

How to cope the business turbulence: Prospective study of the Mamonal Port in the City of Cartagena (Colombia)

Como enfrentar la turbulencia de negocios: Estudio prospectivo del Puerto de Mamonal de la ciudad de Cartagena

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Received: 19/01/2018 • Approved: 19/02/2018

Content

[1. Introduction](#)

[2. Methodology](#)

[3. Results](#)

[4. Conclusions](#)

[Bibliographic references](#)

ABSTRACT:

This paper aimed at applying the methodology of strategic prospective and in a particular way these techniques: MICMAC, MACTOR and SMIC to the Port of Mamonal Port in Cartagena for cope with turbulence environment. The method used was descriptive with a probabilistic sample of 23 employees. Survey and group areas were the methods applied, in three stages or processes: strategic prospective, market analysis and strategic analysis, which allowed establishing future sceneries for the development of the initiatives and projects up to the year 2032.

Keywords: Business prospective, scenarios, advantage, competitiveness, knowledge society, business turbulence.

RESUMEN:

Este artículo incluye los resultados de la aplicación al Puerto de Mamonal de Cartagena la metodología de la prospectiva estratégica y de manera particular las técnicas MICMAC, MACTOR y SMIC para enfrentar la turbulencia del entorno. Se usó el método descriptivo con una muestra probabilística de 23 empleados mediante la aplicación de técnicas encuesta y grupos focos, en tres etapas o procesos: prospectiva estratégica, análisis prospectivo y análisis estratégico, logrando establecer escenarios futuros para el desarrollo de las iniciativas y los proyectos para el año 2032.

Palabras clave: Prospectiva empresarial, escenarios, ventaja, competitividad, sociedad del conocimiento, turbulencia del entorno.

1. Introduction

This project analyzes the possible scenarios in which the Mamonal Port organization could be found in 2032, taking into account the main internal and external variables that are part of the organization's system.

From the different variables, it is necessary to consider that "prospective is above all a state of the spirit (imagination and anticipation) and a behavior (hope and will) (Godet, 2007, p.

6). In other words, the construction of a common project-oriented work can affect the development of the organization. From this arises the function of prospective, defined as an empowering instrument that offers the capacity for innovation in both, the society and the productive sector. In addition, the prospective analysis gives a much broader and clearer vision to the company; so that its different administrative areas can implement efficient and effective strategies that improve decision-making, reduce considerably uncertainty, achieve sustainable development and continue to be one of the leading companies in the country. It also helps to promote a culture of innovation in the productive sector to collaborate with other companies to solve the proposed challenges to favor knowledge transference, to use technology to facilitate access to the adequate offered technology and to inform in a timely manner the mechanisms of institutional assistance available for innovation, and to evaluate the risks of novelty or its social impact on the company.

1.1. Prospective applied in organizations

In order to understand the current position of competitive advantages within companies, it is important to consider the value structures of prospective in organizations. In this sense, prospective means "the identification of a probable and desirable future that depends on the knowledge about the actions that man wants to undertake; and it is the actors who decide what to keep and what to change" (Mojica, 1992, p. 1).

Another aspect to be considered in a prospective study is the need to make an assessment based on the knowledge, design and construction of possible future scenarios. These are based on the creation of alternative scenarios, considering questions such as: ("Where to go?"), strategic planning, such as, ("Where should you go?") and tactical planning that contemplates ("how?", "when?", with what? and "with whom?"). These probable, possible, logical, feared, futuristic and desirable scenarios anticipate the problems that may arise in the future and create strategies that guarantee organizational success and sustainability.

The first serious studies on future scenarios began to develop in the United States in the 1920s, and Japan's successful experience turned prospective into an indispensable tool for public policy planning. The first multinational company that used one of the prospective methodologies was the oil company Royal Shell, in 1968 (Ortega San Martín, s.f).

By 1970 the Japanese had already developed their own prospective strategy, which they applied to produce a first forecast about the future of science and technology, with a time horizon of thirty years. This study was conducted by the Agency of Science and Technology, and it is usually considered as the first study of technological prospective properly said (Del Castillo, 2012).

Holland seems to have been the first European country to use prospective techniques in the 1970s to examine the relationship between science and society. In the 1980s, the sectorial councils (for agriculture, health and environment) carried out several prospective studies and a committee assumed in the 1990s the tasks of coordinating these studies throughout the country (Hurtado, 2013, p. 7).

The widespread use that this technique began to have in other countries and, above all, the unification and recession and structural adjustment problems faced by the German economy led Germany to incorporate the use of prospective techniques after 1990 (Idem., p. 8). This country sought information about this instrument in the United States and turned to Japan for its fifth (five-year) prospective exercise. Later, and based on its own experience, Germany would collaborate with the sixth Japanese exercise in the matter (Idem., p. 9).

Similarly, Wheelen, T. & Hunger J. (2007) explains that "the limiting characteristics also affect the way to organize the structure and the work design of an organization ..." p. 349. That is to say that the development of the strategies affect both the organizational areas and the human talent which help to fulfill the proposed objectives.

Barker (2001, p. 122) poses three keys to the future of all organization: change, competitiveness and paradigm. That is, to anticipate prospective vision, which in particular means to innovate, as an essential factor of competitive advantage, and excellence to achieve total quality, achievements that allow sustainability.

According to Martínez (2005), prospective is a discipline with a global, systemic, dynamic and open vision that explains the possible futures, not only by past data, but fundamentally taking into account the future evolutions of quantitative variables and, above all, qualitative ones. As well as the behaviors of the actors involved, in a way that reduces uncertainty, illuminates the present action and contributes mechanisms that lead to the acceptable, convenient or desired future.

In the same way, Miklos and Arroyo (2008) report that the key scenarios for prospective are the trend and futurible ones. They ask to concentrate on them and to focus on the futurible one. So what they propose is that the futurible scenario is the possible-real because it is based on realistic schemes that imply change, while the trend scenario is a constant regulator of the system. In addition, the futurible scenario is a realistic change factor that can break the negative trends of the projected present scenario.

Porter, (2007) "any innovation that modulates a product to facilitate adaptation or improve its compatibility favors global competition ... " That is, when having a trend scenario, it must be supported on innovation for those changes that allow business development.

Hrebiniak, (2005) "the corporate strategy refers to the organization as a whole, and focuses on areas such as portfolio management, diversification ... "On the other hand, innovation leads to a good management of the organizational portfolio, thus permitting a constant diversification of the organization of the set future.

1.2. Trends about the future of the company

There are two trends to study the future of the company:

Forecasting: Identification of trends from which it can be inferred the probable situation company would be years ahead. In this way. It is obtained an image of the future called the probable scenario or trend.

Alternate scenarios: implies that the company could find itself in possible situations, which authors like Bertrand de Jouvene call "futuribles".

The objectives of the prospective proposed by Godet (2007, p.10) depend on strategic and tactical objectives. The strategic objectives are achieved with the orientation of the present action (a plan in light of desired futures), the identification of present facts seemingly unimportant, but fundamental for the future by its potential consequences, and the mobilization of human intelligence. While the tactic objectives are obtained through planning, avoiding the occurrence of an undesired fact, testing an idea or hypothesis, developing internal communication effectively and questioning common places and poorly performing behaviors.

In this sense, prospective allows recognizing where the company heads to, in terms of market circumstances and its participation in it, its interaction with current and potential competitors and their acceptance or rejection by consumers. That is, to specify situations in which the company could be, to detect the difficulties that may face in the future or to choose among several possible the most convenient future. Hence in the strategic prospective there are designed conjectures, that is, "scenarios", of what a specific company could be in the future.

Carrión & Maroto (2007) "Innovation is a fundamental source for the development of competitive advantage"... Innovation is not only about developing new products or services". This aspect is a base of approach of new growing conditions and positive changes in organizations for the construction of prospective.

Scenarios are hypothetical situations in which a company, person, organization, etc. could be ten or twenty years ahead. Scenarios are situations that have not happened yet but that could happen. As possibilities, the company must be prepared in order not to be surprised by the future.

Regards this, Fuentes (2012) states: "The thinking of strategic business management prospective is based on the systematic trend, with the approach of learning by itself, as an opportunity for personal and organizational growth. With transfer to the business system,

based on the origins of formalization with the structural-functionalism, in which this last one considers the society members as essential elements in which the whole is more than the sum of its parts. A common argument in the principles of synergy and holism in strategic management." (Fuentes, 2012, p. 28).

1.3. Prospective Business System

Prospective behaves as a vision of planning, retaining the conceptual approach to prospective planning and strategic prospective. It is complemented by collective mobilization of thought and proactive appropriation, but it defies in the method, because traditional planning creatively and dynamically designs the desired future in the present. While prospective designs and constructs futuribles from the conditions outlined above. It means, illuminating the anticipation of the present, to access it with intentionality, with the impulse of desire and with the will of human genius in the exploration of the future.

Business prospective fulfills a directing function, as a guide or spotlight. This discipline aims to "analyze the future to understand and be able to influence it", according to Gastón Berger (1964), who is considered one of the founders of the discipline (Mera , 2014, p.89).

Likewise García (2007) points out that "financial management based on the appropriate terminology can become a permanent practice and aimed at becoming a prospective tool" (García, 2007, p. 105).

Dess, (2011). "Companies that manage to integrate differentiation and cost advantages, create an enviable position;..." In consequence the differentiation in all the strategies planned in the scenarios, imply the financial management for the application of themselves' projects.

1.4. Prospective and strategic decisions

Medina V. (2012) explains the reasons that lead to make strategic decisions and ensures prospective can be interpreted as the discipline of anticipating and analyzing the impact of social changes over time. Prospective involves exploring uncertainty, developing reasoned, strongly supported hypotheses with rigor in method, process and content. To speak in prospective terms is not to daydream but to propose achievable transformative alternatives to society.

Gallardo, (2012) "...discovered that the strategy determines the structure" (that means that the second one has to adapt to the first one) and that changes in the business environment result in new strategic opportunities ...", which allows the strengthening of prospective under the scenario of analysis of the opportunities that have an impact on the structure and the strategy.

For its part, Güell (2004, p.7) explains the need to anticipate future strategies to face the events: "Planning and business management inevitably need to make predictions to make decisions". In other words, the essence of anticipation is the elaboration of plausible future hypotheses. The foundation is not to seek criteria of truth in the correspondence between the future and reality, but to stimulate the ability to respond timely and effectively to changing circumstances.

In this sense, prospective is understood as "the identification of a probable and desirable future that depends on the knowledge we have, about the actions that man wants to undertake; and it is the actors who decide what to keep and what needs to be changed" (Mojica, 1992).

While it is true that it is not possible to go back to the past, business prospective indicates that the future, on the other hand, can be migrated several times by entering different possible futures. That is, by designing situations or scenarios that have not yet happened because they belong to the world of hypotheses; by comparing them, studying their possible consequences and choosing, in this way, the best option. Which can only be realized if we build it with intelligent strategies. That is the reason why the prospective slogan is the quote of the philosopher Maurice Blondel: "the future is not predicted if it is not built" (Mojica,

1992).

1.5. Prospective planning: a strategy for future design

According to Miklos (2010, p. 139), foresight is first an imaginative and creative act. Then, an awareness and reflection on the current context. Finally, a process of articulation and convergence of the expectations, desires, interests and capacities of the society to reach that future that seems to be desirable.

In fact, whatever the way is in which foresight is defined, it is essential to emphasize its creative character, the element of change and transformation that surrounds it, and, above all, the opportunity it presents to assume an active attitude towards tomorrow, by building and choosing futuribles. Thus, the purpose of prospective is to "prepare the way" for the future, adopting it as an objective (desirable and possible). Prospective guides current actions and the field of what is possible tomorrow.

Prospective, besides allowing and promoting the design of the future, it also contributes very important elements to the planning and decision making processes. As it identifies dangers and opportunities of certain future situations, and it allows to offer alternative policies and actions, increasing the degree of choice.

In this regard, Hidalgo (2015): "Prospective is the art of conjecture, but understanding this expression not as a mere guessing of the future, but as an exercise that requires a whole process". That is, prospective must be a logical process of according to the possible scenarios that are required. In addition, he proposes a model that is based on theories of change management, innovation and technology management, strategic planning and prospective (Hidalgo, 2015, p. 7).

On his behalf, Sanz (1999) considers prospective as an organized process of consensus building on future trends and aligning the diverse interests of actors in the innovation system.

Similarly, Martin (1995) describes prospective as "the research process that requires systematically looking at the long-term future in science, technology, economics, and society, with the goal of identifying strategic research areas and generic technologies that will generate the greatest economic and social benefits".

According to Martín (1998), prospective has been used as a tool for planning public and business policies since the 1950s. The results of using prospective have been successful.

Japan recognizes in the use of prospective one of the reasons for its surprising industrial development in the field of electronics and automotive activity during the sixties, seventies and eighties.

Berger (1964) defines prospective as "the science that studies the future to understand it and be able to influence it". He explains how prospective must be associated with specific actions within systems of competitive intelligence and technological surveillance that allow to identify the most relevant ones.

Kaplan, & Norton, (2000) "Exploit core competencies that enhance excellence in process technology with products across multiple business units." This shows that the structural development of prospective requires technologies in the processes and in the application of instruments and / or machinery that lead to the integral development of organizations.

In view of the above, the present article tries to motivate the systematic use of prospective in planning work in all types of organizations: government, academy and companies.

The research is conducted because it is necessary to provide the Port of Mamonal with a vision of what the organization can become and how the existing influential variables and actors should be managed as well as those that may arise along the process.

In order to carry out this work, the following strategic objectives were proposed:

- Identify the variables that influence strategically in the development of the company, from the daily tasks to the technological vigilance.

- Determine the possible images or scenarios in which the Universidad Empresa Estado Committee (CUEE) could be found in the upcoming years.

- Design the strategies, objectives and actions that need to be deployed from now on to reach the most convenient scenario.

The impact that could have for the Port of Mamonal the development of this prospective is based on the identification of the possible future scenarios that can be faced and in this way to be able to plan and expose strategies and actions that allow the company to reach some optimal and more desirable scenarios than the current one.

2. Methodology

2.1. Materials and Methods

The importance of analyzing the future is that it allows to act more clearly in the present. For the case of the Port of Mamonal, it means the design of different future situations to the year 2032, which will require a correct analysis and comparison with each other so that it is possible to make the most appropriate and convenient decision for the organization.

Indeed, it is vital for the realization of the future image chosen to implement a series of strategies designed for this purpose. If these strategies are not taken into account during the development, it will not be possible to fulfill that vision. On the other hand, the validity of this process requires that the images of future present significant ruptures related to the present and that they have been the result of a process of collective construction by the experts of the system.

The methodology of work was defined by several workshops in which information about the strategic variables, actors and scenarios of the Port of Mamonal was collected.

By accessing to secondary sources, research results were obtained for the state of the art and technologies expected for the future.

On the other hand, the research of the primary sources required to carry out several workshops in which the experts and the employees of the Port of Mamonal participated.

The materials to explore the primary sources were bibliographical research, surveys to workers and exploratory workshops. Text Subchapter 2.1.

3. Results

The purpose of the research was to propose what could be the future of the Port of Mamonal and the most important factors in its development. To carry out the study, it was used the SWOT matrix, which allowed to obtain the positive and negative variables around an organizational analysis, both internally and externally.

Each question in the questionnaire aimed to establish the respondents' perception of each variable and the importance they assigned to it for the organization's progress, based on the MEFÉ and MEFI matrices, which allowed the establishment of the group of factors of change within the strategic analysis.

The use or application of the prospective analysis to the tools used yielded the variables presented below, which were submitted to evaluation by members of the organization and experts, showing the following results:

Figure 1
Variables under the Abacus method

No. VARIABLES			VOTACION	
1	35	Diversidad de servicios		4,4
2	25	Alianzas estratégicas		4,3
3	26	Ubicación geográfica		4,3
4	9	Capacidad operativa		4,2
5	17	Competencias laborales		4,2
6	33	Legislación aduanera		4,2
7	6	Gestión del conocimiento tecnológico		4,2
8	8	Maquinaria y equipos portuarios		4,2
9	15	Capital humano		4,2
10	24	Acuerdos comerciales bilaterales		4,2
11	21	Liquidez		4,1
12	34	Normatividad ambiental		4,1
13	4	Imagen comercial		4,0
14	20	Rentabilidad de capital		4,0
15	22	Capacidad de endeudamiento		4,0
16	23	Costos operativos		4,0
17	10	Precio por prestación de servicios		4,0
18	11	Flexibilidad en servicios		4,0
19	12	Capacidad de inversión en tecnología		4,0
20	29	Demanda		4,0
21	31	Proveedores		4,0
22	1	Sistema de gestión de calidad		3,9
23	16	Clima organizacional		3,9
24	5	Atención personalizada		3,8
25	13	Logística interna		3,8
26	27	Crisis económica		3,8
27	2	Direccionamiento y control estratégico		3,8
28	3	Sistema de información interna y redes		3,8
29	7	Estructura organizacional		3,8
30	30	Responsabilidad social		3,8
31	32	Competencia		3,8
32	19	Cultura organizacional		3,6
33	28	Cambio de la tasa representativa del mercado		3,6
34	18	Salud ocupacional		3,6
35	14	Motivación en la organización		3,3

The twenty-one first variables, ordered by their scores from highest to lowest, were taken as "study variables".

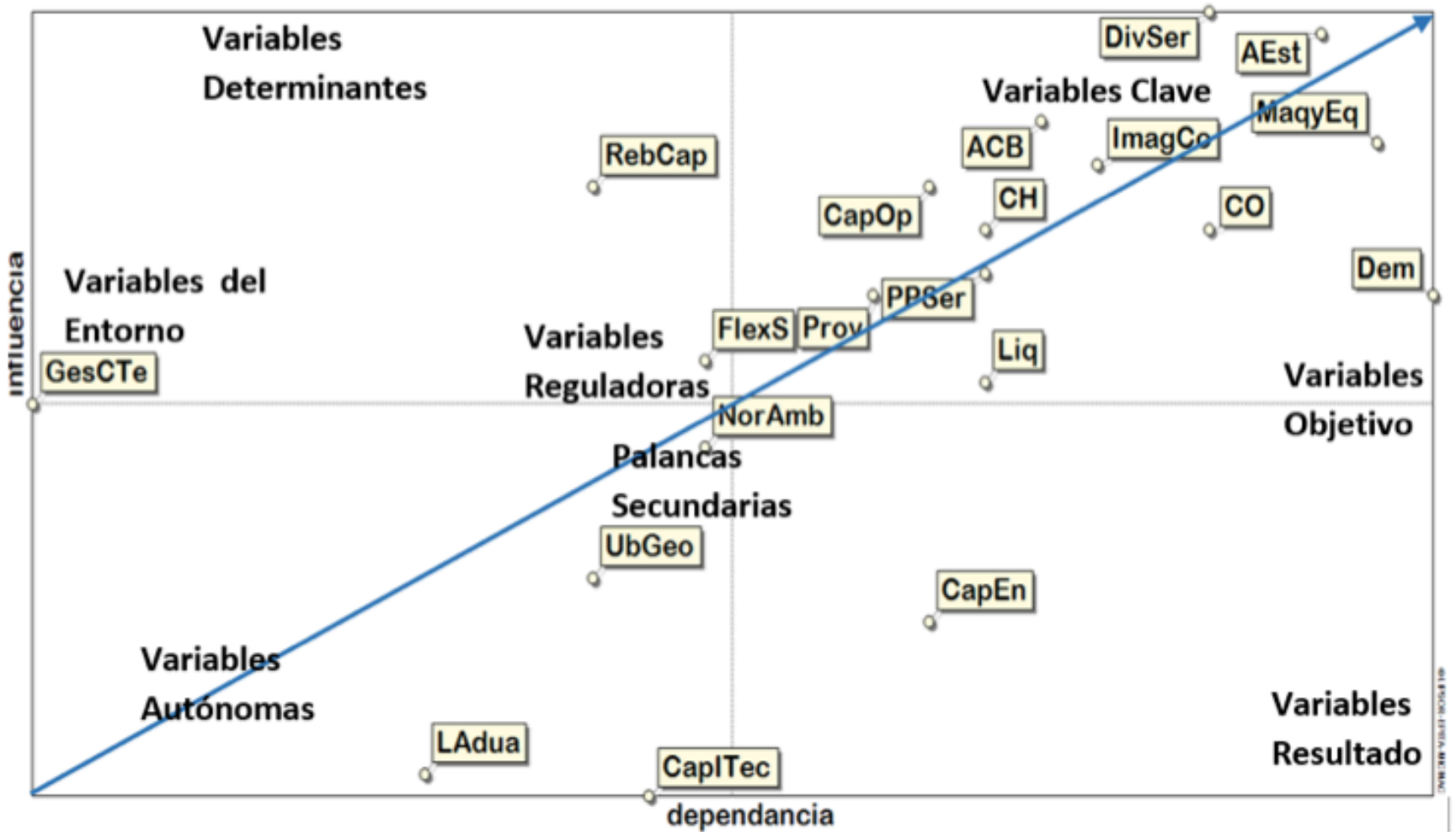
Figure 1 shows that for the respondents the most relevant variables are located in the top twenty of the table, being the diversity of services, strategic alliances and geographical location the most important.

Although in general terms the variables presented a very similar perception about their importance, it is worth highlighting four variables with low perception: organizational culture, change in the market representative rate, occupational health and motivation (three of these variables are internal).

3.1 Result of the Direct Influence Matrix (DIM)

By using the prioritized variables it was possible to identify a logical structure of causality, verifying the influence that some factors have on others. For this purpose, a structural analysis was carried out using the MICMAC tool, which allows configuring a systemic perception by grouping the factors into three categories according to the way some of them influence others. At this point it is possible to talk about strategic variables, assuming that one variable is a phenomenon that is modified by virtue of another.

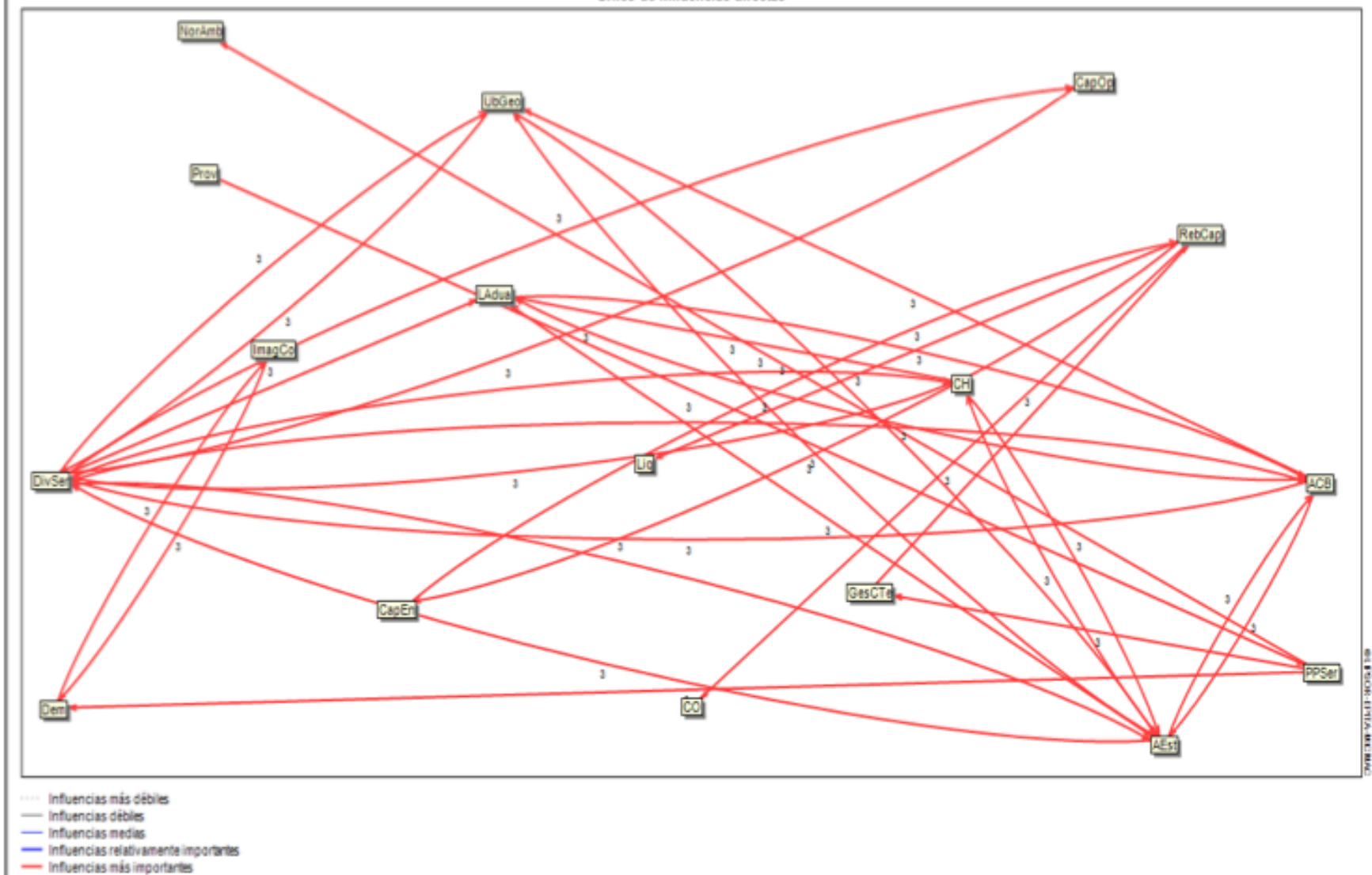
Figure 2
Influence/ Direct dependence



The strategic variables that were prioritized in the Abacus matrix allowed doing the structural analysis, resulting in the direct influence / dependence plane. Being able to establish the key variables in the upper left quadrant, which are the following: diversity in services (DivSer), strategic alliances (AEst), machinery and equipment (MaqyEq), corporate image (ImagCo), operating costs (CO), bilateral trade agreements (ACB), human capital - labor competencies (CH), operational capacity (CapOp), price for services rendered (PPSer.) and liquidity (Liq). The knowledge management and the profitability of capital (RebCap) variables were established in the quadrant determining or variables of the environment. On the other hand, at the intersection of the quadrants, flexibility in services and environmental regulations were obtained as regulatory variables. After obtaining the above results, the cross-over analysis of variables was done to identify the influence of some variables on others according to their dependence and motor, which can be corroborated in the following figure:

Figure 3
Direct influence on other key variables

Gráfico de influencias directas



As it can be seen in the figure above, the motor and dependent variables that move the system are, on the one hand, the diversity of services with ten of direct influence, which means that its motor is high in relation to other variables. The second variable with the greatest impact is strategic alliances, which would help the development of complementary products and services, as well as the application of economies of scale, allowing the company a strategic position and taking advantage of its geographical location for being a Port in the city of Cartagena.

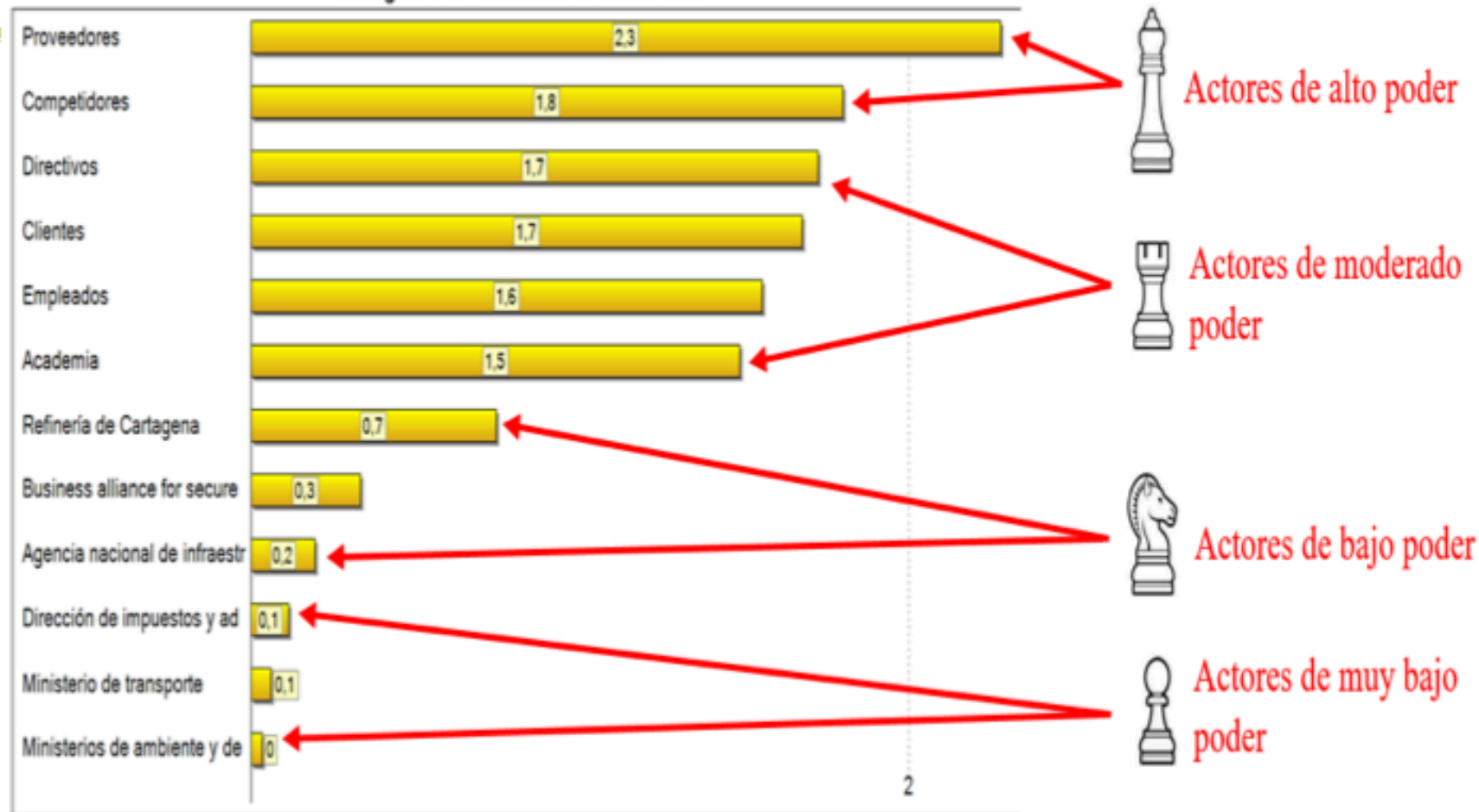
3.2 Analysis of the actors game of the Port of Mamonal

The actors game is one of the stages of the prospective analysis that consists of verifying the power of the social actors involved in the behavior of the organization, in this case the Port of Mamonal, as well as the strategies that each one of them uses to defend their interests. After the analysis of the variables was done, the actors that have direct influence on these and can generate positive or negative actions were defined.

The study of the actors allowed determining which ones have a greater degree of importance in the development of the Port of Mamonal.

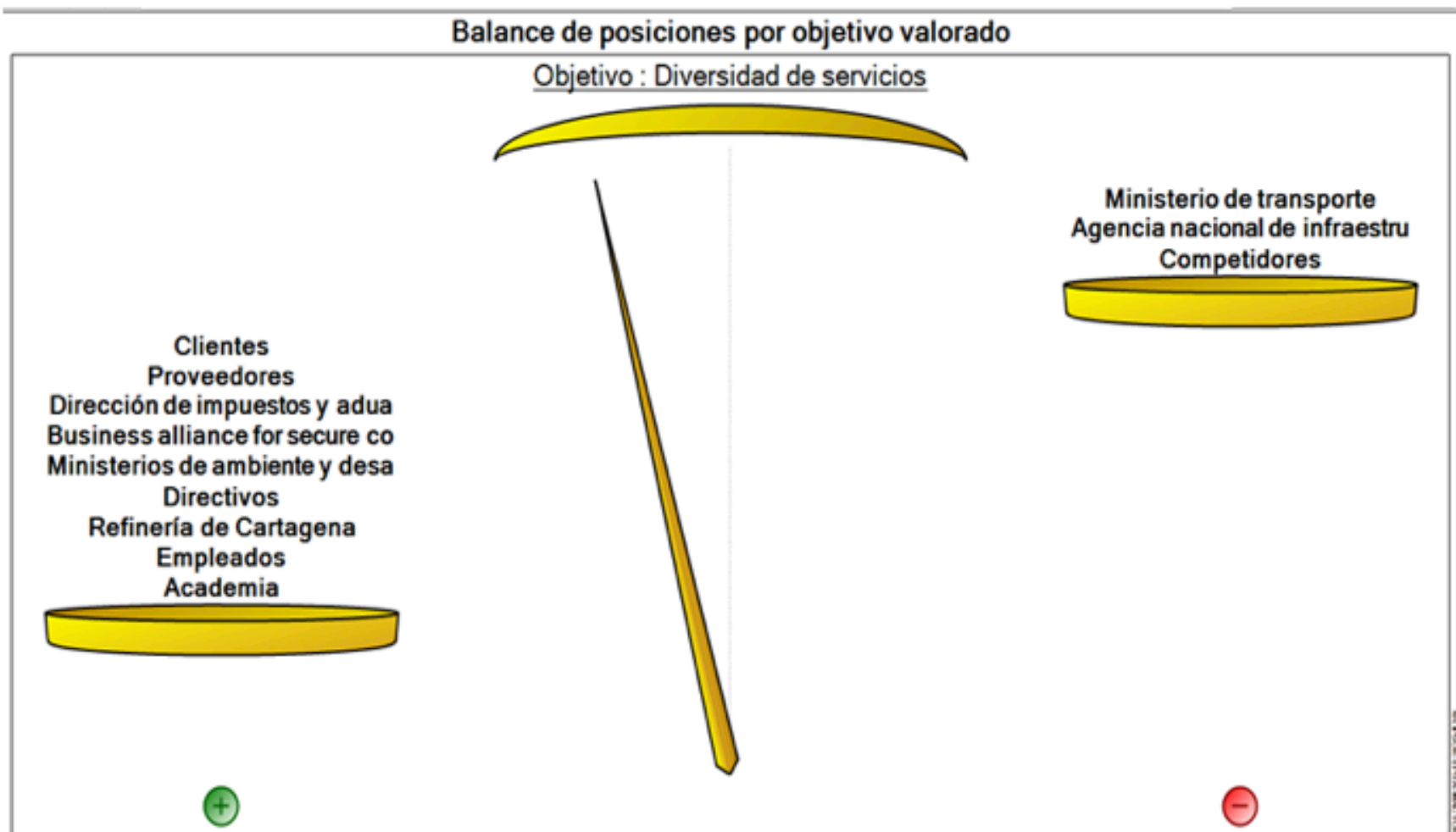
Figure 4
Actors game

Histograma de relaciones de fuerza MIDI



It can be observed in the previous figure that the most influential actors are customers, suppliers, competitors, employees and managers, while the Ministry of Transport, ANDI, DIAN, BASC and the Ministry of Environment are actors with low influence. As a consequence, it can be deduced that it is necessary to work on the sustainability of the actors with greater influence and be aware of the actors who at the moment have a lesser influence. Likewise, it can be observed that the actors influence drastically and / or moderately, having a position of influence on the objective, in this case, diversity in services, which is the one under analysis.

Figure 5
Diversity in services



As it can be seen in the figure above, the impact on this variable is the comparison of three

actors, Ministry of Transport, Competitors and National Infrastructure Agency, which presents a high degree of influence on the various services. One actor intervenes positively or negatively, as well as the movement it can make to mitigate the results of the variable in each scenario.

After the prospective analysis with the Abacus, Micmac and Mactor matrices is done, the scenarios can be established from hypotheses to elaborate desirable futures.

3.3 Building scenarios for the Port of Mamonal

The scenarios are the future images in which the Port of Mamonal could be found in ten or more years. They are based on the analysis of the actors and the established strategic variables, which allow, with the hypothesis approach, choosing the future scenario for the company. The design of the scenarios answers the question: What alternatives for the future does the Port of Mamonal S.A. (PMSA) have?

To determine the future alternatives, the Morphological Analysis technique 15 is used. For that purpose, the strategic variables, the objectives and the possible plays are resumed. From there, several hypotheses were designed, indicated by the letter H.

Consequently, the hypotheses can be defined as manifestations of the variables in the future. For this, it is fundamental that they are conceptually relevant with the respective strategic variables. They must also fulfill three conditions: to be conjectural, possible and alternate.

Conjectural situations refer to situations that do not yet exist, while possible situations indicate potential situations, which can be concretized in the future. Therefore, they belong to the field of the achievable, and the alternate situations must refer to exclusive concepts.

In this way, the future of PMSA was designed with the following variables and hypothesis:

V1. Diversity in services

PMSA capacity to handle various types of operations with different degrees of complexity.

H1. To be internationally recognized as a port specialized in the handling of coal, petcoke and coke.

H2. Develop strategies that allow it to be configured as a high-performance multi-purpose port in Latin American.

H3. To maintain the current commercial relations, advancing the projects proposed by the national industry.

V2. Machinery and equipment

To keep the port machinery and equipment in excellent condition and with state-of-the-art technology.

H1. Maintain 100% of machinery and equipment with the latest technology.

H2. Acquire machinery and equipment to replace those which are damaged and cannot be repaired satisfactorily.

H3. Avoid buying equipment, only make maintenance and repairs.

V3. Bilateral trade agreements

Make the most of the trade agreements made by the nation government.

H1. Develop strategies that allow creating strategic alliances with the international industry, being an active part in the processes of internationalization of the economy.

H2. Generate mechanisms to promote the mobilization of national cargo through this terminal.

H3. Maintain a passive position in the development of strategies to attract importers and exporters expecting the current recognition to be lasting.

V4. Commercial image

Maintain high quality standards for internal and external customer management.

H1. To promote the commercial image in the globalized context in an adaptive form, responding to the exigencies of an international and high performance market.

H2. Deploy activities that lead to the strengthening of the brand as a strategic allied for the commercial industry.

H3. Maintain goodwill with national allies.

The four scenarios set out in the hypotheses chosen for the Port of Mamonal case, according to the Schwart matrix are presented below:

Figure 6
Schwart adaptation (2001). PMSA future scenarios.



Scenario 1: "With what, but without whom". In the year 2032, PMSA is an organization that has port equipment of high technology that allows offering services according to the needs of the moment and the technological tendencies. It has ideal staff, who are motivated, trained and certified in quality and safety. It has the infrastructure capable of facing globalization at its maximum reach thanks to the global agreements. However, a marketing department and strategic alliances with different shipping companies and/or customers to strengthen diversification and use of infrastructure are missing. Experience in handling other charges are reflected in the company's revenues.

Scenario 2: "Harvesting successes". In the year 2032, PMSA has developed strategic alliances to handle general cargo, containerized, coke and petcoke with an active and innovative commercial area. Facing international agreements, with a modern and functional infrastructure, hand in hand with the incorporation of ICT to maintain competitiveness in international standards. With staff increasingly motivated, more committed and more trained, generating high income to partners, shareholders and employees. With operations that are friendly to the environment.

Scenario 3: "There are opportunities, but we do not have the tools". For the year 2032, PMSA has been able to strengthen and create new commercial alliances of great potential. The demand for port services is booming thanks to the implementation of different

commercial treaties of Colombia with a large number of countries. The country is economically strengthened and there is production and purchasing capacity. However, within the company, the lack of investment in the modernization of machinery and equipment and the lack of motivation and nonconformity of the employees do not allow to take advantage of the opportunities of the growing market.

Scenario 4: "Tomorrow will be better". In the year 2032, the Company PMSA has investment problems to perform maintenance and modernization of machinery and equipment. Likewise, there is a lack of motivation and commitment of the employees in relation to the company. The processes are slow because of the lack of modernity, which lags the company due to the level of demand of the market. Moreover, it does not have strategic allies for the diversification of services. Likewise, there is a fall in the price of cokes, a high environmental regulation for handling these products and a high economic dependence of the company in this service.

The choice of one of these scenarios allows having a position regard the future based on achievable and measurable projects, wishes and desires. That is the reason why strategic objectives were set to keep the PMSA ahead and avoid falling on the less favorable stage.

The objectives set for the PMSA aim to achieve a successful penetration in the target markets. To reach this, the following organizational interests were identified:

- Being a leader in the provision of port services and international cargo handling: This is the reason why they must work from the areas of greatest incidence, which requires the use of management skills that directly influence the development of the organization.
- Have 70% of the staff highly motivated and committed to the achievement of organizational goals and objectives.
- Develop competitive prices based on current and future customers. Prices that allow a balance and that are striking and beneficial for both parties. It means that they generate a win-win relation.
- Customer loyalty: the success or failure of PMSA will largely depend on the customers' satisfaction. Since they are, largely, who recommend the company and transmit to other people and/or organizations an image that generates or not generate trust and credibility.
- Increase profitability: it is imperative to improve the profits of the organization since it is a condition for its sustainability over time.
- Expanding the physical infrastructure: due to the growth of the world economy, larger infrastructures are needed every day to allow greater capacity.
- Improve by 90% the reception process in international cargo handling.

The proposed strategic objectives constitute the beginning of the roadmap for this organization, taking into account that they point to a probable desirable scenario. Each of these objectives requires the development of projects and initiatives that lead to the permanence of PMSA over time.

4. Conclusions

This study made possible to recognize the path towards excellence that PMSA decided to take; it was carried out by accessing primary sources of information, the state of the art and global trends derived from the study of "technological surveillance and competitive intelligence".

There are expectations of major challenges that will make it a stronger competitor, as PMSA is currently in a good position, according to the competitive analysis carried out through the MPC competitive profile matrix.

It can be observed, taking into account the current situation of the company, that PMSA is a company that has an excellent human capital. It also has technological tools available to carry out its processes. It has possibilities for growth, but it also shows failures in its employees' motivation. So, administrative strategies that allow the solution of nonconformities presented by the collaborators of the organization are proposed. It is also

necessary to take into account that the sector in which the company operates offers opportunities for internationalization.

There are conditions such as macroeconomic and legal stability, along with the international trade agreements that have been established that favor the business action landscape for the foreign market.

PMSA is a company provider of port services, with a working methodology that integrates both manual and technological processes. It has a wide range of potential clients, but is currently limited due to its services, which are most linked to management of coal coke and, therefore, it has failed to exploit the other possibilities offered by the port sector.

Despite the aforementioned weaknesses, PMSA continues to be an attractive company for customers in this commercial sector, as it has good physical infrastructure and can obtain its inputs at low cost, which in turn allows it to offer its services at a competitive price.

The quality in its operations makes possible the expansion of services. In addition to this, PMSA has as a policy the personalized attention to its clients, which, in turn, allows building lasting relationships.

It is important to highlight that the entry of new competitors and the management of existing ones is one of the greatest threats to PMSA.

The implementation of the strategies becomes a safe way to achieve the objectives of PMSA in both the short and long term, in order to remain as an integral organization, with technological processes, with excellent profitability and concerned with the relationships with its internal and external customers, consolidating their loyalty.

The prioritization of a single service, which is the management of coal coke, has made it difficult to negotiate prices for services, which could affect the finances of the organization. It is demonstrated that dependence on a customer or the provision of a single service gives it the power to negotiate this, so there is the need to diversify services and contract with other customers or shipping lines to expand the product line Managed by PMSA.

Implementing this strategic planning entails a total management of the company, which should promote a change in its administrative and cultural management. This change requires the involvement of employees, considering that they are part of the solution and can contribute their experience to help find it, and consequently, public recognition must be made for excellence in work. In addition, it is necessary to invest in training to improve performance, which will create internal motivation, generate a better working environment and contribute to the achievement of the proposed goals.

This strategic prospective offers PMSA an opportunity for change, innovation and improvement in each of its processes, as well as it allows making decisions which are timely, correct and consistent with its reality. Those changes can improve the conditions that influential actors have.

This research is a vivid example that even the smallest and most traditional organizations need to promote innovation within them. Today, changes are practically constant and difficult to ignore in the companies, since they have become a factor of success. If the companies and their employees do not adapt to changes, and on the contrary, they locate themselves to the margin of these, they will be doomed to fail.

Bibliographic references

Barker, J. A. (2001). Paradigmas: El negocio de descubrir el futuro. Estudios gerenciales, Ps. (78), 96-98.

Berger, G. (1964). Fenomenología del tiempo y prospectiva. París: P.U.R.

Carrión, Maroto, Juan (2007). Estrategia de la visión a la acción. p. 252

Del Castillo, C. (2012). La prospectiva: herramienta para la gestión. Actualidad gubernamental, 1-3.

Dess, L., Eisner (2011). 5e Administración estratégica. México P. 170

Fuentes, A. (2012). Aplicación gerencial: Sistema empresarial prospectivo. Bogotá:

Lulu.com.

Fuentes, A. (2012). *Visión gerencial. Prospectiva de gestión y estrategia empresarial*. Bogotá: Lulu.com.

Gallardo, Hernandez, José Ramon. (2012). *Administración estratégica. De la Visión a la ejecución*. p. 393

Hrebiniak, G. Lawrence. (2005) *Asegúrese de que la estrategia funcione. Cómo liderar la ejecución y el cambio eficaz*. p.47

Kaplan, S.; Robert & Norton, P.; David. (2000). *Alignment. Cómo alinear la organización a la estrategia a través del balanced scorecard*. p. 60

García, J. A. C. (2007). Una aproximación metodológica y prospectiva a la gestión financiera en las pequeñas empresas. *Contaduría Universidad de Antioquia*, (50), 93-118.

Noguera Hidalgo, Á. L. y Cubillos Guzmán, L. F. (2015). La pertinencia de las facultades de administración: un estudio prospectivo al 2015. *Universidad & Empresa*, 6(12).

Hurtado, F. F. O. y Forero, H. M. (2004). Modelo para la prospectiva tecnológica de la educación superior, e-learning. *Universidad & Empresa*, 6(7), 101-122.

Godet, M. y Medina Vásquez, J. (2011). Prospectiva y estrategia: enfoques integrados. *Cuadernos de Administración*, 14(21), 165-176.

Güell, J. M. F. (2004). *El diseño de escenarios en el ámbito empresarial*. Ediciones Pirámide.

Martín Pereda, J. A. (1996). *Prospectiva tecnológica: una introducción a su metodología y a su aplicación en distintos países*. Madrid: Fundación Cotec.

Martínez Perece, M. R. y Venegas Martínez, F. (2014). Análisis del riesgo de mercado de los fondos de pensión en México: Un enfoque con modelos autorregresivos. *Contaduría y Administración*, 59(3), 165-195. [http://dx. doi.org/10.1016/s0186-1042\(14\)71269-0](http://dx.doi.org/10.1016/s0186-1042(14)71269-0)

Medina Vásquez, J. E., Becerra, S. y Castaño, P. (2014). *Prospectiva y política pública para el cambio estructural en América Latina y el Caribe*. Cepal.

Medina, J. P. y Valencia, C. A. (2010). *Análisis prospectivo de la empresa Medisupplies E.U. al año 2020*. Bogotá: Universidad del Rosario.

Mera Rodríguez, C. (2014). *Pensamiento prospectivo: visión sistémica de la construcción del futuro. Transhumanismo: concepciones, alcances y tendencias*, 89-104.

Miklos, T. y Tello, M. (2007). *Planeación prospectiva y estratégica*. V Encuentro de estudios prospectivos. Guadalajara, México.

Miklos, T. y Arroyo, M. (2008). *Prospectiva y escenarios para el cambio social*. Convenio Andrés Bello, Universidad Autónoma de México, Facultad de Ciencias Políticas y Sociales.

Mojica, F. e Ibarra, M. (2011). *Análisis prospectivo*. Universidad Nacional de Colombia sede Medellín. Al horizonte del año 2032. Medellín: Universidad Externado de Colombia.

Mojica, F. (2010). *Introducción a la prospectiva estratégica para la competitividad empresarial*. Programa Bogotá Emprende de la Cámara de Comercio de Bogotá.

Mojica, F. (1992). *La prospectiva. Técnicas para visualizar el futuro*. Bogotá: Legis Editores.

Ortega San Martín, F. (s.f). *La prospectiva: Herramienta indispensable de planeamiento en una era de cambios*. Obtenido en <file:///C:/Users/PSMT/Downloads/PROSPECTIVA2.PDF>

Porter , E., Michael (2007). *Estrategia competitiva. Técnicas para el análisis de los sectores industriales y de la competencia*. p. 297

Sanz, L., Antón, F. y Cabello, C. (1999). *La prospectiva tecnológica como herramienta para la política científica y tecnológica*. Documento de Trabajo, 99(04).

Wheelen, T. & Hunger J. (2007) *Administración estratégica y política de negocios*, p. 346

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Revista ESPACIOS. ISSN 0798 1015
Vol. 39 (Number 24) Year 2018

[Index]

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