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Technical report on productivity: Tecnológico Nacional de México, Campus la Chontalpa, for the generation of an improvement model

Informe técnico en materia de productividad: Tecnológico Nacional de México, Campus la Chontalpa, para la generación de un modelo de mejoramiento

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Abstract

Productivity is a priority for any organization, since it is the basis for an organization to maintain itself in current times, where companies are facing extreme and drastic changes that are presented given the pandemic by the Covid- 19 virus, this transition has affected the whole world, as well as it has provided new business opportunities and openness for organizational adaptability. In this research, a technical report is carried out in higher education institutions of the public sector, taking as a reference the Instituto Tecnológico Nacional de México -Campus la Chontalpa, this report was integrated through the application of a systemic approach, considering the use of the Integral Technical Tool for Productivity Evaluation (TIEP) that integrates within its application 10 priority elements to maintain productivity and consequently the organizational quality.

Productivity, Institute of higher education, Comprehensive approach

Resumen

La productividad es prioritario para toda organización, ya que es, la base para que una organización se mantenga en los tiempos actuales, donde las empresas se encuentran ante cambios extremos y drásticos que se presentan dada la pandemia por el virus Covid- 19, esta transición a afectado a todo el mundo, al igual que ha brindado nuevas oportunidades de negocios y apertura para la adaptabilidad organizacional. En esta investigación se lleva a cabo la realización de un informe técnico en las instituciones de educación superior del sector público, tomando como referencia al Instituto Tecnológico Nacional de México -Campus la Chontalpa, este informe se integró mediante la aplicación de un enfoque sistémico, considerando el uso de la herramienta Técnica Integral de Evaluación de la Productividad (TIEP) que integra dentro de su aplicación 10 elementos prioritarios para mantener la productividad y por consecuencia la calidad organizacional.

Productividad, Instituto de educación superior, Enfoque integral

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Introduction

The Instituto Tecnológico de la Chontalpa is an institution of higher education that is oriented to the population of the Chontalpa region, aimed at meeting the labour demands of the productive sector, as well as the permanent contribution to the sustained and harmonious development of society and the individual, maintaining a commitment to the socio-economic welfare of the region.

The present work shows the study that will allow designing the action plan for the improvement of productivity and optimization of processes, analysing bibliographic references and technical documents referred to the measurement of productivity and competitiveness, since the information was extracted directly from the actors involved in the process.

Currently in the globalized environment in which we live, if we refer to productivity, an organization is not competitive if it does not comply with quality, production, low costs, efficiency, effectiveness, innovation, continuous improvement, technology, among other factors that every day make this a point that requires care in strategic plans ranging from short to long term.

The objective of measuring productivity in an organization demonstrates from certain aspects, the lifetime of it, adding the understanding and control of the products it offers, knowing with what amount of resources were processed and how much they were used. Emphasizing the phrase that highlights the importance of measurement: "What is not defined cannot be measured. What is not measured cannot be improved. What is not improved, always degrades."

Description of the method

Productivity shows us the optimal way in which resources have been used. In order to achieve it, it is convenient to measure it, to identify with the results obtained the actions to be applied or to implement corrective actions to increase productivity.

In order to carry out the productivity diagnosis of the Tecnológico Nacional de México, Campus La Chontalpa, we began by getting to know the conditions of the institution, observing, investigating, asking questions, with the purpose of knowing the dimensions of the context.

The collection of information was carried out through direct observation of the activities of the Institution, complementing it in an integral manner with the TIEP instrument (Integral Technique for the Evaluation of Productivity), in which the data obtained from the interviews conducted with a range of 5 actors corresponding to management level personnel of the Institution were recorded.

Integral Productivity Evaluation Technique (TIEP) is a tool that identifies the incidence of the variables of the context on the elementary elements that every organization must have to determine the productive and competitive growth of the organizations, the elements are essential for the knowledge of the company and are based on general as well as specific aspects.

- Knowledge of the processes.
- Conceptual approach of the company.
- Social scope of the organization.
- Management participation.
- Organizational creativity and innovation.
- Knowledge of customers.
- Technological development.
- Macroeconomic knowledge.
- Integral development of human resources.

The TIEP instrument provides us with a qualitative and quantitative analysis to evaluate the 10 fundamental elements and the impact of the variables of the context; Environmental, Social, Cultural, Political, Technological, Economic, on them, with this it will be possible to generate a concrete measurement that could influence the productivity of the institute.

The evaluation of the TIEP measurement instrument is determined by the researcher's criteria, assigning a value to the variables with respect to the incidence they have on each element. The results obtained from each application are averaged to produce a graph for each stakeholder interviewed. With the results obtained from the statistical sampling and the observations made, actions are determined to correct the deficiencies identified and optimize productivity. The above for the design of a proposal for an improvement model to increase organizational productivity.

Analysis based on the method

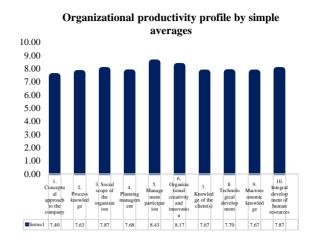
Tecnológico Nacional de México. Chontalpa Campus, is an institution of higher education that has demonstrated its concern for adapting to the trends that arise day by day, advancing at the pace of the demands of the environment and the technological community. Due to the promotion and strengthening of internal evaluation processes and frequent institutional self-evaluation actions, it has made significant progress in achieving the quality of the services it offers to the community where it operates. Among some of its expectations is the achievement of excellence in the provision of academic services, being the main client the students enrolled in the Institution,

Taking as a fundamental principle the above described, it is considered convenient that the analyzed departments have factors that mainly affect this premise, so the organizational structure of the Academic Sub-Directorate of the Tecnológico Nacional de México, Campus La Chontalpa is considered as the ideal area to perform the measurement of productivity.

Five departments belonging to the Academic area were selected, which are:

- Academic Sub-Directorate.
- Division of Professional Studies.
- Academic Development.
- Economic-Administrative Sciences.
- Basic Sciences.

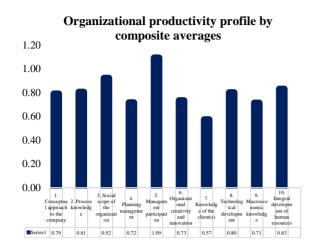
Results



Graphic 1 Productivity profile of the organization by simple averages corresponding to the National Technology of Mexico, Campus la Chontalpa *Source: Author's elaboration, 2021*

In Graphic 1 Productivity profile of the organization by simple averages corresponding to the Tecnológico Nacional de México, Campus Chontalpa, it is observed that the unified results denote a stability between the departments and the elements, which determines a great organizational stability, where the conformation of the departments are a whole, however it is also found the impact of the variables of the context on each of the elements towards the departments. this greatly influences the results obtained and as can be seen in the graph it can be observed that the variables: Economic. political, environmental and technological variables have the greatest impact, while cultural and social variables are points of benefit for the institution due to the high commitment it has with society.

The element with the lowest score is the conceptual approach of the company, which is due to the partial ignorance of this, due to the lack of communication of the parties, attitudes and aptitudes of the personnel, the lack of development of human resources in specific areas that could provide a better performance and concretize in the integration of all parts to generate a comprehensive approach.



Graphic 2 Productivity profile of the organization by composite averages corresponding to the National Technology of Mexico, Campus la Chontalpa *Source: Author's elaboration, 2021.*

In Graphic 2 Organizational productivity profile by composite averages corresponding to the Tecnológico Nacional de México, Chontalpa Campus, the areas of opportunity of the institution are more clearly identified, denoting a low result in the knowledge of the clients, as previously mentioned, the relationship and knowledge of the internal clients, which is why the development of an awareness program and recreational activities among the workers would improve the participation and relationship among them.

The organizational innovation that is implemented through the development of strategies and implementation of methodologies that help improve processes, adhering to continuous improvement, where despite the existence of a great professional commitment in the performance of their activities, it is not complemented by integrating all the parties involved, fulfilling their work but without the necessary interaction.

Similarly, the economic variable is of great importance as an area of opportunity since the transparency of all movements would generate greater confidence and understanding of the processes carried out in the organization, which would generate clear and concise understanding of the activities and decisions that the Chontalpa Campus takes inside and outside.

Proposal

As a conclusion, it is determined that the Tecnológico Nacional de México, Chontalpa Campus, maintains a stable level in the face of the diverse incidences of the variables of the context on the evaluated elements, in spite of this, it is also perceived that the results obtained can be affected in their totality.

The Chontalpa campus has a great commitment with the development of new professionals in the industry, as well as the continuous improvement of its facilities and periodic training of its teaching and administrative staff, all this with a view to the future and to be one of the most prestigious campuses in the country, improving productivity and competitiveness at the state level.

Therefore, the following recommendations are made:

Implement staff awareness programs to improve the relationship between administrative, teaching and management staff, to improve processes and clearly identify the processes and activities carried out by each member of the institute.

Integration environmental ofan management system; which plays an important role in the institution since the campus is located in a geographical area where it could generate an integral benefit for society and the environment, added to this design environmental programs to help the surrounding communities that have any need, and can be remedied by the development of projects by students of the institute. And also to measure the performance of these activities with indicators that determine the scope and fulfilment of the established environmental objectives professional development of human resources; this refers to improving the personal skills of each of its members to improve their performance in their jobs with a view to growth and increase productivity levels in research. Technological and virtual training; at this point it is recommended to improve and implement new technological equipment to improve the academic development of students, with the intention of increasing their competitiveness in the working world, since technological advances today require updates and training, as well as the integration of new software to increase the academic performance of students and teachers.

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Productivity improvement model

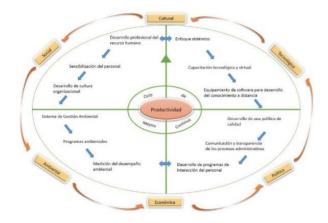


Figure 1 Productivity improvement model *Source: Author's elaboration, 2021*

In the proposed model it is possible to visualize some improvements that the institution at the time of implementation would be applied as a system with an integral approach, where they will work for the good of all areas of the institution.

Productivity is placed in the center, since it is the goal of every organization, to be productive, as well as the implementation of tools such as the continuous improvement cycle, which will benefit through programmed analysis to analyze the different problems or improvements that can be applied in the institution.

The following aspects are taken into consideration for improvement and implementation in the institute:

- Technological and virtual training.
- Software equipment for the development of distance learning.
- Development of a quality policy.
- Communication and transparency of administrative processes.
- Development of personnel interaction programs.
- Measurement of environmental performance.
- Environmental programs.
- Environmental management system.

- Development of organizational culture.
- Sensitization of personnel.
- Professional development of human resources.

These proposals were determined based on the productive analysis of the organization and will be carried out in the order indicated by the model from right to left, starting the implementation of a systemic organizational approach.

Acknowledgements

This work is the product of the effort, commitment and dedication of a working group, who throughout the development gave their full and collaborative support for the completion of this research.

We would like to thank our colleagues who were totally involved until the completion of this product, as well as the great support and accompaniment provided by advisors in order to obtain feedback.

Conclusions

As a conclusion it was determined that the Instituto Tecnológico Nacional de México-Campus de la Chontalpa, is maintained at a considerable level before the demand of other institutes of higher education of the public sector, on the other hand it is demonstrated that the variables of the context tend to influence the elements that influence at the moment of obtaining the results.

It is recommended that the institution implement the model presented, as well as the follow-up of the plan for the improvement of its processes, since this will benefit the personnel as a whole as well as the organizational performance.

By implementing the model, there will be a continuous and periodic follow-up of the evaluations, taking the present research as a starting point, this does not stop the processes of the personnel or the organization, which is why it is convenient to implement the improvements and continue with the natural work.

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Study of integral logistics in a geological and petrographic laboratory, in the southeast region of Mexico, for the proposal of an integral model

Estudio de la Logística integral en un laboratorio geológico y petrográfico, en la región sureste de México, para la propuesta de un modelo integral

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Abstract

For organizations to have the growth that the global economy demands, they must bet on improvement alternatives that fully involve the entire system. One of these alternatives is to bet on the improvement of integral logistics, since it serves as a connection between production and markets. This research proposes the generation of a model for the improvement of the logistics system in a geological and petrographic laboratory, in the southeaster region of Mexico, with the sole purpose of adding value and providing alternative solutions to current or future problems that arise. It is also proposed to design an instrument that measures the current situation in logistics and provides a comprehensive scenario that serves as a starting point for improvement strategies. This instrument is created tailored to the company and introduces intangible aspects called factors so that with the help of the Likert scale they are transformed into qualitative values, and thus carefully visualize the study problem. The entire study is analysed and interpreted by the researcher, and with the help of the company's experts, it is considered to obtain reliable and secure information.

Integrated logistics, Measuring instrument, Likert

Resumen

Para que las organizaciones tengan el crecimiento que la economía global demanda, deben apostar por alternativas de mejora que envuelvan integralmente a todo el sistema. Una de estas alternativas es apostar por el mejoramiento de la logística integral, ya que ésta sirve de conexión entre la producción y los mercados. La presente investigación propone la generación de un modelo para el mejoramiento del sistema logístico en un laboratorio geológico y petrográfico, en la región sureste de México, con el único fin de aportar valor y dar alternativas de solución a las actuales o futuras problemáticas que se presenten. Se propone también, el diseño de un instrumento que mida la actualidad en cuestión logística y brinde un escenario integral que sirva de punto de partida hacía estrategias de mejoramiento. Dicho instrumento, es creado a la medida de la empresa e introduce aspectos intangibles llamados factores para que con la ayuda de la escala de Likert se trasformen en valores cualitativos, y así visualizar detenidamente el problema de estudio. Todo el estudio es analizado e interpretado por el investigador, y con la ayuda de los expertos de la empresa se considera obtener información confiable y segura.

Logística integral, Instrumento de medición, Likert

Citation: PÉREZ-GARMENDIA, Gloria, ZAPATA-DITTRICH, Abel, BALDERRABANO-BRIONES, Jazmín and HERNÁNDEZ-ZURITA, Pamela. Study of integral logistics in a geological and petrographic laboratory, in the southeast region of Mexico, for the proposal of an integral model. ECORFAN Journal-Republic of Paraguay. 2021. 7-13:7-11.

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Introduction

Currently, value creation is a concept that is constantly growing, and through comprehensive logistics companies seek to find this and generate competitive advantages.

Faced with the new contexts of a global economy, all organizations, whether they are producers of goods or services, must be at the forefront through the constant measurement and development of strategies, this will allow the application of comprehensive logistics that provides a balance of the structure of the value chain and achieve efficient interaction between the areas of the system.

Companies must develop and implement logistics strategies that make them different from their national and international competitors; that is, the company must be a low-cost producer or give customers high value in terms of product quality, proper distribution, and customer support.

The purpose of this research is to propose a logistics model that represents a competitive advantage, through the integral optimization of resources, an agile and flexible operation, and the efficiency of the processes. For this, it is essential to analyse internal and external factors that affect the system and thus, propose comprehensive scenarios to develop strategies that provide competitiveness.

Methodology to be developed

The emergence of the idea

For the present investigation, it has been delimited to guide the study in a systematic order and ensure the efficiency of the thematic unit.

Next, figure 1 shows a diagram where said delimitation is observed:

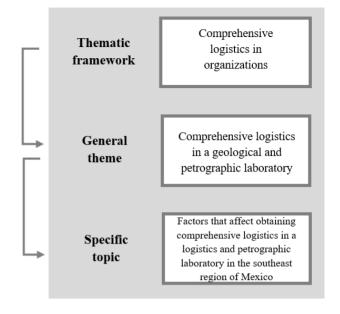


Figure 1 Thematic scheme for the delimitation of the topic *Source: Author's perception*

As a first phase, integral logistics in organizations form the thematic framework, giving an initial direction to research, introducing it to organizations.

The general research topic has been called integral logistics in a geological and petrographic laboratory, consolidating and delimiting the research towards a specific entity.

Giving key points to the subject of study, the third phase is called, factors that influence the obtaining of integral logistics in a geological and petrographic laboratory, in the southeaster region of Mexico. Specifications are given about the geographical location, consolidating, and delimiting the investigation, and also covering the factors that affect the organization. These factors are aspects encountered during the development of the protocol.

Identification of experts

To identify the organization's experts, it is essential to locate the areas to study, this is achieved with the help of the organization chart. Here the leaders in charge are located, however, they are not yet called experts, so at this stage, all will be called actors. The areas to study are:

- Storage area.
- Production area.
- Administration area.

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When identifying the actors, rounds of interviews are scheduled, in which relevant points about the subject of study are addressed. The researcher, subjectively determines who knows in-depth the topics covered, given the knowledge they have about integral logistics. This personnel is called experts.

Measurement instrument design

The independent variables handled in this research work are the six context variables (economic variable, social variable, cultural variable, technological variable, political variable, environmental variable). Based on the above, the measurement instrument is designed, especially for the subject of study, to take information from the research frameworks, and the experts of the organization. The instrument considers the three stages of logistics, which are:

- Stage before logistics.
- Stage during logistics.
- Stage after logistics.

The instrument is made up of factors (dependent variables) as questions, which are applied to each expert in each area of the system.

In addition, the instrument has a Likert scale where:

- 1 = Not frequent.
- 2 = Regular.
- 3 = Frequent.
- 4 =Very frequent.

N°	Stage BEFORE Logistics	1	2	3	4
1	Does the organization design suitable				
	profiles for its employees?				
2	Does the organization establish the				
	characteristics of a work environment?				
3	Does the company carry out weekly				
	market research reports?				
4	Do the Facilities present a good				
	warehouse design or warehouse				
	location management?				
5	Does the company design optimal				
	work areas for the transit of its				
	employees?				
6	Are studies carried out for the				
	optimization of the processes?				

Table 1 Measurement instrument (Stage before logistics)

Source: Author's perception

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N°	Stage DURING Logistics	1	2	3	4
1	Does the company carry out weekly				
	market research reports?				
2	Does the organization have good				
	control of the production processes?				
3	Is a customer satisfaction study carried				
	out?				
4	Are sales and customer service				
	strategies properly applied?				
5	Does the company apply constant				
	innovation methods?				
6	Does the organization show the				
	development of the digitization of				
	processes?				
7	Is the use of 9s used in the company?				
8	Does the company design the best				
	logistics routes for the delivery of the				
	product?				

Table 2 Measurement instrument (Stage during logistics) *Source: Author's perception*

N°	Stage AFTER Logistics	1	2	3	4
1	Does the company analyze the use of new routes?				
2	Are the graphical representations of the optimization in the logistics processes of the company shown?				
3	Does the organization provide feedback on the marketing channels?				
4	Does the company compile the results of the market study?				
5	Are effective delivery time measurements observed?				
6	Are proposals for measures to reduce accidents or mishaps made?				
7	Are the results obtained from the customer satisfaction study analyzed?				
8	Does the organization carry out observations of results of innovations?				
9	Does the organization analyze the results of the use of the 9s?				

Table 3 Measurement instrument (Stage after logistics) *Source: Author's perception*

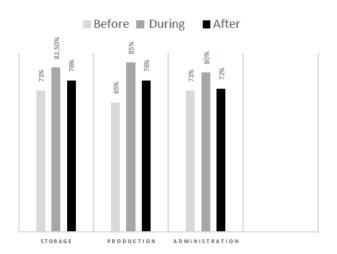
Results

The results of the instrument applied to each expert is as follows:

Area	Before	During	After
Storage	71%	82.5%	76%
Production	65%	85%	76%
Administration	71%	80%	72%

Table 4 Averages by departments

Source: self-made



Graphic 1 Results of the measurement of the level of integral logistics

Source: self-made

On average, there is 97.25% in the degree of knowledge during operation, while the lowest average is 93.25%, which is before operation. This opens a small gap to improve this stage within the areas evaluated.

Improvement proposal

- Always be equipped to perform a large number of petrophysical measurements on cores and plugs.
- A geological and operational information integration platform will be offered that allows timely decisions to be made to optimize the drilling of oil and gas wells.
- The field services will offer the first evaluation of the geological formations, necessary for the success of the exploration and integration tests of new oil and gas reserves.
- Acquisition of non-destructive images will be carried out. The characterization of rocks at different scales (cores, plugs, cuttings, etc.) provides a high-value complement.
- Computed tomography (CT) scanners will be implemented, similar to those used in medical applications, they are used to take three-dimensional images of plugs and nuclei.

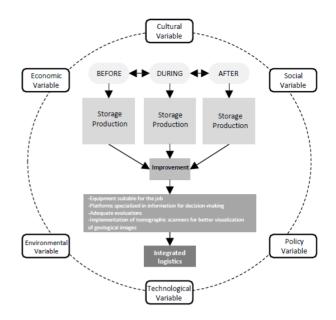


Figure 2 Logistic Model *Source: Author's perception*

Conclusions

In integral logistics, certain strategies are implemented that help maintains a good balance in the company. This means that by carrying out the appropriate evaluations, analyzes based on the deficiency found can be carried out and with the same power to implement improvements.

In this research, it is possible to understand and analyze the disadvantages that can be found at all times and that although the company is large-scale, it is always necessary to constantly improve in all areas and of course, continuously improve the structure of comprehensive logistics.

Comprehensive logistics implement certain strategies that help maintain a balance in any organization. This means that by carrying out the appropriate evaluations, analyzes based on the deficiency found and improvements can be made. In addition, it is extremely important to see the system as a whole, not only systemically, but integrally, always observing the changing contexts and variables.

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Analysis of internal control and its impact on the organizational development of the decentralized autonomous government of the Uzhcurrumi parish

Análisis del control interno y su impacto en el desarrollo organizacional del gobierno autónomo descentralizado parroquial Uzhcurrumi

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Abstract

This research aims to determine the impact of internal organizational control in the Uzhcurrumi Parish GAD through the investigation of policies and norms that regulate the fulfillment of institutional objectives. For an institution to be competitive and successful in its administration requires transparency, good honorability, good conduct, organization and integrity in the execution of the management system, in addition to constant monitoring of financial, economic and administrative activities. For this reason, the management of internal control is essential for an adequate organizational development, since it guarantees a correct administration and the organizational development of the institution. The methodology applied is the qualitative-descriptive, which is carried out by searching for information that supports the topic addressed, thus allowing the verification of the effectiveness of the control system and its importance in public institutions. Concluding that public entities must have an internal control system as a management tool within the institution.

Internal Control, Organizational Development, Parish GAD

Resumen

La presente investigación tiene como objetivo determinar el impacto del control interno organizacional en el GAD Parroquial Uzhcurrumi a través de la indagación de políticas y normas que regulen el cumplimiento de los objetivos institucionales. Para que una institución sea competitiva y alcance el éxito en su administración se requiere de transparencia, honorabilidad, buena conducta, organización e integridad en la ejecución del sistema de gestión, además es necesario un monitoreo constante de las actividades financieras, económicas y administrativas. Por tal razón el manejo del control interno es fundamental para un adecuado desarrollo organizacional, pues correcta administración garantiza una desenvolvimiento organizativo de la institución. La metodología aplicada es la cualitativa-descriptiva, misma que se realiza mediante la búsqueda de información que respalde el tema abordado, permitiendo así la verificación de la efectividad del sistema de control y su importancia en las instituciones públicas. Concluyendo que las entidades públicas deben contar con un sistema de control interno como una herramienta de gestión dentro de la institución.

Control Interno, Desarrollo organizacional, GAD parroquial

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Introduction

The Rural Uzhcurrumi parish was created on January 22, 1971, currently its administration is in charge of Mr. Abraham Joel Sánchez Velepucha. In compliance with the provisions of the first paragraph of article four of the LOTAIP issued by the Congreso Nacional (2004) which states that: "public information belongs to citizens" (p.3), administrators of institutions that are part of the State are obliged to provide their citizens with free and transparent access to public information.

In order to carry out the activities of the institution efficiently and effectively, it is recommended that both public and private organizations implement an Internal Control system, according to Villa *et al.* (2017) its execution manages to significantly minimize fraud, scams, errors, embezzlement, abuses and crimes allowing to protect the resources of the institutions.

It has been shown that all companies regardless of the context to which they belong need to integrate an Internal Control system that is effective and allows verifying that the processes carried out generate reliability, transparency, efficiency and are focused on compliance with rules, laws and regulations in force (Serrano Carrión *et al.*, 2018). For an institution to be competitive and successful in its administration requires transparency, honorability, good conduct, organization and integrity.

In the execution of the management system, constant monitoring of financial, economic and administrative activities is necessary. The use of internal control is essential for an adequate organizational development since it guarantees a correct organizational development of the institution.

Despite the demonstration of the advantages provided by the use of internal control, there are still organizations in which there is a lack of it, as is the case of the Parish GAD of Uzhcurrumi in which a correct control is not carried out, which according to (Egas Moreno *et al.* (2019) is due to the fact that the worker has ignorance of how the activities that are in his charge are related to the work done by others and a lack of professional judgment.

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Given this problem and the need to obtain a deeper study of the effect generated by internal control, an investigation has been carried out with the aim of determining the impact of the internal organizational control of the Decentralized Autonomous Government of the Uzhcurrumi Parish through the study of policies and norms that regulate the fulfillment of institutional objectives. In the research, a descriptive qualitative methodology is applied, which is carried out by searching for information that supports the topic addressed, which will allow the verification of the effectiveness of the control system and its importance in public institutions.

Internal organizational control

According to Vivanco Vergara (2017) an internal control system helps to reduce administrative, financial and operational errors allowing optimal decisions to be made within organizations. Among the most common financial errors that allow minimizing internal control are the inadequate distribution of resources, inefficient accounting and the absence of budgetary forecast, which can be corrected within a period of no more than one year when an adequate control is carried out.

An adequate internal control system leads to the segregation of functions, supervision and control of the different levels that are part of the organization, which allows to protect and conserve economic resources, thus avoiding waste, loss, improper use of resources or any act considered illegal, also helps the achievement of the objectives set by the organization and the development of it.

Importance of internal control

For Ramírez-Casco *et al.* (2021) obtaining an adequate internal control system is a key factor within organizations since it allows them to carry out a correct evaluation of the processes carried out, which facilitates the use of information and the efficient use of resources.

Internal control gives organizations the opportunity to make correct decisions based on the criteria obtained, providing relative security in the procedures developed. While it is true that internal control can sometimes be affected by a series of limitations, the necessary corrections and constant modifications must be made to adapt the system to the required changes.

HERRERA-FREIRE, Alex Humberto, HERRERA-FREIRE, Alexander Geovanny, JARA-MALLA, Genesis Mishel and YÁNEZ-RÍOS, Katerine Alexandra. Analysis of internal control and its impact on the organizational development of the decentralized autonomous government of the Uzhcurrumi parish. ECORFAN Journal-Republic of Paraguay. 2021

Objectives of Internal Control

According to Emerson (as cited in Calle-Álvarez *et al.*, 2020) the objectives of internal control are informative, compliance and operational. These objectives are aimed at improving the development of activities efficiently, are based on the correct use of information, both financial and non-financial, and focus on compliance with both internal and external regulations.

For a correct internal control, they must establish the objectives based on the following categories: the strategies proposed, information of operations of a financial nature, compliance with laws, rules, regulations and legal provisions. These categories comprise a specific topic and together allow to find weaknesses in addition to facilitating the achievement of the goals established in both public and private companies. For Mendoza-Zamora et al. (2018) indicate that the objectives of the categories mentioned in the public sector are:

- Encourage the optimization of resources.
- Promote transparency, effectiveness and efficiency, both operational and economic.
- Improve the quality of goods and services provided by public institutions.
- Protect the assets and resources owned by the State to prevent misuse, loss, unlawful acts, deterioration or another unexpected situation.
- Promote and encourage the practice of organizational values.
- Measure and evaluate the achievement of established goals.
- Promote transparency of information issued by public servants and officials who are in charge of assets and funds belonging to the State.

The achievement of the aforementioned objectives allows as a whole to generate in the institutions a culture based on self-control, facilitating in a timely manner the creation of mechanisms and actions of preventive controls.

Internal Control Functions

The main function of internal control is to allow the efficient and orderly management of the activities carried out within the organization in order to provide reasonable security. According to Mendoza-Zamora *et al.* (2018) the establishment and operation of internal control depends on the managers, the highest authority and all the personnel that make up the organization, which is why its functions must be oriented in:

- Prevent the waste of institutional resources.
- Ensure the implementation and compliance with institutional policies.
- Ensure that management within the organization is monitored and periodically monitored.
- Apply measures that avoid risks and errors as much as possible.
- Ensure that the control measures carried out are recorded, in order that the information presented is reliable and allows timely decisions to be made.

Characteristics of internal control

Camacho Villota *et al.* (2017) in their publication mention the following characteristics if internal control:

- It facilitates the achievement of institutional objectives.
- It generates reasonable security.
- It enables an adequate organizational development.

These characteristics are oriented to the need of companies or institutions to control human resources and their fixed assets.

Limitations of an internal control system

In the applicability of internal control, the institutional and/or social objectives to be achieved, the use and reasonable management of public resources, the importance of the budget item in planning and the level of difficulty in its operation must be considered, if these aspects are not considered, it is likely that internal control will be affected and considered deficient (Mendoza-Zamora *et al.*, 2018).

Public sector entities must carry out the rules, procedure manuals and other mechanisms that ensure and endorse the management of internal control. Government agencies that employ state resources should promote principles that build trust and ensure the efficiency and effectiveness of operations based on legal provisions (Gamboa Poveda *et al.*, 2016).

The limitations that can arise in internal control range from the needs that arise in the administration of public entities and the management approach that this represents. In addition, it has been shown that the abuse of authority of some officials are also a limitation, so not only the optimal results of the control must be assessed, but also the compliance with ethical and moral principles of the servers must be guaranteed (Serrano Carrión *et al.*, 2018).

Internal control in parish GADs

Internal control is of great importance in the management carried out by the parish GADs, since it helps to reduce risk in operations and fosters confidence in the information that is provided for managerial and financial decision making, for this reason it is necessary a good administration and delegate functions to the parties involved in the organization, in addition to following up to verify that the objectives are achieved (Apolo Ordoñez *et al.*, 2019).

The purpose of applying internal control in the public sector is to inform the members of the organization and third parties if the activities are being developed with quality, efficiency and effectiveness, so that the principle of transparency in the use of public resources is evidenced (Gamboa Poveda *et al.*, 2016).

Organizational development

Cristiani Pinto (2012)indicates that organizational development is fundamental in companies, regardless of the economic activity to which it belongs, if you do not have an adequate organization, you could not face complications regarding internal or external changes in the environment or achieve the achievement of the established purposes which complicate business growth competitiveness. With the help of communication strategies and proper administration, activities could be carried out properly.

Some companies due to lack of organization face complicated situations, however, they concentrate most of their resources on external aspects, but not on their internal problems, thus neglecting the fulfillment of activities, which influence the development and growth of the organization, so it is necessary to apply internal control in the administration of the company, to determine the achievement of the proposed objectives (Guerrero & Mangones, 2016).

Operationalization in organizational development

Companies are constantly obliged to adapt to new contexts in order to be operational and achieve organizational development, for this they must make changes and transformations that require a significant investment of money and time in addition to a disposition and preparation of human talent (*Guarnizo Crespo et al.*, 2021).

It has been shown that in public institutions change and operationalization are only sought in times of crisis, so organizational development is not as expected. To make the necessary corrections and obtain operationalization in public companies, the focus must be on the modernization and adaptation of their elements, the demands of the population, human talent and productivity.

Problems generated in the organization

Cortés (2019) mentions that an appropriate internal control system in the administrative area will allow to know the problems faced by a company and in this way guide the administrators to the correct decision making thus allowing the resolution of current problems and the reduction of future events that threaten the proper functioning of the company.

Within the entities of the public sector there are many problems as an example are the poorly executed administrative processes that originate because the functions carried out by public servants are not controlled generating a breach in planning, organization, direction and control that do not contribute effectively to compliance with the principles of management, that is why improvement strategies must be used to guarantee the well-being and satisfaction of citizens (Troya Andrade *et al.*, 2019).

Organizational competitiveness of internal control

Using the words of Pinto Cristiani (2012) organizational development allows to face the problems of competitiveness within the organization, in addition it has been shown that a competitive company manages to obtain prestige and credibility; if the company does not achieve a good development, it lags behind in a market where there are many competitors who want to position themselves and achieve growth. In order not to have a decline, there must be the commitment of all individuals, with the intention of fulfilling the activities and achieving the objectives set.

Public Policies

Participation in public policies fosters the generation of an organization designed for the needs of the population in a social context. It not only tries to link needs to goods and services but also relates them to social practices, values, organizations and political models (Chosco Díaz *et al.*, 2017).

The organizational development process promotes advocacy in public policies, favoring the indispensable conditions to make an effective contribution in response to the problems it addresses and in advancing its organizational compliance (Zamora Aguilar, 2018).

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Importance of administrative management

Mendoza-Zamora *et al.* (2018) the public sector is oriented in the compliance with legal, constitutional and current laws in order to comply with the objective of public policy focused on the realization of efficient, reasonable and timely reports for decision making; without taking into account careful analysis, based on a political need but not on future results.

González Rodríguez *et al.* (2020) indicate that it is important to know the elements and processes when incorporating a new administrative management model which allows a preliminary and exhaustive evaluation of the current situation of public entities. In a way that the material and human resources are optimized, allowing each and every one of the processes to be executed with the sole objective of increasing the management of the services with efficiency and quality within the institutions.

Administrative management process

In the public sector, the interest within the institution is to be equitable in the use of public resources, so directors and officials must be involved in the process of administrative management and follow certain steps that will solve an organizational, management and control problem (González Rodríguez *et al.*, 2020).

Planning and organization is considered as an elementary part in administrative procedures, in which the complexity of the management method is evidenced by presenting various duties and responsibilities. In this process it is best to divide it by subcategories to achieve a flawless, clear and clean procedure that allows you to assume control in management.

It is essential to apply and know these processes that are directed towards direction and leadership, the management model concentrates the results of each phase carried out in the organization, not only in the individual tasks or works (Mendoza-Zamora *et al.*, 2018).

Elements of administrative management

For Falconi Piedra *et al.* (2019) these elements constitute within the administrative management process the essential activities for the administration of the company or institution. The definition of the elements is presented below, in summary manner:

- 1. Planning: it is the main step in the administrative function, it consists of achieving the objectives in the most efficient way, defining goals and establishing several action resources to achieve what is proposed, it must be developed in a certain time.
- 2. Organization: It consists of a system that allows to assemble a balanced structure of the business resources to develop the work and achieve the objectives set, that is, to organize and establish a relationship between the personnel and the work that must be executed, to achieve the goals of the organization.
- 3. Management: It is the function that involves everyone in the organization to comply with the strategies drawn, which contribute to achieve the objectives and goals indicated, this element is focused on the employees and executives of the organization, through leadership, motivation and communication.
- 4. Control: It consists of controlling the planned activities aligned with the established and planned strategies, through a correct and orderly assessment of the objectives set by the board, with the purpose of correcting any problem and evaluating the results obtained for the decision-making process (Mendoza-Zamora *et al.*, 2018).

Material and Methods

To achieve the objectives of the research, a qualitative-descriptive methodology is applied, for which a search for information was carried out in scientific journals and reliable sources, the bibliographic review of the literature allowed to collect information regarding the topic addressed allowing to carry out the verification of the effectiveness of the control system and its importance in public institutions.

As for the method used, it can be mentioned that it facilitates the analysis and collection of documentary information for its execution in the research. It is necessary to specify that the results presented demonstrate the functionality of the policies that make up the internal control system (López Jara & Cañizares Roig, 2018).

Results

In the parish GAD Uzhcurrumi the existence of government policies and procedures has been evidenced, however, they do not have a manual in which internal control management processes are incorporated and allow to obtain knowledge of the institution and inform the administration or government partners, regarding failures or weaknesses that occur in the activities that are part of the day to day. While it is true that the responsibility that the Parish GAD has an internal control manual that allows it to comply with the proposed institutional objectives and the protection of public resources depends on the highest authorities, the personnel working in the institution must also create the appropriate conditions to ensure that the correct control is executed in the processes applied.

Organizations that have an effective internal control manual manage to minimize costs and allow the good management, custody, control and application of public resources, for this this manual must include the necessary policies and practices that ensure an adequate administration and planning of the institution, so that professional development is guaranteed, transparency and efficiency of material and economic resources.

Discussion

Authors such as, (Álvarez Magaña et al., 2021; Portal Martínez, 2016; Serrano Carrión et al., 2018; Vivanco Vergara, 2017) indicate that internal control provides reasonable but not absolute security in terms of achieving the organizational objectives proposed by the entities, in the same way they mention that the implementation of the same does not guarantee to change a deficient administration for an adequate one, due to the existence of external factors that organizations cannot control.

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Although the implementation of an internal control does not guarantee absolute security, it was possible to determine through the results obtained that the efficiency of internal control greatly reduces the possibility of not achieving the achievement of organizational objectives in addition to allowing an evaluation of compliance with internal and external regulations, safeguard assets, prevent and determine the commission of fraud and errors but above all ensure that an orderly and efficient conduct of the operational, financial and administrative processes of the organization is carried out.

Conclusions

The analysis carried out on internal control and its impact on organizational development allowed to generate reliable financial information and minimize risks, for proper decision making, identifying important aspects to achieve the objectives of the parish GAD. The basis of the success of the internal control system is the commitment of its holders and officials, when making changes to existing procedures, these must be clearly defined.

Internal control must have an adequate organizational development, oriented to effectiveness, allowing public institutions to evaluate their performance based on the fulfillment of their goals to transform and grow, achieving effective results in the proposed objectives of the parish GAD.

The assignment of responsibilities of the officials who assume the commitment to help in the control of their processes allows an efficient development in the institution; administrative management is fundamental in the public expenditure cycle, where it formulates, approves, executes and renders the accounts of the public resources that were allocated. Public entities must have an internal control system as a management tool in the institution.

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Study and measurement of the productivity in the printing industry in Villahermosa Tabasco to develop an improvement proposal

Estudio y medición de la productividad en la industria impresora en Villahermosa Tabasco, para desarrollar una propuesta de mejora

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Abstract

Productivity is one of the paths that a company must take to achieve its objectives, goals and purposes, working effectively and efficiently. To achieve a culture of measurement, it is important to perform a productivity analysis, which will help to obtain adequate information to create development recommendations in the near future. This work provides information on the results obtained from a productivity measurement study in a sample of companies in the printing industry, in Villahermosa Tabasco, which helps to understand and adapt business needs within the cultural, environmental, technological, economic and political variables. To carry out this study, a measurement instrument has been used that obtains specific information on the elements that an organization must have for the development of productivity, this tool is Comprehensive Productivity Assessment Technique (TIEP), the which will give us results that serve to generate a model for improving productivity, which will be of great help for the growth of this business sector with positive results that bring benefits to the region and society.

Resumen

La productividad es uno de los caminos que una empresa debe tomar para lograr sus objetivos, metas y propósitos, trabajando de manera eficaz y eficiente. Para lograr una cultura de medición, es importante realizar un análisis de productividad, que ayudará a obtener información adecuada para desarrollar recomendaciones de desarrollo en un futuro próximo. Este trabajo proporciona información de los resultados obtenidos de un estudio de medición de la productividad en un muestreo de empresas de la industria gráfica, en Villahermosa Tabasco, que ayuda a comprender y adaptar las necesidades empresariales dentro de las variables, culturales, ambientales, tecnológicos, económicos y políticos. Para la realización de este estudio, se ha utilizado un instrumento de medición que obtiene información específica de los elementos que una organización debe de tener para el desarrollo de la productividad, esta herramienta se llama Técnica integral de evaluación de la productividad (TIEP), la cual nos dará resultados que sirven para la generación de un modelo de mejoramiento de la productividad, que será de gran ayuda para el crecimiento de este sector empresarial con resultados positivos que traigan beneficios a la región y a la sociedad.

Productivity, Printing, Improvement

Productividad, Impresión, Mejoramiento

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Introduction

Productivity is defined in a few words as the sum of effectiveness and efficiency, which is the fulfilment of objectives through the correct use and optimization of available resources.

In the present work it can be appreciated through the study of a group of companies focused on the printing business, the approach to the problem of lack of productivity in this business sector.

The main hypothesis is that these companies are being affected by the change in context variables. The data and information presented have been taken through the use of a comprehensive productivity measurement tool, which covers ten key criteria that every organization must have for the development of productivity, which help us to study it and relate it to the environment. internal and external of the organization, this is important because this means that the tool takes into account factors and that perhaps within the organization they can be controlled and at the same time, the interaction that these have with factors, mainly outside the organization that they cannot be controlled, and how the change of one can affect or favour one or more areas of the company.

Also, the improvement proposal that aims to help the business sector studied is presented.

Problematic

Some of these companies have fallen into a stagnation in their continuous improvement, losing their vision for the future and presenting lack of innovation, each of these factors directly affect productivity, causing obstacles and non-conformities in the fulfilment of the objectives and the achievement of desired results, leading to some of the companies in this sector to cease their work.

Investigation methodology

To obtain the data and information that were necessary to carry out this productivity study, it was necessary to know the size of the study field in the city of Villahermosa Tabasco, this was to carry out the necessary sample for the study and focus mainly in this one.

The printing companies that met the requirements to be considered in this study were four, and for the investigation to be as equitable as possible, it was required to determine the areas in which these companies are divided, highlighting those departments that have in common and that they have greater participation in the productive processes of each organization.

The departments that were analyzed in each of these companies were:

- Administration.
- Accounting.
- Marketing.
- Human Resources.
- General management.

Obtaining the information required several visits to the companies, trying to obtain valid and true information, referring to the following context variables:

- Social.
- Economic.
- Political.
- Technological.
- Cultural.
- Environmental.

Measuring instrument

The measurement tool must be structured in such a way that these key elements that an organization must have can be directly related to each of the context variables to be analyzed, this will allow biases to be avoided in the collection of information. and that each data collected is of great importance for the study, since there is no conditioning for some element in the interaction to omit some variable from the context.

The main information that the instrument obtains is the degree of knowledge that the employee within the organization of this business sector has regarding each of the elements of the instrument, and the way it interacts with the variables of the context, as well.

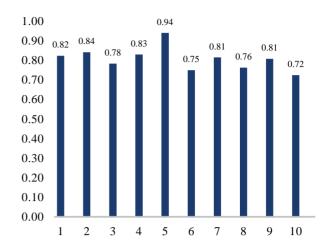
The ten elements that make up the productivity measurement tool are the following, and their numbering helps to interpret the graphs that are presented in the results section.

- 1. Conceptual approach of the company
- 2. Knowledge of the processes
- 3. Social scope of the organization
- 4. Planning administration
- 5. Management participation
- 6. Creativity and organizational innovation
- 7. Knowledge of the client (s)
- 8. Technological development
- 9. Macroeconomic knowledge
- 10. Comprehensive development of human resources.

Results

Obtaining the information has been carried out through interviews with each of the workers involved from each of the selected departments of each organization in the sample, all in an impartial way without taking a preference from one to another, several were required. visits and sessions so that the information obtained does not have biases at some stage of the application of the productivity measurement instrument.

Below are the graphs that show the results of both the simple averages of each of the elements, as well as the composite average of them.

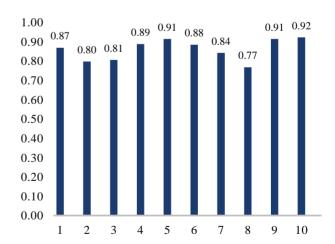


 $\begin{tabular}{ll} \textbf{Graphic 1} & \textbf{Results obtained in composite averages of company 1} \\ \end{tabular}$

Source: Author's perception, 2021

In this graphic the quantitative evaluations are taken into account, but with the difference that in this case they are being averaged together with the weights of each of the elements in relation to the context variables. Therefore, in the results, it can be seen that the directive participation in this organization has the best of the scores presented in the graph, marking a slight difference with the planning administration.

However, results are presented to take into consideration in the creativity and organizational innovation qualifications with the integral development of human resources, these having the lowest score in the graph.

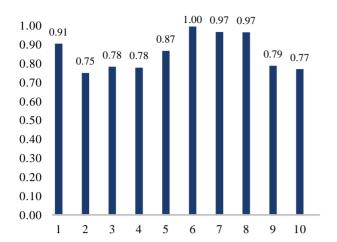


Graphic 2 Results obtained in composite averages of company 2

Source: Author's perception, 2021

It is clear that this organization requires attention in the social sphere, without neglecting the other elements, trying to reach some elements such as managerial participation, and therefore also, seeking to increase the numbers in a general way.

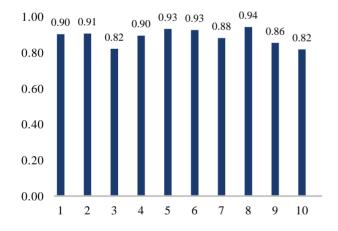
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Graphic 3 Results obtained in composite averages of company 3

Source: Author's perception, 2021

In this graphic, a value with a good score is presented, which is creativity and organizational innovation, almost like the knowledge of customers and technological development, however, most of the other results are below 0.8, this means that the organization requires comprehensive attention, since, apparently, the work is focusing on specific elements of the organization, instead of general ones.

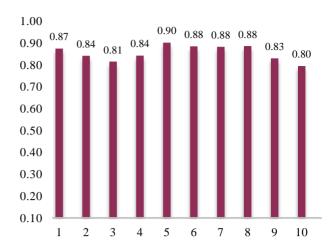


Graphic 4 Results obtained in composite averages of company 4

Source: Author's perception, 2021

In the graphic of the compound averages of this company, we can see that there is an area of opportunity for improvement in the third and in the tenth of the elements considered in the applied measurement tool, likewise the highest score in managerial participation is presented, and in technological development, which is truly consistent because a large part of the important decisions of the procedures carried out in the organization through the go management and the knowledge of production processes is high.

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Graphic 5 Results obtained in composite averages of the entire business sector studied.

Source: Author's perception, 2021

Compound averages show us general results in which the relevance of each of the elements of the tool directly intervenes in tune with the context variables but focused on each of the organizations studied.

It is evident that not all companies have the same rating in weighting in each point analyzed, which is why this graph is very useful to determine the areas of opportunity that will be obtained to carry out the improvement proposal. In this case, in relation to the previous graph, the third and tenth is the element that is a little below the others, however, we cannot go unnoticed to the other ideal elements of the organizations, since each one needs the due proper care in order to increase the score in possible future measurements.

Proposal to improve productivity

One of the ways in which productivity is achieved in organizations is the follow-up of methodologies designed in such a way that, through their observation, analysis and compliance, the company is directed towards a work that integrally involves all the elements of the company having a specific purpose and results that favour the organization.

That is why productivity improvement models are of great help in any business environment and are specifically designed for the main needs of a particular company. These are elaborated as a result of a previous diagnosis, which serves as the basis for the realization of said model and directly or indirectly attacks the different areas of opportunity that were detected.

The graphic representation of the series of steps that a model has, serves to a great extent so that its interpretation is easy and correct, either by senior managers or any of the collaborators in general, and contains the key elements for the improvement of the productivity.

The monitoring of a productivity improvement model should not be an underestimated job, and it has to be given the appropriate importance and due interest, this in such a way that the entire organization is aware of its monitoring and is generally engaged in each of the steps that the model presents, contributing as much as possible the part of the work that each member of the work team corresponds to.

The results of the follow-up of a model are not always immediate, they can occur gradually while the appropriate feedback is given that serves to feed the model for future applications.

Model

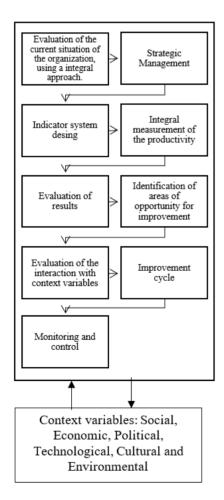


Figure 1 Productivity improvement model *Source: Author's perception, 2021*

Explanation of the productivity model

Evaluation of the current situation of the organization, with a integral approach

This first evaluation can be done in a general way in the form of checking or supervision of each of the activities that are practiced in the company, gathering information in a general way of the irregularities that are detected with less effort, and that this information will be of great help in the next step of applying the model. The human resource is the most important part of any organization, since, through this, it is how each of the products and services that a company offers to the market is elaborated and prepared, and since the human resource is composed of the decision-making capacity, as well as for each factor and need that is important for human life, this resource must be taken care of at all times.

Strategic management

The second stage of the model is one that should be given a lot of attention, since, when talking about strategic management, this goes hand in hand with planning. This is where the right strategies are formulated for process improvement, and consequently, productivity improvement.

For this stage, each of the contributions of the collaborators is taken into consideration, and each comment, idea or suggestion must be taken into account. All this through meetings of the board of directors, these must be the necessary ones with the necessary time to carry out a correct administration and planning.

Indicator system design

The indicators must be clear, and as many as necessary to achieve the objectives must be carried out. These should be archived to have a history of the procedures that have been used that will help feedback in the improvement cycles.

Times and dates should be established for evaluating the results of the indicators, this will help streamline the work of employees.

Integral measurement of productivity

This should be done based on the indicator system previously developed and put into operation, since the integral measurement of productivity occurs through constant monitoring of the progress in the results of the indicators.

Evaluation of results

The evaluation of the results is a task that must be done with adequate care, so as not to lose any information that the measurement has generated, and in this way avoid biases when making the improvement cycles. The results have to be interpreted as objectively as possible and there should be no inclination to disguise the results or to deny the results of the measurements. It is also evaluated if each of the indicators used were raised in the correct way, and if the times and strategies were the most successful.

Identification of areas of opportunity for improvement

After analyzing the results, the indicators and measurement instruments will mark by themselves the areas of opportunity in which the company must pay priority attention, without neglecting the others. This does not refer to attending only to those areas of opportunity and later attending to the others, since while one is strengthened, another could present a decrease in productivity, what must be done is to work on the integral increase of the results, but without losing sight mainly of those alerts that the results gave in the evaluations.

Evaluation of the interaction with the context variable

Something that is important to consider at all times is that context variables are highly relevant in making future decisions, because they are changing and largely are shaped by factors external to the organization and these cannot be controlled. The organization must have the ability to respond to any of the changes that may arise in any of these variables.

Improvement cycle

This stage of the model helps to provide adequate feedback on the information collected by each of the previous elements of the model, establishing and establishing the procedures, measurement and strategic indicators that will continue to be used in the advancement of the organization's work. in order to follow the culture of measurement and improvement that the company is expected to adopt.

Monitoring and control

The monitoring and control should be done at the end of the activities of the model, this is so, since applications future possible comprehensive program for strengthening human resources, the monitoring of the previous application of the model will continue to be relevant, this also refers to that the results of the monitoring and follow-up of the increase in productivity will serve as a precedent in the future strategic management and it is determined which of the past strategies continue to have the desired results for the company and which should be changed in order to improve productivity and never stop.

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Conclusions

We must remember that perfection at work is something that is never achieved, but it must be sought at all times, therefore, we must be aware that each of the strategic objectives, measurement systems or decisions that the company makes, never it will be an absolute result that should always be used.

Organizations must be open to what happens outside their four walls, this helps to a great extent to know that the world we live in is constantly changing, and that, as it changes, the company must also change gradually, to have a harmony between the macro and the micro.

Changes are good, and should always be seen in this way with the openness to change your mind in case some of the decisions taken are not the most correct properly, this is part of being human, making mistakes, but it is also important the attitude we have in correcting these, and in the ability to face difficulties with the entire work team.

It is important to take into account not only the scope of the established goal, but also how that achievement is reached, because complying with each of the activities that are presented could be confused with being productive, and this goes beyond that, beyond the generation of economic resources, and beyond the grabbing of customers in the competitive market.

Recommendations

Administrative systems update

These systems must be fully adequate and optimized for the organization and meet the needs of the company. These systems must include a correct administration of the material resource, trying as far as possible to consider the resources used for each of the jobs requested from the company, and automatically indicating the next requirements of these resources.

Adopt a comprehensive measurement culture

This refers to understanding that continuous and systematic measurement helps the company to have a constant evaluation of the fulfilment of the strategic objectives. When the constant and adequate measurement of the processes is not carried out, it is very difficult to detect the areas of opportunity in which there can be continuous improvement

Development of indicator systems

Indicator systems must be based on the development of strategic objectives. These must include all areas of the organization, either independently, that is, have specific indicators that measure in a particular way each area of the company, but at the same time, the system of indicators must include the measurement of the achievement of the objectives that involve the entire organization, and that each area is directly or indirectly involved in their fulfilment.

Focus on the social development of human resources

The good organizational climate that the company has had must be maintained, seeking to improve it and increase job satisfaction in the company and the interaction between employees, either among themselves and with senior managers. It is important to continue listening to the suggestions and contributions that they have, and to keep track of the growth or decrease of attitudes and skills.

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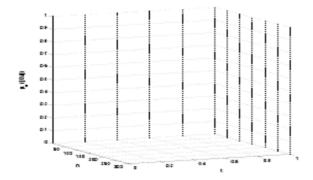
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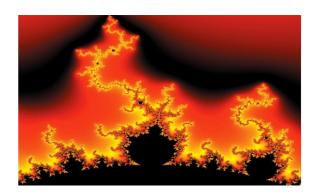


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