Academic and administrative management models in virtual universities

Modelos de Gestión académico administrativo en universidades virtuales

Modelos de gestão acadêmico-administrativa em universidades virtuais

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Abstract: The research conducted underlies the identification of endogenous and exogenous factors present in the academic administrative management of the faculty of business sciences of a Colombian higher education institution, distance and virtual modality, the Mixed methodology with contextual integration design, the work was carried out with managers of undergraduate and graduate programs of that faculty; The role of teachers, professors, managers and administrators in the academic and administrative management with the values of the realization and implementation of models that transform the realities of each stratum, the duality in the achievement of strategies in management structures Type A, B where the economic, political, social and environmental factors determine the type of management, the rigid structure, involves that the participants are directly articulated with the core business, which requires that its dynamics must be directly articulated with the core of the business, The recommendations focus on involving mechanisms in the assessment of managers to achieve an understanding of their role, starting from identifying indicators of efficiency, effectiveness and oriented to the achievement of the present management, focusing on establishing a determining role of self-evaluation with functions of direct and innovative participation in the management, inclusive, relevant, collaborative.

Keywords: Academic management practice, Administrative management practice, Managerial leadership, Endogenous and exogenous factors.

Resumen: La investigación realizada subyace en la identificación de los factores endógenos y exógenos presentes en la gestión académico administrativa de la facultad de ciencias empresariales de una institución de educación superior Colombiana, modalidad distancia y virtual, la metodología Mixta con diseño de integración contextual, se realizó el trabajo con directivos de los programas universitarios y de posgrado de dicha facultad; se logró evidenciar y rescatar el papel de los docentes, directivos docentes, administradores de la gestión académico administrativa con los valores de la realización y puesta en marcha de modelos que transforman las realidades de cada estamento, la dualidad en la consecución de estrategias en estructuras de gestión Tipo A, B donde los factores

económicos, políticos sociales, ambientales determinan el tipo de gestión, la estructura rígida, involucra que los participantes estén directamente articulados con el core del negocio, lo que obliga a que su dinámica se convierte en una constante en la gestión, que parte de una comunicación de arriba hacia abajo, las recomendaciones se centran en involucrar mecanismos en la valoración de los directivos para lograr un entendimiento de su función, partiendo de identificar indicadores de eficiencia, eficacia y orientados al logro de la gestión directiva presente, se focaliza en establecer un papel determinante de la autoevaluación con funciones de participación directa e innovadora en la gestión, inclusiva, pertinente, colaborativa.

Palabras clave: Práctica de gestión académica, Práctica de gestión administrativa, Liderazgo directivo, Factores Endógenos y Exógenos.

Resumo: A investigação realizada está na base da identificação de factores endógenos e exógenos presentes na gestão administrativa académica da faculdade de ciências empresariais de uma instituição de ensino superior colombiana, da modalidade à distância e virtual, da metodologia mista com desenho de integração contextual, o trabalho foi realizado com gestores da universidade e programas de pós-graduação da faculdade; O trabalho foi realizado com gestores da universidade e programas de pós-graduação da faculdade; o papel dos professores, gestores, administradores da gestão académica e administrativa com os valores da realização e implementação de modelos que transformam as realidades de cada estrato, a dualidade na realização de estratégias nas estruturas de gestão Tipo A, B onde os factores económicos, políticos, sociais, ambientais determinam o tipo de gestão, a estrutura rígida, implica que os participantes sejam directamente articulados com o núcleo da empresa, o que obriga a que a sua dinâmica seja directamente articulada com o núcleo da empresa, As recomendações centram-se no envolvimento de mecanismos na avaliação dos gestores para alcançar uma compreensão do seu papel, partindo da identificação de indicadores de eficiência, eficácia e orientados para a realização da gestão actual, centram-se no estabelecimento de um papel determinante de auto-avaliação com funções de participação directa e inovadora na gestão, inclusiva, relevante, colaborativa.

Palavras-chave: Prática de gestão académica, Prática de gestão administrativa, Liderança gerencial, Factores endógenos e exógenos.

INTRODUCTION

According to Oplatka (2019), points out "The emergence of educational management as a field of study in Latin America", a center of analysis from the leadership of university managers in Anglo-American nations; the findings focus on identifying that there are no similarities in the development of knowledge on administrative management, each HEI has a particularity with the organizational environment, the subject of academic administrative management, is a field that involves new challenges for the managers of university Institutions, according to Martínez, Tobón, & Romero (2017), who focuses the role of academic

administrative management in the research exercise seeking to resolve concerns about the role of quality accreditation of higher education as an educational challenge in Latin America.

In relation to the great dilemma of academic administrative management, its importance in the educational process in universities is increasingly prevalent, for Pérez & Pino (2018), the role of educational management in the generation of new knowledge becomes a strategic instrument, where science, technology, and innovation are key components of universities, aspects that become international demands articulated with UNESCO guidelines, relating how problems can be solved from a strategic culture that starts from improving leadership practices in South American universities. (UNESDOC, 2018)

Studies carried out in Colombia, such as the work of Orjuela, & Goyeneche, (2016), called "Leadership styles in university positions, descriptive study with women managers", recognizes from the perspective of the authors the leadership styles in university positions, a descriptive study of quantitative type is presented whose population are women managers of Colombian HEIs, there, the relationship between social and demographic variables with the leadership styles of women in charge of university management is proposed, according to Anthony (1989), its relationship with the constitution of society, conglomerates socio demographic factors related to imaginaries of men and women; but that Barrera, & Reyes (2013), there are moral dilemmas and their associated factors, where the role of ethics in the management of higher education institutions is associated in the work of the manager of universities; it should be noted that the factors associated with managerial practice recognize global changes; for Peñalvo (2016), the university must be prepared for the new population it serves, the universities of the twentieth century, adapt to the students of the twenty-first century, in turn, defines the management and business models based on the virtualization of training and an orientation towards the labor market.

Regarding the labor relationship in educational institutions, Del Pino Murguía, & Castillo (2005), reaffirm that the relationship between the organizational climate with the control and management of managers, generates a systemic change in the development of labor proposals in universities that adapt to the demands of the time, in the study proposed by Alzate, F., Chaverra, L. & Arango, E. (2005), Chaverra, L. & Arango, E. (2020), it is representative that university directive management has associated and interrelated paradigms that are not implicitly, however, this study begins by recognizing the tacit knowledge of teaching managers when they face new challenges and their ability to adapt allowing to know their application scenario, in this approach to the state of the question for Flórez, Molina, & Daza (2018) management styles in higher education institutions have a great value, where the type of institution, its character if it is public or private, if it is small, medium or large, these scenarios diversify the installed capacity generated, continuous improvement, process maps or value chains, the core of the business are not discarded.

Cabrera (2006), states that the management in universities must establish a guideline that is effective without forgetting the educational purpose, which from the leadership applied in each role and manager involved must be clear, however, Pinchi & Diaz (2018), relates the academic administrative management that goes hand in hand with the educational quality and the conditions that its offer proposes, regardless of the area of knowledge where there is the relationship with the correlational value from how its participants manage to account for a purpose in accordance with its object and value, this for Casassus, J. (2002), becomes one of the problems present in the academic-administrative management in Latin America, there is always a tension between the paradigms of Type A and B management, because managers tend to always relate the one that locates their social political context, where the need for a marked leadership invites to react with precise actions in educational planning, when referring to why university academic scenarios stand out for instruction and operation, it is an environment that must structure a search for identity, organizations are compared, they are glimpsed with those that are successful, performing an inadequate benchmarking framework when the selected profile is not understood.

paradigm A and B are established, paradigm A represents a stable universe, the assumptions about the human being are of a trivial type and those referring to the context, which are invariant, correspond to

change which is gradual and aligned with the pre-established objectives, its management is of a linear rationalist technical type, while paradigm B is represented by an unstable universe; the assumptions about the human being are non-trivial and those referring to the context are fluid, complex and changing, but its transformation has high and low results of qualitative type, likewise, the management incorporates diversity, it is emotional, non-linear and holistic, it must be recognized then, which is the type of institutional management, In accordance with the above, Kotter (1997) has defined that the manager is the one who sets the coordinates, establishes a line in his management, determines the time for each action of his team, and achieves in a conducive manner to achieve objectives.

According to Moore (2002), creating a strategy for understanding academic and administrative management begins by recognizing the governance structure, a clear example of which is the Kennedy School of Government at Harvard University; There, the function of educational managers is that of "a creator of public value", however, Contreras (2004), there is an important value in leadership, where the complexity lies in how to face the role as a manager, how to place oneself in the now of the institution, it is crucial to understand that each scenario shares an adequate parameter of association, a crucial aspect in academic management, For Cassasus (2000), strategic management is the ability to perform an analysis of the institutional implications, identifying which are the key actors that allow the organization's management to be evaluated with each component, which in turn will allow identifying a clear route to achieve the proposed objectives, establishing the phases to be implemented.

Without forgetting what Longo (2002), states about the role of political management, which is a capacity that every manager develops to establish responsibilities, it means the understanding of norms and educational policies, these, manage to establish leadership, looking for specific allies so that they can contribute to the development of the institution, Mosquera (2012), a complement to this postulate, is given in the organizational analysis from the social management, as the contributions of the recognition of actors, hierarchies, explicit moments of the governmental application determine the clarities in the decision making, in the prioritization of educational problems, participation and leadership.

According to Muñoz (2005), in higher education institutions, the development of governance principles prevails, where each one identifies its political regulations and norms on which it advances, the science corresponding to the area or areas included in the profile it offers, starting from the needs of its context, the contribution of its developments in science and technology, from the role of research, Karina, & Raudel (2018), the role of technological updating focused on the benefit of decision making becomes an aspect that organizations can promote in their organizational leadership culture, where each manager to have a number of strategies focused on promoting the planning, monitoring, follow-up and control of organizational bets, an example that typifies this decision making and that contemplates endogenous and exogenous factors is in the balanced score card when a scorecard focused with strategic and operational challenges focuses on the model applied to their development

To strengthen the above mentioned, Cattell (1951), highlights that in a management team there may be unitary leaderships that, as the authority, achieve the execution of works, influence the definition of initiative, establish the necessary roles, agreeing the scopes of the development of their activities, where they perform as workers of the educational organization, for Juárez, Contreras, & Barbosa (2013), the institutions commonly address forms of leadership, their variables and identification of developments, lead to perform a systemic application in the development of a management focused on indicators, according to Luthans (2008). Barbosa (2013), institutions commonly address forms of leadership, their variables and identification of developments, lead to a systemic application in the development of a management focused on indicators, according to Luthans (2008), the behavior of organizations turn participants into leaders with their actions, some with roles within universities without command but with influence, which may be positive or negative, depending on the understanding of institutional goals.

As a synthesis contribution Acevedo, & Aravena (2009), specify how the effect of communication, the value of challenges, beliefs, leadership styles are focused on the phenomena that become visible, the achievements and commitments added to the managerial functions, the role of the leader, the results of self-evaluations as guidelines for decision making, the state regulations provided for the organization; These generate a high degree of academic compliance, providing adequate support to teachers, coordinators and directors, thus leading to a total fulfillment of goals (Tünnermann, 2005).

The objectives carried out in the study were given from identifying the factors that underlie the academic and administrative management practices in the undergraduate and graduate programs in the faculty of business sciences of UNIMINUTO Virtual and Distance Learning in the period 2017 to 2020, after conducting a respective analysis of the factors that affect the academic and administrative management practices in the undergraduate and graduate programs, to propose strategies for continuous improvement in the academic and administrative management practices of the programs of that Unit.

MATERIALS AND METHODS

According to Hernández and Mendoza (2008), they propose that the mixed method be applied to contextualize, thus providing the study with a more complete, deeper and broader context; with the data obtained, we were able to generalize and validate.

The Mixed approach of exploratory design; for Sampieri (2018), the implication of studies that relate the qualitative and quantitative method allows in a dual way to achieve the use of instruments that satisfy the depth of the results; in the same way, the exploratory design recognizes the intervention in the areas of knowledge where the study will be carried out, starting from structural and non-structural variables, which allow the recognition of the results.

The contextual integration design, allows to see a complete reality, with a wide level of depth but that allowed the understanding of the phenomenon; the specific case will allow to generalize relevant aspects of the study, non-experimental allowing from the search in different associated sources, documentary review, integration of independent data of the study and a descriptive component when concepts are given that propose an independent and free focused interest on the investigated purpose, this proposal relates the understanding of the phenomenon, its interest and recurrent induction, allow to analyze realities of different subjectivity, non-probabilistic.

a) Phase 1. Fundamental definitions. At this stage, the research categories, operational definitions, type of data and identification of procedures for interpreting written responses and observable behaviors, as well as follow-up and progress indicators were identified and adjusted for the purpose of the study.

a) Phase 2. Focused literature review. The literature review made it possible to articulate the conceptual and epistemological dimensions of the instruments created to develop the research.

b) Phase 3. Identification of the domain of the categories to be identified and their forms of control. With the previous review, categories were identified and pointed out that allow relating the components and dimensions to establish the instruments to be used in the study.

c) Phase 4. Key decision making. The use of the instrument and its refinement were determined, understood as the trial and error of each item, the adequacy and determination of substitution or adaptation according to the context.

d) Phase 5. Construction of the instrument. This involved the generation of items or reagents applied to the categories of analysis.

e) Phase 6. Testing and validation of the instrument. This phase includes the realization of a pilot test consolidating results for the validation of the instrument.

f) Phase 7. Preparation of the final version of the instrument according to the results obtained in the pilot test. To this end, the questions will be validated and adjusted taking into account the results obtained. This allows verifying that the instrument is aligned with the purpose of the research.

g) Phase 8. Selection of material to be used, Corresponds to the appropriate means of dissemination according to the instrument, assignment of the instrument's administration and qualification procedures.

h) Phase 9. Request for authorizations to apply the instrument, informed consents, publication authorizations, among others.

i) Phase 10. Field work, data collection and analysis.

j) Phase 11. Reporting and delivery of results

The population or universe of the study corresponds to a Higher Education Institution in Colombia, called Corporación Universitaria Minuto de Dios UNIMINUTO Virtual y a Distancia, which offers 21 programs (technical, technologists, professionals, postgraduate) in distance mode, with 3 faculties, the population identified for this study will be the directors of each of the units and programs linked in the Faculty of Business Sciences, Directors, Rector and Vice Rector, the sample of the study is intentional, as can be seen in Table No. 5, the people involved are defined as Directors of the Faculty of Business Sciences, of the programs in distance mode, 21 directors linked to the Faculty of Business Sciences, Rector and Vice Rector, the sample of the study is intentional, as can be seen in Table No. 5. The sample of the study is intentional, as can be seen in Table No. 5, the people who participate are defined as Directors of the Faculty of Business Sciences, of the programs in distance mode, 21 directors linked to the IES in Bogota (UNIMINUTO headquarters).

Table 1. *UNIMINUTO Virtual and Distance Rectory Sample Faculty of Business Sciences.*

TABLE 1
UNIMINUTO Virtual and Distance Rectory Sample Faculty of Business Sciences

Faculty Name	Number of programs	Number of directors per program	Associated managers by substantive functions	Administrative Managers
School of Business Sciences	12	10	8	3

Source: Own elaboration.

The research presented two essential moments; the construction and validation of the verification instruments, in the first, direct interviews were conducted with strategic level managers (Rector, Vice Rector and Dean), then a focus group conducted with program directors, for this, it will have as a methodological process to establish the knowledge on strategic academic and administrative management, also applied a literature review through a matrix review of key documents to determine the internal and external factors, Finally, the methodological triangulation in education that from the use of at least two methods, usually qualitative and quantitative, as Morse (1991) argues, which can address the same research problem, becomes an element that articulates the qualitative and quantitative methods, where the respective interpretation is easily achieved according to strata, can be applied from the arranged phenomenology. (Cowman, 1993).

It was carried out with the support of qualitative analysis tools such as NVIVO 12 and content analysis according to the use of sources; Bardín (1986), adds that the marking of indexes and the elaboration of codes suggested from the analysis categories allow the recognition and interpretation of the material. Content analysis is a fundamental part of the development of the research, which will provide the necessary

interpretation for the understanding of the processes; however, from subjectivity, recurrent patterns can be established in the development of the research. Content validity: the instrument was submitted to the review of experts (expert judgment) and by instrument construct (Cronbach's alpha), giving an excellent reliability of 0.96.

RESULTS

The first instrument identifies the factors that underlie academic and administrative management practices in undergraduate programs attached to business schools, based on the Cassasus (2000) model of academic and administrative management. According to table 16, the participating managers show experience in academic and administrative positions with a participation of 23.1% with (7) years of experience in the position, and 7.7% with experience of (10-21) years, and 15.4% with experience between (1 to 3 years), the table refers that the aspects show a management team that shows aspects of development in the aspects of academic and managerial management. The results presented in Table 17, refer to the aspects that account for the profile of the participating managers. To define the academic-administrative management models, which are based on a scale of 5 Very High, 4 High, 3 Regular, 2 Low, 1 Very Low.

Table 2. *Management dimension from the abstract and concrete categories.*

TABLE 2
Management dimension from the abstract and concrete categories

Dimension Scale		N°	%
Abstract	Very low	2	15.4
	Under	1	7.7
	Regular	3	23.1
	High	7	53.8
Concrete	High	8	61.5
	Very high	5	38.5

Source: own elaboration.

According to Cassasus (2000), the abstract (53.8%), represents a stable universe, where the assumptions about the human being are of trivial type and those referred to the context, are invariant, the change is gradual aligned with the pre-established objectives, its management is of linear rationalist technical type, it is important to recognize that the HEI represents one of the Institutions of higher education with an economic solidity that dates back 25 years, where its support and growth is aligned with goals and orientations with high standards, it is certified in ISO 9000 of ICONTEC where its organization is validated by processes where its strategic, tactical and operative levels have a special direction from the instruction.

The assumptions about the human being are non-trivial and those referring to the context are fluid, complex and changing, but their transformation has high and low qualitative results, the institution addresses reengineering processes where its distribution by rectory are determinant with the guidelines in which it intends to grow in the next 5 years.

Table 3. *Determined and indeterminate dimensions*

TABLE 3
Determined and indeterminate dimensions

Source: own elaboration.

The teaching managers, faced with the legal and normative framework to develop their administrative academic management, recognize a rigid, determined, concrete line, which has goals that do not imply risks of diversifying new paths, with an explicit goal-oriented character, ratifying the existence of a top-down communication.

Table 4. *Statistics of the Academic and Administrative Management Models*

TABLE 4
Statistics of the Academic and Administrative Management Models

Model	Media
Normative	3.69
Prospective	3.77
Strategic	3.61
Total quality	3.46
Reengineering	3.77
Communicational	3.69

Table 4 shows that the management models with the greatest concordance with the role developed by the educational and administrative management of the directors who are in charge of decisions in the programs are prospective and reengineering, followed by normative and communicational, and those with the least concordance with the management models are strategic and total quality.

The academic-administrative management models show how teaching managers relate to the integrated factors to develop their academic-administrative management, in which a rigid, determined, concrete line is recognized, with goals that do not imply risks of diversifying new paths, with an explicit character oriented to goals, ratifying the existence of a top-down communication.

Table 5. *Prospective: the management establishes arguments that allow the HEI to achieve visibility through its actions.*

TABLE 5
Prospective the management establishes arguments that
allow the HEI to achieve visibility through its actions

		N°	%
Abstract	Very low	1	7.7
	Under	1	7.7
	Regular	4	30.8
	High	6	46.2
	Very high	1	7.7
Concrete	Under	2	15.4
	Regular	2	15.4
	High	4	30.8
	Very high	5	38.5
Determined	Regular	3	23.1
	High	4	30.8
	Very high	6	46.2
Undetermined	Very low	1	7.7
	Under	1	7.7
	Regular	7	53.8
	High	3	23.1
	Very high	1	7.7
Insurance	Under	2	15.4
	Regular	1	7.7
	High	6	46.2
	Very high	4	30.8
Uncertain	Under	2	15.4
	Regular	7	53.8
	High	4	30.8
Rigid	Regular	5	38.5
	High	5	38.5
	Very high	3	23.1
Flexible	Under	3	23.1
	Regular	5	38.5
	High	3	23.1
	Very high	2	15.4
Up	Regular	4	30.8
	High	7	53.8
	Very high	2	15.4
Below	Very low	1	7.7
	Under	1	7.7
	Regular	3	23.1
	High	7	53.8
	Very high	1	7.7
Homogeneous	Under	1	7.7
	Regular	3	23.1
	High	5	38.5
	Very high	4	30.8
Diverse	Very low	1	7.7
	Under	1	7.7
	Regular	5	38.5
	High	5	38.5
	Very high	1	7.7
One-dimensional	Regular	6	46.2
	High	4	30.8
	Very high	3	23.1
Multidimensional	Under	2	15.4
	Regular	3	23.1
	High	7	53.8
	Very high	1	7.7
Target	Regular	4	30.8
	High	4	30.8
	Very high	5	38.5
Subjective	Under	2	15.4
	Regular	6	46.2
	High	5	38.5

Source: Author based on information collected.

To account for the second specific objective of the analysis of the endogenous and exogenous factors present in the academic and administrative management of the faculty of business sciences of UNIMINUTO UVD, a tool called Nvivo 12 was used. We worked with a tool called Nvivo 12, which is based on a hermeneutic analysis exercise that is made visible with the word cloud diagrams listed below.

The discussion model accounts for the results, which from the management of defined processes, at institutional level manage to describe the role of knowledge, an aspect that is referred to by the experience of the participants, the more years they have been in management positions, the more they have a holistic view of development, it is identified that the knowledge of policies, governance, from the processes that are determined in the work path, factors that favor the results.

The role of the relationship in the management at the external level, it is possible to realize that the units have a management of information that is stratified according to the level, the work by areas, the entities, the permanent control, the regulations mark as there is no value of flexibility and participation, the change of the regulations is an axis of deployment of the strategy at the internal level.

Program management in relation to academic and administrative management, source: own elaboration. The factors that are unfavorable to executive management focus on processes, education, policies, continuity of processes, changes in regulations, programs and agreements, uncertainty due to changes in educational actors.

Methodological triangulation in education allows, from the use of at least two methods, usually qualitative and quantitative, as Morse (1991) argues, which can address the same research problem, it becomes an element that articulates the methods arranged qualitative and quantitative, where the respective interpretation is easily achieved according to strata, it can be applied from the phenomenology arranged. (Cowman, 1993). Triangulation as an analysis procedure for educational research, for Vallejo & de Franco (2009), following the criteria of Rodriguez (2005), each respective scenario or step must be raised, which accounts for the necessary triangulation method, which requires creativity, ingenuity in data collection and interpretations followed by components distributed in the research.

The triangular does not allow variants, it does not mix relations, its adequate use allows that, in a static, integral, deductive, generational way, it manages to interpret a series of sequences, achieving inferences of causality and in causality, as it is represented by the corresponding graph similar to a Star of David that can be read from left to right and vice versa. For the investigation it was applied from Vallejo's model, first making visible the models and instruments implemented, the methodology, the investigation, the instruments, the results, the values of this methodology are related, it manages to dynamize as it is possible to give account of exercises of methodical coherence with the supplied data.

According to Vallejo (2009) in his work "Triangulation as an analysis procedure for educational research", he mentions that according to the criteria of Rodriguez (2005) it cannot be avoided that the application of triangulation requires creativity, ingenuity in data collection and deeper interpretations. Therefore, the researcher must find a logical tendency in the combination of the results, since the validity of a triangulation lies in the ability to organize the components of the research in a coherent framework. As a result of the review of the research components and results, the following two types of triangulation can be observed in the figure above: The first triangulation (Research - Theoretical - Results) and the second triangulation (Instruments - Methodology - Unit of analysis).

Inference number 1, if analyzed from the theorists and their results, which raises the endogenous and exogenous factors, relates as Cassasus, confirms with his instrument that the rigid structural management model, which from the application of tunnerman these capabilities installed in the organization, because the guidelines are applied according to the structuring model, for more depends on the leadership associated with the political, economic, social, legal, ecological factors present in the institution.

the managers from the model analyzed establish that there is no difference, where the traditional distance model unit and the virtual distance model unit do not present modifications in the factors that are concrete and direct, objective and without modifications.

Based on the reflection presented, it is recommended that the institution propose strategies for continuous improvement in the academic and administrative management practices of the undergraduate programs of the Faculty of Business Sciences of UNIMINUTO Virtual and Distance Learning.

Strategy of reasonable adjustments in the work areas; it is requested that the HEI recognize knowledge management to directly recognize the role of the teams and their organizational value, allowing mapping and organizational georeferencing, this establishment is above the manual of functions and aspects declared in human management, it will focus on mechanisms of recognition of non-structuring variables. The Adjustment Strategy stage focuses on the mechanisms of documentary registration, management of repositories, information systems, contributions of continuous work and application of agile methodologies that iteratively deliver results step by step.

Articulation of management regulation mechanisms; in the Colombian educational system system systemic bets are developed, a contribution of which is the guide 34 of the MEN (2008), Guía para el mejoramiento institucional planteado desde la autoevaluación al mejoramiento, in table 29, which gives an account of the institutional aspects to forge a work route and adequate accompaniment to managers who may or may not have experience but this is given on the direct march with which they are approached, This is an example of how a model designed for basic, middle and technical education accounts for the values that can be generated in balanced scorecards that involve control and follow-up mechanisms. In the case of the IES, there are direct tools in the area of program self-evaluation that involve the factors, improvement actions, prioritized to establish operational actions. The so-called operational template, the strategic objectives template, the follow-up to the strategic risk matrix, the linkage and development of these stakes do not allow guiding as the example of the guide to direct actions.

However, this instrument is an articulation management mechanism of the MEN, it is crucial and decisive for Colombian HEIs, if it manages to determine tools such as the balance score card, which achieves a coupling to the academic-administrative management.

Define academic and administrative management indicators, it is necessary to clarify the mechanisms and indicators that will allow the key aspects of performance, among which we recommend Indicators subject to the developments of self-evaluation, follow-up mechanisms, efficiency indicators; where the relationship between the costs of inputs and process products are established, determine the productivity with which resources are administered to obtain the results of the process and the fulfillment of the objectives.

Effectiveness indicators, which measure the degree of compliance with the objectives defined in the Institution's operational models, effectiveness indicators (impact) incorporated in the follow-up battery and management plans on how to measure the satisfaction of citizen or stakeholder needs. quality of service, which refers to compliance with the mission, vision, principles, teaching, research and extension functions, quality of service is a specific dimension of the concept of effectiveness that refers to the institution's ability to respond quickly and directly to the needs of its users.

The IES has implemented a platform called Innovative Talents, which as a human management platform accounts for the results of values associated with the management and evaluation of the work plan of employees, so it would be important to have performance objectives with this characteristic. The SuccessFactor tool for managers will emphasize these elements that will account for their management.

Steps to determine the Indicator Design

Component: Control activities

Element: Indicators

Institutional objective: (arranged by each unit)

Plan/Program/Project/Process:

Critical success factor: becoming a key variable or aspect of the process on the outcome of which the achievement of the manager's objectives depends.

Type of indicator: define whether it is efficiency, efficacy, effectiveness, quality or coverage.

Indicator name: establishes a name that identifies the result to be obtained by establishing the relationship between variables or the key factor.

Formula: determine the relationship between variables or formula for the calculation of the indicator.

description: interpret the result obtained from the measurement made from the variables defined for the indicator.

Goal: state the result to be achieved with respect to the critical success factor.

management range; define the maximum or minimum values that allow the indicator to be maintained under control conditions

periodicity: indicate the frequency with which the indicator is to be measured

responsible; to determine the individual who is accountable for the functions given.

CONCLUSIONS

According to the results, analysis and developments of the study, it is possible to start an interpretation from the contributions that were raised in the study, to talk about how the phenomenon of academic-administrative management works in higher education managers, it is necessary to start from the contributions of Alvariño, Arzola, Brunner, Recart, & Vizcarra (2000), the relationship of working conditions and strategic planning, define the leadership styles that compromise the value of continuous improvement results where the operational designs are determined by social, political, economic, social, political, economic, economic and political factors. Vizcarra (2000), the relationship of working conditions and strategic planning, define the leadership styles that compromise the value of the results of continuous improvement where the operational designs are determined by social, political, economic, legal, technological factors similar to the PESTEL methodology, the scenario, the modality makes the results determine the role, the scopes in the determinations of its management limited by strategies of structural, rigid management models.

One aspect that Moore (2002), raised in the resolution of endogenous and exogenous factors is what concerns the values that depend on the organization and its policies in the institution of higher education focused on for the study; this component clearly defines the behaviors of managers, communication models, guidelines, and forms of operation. What is rescued in how the Core of the organization's value is determined, the operational deployment that is emphasized in relation to as a solid company with continuous improvement and learning results, linked to direct results and achievements; do not allow flexibility in learning, each level of attention establishes dynamics of organizations with complexities and control dimensions of country rank.

It can be considered that a value in favor corresponds to the strategy that in a managerial way measures the impact of the managers with units in charge, in the understanding that Cassasus (2000), relates as academic directive management type A, or type B, varies according to the type of models, nevertheless, it is clarified that for an institution as the focused one where its guideline is rigid and concrete, It is solid because of its tactical deployment and because of its hierarchical distribution by rector's offices and high level staff units, but it is essential to understand that communication must be improved and greater value must be given to the work teams.

Supported by what Longo (2002) postulated, despite the fact that the personnel have a degree of appropriation and their experience is subject to their management capabilities, management capabilities and competencies are improved with direct results, which achieve an understanding to the general system about failures in the operation of its strategy, the strategic functions should not be confused with the operative

ones of a model, however with the unidimensional handling of management, the values and aspects are determinant.

According to Bass, Stogdill (1990), leadership is the axis of teamwork, which in academic scenarios constitutes the conglomerate of roles arranged in boards of directors and work teams, However, it is important to determine that the power mechanisms that are manifested between levels give a change of direction on how a structuring model is implemented, however, there is a high degree of appropriation by the directors, the perception of solidity makes it understood that the operation is effective and efficient.

For Bogardus (1929), the internal factors include the controls and follow-up to the teams, the instruments and work plans are mechanisms that are largely perceived in the determination of the model, but there is a perception of distrust that is given by the invariability in the levels of communication, the empowerment of the positions, and the value given to the instruction is decisive for each participant, according to Godin (2008), The responsibilities, provides the necessary mechanisms and tools to generate controls, academic management tools, administrative management tools that through strict control and follow-up, but factors such as the regulatory framework, self-evaluations, high quality factors, at an external level the ministries define part of the route that the higher education institutions adopt and adapt in a timely manner to provide a response.

Factors such as age, time in the position, academic profile, expertise in the service model, aspects that Cattell (1951), highlights defining that in a management team there may be unitary leaderships but they are values that if they do not conform to the institutional guide become a factor of change, for Juarez, Contreras, & Barbosa (2013), indicators, strategies and strategic plan are key in the partnership route. Barbosa (2013), indicators, strategies and strategic plan are key in the partnership route, likewise, for Luthans (2008), roles, behavior, academic-administrative management systems do not typify uncontrolled attributes; the measurement from the quantitative unit relate their greater contribution and contribution to the challenge associated with the operational income with which the estate operates.

The HEI is confused in the development of the administrative and financial with the developed profit, aspects that define the totality of the teaching staff, the value of the purposes, the scope of the managers, their methodology and strategy are available by the number of quotas in which the capacity and availability are defined, this that Tünnermann, (2005) defines and that corresponds to factors, characteristics and determinant indicators to the scope of the managers, who can strengthen communities generating installed capacities but that in moments of crisis are disarmed by the synchrony of the process.

REFERENCES

1. Acevedo, A., & Aravena Véjar, G. A. (2009). Effect of organizational beliefs on leadership styles.

2. Anthony, G. (1989). Constitution of Society: Outline of the Theory of Structuration.

3. Alvariño, C., Arzola, S., Brunner, J. J., Recart, M., & Vizcarra, R. (2000). School management. A state of the art literature. Paideia Network. Revista de Educación.

4. Bardín, L. (1986): Análisis de Contenido. Madrid.

5. Barrera, C. T., & Reyes, A. M. W. (2013). Moral dilemmas and management ethics in higher education institutions moral dilemmas and ethic management in higher education. Administrative Research Journal, 113, 122.

6. Bass, BM and Stogdill, RM (1990). Bass & Stogdill's handbook of leadership: theory, research, and managerial applications . Simon and Schuster.

7. Bogardus, ES (1929). Leadership and attitudes. Sociology and social research.

8. Cabrera, O. M. (2006). School management and school effectiveness, a fundamental relationship. REICE: Revista Iberoamericana sobre Calidad, Eficacia y Cambio en Educación, 4(4), 1-10.

9. Cassasus, J. (2000). Problemas de la gestión educativa en América Latina (la tensión entre los paradigmas de tipo A y tipo B). Santiago de Chile: UNESCO. Available at: http://www. lie. upn. upn. mx/docs/Especializacion/ Gestion/Lec2, 20.

10. Casassus, J. (2002). Problems of educational management in Latin America: the tension between type A and type B paradigms. Em Aberto, 19(75).

11. Cattell, RB (1951). New concepts for measuring leadership, in terms of group synntality. Human Relations, 4 (2), 161-184.

12. Contreras, M. (2004, November). Leadership in political management: from the postulate to the complexity of its implementation. In Paper prepared for the IX International Congress of CLAD on the Reform of the State and Public Administration, Madrid, Spain (Vol. 2, pp. 1-13).

13. Cowman, S. (1993) Triangulation: a means of reconciliation in nursing research. Journal of Advanced Nursing.

14. DE COLOMBIA, R. (2008). Ministry of National Education. Archives of the Ministry of Education of Colombia.

15. Del Pino, E. M. V. G., Murguía, R. A. P., & Castillo, J. R. C. (2005). Organizational climate and management control in higher education: The case of a university. Cuban Journal of Higher Education, 103-111.

16. Flórez, J. F., Molina, V. J. S., & Daza, P. E. O. (2018). Incidence of management styles on educational quality in public institutions in the city of Bogotá. Libre Empresa, 15(2), 55-74.

17. Godin, S. (2008). Tribes: We need you to lead us. Penguin.

18. Hernández S. R., & Mendoza, C. P. (2008). Qualitative quantitative marriage: the mixed paradigm. In JL Álvarez Gayou (President), 6th Congress of Research in Sexology. Congress held by the Mexican Institute of Sexology, AC and the Universidad Juárez Autónoma de Tabasco, Villahermosa, Tabasco, Mexico.

19. Juárez, F., Contreras, F., & Barbosa, D. (2013). Psychometric properties of Pitcher's adjective test for leadership assessment. International journal of psychological research, 6(2), 24-36.

20. Karina, M. H., & Raudel, L. G. (2018, October). Sistema de herramientas para la gestión del conocimiento pedagógico desde la integración de las tecnologías en la formación médica de la universidad de ciencias médicas de pinar del río. In morfovirtual2018.

21. Kotter, JP (1997). Leading by vision and strategy: vision refers to a picture of the future. Executive Excellence , 14 , 15-15.

22. Longo, F. (2002, October). The development of managerial competencies in public systems: a priority for institutional strengthening. In VII International Congress of CLAD on the Reform of the State and Public Administration (pp. 8-11).

23. Luthans, F. (2008). Organizational behavior (No. Sirsi) i9789701065136).

24. Martínez, J. E., Tobón, S., & Romero Sandoval, A. (2017). Problematics related to the accreditation of higher education quality in Latin America. Innovación educativa (Mexico, DF), 17(73), 79-96.

25. Moore, MH (2002). Criando valor público: gestão estratégica no governno . Uniletras.

26. Morse, J M. (1991) Approaches to Qualitative-Quantitative Methodological Triangulation. Methodology Corner. Rev. Nursing Research.

27. Mosquera, M. E. M. (2012). Organizational studies: a complement to the study of social management. AD-minister, (21), 117-133.

28. Muñoz, E. (2005). Governance, science, technology and policy: trajectory and evolution. Arbor, 181(715), 287-300.

29. United Nations. (2015). 17 goals to transform our world . Retrieved from Sustainable Development Goals - United Nations: https://www.un.org/sustainabledevelopment/es/

30. OECD/CAF/ECLAC (2018), Latin America Economic Outlook2018: Rethinking Institutions for Development, Éditions OCDE, Paris.http://dx.doi.org/10.1787/leo-2018-es.

31. Oplatka, I. (2019). The emergence of educational management as a field of study in Latin America. Revista Eletrônica de Educação, 13(1), 196-210.

32. Orjuela, B. C. M., & Goyeneche, D. Z. (2016). Leadership styles in university positions, a descriptive study with women managers. Revista Panorama, 9(17), 74-84.

33. Peñalvo, F. J. G. (2016). are universities aware of the changes taking place in Higher Education? Education in the knowledge society (EKS), 17(4), 7-13.

34. Pérez, O. G. B., & Pino, J. W. F. (2018). Role of strategic educational management in the management of knowledge, science, technology, and innovation in higher education. Medical Education, 19(1), 51-55.

35. Pinchi, J., & Díaz, L. A. (2018). Academic Management and Educational Quality in the Faculty of Agricultural Sciences of the National University of Ucayali 2018.

36. Rodríguez, O. (2005) "Triangulation as a Research Strategy in Social Sciences". Journal of Research in Innovation and Technology Management. Number 31, September 2005. On line. Available at http://www.madrimasd.org/revista/revista31/tribuna/tribuna2.asp

37. Sampieri, R. H. (2018). Research methodology: the quantitative, qualitative and mixed routes. McGraw Hill Mexico.

38. Vallejo, R., & de Franco, M. F. (2009). Triangulation as an analysis procedure for educational research. Redhecs, 7(4), 117-133.

39. UNESDOC. (2018). University value chain as an axis of social responsibility. Revista educación superior y sociedad: nueva época, Vol. 29, 19-30. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000265536