ABSTRACT

Today higher education is facing a number of requirements and demands of both the educational spheres of society itself. Thus, public and private universities are in urgent need to provide quality service under the legal rules of the education system (Albarran Diaz Burgos & Carranza, 2012, p. 10).

Through strategic plans, companies respond to the needs and demands of the competitive environment. UNAN-MANAGUA has its own Institutional Strategic Plan, for its acronym in Spanish (PEI) but the complexity of its organizational structure warrants a constant and depth evaluation in each of its faculties and even more in its dependent areas, as the Graduate Unit case in FAREM-CARAZO, which has presented internal difficulties since its inception. In this study an assessment of key internal and external factors were reflected in matrixes of strategic analysis. Based on the results, the strategies that Graduate Unit has to follow were obtained in order to achieve institutional strategic objectives. These strategies are presented in this article.

External and internal factors resulted from the application of qualitative and quantitative methods, including key informant interviews related to the activities of the graduate unit and document review of surveys this unit makes to its students, also a study of the external environment through a documentary review in sources such as the Central Bank of Nicaragua and other reports that allow information about universities nationwide, informal interviews from other universities and the method of self-reflective observation by the researcher.

The analysis of these instruments allowed defining strategies around the axes posed by the Institutional Strategic Plan 2015-2019 in terms of management, teaching, projection and extension and internationalization.
INTRODUCTION

This article is presented as part of the results of a research thesis (Strategic Plan Proposal for the Graduate Unit at the Universidad Nacional Autónoma de Nicaragua, Facultad Regional Multidisciplinaria de Carazo (UNAN-MANAGUA, FAREM-Carazo), to be implemented in the last three years of the Institutional Strategic Plan 2015-2019) which refers to the strategic planning issue, defined by Bateman and Snell (2005) as a “set of procedures for decisions making about the organization goals and strategies on long term.” This will take place at the UNAN-MANAGUA, FAREM-Carazo, proposing a strategic plan specifically for the Graduate Unit.

The study of this issue is of great importance because this institution provides its services in order to train qualified professionals that support the development of the country, and there is a necessity of a strategic plan that contributes to the fulfillment of the graduate vision, that on the website of UNAN-MANAGUA states:

The graduate in UNAN-MANAGUA aspires to be a system of Graduate Studies, with national leadership and regional impact, based on the academic quality of its programs to train competent professionals and promoters of the integral development in Nicaraguan society and Central America Region (UNAN-MANAGUA, 2004).

To this end, action of permanent and intensive training of managers should be establish to support the implementation of agile practices to facilitate the achievement of the expected goals.

In this context the concern of contributing to UNAN-MANAGUA, FAREM-CARAZO arises, specifically in the Graduate Unit, in order to propose its own strategic plan.

As part of the preliminary results, personnel need was detected, as well as lack of a constant evaluation and updating of graduate courses offer, then problems in funding awarded to students and the high rate of students arrears, which finally impacts on ineffective provision of financial resources for decision-making. Continuing with these problems, the Graduate Unit could gradually reduce their profits. Future vision has to be considered and evolve to offer competitive Graduate courses with efficient control and management of financial resources to enable an environment of continuous improvement.

These needs can be overcome with a strategic plan based on Graduate Unit internal and external evaluation. In this study these analyzes are made through the External Factors Evaluation and Internal Factors Evaluation matrixes, following the methodology described by Fred R. David (2003, p. 111 and 151).

This research aims to be the beginning of evolution that Graduate Unit needs to maximize its strengths, to eliminate internal weaknesses with the proposal of this strategic plan, to continue taking advantage of opportunities and minimize the effects of external threats.

In this study we refer to all relevant information in the environment affecting the Graduate Unit and then strategies that can be taken up by Graduate Unit leaders are presented to facilitate decision making. “In today’s world which changes fast- leaders are overwhelmed with so much information, often contradictory-that making effective decisions become a challenge for them” (Lussier & Achua, 2008, p. 375).
In short, the strategies under the external and internal matrixes evaluation are presented in the following tables.

Table 1. Table of generated strategies from the External Evaluation matrix (Own Elaboration)

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Maintain relations of mutual aid with all municipalities and specific companies from Carazo department and South Pacific Region of Nicaragua.</td>
<td>1. Keep strong relationships with public and private institutions to counteract the effects of competitors (O1, A1).</td>
</tr>
<tr>
<td>2. Nationwide prestige achieved by the university.</td>
<td>2. Promote through existing relationships with public and private institutions, the support for recent graduates who still have no experience in the labor field (O1, A1).</td>
</tr>
<tr>
<td>3. Access and ICT development in FAREM-CARAZO.</td>
<td>3. Create a graduate offer obeying to the new market demands, with new teaching and learning methods (O4, A5).</td>
</tr>
<tr>
<td>4. Prospects of economic and commercial growth at the national level, generated by the economic and political situation in the country.</td>
<td>4. Take advantage of the reputation the university has achieved to increase demand for their services offering careers in the current context of the country (O2, A1).</td>
</tr>
<tr>
<td>Threats</td>
<td>5. Increase advertising in Graduate Unit at FAREM-Carazo, highlighting its achievements, to gain a greater market share at a national level. (O2, A4).</td>
</tr>
<tr>
<td>1. Risks of climate change that will affect the country.</td>
<td>6. Teach courses with the support of FAREM-CARAZO technology staff, taking into account access and ICT development, being used as a source of income for the university, getting higher demand for its technological means (O3, A3).</td>
</tr>
<tr>
<td>2. Current Competition from other universities and institutions close to the departmental level.</td>
<td></td>
</tr>
<tr>
<td>3. Increased costs in the new technology.</td>
<td></td>
</tr>
<tr>
<td>4. Weak market share nationwide.</td>
<td></td>
</tr>
<tr>
<td>5. Culture changes in teaching and learning methods.</td>
<td></td>
</tr>
</tbody>
</table>
Table 2. Table of strategies generated from the Internal Evaluation matrix. (Own Elaboration)

<table>
<thead>
<tr>
<th>STRENGTHS</th>
<th>STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existence of international collaboration agreements.</td>
<td>1. Ownership of graduate vision from the academic staff so that they can have a better performance (F2, D1).</td>
</tr>
<tr>
<td>Most of the academic staff is composed by graduates with master's degree and professional doctors.</td>
<td>2. Use existing agreements on the faculty as a mean of graduate offers promotion. (F1, D3)</td>
</tr>
<tr>
<td>Graduate Unit at UNAN-Managua, FAREM-Carazo is located in urban areas with transportation and easy accessibility.</td>
<td>3. To internationalize graduate education based on the perceived education through existing agreements the faculty has. (F1, D4)</td>
</tr>
<tr>
<td>High income generated by the graduate to implement new curricula and better technology supplies.</td>
<td>4. Leverage the capabilities of academic staff to design new strategies in the teaching and learning graduate area (F2, D2)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WEAKNESSES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Little focus awareness and vision from graduate UNAN-MANAGUA.</td>
<td>5. Encourage research by graduate area, taking advantage of the human resources (qualified staff with master's degree and doctorate) to facilitate the fulfillment of the graduate vision UECP (F2, D1).</td>
</tr>
<tr>
<td>Lack of own graduate department strategic plan.</td>
<td>6. Increase the range of service offerings, focusing on the needs and requirements of the student population, using the revenue generated by the graduate area (F4-D4).</td>
</tr>
<tr>
<td>Little relationship between graduate programs and national development, meeting the needs of the population and demand in the business sector.</td>
<td>7. Use each area from UNAN-Managua, FAREM-Carazo as an effective source to offer more graduate studies with different conditions that would meet the students' expectations (F3-D4).</td>
</tr>
<tr>
<td>Limited offer directed to Economic and Education Sciences.</td>
<td>8. Implement a proper registration and specific academic control for both students and professorate through available resources obtained by the graduate (F4-D5).</td>
</tr>
<tr>
<td>Lack of registration and academic control to active and graduate students and professorate.</td>
<td></td>
</tr>
</tbody>
</table>

In short, strategies that are obtained from all analyzed matrixes are grouped into two types: Diversification Strategies and Alliances Strategies.

For example, diversification strategies raised by David (2003, p. 161):

- Concentric Diversification: Adding new but related products or services.
- Horizontal diversification: Adding new products or services, but not related to current customers.
- Diversification cluster: Adding new products or services, but not related.
- Strategic alliance: It is a popular strategy that occurs when two or more companies integrate a temporary partnership or consortium in order to seize any opportunity. Often, two or more participating companies form an independent company and share the equity ownership of the new company.

Then the proposed strategic plan derived from this study.

**STRATEGIC PLAN PROPOSAL FOR THE GRADUATE UNIT**

The following proposal is structured by functions, like Institutional Strategic Plan 2015-2019 in order to have the same perspective as the UNAN-MANAGUA in the process of institutional self-evaluation.

1. **Strategy for the Management Function**

Management Function obeys to the first strategic objective of Institutional Strategic Plan 2015-2019 (UNAN-MANAGUA, 2015) which consists on developing the model of efficient and effective institutional management in line with the Mission and Vision of UNAN-MANAGUA, optimizing the quality of academic and administrative functions of the university.

In this role, managers and those responsible for the Graduate Unit are the main participants. The appropriation of the vision and mission of graduate dictated by the graduate department of UNAN-MANAGUA is necessary; this, with the goal of creating a unique philosophy that allows compliance with the declared in these ones.

The proposed diversification strategies will begin in this function, since the described declarations in mission and vision statements are promoted, through an offer of graduate studies focused on its vision of "national leadership and regional impact, based on academic quality of its programs to train competent professionals and promoters of integral development in Nicaraguan society and Central America Region" (UNAN-Managua, 2015) and whose mission is to develop, regulate and facilitate the processes of formation of high-level professionals with scientific and technical quality, able to generate new knowledge, to develop skills, ethics and respect for cultural heritage, peace and the environment, to better understand the social reality and also influence on forecasting and solving human and natural problems in the country and the region, committed to national and regional development, and strengthening the link between the university and society “(UNAN-Managua, 2015).

This involves the development of the academic quality of programs provided by regulated and managers, in addition to an expansion of graduate programs not only in the country but also internationally in the vision at least in Central America.

2. **Strategy for Teaching Function**

Teaching function obeys to the second strategic objective of the Institutional Strategic Plan 2015-2019 (UNAN-MANAGUA, 2015) consisting of "Providing a comprehensive academic training to technicians and professionals, in correspondence with the country context, to give quality responses to the national challenges, according to the advancement of science and technology, with multi, inter- and trans disciplinary vision" (UNAN-MANAGUA, 2015).
In order diversification could be notorious for customers, the process of teaching and learning should be worked, in this case with students from different courses, but not only the strategies used by teachers in the courses, but also the Unit strategy to make teachers and students feel motivated.

In this role, as in the Management Function, international cooperation and collaboration should be promoted; also it is necessary to internally promote the participation of teams work, and above all, in the methodological and research area, taking advantage of human resources available starting from the degree level within the faculty.

3. Strategy for Research Function

This section is related to Research function of UNAN-MANAGUA but specifically responds to the strategic objective that in the Institutional Strategic Plan 2015-2019 mentions: “Increasing production and scientific productivity with inter, multi and cross-disciplinary approach”.

The Institutional Strategic Plan 2011-2015 states that research should be continuous in order to precise the generation of objective demand with proposals for undergraduate and graduate training according to the National Human Development Plan framework. This research aims to create the diversification strategy, so that a strategy would be the graduate offer based on an analysis of the external study as shown in the External Factors matrix, and in it, the need for a graduate offer is observed, an offer oriented to professionals related to the research field but focused on climate change, renewable energy projects, the maintenance of natural resources, promotion of culture, tourism, foreign language and technological advances. All these allows us to propose as a main strategy the exploitation of researchers’ academic staff and establishment of partnerships with other research groups that allow the graduate to diversify its offer adjusted to new economic, environmental and cultural trends.

4. Strategy for Outreach and Extension Function

The issues raised in this part resume the Institutional Strategic Plan 2015-2019 in the Outreach and Extension Function, which states: “Linking students training to the production process and the objective requirements of economic development based on national interests”.

This function is closely related to the overall strategy of strategic alliances. In the study of the Quantitative Strategic Plan matrix, it is shown that partnerships with technical schools and other companies should be prioritized, this because in the study of external environment it was determined that there is a high demand from these schools and other universities for graduate studies.

Extension will depend on the management function and its efforts to establish partnerships with such sources of students and companies who want to have trained personnel, but for this, the Graduate Unit must project and diversify its offer as it was obtained in the Quantitative Strategic Plan matrix with the clusters diversification result.

5. Strategy for Internationalization Function

In this regard, it is intended to meet the goal of "Strengthening, under the principle of cooperation for development, opportunities for knowledge and experiences exchange, promoting mobility
relations between academics, non-teaching staff and students with academic and social institutions from different countries" (UNAN-MANAGUA, 2015) established in the Institutional Strategic Plan 2011-2015.

Internationalization can be achieved from research. For example, the publication of research on knowledge networks and academic exchange generated from the Graduate Unit will be a springboard to increase the reputation of our Graduate Unit. Also, Graduate Unit can achieve Internationalization through courses and programs in partnerships with universities, technical schools or other companies in Central America.

The diversification of graduate from the perspective of internal processes should be exploited for the internationalization function, through the offer of graduate online courses for students from other countries, after a study of the demands of this new customer.

**The main conclusions are detailed below:**

The Universidad Nacional Autónoma de Nicaragua (UNAN-MANAGUA) generally discloses its mission vision, goals and strategies in the Institutional Strategic Plan 2015-2019. Nevertheless, there are no Graduate department own strategies. FAREM-CARAZO has a Graduate Unit, but must make education and student community take ownership of the mission and vision of this unit since they are closely related.

An assessment of external and internal factors of Graduate Unit based on various instruments of data collection such as interviews, document review, observation, among others, were conducted to develop the External and Internal Evaluation matrix and SWOT which allowed the Strategic Plan proposal for the Graduate Unit.

Achieving quality in higher education is a challenge accepted by our university and its decentralized bodies, but requires the establishment of strategic planning in each of its dependent areas. This study proposes a Strategic Plan for the Graduate Unit and at UNAN-MANAGUA, FAREM-Carazo, which claims to be the way to achieve the strategic goals of the University.

**REFERENCES**


