



Human Resource Development in Faculty of Physical and Chemical Mathematical Sciences: Technical University of Manabí (1998-2018)



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Abstract

The research was intended to show an assessment of the need for human resources development through systematic and transparent management that allows directing and evaluating the performance of the faculty of science, mathematics, physics and chemistry in terms of quality and social satisfaction in the provision of services, managing to prioritize management by processes, managing to guide the organization to achieve academic excellence. The descriptive method, the evolutionary method, and the logical historical method were used to determine the evolution of the *Faculty of Mathematical, Physical and Chemical Sciences (FCMFQ)*, its description in the university environment stating its evolution by stages demonstrating how it is in the current stage of development which continues to strengthen its human resources.

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1. Introduction

The Technical University of Manabí (UTM) is an institution public located in the city of Portoviejo, in the province of Manabí, which was founded by the presidential government of Dr. José María Velasco Ibarra. Its three substantive functions are Teaching, Research and Linking with society; intervening with quality in all public and private spheres and sectors of the territory through the support of students, teachers, and authorities ([EcuRed, 2018](#)).

The steps for the creation of the university were in charge of Senator Emilio Segundo Bowen Roggiero, by Legislative Decree of October 29, 1952, starting to work on June 25, 1954, being the first rector of the institution the Engineer Paulo Emilio Macías Sabando ([EcuRed, 2018](#)). The highly technical function of the university, the foundations of the decree of creation, external pressure and many other reasons weighed in the spirit of the Honorable University Council so that by agreement and after a careful study entrusted to several of its members, the *Faculty of Mathematical, Physical and Chemical Sciences (FCMFQ)* on October 13, 1958, beginning its activities on May 4, 1959 with two schools: Mechanical Engineering and Electrical Engineering.

Currently the work of the institution is directed in the search of the relationship between human talent management and its relationship with work performance, seeking to obtain information on the importance of criteria to achieve quality levels in the development of human resources in the Faculty of Physical and Chemical Mathematical Sciences, defining to what extent it influences the improvement of the work performance and in this way to be able to optimize the resources generating positive results in good of the organization and of the same worker.

The objective of the work is to promote the analysis of the importance of human resources development through systematic and transparent management that allows directing and evaluating the institutional performance of the entity in terms of quality and social satisfaction in the provision of services ([Martini et al., 2017](#)). Where it is possible to privilege management by processes, managing to guide the organization towards students, converting public servants into the true engine of the institution, achieving with process management, that all the people involved in it, be aware of the importance of their work and the improvement of their functions, seeking excellence, that is, achieving motivation in the staff to be consciously involved in the fulfillment of the substantive functions of the institution: teaching; research and the link with society ([UTM, 2018](#)). Human resources are fundamental assets within an organization, generators of value and competitive advantage. The situation that the organization is experiencing leads to workers feeling overburdened with work, which can lead to demotivation of them, hence the importance of applying human resources management techniques in the processes.

2. Materials and Methods

The descriptive method, the evolutionary method, and the logical historical method were used to determine the evolution of the FCMFQ, its description in the university environment stating its evolution by stages demonstrating how it is in the current stage of development which continues to strengthen its human resources.

3. Results and Discussions

3.1 Development and evolution of the Faculty of Mathematical, Physical and Chemical Sciences

The first dean of the Faculty of Mathematical, Physical and Chemical Sciences was the engineer César Delgado Otero who, with his organizational skills in his two periods, came to place the Faculty in an honorable

place. He took care to recruit good professors and excellent teams of laboratories, in accordance with the purpose of training eminently technical professionals in their respective specialties, which promote the development of the country and the use of resources (EcuRed, 2018).

In February 1964, the Faculty offered its first ten graduates: 7 in Mechanical Engineering and 3 in Electrical. As of that year, the curricula undergo a positive change, fixing the careers in six years. For the 16 of May of 1970, the schools of Civil Engineering and Industrial Engineering are created and work to give answers to the agroindustrial model and of development of waterworks of Manabí and of the Country. The Chemical Engineering career project was approved by the Honorable University Council in session on August 25, 2003, after which the Chemical Engineering Course began its academic activities in April 2004 (EcuRed, 2018).

The criteria to achieve quality levels in the development of human resources in the Faculty of Mathematical and Physical Sciences require activities and processes necessary for the strategic management of human talent, material, and economic resources so that these are in the amount adequate, in the right place and at the right time.

3.2 General criteria

The development and sustainability of current organizations are based on intelligent management of human talent management; its mission is to integrate people in a common project, in the planning, action, results, and evaluation of the processes. Few areas have a more immediate and lasting impact on organizations that the people indicated, with integral conditions and strategically located in tasks for which they are capable.

Human Talent makes organizations progress, is responsible for quality control, design, produce, distribute products and services; without people, the objectives are hardly achieved. The people, their values, their improvement, and their development is the key. Despite this, leading or directing human talent turns out to be a complex task. It is about discovering the skills of each member and managing to maintain integral, human and competent people so that they develop not only individually, but as a team and seeking the best performance that benefits the company. Who manages the management of human talent must plan, organize, develop, coordinate and control.

It is no secret to anyone that the work done with others defines the quality of an organization's environment. In fact, in current organizations, the central resource has to do with human talent, precisely because it is the people who give meaning to the being and make it. From their way of living and coexisting will depend not only the quality of life of each individual but also will affect the processes that are planned, lived and developed there. The management of human resources is a subject addressed in the literature by many authors, according to (Fuertes & Camarero, 2002), is a very important process and depends largely on the man and the way in which his work is directed by the different levels managers.

Although the competition in the markets takes place between companies, it is in the integration of the resources where the capacity that gives them a sustainable competitive advantage is created. The integration is carried out mainly by workers. Therefore, there is a fundamental need to provide workers with the necessary skills to work efficiently, while at the same time they must be given responsibility to be considered true promoters of the company's success, it should be noted that human resources are the most important. the central pillar on which all the capacities that entail the achievement of a sustainable competitive advantage are supported.

The mission, vision, organizational objectives, values, and culture constitute a complicated context within which people work and interact within organizations. Organizational socialization is the way in which the organization receives the new workers and integrates them into their culture, their context, and their system so that they can behave according to the expectations of the organization (Chiavenato, 2008). In this process, the most important thing is that there is a socialization program that allows workers to be inserted and that they feel oriented with the tasks they must carry out and motivated (presentation, advice on work functions, among others).

People work in organizations performing a certain job. In general, when you want to know what a person does in the organization, they ask what position they hold. The position is made up of all the activities carried out by a person (the occupant), who are included in a unified whole and who appear in a certain formal position in the organization chart of the company. So, to carry out their activities, the person with a position

must have a defined position in the organization chart. The position of the position in the organization chart defines its hierarchical level, the subordination (to whom it is responsible), the subordinates (on who exercises authority) and the department or division where it is located.

Job design is the process of organizing work based on the tasks necessary to perform a specific job. Job design includes job content, occupant qualifications, and rewards for each position, to meet the needs of employees and the organization. Post design is the information used to structure and modify the elements, duties, and tasks of certain positions. Job design is the organization of tasks and the repetitive activities of a position and the qualifications needed by the occupant, as well as their position in the organization of work as a whole.

This shows that the human factor and the human resources management process has to be an integrated and planned process so that it can be effective. For this to happen it is necessary to have control of all the subprocesses that compose it. Globalization and rapid change in technological processes and knowledge have forced to change the focus of human resources management, in various subprocesses, especially in training, skills, selection, and planning (Almada, 2000).

Operational and bureaucratic to strategic, from monitoring and control to association and commitment, short-term and immediate long-term, from administrative to consultative, from the focus on the function to the business focus, from the internal and introverted approach to the external approach and in the client, from a proactive and preventive reactive character and problem solver, from the focus on the activity and the means to the focus on results and ends (Chiavenato, 2008). There are many authors who have proposed models, procedures, methods, methodologies and tools that allow audits to human resources management, which allows the realization of diagnosis to make strategic planning of these resources, including (Aguilera-Veja, 2018); (Vázquez-Zarate, 2011); (Pilataxi, 2015). In general, all agree that the human resources management process is composed of various functions: planning, job design, recruitment, selection, socialization, training and development, performance evaluation and compensation; and that his diagnosis is very important to draw strategies and make decisions.

For the realization of the diagnosis of human resources management, the model of (Chiavenato, 2008) is selected. Figure 1 shows the different stages that make up the same. The model takes into account that there are internal and external factors that influence the different processes and six subprocesses are described: the process to integrate people (recruitment and selection), process to organize people (job design and performance evaluation), reward processes (remuneration, provision and incentives), development processes (training and development), motivation processes, and the audit, as well as the final results that are expected

The maximization of the quality of the productive process depends in the same way on the training of human elements to make their knowledge more valid. Communication is important in all types of organizations and the manager and educational administrator must define the communication channels that exist in their educational center, whether formal or informal and make the best use of them.

4. Conclusion

The organizations are of any denomination, nature, and size, must have control of human resources trying that this is efficient and effective. The Human Talent Administration seeks to couple the human resource with the administrative and financial processes of the institution, making the latter more efficient as a result of the selection and hiring of the best talents available based on the exercise of an excellent work of these.



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