Non-Financial Analysis in Project Appraisal – An Empirical Study

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Abstract

Recent literature has been emphasising the need to take both financial and nonfinancial aspects into consideration when considering capital budgeting decisions. This is to be done since the early stages of project appraisal, and not only when risks become reality. We wanted to know to what extent portuguese companies are aware of the importance of non financial aspects at their project appraisal processes, and, in their practices, what exactly they are doing and considering as more or less important.

We looked at financial, strategic, technical, commercial, political, social, environmental, organizational, human resources and project manager factors, and we asked firms: What are the non financial aspects most relevant in their project's decision?; What are the risk factors considered in each area of analysis?; What procedures they used to minimize the project's non financial risks?. This allowed us not only to trace the anatomy of Portuguese's project appraisal methodologies, but also to contribute, through this empirical study, to the body of knowledge in this area.

This work also allowed us to differentiate the importance of the different areas of analysis, and the way the analysis is done, according to the characteristics of company and project, company's administration and project manager.

Keywords: Investment Projects; Evaluation; Non-Financial Analysis

EFM Classification Codes: 220 - Project Selection and Cost of Capital

1. Introduction

The great emphasis placed on financial aspects when considering capital budgeting decisions has been questioned by recent literature: see for example 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). All these authors have been emphasising the need to take both financial and nonfinancial aspects into account when considering capital budgeting decisions.

The decision-making process for investments is complex and goes beyond the financial aspects. Skitmore et al. (1989) point out that "*any knowledge that can help the decision-makers (...) to recognize and minimize the uncertainty and risk is expected to have some potential value*". Many of the project's goals tend to be qualitative and not easily measurable, apart from being long term goals and not immediately verifiable. Andreou et al. (1989) note that a project generates externalities, in terms of costs and benefits that are not taken into account in financial forecasts. The financial techniques must be used only as a guide, or a baseline, and other factors that may influence the uncertainty analysis must be considered. The financial evaluation is only a part of the decision-making process and additional information is needed. Therefore, even if the financial conditions are extremely favorable, neglecting some of the qualitative aspects may cause serious problems[1]. The capital budgeting process must enclose a wide spectrum of analysis dimensions, whether financial or not, as a way to fully study all the aspects that may influence its viability.

With our work, we aimed to overcome the limited availability of empirical studies related to nonfinancial aspects of projects, given that most studies known address only the financial field. In our previous work (Moutinho and Lopes, 2010), we have found that the analysis of financial aspects in project appraisal, in portuguese firms, comes only in third order of importance, after strategic and technical aspects. We also have found that higher project success is linked with higher frequency in the evaluation of financial, strategic, commercial, political, environmental, human resources and project manager aspects.

[1] Mohamed and McCowan (2001, p. 232) states that non-monetary project aspects need "*careful analysis and understanding so that they can be managed. In extreme cases, neglect of these aspects can cause the failure of a project despite very favourable financial components… to provide for the effects of these qualitative aspects, the majority of organizations resort to estimating the necessary money contingencies without an appropriate quantification of the combined effects of monetary and non-monetary factors*".

After these conclusions, we wanted to know, *for each area of analysis*: What are the non financial aspects considered most relevant in the firm´s project decision?; What are the main risk factors, in each area, considered?; What procedures do firms use to minimize the project's non financial risks?.

The importance of our study is therefore related to the need to understand the relevance that *each* non financial factor assumes in the practice of project analyses and its relation to project success. The interest of this study is increased, given that non-financial areas are being greatly neglected, and in particular considering the fact that we do not know of other empirical studies with a similar scope on the role of non-financial aspects in making investment decisions. To the best of our knowledge, we are the first to examine the practice of portuguese firms concerning financial, strategic, technical, commercial, political, social, environmental, organizational, human resources and project manager aspects, all together.

We used the field study method as our main research methodology, conducting an in depth survey that was sent to the 1.000 largest Portuguese firms. Given that we did not know of any previous survey taking into account all non-financial aspects of projects, we produced our own questionnaire[2]. We explore each area of analysis in depth, asking more than 400 issues in more than 50 questions. Respondents were asked to score how important is each area of analysis in the project's valuation, each non financial aspects in project's decision and the risk factors in each area of analysis, on a scale of 0 to 4 (0 meaning "unimportant", 4 meaning "very important"). Respondents had to tell us if they consider ("yes"), or not ("no"), non-financial evaluation, and the procedures that they used to minimize the project's non financial risks. After personal interviews with practitioners to validate the questions and to make sure they were clearly formulated and interpreted, we sent the survey to the Chief Financial Officer (CFO) of the 1.000 largest Portuguese firms in 2005. We have obtained 9,6% of response rate, which is comparable to other academic surveys (for example, Brounen et al.,2004; Graham and Harvey, 2001; and Trahan and Gitman,1995). Next, we performed statistical test as in Siegel and Castellan (1988) and Kvanli et al. (2000) to know if there are any statistical differences[3] in the behaviour of companies when we distinguish between the

[2] The questionnaire is available on request.

[3] We have performed the *t* test for two independent samples, the Mann-Whitney test and the Kruskal-Wallis test, according to sample characteristics. We report statistical difference at 1% (*), 5% (**) or 10% (***) level.

characteristics of the company, the project, the company's administration and the project manager. The questionnaire response options were chosen mainly based on the contributions by previous literature on the area (Lopes and Flavell (1998), Skitmore et. al. (1989) and Meredith and Mantel (2000) among others), and partly on suggestions from practitioners, coming from the preliminary interviews.

This work allowed us not only to trace the anatomy of Portuguese's project appraisal methodologies, but also to contribute to the body of knowledge concerning the identification of the most relevant aspects in project evaluation, the main risk factors, and the procedures that can be used to minimize them. The work also allowed 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 a detailed analysis of the data, and discuss our results both on their own and in the context of existing literature. We placed most of the tables, which summarise the survey answers, at the end of the paper (Annex 1 till 11) due to their large extension. Finally, in the last section we present our conclusions.

2. Data and Discussion of Results

2.1. The Sample

Summarizing the main characteristics of our survey sample, we verify 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. Company 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.

Our work 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. On average, the *amount of the investment* is nine times greater than *sales* and represent 25,9% of *total asset* in the firm.

Concerning the characteristics of firms' CEO, we verify 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. CEO are, on average, 52 *years old* and have a 10-year *tenure* as chairman of board. 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.

2.2. Financial and Non-Financial Factors Analysed

2.2.1. 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 1). 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 *benefit/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 1 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 between long and short term 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, 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 3.1 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 1, that little importance is attributed to real options in project appraisal, we also found 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 or formal way.

[TABLE 3.2 HERE]

2.2.2. Strategic Analysis

The way portuguese firms deal with strategic aspects is reported in Annex 2. 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 i*mpact on the company's global risk* (56,5%) and the *impact on future projects* (53,3%) is in line with the importance attributed to these factors by Lopes and Flavell (1998).

Based on panel A of Annex 2 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 2, about the importance attributed to the goals in the decision to proceed with the project, we evidence that the most important goals for investment decision are the d*evelopment of company's current business* (91,3%), *exploring opportunities/strengths* (85,9%), *meeting the market's needs* (83,7%) and, to a lesser degree, *profit maximization* (71,7%).

Panel B shows us that in the commercial sector the d*evelopment 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 d*evelopment 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 2 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 2, are, as in Lopes and Flavell (1998), the need to have a *clear a priori definition of goals* (84,4%), an*alysing the capability to implement the project* (53,3%) and the d*efinition of priorities* (56,3%).

2.2.3. Technical Analysis

The Technical Analysis is reported in Annex 3. 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 sector 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 3, 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 3) with emphasis to *using experienced and trained personnel* (77,5%) and *using tested technology instead of cheap technology* (62,5%).

2.2.4. Commercial Analysis

On panel A of Annex 4 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 4 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 competitor*s is considered more important. We can also verify that while projects are more successful projects *analysing the company's capacity* is found as 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 4 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 4).

2.2.5. Political Analysis

The findings related to this area can be checked in Annex 5. From panel A (that study the relevance of political characteristics in the project's analysis) we observe 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, concerning the importance of political risk factors, 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, in expansion ones, the *possibility of financing* and the *changes in PIDDAC*[4] are considered less important than in 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 5, 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%).

2.2.6. Social Analysis

The data referring to the relevance of social factors in the project's evaluation is shown in Annex 6. 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 *ethnical 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).

[4] *PIDDAC* is the Programa de Investimentos e Despesas de Desenvolvimento da Administração Central, which is the government program for investment.

From panel A of Annex 6 (What relevance do you attribute to some social aspects in the project's evaluation?) we perceive that manufacturing industries consider the *adoption of an environmental policy* more important than companies in other sectors. 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 to the *analysis of social consequences for similar communities*.

From panel B of Annex 6 (What is the importance of some social risk factors in the project's evaluation?) 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 6), 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*.

2.2.7. Environmental Analysis

Annex 7 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 7, 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*, *government'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 it would be expected in view of the characteristics of the companies analysed, that the importance of the *influence on stock price* is almost nonexistent (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%).

2.2.8. Organisational Analysis

Panels A to D, in Annex 8, 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 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/documented (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 9 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 witch less importance was attributed (41,7%).

As for risk factors, panel C of Annex 8 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 8 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) adopt: *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%).

2.2.9. Human Resources and Project Manager Analysis

Human Resources Analysis

The aspects related to human resources are detailed in Annex 10. 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 10, the *lack of coordination between team members* (73,1%) and the *absence of motivation* (70,1%) – as in Belout (1998) and Jonhs (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), among others.

Project Manager Analysis

The choice of a Project Manager (PM) being the leader of the project needs special attention. Annex 11 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. Conclusion

This paper follows a previous study on the practices of portuguese firms concerning project appraisal and decision making (Moutinho and Lopes(2010)). On that first study we 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 came only in third place, together with commercial factors, both in project appraisal, and at the decision making process.

In the present work we detailed the analysis, and present the results to the following questions: What are the non financial aspects most relevant, within each area of analysis, in portuguese firm´s project's decision? What are the main risk factors considered by firms, in each area of analysis?; What procedures do they use to minimize the project's non financial risks?.

The results were based on a survey sent to the largest 1000 portuguese firms (with a 9,6% response rate)

With the data collected we also tried 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

Overall, we were able to trace the anatomy of Portuguese's project appraisal methodologies, concerning non financial issues, and have identified the main risk factors that can influence the project, and ways to deal with them. We also gain knowledge in distinguish the importance of non-financial factors according to certain characteristics of the company, the project, the company's administration and the project manager. Finally, we found strong evidence about the importance to project success of some specific non-financial aspects, in each area of analysis.

Naturally, this work can be deepened, and complemented, if we follow it with personal interviews in order to find out the reasons behind some of the answers we got. This is in our agenda for future work.

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TABLE 3.1: 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	23	10	2	0	4	1
	49,4%	29,1%	12,7%	2,5%	0,0%	5,1%	1,3%

TABLE 3.2: WHILE THE PROJECT WAS BEING IMPLEMENTED, HAVE YOU EVER CONSIDERED:

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

Annex 1 - Conditional analysis of financial 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	
			Manufactoring N=37	Commerce N=24	Other N=33	High N=29	Low N=60	High N=33	Low N=60	Yes N=48	No N=47	Expansion N=47	Others N=49	Long N=35	Short N=53	High N=29	Low N=55	Big N=30	Small N=52
Panel A - What is the importance of the following techniques in this project's analysis?																			
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
Panel B - What discount rate did the company use for the valuation of this project?																			
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%
Panel C - What is the importance of the following financial risk factors in the project's valuation?																			
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 1 - 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	Administration	Other	+4	Other	Fixed	Other	Administration	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
Panel A - What is the importance of the following techniques in this project's analysis?																						
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 Indez	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
Panel B - What discount rate did the company use for the valuation of this project?																						
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%
Panel C - What is the importance of the following financial risk factors in the project's valuation?																						
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 2 - 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	
			Manufactoring N=35	Commerce N=23	Other N=33	High N=29	Low N=56	High N=32	Low N=57	Yes N=46	No N=45	Expansion N=47	Others N=45	Long N=35	Short N=50	High N=29	Low N=51	Big N=30	Small N=48	High N=65	Low N=27
Panel A - What is the importance of the following characteristics in the project's analysis?																					
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 ***
Panel B - State the importance attributed to the following goals in the decision to proceed with the project:																					
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
Panel C - What is the importance of the following risk factors in the project's valuation?																					
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
Panel D - 10. What procedures were used to minimize the project's strategic risk?																					
	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 2 - 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	Administration	Other	+4	Other	Fixed	Other	Administration	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
Panel A - What is the importance of the following characteristics in the project's analysis?																						
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
Panel B - State the importance attributed to the following goals in the decision to proceed with the project:																						
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
Panel C - What is the importance of the following risk factors in the project's valuation?																						
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
Panel D - 10. What procedures were used to minimize the project's strategic risk?																						
	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 3 - 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	
			Manufactoring	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
Panel A - What is the relevance attributed to the following characteristics in the project's analysis?																					
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
Panel B - What is the importance of the following risk factors in the project's evaluation?																					
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 ***
Panel C - What procedures were used to minimize the project's technical risk?																					
	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 3 - 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 N=61	Others N=18	>57,75 N=17	Younger N=60	Long N=34	Short N=43	0% N=43	>0% N=35	University Course N=65	Others N=12	>=50 N=20	Younger N=54	Administration N=28	Other N=47	+4 N=33	Other N=38	Fixed N=44	Other N=29	Administration N=56	Others N=19
Panel A - What is the relevance attributed to the following characteristics in the project's analysis?																						
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
Panel B - What is the importance of the following risk factors in the project's evaluation?																						
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
Panel C - What procedures were used to minimize the project's technical risk?																						
	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 4 - 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	Commerce 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
Panel A - What is the importance of the following aspects in the project's evaluation?																					
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
Panel B - What is the importance of the following risk factors in the project's evaluation?																					
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
Painel C - 18. What procedures were used to minimize the project's commercial risk?																					
	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 differenciation	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 4 - 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	Administration	Other	+4	Other	Fixed	Other	Administration	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
Panel A - What is the importance of the following aspects in the project's evaluation?																						
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
Panel B - What is the importance of the following risk factors in the project's evaluation?																						
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
Painel C - 18. What procedures were used to minimize the project's commercial risk?																						
	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 differenciation	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 5 - 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	
			Manufactoring	Commerce	Other	High	Low	High	Low	Yes	No	Expansion	Others	Long	Short	High	Low	Big	Small	High	Low
			N=16	N=3	N=23	N=18	N=22	N=22	N=18	N=17	N=24	N=18	N=24	N=23	N=14	N=20	N=15	N=20	N=14	N=31	N=11
Panel A - What is the relevance of the following characteristics in the project's analysis?																					
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
Panel B - What is the importance of the following risk factors in the project's evaluation?																					
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
Panel C - What procedures were used to minimize the project's political risk?																					
	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 5 - 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
Panel A - What is the relevance of the following characteristics in the project's analysis?																						
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 ***
Panel B - What is the importance of the following risk factors in the project's evaluation?																						
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
Panel C - What procedures were used to minimize the project's p	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 6 - 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	
			Manufactoring 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
Panel A - What relevance do you attribute to the following aspects in the project's evaluation?																					
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
Panel B - What is the importance of the following risk factors in the project's evaluation?																					
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
Panel C - What procedures were used to minimize the project's social risk?																					
	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 6 - 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 N=28	Others N=11	>57,75 N=9	Younger N=28	Long N=19	Short N=19	0% N=21	>0% N=17	University Course N=32	Others N=7	>=50 N=11	Younger N=25	Administration N=15	Other N=21	+4 N=16	Other N=18	Fixed N=24	Other N=12	Administration N=27	Others N=9
Panel A - What relevance do you attribute to the following aspects in the project's evaluation?																						
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
Panel B - What is the importance of the following risk factors in the project's evaluation?																						
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
Panel C - What procedures were used to minimize the project's social risk?																						
	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 7 - 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 N=27	Commerce N=11	Other N=21	High N=22	Low N=32	High N=24	Low N=33	Yes N=28	No N=31	Expansion N=30	Others N=30	Long N=24	Short N=31	High N=25	Low N=29	Big N=24	Small N=28	High N=46	Low N=14
Panel A - What is the relevance of the following factors in the project's evaluation?																					
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
Panel B - What is the importance of the following risk factors in the project's evaluation?																					
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
Panel C - What procedures were used to minimize the project's environmental risk?																					
	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 7 - 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
Panel A - What is the relevance of the following factors in the project's evaluation?																						
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
Panel B - What is the importance of the following risk factors in the project's evaluation?																						
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
Panel C - What procedures were used to minimize the project's environmental risk?																						
	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 8 - 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
Panel A - What is the relevance attributed to the following aspects in the project's evaluation?																					
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
Panel B - What is the importance of the following factors in the project's evaluation?																					
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
Panel C - What is the importance of the following risk factors in the project's evaluation?			#20	#13	#19	#20	#30	#26	#26	#27	#25	#26	#27	#21	#27	#15	#29	#14	#30	#36	#17
No multidisciplinary issues	54,7%	2,38	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 **
Lack of knowledge of what other teams are doing	52,8%	2,43	2,20	2,38	2,74	2,70	2,20	2,19	2,62 ****	2,48	2,36	2,15	2,70	2,43	2,30	2,13	2,45	2,57	2,23	2,33	2,65
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
Panel D - What procedures were used to minimize the project's environmental risk?																					
	Freq	%																			
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 8 - 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
Panel A - What is the relevance attributed to the following aspects in the project's evaluation?																						
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	1,64	1,73	1,41	1,39	1,76	1,53	1,17
Panel B - What is the importance of the following factors in the project's evaluation?																						
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
Panel C - What is the importance of the following risk factors in the project's evaluation?																						
						#42	#23	#29	#21	#32	#45	#8	#13	#38	#22	#29	#23	#27	#30	#21	#40	#13
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
Panel D - What procedures were used to minimize the project's environmental risk?																						
	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 9 - 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	
			Manufactoring N=24	Commerce N=12	Other N=21	High N=20	Low N=35	High N=27	Low N=30	Yes N=28	No N=29	Expansion N=27	Others N=31	Long N=25	Short N=28	High N=17	Low N=32	Big N=16	Small N=33	>= 6 N=37	N=21
What is the relevance attributed to the following aspects of Partnership in the project's evaluation?																					
			#10	#4	#10	#9	#14	#17	#7	#9	#14	#10	#14	#9	#11	#7	#11	#7	#11	#15	#9
Inicial definition of the responsabilities of each partner	95,8%	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 **
Inicial definition of a project leader	100,0%	3,54	3,60	3,50	3,40	3,56	3,50	3,53	3,57	3,89	3,29 *	3,60	3,50	3,78	3,36 **	4,00	3,36 *	3,86	3,45 ***	3,53	3,56
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
Eficient 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 9 - 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 N=44	Others N=14	>57,75 N=10	Younger N=46	Long N=26	Short N=30	0% N=24	>0% N=33	University Course N=49	Others N=9	>=50 N=14	Younger N=42	Administration N=23	Other N=33	+4 N=22	Other N=32	Fixed N=33	Other N=21	Administration N=45	Others N=12
What is the relevance attributed to the following aspects of Partnership in the project's evaluation?																						
			#19	#5	#4	#19	#9	#15	#12	#12	#20	#4	#7	#15	#9	#13	#13	#9	#15	#9	#16	#8
Inicial definition of the responsabilities of each partner	95,8%	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
Inicial definition of a project leader	100,0%	3,54	3,58	3,40	3,75	3,47	3,22	3,73 **	3,42	3,67	3,55	3,50	4,00	3,40 *	3,67	3,54	3,85	3,22 *	3,60	3,44	3,44	3,75
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
Eficient 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 10 - Conditional analysis of humam 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 Sucess	
			Manufactoring N=27	Commerce N=17	Other N=23	High N=23	Low N=41	High N=27	Low N=38	Yes N=31	No N=35	Expansion N=32	Others N=35	Long N=26	Short N=34	High N=22	Low N=36	Big N=23	Small N=35	>= 6 N=49	<6 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%	42,9%	30,8%	45,7%	22,7%	44,4%	34,8%	37,1%	40,8%	27,8%
Promotion based on the quality of the work done	20	29,9%	40,7%	29,4%	17,4%	34,8%	29,3%	39,3%	23,7%	35,5%	25,7%	31,3%	28,6%	34,6%	25,7%	31,8%	30,6%	34,8%	28,6%	30,6%	27,8%

Annex 10 - Conditional analysis of humam 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 Course	Others	>57,75	Younger	Long	Short	0%	>0%	University Course	Others	>=50	Younger	Administration	Other	+4	Other	Fixed	Other	Administration	Others
			N=49	N=18	N=13	N=51	N=31	N=32	N=30	N=34	N=59	N=8	N=14	N=50	N=25	N=39	N=25	N=36	N=40	N=23	N=51	N=12
Panel A - What is the importance of the following aspects in the project's evaluation?																						
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 ***
Panel B - What is the importance of the following risk factors in the project's evaluation?																						
Implementation of inadequate tasks	49,3%	2,3	2,04	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
Panel C - What procedures were used to minimize the project's risk related to employees?																						
	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%	33,3%	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%	33,3%	25,0%	34,8%	29,4%	41,7%
Qualifying employees to develop knowledge of business	16	23,9%	22,4%	27,8%	23,1%	21,6%	25,8%	18,8%	9,7%	35,3%	27,1%	0,0%	28,6%	22,0%	24,0%	23,1%	36,0%	16,7%	17,5%	34,8%	23,5%	33,3%
Qualifying employees to develop team-playing capabilities	25	37,3%	34,7%	44,4%	23,1%	39,2%	41,9%	34,4%	38,7%	35,3%	33,9%	62,5%	42,9%	36,0%	64,0%	20,5%	40,0%	38,9%	22,5%	65,2%	41,2%	33,3%
Promotion based on the quality of the work done	20	29,9%	34,7%	16,7%	15,4%	31,4%	16,1%	43,8%	29,0%	29,4%	30,5%	25,0%	35,7%	24,0%	32,0%	23,1%	36,0%	22,2%	25,0%	39,1%	23,5%	66,7%

Annex 11 - 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	
			Manufactoring	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
Panel A - What is the relevance attributed to the following characteristics/attributes of the project manager?																					
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
Panel B - What was the role of the project's manager/leader?																					
	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 11 - 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 N=36	Others N=16	>57,75 N=12	Younger N=38	Long N=22	Short N=29	0% N=27	>0% N=25	University Course N=44	Others N=8	>=50 N=16	Younger N=34	Administration N=15	Other N=35	+4 N=27	Other N=22	Fixed N=27	Other N=24	Administration N=38	Others 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%