SWOT MATRIX APPLIED TO STRATEGIC DIAGNOSIS: AN ACADEMIC PERSPECTIVE OF KNOWLEDGE CONSTRUCTION FROM THE INSERTION OF RESEARCH GROUPS



BRENDA HELLEN BERGMANN MARCOS MOURA SILVA

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MATRIZ SWOT APLICADA AO DIAGNÓSTICO ESTRATÉGICO: UMA PERSPECTIVA ACADÊMICA DE CONSTRUÇÃO DE CONHECIMENTO A PARTIR DA INSERÇÃO DE GRUPOS DE PESQUISA

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#### RESUMO

Com o crescente desenvolvimento das empresas e inserção de novas tecnologias no mercado, o surgimento de oportunidades de investimentos e desenvolvimento de novos produtos passou a ser constante, no entanto para que tais mudanças entrem de fato no contexto econômico organizacional faz se necessário a presença ativa de profissionais e grupos de pesquisa e desenvolvimento para estruturação das ideias em projetos detalhados, considerando todos os aspectos qualitativos e quantitativos envolvidos a fim de auxiliar a tomada de decisão e evitar que recursos sejam alocados de forma errônea em projetos que não são viáveis econômica e financeiramente. Dessa forma, o presente trabalho pauta-se na aplicação prática e aprofundamento dos conhecimentos acerca do diagnóstico estratégico e da aplicação da ferramenta de gestão matriz SWOT para o gerenciamento de grupos de pesquisa atuantes em projetos de investimento e desenvolvimento de produtos. A construção do estudo se dá a partir da apresentação do projeto de negócio no qual o grupo de pesquisa selecionado atuou durante um determinado período, expondo ao decorrer do desenvolvimento contribuições acadêmicas inerentes ao curso de administração evidenciando a importância da profissão para construção e ponderações levantadas na elaboração do plano estratégico direcionador da tomada de decisão e auxiliador do gerenciamento dos grupos de pesquisa dentro de futuras organizações.

Palavras-chave: Matriz SWOT; Pesquisa e desenvolvimento; Plano Estratégico;

#### ABSTRACT

With the growing development of companies and insertion of new technologies in the market, the emergence of investment opportunities and development of new products has become constant, however for such



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changes to actually enter the organizational economic context it is necessary the active presence of professionals and research and development groups to structure the ideas in detailed projects, considering all the qualitative and quantitative aspects involved in order to assist decision process and prevent resources from being misallocated to projects that are not economically and financially viable. Thus, the present study is based on the practical application and deepening of knowledge about the strategic diagnosis and application of the SWOT matrix management tool for the management of research groups active in investment projects and product development. The construction of the study takes place from the presentation of the business project in which the selected research group acted during a certain period, exposing to the course of research development academic contributions inherent to the course of administration evidencing the importance of the profession for construction and weightings listed in the elaboration of the strategic plan that directs decision process and assists the management of research groups within future organizations.

Keywords: Research and development; Strategic Plan; SWOT matrix;

### **1 INTRODUTION**

In a market context characterized by fierce competition, organizations are increasingly interested in draw the strategic skills and fundamental aptitudes, as well as the development of innovative solutions that make it better than its competitors and that lead it to a leading position in the market. According to Idalberto Chiavenato (2021, p. 158) "the essential competence can be a technical knowledge or a specific technology that allows to offer a unique value to customers and that distinguishes the organization from the others". Thus, it is essential to work on the identification and active development of the competencies that will be inserted in the corporate environment and that dictated organizational success, in this context, the work of research groups within organizations becomes a pillar in the efficiency of performance and development of new positioning strategies.

The ability to identify possible development opportunities arising from the environments of business insertion, whether internal or external, has been evidenced as the need for changes in processes, products and organizational methods grow to keep up with market innovation trends. In this way, people able to visualize growth scenarios, new process trends and new product development are valued within corporations. Linked to this, it is also essential to develop skills capable of bringing opportunities to the tip of the pencil, structuring detailed projects in order to verify the feasibility of their implementation, both from the qualitative point of view from the aggregate benefits, and from the quantitative point of view regarding the correct allocation of the necessary resources.

In this perspective, the present work aims to address issues related to the performance of research groups linked to the application of the SWOT Matrix management tool in the verification of



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market scenarios and strategic planning of efficient implementation and development of projects. In addition, the central activities of the research in question are based on helping to develop a strategic business view, ability to coordinate macro and micro environmental analyses, vision of taking advantage of opportunities and expertise to apply management tools in the corporate workplace inherent to the profession of the administrator, who acts as manager and leader of the organization, basing such considerations from the ability to build the SWOT matrix in the scope of investment project proposal and development of market research.

To support the positions on the subject, the experience of the insertion in the InovaGrafenos investment project during the internship period within the Ceuma University in São Luís do Maranhão in Brazil, is exposed when discussing the work. The activities developed within the research group by the Administration academic will be reported in detail and related to the area of study emphasized in relation to the collection of information and analysis of scenarios in order to support the construction of a situational diagnosis with the help of the SWOT analysis management tool in order to verify the feasibility of the project and assist in the decision-making process by building a strategic implementation plan from the conclusions obtained.

Thus, in the first cycle will be presented the concepts pertinent to the skills described as essential to development of corporate organizations, such as the approach of conceptualization of innovation and visualization of corporate opportunities, presentation of the SWOT matrix as a management tool and strategic diagnosis. And the second cycle will contemplate a diagnosis of the business proposed by the student's performance project within the related research group, bringing a macro environmental analysis, considering the opportunities and threats of the business and a vision of the microenvironment aimed at surveying the negative aspects and strengths of the project under development, Emphasizing the proper theoretical use of SWOT analysis, showing the positive aspects that inhibit the negatives and provide the healthy development of the business, as well as the considerations of strategic implementation from the conclusion of the qualitative viability of the business.

# 2 METHODOLOGY

In order to verify the importance of developing a critical look at the environments that surround the organizational environment and expand the expertise necessary to manage research group activities, the current research was developed from a qualitative approach employing scientific



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research activities within a business environment of active insertion in the investment project called InovaGrafenes, which the group of academics was active in.

As for the technical procedures, the data were collected from the combination of bibliographic surveys and market research with the knowledge collected with the supervisors and idealizers of the project under analysis, in order to narrow the view on the subject exposed and the objectives of the business project in question. In addition, the analysis procedures were descriptive, including the construction of the detailed SWOT matrix and the proposed strategic plan based on the considerations constructed.

Thus, such choices enabled the construction of technical knowledge and synthesis of macro and micro environmental data raised, as well as the individual evaluation of the placements of the academic and supervisors in order to enable the adequate visualization of the information of the project under analysis, reaching the best combination of strategic actions to efficiently implement the business opportunity presented. Also concluding at the end of this discussion, the efficiency of the SWOT matrix for the management of research group in the development of positioning strategies and situational diagnosis of opportunities in front of the competitive market, facilitating and supporting the most efficient decision making for the organization.

# **3 THEORETICAL FOUNDATION**

# 3.1 Innovation and visualization of corporate Opportunities

With globalization and the accelerated dissemination of information arising from it, the need and importance of a constant evolution in organizational processes and management methods has become evident, in order to keep up with the rapid change in the business world and market interests. To win the fierce competition and remain the market leader the term innovation has emerged and has become frequent in the corporate environment, incorporating strategic planning and serving as a basis for business growth and development, and it is important to understand its concepts and applications. Authors John Bessant and Joe Tidd (2019, p. 4) point out that "if we don't change what we offer the world (goods and services) and how we create and offer them, we run the risk of being overtaken by others who do it's a matter of survival."

The term Innovation, from the Latin Innovatio, means to create something new, refers to an idea, method or object that is created and that little resembles previous patterns, currently the term



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is directly linked to the business context with related economic exploitation, such as the action of creating different paths and strategies to accomplish something and take it to the market. According to the Oslo Manual (2018), proposed guidelines for the collection and interpretation of data on technological innovation prepared by the Organization for Economic Cooperation and Development (OECD) with the aim of guiding and standardizing concepts, methodologies and construction of statistics and research and development research indicators in countries, innovation is the introduction of a new or significantly improved good or service, with regard to their predicted characteristics or uses, or in addition, the implementation of new or significantly improved production, distribution, marketing or organizational methods or processes.

The innovation process linked to the enterprises carries a range of macro and microeconomic benefits, it provides the socioeconomic development of the business insertion environment as well as increases revenues and accelerates the internal growth of the organization keeping it competitive against competitors and consolidating it in the market. However, to employ an innovative posture and incorporate it into the organizational mission managers and leaders still face some challenges, however, they do not outweigh the benefits provided by successful innovative implementations.

[...] "National, regional and sectoral contexts can significantly influence the speed and direction of innovation and entrepreneurship due to the availability or scarcity of resources, talent, opportunities, infrastructure and support. However, although context influences speed and direction, it does not determine the results. The education, training, experience and aptitude of individuals also have a profound effect on the goals and outcomes of innovation and entrepreneurship" [...] (BESSANT; TIDD, 2019, p. 1).

There are four factors that have a strong influence on the ability of an enterprise to develop and apply an innovation and create value through it, they are: 1) the national innovation system, in which the company is inserted and which defines its availability of choices to deal with opportunities and threats; 2) its power and market position within the value chain, determining the opportunities and threats based on innovation that the company faces in the face of the competitive market; 3) the competence and processes of the company, including research, development, production, marketing and distribution, as well as its capacity and size to develop them; and 4) the ability to identify and exploit external sources of innovation, especially international networks (BESSANT; TIDD, 2019).



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The main challenge for the implementation and management of innovation is to know how to identify the potential in a sea of possibilities. Identifying an opportunity means saying that a favorable situation for your business has arisen or that the conditions are right to insert a particular product or service into the market. Knowing how to identify to take advantage of certain situations in favor of the business to generate and implement innovative ideas is not a simple task, however, customers, competitors, the market and their interaction with the organization is the main gateway of information that signals opportunities for innovation, just the manager and / or entrepreneur know how to interpret them.

[...] "Innovative ideas can come from a wide range of sources and situations: from inspiration, from transferring from another context, from listening to customer needs, from cutting-edge research, or from combining existing ideas into something new. And they can arise from building alternative models for the future and exploring open options within these alternative worlds. But to be successful, it is necessary to structure rich and varied ways of capturing initial signals that provide interesting opportunities for variation. What distinguishes successful individual entrepreneurs is often this ability to see the crucial opportunity in the midst of the forest of possibilities" [...] (BESSANT; TIDD, 2019, p. 121).

In this sense, the effectiveness and efficiency of an organization in the face of the innovation process and the innovative strategy appropriate to the business requires an exercise of perception of the environment, anticipation of changes and prediction of risks involved for the emergence of new opportunities. A manager needs to have a keen holistic vision, know how to listen, feel and sniff out the changes pertinent to the market, always preparing the team at the operational, tactical and strategic levels to deal with the challenges that affect them.

Finally, the success and market position that an organization occupies, as well as the creation of value and the perception of the customer about its commitment and its business vision are directly related and depend on the initiatives of change of status quo of the corporation and application of innovation strategies drawn from the visualization and the use of opportunities, evidencing the need for the promotion and constant development of organizational competencies aligned with innovative principles and the visualization of new business opportunities and previously detailed projects.

# 3.2 Diagnosis as the basis of strategic planning



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Although the assertive ability to observe alternatives and possibilities of development is likely to leverage the growth of a business, it by itself does not have an effect when inserted in the organization in isolation. This personal characteristic needs to be combined with the ability to make an accurate diagnosis of the observed situation and a strategic plan of action, since often the situation when worked out in detail does not show to be feasible in the way initially expected.

Strategic planning dictates the actions that differentiate the organization in the development of its reason for existence and in its way of acting in the competitive market. Thus, the first step to be taken from the visualization of an investment and/or innovation opportunity, whether it is a product or process within the organization, is to allocate resources in order to perform a strategic diagnosis. In this sense, Djalma de Pinho Rebouças de Oliveira (2023, p. 61), reinforces that "the strategic diagnosis corresponds to the first phase of the strategic planning process and seeks to answer the basic question "what is the real situation of the company regarding its internal and external aspects", and should be carried out in the most real way possible".

[...] "The diagnosis, which corresponds to a strategic analysis, presents some basic premises, namely: i) one must consider the external and non-controllable environment and its relevant variables in which the company is inserted; (ii) such an environment provides the enterprise with opportunities that should be enjoyed and threats that should be avoided; iii) to face this situation from the external environment, the company must have full knowledge of its internal and controllable strengths and weaknesses; and iv) this process of internal and external analysis should be realistic, integrated, sustained, continuous and cumulative. Thus, the strategic diagnosis must focus on the current moment, as well as the next moment or the next challenge, in order to constitute the critical dimension for the permanent success of the analyzed company" [...] (OLIVEIRA, 2023, p. 61).

In such a way, so that the diagnosis that will base the strategic planning is coherent with the reality lived by the organization it must be attentive to some components that dictated the adequacy of the diagnosis to the reality experienced by the business. According to Djalma de Pinho Rebouças de Oliveira (2023), the integral parts of the strategic diagnosis concern: Vision of the company, in which for it "provides the great outline of the strategic planning to be developed and implemented by the company" (p. 63); the company's values, which "are of high importance for the higher quality of the process and results of strategic planning in companies" (p. 67); and a detailed analysis of the company's internal and external environment, in which they determined its strengths and weaknesses, opportunities and threats.



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In addition, the construction of the strategic planning carries the corrective actions that meet the points evidenced in the diagnosis linked to the medium and long-term organizational objectives and the ethical vision of the business. Through them it is possible to meet the operational demands and take advantage of the opportunities observed to work on the development and growth of the company under analysis, improving its performance and market positioning.

### 3.3 Strategic management tool: SWOT matrix

The word strategy is related to terms such as competition, competition, competitive advantage, drawing plans, among others. The theme is strongly linked to the creation and adoption of an action plan to achieve goals and objectives and stand out over competitors. In the corporate world, strategic management is based on planning, it is the fundamental action structured and developed by the organization to achieve, effectively and efficiently, the idealized objectives for the future, with the best positioning of the company before its market and its stakeholders.

The business strategy can be pointed out as the junction of actions related to product / service versus market, that is, the specification of the products with which the organization intends to address its objectives and satisfy the market in which it intends to operate. Strategic planning is the main action of an organization with regard to the development of its processes in order to achieve its objectives, it must be aligned with the major actions and with the paths and guidelines for the decisions of top management. Thus, with a well-defined business strategy, it is possible to reduce the risk of making a wrong decision (RUWER; REIS, 2018). However, the definition of the strategic plan is not simple, and depends on a number of variables that affect its implementation.

In its totality, organizations must devise clear strategies to present their offers to the market and thus corroborate with the analysis of the factors that can influence their implementation. These factors are related to the variables existing in the market environment and can be internal, also known as internal environment or microenvironment, or external, called external environment or macro environment. They alter activities, customs and events specific to the marketing process, in order to request that the organization adapt to these changes (RUWER; REIS, 2018, p. 46).

Thus, the literature provides us with some tools that help in the visualization and control of the factors that interfere in strategic planning. Such tools stimulate creativity and facilitate communication, and can be broadly described as the direction of thought, or structuring the analysis of complex situations. Strategic tools can be conceptual, such as those employed in strategy design,



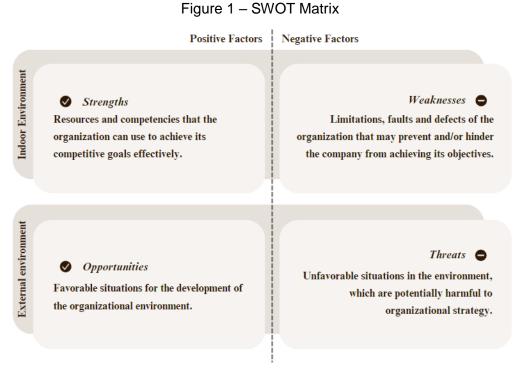
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they can be process tools such as project management techniques, as well as physical tools such as documents or software (MAIA; SON, 2016).

One of the strategic management tools considered a classic management tool is the SWOT analysis, acronym in English of the terms Strengths (strengths), Weaknesses (weaknesses), Opportunities (opportunities for your business) and Threats (threats to your business). The strengths and weaknesses, in general, are within the company itself, are found in the microenvironment and the competitive environment, while the opportunities and threats, in most cases, have an external origin in the macro environment.

The SWOT analysis is based on quadrants table, two that arise from the analysis from the internal point of view of the organization, its positive aspects (strengths) and its negative aspects (weaknesses) and two others that arise from the perspective of the macro environment their positive impacts (opportunities) and their negative impacts (threats), in this way, the four are usually distributed in a matrix as shown in figure 1.



Source: Maia and Filho (2016)



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The objective of the SWOT Analysis is to identify the extent to which the company's current strategy (strengths and weaknesses) is able to cope with changes that may occur in the organizational environment (opportunities and threats). It serves to analyze the strengths and weaknesses, and the opportunities and threats of a business, and then provide the entrepreneur with structure to organize and base a more efficient and effective strategy to reduce risks and increase the chances of success of the company, it is useful to analyze the company from various perspectives in a simple way, objective and purposeful.

For Marcelo Nakagawa (c2023) after filling the matrix, it is necessary to analyze what the company should do to take advantage of its strengths and opportunities, improve its weaknesses and try to minimize the effect of potential threats. For Maia and Filho (2016) it is possible to perform a combination between the internal indicators that are under the control of the organization and external market factors under which the company has little or no influence. Based on this analysis, we arrive at four guiding possibilities of the strategic action plan, namely: 1) working hard to maximize strengths and capitalize on new opportunities; 2) use your strengths to minimize threats; 3) overcome and develop their weaknesses by trying to exploit new opportunities; and 4) minimize their weaknesses and avoid external threats.

In history, SWOT analysis has been strongly influenced by the militaristic school of strategic formulation. For Nakagawa (c2023) this means that it is necessary to analyze in detail the adversary and the environment in which the combat will take place, starting from this premise, the best positioning and the definition of the best plan of action for the attack and defense are sought. For example, the author emphasizes the maxim of the book "The Art of War" by Sun Tzu – a work that carries with it great contributions to strategic business formulation – "if you know the enemy and know yourself, you need not fear the outcome of a hundred battles, and if you know yourself, but you do not know the enemy, for every victory won it will suffer a defeat. However, if you know neither the enemy nor yourself, you will lose all battles."

Thus, the tool presented proves to be a strong ally of the decision-making process and the formulation of organizational strategic planning. Since, the holistic view of the market and the factors that impact the environments of insertion of the business provides an advantage in the detection of opportunities and in the improvement of strengths as well as evaluation of weaknesses and threats



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arising from the market in order to outline the best strategies and action plans to keep the organization competitive and profitable in the face of the market.

# **4 RESULTS AND DISCUSSION**

### 4.1 Business opportunity from InovaGrafenos

As the object of study of the present work, the selected research group was inserted in the InovaGraphenos project. This project arose from the development of carbon-based enzymatic biosensors capable of assisting the diagnosis of prostate cancer. This equipment has its own technology developed by a team of undergraduate and graduate academic professionals from medical, biomedicine, nursing, physiotherapy and administration courses.

In this perspective, as an opportunity for investment and development in the field of business and science, it was seen the need to incorporate technical knowledge and management tools into the innovative business proposal in order to verify the attractiveness of the investment in the project from its analysis of economic and financial feasibility. For this, the Research Group in Administration and Society (GPADS) of the Ceuma University, which encourages scientific research in the management area, together with undergraduate students of the University and professionals in the area joined InovaGrafenos in order to propose the structuring of a business plan and evaluate the investment proposal in the factory of enzymatic printed electrodes and thus enable the mass production and commercialization of the technology from attracting investments from the presentation of the feasibility and attractiveness of the project.

# 4.2 Strategic diagnosis of the investment project

The ability to perceive environments and accuracy in the analysis of the information they provide to business needs to be constantly developed by leaders and managers of organizations, so that it becomes crucial in the success of business performance. Thus, from the themes developed previously, we sought to pay attention to the detection of the macro and microenvironment of InovaGrafenos and carry out a strategic diagnosis of the project, as well as its differentials in the market, in order to elaborate a mapping of the strengths favorable to the development of the business as a company and the unavoidable weaknesses that threaten the continuity of the project, with the



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objective of contributing with the managers in the development of the strategic management plan and verify the attractiveness of growth and viability of returns.

Thus, from the technical knowledge acquired and presented here, it is possible to highlight some points about the organizational environment and use them as a basis for the development of a diagnosis from the management tool SWOT Analysis, evidencing the detailed considerations about the Strengths / positive aspects, Weaknesses / negatives aspects, of the business as well as the opportunities and threats that the market imposes on it as a possible profitable and profitable business and base the plan of strategic action.

It is also important to highlight that having seen the proposed academic character, the administrator plays a crucial role in the development and continuity of an organization, so that it is up to him to design and outline the strategic planning of a business in order to make clear the path to be followed to achieve the objective outlined in the mission of the organization, and thus guide the execution of the activities of the teams and match them to the achievement of the established goals. Thus, from the information obtained, a strategic planning model was suggested, elaborated from the analysis of positioning and the business vision of the project managers. In addition, from the information introduced in this topic, below will be presented the products resulting from the strategic visualization of the business as an opportunity for innovation and development.

# 4.3 Environmental analysis and development of the project's SWOT matrix

As a purpose of this work, the development of the proposal created from the opportunity observed by managers for the development of an organization, the SWOT tool was designed for the InovaGrafenos project in order to map their environments and assist managers in the strategy of positioning the business in front of the market as a proposal and investment opportunity, and the possible improvement actions that can be implemented in the processes already developed in the course of the creation of the product carried out during its idealization.

After the conversation held in a meeting with the representative of the InovaGrafenos project, and the immersion in the ideals of the project, as well as its objectives, benefits and value proposition to society, it was possible to associate the business information acquired with the knowledge of the Administration professionals allocated in the research group of the project regarding the perception of organizational environments and the strategic vision of the market, as well as the holistic view of



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the innovation proposal as an organizational opportunity, and thus enable the construction of the SWOT matrix represented below by Figure 2.

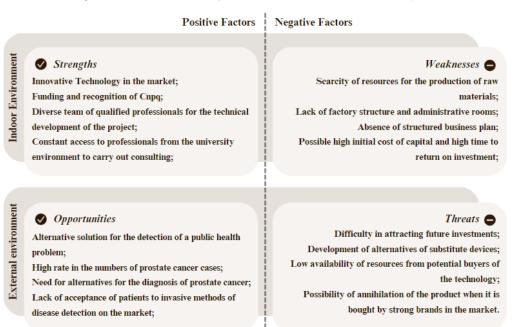


Figure 2 - SWOT Analysis of the InovaGrafenos Project

#### Source: Produced by the author (2023)

As explained in the theoretical framework of this work, the SWOT analysis combines four quadrants of environmental analysis, two performed in the internal environment and two regarding the external environment, in order to assist managers in improving processes and results, in identifying market positioning scenarios, investment decision and taking advantage of growth opportunities. The interpretation of the tool in question is based on the use of its quadrants in a conjugated way, from it the project managers will be able to draw strategic plans that are able to answer questions such as: i) what actions to take to continue developing the strengths?; ii) what procedures and training can be performed to improve weaknesses?; iii) how to take advantage of opportunities efficiently?; and iv) what actions to take to prevent and/or mitigate market threats?.

First, it should be noted that the main application of SWOT analysis concerns the use of positive axes in order to reduce or extinguish the negative aspects that may impact the business in question. In this way it is possible to identify if there are strengths to be developed and used to face

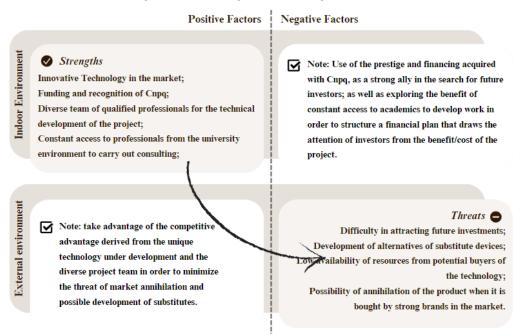


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the threats, and if there are opportunities and strengths that can be taken advantage of to combat the weaknesses of the organization, and thus enhance the performance and use of resources within the project.

The considerations elaborated about the aspects mentioned are presented in figure 3.



# Figure 3 – Strengths that mitigate threats

Source: Produced by the author (2023)

In InovaGrafenes, points of improvement were observed in some pillars mapped in the strengths identified through SWOT. Thus, if developed and worked properly, these advantages will be able to mitigate the impacts generated to the business by market threats. The strategy advised by the theory of Management in this scenario, when there is a predominance of strengths and they are used to nullify or minimize one or more threats, is called development action, since the strategies allocated for this purpose caused the growth and development of the organization/project under analysis.

In addition, there are also strengths capable of acting in the improvement and transformation of the weaknesses identified and presented below. The potentialization of the matrix in these parameters dictates the development of the internal environment of the organization which it has

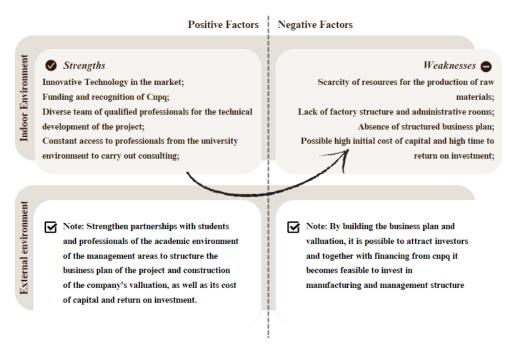


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greater control, since the actions occur in order to use the internal potentialities to develop the inferior factors that hinder the internal growth and consequently the external positioning.

The weightings of increment and improvement of the aforementioned points are described in figure 4.



# Figure 4 – Strengths that neutralize weaknesses

Source: Produced by the author (2023)

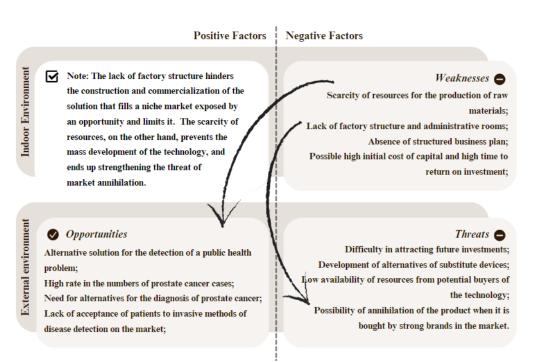
However, in an unfavorable perspective, the SWOT elaborated evidenced the need for precise actions in the neutrality of the weak points, they show some negative points that stand out from the positives as presented in the surveys in figure 5 below.

Figure 5 – Weaknesses that limit the pursuit of opportunities and strengthen threats



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This need mentioned above is evidenced by the fact that weaknesses prevent the use of opportunities and harm the business, strengthening market threats. Some weaknesses end up altering the possibility of seeking more than half of the opportunities identified for the Inova Grafenos project and leave the business weakened as to its potential development. From this perspective, the adequate enhancement of the SWOT matrix concerns a strategic defense action, which aims to nullify or minimize a vulnerability arising from the unfavorable scenario where one or more weaknesses converge with one or more threats and limit the actions to take advantage of corporate development and growth scenarios.

The considerations presented reinforce the need for effort to concentrate efforts on the actions mentioned above in figures 3 and 4 about the use of business potential to minimize weaknesses and avoid the reactions mentioned in figure 5, and thus ensure the prosperity of the strategies developed for the development of the project. In this way, it is reinforced that the strategic planning based on these points of improvement, together with an efficient and effective management of resources to put into practice the presumed actions, is able to conduct the production and



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operationalization of the project until it becomes in fact a business in full operation of the market generating income and delivering value to the consumer community.

It is concluded, therefore, that the InovaGrafenos Project of Enzymatic Biosensors has a high probability of growth if the corrective actions of minimization of the negative factors exposed are correctly applied to enhance the positive aspects of the business. As an investment project, it shows promise in the market for generating an innovative solution that meets a need of a large market niche, only missing the completion of the activities proposed by GPADS for InovaGrafenos that are still in progress and in the process of completion.

It should also be noted that as previously mentioned during the development of the work, the qualitative aspects presented here cannot be solely studied to consider the viable project as an investment proposal, such presentation highlights the high probability of the business being accepted by the market for its benefits and ability to generate added value to consumers, However, to attract investors it is necessary to develop quantitative aspects from the analysis and application and financial indicators and the need for working capital to operationalize production.

#### **3 CONCLUSION**

During the course of the research, it was evidenced the importance of people in organizations and research groups who not only have expertise to identify development opportunities and structure them, but who are also able to raise qualitative and quantitative scenarios of innovation projects and investments to verify as assertively as possible the economic viability and market acceptance trend of the project. In this perspective, the SWOT Matrix proved to be a strong ally in the strategic diagnosis and development of operationalization and market positioning actions, especially in the case of projects still in preparation, being able to show scenarios and strategic courses of development and implementation.

In conclusion, the development of the activities mentioned above in this work was essential for the improvement of analytical capabilities within the business environment and showed the importance of business management professionals to develop them to contribute to the constant development and improvement of companies' positioning in the market and assist in monitoring the trends of innovations imposed by the environment. All the reflections raised point to the importance of diagnosis and strategic planning in project management, whether in the identification of possible



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scenarios or in the structuring of processes and quantitative analyses that support decision making in the corporate environment.

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