# Stakeholders analysis in complexprojects

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**Abstract***: This work is about a technique called stakeholder analysis, which can be applied in different disciplines. Here, it stands out its use in the disciplines of project management, strategic planning and systems engineering. In organizations that develop complex products, such as the Scientific and Technological Institutions, these three disciplines are of great importance, and for the development of their projects, the analysis of stakeholders is repeated when each one of these disciplines is applied generating duplication of effort and, consequently wasting time and money. As a result, the objective of this article is to present a unique method of stakeholder analysis. With the method proposed in this work it is possible to conclude that this one presents benefits in relation to the methods applied individually in each discipline, because with a single application, one can reach the results necessary to meet the needs of each of them, without the need for replication.*

**Keywords***: complex projects, project management, stakeholder analysis, strategic planning, systems engineering.*

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## I.     INTRODUCTION

This work is about one of the techniques used to manage projects of complex products: the analysis of stakeholders. Also, this work was born of the need of public research institutes, especially those of the space area, to improve their management methods to deal with the challenges of conducting complex projects.

According to PMI (2013), Stakeholders are people or organizations that influence or are influenced by the project, including customers, suppliers, government, society groups, parliament, employees, project team, among others.

In complex project management, stakeholder analysis is a challenging, vast and heterogeneous theme. This analysis, in general, is used for activities carried out in the disciplines of Systems Engineering, Project Management and Strategic Planningwhich, in many areas, are repeated during the use of each discipline, throughout the development of the project.

Briefly, according to Fulindi (2011) systems engineering is a collaborative, multidisciplinary approach to engineering to derive a balanced solution over the life cycle that meets the expectations of stakeholders. According to PMI (2013), a project is an effort that has a definite deadline, undertaken to create a unique product, service or result. According to Oliveira (2002), strategic planning is the administrative process that provides a better direction to be followed by the organization, aiming at the optimized degree of interaction with the environment and acting in an innovative and differentiated way.

In complex projects, the analysis of stakeholders has been the focus of study in recent years, being used as a tool to support the management of these projects. It aims at better customer service of the project, a reduction of problems, regarding the understanding between the members of the development team and their human interfaces, and the maintenance of the feasibility of the project within the time and resources expected, considering the level of quality aimed.

Thus, the objective of this article is to present a method for the analysis of stakeholders for complex projects, meeting the objectives of the activities of such analysis carried out in the disciplines of Systems Engineering, Project Management and Strategic Planning, constituting a synthesis of the information demanded by them.

Considering the research classification criterion, proposed by Silva and Menezes (2005), the research can be defined in terms of nature and objectives and procedures. From this point of view, a bibliographic review was carried out on the analysis of stakeholders in Systems Engineering, Strategic Planning and Project Management. Regarding the technical procedures, this study was used Case study, specifically in an aerospace

project, development in an organization of the military in Brazil; and Discussion about the method developed and its application in front of the opportunities presented in the bibliographic review. In addition, this is an exposed-fact research, since all analyzes in this work were performed after the facts had occurred.

This article is divided into 4 parts. The second presents a review of the literature on stakeholder analysis, more specifically those carried out in the disciplines of systems engineering, project management and strategic planning. The third part presents the proposed method. And finally, the fourth presents the final considerations.

## II.    LITERATURE REVIEW: STAKEHOLDER ANALYSIS

Considering Rocha and Goldschmidt (2011), Pinto and Oliveira (2003) and Freeman (1999), stakeholders can be defined as groups or individuals that affect the organization, in this case, the project, or are significantly affected by the project, your goals. Still, for Mascena (2015), Soares et al. (2014), Valle (2014), PMI (2013) and Teixeira e Moraes (2013), there are several definitions for stakeholders, however, they can be translated as "stakeholders".

Rocha and Goldschmidt (2010), Almeida et al (2000) and Guba and Lincoln (1989) name and describe some types of stakeholders:

- government agencies and administrators, which are the public bodies that regulate the performance of organizations in specific branches;
- financial intermediaries, which may be established in banks to assist in long-term financing, loans and investments;
- trade unions, which act to represent the interests of employees and employers, with a view to maintaining a balanced relationship between them;
- suppliers represent an important stakeholder by participating directly in the production chain of the organization, offering products and services for the organization to operate;
- customers, who choose and buy the products of the organization;
- competitors, who are fighting for the same market share;
- local communities, which are the individuals or organizations that are around the premises of the organization.
- agents, who are those who contribute to the development, establishment and operation of the organization;
- beneficiaries, such as those who profit or expect to profit from the evolution of the organization's activities;
- the internal public, such as the owners of the organization, its directors, managers and employees;
- external audiences that can influence or be influenced by organizational goals and by being around, inside and outside the organization;
- victims, who are those who directly or indirectly suffer "damages" resulting from organizational activities.

Stakeholder analysis is recognized as a trend that allows aligning the objectives of the organization, or the project developed by it, with the demands of the stakeholders. For this, it is important, initially, to identify the stakeholders of the project.Still, stakeholder identification, according to PMI (2013), is an ongoing process throughout the project life cycle. Their identification and understanding of influence must be managed, making it possible to balance their demands, needs and expectations, which are fundamental to the success of a project. Unfortunately, when this is not done, delays are incurred, as well as cost increases, unexpected problems and other negative consequences, including cancellation of the project. An example would be the late recognition that the legal department is an important stakeholder, resulting in delays and increased expenditures due to legal requirements that must be met before the project is completed or the product scope is delivered.

Once stakeholders have been identified, according to Kerzner (2002) and Keeling (2002), it becomes necessary to identify the requirements of the main stakeholders, to plan actions to adapt to the different needs, concerns and expectations of stakeholders as the project is planned and carried out; balancing the conflicting constraints of the project. They also emphasize the importance of simplicity of purpose, clarity of purpose and scope, independent control, ease of measurement, motivation and team morale, favoring discretion and safety, among other factors that involve stakeholders and their variables.In this same sense, Larsson et al. (2009) indicates a roadmap for identifying stakeholders and their expectations and requirements, as presented in Table 1.

**Table 1 -** Stages of stakeholder analysis in systems engineering

| Sequence | Stages |
| --- | --- |
| First stage | Define customers' initial expectations |
| Second stage | Identify Stakeholders |
| Third Stage | Request and synthesize expectations and stakeholder requirements |
| Fourth Stage | Articulate the expectations and requirements of stakeholders |

Source: Larsson et al(2009)

According to Larsson et al (2009), a common understanding of customer expectations is an essential factor for the success of the project. The authors report that in this first step one must understand the motivational factor of a client, such as issues of national security, science, social or political issues, profit, or technology development. Already, in the second stage "stakeholder identification", the first step in the process is to know who the stakeholders are. Subsequently, translate the initial expectation, the mission or capacity of the client to a more complete set of expectations and qualitative and quantitative requirements. The same author explains that in the third stage, "Request and synthesize expectations and stakeholder requirements," the systems engineering team must define their expectations and requirements. Commonly, stakeholder requirements are called "operational requirements," "customer needs," "business requirements," or "mission requirements." The Systems Engineering team must explicitly capture the mission requirements in a way that allows for the further development of the system. In the last step, "Articulating stakeholder expectations and requirements", stakeholders often have difficulty articulating their needs. They may know what they want or what is wrong with what they have, but expressing these ideas as feasible and succinct requirements is not always easy. Sometimes they have a specific solution in mind, and they affirm the requirement in terms of solution. Therefore, they should focus on the customer problem for later, the technical team will find the solution.

Also, according to PMI (2013), during project development, stakeholders have varying levels of responsibility and authority. It can be seen that both levels of responsibility and authorities and their involvement may change over the life cycle of the project. What is important is that occasional contributions to research and focus groups be encouraged to full project sponsorship, which includes providing financial support.

In this sense, for PMI (2013), stakeholders can influence project objectives in a positive or negative way. When stakeholder expectations are positive, your interests will be better met if they help you succeed. However, there is a possibility that the interests of stakeholders may be negative and be affected. Exemplifying such negative interests: homeowners nearby or small business owners who may lose their business. In addition, they may be forced to move, accept undesirable changes in the local environment, and be better served by hindering project progress.

Given this context, it can be considered that the reading of internal and external environments also contemplate the study of stakeholders, such as the organization's team in the internal and external sphere, as well as other internal and external variables.

In this context, according to Machado (2009), the environmental examination is the first phase of strategic planning or analysis of the organizational environment, with the objective of analyzing the company internally and externally, showing how their situation is, diagnosing their points strengths and weaknesses, opportunities and threats, that is, by doing the analysis of the SWOT Matrix, in addition to all the stakeholders that are inserted in these environments. Therefore, in these environments are contemplated the stakeholders, but complemented with the interpretation of the scenario, market analysis, among other controllable and uncontrollable factors that affect or are affected by the organization or project under study.

The definition found for the SWOT analysis, according to Kotler and Keller (2006) and Kotler (1998), is summarized as an evaluation and maintenance of the strengths, weaknesses, opportunities and threats that involve the identification, use and monitoring of these. The strengths and weaknesses are embedded in the internal environment and the external environment. Attention must be paid to protecting threats and exploiting opportunities. It reinforces the need for periodic assessment of strengths and weaknesses in internal analysis, and should be done in a simple way, such as a questionnaire. The SWOT model is useful for defining the strategy and getting the company to achieve its goals, involving several stakeholders at the strategic level, as well as setting specific goals for the planning period.

According to Kotler (2000), monitoring is necessary for organizations, starting from macro-environmental forces, such as economic-demographic, technological, political-legal and socio-cultural, as well as significant microeconomic agents such as customers, competitors, distributors and suppliers, as they affect the achievement of profits. The latter are the stakeholders that are embedded in these forces. In Porter (1998), the focus is on external analysis, defining that in this environment there are five forces that determine competition in a sector that can be cited as: the threat of new competitors, the power of buyers, goods and substitutes , Powerful Suppliers, and rivalry among established participants.

Already Costa, 2010 applies his study to an internal look by using a classification for the analysis of the internal environment, because in an organized way it is used a method denominated of 10M, that is, of 10 (ten) words that begin with the letter "M". It is important to classify what is inserted in each "M" (Costa, 2010, p.87):

- **Management:** The focus is on (Management, Supervision, Leadership): General management and decision making, Management of technologies and information systems, Strategic management, Marketing, commercial, operational, production and logistics, human resources, that is, management of cross-functional processes, with shareholders and with stakeholders.
- **Personnel** (human resources, training, motivation): Recruitment and selection of people, training, training and development of human resources, stakeholders such as managers and supervisors prepared for people

management, motivation, involvement and commitment, recognition and rewards, employee satisfaction and customer satisfaction.

- **Machinery** (equipment, appliances, systems): Handling and transport equipment. Electrical, hydraulic, utilities and safety installations. Maintenance of machinery and equipment. Machines, equipment and systems of production. Stakeholder satisfaction as employees and managers.
- **Marketing** (Sales, product and service portfolio): Knowledge of the market and competitors. Flexibility and negotiations. Product launches and campaigns. After sales, warranty and technical assistance. Training and customer stakeholder satisfaction.
- **Materials** (raw material, supply, suppliers): Development of partnerships with supplier stakeholders. Supply chain, logistics. Qualitative stocks, quantitative, preserved. Specifications for material acquisition and standardization and coding. Quality assured in the acquisition.
- **Environment** (Environmental preservation, recycling, energy): Management of environmental protection. Environmental licensing. Energy saving, water and input programs. Recycling of waste. Procedure for complaints from stakeholders such as neighbors, the press and assessments.
- **Physical environment** (Facilities, access, functionality, comfort): Internal circulation, internal flow, parking. Lighting, cleaning, storage. Infrastructure, utilities. Visual signage, internal and external.
- **Messages** (Communication, dissemination): Communication with stakeholders such as customers, suppliers, government, the press and the public. Communication between managers, supervisors and employees. Written communication, circulars and notice boards and verbal, informal and diagonal communication. Communications from management to management: transparency and integrity. Providing and responding to customer complaints and suggestions.
- **Methods** (Processes, organization): Flowchart of productive and administrative processes. Methodology of management by projects. Methodologies for product development. Norms, standards and productive and administrative procedures. Quality assurance systems.
- **Money**: Management follow-up by results centers. Cash flow, accounts payable and accounts receivable. Billing and Receipt. Strategic investments. Budgets and budget follow-up.

Thus, considering Mendes (2011), Andrade (2008) and Costa (2007), through the systemic view of the project and its organization, it is easier to understand the reason for taking into account, in a balanced way, the needs of all stakeholders that are inserted in the internal and external environments of the organization and, in this case, the project. In this way, the analysis must have a structure to delineate the paths that the applicator will take in order to analyze the numerous information available.

To conclude this chapter, the PMI (2013) highlights the responsibility of the project manager to manage the expectations of the stakeholders, since they generally have very different or conflicting objectives and are difficult to control. This professional needs to also control the project requirements in order to ensure a successful outcome.

### III. PROPOSED METHOD

The proposed method avoids the repetition of activities in three different disciplines related to complex systems projects: Systems Engineering, Strategic Planning and Project Management, as already highlighted in the introduction of this article. In this way, the identification of the results obtained from the stakeholder analysis, in these three processes, will be unified in this research. Table 2 shows the inputs and outputs of the proposed method.

**Table 2** - Inputs and Outputs of Systems Engineering, Project Management and Strategic Planning

| Approach | Inputs | Outputs |
|----------|--------|---------|
| System Engineering | Statement of need Source: Loureiro, 2010 | Stakeholders Requirements Source: Loureiro, 2010 |
| Project Management | Project OpeningTerm | Stakeholders Management Plan |
| Strategic Planning | Stakeholders Strategic Intention Source: Andrade, 2008 | Organizational Strategies for Meeting Strategic Objectives Source: Andrade, 2008 |

Source: authors

The inputs and outputs of the respective method are linked to the referenced disciplines, as described below:
- The entry of Systems Engineering applied to the development of complex products consists of needs that will transform into requirements of the stakeholders (output). This transformation process must be performed using discipline techniques to optimize results as detailed in Chapter 2.
- In Project Management the entry consists of the Project Opening Statement and the result as the document named Stakeholder Management Plan. According to PMI (2013) the main benefit of this process is that it allows the project manager in question to identify and provide appropriate guidance to each stakeholder or group of stakeholders. In order to prepare this document for project management, it is necessary to carry out numerous activities, explained in Chapter 2.
- The input of the stakeholder analysis process into strategic planning is the strategic intent of the shareholders. The strategic intent of the shareholders is nothing more than identifying the expectations of these key stakeholders. Together with the analysis of the organizational environment, the strategic planning results in the action plan for the fulfillment of each strategy.

It is understood that the analysis of stakeholders in Systems Engineering aims to obtain the requirements of the stakeholders and a prioritization of these requirements. Already, the goal of stakeholder analysis in Project Management is to outline a plan to identify and manage these stakeholders appropriately. As for the Strategic Planning action plan, the objective is to draw up a plan that meets the goals set by the top management of the organization.

Therefore, the Systems Engineering stakeholders analysis applies to the product stakeholders and the product life cycle processes and executing organization. Strategic planning outlines the strategic plan for the organization, for development as a whole, not just for that project specifically. For the specific project, it is up to the project management. The method establishes seven steps for elaborating a stakeholder analysis as can be seen in Table3.

**Table3 -** The seven steps of the method

| |
|---|
| **1) Identifystakeholders** |
| **2) Classify internal and external stakeholders** |
| **3) Carry out the external environment analysis in which stakeholders are inserted** |
| **4) Carry out the internal environment analysis in which stakeholders are inserted** |
| **5) Developstakeholders SWOT matrix** |
| **6) Analyzestakeholders** |
| **7) Developtheaction plan** |
| **8) Identifystakeholders** |

Source: authors

The proposed method uses the approaches of the three disciplines, in order to provide results that meet the objectives of the three disciplines, avoiding repetition of activities when analyzing stakeholders separately for each of the disciplines. More specifically, step 1 of the Table3 is based primarily on Systems Engineering. Steps 2 through 5 are based on Strategic Planning. Steps 6 and 7 are based on Project Management. Next, each of the steps of the proposed method will be presented:

- **Step 1: Identify stakeholders**
It is necessary to identify the motivating need of the development of the project, that is, what leads the people or organizations to develop the respective project. The motivational factor can be scientific, technological, economic, social, social, ethical, academic, among others.
You should answer the following questions: What is the reason for this project or the system that will be developed in the project? What needs to be met with the developed system?

- **Step 2: Classify the stakeholders in internal and external**
The second stage of the method provides a separation of internal and external stakeholders:
- First step: subdivide the internal and external environment. In the case of the internal to the project and the executing organization.
- Second step: verify that the set of identified stakeholders is uncontrollable and can be considered in the external environment.

- Step Three: Verify that identified set of stakeholders are controllable and can be considered in the project's internal environment and the executing organization separately.

    In this stage the External Environment, its variables (associated with uncontrollable factors) and its stakeholders are analyzed.

- **Step 3: Carry out the analysis of the external environment that the stakeholders are inserted**

    The first step of the third step is to identify the external stakeholders that will be studied, according to the methodology of the five Porter Forces and the environmental variables. The names of the stakeholders who need to be evaluated during the analysis of the external environment should be listed.

    It is necessary to collect the information of the variables identified in the previous stage, in the scope of the project development and the executing organization. The main constraint of the process is the scope of the organization, which was determined in step 3 of this stakeholder analysis process. The other step is to map the relevant external audiences and their respective segments, that is, to relate to the stakeholders identified in step 1 and 2. Finally, the mapping of these variables is performed, relating them to the stakeholders.

    The second step of the third step is to examine Porter's five forces which are: Threat of new entrants, Replacement Product Pressure, Buyers Bargaining Power, Vendor Bargaining Power, and Rivalry among Competitors.

- **Step 4: Carry out the analysis of the internal environment that the stakeholders are inserted**

    The first step of the fourth step is to identify the internal stakeholders to be studied, according to the methodology mentioned in Chapter 2. The names of the stakeholders that need to be assessed during the reading of the internal project environment and the executing organization . The name of the stakeholders identified in step 1 (one) and 2 (two) should be used.

    The next step is to identify the 10 M's of self-assessment. One should identify the 10 M's of the self-assessment: Money, Management, Labor, Machinery, Marketing, Materials, Environment, Physical Environment, Messages and Methods and make a parallel, whenever possible with stakeholders.

    Knowing the internal environment of the executing organization consists of seeking information about the environment in which the company operates and where the parties that participate actively and directly from this construction are inserted. This is to highlight the project environment in which the variables of this environment are denominated semi-controllable. In the environment of the executing organization of the project there is a greater difficulty in managing the changes necessary for the success of the project.

    Finally, to perform this step, the diagnosis of this environment is applied. The analysis of the internal environment can be performed by means of the diagnosis of 10 items that make up an organization. The 10 M's were cited in the first step of this step.

- **Step 5: Develop stakeholders' SWOT matrix**

    In order to conduct actions in the internal and external environment, in addition to stakeholder analysis, the main aspects that involve the people and organizations that are summarized in the stakeholders' SWOT matrix should be observed. It should be remembered that this occurs through the collection of information about internal and external stakeholders and the analysis performed in stage four.

    This step deals with the interpretation of the information of the environments through the procedures performed in Steps 3 and 4. The diagnosis is made through the internal and external environment analysis related to the stakeholders. The process of collecting information carried out in previous stages should be summarized in a concise and strategic way. It works by mounting an inventory of all the organization's internal strengths and weaknesses, opportunities, and threats in the most significant external environment. The applicator should be concise in his essay, writing two to three words to express his interpretations.

    Step 1 consists of analyzing information from the external environment and inserting threats and opportunities into the array. It is necessary to choose among the studies carried out, those items that will most impact the external stakeholders. Therefore, the positive items relative to the external stakeholders fit into the opportunities column, and the column threatens the negative items referring to the external stakeholders that are inserted in the external environment.

    Step 2 consists of analyzing the information from the internal environment and inserting strengths and weaknesses into the matrix. One should choose among the studies carried out, those items that will most impact the internal stakeholders. Since the purpose of the elaboration and validation of this matrix is to relate the various factors raised, identifying the most relevant aspects that require special attention to their respective stakeholders. It is inserted in a summarized way, highlighting the impact to the stakeholders. Therefore, it fits in the column forces the positive items referring to internal stakeholders, and in the weakness column the negative items referring to internal stakeholders.

• **Step 6: Analyze stakeholders**

This step consists of analyzing the stakeholders, which means consolidating the information obtained as interest, needs, expectations, weakness and strength, as well as organizing stakeholder analysis.

Table 4 should be completed to complete the analysis:

**Table 4 -** Stakeholder interest and need framework

| Stakeholders | Type of Need | Category of Interest | Ranking of Interest | Stakeholder Weakness | Stakeholder Strength |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |

Source: authors

Step 1 of this step is to Modify, increment or remain unchanged the analysis of stakeholders with the information collected in the environments.

It must be decided whether the analyzes previously carried out will be fed back, developed or will remain unchanged. In this stage, interpretations are inferred by obtaining information from the first and second stages of this stakeholder analysis process to support the consolidation of its inferences. In the first stages, preliminary diagnoses and interpretations were carried out which, during the process, can be confirmed or not, that is, this step aims to provide the notion of the utility that the study of the environment has in relation to the process of feeding information about the stakeholders.

Steps 2 and 3 should be completed and prepared through the previous steps, as there is a need to structure an analysis specifically geared to the environment of the stakeholders of the project in question. One should answer the questions: Has there been any change in the preliminary interpretations? Have there been modifications regarding the name and category of the stakeholders? And finally: Is there any significant change in the analysis that needs to be fed back?

• **Step 7: Prepare the PAAS (Action Plan to Meet Stakeholders)**

The seventh stage consists of elaborating the Action Plan to meet the needs and expectations of the Stakeholders (PAAS). An Action Plan is prepared for the management of project stakeholders. These actions should be analyzed by the project manager and managers of the executing organization, as well as all the people who participate in the project and this process that are considered confidential and strategic.

Step 1: Consider the analysis carried out in step 6 of the stakeholder groups, which may represent a threat to the continuity of the project or even interruptions, bottlenecks or dissatisfactions to the stakeholders involved, especially considering those who have the greatest influence. You need to answer the following question: What can we do (action) to address stakeholder (s) threats on the project?

Step 2: The weaknesses and threats of stakeholder groups that threaten project continuity or even interruptions, bottlenecks or dissatisfactions to the stakeholders involved should be analyzed, especially considering those with the greatest influence. It should be reflected that the project needs to remain structured and prepared to overcome some external stakeholders, specifically competitors. It should be noted that this analysis is strategic. You need to answer the following question: What can we do (action) to improve stakeholder (s) interest in the project

For the efficient application of this step, it is recommended a comparative analysis, that is, the information collected was proven throughout the entire process. It is necessary to confirm whether the stakeholders listed in the first step were covered and analyzed to include them in the action plan, as well as the preliminary conclusions were correct. If confirmed, the method can be successfully completed; if not, return to the planning of the process.

## IV.        CONCLUSION

The objective of this article was to present a unified stakeholder analysis method, in order to meet the needs of the Systems Engineering, Project Management and Strategic Planning disciplines, focused on the development of complex projects. In short, as a result we can understand the following topics:

- Systems Engineering: the activities of the method called "analyzing the external environment", "analyzing the internal environment", "elaborating the SWOT matrix" and "elaborating the action plan" are not found in the Systems Engineering activities. These activities are absent because they consist of more strategic actions, differing from the objective of the Systems Engineering discipline. However, other stakeholder identification activities, "classifying stakeholders", "analyzing stakeholders" and "developing the Action Plan" are present in a meaningful way in the elaboration of the method as explained in each item in this Table.
- Project Management: The activities of the method: "classifying stakeholders", "developing the SWOT Matrix" and "analyzing stakeholders" can not be found in project management activities in stakeholder management. Note that the activity of "classifying stakeholders" is present in PMI (2013), but not in Stakeholder Management. In the last version of the Guide PMBOK (PMI, 2013) in the item "Environmental Factors of the Company" it is explicit the need to know the environments of the projects. The other activities: "identifying the stakeholders", "analyzing the external environment", "analyzing the internal environment" and "elaborating the action plan" are present in a significant way in the construction of the method, as explained in this Table.
- Strategic Planning: The activities of the "stakeholder analysis" method are not present in the respective discipline. However, the other activities are present in the method and received great influence from the Strategic Planning. The great contribution of this discipline is due to the fact that it constitutes activities with more strategic visions, actively participating in almost every step of the method, as this Table illustrates. Strategic Management shows that the only activity in which the method is not present in the respective reference is to "analyze the stakeholders". The others are present and have significantly influenced the construction of the method.

Comparing the activities of the disciplines and references used, it can be said that these are based on a strategic and systemic. It is perceived that strategic planning was the discipline that most influenced the construction of the method. However, systems engineering and project management significantly influenced the various steps of the method, without altering its strategic character. It should be noted that many project management activities are implicit in the process because they constitute a management discipline and are included in other PMBOK Guide (PMI, 2013) and not in the activities that are compared in the Management of Stakeholders.

Still, the disciplines discussed here are at some points considered to be congruent. It is worth noting that the use of the three (3) methodologies together provides a complete view of the projects, since it addresses both the technical, strategic, market and stakeholder issues, and these are considered essential factors for the success of the project. project.

The steps in the method eliminate the need for repetition of activities in all three disciplines. It is observed that the impact of avoiding duplicity arises mainly from the identification of stakeholders, which occurs in systems engineering, project management and the preparation of the action plan, which now include content to meet all three disciplines.

Thus, the method used in this work represents, undoubtedly, a gain compared to the traditional methods already referenced, but presents some limitations that are described below:
- The application of the method requires the professionals involved a good knowledge of the three disciplines that serve as the basis.
- The method requires the participation of different sectors of the organization that do not always want or have an interest in participating.
- In order to be more effective, the method demands an application and when applied, requires cooperation from the highest levels of the organization, especially with regard to Strategic Planning.
- The method requires the provision of data from the organization's strategic intelligence, which often does not have the interest of being disclosed.
- The method requires periodic updates of its analyzes and action plans, since environments are changeable, which often does not occur.

However, even with the limitations presented above, the results achieved in the construction of this method demonstrated advantages over the traditional approach. Thus, the results allow an evaluation of the activities, content addressed and traditional methods of stakeholder analysis, one of the management techniques currently employed, proposing an alternative to its absence or, when it is used, even an alternative to inefficiency in the processes of application.

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