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***Estrategia para fortalecer la comercialización de los servicios científicos desde la Universidad de Guantánamo***  
***Strategy to strengthen the commercialization of scientific services from the University of Guantánamo.***

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**Resumen:** El trabajo es resultado de años de contribución al financiamiento de la Educación Superior, a través del proceso de comercialización desde la Universidad de Guantánamo. Con el objetivo de fortalecer dicho proceso fue necesario concebir una estrategia participativa, para ello se propuso incentivar la cultura del profesorado en la promoción del crecimiento económico, sostenido, sostenible, pleno y productivo como se plantea en la Agenda 2030 y los objetivos de desarrollo. Se trabajó para alcanzar niveles superiores de satisfacción y fidelidad de los clientes. Se realizaron exploraciones empíricas, evaluadas con los resultados del método criterio de especialistas beneficiados con la propuesta.

**Palabras clave:** Estrategia participativa; Comercialización; Educación Superior; Universidad de Guantánamo.

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**Abstract:** The work is the result of years of contribution to the financing of Higher Education, through the commercialization process from the University of Guantánamo. In order to strengthen this process it was necessary to devise a participatory strategy, for this purpose it was proposed to encourage the culture of the faculty in promoting economic, sustained, sustainable, full and productive growth as set out in Agenda 2030 and the development goals. We worked to achieve higher levels of customer satisfaction and loyalty. Empirical explorations were carried out, evaluated with the results of the criterion method of specialists who benefited from the proposal.

**Keywords:** Participatory strategy; Commercialization; Higher Education; University of Guantánamo.

## **Introduction**

Higher Education Centers in Latin America and the Caribbean face extraordinary challenges to achieve sustainable economic development. One way to protect education is that universities have as their main source of funding the state budget, which has been growing in recent years, based on draft budgets submitted by each ESC, because they are all state-owned and access, as stated in the Constitution of the Republic, is universal and free, but it is a current requirement to contribute significantly to their self-financing.

Universities possess potentialities from Science that should support these efforts, in this sense Fidel referred:

Science and the productions of science must one day occupy the first place in the national economy. But starting from the scarce resources, especially the energy resources we have in our country, we have to develop the productions of intelligence, and that is our place in the world, there will be no other; all these that derive from the effort we are making in research and in the products of research, because in that we can compete with Japanese, Germans and all, with whoever they may be. (Castro, 1993, p. 6)

The University of Guantánamo, as part of the Cuban Ministry of Higher Education, possesses potentialities from the scientific-research point of view, which essentially contribute to self-financing, but like the rest of the organizations, it receives the impacts of the environment, which in these times adopts very peculiar characteristics as a consequence of the development of complex phenomena such as globalization, fragmentation of society, neoliberalism, political inequality, which produce negative effects. Therefore, it has been necessary to improve its marketing strategy in order to support and contribute to its self-financing.

It has been necessary to take into account the principles that support the Cuban educational policy for the financing of Higher Education Centers such as: The Cuban State assumes responsibility for the financing of universities, together with the search for new sources on

their part. This political will has made it possible to guarantee that the doors of Cuban universities have remained open, even in times of the most severe restrictions in the material order and another principle is related to the process of concerted and gradual resizing that has been carried out in each of the CES, which has made possible the sustained growth of postgraduate studies and the development of extension activities. Based on them, the following were determined as Marketing objectives:

1. Satisfy the client's expectations, demonstrating professionalism, initiative, good presence and good treatment.
2. Comply with the marketing plan, which is included in the University's Annual Plan.
3. To achieve a culture in the University, which ensures stable excellence and change, making it possible to constantly improve the University, according to the evolution of the market and sensitize the employee of the effect that their performance has on customer satisfaction.

This objective should result in the achievement of satisfied and loyal customers. That is why it is essential to place the customer, his needs and expectations at the center of the analysis and decision making; hence the need to structure a system conducive to enhance this indicator as a central element in the "fight" for the competitiveness of the Guantanamo University, since the measurement criteria and indicators used so far do not reflect in full and with the necessary depth this aspect, hindering the process of making effective decisions with this demanding purpose.

This is even more important if we bear in mind that external client satisfaction is only achieved when the individual and collective efforts of all those involved in the process, from its negotiation to the fulfillment of the contracted actions, are harmoniously coordinated.

In the aforementioned context, the following problematic situation was identified: even though the Guidelines (129, 131-137 and 152) and the objectives of the Party (43, 47, 53, 54, 55 and 65) provide incentives to increase the results of research and development with high relevance and the necessary management to guarantee innovation and increase the impact on the environment: (43, 47, 53, 54, 55 and 65), there is an incentive to increase the obtaining of research results, development with high pertinence and the necessary managements that

guarantee the innovation and the elevation of the impact in the economy and society, the teaching staff in the Basic Units of marketing are not sufficiently prepared to fulfill the proposed objectives and require theoretical-methodological and practical preparation that allows them to regulate their behavior in function of the actions in their environment. For these reasons, it is determined as a *scientific problem*:

How to contribute to the strengthening of the Commercialization of Scientific Services from the University of Guantánamo?

Objective: To propose a strategy that contributes to the strengthening of the Commercialization of Scientific Services from the University of Guantánamo.

## **Development**

**Heading 1:** Commercialization in support of the substantive processes of the Ministry of Higher Education.

The Marketing system designed for the University of Guantanamo is based on four main elements: the market, the needs of society and customers, integration and profitability; it is intended with the application of the proposed tools:

- Diagnose training and scientific-technical service needs to determine business opportunities with customers.
- Evaluate the satisfaction of external clients in order to increase their loyalty.
- Make relevant decisions and formulate strategies for the gradual improvement of business management and service quality.
- For this purpose, the indicators proposed by the Ministry of Higher Education were taken as a reference to project a sustainable development in accordance with social demands, among which are:
  - The implementation of Management by Objectives (MBO) and subsequently the strategic direction as a feasible way to achieve the University of the future.

- The management of projects and donations as an activity that brings material and financial income to the Higher Education System.
- The compensated undergraduate activity, which constitutes a source of freely convertible currency.
- Software production and commercialization.
- The establishment of International Graduate Studies as a source of income.
- Creation of the Havana International Center (CIH) in 1999 as a consulting and auditing house to manage income in national currency and foreign exchange.
- Creation and strengthening of Technology Transfer Offices.

The strategy was designed from the commercialization group with the direct participation of all its basic units. It is located in the Vice Rectory of Science, Innovation, Postgraduate and International Relations Management, and acts as a support process to the substantive processes of the MES in order to fulfill the mission of working for the completion of the science cycle and the strengthening of the necessary innovative processes through the commercialization of the scientific productions and academic services of Guantánamo.

In order to increase the quality levels of the substantive processes of higher education, the commercialization strategy is inserted in the: ARC 3. For the conformation of the strategy it was necessary to determine the weaknesses, threats, strengths and opportunities present in the UG, which can favor or delay the commercialization process, among which the following are mentioned:

### **Strengths**

1. Existence of highly qualified professionals in the different Basic Commercialization Units (UBC) of the University.
2. Experience in scientific advisory services, training, consulting, professional development and other products and services in different companies and institutions.
3. Existence of agreements with different Cuban and foreign universities.

## **Weaknesses**

Low participation of the teaching staff of the different UBCs in training activities and scientific-technical services.

Lack of systematicity in commercial management.

Insufficient market research.

Insufficient promotion of the products and services offered by the University.

## **Threats**

New forms of business realignment in the province that limit economic independence.

Political - ideological and competitive scenario that limit the transfer of technologies and sources of information.

Existing competition with their own institutions and with other centers with common objectives in training.

## **Opportunities**

Implementation of the Economic and Social Policy Guidelines of the PCC.

Needs for training and updating of workers and specialists in the enterprises and the existence of a budget for its realization.

The process of university integration.

## **Heading: 1.2 A way to participate in the improvement of the country's economy**

The strategy that is modeled is based on the following criteria to make it truly participative: to approach humanistic and developmental education, to assume the perspective of the other, to promote communication through dialogue and to favor human growth. For these reasons it is proposed as Mission: To form and overcome revolutionary, competent and humanist professionals, in correspondence with the level of demand of the economy, and the services, sustained in science and technology, through the management with quality of the university processes; within which are the commercialization of goods and services of the University of Guantánamo from a participative project.

**In its structuring, four fundamental stages are conceived:**

**First Stage Diagnosis:** allows to determine the educational needs of the teachers, in order to accurately direct the marketing process, with the objective of establishing an integral diagnosis that reveals the individual and collective educational needs, as well as the domain of the market study in its environment.

The starting point for the implementation of the strategy is the diagnosis. With the intention of making the process participatory, it is suggested to use the triple self-diagnosis because it gives the possibility of appropriating the reality to have information about a given situation, to distinguish between the conditions of the context and the actions that could be undertaken to modify the initial situation; therefore, there is a cross of information that allows recognizing the contradictions between what they think and do, between what they know and do not know, which favors the enrichment of the initial practice. The personnel who participate in the triple self-diagnosis become aware of reality in a different way, which is why the information obtained is so significant.

**Second stage: Planning:** in order to achieve the proposed objectives, a set of actions are planned, aimed at designing training actions for teachers to contribute to the improvement of marketing in each territory.

**The third stage, Execution:** is the materialization of the actions planned in the previous stage, to contribute to the transition from the actual state to the desired state. Its objective is to prepare teachers to contribute to the improvement of marketing.

**Fourth stage, Evaluation:** to evaluate the process and the final results of the strategy: to verify the impact and changes achieved during the conception and implementation of the strategy.

Next, we list some actions developed in order to commercialize the scientific services of the University of Guantánamo, among them:

1. Elaboration of promotional materials of the main scientific-technical services provided by the UG for distribution by companies.

2. Elaboration of the strategy and the rules and procedures for marketing in the UG updated by years.
3. Systematic exchanges of the Rector with businessmen and managers of institutions in the province to strengthen working relations and promote the main services provided by the UG.
4. Organization of fairs to present the main scientific results of UG professionals to the province's businessmen. The awards obtained are highlighted.
5. Visits to companies, organizations and institutions of the province to diagnose training needs.
6. Evaluation of customer satisfaction in the different services provided in order to progressively increase quality and achieve a better adaptation to customer needs.
7. Carrying out commercial balances with the representatives of the UG areas to evaluate the fulfillment of the income plan and stimulate those with higher incomes.

#### **Indicators to measure the strength of the strategy**

- Achievement of a culture of commercialization of scientific services at the University, which ensures stable excellence and change.
- Customer satisfaction demonstrated by professionalism, initiative, good presence and good treatment.
- Compliance with the Annual Marketing Plan, including that of the University and the CIH.

#### **Impact of the participatory marketing strategy**

The work algorithm followed was structured in three stages, as explained below:

**First stage:** Advisory work with managers.

**Second stage:** Advisory work to UBC professors.

**Third stage:** Work with the actors of the process in the companies of the territory. The partial and final evaluation of the participatory strategy allowed for a thorough analysis of the three objectives and indicators initially declared related to: the achievement of a culture

in the University, which ensures stable excellence and change, which makes it possible to constantly improve the University.

The evolution of the market was evaluated, taking into account that academic services, lines of research and technological innovation close cycles by valuing and making available scientific and technical products and services marketable in the socio-productive environment in different modalities that can be: Courses, Trainings, Consultancies, projects, valuations, applications, transfer of technologies and technical assistance, in contribution with formation of the work force in correspondence with the current demands and the development of the country, particularly with the sustainable development of Guantánamo.

The achievement of a culture in the teaching staff in relation to Marketing, allowed reaching higher levels of customer satisfaction and loyalty, compared to previous stages, mainly because the customer was placed in the center of the analysis and decision making, taking into account their needs and expectations, considering as essential that the external customer satisfaction is only achieved when the individual and collective efforts of all those involved in the process are harmoniously coordinated, from its negotiation to the fulfillment of the contracted actions.

The market study that developed by the specialists of the marketing department and its different UBC since 2017, 2018 2019, allowed the study in more than 250 companies, UEB, UBPC.U/P among other forms of the State and Non-State sector, concretizing the development of 112 contracts, 10 of them in CUC, which favored the result achieved in the current year. The services provided by the UBCs that executed contracts and allowed income in CUC for the University are significant, such as: Training and Systematization of the Project "Support to the Cocoa Production Chain in the Rural East", developed by FICT and VRIP, the Training services in the Guantánamo Hydroenergy Company, executed by FICT- VR1ra, VRFP the Language Course, developed by FCSH and International Relations.

The evaluations made allow us to ensure that the UG faculty has achieved greater awareness of the effect that their performance has in meeting the expectations of customers, demonstrating professionalism, initiative, good presence and good treatment.

The evaluations made by the participants, after the methodological workshops conducted by the researchers, showed that 100% of the managers and professors achieved a better understanding of the importance of marketing the University's goods and services. The methodological workshops had an impact on the integral attention to the marketing process.

The systematic exchange with the actors of the commercialization process in the UBC and in the companies of the territory allowed: to satisfy the expectations of the client, demonstrating professionalism, initiative, good presence and good treatment. To significantly advance in the fulfillment of the revenue plan for the commercialization of scientific-technical services, as well as to work for the achievement of excellence in the University, which ensures stable change, according to the evolution of the market and to sensitize the worker of the effect that his performance has on the satisfaction of the clients?

The values of solidarity, cooperation, humanism, coherence among the actors of the commercialization process were strengthened in all the UBCs, through all the actions carried out to raise the economic culture and self-financing of Higher Education.

The income achieved in 2011 from the commercialization of scientific and academic services was: 196 159.27 CUP for 39.2 % of the agreed annual plan (500 000.00). At the end of 2013: \$ 84954.37; of them in CUC 22791 (income from international projects 12494.29 and donations for projects 10297.00), over fulfilling the plan in that currency.

In 2014, \$95570.89 was received, with a difference of \$10616.52 with respect to the previous year. The same were achieved by concept of technical scientific services 55579.23 CUP and 540.00 CUC, for international projects 17420.66 CUC, Donations for projects 21892.00 CUC, Provincial Pedagogy Event 2015 a total of \$ 9220.00 CUP, National Event of the FCF \$ 4400.00 CUP, Provincial Event of Quality \$ 2219.00 CUP.

At the close of 2015 it is noted that contracts were signed with 71 companies, entities and legal entities with a total of 213 training services. In CUC 14 services were contracted with 28 actions, which allowed income in total currency for scientific-technical services in the amount of \$ 211 446.80, which represents 88.3% of the annual plan; of them in CUC 8684, over fulfilling the plan in that currency.

The growth experienced in total currency in relation to the previous year was \$ 83 236.53, representing a 254 % growth. In 2016, 53 contracts were made and 5 were supplemented for a total of 58 contracts. It was possible to market with 48 companies and 4 foreigners for a total of 52, with a total of 174 training actions. We collected \$ 198 550.16 CUP and \$ 1 110.00 CUC, which contributes to the financing of Higher Education.

The year 2018 was significant for our university because a Revenue Plan of 215000.00 CUP was proposed and we managed to capture 244495.98 for 113.7% compliance and of them 12426.20 CUC. For CIH 135000.00 CUP and 6000.00 CUC.

In addition, 10 Commercial Exhibition Fairs were developed by the different UBC with excellent quality, where the following stand out: Expoguaso 2015, Guantánamo Innova 2015, 2016, 2017, Award: Best stand fair), 11 National Workshop on Business Management and Public Administration and University 2016, which served to promote and contract services with companies in the territory, such as: Desoft, Marketing Company, Divep, Generator Set, Citma, Micons. Quarterly balance sheets were designed to check the management of the UBCs, which favored the awareness of teachers and managers with the task in question.

Unanimous recognition of the Board of Directors, of the different political and mass organizations of the University to the Marketing Department for the results of work achieved in 2014 and 2015, 2016. The results of the work were socialized in the Diploma of Communication and Popular Education (June 2015) at the University of Guantánamo and received recognition for the Best Work. Award at the Provincial Forum, for its contribution to the self-financing of the University. (June 2015 and 2016).

## **Conclusions**

The main reflections in relation to commercialization point to the need to achieve a protagonism based on the active, responsible, shared and committed participation of its actors, being able to use methodological tools of Popular Education to influence the conscience of the participants and thus contribute to the achievement of the objectives outlined by the University.

The participatory strategy is viable and ensures that from an ethical-political-legal and organizational-methodological perspective it contributes to the improvement of the commercialization and self-financing of Higher Education. It is recognized that the actions proposed favor the strengthening of the Participative Strategy of Commercialization of the University of Guantánamo.

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