2,68	2,00	
Critical Point Analysis	37,8%	1,84	1,66	2,40 **	1,56	1,90	2,03	1,67	1,54	2,11 ***	1,94	1,50	1,55	1,96	2,21	1,52 **	1,94	1,97	1,95	2,03	2,11	1,59	
Sensitivity analysis	56,1%	2,39	2,36	2,55	1,67	2,6 **	2,24	2,53	2,10	2,58	2,59	1,60	2,05	2,60	2,56	2,33	2,56	2,51	2,61	2,31	2,58	2,47	
Cenario analysis	65,9%	2,57	2,62	2,55	2,11	2,72 ***	2,42	2,75	2,69	2,37	2,61	2,70	2,85	2,55	2,74	2,48	2,65	2,73	2,73	2,52	2,37	2,71	
Simulation Risk analysis	37,8%	1,7	1,81	1,30	1,50	1,72	1,42	2,08	1,82	1,58	1,78	1,50	2,10	1,64	1,65	1,81	1,94	1,78	1,89	1,90	1,58	1,71	
Real Options	14,6%	0,88	0,98	0,55	1,11	0,79	0,58	1,11 ***	0,74	0,92	0,88	1,10	1,05	0,82	0,94	0,81	1,00	0,86	0,73	1,24 ***	0,92	0,88	
<b>Panel B - What discount rate did the company use for the valuation of this project?</b>																							
Discount rate			N=55		N=55		N=34	N=37		N=66		N=19	N=53	N=33	N=40	N=33	N=35	N=43	N=28		N=16		
Company's cost of capital	49,4%		47,3%	55,0%	33,3%	52,7%	47,4%	47,1%	51,4%	44,7%	47,0%	60,0%	52,6%	47,2%	51,5%	47,5%	42,4%	60,0%	58,1%	35,7%	44,7%	37,5%	
Project's cost of capital	29,1%		34,5%	15,0%	22,2%	32,7%	23,7%	38,2%	29,7%	28,9%	28,8%	40,0%	42,1%	24,5%	27,3%	30,0%	33,3%	28,6%	27,9%	39,3%	28,9%	31,3%	
<b>Panel C - What is the importance of the following financial risk factors in the project's valuation?</b>																							
Unexpected inflation risk	19,3%	1,39	1,41	1,20	1,44	1,29	1,21	1,56	1,31	1,42	1,41	1,40	1,35	1,40	1,53	1,24	1,62	1,22	1,48	1,41	1,42	1,53	
Interest rate risk	37,8%	1,9	1,97	1,65	1,72	1,88	1,84	1,89	1,72	2,00	2,03	1,1 **	1,40	2,05 **	2,03	1,71	1,76	2,19	2,20	1,72 ***	2,00	2,18	
Risk of alterations in the gap between long and short term interest rates	28,0%	1,68	1,81	1,30	1,50	1,72	1,79	1,67	1,49	1,89	1,81	1,1 ***	1,55	1,78	1,76	1,64	1,59	2,03	2,07	1,52 **	1,89	1,94	
Business cycle risk	43,9%	2,07	2,00	2,25	2,06	2,10	2,08	2,06	1,79	2,32 ***	2,17	1,70	1,80	2,24	1,88	2,29	2,06	2,41	2,27	2,17	2,32	2,41	
Exchange rate risk	3,7%	0,76	0,83	0,55	0,61	0,81	0,84	0,72	0,72	0,82	0,83	0,40	0,85	0,80	0,68	0,90	0,79	0,92	0,77	0,93	0,82	1,06	
Bankruptcy risk	1,2%	0,48	0,43	0,45	0,56	0,38	0,47	0,44	0,31	0,58 ***	0,48	0,40	0,50	0,49	0,41	0,55	0,59	0,46	0,50	0,52	0,58	0,35	
Project's size	48,8%	2,16	2,10	2,25	2,06	2,22	2,18	2,11	2,15	2,08	2,13	2,60	2,05	2,29	2,38	2,05	2,18	2,30	2,18	2,24	2,08	2,06	
Company's stock price (recent)	0,0%	0,18	0,17	0,10	0,17	0,14	0,16	0,17	0,15	0,16	0,19	0,10	0,10	0,22	0,15	0,21	0,24	0,16	0,09	0,34 **	0,16	0,06	

Annex 3 - Conditional analysis of strategic area	% Import and very Import	Average	Industry			Total Sales		Total Debt		Dividends		Type of Project		Duration of the Project		Cost of the project		Relative Dimension		Project Success		
			Manufacturing	Commerce	Other	High	Low	High	Low	Yes	No	Expansion	Others	Long	Short	High	Low	Big	Small	High	Low	
			N=35	N=23	N=33	N=29	N=56	N=32	N=57	N=46	N=45	N=47	N=45	N=35	N=50	N=29	N=51	N=30	N=48	N=65	N=27	
<b>Panel A - What is the importance of the following characteristics in the project's analysis?</b>																						
Contribution to the company's strategic goals	95,7%	3,64	3,77	3,74	3,42	3,69	3,59	3,50	3,72	3,70	3,64	3,72	3,56	3,57	3,76	3,59	3,65	3,53	3,67	3,77	3,33 **	
Impact on the company's global risk	56,5%	2,45	2,49	2,17	2,61	2,55	2,36	2,84	2,25 **	2,46	2,40	2,38	2,51	2,74	2,16 **	2,90	2,08 *	2,87	2,10 *	2,65	1,96 **	
Impact on future projects	53,3%	2,34	2,31	2,04	2,67	2,59	2,14	2,69	2,14 *	2,28	2,36	2,40	2,27	2,31	2,24	2,66	1,98 **	2,40	2,13	2,48	2,00 ***	
<b>Panel B - State the importance attributed to the following goals in the decision to proceed with the project:</b>																						
Profit maximization	71,7%	2,9	2,91	3,09	2,61	2,97	2,82	2,75	3,02	2,87	2,91	3,23	2,56 *	2,57	3,08 ***	2,86	2,88	3,13	2,77	3,09	2,44 **	
Use of company's resources	70,7%	2,8	2,94	2,78	2,61	2,83	2,75	2,84	2,77	2,67	2,91	2,94	2,67	2,80	2,78	2,86	2,69	2,83	2,67	2,86	2,67	
Development of company's current business	91,3%	3,45	3,49	3,78	3,15 **	3,38	3,48	3,13	3,67 **	3,61	3,29 **	3,60	3,29 **	3,29	3,56	3,24	3,53	3,43	3,46	3,51	3,30	
Exploring Opportunities/Strengths	85,9%	3,22	3,11	3,35	3,09	3,31	3,18	3,28	3,25	3,35	3,13	3,34	3,09	3,20	3,26	3,17	3,27	3,33	3,23	3,32	2,96	
Minimizing Threats/Weaknesses	63,0%	2,65	2,60	2,70	2,73	2,79	2,57	2,84	2,63	2,61	2,69	2,36	2,96 **	2,91	2,46 ***	2,79	2,53	2,80	2,58	2,71	2,52	
Meeting the market's needs	83,7%	3,18	3,14	3,35	3,21	3,21	3,27	3,44	3,12	3,04	3,31	3,17	3,20	3,37	3,06	3,41	3,10	3,47	3,15	3,17	3,22	
Entry into new market	41,3%	1,78	1,80	1,39	2,09	1,69	1,79	2,16	1,53 **	1,39	2,13 **	1,96	1,60	1,86	1,58	2,31	1,45 **	2,17	1,46 ***	1,89	1,52	
<b>Panel C - What is the importance of the following risk factors in the project's valuation?</b>																						
Risk concentration	37,0%	1,87	1,86	1,48	2,12	2,41	1,68 *	2,34	1,67 *	1,91	1,78	1,72	2,02	2,17	1,66 **	2,38	1,61 *	2,43	1,60 *	1,94	1,70	
Use of new resources	52,2%	2,37	2,49	2,26	2,42	2,14	2,54	2,25	2,51	2,13	2,58 ***	2,34	2,40	2,54	2,18	2,14	2,43	2,53	2,27	2,29	2,56	
Incompatibilities between business units	9,8%	1,02	0,83	0,87	1,27	1,24	0,95 ***	1,09	1,02	0,80	1,18 ***	0,94	1,11	1,06	0,98	0,90	0,98	1,20	0,81	0,94	1,22	
Abrupt rupture with the past	18,5%	1,15	1,09	1,00	1,39 ***	1,52	0,95 **	1,31	1,09	1,13	1,13	0,83	1,49 **	1,49	0,96 ***	1,17	1,10	0,97	1,25	1,15	1,15	
Strategic complexity of the project	43,5%	2,04	2,34	1,48	2,212 **	2,17	2,00	2,13	2,04	1,78	2,29 ***	1,81	2,29 ***	2,54	1,64 *	2,21	1,86	2,27	1,88	1,95	2,26	
<b>Panel D - 10. What procedures were used to minimize the project's strategic risk?</b>																						
		Freq.	%																			
Clear a priori definition of goals		78	84,8%	82,9%	87,0%	84,8%	89,7%	80,4%	87,5%	82,5%	89,1%	82,2%	87,2%	82,2%	85,7%	84,0%	82,8%	84,3%	83,3%	83,3%	90,8%	70,4%
Test of consistency between business units		6	6,5%	11,4%	8,7%	0,0%	6,9%	7,1%	12,5%	3,5%	4,3%	8,9%	6,4%	6,7%	8,6%	6,0%	3,4%	7,8%	3,3%	8,3%	7,7%	3,7%
Choice of projects with synergies		40	43,5%	42,9%	47,8%	42,4%	72,4%	30,4%	65,6%	33,3%	43,5%	44,4%	51,1%	35,6%	34,3%	52,0%	37,9%	41,2%	36,7%	43,8%	52,3%	22,2%
Introduction of small step innovation		26	28,3%	28,6%	17,4%	39,4%	13,8%	39,3%	28,1%	29,8%	15,2%	42,2%	21,3%	35,6%	37,1%	22,0%	20,7%	31,4%	16,7%	35,4%	24,6%	37,0%
Analysing the capability of implementing the project		49	53,3%	51,4%	39,1%	63,6%	62,1%	46,4%	53,1%	52,6%	56,5%	51,1%	59,6%	46,7%	42,9%	60,0%	55,2%	47,1%	53,3%	47,9%	61,5%	33,3%
Definition of priorities		52	56,5%	60,0%	43,5%	60,6%	62,1%	57,1%	65,6%	54,4%	54,3%	60,0%	42,6%	71,1%	62,9%	54,0%	65,5%	47,1%	60,0%	52,1%	64,6%	37,0%
Diversification of geographic risk		9	9,8%	5,7%	21,7%	6,1%	20,7%	5,4%	12,5%	8,8%	15,2%	4,4%	14,9%	4,4%	8,6%	10,0%	17,2%	5,9%	16,7%	6,3%	9,2%	11,1%
Diversification of technical risk		12	13,0%	14,3%	0,0%	21,2%	13,8%	14,3%	15,6%	12,3%	6,5%	20,0%	10,6%	15,6%	11,4%	14,0%	20,7%	7,8%	23,3%	6,3%	15,4%	7,4%
Outsourcing		32	34,8%	31,4%	26,1%	48,5%	27,6%	37,5%	37,5%	31,6%	45,7%	24,4%	34,0%	35,6%	37,1%	30,0%	34,5%	33,3%	16,7%	43,8%	36,9%	29,6%
Analysing the company's capacity for risk taking		34	37,0%	26,8%	39,1%	45,5%	37,9%	37,5%	37,5%	36,8%	37,0%	37,8%	34,0%	40,0%	34,3%	40,0%	24,1%	35,3%	43,3%	22,9%	41,5%	25,9%

Annex 3 - Conditional analysis of strategic area	% Import and very Import	Average	CEO Education		CEO Age		CEO Tenure		Owned by Management		Project Manager Education		Project Manager Age		Project Manager Position		Experience		PM Compensation		Decision-Making	
			University Course	Others	>57,75	Younger	Long	Short	0%	>0%	University Course	Others	>=50	Younger	Administra tion	Other	+4	Other	Fixed	Other	Administra tion	Others
			N=65	N=23	N=20	N=65	N=43	N=41	N=43	N=44	N=75	N=14	N=24	N=61	N=36	N=50	N=43	N=39	N=46	N=36	N=67	N=21
<b>Panel A - What is the importance of the following characteristics in the project's analysis?</b>																						
Contribution to the company's strategic goals	95,7%	3,64	3,62	3,70	3,55	3,71	3,70	3,54	3,58	3,68	3,64	3,71	3,58	3,70	3,72	3,62	3,53	3,79 ***	3,61	3,67	3,72	3,62
Impact on the company's global risk	56,5%	2,45	2,57	2,00 ***	2,50	2,38	2,26	2,63	2,40	2,45	2,49	2,57	2,71	2,44	2,31	2,66	2,60	2,33	2,48	2,44	2,52	2,38
Impact on future projects	53,3%	2,34	2,42	2,04	2,20	2,31	2,28	2,41	2,30	2,32	2,37	2,43	2,29	2,44	2,31	2,42	2,42	2,33	2,59	2,22	2,49	2,00
<b>Panel B - State the importance attributed to the following goals in the decision to proceed with the project:</b>																						
Profit maximization	71,7%	2,9	2,82	3,04	2,35	3,02 **	2,93	2,78	2,72	3,00	2,95	2,71	2,75	3,00	2,92	2,88	2,95	2,95	3,02	2,89	3,04	2,57
Use of company's resources	70,7%	2,8	2,82	2,70	2,35	2,88 **	2,74	2,80	2,63	2,93	2,73	3,36 *	2,92	2,82	3,06	2,66 ***	2,77	2,97	2,80	3,00	2,93	2,57
Development of company's current business	91,3%	3,45	3,31	3,78 *	3,40	3,45	3,49	3,34	3,37	3,50	3,41	3,64	3,25	3,52	3,64	3,32 ***	3,30	3,56	3,43	3,39	3,49	3,62
Exploring Opportunities/Strengths	85,9%	3,22	3,17	3,30	3,35	3,17 ***	3,37	3,02	2,98	3,43 **	3,20	3,29	3,25	3,23	3,56	2,96 *	3,33	3,10	3,33	3,08	3,25	3,38
Minimizing Threats/Weaknesses	63,0%	2,65	2,60	2,61	2,70	2,57	2,70	2,61	2,72	2,52	2,64	2,86	2,71	2,69	2,67	2,68	2,60	2,72	2,78	2,61	2,75	2,48
Meeting the market's needs	83,7%	3,18	3,20	3,17	2,75	3,31	3,23	3,12	3,09	3,23	3,16	3,50	3,33	3,21	3,61	2,92 *	3,05	3,49 **	3,20	3,31	3,30	2,76 **
Entry into new market	41,3%	1,78	1,94	1,39	1,55	1,80	1,93	1,68	1,65	1,93	1,79	2,07	1,54	1,93	1,83	1,78	1,70	1,90	1,87	1,86	1,93	1,29
<b>Panel C - What is the importance of the following risk factors in the project's valuation?</b>																						
Risk concentration	37,0%	1,87	2,08	1,39 **	2,05	1,80	1,77	1,98	1,79	1,93	2,01	1,43	2,25	1,77 **	1,94	1,84	2,07	1,72	2,07	1,78	1,90	1,90
Use of new resources	52,2%	2,37	2,28	2,70	2,10	2,46	2,40	2,49	2,26	2,55	2,29	3,14 *	2,46	2,46	2,42	2,44	2,33	2,59	2,50	2,39	2,43	2,24
Incompatibilities between business units	9,8%	1,02	1,08	0,87	0,90	1,02	1,05	0,93	0,93	1,07	1,04	1,07	1,25	0,95	1,00	1,04	0,95	1,21	1,11	1,08	1,09	1,00
Abrupt rupture with the past	18,5%	1,15	1,23	1,00	1,20	1,12	1,02	1,32	1,05	1,30	1,17	1,29	1,17	1,23	1,17	1,22	1,19	1,28	1,20	1,33	1,39	0,62 **
Strategic complexity of the project	43,5%	2,04	2,15	1,83	1,70	2,17	1,81	2,39 **	2,12	1,98	2,03	2,50	2,17	2,10	2,08	2,10	1,91	2,36	1,96	2,39	2,18	1,90
<b>Panel D - 10. What procedures were used to minimize the project's strategic risk?</b>																						
	Freq.	%																				
Clear a priori definition of goals	78	84,8%	86,2%	82,6%	85,0%	86,2%	86,0%	82,9%	76,7%	90,9%	88,0%	78,6%	75,0%	90,2%	88,9%	84,0%	81,4%	92,3%	87,0%	86,1%	86,6%	85,7%
Test of consistency between business units	6	6,5%	7,7%	4,3%	5,0%	7,7%	7,0%	7,3%	4,7%	9,1%	6,7%	7,1%	8,3%	6,6%	11,1%	4,0%	4,7%	10,3%	8,7%	5,6%	9,0%	0,0%
Choice of projects with synergies	40	43,5%	46,2%	34,8%	15,0%	50,8%	41,9%	41,5%	34,9%	50,0%	50,7%	14,3%	33,3%	47,5%	50,0%	38,0%	41,9%	48,7%	47,8%	47,2%	43,3%	42,9%
Introduction of small step innovation	26	28,3%	30,8%	26,1%	15,0%	33,8%	30,2%	29,3%	32,6%	27,3%	22,7%	57,1%	29,2%	26,2%	33,3%	22,0%	18,6%	33,3%	17,4%	41,7%	28,4%	28,6%
Analysing the capability of implementing the project	49	53,3%	58,5%	39,1%	55,0%	55,4%	53,5%	56,1%	60,5%	45,5%	57,3%	42,9%	66,7%	50,8%	52,8%	56,0%	55,8%	53,8%	56,5%	55,6%	55,2%	57,1%
Definition of priorities	52	56,5%	58,5%	47,8%	65,0%	53,8%	53,5%	58,5%	55,8%	56,8%	58,7%	42,9%	50,0%	57,4%	47,2%	62,0%	48,8%	59,0%	50,0%	58,3%	59,7%	47,6%
Diversification of geographic risk	9	9,8%	9,2%	13,0%	5,0%	10,8%	7,0%	9,8%	9,3%	9,1%	10,7%	7,1%	12,5%	8,2%	11,1%	8,0%	9,3%	10,3%	10,9%	5,6%	9,0%	14,3%
Diversification of technical risk	12	13,0%	18,5%	0,0%	20,0%	10,8%	16,3%	12,2%	16,3%	11,4%	16,0%	0,0%	8,3%	16,4%	8,3%	18,0%	7,0%	17,9%	4,3%	22,2%	13,4%	14,3%
Outsourcing	32	34,8%	32,3%	39,1%	45,0%	30,8%	23,3%	48,8%	44,2%	27,3%	34,7%	28,6%	29,2%	34,4%	33,3%	32,0%	39,5%	20,5%	30,4%	36,1%	34,3%	38,1%
Analysing the company's capacity for risk taking	34	37,0%	35,4%	39,1%	55,0%	32,3%	44,2%	26,8%	34,9%	38,6%	40,0%	28,6%	29,2%	41,0%	41,7%	34,0%	37,2%	33,3%	34,8%	38,9%	34,3%	42,9%

Annex 4 - Conditional analysis of technical area	% Import and very Import	Average	Industry			Total Sales		Total Debt		Dividends		Type of Project		Duration of the Project		Cost of the project		Relative Dimension		Project Success	
			Manufacturing	Commerce	Other	High	Low	High	Low	Yes	No	Expansion	Others	Long	Short	High	Low	Big	Small	High	Low
			N=35	N=11	N=33	N=26	N=49	N=30	N=47	N=37	N=42	N=36	N=44	N=33	N=39	N=29	N=43	N=28	N=42	N=55	N=25
<b>Panel A - What is the relevance attributed to the following characteristics in the project's analysis?</b>																					
Level of technology incorporated in the project	81,3%	3,11	3,46	3,00	2,85 ***	3,04	3,22	3,27	3,13	2,89	3,29	2,94	3,25	3,30	2,90	3,17	3,07	3,36	3,07 ***	3,22	2,88
Implementing routine techniques	30,0%	1,81	1,71	1,55	2,00	1,65	1,98	1,87	1,81	1,78	1,81	1,81	1,82	1,85	1,67	1,79	1,70	1,68	1,83	1,93	1,56
Personnel's level of technological know-how	67,5%	2,68	2,74	2,36	2,76	2,65	2,71	2,83	2,57	2,73	2,60	2,50	2,82	2,79	2,49	2,76	2,56	2,64	2,67	2,76	2,48
Innovation	63,8%	2,68	2,71	2,82	2,67	2,69	2,69	2,73	2,72	2,54	2,79	2,47	2,84	2,73	2,56	2,66	2,60	2,75	2,64	2,76	2,48
Execution of the Research and Development strategy	30,0%	1,64	1,43	1,09	2,09 **	1,77	1,53	1,60	1,64	1,65	1,57	1,72	1,57	1,61	1,51	1,79	1,33	1,57	1,45	1,75	1,40
<b>Panel B - What is the importance of the following risk factors in the project's evaluation?</b>																					
Inadequate choice of technology	60,0%	2,51	2,71	2,73	2,39	2,46	2,55	2,47	2,62	2,19	2,81 ***	2,50	2,52	2,48	2,44	2,62	2,28	2,61	2,38	2,85	1,76 *
Incorrect use of technology	63,8%	2,43	2,51	2,45	2,48	2,35	2,51	2,40	2,51	2,24	2,60	2,36	2,48	2,36	2,33	2,24	2,44	2,39	2,43	2,65	1,92 ***
Specialized personnel's qualification and capability	75,0%	2,95	2,77	2,73	3,33 ***	2,88	2,96	2,97	2,94	2,78	3,07	2,61	3,23 *	3,03	2,77	2,83	2,91	2,96	2,83	3,00	2,84
Implementing new production techniques	55,0%	2,31	2,54	2,09	2,27	2,58	2,16	1,93	2,62 *	2,35	2,26	1,94	2,61 **	2,64	2,08 ***	2,41	2,35	2,71	2,24	2,31	2,32
Changes in the project's specifications	42,5%	2,04	1,83	1,82	2,36	2,27	1,94	2,40	1,85 **	2,14	1,93	1,92	2,14	2,21	1,74	2,28	1,63 **	2,04	1,83	2,15	1,80
Delays in execution	67,5%	2,84	2,91	2,64	2,91	3,00	2,84	3,27	2,62 **	2,73	2,90	2,81	2,86	2,94	2,72	2,83	2,72	2,82	2,79	2,76	3,00
Technical complexity of the project	62,5%	2,59	2,63	2,45	2,64	2,62	2,55	2,70	2,53	2,78	2,40	2,50	2,66	2,82	2,31 ***	3,10	2,16 *	3,04	2,21 **	2,76	2,20 ***
<b>Panel C - What procedures were used to minimize the project's technical risk?</b>																					
	Freq.	%																			
Training in the new technology before beginning the project	29	36,3%	37,1%	63,6%	27,3%	38,5%	32,7%	23,3%	44,7%	37,8%	35,7%	36,1%	36,4%	39,4%	33,3%	31,0%	41,9%	57,1%	26,2%	34,5%	40,0%
Not overlapping stages	21	26,3%	31,4%	9,1%	27,3%	34,6%	22,4%	33,3%	23,4%	27,0%	26,2%	11,1%	38,6%	45,5%	12,8%	44,8%	16,3%	35,7%	23,8%	21,8%	36,0%
Using experienced and trained personnel	62	77,5%	65,7%	63,6%	93,9%	96,2%	67,3%	80,0%	74,5%	89,2%	66,7%	88,9%	68,2%	72,7%	82,1%	82,8%	69,8%	78,6%	71,4%	83,6%	64,0%
Using technology that is compatible with personnel's knowledge	32	40,0%	48,6%	9,1%	42,4%	53,8%	36,7%	60,0%	29,8%	32,4%	45,2%	41,7%	38,6%	45,5%	33,3%	48,3%	32,6%	46,4%	35,7%	41,8%	36,0%
Not allowing changes during project execution	15	18,8%	20,0%	18,2%	15,2%	30,8%	10,2%	13,3%	19,1%	29,7%	9,5%	27,8%	11,4%	15,2%	23,1%	27,6%	11,6%	25,0%	11,9%	20,0%	16,0%
Verifying impact of technical changes	22	27,5%	31,4%	27,3%	24,2%	19,2%	32,7%	30,0%	27,7%	27,0%	28,6%	16,7%	36,4%	30,3%	28,2%	27,6%	27,9%	32,1%	26,2%	30,9%	20,0%
Using prototypes and demonstrations	13	16,3%	20,0%	0,0%	15,2%	11,5%	18,4%	16,7%	17,0%	24,3%	7,1%	16,7%	15,9%	12,1%	20,5%	20,7%	16,3%	17,9%	19,0%	14,5%	20,0%
Asking the opinion of external experts	39	48,8%	45,7%	27,3%	60,6%	53,8%	42,9%	63,3%	36,2%	51,4%	47,6%	61,1%	38,6%	51,5%	38,5%	69,0%	32,6%	46,4%	45,2%	52,7%	40,0%
Introducing small step technological innovation	21	26,3%	14,3%	27,3%	39,4%	30,8%	24,5%	20,0%	29,8%	27,0%	26,2%	30,6%	22,7%	30,3%	28,2%	27,6%	25,6%	21,4%	28,6%	25,5%	28,0%
Using tested technology (instead of cheap technology)	50	62,5%	68,6%	63,6%	54,5%	69,2%	63,3%	83,3%	53,2%	62,2%	64,3%	52,8%	70,5%	69,7%	61,5%	58,6%	65,1%	71,4%	59,5%	67,3%	52,0%
Sharing risk with partners	17	21,3%	17,1%	0,0%	33,3%	30,8%	16,3%	40,0%	8,5%	29,7%	14,3%	16,7%	25,0%	21,2%	23,1%	20,7%	18,6%	7,1%	28,6%	29,1%	4,0%
Technical and technological outsourcing	38	47,5%	51,4%	27,3%	51,5%	46,2%	46,9%	46,7%	46,8%	64,9%	33,3%	50,0%	45,5%	51,5%	48,7%	44,8%	53,5%	39,3%	57,1%	36,4%	72,0%

Annex 4 - Conditional analysis of technical area	% Import and very Import	Average	CEO Education		CEO Age		CEO Tenure		Owned by Management		Project Manager Education		Project Manager Age		Project Manager		PM Experience		PM Compensation		Decision-Making	
			University Course	Others	>57,75	Younger	Long	Short	0%	>0%	University Course	Others	>=50	Younger	Adminis- tration	Other	+4	Other	Fixed	Other	Administra- tion	Others
			N=61	N=18	N=17	N=60	N=34	N=43	N=43	N=35	N=65	N=12	N=20	N=54	N=28	N=47	N=33	N=38	N=44	N=29	N=56	N=19
<b>Panel A - What is the relevance attributed to the following characteristics in the project's analysis?</b>																						
Level of technology incorporated in the project	81,3%	3,11	3,23	2,83	2,94	3,18	3,03	3,19	3,07	3,20	3,15	3,17	3,20	3,13	3,04	3,23	3,12	3,11	3,07	3,17	3,05	3,16
Implementing routine techniques	30,0%	1,81	1,85	1,67	1,82	1,80	1,76	1,88	1,70	1,94	1,78	2,00	1,95	1,74	1,71	1,83	1,79	1,74	1,80	1,79	1,93	1,53
Personnel's level of technological know-how	67,5%	2,68	2,82	2,22 ***	2,53	2,70	2,26	3,00 *	2,67	2,71	2,77	2,50	2,80	2,70	2,82	2,66	2,91	2,55	2,64	2,90	2,68	2,63
Innovation	63,8%	2,68	2,66	2,83	2,35	2,78	2,91	2,51	2,63	2,77	2,66	3,33 **	2,80	2,76	2,86	2,70	2,48	2,97 **	2,77	2,69	2,88	2,26 **
Execution of the Research and Development strategy	30,0%	1,64	1,87	0,89 *	1,88	1,52	1,56	1,65	1,67	1,60	1,89	0,58 *	1,40	1,78	1,71	1,62	1,70	1,61	1,64	1,72	1,71	1,74
<b>Panel B - What is the importance of the following risk factors in the project's evaluation?</b>																						
Inadequate choice of technology	60,0%	2,51	2,51	2,56	2,53	2,50	2,50	2,56	2,49	2,63	2,62	2,33	2,35	2,69	2,68	2,49	2,58	2,50	2,45	2,83	2,64	1,89 ***
Incorrect use of technology	63,8%	2,43	2,39	2,61	2,24	2,50	2,56	2,37	2,28	2,71	2,40	3,00 ***	2,50	2,50	2,75	2,32	2,55	2,42	2,36	2,79	2,52	1,89
Specialized personnel's qualification and capability	75,0%	2,95	3,03	2,72	3,18	2,87	2,82	3,07	3,07	2,86	2,95	3,42	3,10	3,04	3,14	2,96	3,03	3,05	2,82	3,45 *	3,00	2,84
Implementing new production techniques	55,0%	2,31	2,21	2,61	1,59	2,48 **	2,21	2,35	2,16	2,49	2,23	3,00 ***	2,35	2,39	2,39	2,34	2,33	2,53	2,48	2,38	2,50	1,84 **
Changes in the project's specifications	42,5%	2,04	2,26	1,33 *	2,35	1,95	1,71	2,40 **	2,14	2,00	2,17	1,75	2,30	2,04	2,04	2,11	2,24	1,92	2,05	2,28	2,09	2,00
Delays in execution	67,5%	2,84	2,93	2,50 ***	2,65	2,88	2,65	2,98	2,98	2,66	2,85	3,08	3,15	2,78	2,93	2,85	2,88	2,87	2,86	2,90	2,86	2,89
Technical complexity of the project	62,5%	2,59	2,70	2,17	2,94	2,48	2,32	2,79 ***	2,53	2,63	2,68	2,50	2,75	2,63	2,50	2,72	2,94	2,37 **	2,48	2,86	2,66	2,42
<b>Panel C - What procedures were used to minimize the project's technical risk?</b>																						
	Freq.	%																				
Training in the new technology before beginning the project	29	36,3%	32,8%	50,0%	29,4%	38,3%	38,2%	34,9%	30,2%	45,7%	38,5%	33,3%	35,0%	40,7%	35,7%	40,4%	42,4%	39,5%	34,1%	48,3%	35,7%	31,6%
Not overlapping stages	21	26,3%	23,0%	33,3%	5,9%	30,0%	14,7%	32,6%	20,9%	28,6%	21,5%	50,0%	50,0%	18,5%	28,6%	25,5%	30,3%	26,3%	25,0%	27,6%	30,4%	21,1%
Using experienced and trained personnel	62	77,5%	80,3%	66,7%	82,4%	75,0%	76,5%	76,7%	86,0%	65,7%	84,6%	41,7%	80,0%	75,9%	71,4%	80,9%	81,8%	71,1%	81,8%	69,0%	73,2%	89,5%
Using technology that is compatible with personnel's knowledge	32	40,0%	50,8%	5,6%	17,6%	46,7%	32,4%	44,2%	34,9%	45,7%	41,5%	41,7%	60,0%	33,3%	50,0%	34,0%	48,5%	36,8%	50,0%	31,0%	39,3%	47,4%
Not allowing changes during project execution	15	18,8%	18,0%	16,7%	11,8%	20,0%	17,6%	16,3%	18,6%	17,1%	20,0%	8,3%	25,0%	16,7%	17,9%	19,1%	18,2%	21,1%	20,5%	17,2%	16,1%	31,6%
Verifying impact of technical changes	22	27,5%	31,1%	16,7%	41,2%	23,3%	26,5%	30,2%	25,6%	31,4%	29,2%	25,0%	25,0%	31,5%	28,6%	29,8%	36,4%	21,1%	20,5%	37,9%	33,9%	15,8%
Using prototypes and demonstrations	13	16,3%	16,4%	16,7%	23,5%	11,7%	17,6%	16,3%	18,6%	14,3%	18,5%	8,3%	10,0%	20,4%	10,7%	21,3%	15,2%	15,8%	18,2%	10,3%	14,3%	26,3%
Asking the opinion of external experts	39	48,8%	54,1%	33,3%	52,9%	50,0%	41,2%	55,8%	51,2%	48,6%	50,8%	50,0%	60,0%	46,3%	64,3%	40,4%	51,5%	44,7%	47,7%	55,2%	50,0%	47,4%
Introducing small step technological innovation	21	26,3%	24,6%	33,3%	23,5%	26,7%	38,2%	16,3%	27,9%	25,7%	26,2%	33,3%	15,0%	33,3%	42,9%	19,1%	12,1%	39,5%	25,0%	27,6%	30,4%	15,8%
Using tested technology (instead of cheap technology)	50	62,5%	67,2%	50,0%	58,8%	65,0%	64,7%	65,1%	60,5%	68,6%	66,2%	58,3%	65,0%	63,0%	64,3%	63,8%	63,6%	60,5%	65,9%	62,1%	62,5%	63,2%
Sharing risk with partners	17	21,3%	27,9%	0,0%	17,6%	23,3%	29,4%	16,3%	23,3%	20,0%	26,2%	0,0%	25,0%	22,2%	25,0%	21,3%	21,2%	21,1%	13,6%	31,0%	28,6%	5,3%
Technical and technological outsourcing	38	47,5%	47,5%	50,0%	58,8%	45,0%	35,3%	58,1%	48,8%	45,7%	49,2%	41,7%	55,0%	48,1%	42,9%	53,2%	57,6%	42,1%	50,0%	41,4%	42,9%	57,9%

Annex 5 - Conditional analysis of commercial area	% Import and very Import	Average	Industry			Total Sales		Total Debt		Dividends		Type of Project		Duration of the Project		Cost of the project		Relative Dimension		Project Success	
			Manufacturing N=25	Commerces N=19	Other N=30	High N=24	Low N=45	High N=26	Low N=47	Yes N=37	No N=37	Expansion N=40	Others N=35	Long N=26	Short N=42	High N=24	Low N=42	Big N=26	Small N=39	High N=55	Low N=20
<b>Panel A - What is the importance of the following aspects in the project's evaluation?</b>																					
Studying market needs	81,3%	2,96	3,08	2,89	2,87	2,92	2,91	3,04	2,89	2,81	3,08	3,20	2,69 ***	3,42	2,60 **	3,54	2,55 *	3,27	2,67	2,91	3,10
Defining the relevant market	69,3%	2,81	3,00	2,84	2,60	2,54	2,91	2,77	2,83	2,73	2,95	3,10	2,49 **	3,15	2,60	3,08	2,57	3,12	2,51	2,78	2,90
Estimating the market's size	68,0%	2,69	2,88	2,63	2,57	2,75	2,71	3,04	2,49 ***	2,68	2,70	2,80	2,57	3,15	2,43 **	3,00	2,48	2,96	2,46	2,75	2,55
Market segmentation	45,3%	2,09	2,48	1,95	1,83	2,21	2,07	2,00	2,17	2,11	2,11	2,10	2,09	2,69	1,81 **	2,29	1,93	2,58	1,74 **	2,15	1,95
Identifying and analysing competitors	66,7%	2,75	3,12	3,05	2,23 *	2,79	2,78	2,35	3,02 *	2,81	2,76	2,98	2,49 ***	2,85	2,79	2,71	2,81	3,08	2,59 ***	2,76	2,70
Analysing the company's capacity	72,0%	2,75	2,96	2,53	2,70	2,83	2,78	2,62	2,89	2,76	2,81	2,60	2,91	2,77	2,86	2,58	2,76	2,73	2,72	2,91	2,30 **
Selecting target	69,3%	2,48	2,84	2,26	2,30	2,50	2,56	2,58	2,45	2,14	2,89 **	2,60	2,34	2,69	2,45	2,50	2,40	2,77	2,21	2,53	2,35
Ability to seize opportunities	76,0%	2,89	3,00	2,89	2,77	2,88	3,00	3,08	2,85	2,95	2,86	2,88	2,91	3,04	2,90	2,67	2,98	2,62	3,05 **	2,95	2,75
Product policy	68,0%	2,53	2,96	2,26	2,33	2,79	2,47	2,46	2,64	2,57	2,57	2,25	2,86 **	2,92	2,43 ***	2,71	2,38	2,62	2,46	2,65	2,20
Price policy	52,0%	2,19	2,24	2,05	2,20	2,04	2,24	1,96	2,32 ***	2,00	2,41	2,23	2,14	2,54	2,00	2,04	2,12	2,42	1,90	2,29	1,90
Placement policy	53,3%	2,19	2,20	2,42	1,97	2,33	2,20	2,42	2,11	2,03	2,41	2,33	2,03	2,69	1,93 **	2,58	1,90 **	2,58	1,90 ***	2,16	2,25
Promotion policy	33,3%	1,65	1,48	1,63	1,77	2,08	1,47 ***	2,00	1,49	1,59	1,73	1,55	1,77	2,42	1,10 *	2,21	1,17 *	1,92	1,31 ***	1,76	1,35
<b>Panel B - What is the importance of the following risk factors in the project's evaluation?</b>																					
Business volume	76,0%	2,87	2,80	3,26	2,67	2,88	2,82	2,62	3,02	2,95	2,86	2,93	2,80	2,88	2,88	2,96	2,79	3,00	2,77	3,02	2,45 ***
Commercial return	80,0%	3,05	3,16	3,37	2,73 ***	3,13	2,96	2,85	3,17	3,03	3,16	3,23	2,86	3,04	3,10	2,92	3,00	3,23	2,82	3,25	2,50 **
Market's size	72,0%	2,72	2,60	2,95	2,63	2,58	2,84	2,62	2,77	2,73	2,68	2,78	2,66	3,12	2,48 **	2,88	2,57	3,04	2,44 **	2,65	2,90
Competition	73,3%	2,87	3,04	2,89	2,67	2,79	2,84	2,62	3,02	2,73	2,97	2,73	3,03	2,81	2,88	2,63	3,02	2,88	2,90	2,78	3,10
Inadequate commercial capabilities	36,0%	1,76	1,60	1,79	1,83	1,83	1,82	1,38	2,00 **	1,68	1,81	1,95	1,54	1,69	1,76	1,58	1,81	1,96	1,59	1,69	1,95
<b>Panel C - 18. What procedures were used to minimize the project's commercial risk?</b>																					
	Freq.	%																			
Verifying the degree of substitution of the products	16	21,3%	32,0%	15,8%	16,7%	33,3%	17,8%	23,1%	21,3%	27,0%	13,5%	15,0%	28,6%	30,8%	16,7%	41,7%	14,3%	34,6%	17,9%	18,2%	30,0%
Verifying the degree of substitution of the competitors	17	22,7%	28,0%	21,1%	20,0%	41,7%	15,6%	38,5%	14,9%	27,0%	16,2%	27,5%	17,1%	26,9%	19,0%	33,3%	19,0%	30,8%	20,5%	20,0%	30,0%
Careful customer analysis	38	50,7%	44,0%	57,9%	50,0%	79,2%	33,3%	61,5%	44,7%	54,1%	48,6%	45,0%	57,1%	50,0%	47,6%	58,3%	40,5%	46,2%	48,7%	52,7%	45,0%
Understanding the client's needs	42	56,0%	60,0%	42,1%	60,0%	70,8%	51,1%	69,2%	51,1%	48,6%	64,9%	55,0%	57,1%	61,5%	54,8%	70,8%	47,6%	65,4%	51,3%	58,2%	50,0%
Understanding the company and its goals	35	46,7%	40,0%	47,4%	53,3%	45,8%	48,9%	50,0%	46,8%	37,8%	56,8%	42,5%	51,4%	42,3%	50,0%	29,2%	47,6%	38,5%	43,6%	49,1%	40,0%
Analyzing the product's market	36	48,0%	68,0%	47,4%	30,0%	45,8%	48,9%	34,6%	55,3%	43,2%	54,1%	45,0%	51,4%	50,0%	47,6%	41,7%	50,0%	57,7%	38,5%	40,0%	70,0%
Product differentiation	33	44,0%	44,0%	31,6%	53,3%	58,3%	37,8%	61,5%	34,0%	43,2%	45,9%	32,5%	57,1%	73,1%	26,2%	66,7%	23,8%	46,2%	35,9%	45,5%	40,0%
Multi-departmental project analysis	19	25,3%	24,0%	15,8%	33,3%	50,0%	15,6%	42,3%	17,0%	32,4%	18,9%	22,5%	28,6%	30,8%	26,2%	45,8%	11,9%	38,5%	15,4%	25,5%	25,0%
Adequate choice of target	30	40,0%	40,0%	52,6%	33,3%	45,8%	40,0%	38,5%	40,4%	37,8%	43,2%	47,5%	31,4%	42,3%	45,2%	29,2%	47,6%	42,3%	38,5%	36,4%	50,0%
Definition of a product policy consistent with the goals	28	37,3%	48,0%	21,1%	36,7%	41,7%	35,6%	53,8%	29,8%	32,4%	43,2%	32,5%	42,9%	34,6%	40,5%	33,3%	35,7%	34,6%	35,9%	34,5%	45,0%
Definition of a price policy consistent with the goals	30	40,0%	52,0%	36,8%	33,3%	29,2%	48,9%	42,3%	40,4%	29,7%	51,4%	45,0%	34,3%	38,5%	42,9%	25,0%	47,6%	53,8%	30,8%	40,0%	40,0%
Definition of a placement policy consistent with the goals	22	29,3%	20,0%	52,6%	23,3%	25,0%	35,6%	34,6%	27,7%	29,7%	29,7%	35,0%	22,9%	26,9%	31,0%	20,8%	33,3%	38,5%	23,1%	25,5%	40,0%
Definition of a promotion policy consistent with the goals	18	24,0%	20,0%	31,6%	23,3%	33,3%	22,2%	30,8%	21,3%	24,3%	24,3%	15,0%	34,3%	23,1%	23,8%	37,5%	14,3%	34,6%	15,4%	27,3%	15,0%

Annex 5 - Conditional analysis of commercial area	% Import and very Import	Average	CEO Education		CEO Age		CEO Tenure		Owned by Management		Project Manager Education		Project Manager Age		Project Manager Position		PM Experience		PM Compensation		Decision-Making	
			University Course	Others	>57,75	Younger	Long	Short	0%	>0%	University Course	Others	>=50	Younger	Administ ration	Other	+4	Other	Fixed	Other	Administ rat ion	Others
			N=52	N=21	N=19	N=52	N=37	N=33	N=35	N=37	N=63	N=10	N=21	N=48	N=29	N=41	N=34	N=32	N=40	N=28	N=56	N=15
<b>Panel A - What is the importance of the following aspects in the project's evaluation?</b>																						
Studying market needs	81,3%	2,96	3,00	2,81	2,42	3,10 **	2,81	3,03	2,91	2,95	2,87	3,40	3,10	2,92	3,14	2,78	2,74	3,25 ***	3,08	2,75	3,04	2,73
Defining the relevant market	69,3%	2,81	2,81	2,81	2,47	2,94	2,86	2,70	2,60	2,97	2,75	3,40	2,86	2,85	3,10	2,61	2,56	3,19 **	2,85	2,75	2,86	2,67
Estimating the market's size	68,0%	2,69	2,90	2,29 **	2,47	2,79	2,54	2,82	2,63	2,78	2,84	2,30	2,76	2,79	2,97	2,59	2,85	2,78	2,75	2,86	2,70	2,67
Market segmentation	45,3%	2,09	2,27	1,57 ***	1,79	2,17	1,81	2,36	1,69	2,41 **	2,21	1,50	2,00	2,19	2,03	2,15	2,03	2,38	2,30	2,04	2,07	2,20
Identifying and analysing competitors	66,7%	2,75	2,58	3,14 ***	2,42	2,88	2,92	2,52	2,34	3,08 *	2,67	3,30	2,38	2,98 **	2,76	2,76	2,47	3,22 *	2,98	2,57 ***	2,77	2,60
Analysing the company's capacity	72,0%	2,75	2,83	2,62	3,00	2,73	2,78	2,67	2,80	2,73	2,81	2,90	2,67	2,90	2,69	2,90	2,68	2,91	2,80	2,79	2,77	2,67
Selecting target	69,3%	2,48	2,65	2,14	2,16	2,65 ***	2,51	2,42	2,51	2,46	2,54	2,60	2,33	2,65	2,59	2,46	2,26	2,91 ***	2,53	2,68	2,55	2,33
Ability to seize opportunities	76,0%	2,89	3,00	2,71	2,79	2,96	3,03	2,76	2,77	3,03	2,94	3,00	2,95	2,96	3,10	2,80	2,79	3,16	2,88	3,00	3,04	2,73
Product policy	68,0%	2,53	2,67	2,24	2,74	2,52	2,27	2,82 ***	2,60	2,49	2,62	2,40	2,76	2,46	2,69	2,49	2,29	2,75	2,70	2,43	2,57	2,53
Price policy	52,0%	2,19	2,29	1,95	2,42	2,10	2,08	2,21	2,14	2,19	2,22	2,30	2,24	2,19	2,31	2,10	2,06	2,38	2,20	2,29	2,27	2,20
Placement policy	53,3%	2,19	2,21	2,05	2,00	2,23	2,22	2,09	2,06	2,22	2,16	2,30	2,33	2,08	2,41	1,93	1,59	2,72 *	2,30	1,93	2,25	2,27
Promotion policy	33,3%	1,65	1,85	1,10 **	1,37	1,69	1,43	1,79	1,63	1,57	1,75	1,20	1,67	1,60	1,76	1,49	1,32	1,91 ***	1,70	1,57	1,73	1,53
<b>Panel B - What is the importance of the following risk factors in the project's evaluation?</b>																						
Business volume	76,0%	2,87	2,75	3,24 ***	2,79	2,96	2,84	2,85	2,77	2,97	2,86	3,50 ***	3,00	2,96	2,93	2,93	2,85	3,13	2,85	3,11	2,96	2,73
Commercial return	80,0%	3,05	2,96	3,24	2,53	3,27 *	3,19	2,82	2,83	3,22	3,08	3,20	3,29	3,06	2,97	3,17	3,12	3,31	3,13	3,25	3,18	2,87
Market's size	72,0%	2,72	2,73	2,71	2,53	2,75	2,70	2,70	2,77	2,65	2,75	2,90	3,00	2,65	2,83	2,68	2,74	2,84	2,63	2,93	2,79	2,60
Competition	73,3%	2,87	2,77	3,10	2,47	2,96	3,00	2,76	2,63	3,05 ***	2,76	3,50 **	2,95	2,85	2,79	2,93	2,79	3,09	2,90	2,93	3,04	2,53 **
Inadequate commercial capabilities	36,0%	1,76	1,63	2,19 ***	1,68	1,79	1,92	1,64	1,51	2,03 ***	1,71	2,00	1,81	1,65	1,79	1,63	1,47	2,03 ***	2,05	1,39 **	1,71	2,00
<b>Panel C - 18. What procedures were used to minimize the project's commercial risk?</b>																						
			Freq.	%																		
Verifying the degree of substitution of the products	16	21,3%	25,0%	14,3%	5,3%	26,9%	16,2%	30,3%	25,7%	18,9%	23,8%	10,0%	14,3%	27,1%	31,0%	17,1%	14,7%	34,4%	27,5%	17,9%	25,0%	13,3%
Verifying the degree of substitution of the competitors	17	22,7%	28,8%	9,5%	15,8%	23,1%	16,2%	30,3%	14,3%	29,7%	25,4%	10,0%	28,6%	20,8%	20,7%	24,4%	26,5%	21,9%	30,0%	14,3%	25,0%	20,0%
Careful customer analysis	38	50,7%	50,0%	47,6%	21,1%	59,6%	48,6%	48,5%	60,0%	37,8%	49,2%	60,0%	57,1%	43,8%	48,3%	48,8%	41,2%	59,4%	57,5%	42,9%	55,4%	46,7%
Understanding the client's needs	42	56,0%	59,6%	52,4%	42,1%	63,5%	70,3%	45,5%	45,7%	67,6%	58,7%	40,0%	61,9%	50,0%	44,8%	61,0%	47,1%	59,4%	67,5%	35,7%	57,1%	53,3%
Understanding the company and its goals	35	46,7%	42,3%	52,4%	57,9%	42,3%	51,4%	39,4%	42,9%	48,6%	44,4%	50,0%	57,1%	39,6%	34,5%	51,2%	47,1%	40,6%	50,0%	39,3%	44,6%	53,3%
Analyzing the product's market	36	48,0%	50,0%	42,9%	31,6%	55,8%	40,5%	57,6%	54,3%	43,2%	47,6%	60,0%	47,6%	47,9%	51,7%	46,3%	50,0%	50,0%	47,5%	53,6%	46,4%	53,3%
Product differentiation	33	44,0%	53,8%	19,0%	31,6%	50,0%	35,1%	57,6%	51,4%	37,8%	46,0%	40,0%	52,4%	39,6%	48,3%	41,5%	29,4%	56,3%	45,0%	42,9%	46,4%	40,0%
Multi-departmental project analysis	19	25,3%	28,8%	19,0%	15,8%	30,8%	24,3%	30,3%	37,1%	16,2%	28,6%	10,0%	38,1%	22,9%	27,6%	26,8%	26,5%	25,0%	27,5%	21,4%	25,0%	33,3%
Adequate choice of target	30	40,0%	36,5%	52,4%	31,6%	44,2%	40,5%	39,4%	37,1%	43,2%	38,1%	60,0%	42,9%	41,7%	41,4%	41,5%	47,1%	40,6%	37,5%	46,4%	44,6%	20,0%
Definition of a product policy consistent with the goals	28	37,3%	40,4%	33,3%	26,3%	44,2%	32,4%	45,5%	40,0%	37,8%	36,5%	50,0%	47,6%	33,3%	37,9%	36,6%	26,5%	53,1%	47,5%	32,1%	37,5%	46,7%
Definition of a price policy consistent with the goals	30	40,0%	36,5%	52,4%	42,1%	40,4%	37,8%	42,4%	37,1%	43,2%	39,7%	50,0%	38,1%	39,6%	34,5%	41,5%	32,4%	50,0%	47,5%	35,7%	35,7%	53,3%
Definition of a placement policy consistent with the goals	22	29,3%	21,2%	52,4%	31,6%	28,8%	32,4%	24,2%	25,7%	32,4%	27,0%	40,0%	38,1%	20,8%	24,1%	26,8%	23,5%	31,3%	30,0%	28,6%	26,8%	46,7%
Definition of a promotion policy consistent with the goals	18	24,0%	25,0%	23,8%	10,5%	28,8%	18,9%	30,3%	37,1%	10,8%	27,0%	10,0%	19,0%	22,9%	20,7%	22,0%	8,8%	37,5%	27,5%	21,4%	26,8%	20,0%

Annex 6 - Conditional analysis of political area	% Import and very Import	Average	Industry			Total Sales		Total Debt		Dividends		Type of Project		Duration of the Project		Cost of the project		Relative Dimension		Project Success		
			Manufacturing N=16	Commerce N=3	Other N=23	High N=18	Low N=22	High N=22	Low N=18	Yes N=17	No N=24	Expansion N=18	Others N=24	Long N=23	Short N=14	High N=20	Low N=15	Big N=20	Small N=14	High N=31	Low N=11	
<b>Panel A - What is the relevance of the following characteristics in the project's analysis?</b>																						
Labour legislation	35,7%	1,55	1,88	0,67	1,43	1,61	1,45	1,50	1,56	1,35	1,63	1,22	1,79	1,09	1,86	1,30	1,33	1,45	1,21	1,58	1,45	
Budget policy	42,9%	1,76	1,44	0,67	2,13	2,06	1,59	2,55	0,89 *	1,18	2,13 **	1,22	2,17 **	1,61	1,64	1,70	1,20	1,20	2,00	1,74	1,82	
Investment subsidizing	73,8%	3,1	3,13	4,00	2,96	3,33	2,82	2,86	3,28	2,94	3,29	2,72	3,38	3,30	3,21	2,95	3,40 ***	2,95	3,36	3,00	3,36	
Fiscal policy	38,1%	1,81	1,81	0,67	1,96	2,39	1,32 **	2,23	1,28 **	2,35	1,33 **	1,33	2,17 ***	1,83	1,64	1,85	1,67	1,30	2,57 **	1,77	1,91	
Product and factor market regulation	26,2%	1,17	0,88	1,33	1,35	1,39	1,05	1,27	1,11	0,76	1,33	0,94	1,33	0,87	1,14	0,85	1,13	0,85	1,21	0,94	1,82 ***	
Regulation over patents/intellectual property	11,9%	0,76	1,00	0,33	0,65	0,78	0,77	0,68	0,89	0,18	1,17 *	0,50	0,96	0,48	1,07	0,70	0,53	0,95	0,21	0,77	0,73	
Micro and macroeconomic policy	23,8%	1,36	1,00	0,67	1,70	1,11	1,55	1,68	0,94	1,29	1,29	1,67	1,13	1,13	1,14	1,00	1,13	1,00	1,21	1,10	2,09 **	
Environmental policy	71,4%	2,5	2,94	1,33	2,35 ***	2,72	2,41	2,77	2,28	2,53	2,42	2,39	2,58	2,26	2,71	2,45	2,40	2,55	2,43	2,35	2,91	
Political support to the project	42,9%	2,02	1,81	0,67	2,35	1,83	2,14	2,45	1,44 **	1,35	2,42 **	1,94	2,08	2,09	1,57	2,30	1,40 ***	1,80	1,93	1,87	2,45	
Exclusive concession/exploration agreements	38,1%	1,62	1,13	1,33	2,00	1,56	1,64	2,09	1,00 **	0,76	2,13 **	1,50	1,71	1,43	1,43	1,95	0,80 **	1,35	1,50	1,58	1,73	
<b>Panel B - What is the importance of the following risk factors in the project's evaluation?</b>																						
Bureaucracy	64,3%	2,74	2,94	2,67	2,61	2,67	2,82	2,55	3,00	2,71	2,71	2,78	2,71	3,00	2,07 **	2,95	2,53	2,85	2,71	2,45	3,55 **	
Lack of definition of rules	52,4%	2,36	2,44	1,67	2,39	2,28	2,45	2,45	2,28	2,53	2,17	2,44	2,29	2,35	2,00	2,60	1,73 **	2,20	2,36	2,26	2,64	
Different expectations than government	23,8%	1,69	1,38	1,33	1,96	2,11	1,41 ***	2,18	1,17 *	1,53	1,79	1,56	1,79	1,70	1,43	1,80	1,20	1,20	2,07 **	1,61	1,91	
Financing possibilities	66,7%	2,64	2,13	3,00	2,96	2,83	2,50	2,73	2,56	2,18	3,08 **	2,22	2,96 **	2,48	2,93	2,15	2,87	2,20	2,86	2,71	2,45	
Need for permissions or authorizations	52,4%	2,21	1,94	2,33	2,39	2,22	2,23	2,41	2,00	1,94	2,33	2,50	2,00	2,35	1,71	2,55	1,87 ***	2,30	2,14	1,97	2,91 **	
Expropriation	19,0%	1,07	0,38	0,67	1,61 *	0,89	1,23	1,50	0,56 **	1,06	1,00	1,28	0,92	0,96	0,71	1,20	0,53	0,55	1,50 **	1,06	1,09	
Fiscal changes	19,0%	1,1	1,00	0,67	1,22	1,22	0,86	1,05	1,00	1,18	0,92	1,17	1,04	0,65	1,14	0,85	0,87	0,75	1,00	1,06	1,18	
Changes to PIDDAC	31,0%	1,33	1,06	0,67	1,61	1,94	0,68 *	1,27	1,22	1,06	1,58	0,89	1,67 ***	1,17	1,64	1,10	1,40	0,90	1,64 ***	1,16	1,82	
<b>Panel C - What procedures were used to minimize the project's political risk?</b>																						
		Freq.	%																			
Early development of fair negotiation with population		10	23,8%	18,8%	0,0%	30,4%	11,1%	36,4%	40,9%	5,6%	11,8%	29,2%	33,3%	16,7%	26,1%	7,1%	35,0%	6,7%	25,0%	21,4%	29,0%	9,1%
Developing trust with local decision-makers		24	57,1%	56,3%	33,3%	60,9%	61,1%	59,1%	77,3%	38,9%	47,1%	62,5%	66,7%	50,0%	56,5%	50,0%	75,0%	33,3%	60,0%	57,1%	61,3%	45,5%
Consciousness of the political implications of the decisions		21	50,0%	37,5%	33,3%	60,9%	55,6%	40,9%	59,1%	33,3%	52,9%	50,0%	61,1%	41,7%	43,5%	57,1%	55,0%	26,7%	40,0%	42,9%	58,1%	27,3%
Maintaining good relations with the government		19	45,2%	43,8%	0,0%	52,2%	66,7%	27,3%	59,1%	27,8%	52,9%	41,7%	33,3%	54,2%	43,5%	35,7%	40,0%	26,7%	30,0%	42,9%	41,9%	54,5%
Analysis of governmental macroeconomic policies		12	28,6%	12,5%	0,0%	43,5%	22,2%	31,8%	40,9%	11,1%	23,5%	33,3%	27,8%	29,2%	30,4%	21,4%	30,0%	13,3%	10,0%	35,7%	29,0%	27,3%
Gathering information from experienced companies		15	35,7%	25,0%	0,0%	39,1%	44,4%	27,3%	40,9%	27,8%	35,3%	37,5%	5,6%	58,3%	43,5%	28,6%	30,0%	33,3%	20,0%	50,0%	41,9%	18,2%
Gaining tax advantages		10	23,8%	18,8%	0,0%	17,4%	38,9%	13,6%	18,2%	33,3%	23,5%	25,0%	5,6%	37,5%	30,4%	21,4%	20,0%	33,3%	10,0%	50,0%	16,1%	45,5%
Getting investment grants		31	73,8%	75,0%	33,3%	65,2%	83,3%	63,6%	59,1%	88,9%	64,7%	83,3%	61,1%	83,3%	82,6%	71,4%	70,0%	80,0%	60,0%	92,9%	61,3%	109,1%

Annex 6 - Conditional analysis of political area	% Import and very Import	Average	CEO Education		CEO Age		CEO Tenure		Owned by Management		Project Manager Education		Project Manager Age		Project Manager Position		Experience		PM Compensation		Decision-Making	
			University Course	Others	>57,75	Younger	Long	Short	0%	>0%	University Course	Others	>=50	Younger	Administration	Other	+4	Other	Fixed	Other	Administration	Others
			N=35	N=7	N=9	N=32	N=18	N=24	N=24	N=18	N=36	N=6	N=14	N=26	N=16	N=24	N=21	N=17	N=22	N=18	N=27	N=12
<b>Panel A - What is the relevance of the following characteristics in the project's analysis?</b>																						
Labour legislation	35,7%	1,55	1,71	0,71	0,33	1,84 *	1,39	1,67	1,17	2,06 ***	1,50	1,83	1,00	1,81	2,13	1,13 ***	0,95	2,41 *	1,59	1,67	1,81	1,33
Budget policy	42,9%	1,76	2,06	0,29 *	1,11	1,91	1,39	2,04	1,92	1,56	1,69	2,17	1,57	1,77	2,38	1,25 **	1,33	2,12	1,45	2,11	1,96	1,42
Investment subsidizing	73,8%	3,1	2,97	3,71 ***	3,22	3,13	3,22	3,00	3,04	3,17	2,97	3,83 ***	3,43	3,15	3,38	3,17	3,33	3,29	3,00	3,33	3,19	2,67
Fiscal policy	38,1%	1,81	2,03	0,71 **	1,11	1,94	1,50	2,04	1,75	1,89	1,86	1,50	1,79	1,96	2,31	1,63	1,62	2,24	1,91	1,67	2,11	1,58
Product and factor market regulation	26,2%	1,17	1,29	0,57	0,00	1,41 *	0,94	1,33	1,21	1,11	1,25	0,67	0,43	1,42 ***	1,50	0,79 ***	0,33	2,12 *	1,50	0,89	1,19	1,42
Regulation over patents/intellectual property	11,9%	0,76	0,86	0,29	0,00	0,97 *	0,56	0,92	0,58	1,00	0,67	1,33	0,64	0,81	1,19	0,46 ***	0,38	1,29 *	0,68	0,94	0,89	0,67
Micro and macroeconomic policy	23,8%	1,36	1,43	1,00	1,44	1,25	1,28	1,42	1,79	0,78 **	1,44	0,83	0,93	1,46	1,69	1,00	0,76	1,59 **	1,18	1,28	1,22	1,83
Environmental policy	71,4%	2,5	2,71	1,43 ***	2,22	2,53	2,17	2,75	2,50	2,50	2,42	3,00	2,86	2,35	2,81	2,33	2,52	2,47	2,50	2,44	2,59	2,67
Political support to the project	42,9%	2,02	2,20	1,14 ***	2,44	1,84	1,56	2,38 ***	2,21	1,78	1,89	2,83	2,29	1,81	2,63	1,54 **	2,00	1,71	1,68	2,22	2,26	1,67
Exclusive concession/exploration agreements	38,1%	1,62	1,91	0,14 *	1,22	1,66	1,28	1,88	1,46	1,83	1,58	1,83	1,43	1,62	1,94	1,29	1,48	1,71	1,55	1,78	1,93	1,00 ***
<b>Panel B - What is the importance of the following risk factors in the project's evaluation?</b>																						
Bureaucracy	64,3%	2,74	2,71	2,86	2,22	2,84	2,33	3,04	2,88	2,56	2,75	2,67	2,79	2,69	2,88	2,63	2,52	3,06	3,18	2,28 **	2,59	3,00
Lack of definition of rules	52,4%	2,36	2,54	1,43 **	2,22	2,34	2,28	2,42	2,46	2,22	2,47	1,67 ***	1,86	2,58 **	2,69	2,08	1,67	2,94 *	2,36	2,17	2,56	2,25
Different expectations than government	23,8%	1,69	1,89	0,71 **	1,56	1,72	1,50	1,83	1,63	1,78	1,78	1,17	1,57	1,65	1,94	1,42	1,43	1,82	1,82	1,50	1,81	1,50
Financing possibilities	66,7%	2,64	2,54	3,14	2,44	2,78	2,83	2,50	2,63	2,67	2,56	3,17	2,57	2,65	3,19	2,25	2,48	2,88	2,73	2,61	2,63	2,33
Need for permissions or authorizations	52,4%	2,21	2,26	2,00	2,33	2,13	1,89	2,46	2,00	2,50	2,17	2,50	2,64	1,92 ***	2,38	2,04	2,48	1,82	2,59	1,78 ***	2,15	2,25
Expropriation	19,0%	1,07	1,26	0,14 **	1,56	0,88	1,17	1,00	1,25	0,83	1,22	0,17 ***	0,64	1,23	1,56	0,67	0,76	1,00	0,95	0,89	1,19	0,75
Fiscal changes	19,0%	1,1	1,29	0,14 **	0,33	1,22 ***	1,06	1,13	1,04	1,17	1,25	0,17 **	0,50	1,35 **	1,00	1,08	0,62	1,71 *	1,27	1,00	1,26	1,00
Changes to PIDDAC	31,0%	1,33	1,40	1,00	0,78	1,53	1,39	1,29	1,33	1,33	1,36	1,17	1,07	1,58	1,75	1,17	0,90	2,18 *	1,09	1,78	1,52	1,00
<b>Panel C - What procedures were used to minimize the project's p</b>																						
	Freq.	%																				
Early development of fair negotiation with population	10	23,8%	25,7%	14,3%	33,3%	18,8%	16,7%	29,2%	29,2%	16,7%	16,7%	66,7%	35,7%	11,5%	31,3%	12,5%	28,6%	0,0%	18,2%	22,2%	29,6%	16,7%
Developing trust with local decision-makers	24	57,1%	60,0%	42,9%	44,4%	59,4%	55,6%	58,3%	45,8%	72,2%	55,6%	66,7%	71,4%	46,2%	62,5%	50,0%	66,7%	35,3%	63,6%	44,4%	59,3%	41,7%
Consciousness of the political implications of the decisions	21	50,0%	57,1%	14,3%	55,6%	50,0%	61,1%	41,7%	37,5%	66,7%	52,8%	33,3%	35,7%	53,8%	50,0%	45,8%	42,9%	47,1%	45,5%	50,0%	59,3%	41,7%
Maintaining good relations with the government	19	45,2%	51,4%	14,3%	22,2%	53,1%	33,3%	54,2%	45,8%	44,4%	50,0%	16,7%	50,0%	38,5%	56,3%	33,3%	33,3%	58,8%	54,5%	38,9%	40,7%	58,3%
Analysis of governmental macroeconomic policies	12	28,6%	31,4%	14,3%	44,4%	25,0%	33,3%	25,0%	37,5%	16,7%	30,6%	16,7%	7,1%	34,6%	43,8%	12,5%	9,5%	35,3%	18,2%	33,3%	33,3%	16,7%
Gathering information from experienced companies	15	35,7%	34,3%	42,9%	22,2%	40,6%	33,3%	37,5%	33,3%	38,9%	27,8%	83,3%	50,0%	30,8%	50,0%	29,2%	33,3%	47,1%	18,2%	61,1%	51,9%	8,3%
Gaining tax advantages	10	23,8%	20,0%	42,9%	0,0%	31,3%	11,1%	33,3%	29,2%	16,7%	19,4%	50,0%	14,3%	30,8%	37,5%	16,7%	9,5%	47,1%	27,3%	22,2%	29,6%	16,7%
Getting investment grants	31	73,8%	71,4%	85,7%	55,6%	81,3%	61,1%	83,3%	91,7%	50,0%	66,7%	66,7%	71,4%	80,8%	62,5%	75,0%	57,1%	82,4%	59,1%	72,2%	0,851852	66,7%

Annex 7 - Conditional analysis of social area	% Import and very Import	Average	Industry			Total Sales		Total Debt		Dividends		Type of Project		Duration of the Project		Cost of the project		Relative Dimension		Project Success		
			Manufacturing N=13	Commerce N=7	Other N=19	High N=15	Low N=21	High N=18	Low N=19	Yes N=14	No N=24	Expansion N=21	Others N=18	Long N=15	Short N=18	High N=16	Low N=16	Big N=18	Small N=13	High N=26	Low N=13	
<b>Panel A - What relevance do you attribute to the following aspects in the project's evaluation?</b>																						
Adopting a policy for social issues	48,7%	2,31	2,46	2,86	2,00	2,67	2,14	2,39	2,37	2,36	2,21	2,52	2,06	1,67	2,67 **	2,00	2,50	2,33	2,31	2,42	2,08	
Adopting a policy for environmental issues	92,3%	3,28	3,69	3,29	3,00 ***	3,60	3,05	3,67	2,89 **	3,71	3,00 **	3,19	3,39	3,67	2,89 **	3,56	2,88	3,33	3,08	3,46	2,92	
Community's opinion	56,4%	1,97	2,15	1,57	2,00	2,40	1,71	2,39	1,53 ***	1,86	1,96	2,05	1,89	1,87	1,89	2,31	1,25 ***	2,00	1,38	2,15	1,62	
Understanding norms, values, beliefs and traditions of the population	41,0%	1,87	2,15	2,57	1,42	1,87	1,81	2,06	1,74	1,86	1,83	2,14	1,56 ***	1,73	1,61	2,19	1,31 **	2,28	1,15 **	2,12	1,38 ***	
Analysing the social consequences in similar projects	33,3%	1,74	2,15	1,57	1,53	2,13	1,67	2,33	1,32 **	1,57	1,75	1,48	2,06	1,87	1,56	2,06	1,13 ***	2,06	1,08 ***	1,85	1,54	
Analysing the social consequences for similar communities	20,5%	1,38	1,38	1,86	1,21	1,67	1,33	1,72	1,16	1,29	1,33	1,33	1,44	1,20	1,50	1,88	0,81 **	1,83	0,77 ***	1,77	0,62 **	
Participating in social programs for the community	30,8%	1,46	1,38	1,43	1,53	1,87	1,24	1,78	1,16	1,36	1,46	1,62	1,28	0,93	1,56	1,44	0,94	1,39	1,00	1,69	1,00	
Analysing local social reality	48,7%	1,79	2,15	1,86	1,53	2,20	1,76	2,06	1,74	1,50	1,92	1,81	1,78	1,67	1,89	2,19	1,25 ***	2,17	1,23 ***	2,04	1,31	
Analysing the government's social policy	28,2%	1,62	1,54	1,43	1,74	2,00	1,48	1,89	1,42	1,57	1,58	1,52	1,72	1,47	1,72	1,75	1,31	1,56	1,54	1,62	1,62	
Availability of social infrastructures	53,8%	1,95	1,62	2,00	2,16	2,80	1,52 **	2,61	1,42 *	2,29	1,67	1,71	2,22	2,20	1,67	2,25	1,44	1,50	2,38 ***	1,85	2,15	
Ethnic and racial diversity	15,4%	1	1,23	1,43	0,68	1,27	0,90	1,06	1,00	0,64	1,25	0,86	1,17	0,60	1,28 ***	1,19	0,50	1,28	0,31	1,35	0,31 **	
Need for the creation of employment and/or housing	46,2%	1,97	2,31	2,29	1,63	2,67	1,52 **	2,22	1,68	1,93	1,96	1,95	2,00	1,53	2,28	1,88	1,75	2,11	1,31	2,15	1,62	
Effects on the wealth of the population	33,3%	1,79	2,08	1,71	1,63	2,13	1,52 ***	2,22	1,26 **	1,86	1,67	1,95	1,61	1,73	1,61	1,88	1,50	1,78	1,46	1,69	2,00	
Effect on the quality of life	71,8%	2,62	3,00	1,86	2,63	2,93	2,48	3,28	1,95 *	2,86	2,42	2,43	2,83	3,07	2,17 *	3,06	1,94 *	2,56	2,38	2,81	2,23	
<b>Panel B - What is the importance of the following risk factors in the project's evaluation?</b>																						
Public's litigation/opposition/discontent	53,8%	2,03	2,15	2,00	1,95	2,00	1,95	2,28	1,79	1,79	2,08	2,19	1,83	2,07	1,56	2,69	1,06 *	2,33	1,31	2,23	1,62	
Negative economic impact on the population (effects of housing, lands,...)	35,9%	1,67	0,92	1,43	2,26 **	1,60	1,81	1,50	1,84	1,57	1,67	1,95	1,33	1,13	2,00 ***	1,50	1,56	1,28	2,00	1,88	1,23	
Social demands of authorities	48,7%	1,97	1,85	2,57	1,84	2,07	1,90	2,17	1,89	1,71	2,08	2,10	1,83	1,73	1,83	2,56	1,13 **	2,28	1,38	2,38	1,15 **	
Environmental damage	66,7%	2,51	2,23	2,43	2,74	2,73	2,43	2,56	2,42	2,36	2,54	2,48	2,56	2,40	2,50	2,75	1,81	2,61	1,77	2,73	2,08	
Effects on the cohesion of the community	20,5%	1,18	1,23	1,00	1,21	1,53	1,00	1,33	1,05	1,07	1,29	1,29	1,06	0,80	1,28	0,94	0,88	1,00	0,85	1,42	0,69 ***	
Impact on public health	30,8%	1,54	1,62	2,14	1,26	1,80	1,43	1,44	1,63	1,29	1,67	1,38	1,72	1,00	1,78	1,44	1,06	1,72	0,69 ***	1,92	0,77 **	
Impact on social structure or cultural values	30,8%	1,38	1,62	1,57	1,16	1,53	1,24	1,28	1,37	0,93	1,71 ***	1,19	1,61	1,13	1,44	1,44	0,88	1,50	0,62	1,77	0,62 **	
Changes in the quality of life of local population	38,5%	1,77	1,77	1,43	1,89	1,60	2,00	2,11	1,47	1,21	2,00	1,71	1,83	1,67	1,61	2,00	1,06	1,67	1,31	2,12	1,08 **	
Availability/offer of labour	43,6%	1,9	1,85	2,43	1,74	2,60	1,48 **	1,83	1,95	1,71	1,96	2,14	1,61	1,13	2,39 **	1,94	1,38	2,17	0,92 **	2,12	1,46	
<b>Panel C - What procedures were used to minimize the project's social risk?</b>																						
		Freq.	%																			
Knowing the government's social interests		10	25,6%	7,7%	28,6%	36,8%	33,3%	19,0%	27,8%	21,1%	14,3%	29,2%	28,6%	22,2%	13,3%	27,8%	25,0%	6,3%	16,7%	7,7%	26,9%	23,1%
Knowing in advance the social consequences		19	48,7%	38,5%	57,1%	52,6%	66,7%	33,3%	61,1%	36,8%	57,1%	41,7%	61,9%	33,3%	33,3%	50,0%	56,3%	25,0%	50,0%	30,8%	61,5%	23,1%
Sharing the return of the project with the community		6	15,4%	15,4%	0,0%	21,1%	13,3%	14,3%	16,7%	10,5%	0,0%	25,0%	19,0%	11,1%	6,7%	16,7%	12,5%	12,5%	11,1%	7,7%	19,2%	7,7%
Solving conflict situations		14	35,9%	30,8%	0,0%	52,6%	20,0%	52,4%	55,6%	21,1%	14,3%	50,0%	33,3%	38,9%	40,0%	27,8%	31,3%	25,0%	22,2%	38,5%	38,5%	30,8%
Technical teams do not underestimate the social aspects		20	51,3%	53,8%	28,6%	57,9%	53,3%	52,4%	83,3%	26,3%	42,9%	54,2%	52,4%	50,0%	60,0%	38,9%	62,5%	37,5%	50,0%	53,8%	42,3%	69,2%
Project is compatible with local values		18	46,2%	69,2%	42,9%	31,6%	73,3%	33,3%	61,1%	36,8%	50,0%	45,8%	38,1%	55,6%	53,3%	44,4%	56,3%	37,5%	61,1%	30,8%	50,0%	38,5%
Knowledge of the country and its people		14	35,9%	46,2%	85,7%	10,5%	40,0%	33,3%	16,7%	57,9%	42,9%	33,3%	42,9%	27,8%	26,7%	50,0%	31,3%	50,0%	61,1%	15,4%	38,5%	30,8%
Fair compensation for damage caused by the project		13	33,3%	30,8%	28,6%	36,8%	53,3%	19,0%	44,4%	21,1%	50,0%	25,0%	42,9%	22,2%	33,3%	33,3%	50,0%	6,3%	33,3%	23,1%	34,6%	30,8%
Creation of liaison committees (information channels) with the population		6	15,4%	15,4%	0,0%	21,1%	13,3%	19,0%	33,3%	0,0%	14,3%	12,5%	23,8%	5,6%	20,0%	0,0%	25,0%	0,0%	22,2%	0,0%	7,7%	30,8%
Persuading the population of the project's benefits		16	41,0%	61,5%	0,0%	42,1%	46,7%	42,9%	55,6%	31,6%	14,3%	54,2%	33,3%	50,0%	40,0%	33,3%	50,0%	12,5%	55,6%	0,0%	42,3%	38,5%
Training managers to be watchful for social aspects		15	38,5%	38,5%	42,9%	36,8%	80,0%	9,5%	44,4%	31,6%	64,3%	25,0%	33,3%	44,4%	26,7%	55,6%	31,3%	37,5%	38,9%	30,8%	42,3%	30,8%
Identifying the most important social issues in the community		7	17,9%	23,1%	0,0%	21,1%	40,0%	4,8%	27,8%	10,5%	14,3%	16,7%	19,0%	16,7%	13,3%	22,2%	31,3%	0,0%	27,8%	0,0%	15,4%	23,1%
Identification and consultation of all involved social groups		6	15,4%	7,7%	0,0%	26,3%	20,0%	14,3%	16,7%	15,8%	14,3%	12,5%	19,0%	11,1%	13,3%	16,7%	31,3%	0,0%	16,7%	15,4%	19,2%	7,7%
Timely knowledge of the population's proposals and perspectives		15	38,5%	46,2%	14,3%	42,1%	40,0%	42,9%	50,0%	31,6%	28,6%	41,7%	47,6%	27,8%	40,0%	33,3%	43,8%	25,0%	44,4%	23,1%	42,3%	30,8%
Creation of effective communication channels with the population		11	28,2%	46,2%	14,3%	21,1%	26,7%	33,3%	50,0%	10,5%	21,4%	29,2%	28,6%	27,8%	33,3%	16,7%	31,3%	25,0%	33,3%	23,1%	26,9%	30,8%
Requesting external mediation in the relationship with the population		3	7,7%	7,7%	0,0%	10,5%	6,7%	9,5%	5,6%	10,5%	0,0%	8,3%	4,8%	11,1%	6,7%	5,6%	6,3%	6,3%	11,1%	0,0%	7,7%	7,7%
Aligning the company's goals with those of the population		10	25,6%	30,8%	28,6%	21,1%	33,3%	23,8%	22,2%	31,6%	14,3%	33,3%	23,8%	27,8%	20,0%	27,8%	37,5%	6,3%	33,3%	7,7%	34,6%	7,7%
Not making promises that cannot be kept		11	28,2%	53,8%	14,3%	15,8%	26,7%	33,3%	44,4%	15,8%	21,4%	33,3%	33,3%	22,2%	40,0%	11,1%	37,5%	12,5%	38,9%	7,7%	26,9%	30,8%
Contributing to the resolution of problems outside the scope of the projects		10	25,6%	23,1%	0,0%	36,8%	20,0%	33,3%	50,0%	5,3%	0,0%	37,5%	14,3%	38,9%	26,7%	16,7%	25,0%	12,5%	27,8%	7,7%	30,8%	15,4%
Creation of well-being (employment, housing, water/sewage, health)		22	56,4%	76,9%	42,9%	47,4%	86,7%	38,1%	66,7%	47,4%	64,3%	54,2%	47,6%	66,7%	53,3%	61,1%	50,0%	50,0%	61,1%	38,5%	65,4%	38,5%
Developing social initiatives in the community		10	25,6%	7,7%	14,3%	42,1%	33,3%	23,8%	44,4%	10,5%	21,4%	29,2%	28,6%	22,2%	13,3%	27,8%	18,8%	12,5%	5,6%	30,8%	34,6%	7,7%
Selecting a location that offers the most benefits to the population		7	17,9%	15,4%	0,0%	26,3%	20,0%	19,0%	27,8%	10,5%	14,3%	16,7%	19,0%	16,7%	13,3%	22,2%	25,0%	6,3%	16,7%	15,4%	23,1%	7,7%
Attributing financial benefits to the population		0	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
Involving qualified/skilled personnel		21	53,8%	38,5%	57,1%	63,2%	66,7%	47,6%	61,1%	47,4%	57,1%	54,2%	47,6%	61,1%	46,7%	61,1%	56,3%	37,5%	44,4%	53,8%	73,1%	15,4%

Annex 7 - Conditional analysis of social area	% Import and very Import	Average	CEO Education		CEO Age		CEO Tenure		Owned by Management		PM Education		Project Manager Age		PM Position		PM Experience		PM Compensation		Decision-Making	
			University Course	Others	>57,75	Younger	Long	Short	0%	>0%	University Course	Others	>=50	Younger	Administration	Other	+4	Other	Fixed	Other	Administration	Others
			N=28	N=11	N=9	N=28	N=19	N=19	N=21	N=17	N=32	N=7	N=11	N=25	N=15	N=21	N=16	N=18	N=24	N=12	N=27	N=9
<b>Panel A - What relevance do you attribute to the following aspects in the project's evaluation?</b>																						
Adopting a policy for social issues	48,7%	2,31	2,21	2,55	1,56	2,43 ***	2,58	1,95	2,19	2,35	2,31	2,29	1,73	2,44	2,47	2,05	1,69	2,72 **	2,46	1,92	2,33	2,56
Adopting a policy for environmental issues	92,3%	3,28	3,57	2,55 **	3,22	3,25	3,00	3,53	3,24	3,29	3,44	2,57	3,00	3,40	3,67	3,00 ***	3,44	3,06	3,08	3,50	3,22	3,56
Community's opinion	56,4%	1,97	2,32	1,09 **	1,67	1,96	1,79	2,11	1,86	2,06	2,09	1,43	1,55	2,04	2,27	1,62	1,81	1,83	1,54	2,58 **	2,19	2,00
Understanding norms, values, beliefs and traditions of the population	41,0%	1,87	1,86	1,91	1,22	2,00	1,79	1,89	1,62	2,12	1,81	2,14	1,64	1,84	2,13	1,52	1,63	1,78	1,67	2,00	1,96	1,78
Analysing the social consequences in similar projects	33,3%	1,74	2,04	1,00 **	1,33	1,75	1,47	1,95	1,67	1,76	1,75	1,71	1,82	1,64	2,47	1,14 *	1,63	1,72	1,29	2,50 **	1,85	1,67
Analysing the social consequences for similar communities	20,5%	1,38	1,50	1,09	0,89	1,39	1,37	1,32	1,19	1,53	1,34	1,57	1,27	1,32	1,87	0,90	1,25	1,28	1,00	1,92 ***	1,78	0,67 **
Participating in social programs for the community	30,8%	1,46	1,75	0,73 **	0,78	1,54	1,26	1,53	1,43	1,35	1,63	0,71	1,00	1,44	1,47	1,19	1,06	1,44	1,17	1,75	1,63	1,44
Analysing local social reality	48,7%	1,79	1,93	1,45	1,22	1,89	1,74	1,79	1,43	2,18 ***	1,81	1,71	1,36	1,84	2,20	1,33 ***	1,44	1,78	1,50	2,08	2,00	1,56
Analysing the government's social policy	28,2%	1,62	1,86	1,00 **	1,56	1,54	1,47	1,68	1,67	1,47	1,81	0,71 **	0,73	1,92 *	2,13	1,14 **	1,06	1,83 ***	1,29	1,92	1,70	1,56
Availability of social infrastructures	53,8%	1,95	2,36	0,91 *	1,22	2,07	1,42	2,42 **	2,38	1,35 **	2,28	0,43 *	1,27	2,12 ***	2,13	1,67	1,38	2,17	1,88	1,83	2,04	2,00
Ethnic and racial diversity	15,4%	1	1,14	0,64	0,11	1,29 **	0,84	1,11	0,81	1,18	0,97	1,14	0,82	0,96	1,40	0,57	0,63	1,28 ***	0,79	1,50	1,22	0,67
Need for the creation of employment and/or housing	46,2%	1,97	2,14	1,55	0,78	2,25 **	1,68	2,16	1,86	2,00	2,13	1,29	1,09	2,2 ***	2,33	1,52	1,75	2,17	1,83	2,42	1,93	2,33
Effects on the wealth of the population	33,3%	1,79	2,07	1,09 **	1,00	1,93 **	1,26	2,26 *	1,81	1,71	2,00	0,86 **	1,18	1,92	1,87	1,57	1,69	1,67	1,67	1,92	1,70	2,22
Effect on the quality of life	71,8%	2,62	3,00	1,64 *	2,67	2,54	2,21	3,00 ***	2,67	2,53	2,78	1,86	2,73	2,52	3,20	2,14 *	2,88	2,17	2,25	3,08 **	2,63	2,67
<b>Panel B - What is the importance of the following risk factors in the project's evaluation?</b>																						
Public's litigation/opposition/discontent	53,8%	2,03	2,18	1,64	1,78	2,04	1,89	2,16	1,90	2,18	1,94	2,43	1,91	2,00	2,53	1,57 ***	1,81	1,89	1,54	2,67 ***	2,30	1,67
Negative economic impact on the population (effects of housing, lands, employment,...)	35,9%	1,67	1,61	1,82	1,56	1,61	2,00	1,26	1,90	1,29	1,63	1,86	1,45	1,60	1,67	1,48	0,88	1,89 **	1,46	1,58	2,11	0,89 **
Social demands of authorities	48,7%	1,97	2,07	1,73	1,78	1,93	2,05	1,79	1,86	2,00	1,91	2,29	1,55	2,00	2,67	1,29 **	1,44	2,00	1,46	2,50 ***	2,33	1,22 ***
Environmental damage	66,7%	2,51	2,79	1,82	2,56	2,39	2,32	2,63	2,57	2,35	2,63	2,00	2,00	2,64	3,00	2,05	2,38	2,44	1,96	3,42 **	2,78	2,22
Effects on the cohesion of the community	20,5%	1,18	1,43	0,55 ***	0,89	1,25	1,16	1,11	1,00	1,29	1,34	0,43 ***	0,82	1,12	1,13	0,95	0,75	1,17	0,92	1,42	1,22	1,44
Impact on public health	30,8%	1,54	1,61	1,36	0,67	1,71 ***	1,37	1,58	1,38	1,59	1,50	1,71	1,36	1,48	2,07	1,00 ***	1,25	1,78	1,17	2,33 **	1,85	1,11
Impact on social structure or cultural values	30,8%	1,38	1,50	1,09	0,67	1,61 ***	1,05	1,63	1,24	1,47 ***	1,28	1,86	1,36	1,20	1,80	0,86 ***	1,13	1,50	0,96	2,33 *	1,70	0,89
Changes in the quality of life of local population	38,5%	1,77	2,04	1,09 ***	1,56	1,71	1,63	1,84	1,81	1,65	1,75	1,86	1,18	1,88	2,33	1,19 **	1,44	1,61	1,17	2,50 *	2,11	1,11 ***
Availability/offer of labour	43,6%	1,9	2,00	1,64	0,67	2,18 *	1,74	1,95	1,57	2,18	2,13	0,86 **	1,18	2,04 ***	1,73	1,81	1,75	2,00	1,83	2,17	1,93	2,00
<b>Panel C - What procedures were used to minimize the project's social risk?</b>																						
	Freq.	%																				
Knowing the government's social interests	10	25,6%	25,0%	27,3%	11,1%	28,6%	26,3%	26,3%	42,9%	5,9%	28,1%	14,3%	0,0%	32,0%	20,0%	23,8%	0,13	0,33	0,21	0,42	29,6%	22,2%
Knowing in advance the social consequences	19	48,7%	53,6%	36,4%	33,3%	50,0%	57,9%	36,8%	47,6%	47,1%	53,1%	28,6%	36,4%	48,0%	40,0%	47,6%	0,38	0,44	0,38	0,58	55,6%	44,4%
Sharing the return of the project with the community	6	15,4%	21,4%	0,0%	11,1%	17,9%	10,5%	21,1%	14,3%	17,6%	18,8%	0,0%	0,0%	16,0%	6,7%	14,3%	0,13	0,11	0,13	0,25	14,8%	22,2%
Solving conflict situations	14	35,9%	39,3%	27,3%	44,4%	35,7%	42,1%	31,6%	47,6%	23,5%	28,1%	71,4%	54,5%	24,0%	46,7%	23,8%	0,31	0,28	0,21	0,58	37,0%	33,3%
Technical teams do not underestimate the social aspects	20	51,3%	57,1%	36,4%	44,4%	53,6%	52,6%	52,6%	57,1%	47,1%	46,9%	71,4%	63,6%	44,0%	46,7%	52,4%	0,44	0,50	0,50	0,50	48,1%	66,7%
Project is compatible with local values	18	46,2%	53,6%	27,3%	22,2%	53,6%	31,6%	57,9%	33,3%	58,8%	46,9%	42,9%	54,5%	36,0%	66,7%	23,8%	0,44	0,44	0,42	0,58	40,7%	66,7%
Knowledge of the country and its people	14	35,9%	17,9%	81,8%	33,3%	35,7%	47,4%	21,1%	14,3%	58,8%	34,4%	42,9%	27,3%	40,0%	40,0%	33,3%	0,38	0,39	0,38	0,33	33,3%	33,3%
Fair compensation for damage caused by the project	13	33,3%	39,3%	18,2%	33,3%	35,7%	42,1%	26,3%	42,9%	23,5%	40,6%	0,0%	36,4%	36,0%	40,0%	33,3%	0,31	0,33	0,25	0,42	33,3%	33,3%
Creation of liaison committees (information channels) with the population	6	15,4%	21,4%	0,0%	11,1%	14,3%	0,0%	31,6%	19,0%	11,8%	18,8%	0,0%	27,3%	4,0%	6,7%	14,3%	0,25	0,00	0,21	0,08	3,7%	44,4%
Persuading the population of the project's benefits	16	41,0%	53,6%	9,1%	22,2%	46,4%	26,3%	57,9%	33,3%	52,9%	40,6%	42,9%	54,5%	32,0%	46,7%	33,3%	0,44	0,39	0,33	0,67	37,0%	55,6%
Training managers to be watchful for social aspects	15	38,5%	42,9%	27,3%	11,1%	46,4%	36,8%	36,8%	33,3%	41,2%	46,9%	0,0%	27,3%	44,0%	46,7%	33,3%	0,31	0,50	0,33	0,50	37,0%	55,6%
Identifying the most important social issues in the community	7	17,9%	25,0%	0,0%	0,0%	21,4%	15,8%	21,1%	14,3%	23,5%	21,9%	0,0%	18,2%	20,0%	6,7%	28,6%	0,19	0,22	0,21	0,17	18,5%	22,2%
Identification and consultation of all involved social groups	6	15,4%	21,4%	0,0%	22,2%	10,7%	21,1%	10,5%	14,3%	17,6%	18,8%	0,0%	0,0%	24,0%	20,0%	14,3%	0,06	0,17	0,13	0,08	22,2%	0,0%
Timely knowledge of the population's proposals and perspectives	15	38,5%	39,3%	36,4%	33,3%	39,3%	42,1%	36,8%	38,1%	41,2%	40,6%	28,6%	27,3%	40,0%	33,3%	38,1%	0,38	0,28	0,38	0,33	33,3%	44,4%
Creation of effective communication channels with the population	11	28,2%	35,7%	9,1%	0,0%	32,1%	5,3%	47,4%	19,0%	35,3%	25,0%	42,9%	36,4%	16,0%	26,7%	19,0%	0,38	0,11	0,21	0,42	25,9%	44,4%
Requesting external mediation in the relationship with the population	3	7,7%	7,1%	9,1%	11,1%	3,6%	10,5%	5,3%	4,8%	11,8%	6,3%	14,3%	9,1%	8,0%	6,7%	9,5%	0,13	0,06	0,04	0,17	11,1%	0,0%
Aligning the company's goals with those of the population	10	25,6%	25,0%	27,3%	0,0%	35,7%	21,1%	31,6%	23,8%	29,4%	21,9%	42,9%	18,2%	24,0%	40,0%	9,5%	0,13	0,33	0,25	0,33	29,6%	22,2%
Not making promises that cannot be kept	11	28,2%	35,7%	9,1%	22,2%	28,6%	10,5%	42,1%	19,0%	35,3%	25,0%	42,9%	54,5%	8,0%	33,3%	14,3%	0,38	0,11	0,25	0,33	18,5%	55,6%
Contributing to the resolution of problems outside the scope of the projects	10	25,6%	32,1%	9,1%	22,2%	25,0%	21,1%	31,6%	28,6%	23,5%	21,9%	42,9%	36,4%	16,0%	26,7%	19,0%	0,38	0,11	0,13	0,58	25,9%	22,2%
Creation of well-being (employment, housing, water/sewage, health)	22	56,4%	60,7%	45,5%	22,2%	67,9%	47,4%	63,2%	47,6%	64,7%	56,3%	57,1%	54,5%	52,0%	73,3%	38,1%	0,50	0,61	0,46	0,83	55,6%	77,8%
Developing social initiatives in the community	10	25,6%	35,7%	0,0%	22,2%	25,0%	26,3%	21,1%	33,3%	11,8%	31,3%	0,0%	0,0%	28,0%	26,7%	14,3%	0,06	0,22	0,17	0,25	25,9%	33,3%
Selecting a location that offers the most benefits to the population	7	17,9%	25,0%	0,0%	22,2%	14,3%	26,3%	10,5%	23,8%	11,8%	21,9%	0,0%	0,0%	28,0%	20,0%	19,0%	0,06	0,22	0,08	0,25	25,9%	0,0%
Attributing financial benefits to the population	0	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,00	0,00	0,00	0,00	0,0%	0,0%
Involving qualified/skilled personnel	21	53,8%	60,7%	36,4%	33,3%	60,7%	52,6%	52,6%	52,4%	52,9%	56,3%	42,9%	36,4%	56,0%	66,7%	38,1%	0,38	0,56	0,38	0,75	66,7%	33,3%



Annex 8 - Conditional analysis of environmental area	% Import and very Import	Average	Industry			Total Sales		Total Debt		Dividends		Type of Project		Duration of the Project		Cost of the project		Relative Dimension		Project Success		
			Manufacturing	Commerce	Other	High	Low	High	Low	Yes	No	Expansion	Others	Long	Short	High	Low	Big	Small	High	Low	
			N=27	N=11	N=21	N=22	N=32	N=24	N=33	N=28	N=31	N=30	N=30	N=24	N=31	N=25	N=29	N=24	N=28	N=46	N=14	
<b>Panel A - What is the relevance of the following factors in the project's evaluation?</b>																						
Environmental legislation	96,7%	3,58	3,59	3,27	3,76 ***	3,68	3,56	3,67	3,52	3,64	3,52	3,57	3,60	3,79	3,39 *	3,80	3,38 *	3,75	3,43 **	3,57	3,64	
Subsidies/grants given towards environment	41,7%	1,73	1,85	1,45	1,67	2,18	1,44	1,67	1,76	1,71	1,81	1,70	1,77	1,63	1,87	1,52	1,62	1,71	1,46	1,76	1,64	
Penalties for environmental damages	48,3%	2,17	1,96	2,00	2,62	2,45	2,03	2,33	2,03	2,18	2,10	2,67	1,67 **	1,71	2,35	2,52	1,72 **	2,33	1,86	2,41	1,36 **	
Licenses depending on meeting environmental requisites	66,7%	2,62	2,37	2,82	2,81	3,09	2,19	2,92	2,27	2,89	2,32	3,10	2,13 *	2,75	2,39	2,96	2,10 **	2,63	2,29	2,61	2,64	
State's environmental control	55,0%	2,15	1,96	1,91	2,48	2,55	1,84	2,46	1,79	2,04	2,19	2,73	1,57 *	1,83	2,35	2,56	1,55 **	2,50	1,46 *	2,11	2,29	
Analysis of local environmental situation	53,3%	2,28	2,30	1,64	2,57	2,95	1,81	2,63	1,91	2,25	2,26	2,27	2,30	2,17	2,29	2,72	1,69 *	2,46	1,79 ***	2,24	2,43	
Definition of the area of environmental influence on the project	40,0%	1,9	1,96	1,36	2,05	2,09	1,81	2,00	1,79	1,93	1,84	2,00	1,80	1,92	1,81	2,16	1,52	2,29	1,43 **	1,85	2,07	
Identification of natural resources potentially affected	43,3%	1,72	1,44	1,82	1,95	2,18	1,38	1,67	1,73	1,71	1,68	2,07	1,37 ***	1,29	1,97	1,72	1,41	2,04	1,14 ***	1,59	2,14	
Impact on land (and agricultural grounds)	36,7%	1,63	1,37	1,36	2,05	2,36	1,06	1,75	1,42	1,79	1,45	1,73	1,53	1,29	1,87	2,00	1,00 **	1,96	0,96 **	1,61	1,71	
Impact on water resources	46,7%	1,78	1,67	1,55	2,14	2,50	1,34	1,79	1,67	1,82	1,71	1,97	1,60	1,54	1,87	2,00	1,28 ***	1,88	1,32	1,72	2,00	
Impact on natural biological resources	33,3%	1,57	1,44	1,36	1,90	2,18	1,13	1,71	1,30	1,64	1,45	1,90	1,23	1,25	1,68	1,72	1,03	1,63	1,00 ***	1,48	1,86	
Impact on quality of the air	63,3%	2,27	2,37	1,82	2,48	2,73	2,03	2,13	2,33	2,18	2,32	2,27	2,27	2,13	2,39	2,52	1,83	2,38	1,93	2,33	2,07	
Sound impact	50,0%	2,15	2,33	1,91	2,14	2,73	1,88	2,46	1,91	2,32	1,97	2,00	2,30	2,50	1,94	2,48	1,66 **	2,13	1,96	2,00	2,64	
Impact on landscape	36,7%	1,58	1,37	1,27	2,10	1,95	1,25	1,83	1,18	1,64	1,48	1,80	1,37	1,67	1,42	2,16	0,83 *	2,08	0,71 *	1,39	2,21 ***	
Impact on health	35,0%	1,72	2,15	1,64	1,29	1,91	1,63	1,79	1,64	1,36	2,00	1,50	1,93	1,67	1,65	1,64	1,48	2,00	1,21 ***	1,65	1,93	
<b>Panel B - What is the importance of the following risk factors in the project's evaluation?</b>																						
Environmental changes in the project's location	42,4%	2,00	1,38	2,18	2,67 *	2,67	1,41	2,09	1,79	2,00	1,94	2,17	1,83	1,83	1,93	2,46	1,34 *	1,96	1,63	2,09	1,71	
Inefficient use of resources	28,8%	1,63	1,58	1,55	1,81	2,43	1,22	2,00	1,33	1,81	1,42	1,48	1,77	1,88	1,37	1,88	1,14 **	1,50	1,44	1,60	1,71	
Social opposition to the project/public discontent	28,8%	1,49	1,42	1,91	1,43	1,86	1,34	1,70	1,42	1,33	1,55	1,76	1,23	1,54	1,27	2,17	0,76 *	2,17	0,78 *	1,56	1,29	
Loss of image and reputation	40,7%	1,86	1,85	2,18	1,81	2,24	1,78	1,87	1,97	1,30	2,29 **	1,83	1,90	1,83	1,73	1,96	1,55	2,29	1,37 **	1,87	1,86	
Influence on stock price	6,8%	0,41	0,12	1,00	0,48 **	0,81	0,22	0,61	0,30	0,44	0,26	0,62	0,20 ***	0,04	0,63 **	0,54	0,21	0,63	0,15 ***	0,44	0,29	
<b>Panel C - What procedures were used to minimize the project's environmental risk?</b>																						
		Freq.	%																			
Gathering data on the base situation for future comparison		19	31,7%	18,5%	9,1%	61,9%	40,9%	25,0%	54,2%	12,1%	35,7%	25,8%	26,7%	36,7%	45,8%	16,1%	44,0%	13,8%	16,7%	35,7%	26,1%	50,0%
Internally establishing minimum environmental standards for critical aspects		32	53,3%	48,1%	45,5%	66,7%	95,5%	25,0%	66,7%	42,4%	67,9%	38,7%	50,0%	56,7%	45,8%	61,3%	64,0%	41,4%	50,0%	50,0%	54,3%	50,0%
Elaborating a strategy to obtain the population's support		9	15,0%	14,8%	0,0%	23,8%	18,2%	15,6%	20,8%	12,1%	0,0%	25,8%	10,0%	20,0%	12,5%	12,9%	20,0%	6,9%	25,0%	3,6%	15,2%	14,3%
Elaborating an environmental impact study		27	45,0%	48,1%	0,0%	66,7%	68,2%	28,1%	54,2%	36,4%	46,4%	41,9%	40,0%	50,0%	50,0%	38,7%	48,0%	34,5%	45,8%	35,7%	37,0%	71,4%
Elaborating an environmental plan (in line with the strategy)		24	40,0%	44,4%	9,1%	52,4%	68,2%	21,9%	62,5%	24,2%	35,7%	41,9%	26,7%	53,3%	45,8%	38,7%	56,0%	24,1%	45,8%	32,1%	34,8%	57,1%
Frequently elaborating written environmental reports		22	36,7%	44,4%	9,1%	42,9%	59,1%	25,0%	45,8%	30,3%	50,0%	22,6%	30,0%	43,3%	41,7%	35,5%	48,0%	31,0%	45,8%	32,1%	32,6%	50,0%
Continuously analysing environmental effects		32	53,3%	59,3%	36,4%	52,4%	59,1%	50,0%	62,5%	45,5%	53,6%	51,6%	50,0%	56,7%	62,5%	51,6%	60,0%	51,7%	45,8%	60,7%	50,0%	64,3%
Identifying and cooperating with the affected community		3	5,0%	0,0%	18,2%	4,8%	13,6%	0,0%	0,0%	9,1%	7,1%	3,2%	6,7%	3,3%	0,0%	9,7%	8,0%	0,0%	8,3%	0,0%	6,5%	0,0%
Informing and listening to all parties interested/affected		6	10,0%	3,7%	9,1%	19,0%	4,5%	15,6%	16,7%	6,1%	14,3%	3,2%	16,7%	3,3%	8,3%	9,7%	16,0%	6,9%	12,5%	10,7%	10,9%	7,1%
Fair compensation to the population for damages		1	1,7%	3,7%	0,0%	0,0%	0,0%	3,1%	0,0%	3,0%	0,0%	3,2%	3,3%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	7,1%
Using independent/external experts to avoid suspicions		13	21,7%	25,9%	18,2%	19,0%	22,7%	25,0%	8,3%	33,3%	14,3%	29,0%	13,3%	30,0%	20,8%	19,4%	12,0%	27,6%	20,8%	21,4%	19,6%	28,6%
Using the knowledge of the local community		5	8,3%	14,8%	0,0%	4,8%	13,6%	6,3%	20,8%	0,0%	7,1%	9,7%	6,7%	10,0%	16,7%	3,2%	16,0%	3,4%	16,7%	3,6%	6,5%	14,3%
Calling the technical teams' attention to environmental issues		22	36,7%	44,4%	27,3%	33,3%	45,5%	34,4%	41,7%	33,3%	39,3%	32,3%	40,0%	33,3%	33,3%	38,7%	24,0%	44,8%	50,0%	25,0%	30,4%	57,1%
Not underestimating social aspects in environmental evaluation		18	30,0%	29,6%	27,3%	33,3%	54,5%	12,5%	37,5%	21,2%	35,7%	22,6%	33,3%	26,7%	25,0%	32,3%	28,0%	24,1%	33,3%	17,9%	26,1%	42,9%
Using technology compatible with environmental care		38	63,3%	70,4%	54,5%	61,9%	81,8%	59,4%	75,0%	60,6%	67,9%	58,1%	53,3%	73,3%	70,8%	64,5%	72,0%	58,6%	79,2%	57,1%	65,2%	57,1%
Meeting requisites of environmental legislation		46	76,7%	85,2%	81,8%	66,7%	81,8%	81,3%	75,0%	81,8%	82,1%	74,2%	66,7%	86,7%	87,5%	74,2%	72,0%	79,3%	79,2%	75,0%	76,1%	78,6%
Using recyclable material		22	36,7%	37,0%	63,6%	23,8%	68,2%	21,9%	45,8%	33,3%	46,4%	29,0%	40,0%	33,3%	33,3%	41,9%	28,0%	34,5%	33,3%	32,1%	30,4%	57,1%
Pro-active management in preventing adverse environmental effects		17	28,3%	25,9%	18,2%	38,1%	54,5%	12,5%	54,2%	9,1%	42,9%	12,9%	26,7%	30,0%	29,2%	29,0%	28,0%	24,1%	25,0%	25,0%	26,1%	35,7%
Preservation of affected habitats		8	13,3%	11,1%	18,2%	14,3%	22,7%	9,4%	20,8%	9,1%	17,9%	6,5%	16,7%	10,0%	12,5%	12,9%	24,0%	6,9%	29,2%	3,6%	8,7%	28,6%
Continual environmental monitoring		22	36,7%	37,0%	36,4%	38,1%	40,9%	34,4%	37,5%	33,3%	42,9%	29,0%	46,7%	26,7%	25,0%	45,2%	40,0%	34,5%	50,0%	21,4%	32,6%	50,0%
Investing in the product to meet environmental stipulations		22	36,7%	48,1%	18,2%	33,3%	50,0%	34,4%	37,5%	39,4%	42,9%	29,0%	33,3%	40,0%	33,3%	41,9%	40,0%	34,5%	58,3%	21,4%	37,0%	35,7%
Investing in the production process to gain green competencies		17	28,3%	29,6%	36,4%	23,8%	63,6%	9,4%	41,7%	21,2%	32,1%	25,8%	30,0%	26,7%	20,8%	38,7%	32,0%	24,1%	37,5%	21,4%	28,3%	28,6%
Investing in the employees' environmental knowledge		16	26,7%	29,6%	18,2%	28,6%	36,4%	21,9%	33,3%	21,2%	25,0%	29,0%	16,7%	36,7%	25,0%	32,3%	20,0%	27,6%	25,0%	21,4%	28,3%	21,4%
Top management evaluates environmental performance		14	23,3%	33,3%	9,1%	19,0%	40,9%	12,5%	33,3%	15,2%	28,6%	19,4%	16,7%	30,0%	25,0%	25,8%	20,0%	24,1%	25,0%	17,9%	19,6%	35,7%

Annex 8 - Conditional analysis of environmental area	% Import and very Import	Average	CEO Education		CEO Age		CEO Tenure		Owned by Management		Project Manager Education		Project Manager Age		Project Manager Position		PM Experience		PM Compensation		Decision-Making		
			University Course	Others	>57,75	Younger	Long	Short	0%	>0%	University Course	Others	>=50	Younger	Administration	Other	+4	Other	Fixed	Other	Administration	Others	
			N=48	N=11	N=15	N=42	N=27	N=29	N=28	N=30	N=53	N=6	N=16	N=42	N=27	N=31	N=28	N=27	N=32	N=24	N=44	N=12	
<b>Panel A - What is the relevance of the following factors in the project's evaluation?</b>																							
Environmental legislation	96,7%	3,58	3,63	3,45	3,40	3,67	3,67	3,62	3,68	3,53	3,58	3,67	3,63	3,60	3,48	3,71 **	3,61	3,59	3,69	3,46	3,59	3,58	
Subsidies/grants given towards environment	41,7%	1,73	1,88	1,27	1,47	1,90	1,48	2,03	1,68	1,83	1,70	2,33	2,50	1,48 **	1,63	1,87	1,93	1,78	1,75	1,92	1,73	2,33	
Penalties for environmental damages	48,3%	2,17	2,06	2,82 ***	1,93	2,24	2,52	1,97	2,21	2,17	2,13	2,83	2,00	2,26	2,11	2,26	2,00	2,22	2,22	2,00	2,20	1,83	
Licenses depending on meeting environmental requisites	66,7%	2,62	2,63	2,55	2,33	2,64	2,81	2,41	2,71	2,47	2,72	1,67	2,38	2,67	2,22	2,90 **	2,46	2,78	2,69	2,42	2,50	3,00	
State's environmental control	55,0%	2,15	2,19	2,09	2,00	2,17	2,11	2,24	2,36	1,97	2,17	2,17	2,81	1,90 ***	1,89	2,39	2,50	1,81 ***	2,00	2,29	2,09	2,17	
Analysis of local environmental situation	53,3%	2,28	2,40	1,73	1,60	2,45 ***	2,26	2,31	1,96	2,53	2,21	2,83	2,69	2,10	2,15	2,35	2,32	2,37	2,22	2,42	2,48	2,00	
Definition of the area of environmental influence on the project	40,0%	1,9	2,08	1,09 **	1,87	1,86	1,85	1,97	1,89	1,87	1,87	2,17	2,50	1,64 **	1,74	2,00	1,96	1,70	1,56	2,13	2,11	1,75	
Identification of natural resources potentially affected	43,3%	1,72	1,79	1,55	1,93	1,62	2,00	1,48	1,82	1,63	1,81	1,17	2,06	1,60	1,59	1,84	1,71	1,63	1,50	1,83	1,82	1,92	
Impact on land (and agricultural grounds)	36,7%	1,63	1,81	1,00	1,27	1,74	1,78	1,59	1,86	1,43	1,75	0,83	1,63	1,64	1,41	1,84	1,46	1,78	1,31	1,96 ***	1,80	1,58	
Impact on water resources	46,7%	1,78	1,94	1,27	1,47	1,88	1,85	1,86	2,00	1,60	1,87	1,33	1,88	1,76	1,59	1,97	1,50	2,07	1,75	1,75	2,02	1,50	
Impact on natural biological resources	33,3%	1,57	1,71	1,09	1,40	1,60	1,56	1,62	1,75	1,40	1,66	1,00	1,50	1,60	1,22	1,87	1,39	1,70	1,31	1,79	1,70	1,58	
Impact on quality of the air	63,3%	2,27	2,44	1,73	2,47	2,21	1,96	2,66	2,71	1,90	2,38	1,67	2,56	2,19	1,63	2,87 *	2,00	2,52	1,94	2,71 **	2,48	1,75	
Sound impact	50,0%	2,15	2,35	1,18 **	1,80	2,21	1,67	2,45 ***	2,68	1,60 *	2,23	1,33	2,19	2,10	1,85	2,35	1,75	2,52 ***	1,94	2,29	2,23	2,33	
Impact on landscape	36,7%	1,58	1,73	0,91	1,47	1,55	1,37	1,79	1,71	1,40	1,57	1,67	1,88	1,43	1,48	1,61	1,71	1,33	1,19	1,92 ***	1,61	1,75	
Impact on health	35,0%	1,72	1,90	1,09	1,13	1,88	1,56	1,97	1,82	1,60	1,74	1,83	1,88	1,64	1,74	1,68	1,29	2,26 **	1,66	1,83	1,86	1,75	
<b>Panel B - What is the importance of the following risk factors in the project's evaluation?</b>																							
Environmental changes in the project's location	42,4%	2,00	2,13	1,45	1,40	2,15 ***	1,96	1,93	2,00	1,97	2,00	2,00	2,31	1,85	2,00	1,97	2,07	2,04	2,03	2,00	2,30	1,58	
Inefficient use of resources	28,8%	1,63	1,79	1,00 ***	1,27	1,73	1,52	1,75	1,70	1,57	1,62	1,83	1,81	1,56	1,81	1,47	1,36	2,04 ***	1,84	1,42	1,72	1,83	
Social opposition to the project/public discontent	28,8%	1,49	1,51	1,36	1,00	1,54	1,30	1,61	1,44	1,43	1,37	2,50	1,50	1,41	1,48	1,40	1,25	1,58	1,35	1,42	1,72	1,17	
Loss of image and reputation	40,7%	1,86	1,85	1,91	0,80	2,17 *	1,52	2,11	1,85	1,83	1,71	3,17 **	1,88	1,83	2,07	1,63	1,61	2,31	1,97	1,83	2,14	1,50	
Influence on stock price	6,8%	0,41	0,36	0,64	0,13	0,37	0,44	0,29	0,63	0,13 ***	0,46	0,00	0,19	0,44	0,30	0,43	0,29	0,50	0,39	0,38	0,51	0,17	
<b>Panel C - What procedures were used to minimize the project's environmental risk?</b>																							
		Freq.	%																				
Gathering data on the base situation for future comparison		19	31,7%	37,5%	9,1%	40,0%	28,6%	33,3%	34,5%	46,4%	20,0%	34,0%	16,7%	43,8%	28,6%	29,6%	35,5%	32,1%	29,6%	31,3%	29,2%	34,1%	25,0%
Internally establishing minimum environmental standards for critical aspects		32	53,3%	56,3%	45,5%	53,3%	52,4%	51,9%	55,2%	60,7%	46,7%	56,6%	33,3%	50,0%	54,8%	40,7%	64,5%	46,4%	63,0%	59,4%	50,0%	52,3%	66,7%
Elaborating a strategy to obtain the population's support		9	15,0%	16,7%	9,1%	6,7%	16,7%	11,1%	20,7%	10,7%	20,0%	11,3%	50,0%	25,0%	11,9%	18,5%	12,9%	21,4%	11,1%	9,4%	25,0%	18,2%	8,3%
Elaborating an environmental impact study		27	45,0%	50,0%	18,2%	26,7%	50,0%	33,3%	58,6%	53,6%	36,7%	47,2%	16,7%	43,8%	45,2%	40,7%	48,4%	46,4%	48,1%	46,9%	45,8%	43,2%	58,3%
Elaborating an environmental plan (in line with the strategy)		24	40,0%	45,8%	18,2%	20,0%	47,6%	33,3%	51,7%	39,3%	43,3%	39,6%	50,0%	43,8%	40,5%	33,3%	48,4%	39,3%	48,1%	40,6%	45,8%	38,6%	50,0%
Frequently elaborating written environmental reports		22	36,7%	43,8%	9,1%	26,7%	40,5%	33,3%	44,8%	35,7%	40,0%	39,6%	16,7%	43,8%	35,7%	40,7%	35,5%	35,7%	44,4%	43,8%	33,3%	34,1%	50,0%
Continuously analysing environmental effects		32	53,3%	62,5%	18,2%	53,3%	54,8%	51,9%	58,6%	53,6%	56,7%	56,6%	33,3%	56,3%	54,8%	55,6%	54,8%	42,9%	66,7%	50,0%	58,3%	56,8%	58,3%
Identifying and cooperating with the affected community		3	5,0%	2,1%	18,2%	0,0%	7,1%	11,1%	0,0%	7,1%	3,3%	5,7%	0,0%	0,0%	7,1%	7,4%	3,2%	0,0%	11,1%	6,3%	4,2%	6,8%	0,0%
Informing and listening to all parties interested/affected		6	10,0%	12,5%	0,0%	13,3%	7,1%	14,8%	6,9%	14,3%	6,7%	11,3%	0,0%	6,3%	11,9%	11,1%	9,7%	10,7%	3,7%	3,1%	12,5%	11,4%	8,3%
Fair compensation to the population for damages		1	1,7%	2,1%	0,0%	0,0%	2,4%	0,0%	3,4%	3,6%	0,0%	1,9%	0,0%	0,0%	2,4%	3,7%	0,0%	0,0%	3,7%	3,1%	0,0%	0,0%	8,3%
Using independent/external experts to avoid suspicions		13	21,7%	20,8%	27,3%	13,3%	26,2%	22,2%	24,1%	14,3%	30,0%	18,9%	50,0%	18,8%	23,8%	33,3%	12,9%	14,3%	33,3%	21,9%	25,0%	27,3%	8,3%
Using the knowledge of the local community		5	8,3%	10,4%	0,0%	0,0%	11,9%	3,7%	13,8%	0,0%	16,7%	5,7%	33,3%	25,0%	2,4%	7,4%	9,7%	17,9%	0,0%	6,3%	12,5%	6,8%	16,7%
Calling the technical teams' attention to environmental issues		22	36,7%	37,5%	36,4%	20,0%	42,9%	37,0%	41,4%	35,7%	40,0%	39,6%	16,7%	50,0%	33,3%	25,9%	48,4%	50,0%	29,6%	43,8%	33,3%	29,5%	58,3%
Not underestimating social aspects in environmental evaluation		18	30,0%	31,3%	27,3%	13,3%	33,3%	33,3%	27,6%	35,7%	23,3%	32,1%	16,7%	31,3%	28,6%	18,5%	38,7%	28,6%	33,3%	25,0%	37,5%	31,8%	33,3%
Using technology compatible with environmental care		38	63,3%	60,4%	72,7%	40,0%	69,0%	59,3%	65,5%	75,0%	50,0%	62,3%	66,7%	68,8%	59,5%	55,6%	67,7%	64,3%	59,3%	59,4%	62,5%	68,2%	50,0%
Meeting requisites of environmental legislation		46	76,7%	72,9%	90,9%	80,0%	76,2%	63,0%	86,2%	82,1%	70,0%	75,5%	83,3%	81,3%	73,8%	77,8%	74,2%	75,0%	74,1%	71,9%	79,2%	72,7%	83,3%
Using recyclable material		22	36,7%	41,7%	18,2%	20,0%	42,9%	37,0%	34,5%	35,7%	36,7%	41,5%	0,0%	31,3%	38,1%	33,3%	38,7%	21,4%	55,6%	46,9%	25,0%	34,1%	58,3%
Pro-active management in preventing adverse environmental effects		17	28,3%	31,3%	18,2%	26,7%	26,2%	22,2%	31,0%	32,1%	23,3%	30,2%	16,7%	31,3%	26,2%	14,8%	38,7%	32,1%	25,9%	28,1%	29,2%	22,7%	58,3%
Preservation of affected habitats		8	13,3%	12,5%	18,2%	6,7%	14,3%	14,8%	13,8%	14,3%	13,3%	15,1%	0,0%	18,8%	11,9%	11,1%	16,1%	17,9%	11,1%	15,6%	12,5%	11,4%	16,7%
Continual environmental monitoring		22	36,7%	37,5%	36,4%	53,3%	28,6%	29,6%	41,4%	39,3%	33,3%	39,6%	16,7%	43,8%	33,3%	25,9%	45,2%	50,0%	22,2%	37,5%	37,5%	25,0%	58,3%
Investing in the product to meet environmental stipulations		22	36,7%	35,4%	45,5%	20,0%	42,9%	37,0%	41,4%	46,4%	30,0%	34,0%	66,7%	31,3%	40,5%	48,1%	29,0%	32,1%	48,1%	40,6%	37,5%	38,6%	41,7%
Investing in the production process to gain green competencies		17	28,3%	31,3%	18,2%	0,0%	38,1%	25,9%	31,0%	28,6%	26,7%	32,1%	0,0%	25,0%	28,6%	25,9%	29,0%	17,9%	40,7%	31,3%	25,0%	29,5%	33,3%
Investing in the employees' environmental knowledge		16	26,7%	31,3%	9,1%	20,0%	31,0%	29,6%	27,6%	28,6%	26,7%	26,4%	33,3%	31,3%	26,2%	29,6%	25,8%	25,0%	33,3%	21,9%	37,5%	27,3%	33,3%
Top management evaluates environmental performance		14	23,3%	27,1%	9,1%	20,0%	26,2%	25,9%	24,1%	28,6%	20,0%	24,5%	16,7%	31,3%	21,4%	18,5%	29,0%	21,4%	29,6%	21,9%	29,2%	20,5%	41,7%

Annex 9 - Conditional analysis of Organizational Area	% Import and very Import	Average	Industry			Total Sales		Total Debt		Dividends		Type of Project		Duration of the Project		Cost of the project		Relative Dimension		Project Success	
			Manufacturing	Commerce	Other	High	Low	High	Low	Yes	No	Expansion	Others	Long	Short	High	Low	Big	Small	>= 6	<6
			N=24	N=12	N=21	N=20	N=35	N=27	N=30	N=28	N=29	N=27	N=31	N=25	N=28	N=17	N=32	N=16	N=33	N=37	N=21
<b>Panel A - What is the relevance attributed to the following aspects in the project's evaluation?</b>																					
Cooperation between functional areas	87,9%	3,22	3,13	3,17	3,29	3,30	3,11	3,30	3,13	3,43	3,00 **	3,07	3,35 ***	3,28	3,14	3,29	3,19	2,94	3,36	3,22	3,24
Few hierarchic levels (horizontal structure)	72,4%	2,72	2,92	3,00	2,29 **	2,55	2,74	2,59	2,83	2,71	2,76	2,63	2,81	2,52	2,89	2,29	2,91 ***	2,81	2,64	2,78	2,62
Many hierarchic levels (vertical structure)	15,5%	0,97	0,75	1,00	1,24	1,15	0,86	0,89	1,00	0,96	0,93	1,07	0,87	1,08	0,89	1,41	0,66 **	0,94	0,91	1,19	0,57
De-centralized decision-making	44,8%	1,95	2,13	2,08	1,71	2,15	1,80	2,26	1,63	1,89	1,97	2,00	1,90	1,84	1,89	1,88	1,78	2,13	1,67 **	2,22	1,48
Centralized decision-making	46,6%	2	1,79	1,92	2,24	1,55	2,20	1,33	2,63 *	1,86	2,17	2,19	1,84	1,72	2,21	1,94	2,03	1,94	2,03	2,08	1,86
Activities coordinated informally	39,7%	1,83	1,54	1,83	2,00	1,85	1,74	1,70	1,90	1,79	1,86	1,67	1,97	1,48	1,96	2,06	1,53	2,06	1,55	2,27	1,05 ***
Activities coordinated formally	50,0%	2,1	1,67	2,08	2,62 ***	2,05	2,17	2,00	2,20	2,07	2,14	2,67	1,61 *	1,44	2,64 *	2,00	2,09	2,19	2,00	2,19	1,95
Definition of responsibilities and levels of authority	75,9%	2,88	2,54	3,00	3,14	2,60	3,03	2,70	3,03	2,75	2,97	3,26	2,55	2,52	3,11	3,00	2,69	3,19	2,61	3,14	2,43
Definition of staff competencies	82,8%	3,19	3,00	3,50	3,29	3,05	3,29	3,07	3,30	3,00	3,34	3,44	2,97	2,80	3,50 **	3,00	3,19	3,31	3,03 **	3,35	2,90 ***
Permanently changing organizational structure	12,1%	1,43	1,21	1,42	1,62	1,50	1,34	1,26	1,53	1,46	1,31	1,30	1,55	1,08	1,68 ***	1,18	1,50	1,38	1,39	1,27	1,71
<b>Panel B - What is the importance of the following factors in the project's evaluation?</b>																					
Decentralized communications system	51,7%	2,22	2,54	2,17	2,14	2,40	2,20	2,37	2,07	2,04	2,41	2,37	2,10	2,36	1,96	2,18	2,09	2,44	1,97 ***	2,22	2,24
Centralized communications system	46,6%	2,03	1,58	2,25	2,19	2,05	1,97	1,85	2,23	2,21	1,86	1,96	2,10	1,72	2,25	2,06	1,81	1,88	1,91	2,32	1,52
Sharing of information between members	89,7%	3,26	3,08	3,25	3,43	3,35	3,23	3,33	3,20	3,50	3,00 *	3,41	3,13	3,24	3,29	3,59	3,06 **	3,25	3,24 **	3,35	3,10
Flexible information system	74,1%	2,93	2,75	2,92	3,14	2,90	2,94	2,78	3,07	3,00	2,83	2,93	2,94	2,80	3,00	3,12	2,81	2,94	2,91	3,05	2,71 ***
Communication in presence (informal)	60,3%	2,74	2,83	2,75	2,67	2,95	2,66	2,85	2,67	2,79	2,66	2,63	2,84	2,84	2,61	3,12	2,56 ***	2,94	2,67	2,70	2,81
Written/documental communication (formal)	60,3%	2,4	2,21	2,67	2,48	2,60	2,34	2,52	2,30	2,79	2,00 *	2,59	2,23	2,28	2,43	2,53	2,13	2,38	2,21 ***	2,49	2,24
Communication oriented only towards members of the project	53,4%	2,33	2,17	2,83	2,19	2,50	2,20	2,30	2,33	2,64	2,00 *	2,37	2,29	2,40	2,18	2,18	2,31	2,25	2,27	2,38	2,24
Communication oriented to the outside (of the project)	32,8%	1,95	2,00	1,83	2,00	1,80	2,11	1,89	2,03	1,82	2,07	2,04	1,87	1,84	1,96	1,94	1,84	2,25	1,70 **	1,84	2,14
Vertical communication system	46,6%	2,16	2,04	1,75	2,48 ***	1,95	2,29	2,00	2,30	2,04	2,24	2,22	2,10	1,96	2,21	2,18	2,00	2,31	1,94	2,32	1,86
Horizontal communication system	55,2%	2,31	2,46	2,50	2,10	2,35	2,31	2,33	2,30	2,39	2,17	2,33	2,29	2,12	2,36	2,18	2,25	2,63	2,03 **	2,35	2,24
Frequent information reports	56,9%	2,53	2,54	2,00	2,76	2,70	2,46	2,89	2,23	2,43	2,59	2,67	2,42	2,32	2,64	2,59	2,47	2,63	2,45 **	2,54	2,52
Plentiful communication channels	37,9%	2,14	2,42	1,33	2,29 *	2,25	2,06	2,22	2,07	1,89	2,38 ***	2,04	2,23	2,12	2,07	2,35	1,88 ***	2,81	1,67 ***	2,24	1,95 **
Scarce communication channels	15,5%	1,33	1,33	1,83	1,05	1,25	1,37	1,00	1,63 **	1,29	1,38	1,41	1,26	1,00	1,50	0,82	1,53 **	1,13	1,36	1,41	1,19
Information is transmitted rapidly	72,4%	3	3,21	2,50	3,00	3,15	2,91	3,07	2,93	2,79	3,17	3,15	2,87	2,52	3,36 *	3,06	2,88	3,31	2,76 **	3,00	3,00
<b>Panel C - What is the importance of the following risk factors in the project's evaluation?</b>																					
No multidisciplinary issues	54,7%	2,38	#20	#13	#19	#20	#30	#26	#26	#27	#25	#26	#27	#21	#27	#15	#29	#14	#30	#36	#17
Lack of knowledge of what other teams are doing	52,8%	2,43	2,40	2,69	2,32	2,45	2,47	2,19	2,62	2,19	2,60	2,38	2,37	2,43	2,33	2,07	2,34	2,29	2,23	2,22	2,71 **
Sudden changes in the environment	32,1%	1,7	2,10	1,38	1,58	2,30	1,00 **	1,77	1,69	1,41	2,00	1,46	1,93	1,86	1,63	1,60	1,52	2,21	1,23	1,56	2,00 **
Slow decision-making	64,2%	2,72	2,70	2,69	2,79	3,10	2,50 **	2,81	2,69	2,48	2,92	2,85	2,59	2,62	2,74	2,80	2,45	2,50	2,60	2,72	2,71
Constant changes to the information system	34,0%	1,96	1,80	1,54	2,47 ***	2,45	1,63 **	2,12	1,81	1,81	2,04	1,85	2,07	2,10	1,67	1,80	1,69	1,86	1,67	1,81	2,29
Inefficient communication system	50,9%	2,34	2,20	2,85	2,32	2,25	2,50	2,31	2,35	2,30	2,32	2,77	1,93 ** *	2,19	2,26	1,87	2,31	2,36	2,07	2,19	2,65
Conflicts between partners	43,4%	1,77	2,25	1,23	1,89	1,65	1,87	2,27	1,19	1,56	1,92	1,88	1,67	1,95	1,30	1,47	1,62	2,00	1,37	1,56	2,24
Different goals/interests between partners	34,0%	1,64	1,90	1,08	1,89	1,40	1,83	2,12	1,08	1,44	1,76	1,81	1,48	1,71	1,26	1,33	1,52	1,86	1,27 ***	1,50	1,94
<b>Panel D - What procedures were used to minimize the project's environmental risk?</b>																					
Adopting a matrix structure	11	20,8%	15,0%	0,0%	42,1%	30,0%	16,7%	30,8%	11,5%	7,4%	32,0%	23,1%	18,5%	9,5%	29,6%	26,7%	13,8%	21,4%	16,7%	27,8%	5,9%
Adopting a project structure, independent structure from the company	12	22,6%	30,0%	23,1%	10,5%	35,0%	16,7%	30,8%	15,4%	33,3%	12,0%	19,2%	25,9%	19,0%	29,6%	20,0%	24,1%	28,6%	20,0%	13,9%	41,2%
Project as part of the functional structure	21	39,6%	30,0%	61,5%	42,1%	35,0%	46,7%	30,8%	50,0%	33,3%	48,0%	38,5%	40,7%	42,9%	37,0%	26,7%	48,3%	28,6%	46,7%	38,9%	41,2%
Constitution of work teams from various areas	31	58,5%	65,0%	38,5%	68,4%	60,0%	56,7%	65,4%	50,0%	70,4%	48,0%	53,8%	63,0%	61,9%	51,9%	53,3%	62,1%	35,7%	70,0%	52,8%	70,6%
Using electronic communication channels	32	60,4%	60,0%	53,8%	73,7%	60,0%	60,0%	53,8%	65,4%	44,4%	76,0%	65,4%	55,6%	57,1%	55,6%	73,3%	44,8%	78,6%	43,3%	61,1%	58,8%
Elaboration of programmes of formation on information system	14	26,4%	40,0%	15,4%	21,1%	35,0%	23,3%	23,1%	30,8%	22,2%	32,0%	7,7%	44,4%	28,6%	29,6%	20,0%	31,0%	28,6%	26,7%	19,4%	41,2%
Coordination of information flows	16	30,2%	10,0%	15,4%	57,9%	55,0%	13,3%	46,2%	15,4%	25,9%	36,0%	19,2%	40,7%	33,3%	25,9%	40,0%	13,8%	21,4%	23,3%	30,6%	29,4%
Sharing information between members of the project	40	75,5%	80,0%	61,5%	89,5%	80,0%	73,3%	76,9%	73,1%	63,0%	88,0%	84,6%	66,7%	66,7%	77,8%	86,7%	62,1%	78,6%	66,7%	77,8%	70,6%
Analysis of partners' past performance	12	22,6%	15,0%	0,0%	42,1%	35,0%	13,3%	26,9%	15,4%	33,3%	12,0%	19,2%	25,9%	19,0%	25,9%	33,3%	20,7%	28,6%	23,3%	16,7%	35,3%
Analysis of partners' operational capacity	16	30,2%	15,0%	15,4%	52,6%	50,0%	16,7%	38,5%	19,2%	37,0%	24,0%	19,2%	40,7%	23,8%	37,0%	33,3%	24,1%	35,7%	23,3%	25,0%	41,2%
Analysis of partners' financial capacity	10	18,9%	0,0%	15,4%	42,1%	30,0%	10,0%	23,1%	11,5%	14,8%	20,0%	11,5%	25,9%	4,8%	25,9%	6,7%	17,2%	21,4%	10,0%	16,7%	23,5%
Analysis of partners' contacts/relationships	15	28,3%	35,0%	0,0%	42,1%	40,0%	20,0%	38,5%	15,4%	29,6%	28,0%	34,6%	22,2%	14,3%	37,0%	33,3%	20,7%	28,6%	23,3%	27,8%	29,4%
Negotiating decisions or standpoints of partners	9	17,0%	15,0%	0,0%	31,6%	15,0%	16,7%	23,1%	7,7%	18,5%	12,0%	26,9%	7,4%	9,5%	11,1%	26,7%	6,9%	35,7%	3,3%	16,7%	17,6%

Annex 9 - Conditional analysis of Organizational Area	% Import and very Import	Average	CEO Education		CEO Age		CEO Tenure		Owned by Management		Project Manager Education		Project Manager Age		Project Manager Position		PM Experience		PM Compensation		Decision-Making	
			University Course	Others	>57.75	Younger	Long	Short	0%	>0%	University Course	Others	>=50	Younger	Administration	Other	+4	Other	Fixed	Other	Administration	Others
			N=44	N=14	N=10	N=46	N=26	N=30	N=24	N=33	N=49	N=9	N=14	N=42	N=23	N=33	N=22	N=32	N=33	N=21	N=45	N=12
<b>Panel A - What is the relevance attributed to the following aspects in the project's evaluation?</b>																						
Cooperation between functional areas	87.9%	3.22	3.34	2.86	2.80	3.30	2.96	3.47 **	3.38	3.12	3.31	2.78	3.29	3.21 ***	3.22	3.24	3.50	3.06 *	3.24	3.29	3.20	3.33
Few hierarchic levels (horizontal structure)	72.4%	2.72	2.55	3.29 **	2.40	2.83	2.65	2.90	2.50	2.97	2.59	3.44 ***	3.00	2.62	2.91	2.58 **	2.86	2.78	2.67	3.14 **	2.73	2.83
Many hierarchic levels (vertical structure)	15.5%	0.97	1.14	0.43 ***	1.40	0.87	0.81	1.07	1.08	0.91	1.04	0.56	0.93	1.02	0.87	1.09	0.91	0.94	0.91	0.95	1.11	0.50
De-centralized decision-making	44.8%	1.95	2.18	1.21 *	1.50	2.04	1.73	2.17	1.75	2.15	2.04	1.44	1.79	1.95	2.13	1.76	2.14	1.88	1.97	2.29 ***	1.89	2.33
Centralized decision-making	46.6%	2	1.73	2.86 **	2.50	1.91	1.96	2.10	2.21	1.91	1.86	2.78	2.29	1.86	1.70	2.15	1.86	1.97	1.97	1.95	2.09	1.67
Activities coordinated informally	39.7%	1.83	2.00	1.29 **	1.40	1.91	1.62	2.03	1.38	2.21 **	1.90	1.44	1.71	1.81	1.83	1.76	1.91	1.81	1.73	2.24	1.93	1.58
Activities coordinated formally	50.0%	2.1	2.00	2.43	2.70	1.96	2.46	1.87 ***	2.21	2.09	2.20	1.56 *	1.79	2.17 **	1.65	2.36 **	2.05	1.97	2.18	1.95 ***	2.13	2.17
Definition of responsibilities and levels of authority	75.9%	2.88	2.75	3.29	3.50	2.70	2.85	3.00	2.75	3.06	2.88	2.89	3.50	2.67 ***	2.70	3.00	3.36	2.47 ***	2.82	3.00	2.98	2.58
Definition of staff competencies	82.8%	3.19	3.09	3.50	3.50	3.09	3.35	3.17 ***	3.29	3.21	3.18	3.22	3.36	3.14	3.04	3.30	3.45	2.97	3.12	3.38	3.27	2.92 ***
Permanently changing organizational structure	12.1%	1.43	1.41	1.50	0.90	1.48	1.31	1.57	1.79	1.21 ***	1.37	1.78	1.93	1.33	1.26	1.60	1.73	1.41	1.39	1.76	1.53	1.17
<b>Panel B - What is the importance of the following factors in the project's evaluation?</b>																						
Decentralized communications system	51.7%	2.22	2.34	1.86	1.20	2.46 *	1.92	2.53	2.25	2.27	2.10	2.89 ***	2.57	2.07	2.30	2.12 **	1.91	2.53	2.42	2.29	2.13	2.75
Centralized communications system	46.6%	2.03	2.00	2.14	2.90	1.83 ***	1.96	2.17	2.21	1.97	2.16	1.33	1.93	2.02	2.17	1.88	2.27	1.69	1.79	2.29	2.09	2.00
Sharing of information between members	89.7%	3.26	3.34	3.00	3.10	3.26	3.19	3.33	3.08	3.42 **	3.33	2.89	3.21	3.29 **	3.35	3.21	3.36	3.16 **	3.27	3.24	3.24	3.33
Flexible information system	74.1%	2.93	2.98	2.79	2.20	3.04 *	2.92	2.97	2.75	3.06	2.96	2.78	2.86	2.95	2.87	2.97	3.14	2.84 *	2.88	3.10 ***	3.07	2.42 **
Communication in presence (informal)	60.3%	2.74	2.89	2.29 **	1.80	2.91 *	2.38	3.07 *	2.75	2.73	2.71	2.89 *	2.64	2.76	2.96	2.58	2.64	2.84	2.70	2.86 **	2.80	2.75
Written/documental communication (formal)	60.3%	2.4	2.45	2.21	2.60	2.33	2.08	2.70	2.88	2.12 ***	2.49	1.89	2.43	2.36 **	2.35	2.39	2.64	2.09 ***	2.33	2.52	2.27	3.08 **
Communication oriented only towards members of the project	53.4%	2.33	2.27	2.50	2.90	2.20	2.00	2.63	2.50	2.27	2.37	2.11	2.21	2.33	2.39	2.24 **	2.68	2.00	2.18	2.62	2.27	2.75
Communication oriented to the outside (of the project)	32.8%	1.95	1.84	2.29	2.20	1.87	1.77	2.17	2.21	1.82	1.80	2.78	2.29	1.789 ***	1.83	1.97	1.91	1.84	1.82	2.14	1.84	2.50 **
Vertical communication system	46.6%	2.16	2.11	2.29	2.50	2.07	2.00	2.37	2.58	1.91 **	2.06	2.67	2.36	2.05	2.09	2.15	2.09	2.09	2.12	2.33	2.20	2.17
Horizontal communication system	55.2%	2.31	2.36	2.14	1.90	2.37 **	1.88	2.77 **	2.46	2.27	2.29	2.44 **	2.21	2.31	2.48	2.15	2.77	1.97	1.97	2.95 **	2.24	2.75
Frequent information reports	56.9%	2.53	2.68	2.07 ***	2.70	2.48	2.42	2.67	2.96	2.30 **	2.55	2.44	2.93	2.38	2.43	2.58	2.73	2.34 **	2.70	2.48	2.40	3.08 ***
Plentiful communication channels	37.9%	2.14	2.32	1.57 **	2.10	2.15	1.92	2.30	2.17	2.09	2.14	2.11	2.57	1.95 **	2.00	2.18	2.32	1.97 **	2.12	2.24	2.11	2.42
Scarce communication channels	15.5%	1.33	1.23	1.64	1.00	1.43	1.12	1.57 ***	1.42	1.30	1.39	1.00	0.79	1.43 **	1.48	1.12	1.27	1.34 ***	1.30	1.52	1.29	1.58
Information is transmitted rapidly	72.4%	3	3.05	2.86	2.30	3.13 **	2.81	3.20	3.17	2.88	3.00	3.00	3.43	2.86	2.87	3.09	3.36	2.81	2.91	3.29	2.91	3.42
<b>Panel C - What is the importance of the following risk factors in the project's evaluation?</b>																						
No multidisciplinary issues	54.7%	2.38	2.35	2.46	2.11	2.43	2.00	2.66 ***	2.57	2.25	2.33	2.63	2.46	2.32	2.18	2.48	2.39	2.33	2.33	2.48	2.28	2.69
Lack of knowledge of what other teams are doing	52.8%	2.43	2.43	2.46	2.00	2.50	2.39	2.48	2.43	2.44	2.51	2.00	2.46	2.39	2.64	2.24	2.74	2.22	2.33	2.81	2.33	2.77
Sudden changes in the environment	32.1%	1.7	1.90	1.08 **	1.78	1.64	1.26	1.97 **	1.71	1.69	1.71	1.63	1.77	1.71	1.59	1.83	1.65	1.81	1.60	1.95	1.55	2.15
Slow decision-making	64.2%	2.72	2.80	2.46	2.56	2.71	2.83	2.59	2.62	2.78	2.80	2.25	2.54	2.76	2.73	2.69	2.78	2.63	2.73	2.76	2.73	2.69
Constant changes to the information system	34.0%	1.96	2.18	1.31 **	1.56	1.98	1.78	2.10	2.14	1.84	2.07	1.38 ***	1.77	1.97	1.77	2.03	1.87	2.00	2.10	1.86	1.88	2.23
Inefficient communication system	50.9%	2.34	2.35	2.31	2.00	2.36	2.30	2.38	2.38	2.31	2.40	2.00	2.00	2.42	2.36	2.28	2.48	2.15	2.20	2.48	2.18	2.85
Conflicts between partners	43.4%	1.77	1.95	1.23	1.67	1.74	1.57	1.97	2.29	1.44 ***	1.80	1.63	1.69	1.74	1.82	1.66 ***	1.87	1.52	1.77	1.76	1.53	2.54 ***
Different goals/interests between partners	34.0%	1.64	1.83	1.08	1.67	1.57	1.57	1.76	2.05	1.38	1.67	1.50	1.54	1.61	1.73	1.48 **	1.74	1.37	1.63	1.62	1.48	2.15
<b>Panel D - What procedures were used to minimize the project's environmental risk?</b>																						
	Freq.	%																				
Adopting a matrix structure	11	20.8%	27.5%	0.0%	11.1%	21.4%	30.4%	13.8%	23.8%	18.8%	24.4%	0.0%	7.7%	26.3%	22.7%	20.7%	13.0%	25.9%	16.7%	23.8%	27.5%	0.0%
Adopting a project structure, independent structure from the company	12	22.6%	25.0%	15.4%	22.2%	23.8%	21.7%	24.1%	23.8%	21.9%	24.4%	12.5%	15.4%	26.3%	13.6%	31.0%	13.0%	33.3%	23.3%	19.0%	15.0%	46.2%
Project as part of the functional structure	21	39.6%	32.5%	61.5%	33.3%	40.5%	39.1%	37.9%	42.9%	37.5%	35.6%	62.5%	38.5%	36.8%	27.3%	44.8%	39.1%	37.0%	36.7%	47.6%	42.5%	30.8%
Constitution of work teams from various areas	31	58.5%	57.5%	61.5%	44.4%	61.9%	52.2%	65.5%	71.4%	50.0%	62.2%	37.5%	53.8%	57.9%	59.1%	55.2%	60.9%	51.9%	70.0%	42.9%	50.0%	84.6%
Using electronic communication channels	32	60.4%	57.5%	69.2%	44.4%	64.3%	43.5%	72.4%	61.9%	59.4%	57.8%	75.0%	76.9%	52.6%	50.0%	65.5%	65.2%	55.6%	60.0%	66.7%	62.5%	53.8%
Elaboration of programmes of formation on information system	14	26.4%	27.5%	23.1%	11.1%	31.0%	21.7%	31.0%	28.6%	25.0%	24.4%	37.5%	0.0%	36.8%	22.7%	31.0%	4.3%	48.1%	23.3%	33.3%	27.5%	23.1%
Coordination of information flows	16	30.2%	35.0%	15.4%	11.1%	35.7%	39.1%	24.1%	38.1%	25.0%	33.3%	12.5%	53.8%	18.4%	18.2%	34.5%	30.4%	25.9%	33.3%	28.6%	30.0%	30.8%
Sharing information between members of the project	40	75.5%	77.5%	69.2%	55.6%	78.6%	60.9%	86.2%	85.7%	68.8%	75.6%	75.0%	84.6%	71.1%	68.2%	79.3%	82.6%	66.7%	76.7%	76.2%	77.5%	69.2%
Analysis of partners' past performance	12	22.6%	22.5%	23.1%	22.2%	21.4%	17.4%	27.6%	23.8%	21.9%	24.4%	12.5%	46.2%	15.8%	4.5%	37.9%	39.1%	11.1%	30.0%	14.3%	17.5%	38.5%
Analysis of partners' operational capacity	16	30.2%	30.0%	30.8%	33.3%	28.6%	30.4%	31.0%	38.1%	25.0%	33.3%	12.5%	53.8%	23.7%	9.1%	48.3%	43.5%	22.2%	33.3%	28.6%	27.5%	38.5%
Analysis of partners' financial capacity	10	18.9%	20.0%	15.4%	22.2%	14.3%	26.1%	13.8%	28.6%	12.5%	22.2%	0.0%	15.4%	21.1%	9.1%	27.6%	30.4%	11.1%	13.3%	28.6%	20.0%	15.4%
Analysis of partners' contacts/relationships	15	28.3%	32.5%	15.4%	22.2%	28.6%	34.8%	24.1%	33.3%	25.0%	33.3%	0.0%	23.1%	31.6%	22.7%	34.5%	30.4%	25.9%	30.0%	23.8%	25.0%	38.5%
Negotiating decisions or standpoints of partners	9	17.0%	17.5%	15.4%	11.1%	16.7%	8.7%	24.1%	19.0%	15.6%	20.0%	0.0%	23.1%	10.5%	4.5%	20.7%	26.1%	3.7%	23.3%	9.5%	10.0%	38.5%

Annex 10 - Conditional analysis of Partnership in Organizational Area	% Import and very Import	Average	Industry			Total Sales		Total Debt		Dividends		Type of Project		Duration of the Project		Cost of the project		Relative Dimension		Project Success	
			Manufacturing	Commerce	Other	High	Low	High	Low	Yes	No	Expansion	Others	Long	Short	High	Low	Big	Small	>= 6	
			N=24	N=12	N=21	N=20	N=35	N=27	N=30	N=28	N=29	N=27	N=31	N=25	N=28	N=17	N=32	N=16	N=33	N=37	N=21
<b>What is the relevance attributed to the following aspects of Partnership in the project's evaluation?</b>																					
Initial definition of the responsibilities of each partner	95,8%	3,54	#10	#4	#10	#9	#14	#17	#7	#9	#14	#10	#14	#9	#11	#7	#11	#7	#11	#15	#9
Initial definition of a project leader	100,0%	3,54	3,70	3,25	3,40	3,78	3,36 ***	3,65	3,29	3,78	3,50	3,40	3,64	3,78	3,64	3,71	3,45	3,57	3,55	3,73	3,22 **
Initial definition of exit terms	41,7%	2,38	2,20	2,00	2,60	2,11	2,71 ***	2,59	1,86	2,33	2,29	2,80	2,07 ***	2,11	2,36	2,29	2,36	2,71	2,09	2,27	2,56
Initial definition of reports	70,8%	2,83	2,70	2,00	3,10	2,89	2,86	3,06	2,29	2,89	2,71	3,10	2,64 **	2,56	2,91	2,86	2,73	3,00	2,64	2,73	3,00
Clarification of the expectations of each partner	62,5%	2,79	2,70	2,00	3,10	2,67	2,93	3,00	2,29	2,33	3,00	2,90	2,71	2,33	3,00 ***	2,57	2,64	3,00	2,36	2,87	2,67
Assumption of responsibilities by all partners	79,2%	3,21	3,00	2,25	3,60	3,78	2,79 **	3,41	2,71	3,44	3,00 ***	3,20	3,21	3,11	3,18	3,43	2,82	3,29	2,91	3,13	3,33
Good relations between partners	83,3%	3,21	3,40	2,25	3,20	3,56	2,93	3,41	2,71	3,44	3,14 ***	3,00	3,36	3,56	3,00	3,71	2,82 **	3,57	2,91	3,27	3,11
Efficient information system and communication	79,2%	3,17	3,10	2,25	3,40	3,56	2,86	3,41	2,57	3,22	3,07	2,90	3,36	3,33	3,00	3,71	2,64 **	3,86	2,55 *	3,13	3,22
Mutual trust between partners	79,2%	3,25	3,60	2,25	3,10 **	3,22	3,21	3,47	2,71	3,00	3,36	3,40	3,14	3,11	3,27	3,43	3,09	3,86	2,82 ***	3,20	3,33

Annex 10 - Conditional analysis of Partnership in Organizational Area	% Import and very Import	Average	CEO Education		CEO Age		CEO Tenure		Owned by Management		Project Manager Education		Project Manager Age		Project Manager Position		PM Experience		PM Compensation		Decision-Making	
			University Course	Others	>57,75	Younger	Long	Short	0%	>0%	University Course	Others	>=50	Younger	Administration	Other	+4	Other	Fixed	Other	Administration	Others
			N=44	N=14	N=10	N=46	N=26	N=30	N=24	N=33	N=49	N=9	N=14	N=42	N=23	N=33	N=22	N=32	N=33	N=21	N=45	N=12
<b>What is the relevance attributed to the following aspects of Partnership in the project's evaluation?</b>																						
Initial definition of the responsibilities of each partner	95,8%	3,54	#19	#5	#4	#19	#9	#15	#12	#12	#20	#4	#7	#15	#9	#13	#13	#9	#15	#9	#16	#8
Initial definition of a project leader	100,0%	3,54	3,58	3,40	3,75	3,58	3,56	3,53	3,33	3,75 ***	3,55	3,50	4,00	3,40 **	3,67	3,54	3,62	3,56	3,53	3,56	3,56	3,50
Initial definition of exit terms	41,7%	2,38	2,42	2,20	2,50	2,26	2,56	2,27	2,50	2,25	2,45	2,00	2,14	2,40	2,56	2,15	2,08	2,67	2,73	1,78 **	2,38	2,38
Initial definition of reports	70,8%	2,83	2,89	2,60	3,25	2,68	2,89	2,80	2,92	2,75	3,00	2,00 *	2,71	2,87	2,67	2,92	2,62	3,11	3,27	2,11 *	2,81	2,88
Clarification of the expectations of each partner	62,5%	2,79	2,84	2,60	3,00	2,68	3,11	2,60 ***	2,92	2,67	2,85	2,50	2,43	2,93 ***	2,89	2,69	2,46	3,22	2,93	2,56	2,94	2,50
Assumption of responsibilities by all partners	79,2%	3,21	3,26	3,00	3,75	3,05	3,00	3,33	3,42	3,00	3,45	2,00 *	3,43	3,13	2,67	3,62	3,23	3,22	3,60	2,56 ***	3,19	3,25
Good relations between partners	83,3%	3,21	3,26	3,00	3,75	3,16	2,78	3,47 ***	3,08	3,33	3,25	3,00	4,00	2,87 *	3,11	3,31	3,38	3,00 **	3,47	2,78	3,19	3,25
Efficient information system and communication	79,2%	3,17	3,21	3,00	3,75	3,00	2,78	3,40	3,17	3,17	3,20	3,00	3,71	2,93	2,78	3,46	3,38	2,89 **	3,27	3,00	3,19	3,13
Mutual trust between partners	79,2%	3,25	3,32	3,00	3,75	3,11	3,11	3,33	2,92	3,58 **	3,30	3,00	3,43	3,20	3,33	3,23	3,31	3,22	3,47	2,89	3,25	3,25

Annex 11 - Conditional analysis of human resource area	% Import and very Import	Average	Industry			Total Sales		Total Debt		Dividends		Type of Project		Duration of the Project		Cost of the project		Relative Dimension		Project Success	
			Manufacturing	Commerce	Other	High	Low	High	Low	Yes	No	Expansion	Others	Long	Short	High	Low	Big	Small	>= 6	< 6
			N=27	N=17	N=23	N=23	N=41	N=27	N=38	N=31	N=35	N=32	N=35	N=26	N=34	N=22	N=36	N=23	N=35	N=49	N=18

**Panel A - What is the importance of the following aspects in the project's evaluation?**

Recruiting internally	74,2%	2,76	3,04	2,94	2,35	2,83	2,68	2,74	2,76	2,94	2,56	2,84	2,68	2,77	2,62	2,73	2,63	2,96	2,47	2,71	2,89
Recruiting outside the company	54,5%	2,44	2,22	3,19	2,17 **	2,35	2,45	2,56	2,37	2,42	2,44	2,81	2,09 **	2,00	2,71 ***	1,95	2,69 ***	2,39	2,41	2,29	2,83
Outsourcing	47,0%	1,88	1,59	2,38	2,00	2,22	1,80	1,67	2,05	2,16	1,68	2,38	1,41 **	1,81	2,00	1,68	1,83	1,57	1,91	1,79	2,11
Experienced staff	63,3%	2,67	2,44	2,50	3,17	3,26	2,28 *	2,85	2,53 ***	2,81	2,50	2,78	2,56	2,54	2,68	3,09	2,26 **	2,39	2,71	2,77	2,39
Technical knowledge	83,3%	3,2	3,22	3,19	3,26	3,39	3,08	3,30	3,13 **	3,35	3,03	3,06	3,32	3,23	3,12	3,45	2,97 ***	3,26	3,09	3,27	3,00
Ability to evaluate risks	59,1%	2,33	2,48	1,63	2,10 **	2,78	2,13	2,74	2,08 *	2,42	2,21	2,00	2,65 **	2,85	1,94 *	2,86	1,89 *	2,48	2,12	2,35	2,28
Interpersonal relationship	68,2%	2,62	2,89	2,25	2,70	3,04	2,35 ***	2,93	2,45 ***	2,42	2,79	2,56	2,68	2,88	2,38	3,18	2,17 *	2,91	2,32 ***	2,58	2,72
Capacity for team-work	80,3%	3,17	3,04	3,25	3,35	3,39	2,98 **	3,30	3,05 *	3,16	3,15	3,09	3,24	3,23	3,06	3,55	2,83 *	3,39	2,91 ***	3,23	3,00
Ability to work autonomously	50,0%	2,14	2,26	2,25	1,87	2,13	2,15	2,26	2,05	2,26	1,97	2,31	1,97	2,12	2,09	2,09	2,06	2,39	1,85	2,04	2,39
Bringing together people with complementary knowledge	68,2%	2,77	2,81	2,56	2,96	3,22	2,53 **	2,96	2,61	2,77	2,74	2,47	3,06 **	2,96	2,62	3,23	2,29 *	3,13	2,32 **	2,90	2,44 **
Problem-solving ability	81,8%	3,02	3,11	2,94	3,00	3,48	2,88 *	3,37	2,82 *	3,19	2,82	2,91	3,12	3,19	3,00	3,27	2,8 ***	3,22	2,82	3,04	2,94
Unionized workers	4,5%	0,5	0,26	0,88	0,52 **	0,87	0,30 **	0,33	0,61	0,39	0,62	0,66	0,35	0,31	0,65	0,50	0,34	0,57	0,29	0,65	0,11 **
Ability to work for common goals	75,8%	2,82	2,89	2,56	2,96	3,13	2,58	3,00	2,66	3,06	2,56 ***	2,59	3,03	3,15	2,41 **	3,18	2,49 ***	2,87	2,68	2,69	3,17
Trust between team members	75,8%	3,02	3,04	2,94	3,13	3,43	2,70 *	3,33	2,76 **	3,23	2,79	2,78	3,24 ***	3,35	2,68 **	3,45	2,69 **	3,09	2,91	2,94	3,22
Attributing autonomy, authority and responsibility	69,7%	2,76	3,04	2,63	2,52	3,17	2,53 **	3,00	2,55	3,00	2,50	2,63	2,88	2,81	2,71	2,91	2,51	3,00	2,44 **	2,69	2,94
Encouraging team spirit	72,7%	2,92	3,15	2,81	2,78	3,48	2,63 *	3,04	2,82	3,16	2,79	2,59	3,24 **	3,12	2,91	2,91	2,83	3,00	2,76	2,85	3,11
Group decision-making	31,8%	2,03	2,07	2,00	2,00	2,61	1,75 **	2,44	1,76 **	2,35	1,74 ***	1,63	2,41 **	2,31	1,82	2,14	1,89	2,00	1,97	2,00	2,11
Permanent interaction between members of teams	60,6%	2,47	2,41	2,81	2,35	2,61	2,40	2,48	2,45	2,65	2,26	2,38	2,56	2,38	2,50	2,64	2,23	2,70	2,18	2,60	2,11
Employee remuneration	43,9%	1,92	2,07	2,06	1,70	2,09	1,83	2,00	1,84	1,68	2,09	2,16	1,71	1,69	1,97	1,64	1,89	2,35	1,41 *	1,98	1,78
Attribution of prizes	37,9%	1,59	1,56	1,50	1,70	1,83	1,43	1,67	1,50	1,26	1,82	1,59	1,59	1,31	1,62	1,32	1,54	1,74	1,26	1,60	1,56
Future perspectives of working for the company	48,5%	2,02	2,19	1,75	2,00	1,96	2,08	2,04	2,00	1,74	2,21	1,91	2,12	1,88	2,00	1,73	2,09	2,30	1,71	1,90	2,33
Recognition for work achieved	66,7%	2,65	2,96	2,56	2,39	2,78	2,63	2,70	2,63	2,65	2,62	2,56	2,74	2,38	2,85	2,50	2,69	2,87	2,44	2,63	2,72

**Panel B - What is the importance of the following risk factors in the project's evaluation?**

Implementation of inadequate tasks	49,3%	2,3	2,37	2,71	2,00	2,35	2,29	1,96	2,61 **	2,10	2,51	2,53	2,09	2,15	2,40	1,64	2,58 *	2,43	2,09	2,12	2,78 ***
Ignoring the work being done by others	55,2%	2,52	2,30	2,88	2,57	2,48	2,51	2,36	2,63	2,48	2,60	2,72	2,34	2,42	2,51	2,45	2,44	2,74	2,26	2,55	2,44
Lack of coordination between team members	73,1%	2,94	2,85	3,06	3,04	3,26	2,73 ***	2,89	2,95	3,13	2,86	3,09	2,80	3,08	2,83	3,23	2,69 **	3,13	2,74	3,06	2,61
Conflicts between team members	58,2%	2,61	2,26	3,06	2,78 **	3,17	2,34 **	2,86	2,47	2,71	2,57	2,94	2,31 ***	2,65	2,60	2,86	2,36 ***	2,65	2,49	2,76	2,22 ***
Absence of motivation	70,1%	2,75	2,85	2,88	2,65	3,48	2,37 *	3,00	2,58 ***	2,84	2,74	2,84	2,66	3,15	2,49	3,05	2,44 **	2,87	2,54	2,92	2,28

**Panel C - What procedures were used to minimize the project's risk related to employees?**

	Freq.	%																			
Monitoring tasks attributed to employees	34	50,7%	33,3%	64,7%	65,2%	52,2%	48,8%	53,6%	50,0%	41,9%	57,1%	40,6%	60,0%	38,5%	54,3%	36,4%	50,0%	39,1%	48,6%	46,9%	61,1%
Formulating clear goals for the project (group)	47	70,1%	63,0%	64,7%	82,6%	78,3%	63,4%	78,6%	63,2%	67,7%	71,4%	68,8%	71,4%	69,2%	68,6%	95,5%	55,6%	82,6%	62,9%	73,5%	61,1%
Developing group decision-making	25	37,3%	37,0%	35,3%	43,5%	34,8%	39,0%	42,9%	34,2%	38,7%	34,3%	28,1%	45,7%	42,3%	31,4%	40,9%	38,9%	39,1%	40,0%	36,7%	38,9%
Correctly identifying the type, methods and conditions of the work to be performed	41	61,2%	66,7%	76,5%	43,5%	52,2%	68,3%	60,7%	63,2%	64,5%	57,1%	68,8%	54,3%	65,4%	57,1%	63,6%	61,1%	78,3%	51,4%	61,2%	61,1%
Elaboration of contingency plans to solve possible problems	33	49,3%	40,7%	47,1%	65,2%	78,3%	31,7%	53,6%	44,7%	51,6%	48,6%	37,5%	60,0%	46,2%	51,4%	40,9%	44,4%	47,8%	40,0%	44,9%	61,1%
Analysing the needed human attributes	32	47,8%	48,1%	35,3%	60,9%	69,6%	36,6%	53,6%	44,7%	48,4%	48,6%	43,8%	51,4%	53,8%	45,7%	54,5%	44,4%	47,8%	48,6%	44,9%	55,6%
Analysing the employee's experience	34	50,7%	55,6%	52,9%	43,5%	47,8%	51,2%	39,3%	60,5%	45,2%	57,1%	59,4%	42,9%	42,3%	60,0%	27,3%	63,9%	52,2%	48,6%	46,9%	61,1%
Analysing the employee's education/qualifications	38	56,7%	66,7%	58,8%	43,5%	65,2%	51,2%	53,6%	60,5%	54,8%	60,0%	56,3%	57,1%	53,8%	65,7%	50,0%	66,7%	73,9%	51,4%	53,1%	66,7%
Selecting team players	32	47,8%	48,1%	52,9%	39,1%	56,5%	39,0%	46,4%	47,4%	51,6%	45,7%	31,3%	62,9%	50,0%	48,6%	31,8%	52,8%	52,2%	40,0%	46,9%	50,0%
Selecting employees with problem-solving abilities	29	43,3%	37,0%	52,9%	39,1%	52,2%	39,0%	57,1%	34,2%	51,6%	37,1%	37,5%	48,6%	46,2%	40,0%	45,5%	38,9%	52,2%	34,3%	40,8%	50,0%
Information about company statutes	5	7,5%	11,1%	0,0%	8,7%	8,7%	7,3%	14,3%	2,6%	6,5%	8,6%	0,0%	14,3%	15,4%	2,9%	18,2%	2,8%	13,0%	5,7%	10,2%	0,0%
Promoting interpersonal relationships between team members	29	43,3%	40,7%	52,9%	43,5%	60,9%	31,7%	57,1%	34,2%	32,3%	54,3%	40,6%	45,7%	38,5%	45,7%	45,5%	36,1%	43,5%	37,1%	51,0%	22,2%
Detailed description of the job	19	28,4%	25,9%	47,1%	17,4%	34,8%	24,4%	21,4%	34,2%	25,8%	31,4%	28,1%	28,6%	23,1%	37,1%	31,8%	25,0%	43,5%	17,1%	26,5%	33,3%
Reward based on merit	19	28,4%	25,9%	35,3%	26,1%	39,1%	17,1%	25,0%	28,9%	25,8%	31,4%	31,3%	25,7%	26,9%	25,7%	40,9%	22,2%	43,5%	20,0%	32,7%	16,7%
Reward based on achievement of goals	25	37,3%	29,6%	47,1%	39,1%	52,2%	26,8%	32,1%	39,5%	35,5%	40,0%	31,3%	42,9%	34,6%	40,0%	36,4%	33,3%	47,8%	25,7%	44,9%	16,7%
Reward based on tenure	2	3,0%	0,0%	11,8%	0,0%	8,7%	0,0%	0,0%	5,3%	6,5%	0,0%	6,3%	0,0%	0,0%	5,7%	9,1%	0,0%	8,7%	0,0%	4,1%	0,0%
Reward based on the job	12	17,9%	7,4%	17,6%	30,4%	17,4%	19,5%	14,3%	21,1%	19,4%	17,1%	28,1%	8,6%	7,7%	28,6%	18,2%	19,4%	13,0%	22,9%	18,4%	16,7%
Performance evaluation considering the importance to the last stage of the project	5	7,5%	3,7%	11,8%	8,7%	4,3%	9,8%	3,6%	10,5%	3,2%	11,4%	9,4%	5,7%	0,0%	14,3%	0,0%	11,1%	8,7%	5,7%	4,1%	16,7%
Performance evaluation considering production and quality	31	46,3%	33,3%	58,8%	52,2%	78,3%	31,7%	46,4%	47,4%	54,8%	40,0%	46,9%	45,7%	30,8%	65,7%	45,5%	47,2%	52,2%	42,9%	46,9%	44,4%
Performance evaluation considering dedication/responsibility	25	37,3%	40,7%	47,1%	30,4%	56,5%	26,8%	35,7%	36,8%	48,4%	28,6%	31,3%	42,9%	34,6%	40,0%	27,3%	41,7%	26,1%	42,9%	30,6%	55,6%
Qualifying employees to develop technical capabilities	40	59,7%	70,4%	52,9%	52,2%	65,2%	58,5%	64,3%	57,9%	64,5%	57,1%	40,6%	77,1%	69,2%	60,0%	50,0%	66,7%	43,5%	71,4%	57,1%	66,7%
Qualifying employees to develop human capabilities	21	31,3%	29,6%	41,2%	26,1%	43,5%	26,8%	35,7%	28,9%	45,2%	20,0%	37,5%	25,7%	15,4%	48,6%	27,3%	38,9%	26,1%	40,0%	36,7%	16,7%
Qualifying employees to develop knowledge of business	16	23,9%	22,2%	29,4%	21,7%	26,1%	22,0%	14,3%	28,9%	35,5%	14,3%	28,1%	20,0%	11,5%	34,3%	18,2%	30,6%	34,8%	20,0%	26,5%	16,7%
Qualifying employees to develop team-playing capabilities	25	37,3%	44,4%	47,1%	26,1%	47,8%	31,7%	42,9%	31,6%	41,9%	34,3%	31,3%</									

Annex 11 - Conditional analysis of human resource area	% Import and very Import	Average	CEO Education		CEO Age		CEO Tenure		Owned by Management		Project Manager Education		Project Manager Age		Project Manager Position		PM Experience		PM Compensation		Decision-Making	
			University	Others	>57,75	Younger	Long	Short	0%	>0%	University	Others	>=50	Younger	Administ	Other	+4	Other	Fixed	Other	Administ	Others
			Course N=49	N=18	N=13	N=51	N=31	N=32	N=30	N=34	Course N=59	N=8	N=14	N=50	ation N=25	N=39	N=25	N=36	N=40	N=23	ion N=51	N=12
<b>Panel A - What is the importance of the following aspects in the project's evaluation?</b>																						
Recruiting internally	74.2%	2.76	2.85	2.50	2.69	2.72	2.40	3.09 **	2.87	2.71	2.78	2.63	2.50	2.80	3.16	2.45 **	2.60	2.89	2.70	2.91	2.76	3.42
Recruiting outside the company	54.5%	2.44	2.17	3.17 *	2.38	2.42	2.50	2.50	2.37	2.53	2.26	3.75 *	2.79	2.29	2.48	2.34	2.60	2.40	2.55	2.41	2.50	2.67
Outsourcing	47.0%	1.88	1.77	2.17	1.77	1.90	1.97	1.72	1.93	1.76	1.84	2.13	1.93	1.80	2.08	1.66	1.68	1.86	1.63	2.05	1.94	2.25
Experienced staff	63.3%	2.67	2.81	2.28	2.31	2.70	2.47	2.88	2.73	2.62	2.71	2.38	2.79	2.65	2.88	2.55	3.00	2.34 ***	2.48	2.91	2.84	2.50
Technical knowledge	83.3%	3.2	3.29	2.94	3.08	3.18	3.00	3.41 ***	3.40	3.03 ***	3.24	2.88	3.14	3.20	3.24	3.16	3.36	3.00	2.98	3.55 **	3.18	3.33
Ability to evaluate risks	59.1%	2.33	2.65	1.50 *	2.31	2.30	2.03	2.69 **	2.50	2.26	2.43	1.625 ***	2.57	2.24	2.56	2.16	2.32	2.29	2.33	2.32	2.38	2.75
Interpersonal relationship	68.2%	2.62	2.77	2.22	2.15	2.68	2.43	2.81	2.47	2.74	2.53	3.25	2.64	2.57	2.48	2.66	2.20	2.91	2.55	2.68	2.76	2.75
Capacity for team-work	80.3%	3.17	3.15	3.22	2.62	3.28 **	3.13	3.22	3.20	3.18	3.12	3.50	3.43	3.10	3.24	3.13	3.24	3.23	3.08	3.41 ***	3.26	3.17
Ability to work autonomously	50.0%	2.14	2.17	2.06	2.38	2.00	1.87	2.44 ***	1.87	2.35	2.14	2.13	2.14	2.08	2.36	1.92	2.24	2.00	2.03	2.23	2.16	2.58
Bringing together people with complementary knowledge	68.2%	2.77	2.90	2.44	2.54	2.78	2.57	3.03	2.87	2.68	2.81	2.50	2.71	2.76	2.64	2.82	2.56	2.94	2.63	3.00 **	2.90	2.50 **
Problem-solving ability	81.8%	3.02	3.13	2.72 ***	2.69	3.04	2.90	3.16	3.03	2.97	3.09	2.50	2.93	3.02	3.12	2.92	2.96	3.11	2.95	3.09	3.02	3.33
Unionized workers	4.5%	0.5	0.58	0.28	0.23	0.56	0.47	0.50	0.37	0.59	0.57	0.00 ***	0.43	0.47	0.52	0.42	0.32	0.60	0.50	0.50	0.60	0.25
Ability to work for common goals	75.8%	2.82	2.92	2.56	2.62	2.82	2.60	3.13 ***	3.10	2.56 **	2.74	3.38	3.00	2.73	2.84	2.76	2.44	3.11 **	2.85	2.73	2.90	3.25
Trust between team members	75.8%	3.02	3.10	2.78	2.85	3.00	2.77	3.34 ***	3.10	2.94	2.93	3.63 ***	3.50	2.86 **	3.08	2.95	2.88	3.17	3.00	3.05	3.12	3.42
Attributing autonomy, authority and responsibility	69.7%	2.76	2.90	2.39	2.62	2.74	2.30	3.25 *	2.93	2.59	2.81	2.38	3.07	2.63	2.76	2.71	2.88	2.74	2.60	3.09	2.78	3.42
Encouraging team spirit	72.7%	2.92	2.90	3.00	2.31	3.10 **	2.77	3.19	3.00	2.85	2.90	3.13	3.36	2.78	2.88	2.92	2.96	3.06	2.83	3.27 **	2.90	3.33
Group decision-making	31.8%	2.03	2.15	1.72	1.62	2.10	1.77	2.25	2.13	1.94	2.07	1.75	1.79	2.02	2.44	1.66 **	2.16	1.94	1.98	2.23	1.98	2.75 **
Permanent interaction between members of teams	60.6%	2.47	2.52	2.33	2.38	2.40	2.13	2.81 ***	2.53	2.38	2.52	2.13	2.79	2.33	2.44	2.42	2.88	2.20 **	2.15	3.05 **	2.66	2.42
Employee remuneration	43.9%	1.92	1.92	1.94	1.85	1.86	1.73	2.13	1.97	1.88	1.97	1.63	1.50	1.96	1.96	1.79	1.96	1.89	1.93	2.00	1.82	2.42
Attribution of prizes	37.9%	1.59	1.71	1.28	1.46	1.52	1.07	2.09 *	1.53	1.62	1.55	1.88	1.50	1.51	1.76	1.34	1.72	1.49	1.55	1.77	1.56	2.17
Future perspectives of working for the company	48.5%	2.02	2.08	1.83	2.08	1.90	1.53	2.38 **	2.27	1.79	2.02	2.00	1.21	2.16 **	2.04	1.89	2.12	1.89	1.90	2.23	1.80	3.00 *
Recognition for work achieved	66.7%	2.65	2.73	2.44	2.46	2.64	2.27	3.03 **	2.83	2.53	2.71	2.25	2.36	2.69	2.60	2.63	2.84	2.57	2.53	3.00	2.54	3.33 ***
<b>Panel B - What is the importance of the following risk factors in the project's evaluation?</b>																						
Implementation of inadequate tasks	49.3%	2.3	2.04	3.00 *	1.85	2.41 ***	2.42	2.25	2.13	2.50	2.17	3.25 **	2.00	2.34	2.28	2.26	2.12	2.50 ***	2.38	2.35	2.16	2.83
Ignoring the work being done by others	55.2%	2.52	2.35	3.00 ***	2.31	2.57	2.61	2.56	2.23	2.85 ***	2.36	3.75 *	3.00	2.36	2.72	2.36	2.60	2.53	2.45	2.78	2.55	2.58
Lack of coordination between team members	73.1%	2.94	2.90	3.06	2.38	3.10 **	2.94	3.09	2.77	3.15	2.86	3.50	3.64	2.72 **	3.16	2.77	3.16	2.83	2.93	3.04	2.96	3.08
Conflicts between team members	58.2%	2.61	2.47	3.00 ***	2.23	2.73	2.87	2.47 ***	2.55	2.71	2.46	3.75 *	3.14	2.42 ***	3.00	2.31 **	2.60	2.61	2.65	2.57	2.65	2.58
Absence of motivation	70.1%	2.75	2.84	2.50	2.00	2.96 *	2.74	2.91	2.58	2.94	2.75	2.75	2.79	2.70	3.08	2.49	2.88	2.72	2.78	2.83	2.71	3.00
<b>Panel C - What procedures were used to minimize the project's risk related to employees?</b>																						
	Freq.	%																				
Monitoring tasks attributed to employees	34	50.7%	46.9%	61.1%	38.5%	51.0%	54.8%	46.9%	45.2%	55.9%	45.8%	87.5%	35.7%	52.0%	40.0%	53.8%	44.0%	55.6%	45.0%	65.2%	56.9%	41.7%
Formulating clear goals for the project (group)	47	70.1%	73.5%	61.1%	46.2%	74.5%	74.2%	68.8%	71.0%	67.6%	69.5%	75.0%	100.0%	60.0%	72.0%	66.7%	76.0%	63.9%	67.5%	69.6%	80.4%	50.0%
Developing group decision-making	25	37.3%	36.7%	38.9%	30.8%	37.3%	29.0%	46.9%	32.3%	44.1%	35.6%	50.0%	50.0%	32.0%	40.0%	33.3%	56.0%	25.0%	35.0%	47.8%	37.3%	50.0%
Correctly identifying the type, methods and conditions of the work to be performed	41	61.2%	59.2%	66.7%	69.2%	56.9%	64.5%	56.3%	48.4%	70.6%	62.7%	50.0%	50.0%	62.0%	68.0%	53.8%	68.0%	52.8%	60.0%	56.5%	54.9%	83.3%
Elaboration of contingency plans to solve possible problems	33	49.3%	46.9%	55.6%	46.2%	49.0%	45.2%	53.1%	64.5%	35.3%	47.5%	62.5%	71.4%	40.0%	40.0%	51.3%	48.0%	50.0%	45.0%	60.9%	47.1%	75.0%
Analysing the needed human attributes	32	47.8%	46.9%	50.0%	30.8%	52.9%	48.4%	53.1%	51.6%	47.1%	45.8%	62.5%	57.1%	44.0%	60.0%	38.5%	40.0%	50.0%	47.5%	47.8%	49.0%	58.3%
Analysing the employee's experience	34	50.7%	49.0%	55.6%	46.2%	51.0%	58.1%	37.5%	29.0%	67.6%	52.5%	37.5%	42.9%	54.0%	36.0%	61.5%	56.0%	52.8%	57.5%	39.1%	49.0%	50.0%
Analysing the employee's education/qualifications	38	56.7%	53.1%	66.7%	38.5%	60.8%	67.7%	43.8%	45.2%	64.7%	55.9%	62.5%	64.3%	56.0%	56.0%	59.0%	60.0%	61.1%	62.5%	47.8%	56.9%	50.0%
Selecting team players	32	47.8%	53.1%	33.3%	61.5%	43.1%	35.5%	56.3%	29.0%	64.7%	47.5%	50.0%	64.3%	44.0%	48.0%	48.7%	52.0%	50.0%	42.5%	60.9%	49.0%	58.3%
Selecting employees with problem-solving abilities	29	43.3%	46.9%	53.3%	53.8%	39.2%	41.9%	46.9%	38.7%	47.1%	44.1%	37.5%	42.9%	40.0%	44.0%	38.5%	32.0%	44.4%	42.5%	39.1%	39.2%	66.7%
Information about company statutes	5	7.5%	10.2%	0.0%	0.0%	9.8%	6.5%	9.4%	0.0%	14.7%	5.1%	25.0%	14.3%	6.0%	20.0%	0.0%	8.0%	8.3%	5.0%	13.0%	9.8%	0.0%
Promoting interpersonal relationships between team members	29	43.3%	42.9%	44.4%	30.8%	45.1%	41.9%	43.8%	35.5%	50.0%	39.0%	75.0%	42.9%	40.0%	56.0%	30.8%	36.0%	47.2%	37.5%	56.5%	49.0%	33.3%
Detailed description of the job	19	28.4%	20.4%	50.0%	23.1%	29.4%	32.3%	25.0%	32.3%	23.5%	28.8%	25.0%	42.9%	24.0%	16.0%	35.9%	24.0%	33.3%	32.5%	21.7%	29.4%	16.7%
Reward based on merit	19	28.4%	24.5%	38.9%	30.8%	25.5%	32.3%	25.0%	16.1%	38.2%	25.4%	50.0%	35.7%	26.0%	36.0%	23.1%	32.0%	27.8%	27.5%	30.4%	33.3%	16.7%
Reward based on achievement of goals	25	37.3%	36.7%	38.9%	23.1%	39.2%	35.5%	40.6%	32.3%	41.2%	35.6%	50.0%	42.9%	36.0%	56.0%	25.6%	48.0%	33.3%	22.5%	65.2%	41.2%	33.3%
Reward based on tenure	2	3.0%	0.0%	11.1%	0.0%	3.9%	6.5%	0.0%	6.5%	0.0%	3.4%	0.0%	0.0%	4.0%	8.0%	0.0%	0.0%	5.6%	5.0%	0.0%	3.9%	0.0%
Reward based on the job	12	17.9%	12.2%	33.3%	30.8%	15.7%	35.5%	3.1%	16.1%	20.6%	16.9%	25.0%	14.3%	20.0%	20.0%	17.9%	16.0%	16.7%	15.0%	17.4%	21.6%	8.3%
Performance evaluation considering the importance to the last stage of the project	5	7.5%	4.1%	16.7%	15.4%	5.9%	9.7%	3.1%	6.5%	8.8%	5.1%	25.0%	14.3%	6.0%	4.0%	10.3%	0.0%	13.9%	7.5%	8.7%	7.8%	8.3%
Performance evaluation considering production and quality	31	46.3%	44.9%	50.0%	30.8%	49.0%	58.1%	34.4%	35.5%	55.9%	49.2%	25.0%	50.0%	46.0%	56.0%	41.0%	36.0%	58.3%	45.0%	52.2%	47.1%	58.3%
Performance evaluation considering dedication/responsibility	25	37.3%	36.7%	38.9%	23.1%	39.2%	38.7%	37.5%	45.2%	29.4%	39.0%	25.0%	28.6%	40.0%	48.0%	30.8%	32.0%	41.7%	32.5%	47.8%	33.3%	58.3%
Qualifying employees to develop technical capabilities	40	59.7%	65.3%	44.4%	69.2%	56.9%	48.4%	68.8%	54.8%	64.7%	59.3%	62.5%	64.3%	60.0%	72.0%	53.8%	60.0%	58.3%	47.5%	78.3%	56.9%	75.0%
Qualifying employees to develop human capabilities	21	31.3%	32.7%	27.8%	46.2%	25.5%	38.7%	21.9%	29.0%	32.4%	35.6%	0.0%	7.1%	38.0%	56.0%	15.4%	20.0%					

Annex 12 - Conditional analysis of project manager area	% Import and very Import	Average	Industry			Total Sales		Total Debt		Dividends		Type of Project		Duration of the Project		Cost of the project		Relative Dimension		Project Success	
			Manufac toring	Commerce	Other	High	Low	High	Low	Yes	No	Expansion	Others	Long	Short	High	Low	Big	Small	High	Low
			N=17	N=12	N=24	N=20	N=28	N=18	N=32	N=25	N=27	N=26	N=27	N=16	N=32	N=16	N=29	N=16	N=27	N=38	N=15
<b>Panel A - What is the relevance attributed to the following characteristics/attributes of the project manager?</b>																					
Management skills	92,5%	3,4	3,18	3,50	3,46	3,70	3,14 **	3,67	3,25 *	3,60	3,19 **	3,58	3,22 ***	3,56	3,25	3,75	3,10 *	3,56	3,22	3,42	3,33
Technical skills	79,2%	3,11	3,12	3,25	3,04	2,90	3,25	3,17	3,09	3,20	3,00	3,12	3,11	3,31	3,00	2,94	3,28	3,13	3,15	2,97	3,47 ***
Leadership skills	90,6%	3,28	3,06	3,33	3,38	3,55	3,04 **	3,67	3,06 *	3,32	3,22	3,27	3,30	3,38	3,16	3,44	3,03	3,31	3,11	3,24	3,40
Conflict management skills	73,6%	2,66	2,65	2,58	2,71	2,70	2,64	2,94	2,56	2,44	2,81	2,62	2,70	2,88	2,56	2,56	2,59	2,69	2,59	2,58	2,87
Problem-solving skills	88,7%	3,21	3,24	3,58	3,04	3,25	3,32	3,39	3,25	3,32	3,07	3,19	3,22	3,56	3,16	3,13	3,34	3,44	3,30	3,18	3,27
Decision-making skills	90,6%	3,34	3,29	3,50	3,33	3,60	3,29	3,67	3,28 ***	3,20	3,44	3,19	3,48	3,56	3,16	3,31	3,28	3,38	3,37	3,32	3,40
Communication and coordination skills	86,8%	3,23	3,06	3,42	3,29	3,30	3,14	3,56	3,03 ***	3,16	3,26	3,23	3,22	3,31	3,22	3,19	3,10	3,25	3,04	3,21	3,27
Motivation skills	83,0%	2,96	2,82	3,33	2,92	3,15	2,93	3,22	2,94	2,76	3,11 **	2,88	3,04	3,25	2,91	2,94	3,00	3,19	2,96	2,87	3,20 ***
Negotiation and Persuasion skills	81,1%	3,02	2,65	3,42	3,04	3,35	2,86	3,44	2,91	2,84	3,15 ***	2,96	3,07	3,19	2,97	3,06	2,90	3,06	3,00	3,03	3,00
Interpersonal abilities and knowledge	62,3%	2,72	2,76	3,17	2,46	2,90	2,71	2,94	2,75	2,72	2,67	2,81	2,63	2,75	2,75	2,63	2,76	3,06	2,67	2,74	2,67
Experience/knowledge of industry	86,8%	3,21	3,18	3,50	3,04	3,35	3,21	3,33	3,28	3,08	3,30	3,35	3,07	3,25	3,22	3,00	3,31	3,50	3,15	3,18	3,27
Possessing multidisciplinary knowledge	67,9%	2,68	2,71	3,25	2,38	2,70	2,71	2,83	2,69	2,64	2,67	2,96	2,41 ***	2,81	2,66	2,50	2,72	3,19	2,41 ***	2,71	2,60
Appropriate exercise of authority	64,2%	2,6	2,59	3,00	2,29	2,55	2,68	2,50	2,78	2,24	2,89 **	2,85	2,37	2,13	2,88 **	2,31	2,66	3,25	2,22 *	2,63	2,53
Orientation to the global problem	67,9%	2,87	2,88	3,17	2,63	2,85	2,93	2,89	2,97	2,76	2,93	3,08	2,67	2,75	2,91	2,81	2,86	3,56	2,56 *	2,89	2,80
Success within the organization	54,7%	2,32	2,41	3,00	1,88 **	1,90	2,64 **	1,78	2,75 **	2,00	2,70 **	2,27	2,37	2,00	2,50	1,50	2,76 **	2,38	2,41	2,37	2,20
Ambition	43,4%	2,13	1,94	2,83	1,88 **	2,10	2,18	2,11	2,25	2,04	2,30	1,92	2,33	2,19	2,19	1,56	2,31 **	2,06	2,15	2,24	1,87
Energy	69,8%	2,75	3,00	3,33	2,33 *	2,75	2,86	2,72	2,88	2,84	2,78	2,81	2,70	3,00	2,66	2,38	2,93 ***	2,69	2,89	2,74	2,80
Quick thinking	69,8%	2,58	2,88	2,92	2,21	2,50	2,75	2,61	2,72	2,44	2,67	2,65	2,52	2,50	2,56	2,31	2,72	2,81	2,59	2,47	2,87
Common sense	84,9%	3,13	3,06	3,33	3,13	3,10	3,11	3,39	2,97	3,24	3,00	3,23	3,04	3,19	3,09	3,13	3,03	3,13	3,04	3,13	3,13
Intuition	62,3%	2,47	2,53	2,75	2,29	2,25	2,61	2,33	2,59	2,44	2,44	2,65	2,30	2,13	2,69	2,44	2,52	3,00	2,19 ***	2,50	2,40
Creativity	58,5%	2,53	2,47	2,92	2,42	2,30	2,61	2,50	2,53	2,24	2,74 **	2,65	2,41	2,13	2,72 ***	2,31	2,59	2,94	2,22	2,63	2,27
<b>Panel B - What was the role of the project's manager/leader?</b>																					
	Freq.	%																			
Understanding business environment	44	83,0%	70,6%	91,7%	91,7%	95,0%	78,6%	94,4%	78,1%	72,0%	92,6%	76,9%	88,9%	93,8%	75,0%	81,3%	79,3%	93,8%	74,1%	84,2%	80,0%
Coordinating opportunities and abilities	32	60,4%	47,1%	50,0%	75,0%	55,0%	64,3%	66,7%	59,4%	44,0%	74,1%	50,0%	70,4%	62,5%	56,3%	56,3%	65,5%	50,0%	70,4%	55,3%	73,3%
Formulating objectives and strategies for the project	32	60,4%	52,9%	58,3%	66,7%	65,0%	60,7%	72,2%	56,3%	56,0%	63,0%	46,2%	74,1%	68,8%	53,1%	50,0%	58,6%	56,3%	55,6%	68,4%	40,0%
Ensuring consistency of project's goals and company goals	35	66,0%	64,7%	83,3%	62,5%	70,0%	64,3%	77,8%	59,4%	60,0%	70,4%	57,7%	74,1%	75,0%	59,4%	68,8%	58,6%	68,8%	59,3%	71,1%	53,3%
Creation of adequate conditions for team work	24	45,3%	52,9%	50,0%	37,5%	45,0%	50,0%	38,9%	53,1%	48,0%	44,4%	38,5%	51,9%	25,0%	56,3%	43,8%	48,3%	56,3%	44,4%	52,6%	26,7%
Motivation of employees and promotion of team spirit	29	54,7%	52,9%	58,3%	58,3%	50,0%	57,1%	61,1%	50,0%	28,0%	77,8%	53,8%	55,6%	43,8%	56,3%	43,8%	51,7%	56,3%	44,4%	50,0%	66,7%
Definition of tasks	30	56,6%	64,7%	33,3%	66,7%	55,0%	64,3%	72,2%	50,0%	48,0%	63,0%	46,2%	66,7%	62,5%	53,1%	50,0%	55,2%	43,8%	59,3%	47,4%	80,0%
Delegation and attribution of responsibilities	43	81,1%	82,4%	66,7%	91,7%	90,0%	75,0%	83,3%	78,1%	84,0%	77,8%	80,8%	81,5%	87,5%	78,1%	100,0%	69,0%	81,3%	77,8%	78,9%	86,7%
Command/direction of the project	37	69,8%	82,4%	58,3%	70,8%	65,0%	78,6%	72,2%	71,9%	56,0%	81,5%	69,2%	70,4%	75,0%	65,6%	62,5%	75,9%	81,3%	66,7%	65,8%	80,0%
Definition and evaluation of priorities	34	64,2%	70,6%	41,7%	70,8%	60,0%	64,3%	66,7%	62,5%	40,0%	85,2%	65,4%	63,0%	56,3%	62,5%	56,3%	65,5%	68,8%	59,3%	52,6%	93,3%
Analysis of problems and identification of viable solutions	32	60,4%	64,7%	50,0%	66,7%	70,0%	60,7%	66,7%	59,4%	56,0%	63,0%	73,1%	48,1%	50,0%	65,6%	75,0%	51,7%	81,3%	48,1%	57,9%	66,7%

Annex 12 - Conditional analysis of project manager area	% Import and very Import	Average	CEO Education		CEO Age		CEO Tenure		Owned by Management		Project Manager Education		Project Manager Age		Project Manager Position		PM Experience		PM Compensation		Decision-Making	
			University Course	Others	>57.75	Younger	Long	Short	0%	>0%	University Course	Others	>=50	Younger	Administra tion	Other	+4	Other	Fixed	Other	Administra tion	Others
			N=36	N=16	N=12	N=38	N=22	N=29	N=27	N=25	N=44	N=8	N=16	N=34	N=15	N=35	N=27	N=22	N=27	N=24	N=38	N=12

**Panel A - What is the relevance attributed to the following characteristics/attributes of the project manager?**

Management skills	92.5%	3,4	3,44	3,31	3,08	3,50	3,45	3,34	3,30	3,52	3,43	3,25	3,63	3,26 ***	3,67	3,26 ***	3,52	3,36	3,63	3,13 **	3,42	3,67
Technical skills	79.2%	3,11	3,06	3,31	3,17	3,08	3,18	3,14	3,11	3,16	3,09	3,38	3,25	3,09	3,27	3,09	3,41	2,95 **	3,19	3,08	3,08	3,33
Leadership skills	90.6%	3,28	3,31	3,25	3,00	3,37	3,36	3,21	3,07	3,52 **	3,30	3,25	3,38	3,21	3,53	3,14	3,30	3,36	3,37	3,17	3,34	3,42
Conflict management skills	73.6%	2,66	2,75	2,56	2,33	2,76	2,68	2,69	2,41	3,00 **	2,68	2,75	2,81	2,62	2,47	2,77	2,78	2,68	2,78	2,58	2,79	2,58
Problem-solving skills	88.7%	3,21	3,14	3,31	2,92	3,26	3,32	3,10	3,04	3,36	3,20	3,13	3,38	3,12	3,20	3,20	3,41	3,09 ***	3,48	2,83 ***	3,29	3,08
Decision-making skills	90.6%	3,34	3,31	3,38	2,75	3,47 ***	3,41	3,28	3,41	3,24 ***	3,30	3,50	3,50	3,21	3,60	3,17	3,26	3,50	3,37	3,33	3,55	3,17
Communication and coordination skills	86.8%	3,23	3,25	3,25	3,25	3,24	3,32	3,21	3,37	3,12	3,25	3,25	3,13	3,26	3,00	3,31	3,19	3,27	3,19	3,29	3,13	3,58 ***
Motivation skills	83.0%	2,96	2,86	3,25 **	2,50	3,08	3,14	2,90	2,93	3,04	2,93	3,25 **	3,06	2,94	3,00	2,97	2,96	3,14	3,07	2,83	3,11	2,75
Negotiation and Persuasion skills	81.1%	3,02	3,11	2,88	2,58	3,13	3,18	2,93	2,93	3,16	3,11	2,63	3,19	2,91	3,13	2,94	3,11	3,00	3,26	2,79	3,13	2,92
Interpersonal abilities and knowledge	62.3%	2,72	2,64	2,94	2,33	2,79	3,05	2,48	2,52	2,96	2,80	2,38	2,88	2,65	2,93	2,63	2,89	2,64	3,07	2,42 **	2,71	2,75
Experience/knowledge of industry	86.8%	3,21	3,19	3,25	3,00	3,26	3,36	3,07	2,89	3,56 *	3,20	3,25	3,44	3,12	3,40	3,14	3,33	3,23	3,33	3,04	3,26	3,17
Possessing multidisciplinary knowledge	67.9%	2,68	2,67	2,75	2,83	2,61	2,55	2,76	2,52	2,88	2,77	2,25	3,00	2,53	2,53	2,74	3,11	2,27 *	2,89	2,46	2,63	2,83
Appropriate exercise of authority	64.2%	2,6	2,56	2,75	2,50	2,63	2,82	2,45	2,48	2,76	2,70	2,13	2,69	2,56	2,47	2,66	2,78	2,36	2,78	2,46	2,55	2,50
Orientation to the global problem	67.9%	2,87	2,72	3,19	2,67	2,92	2,86	2,90	3,07	2,64	2,91	2,63	3,25	2,62 ***	2,60	2,91	3,04	2,55	3,07	2,63 ***	2,76	3,00
Success within the organization	54.7%	2,32	1,94	3,13 *	2,17	2,42	2,50	2,14	2,19	2,44	2,20	2,88	2,25	2,29	2,53	2,17	2,33	2,32	2,37	2,25	2,45	1,83
Ambition	43.4%	2,13	2,00	2,50	2,17	2,21	2,45	1,86	1,89	2,44 **	2,14	2,25	1,75	2,29 ***	2,47	1,97	2,00	2,36	2,07	2,21	2,18	2,00
Energy	69.8%	2,75	2,56	3,25 **	2,50	2,95	2,91	2,62	2,52	3,04	2,66	3,38 **	2,69	2,79	3,07	2,63	2,70	2,95	2,96	2,54	2,79	2,67
Quick thinking	69.8%	2,58	2,36	3,06 **	2,00	2,74	2,50	2,62	2,56	2,60	2,48	3,13	2,63	2,53	2,40	2,63	2,63	2,59	2,70	2,42	2,68	2,42
Common sense	84.9%	3,13	3,17	3,13	2,92	3,21	3,14	3,17	3,19	3,12	3,18	3,00	3,31	3,03	3,07	3,14	3,30	3,05	3,30	3,00	3,16	3,33
Intuition	62.3%	2,47	2,33	2,88 **	2,75	2,42	2,68	2,34	2,59	2,40	2,55	2,25	2,63	2,41	2,27	2,57	2,74	2,27	2,70	2,38	2,45	2,67
Creativity	58.5%	2,53	2,53	2,63	2,75	2,47	2,55	2,55	2,48	2,64	2,59	2,38	2,31	2,65	2,27	2,66	2,78	2,36	2,48	2,63	2,53	2,67

**Panel B - What was the role of the project's manager/leader?**

	Freq.	%																					
Understanding business environment	44	83,0%	77,8%	93,8%	83,3%	81,6%	90,9%	75,9%	81,5%	84,0%	79,5%	100,0%	87,5%	79,4%	86,7%	80,0%	74,1%	90,9%	85,2%	79,2%	81,6%	83,3%	
Coordinating opportunities and abilities	32	60,4%	55,6%	75,0%	58,3%	60,5%	72,7%	55,2%	70,4%	52,0%	56,8%	87,5%	62,5%	58,8%	73,3%	54,3%	55,6%	68,2%	63,0%	62,5%	71,1%	41,7%	
Formulating objectives and strategies for the project	32	60,4%	58,3%	62,5%	58,3%	57,9%	54,5%	62,1%	48,1%	72,0%	61,4%	50,0%	50,0%	61,8%	60,0%	57,1%	59,3%	59,1%	59,3%	58,3%	57,9%	66,7%	
Ensuring consistency of project's goals and company goals	35	66,0%	63,9%	68,8%	50,0%	68,4%	68,2%	62,1%	66,7%	64,0%	68,2%	50,0%	43,8%	73,5%	73,3%	60,0%	59,3%	72,7%	66,7%	66,7%	71,1%	50,0%	
Creation of adequate conditions for team work	24	45,3%	44,4%	50,0%	33,3%	50,0%	50,0%	44,8%	40,7%	52,0%	52,3%	12,5%	25,0%	52,9%	66,7%	34,3%	40,7%	45,5%	55,6%	37,5%	39,5%	50,0%	
Motivation of employees and promotion of team spirit	29	54,7%	52,8%	62,5%	41,7%	57,9%	45,5%	62,1%	63,0%	48,0%	50,0%	87,5%	50,0%	55,9%	46,7%	57,1%	40,7%	72,7%	48,1%	62,5%	60,5%	50,0%	
Definition of tasks	30	56,6%	61,1%	50,0%	41,7%	60,5%	54,5%	62,1%	63,0%	52,0%	52,3%	87,5%	50,0%	58,8%	53,3%	57,1%	44,4%	68,2%	51,9%	62,5%	57,9%	58,3%	
Delegation and attribution of responsibilities	43	81,1%	83,3%	75,0%	58,3%	86,8%	72,7%	89,7%	85,2%	76,0%	79,5%	87,5%	87,5%	76,5%	86,7%	77,1%	77,8%	86,4%	85,2%	75,0%	89,5%	75,0%	
Command/direction of the project	37	69,8%	69,4%	75,0%	75,0%	68,4%	59,1%	79,3%	66,7%	76,0%	68,2%	87,5%	81,3%	64,7%	60,0%	74,3%	74,1%	68,2%	81,5%	62,5%	65,8%	83,3%	
Definition and evaluation of priorities	34	64,2%	61,1%	75,0%	41,7%	71,1%	68,2%	65,5%	63,0%	68,0%	59,1%	100,0%	75,0%	58,8%	53,3%	68,6%	66,7%	63,6%	63,0%	66,7%	63,2%	66,7%	
Analysis of problems and identification of viable solutions	32	60,4%	61,1%	62,5%	33,3%	68,4%	63,6%	58,6%	70,4%	52,0%	61,4%	62,5%	56,3%	61,8%	53,3%	62,9%	55,6%	68,2%	74,1%	50,0%	52,6%	83,3%	

