

The process of management of integral change in educational organizations

El proceso de gestión de cambio integral en las organizaciones educativas

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Abstract

Currently, there is a need to manage the different processes that educational organizations must go through, due to a dynamic environment that requires solid structures that allow them to generate strategies and management mechanisms for the achievement of organizational objectives. The concept of renewal is usually associated with certain characteristics of change, desirable and superior to the reality of the work know-how it has, which have not yet been incorporated into the various economic and organizational processes, as a whole and specifically in what refers to the relationships of educational organizations. Fundamentally, change management is a discipline that requires the interactions and considerations of the groups that comprise it, educational organizations, face in their own context and complexity, seeking to develop skills and where efforts should be made to stay, like any other organization. In this work, through the documentary exploration, the description with an integral vision of the characteristics of adaptation to the transformations suffered by an educational organization, by the internal and external environment was made.

Change Management, Integral, Educational Organizations

Resumen

Actualmente se tiene la necesidad de gestionar los distintos procesos por los que deben de transitar las organizaciones educativas, debido a un entorno dinámico que requiere de estructuras sólidas que les permitan generar estrategias y mecanismos de gestión para el logro de los objetivos organizacionales. El concepto de renovación suele asociarse a determinadas características de cambio, deseables y superiores a la realidad del know-how de trabajo esta desempeña, las cuales aún no han sido incorporadas a los diversos procesos de carácter económico y organizacional, como un todo y específicamente en lo que se refiere a las relaciones de las organizaciones educativas. Fundamentamente, la gestión de cambio es una disciplina que requiere de las interacciones y las consideraciones de los grupos que lo conforman, las organizaciones educativas, se enfrentan en su propio contexto y complejidad, buscando desarrollar capacidades y donde se deben realizar esfuerzos para la permanencia, como cualquier otra organización. En este trabajo se realizó a través de la exploración documental, la descripción con una visión integral, de las características de adaptación a las transformaciones que sufre una organización educativa, por el medio ambiente interno y externo.

Gestión de Cambio, Integral, Organizaciones Educativas

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Introduction

The importance of managing the different processes that make up educational organizations, and with the perspective of achieving organizational development, in order to contribute to the positions from the environment, this article aims to perform a conceptual exploration of the main elements associated with organizational development. Consideration will be given to the management of the processes of change that must be carried out by the administration of the organization of education, that from the management through a leadership of conversion, that should be developed in the intelligent organizations, with a renewed culture, located at gestar the necessary changes to achieve the integral vision of the educational organization (Garbanzo-Vargas, 2016).

The management of information in organizations is a transcendent issue at present, since the changes in the working groups at the global level demand the improvement of their operation structures, currently this improvement propitiates the management for a transition of the private sector and public, as a fusion or transformation towards digital work schemes. Although, there are difficult scenarios to understand and talk about a process of change in the behavior of corporations, and much more to manage a change, starting from the roots in the behaviors, ways of thinking and tacit patterns of working groups in the groups.

According to Nonaka and Takeuchi (1995) cited by Soto (2016), the conversion between explicit and tacit knowledge gives rise to four conversion flows or conversion cycles, which are shown in figure 1, and are described below.:

From tacit to tacit, the step of knowledge from tacit to tacit occurs through processes of socialization, that is, through the acquisition of knowledge and information through direct interaction with the outside world, with other people, with other cultures.

From tacit to explicit, it occurs through outsourcing, which could be defined as the process of expressing something, dialogue, externalizing is to convert images and / or words through dialogue.

From explicit to explicit, this step is called combination, as its own name suggests, different forms of explicit knowledge are combined through documents or databases.

Tacit to tacit, is the internalization of knowledge, and consists of the incorporation of tacit knowledge by the individuals of any organization.

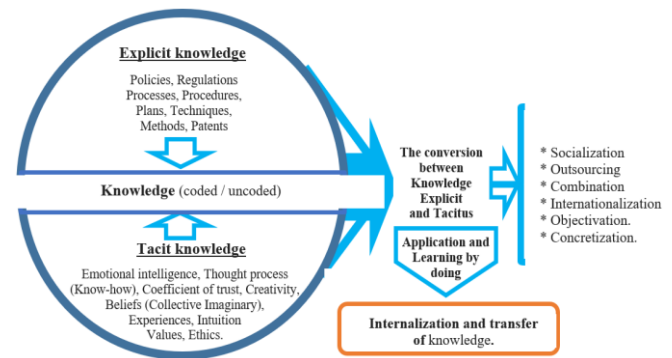


Figure 1 A comprehensive vision of explicit and tacit knowledge and its conversion (Soto, 2016)

Explicit and tacit knowledge is part of a stage of knowledge, in which the individual, through experience, obtains the discernment of the area of specificity through applied praxis and the representations of processes. It is important to consider that for the members of the organizations, it is necessary to understand the importance of the processes of knowledge formation and the role that the technology of use emphasizes. For an organization, it should be an art to create value from intangible assets, in the knowledge of people (tacit), and explicit knowledge is shared, dynamic, and systematized (Soto, 2016).

The organizations are not exempt from the consequences, in addition, as Salgado, Leria, Arcos, Pineda & González (2018) own to the repercussions that globalization processes entail, there is the generation of competitive and highly demanding work environments, in which the workers are subject to permanent demands, changes and uncertainties.

The globalization of markets, the diffusion of information technology and social networks; and changes in the nature of the labor force, impact on the processes of harmonious transformation of organizations and their members (López, Restrepo & López, 2013).

The specialists have emphasized that these pressures and contingencies of the socioeconomic context have generated the need to respond with elements not only technological and innovation, but also attitudinal, particularly flexibility and openness to change, as a *sine qua non* condition to the operation and performance of the worker in the contemporary organization (Rodríguez, 2011). However, the evidence suggests that adaptability, flexibility and confrontation to change within organizations are one of the variables most resisted by workers (DiFabio & Gori, 2016).

In this work the information will be addressed according to the following structure:

1. The origin of the change
2. Organizational change
3. Organizational development
4. Causes of change in Organizations
5. External and internal forces of change
6. SAW. Change in the system
7. Change in the structure of the working groups
8. Organizational culture
9. The organizational policy
10. System integration and open data interoperability
11. Access security, information security.
12. Organizational innovation
13. Change Process
14. Managing change and overcoming resistance to change

In particular, the resistance or difficulty in implementing changes in any organization is linked to the restrictive forces (Pizarro, 2005). These forces and the driving forces are what maintain a system in status quo (Guízar, 2013). In particular, Lewin's model considers these two forces in his proposal, stating that: "When both forces are balanced, the current levels of behavior are maintained and, according to Lewin, a quasi-stationary equilibrium is achieved" (Guízar, 2013, p.28).

1. The origin of the change

One of the first authors to allude to the concept of Change was the Greek philosopher Heraclitus of Ephesus (544 to 484 a.C.) belonging to the Ionian school, as part of his doctrine mentions that the universe is the result of two major currents (Forces).

The first as a descending process (top down), understanding this as the origin of all things; the second is an ascending process (bottom up) conceiving this as the movement of transformation of everything (change), both processes have a certain cycle which lies in the perpetual flow and ebb, work translated from Greek by Zeferino González (1831- 1894), Philosophy Project (2002).

These postulates are the principle of the movement, which is taken up by Aristotle, who mentions that "The essence of things consists in continuous change". Later in the sixteenth century Nicolás Machiavelli wrote: "It must be borne in mind that there is nothing more difficult to carry out, or more doubtful success, or more dangerous to handle, than to initiate a new order of things". All those who subsequently joined that discussion, allow us to assert that the discussion on the topic (phenomenon) of change is not a novelty, however if it is valid since no change is equal to another.

2. Organizational change

The change for Williams (1991) cited by Carrión and Manchado (2006) "occurs in physical and relatively fast environments". The author's vision of the change indicates that these are presented in the matter, that is, the tangible things of the organization, in addition to presenting themselves in an accelerated way which implies that the only way to execute the change is fast. However, according to Beckhard (1992) cited by Domínguez (2009) the organizational change "the capacity of organizations to adapt to the different transformations suffered by the internal or external environment", since the adaptation processes are presented gradually, as small improvements so the process is slow.

The implication that the change occurs in an accelerated or slow way has to do with the origin of the change, as Beckhard mentions the transformation suffered by the environment; if this is external, the change will be presented in an accelerated way as a means of survival, so the speed of response of the organization is vital; while the transition is an internal process, as mentioned by Williams Bridges (1991) cited by Carrión and Manchado (2006), this process is of "psychological character that occurs in people as a consequence of the situation generated by the change, and with Regarding this, it can be said that the transition occurs more slowly".

The studies carried out by Nadler (1982), Gordon (1997) mentioned by Acosta (2002) expose four types of change: the first as a tuning or anticipation of changes in the environment, focusing on increasing efficiency and effectiveness through policies, the procedures and the introduction of technologies; second as adaptation or progressive responding to the environment, introducing new products or modifying existing ones; a third reorientation or discontinuity anticipating changes in the industry, redefinition, organizational philosophy, redesign or reengineering. Finally, as recreation or discontinuous changes tend to be abrupt and severe as times of crisis.

Organizational change as "a process that is generated within organizations and that can be inductive (from the inside out) or deductive (from the outside in)" (Ribera, 2013). So Beckhard, Mintzberg and Westley visualize that organizational change occurs inductively (from the inside out) in a process of adaptation to the new environment that is brewing.

However, for Pelayo (2001) the change is the fundamental transformation of public or private organizations and systems, so that spectacular improvements in their effectiveness and efficiency can be produced, this can be focused on the ability to adapt, that is, to carry out adjustments, organizational transformations, abandoning their rational description to place themselves more in the terrain of the constant changes and negotiations that take place in organizations and that imply their different levels, as well as their capacity to innovate. Therefore, the change for Robbins & Judge (2013) is to do something differently (differently), however, the change can be presented as incidental to some organizations, while for others, the change is intentional, that is, the change is planned for the fulfillment of goals and objectives.

3. Organizational development

The Organizational Development (DO) according to Beckhard (1973) in Münch (2010) as "a planned effort of the entire organization, administered from the top management, to increase its effectiveness and well-being, through planned interventions in the processes of the entity, applying the knowledge of the behavioral sciences" (p.165).

The DO as a strategy involves the whole of the organization as a system (integrated) that aims to improve efficiency and effectiveness, so it is necessary to change the focus of the organization and improve as mentioned by Gordon (1997) cited by Acosta (2002) "communication, group behavior, intergroup behavior, leadership skills, power relations, as well as changing the organizational culture" (p.22).

It can be considered that communication is the backbone of the organization, since for coordination, if this is inefficient all other efforts also; the communication within the group, and between the groups, will be significantly affected, just as the planning of the top management mentioned by Beckhard does not achieve its purpose. For these reasons, for Arellano (2007), it is necessary to establish the relationships that exist between individuals and the organization, said dichotomy allows the association between the actors and the system, between the established order and the necessary action.

The hierarchical system of the organization that Beckhard refers to, about the planning process, which is managed by senior management, should be reformulated (raised), as well as the power relations and organizational culture of Gordon, as mentioned Arellano (2000), between the established order and the necessary action, if the established order (system) does not allow for better efficiency that order has to change. Therefore, it is necessary to rethink the definition (paradigm) of organization as Zimmermann does (2000) states that the organization is a dynamic system, which seeks to configure (establish) in a rational and functional, individual relationships, equipment, knowledge and technology marked with it borders with the outside, trying to reduce the complexity of reality.

On the other hand, in Gordon's vision of Zimmermann's organization, of moving from groups to work teams, he reflects that the simple association (location) of individuals in an organization is not enough to achieve the goals, that results will not be obtained (Significantly better if not the sum of efforts and talents (knowledge) in the fulfillment of designated tasks.

The definition of the DO is in constant evolution, some authors have tried to simplify as Zimmermann (2000) "the constant search for a balance between planning and monitoring the process of change".

While others have retaken their predecessors as does Pariente (2010) define it as a "complex educational strategy, which is carried out through a series of activities planned in a participatory manner, aimed at the entire organization and managed by senior management, whose fundamental objectives are to increase the effectiveness and well-being of the members of the organization, some others somewhat abstract as Jones and George (2006) is the movement of an organization to move away from its current state and approach a desired future state for increase its efficiency and effectiveness.

Organizations for organizational development are transformed and invest in learning and understand that organizations that are unable to learn from a systemic and permanent approach have little chance of sustaining themselves in the context in which they were created. An intelligent organization understands that investing in learning is not an option, it is a responsibility that must be assumed with the highest moral and ethical principles and values. Thus, a learning organization is capable of creating, acquiring, transmitting and reforming attitudes that promote individual development within an organization that faces constant transformations (Chiavenato, 2009; Garbanzo, 2016). When individual learning increases, the intellectual capital of the organization also increases and it is up to management to transform this knowledge into action.

4. Causes of change in Organizations

Organizational change is considered by Hellriegel, Jackson and Solcum (2005) as any transformation associated with the design or operation of an organization. Efficient and effective management knows the opportune moment when a change is required and also knows the strategies to lead your organization through the process of change.

Changes can be promoted by internal or external forces. Externally, it usually happens as a consequence of the social transformations resulting from the dynamic and complex society, as well as knowing good practices applied in other organizations. Internally, due to the organization's own needs such as the normal processes of structural adjustments and changes in its objectives.

Courtney (1997) cited by Dominguez (2009) identify three positions of change adopted by organizations, these may be to shape the future, adapt to the future and reserve the right to participate. The first position is to lead in innovation, be at the forefront in the sector, is in continuous transformation and becoming the model to follow. The second is based on the ability to react, when the environment is more dynamic and uncertain, the more flexible it must be, to adapt to the evolution of the environment. The last position does not follow the trends and is not as flexible to adapt, makes changes progressively when it is safe and certain to manage the transformation.

More than a position of change, Courtney (1997) determined that the ways in which organizations adapt with the implementation of technological innovation. A committed position must be assumed for the change, based on the configuration of the future that is focused on the organization based on the technological application. While the position of adapting to the future is necessary for relatively young organizations, which are increasing their service capacities. For this reason, the educational organizations that reserve the right to participate are institutions whose size (size) or longevity have developed complex processes (control sections), which due to their dimensions, which are difficult to adapt in an agile way to the changes that occur in the work environment.

For Robbins (1999), the change depends on the magnitude, when it is continuous and does not affect the functioning of the organization, it was a first order change; but if the change is discontinuous, radical, involves new ways of operating it was a second-order change.

Robbins' position on the magnitude of the first order change, where organization is not affected by the change is an idealized form of organization, while the position of second order, sees it as something abrupt and unexpected which breaks with the principle that all organizational change is planned, in addition to those exposed by Courtney before the ways in which organizations adapt technological innovation, however it must not be overlooked that some technological innovations are abrupt.

The focus of the causes of change for Gordon (1999) resides in three aspects: behavioral, structural or technological. In the first case, it focuses on improving communication, group behavior, leadership, power relations and culture; in the second it focuses on the redesign of organizations and on the ways of working. Finally, the third focuses on changing equipment and methods, materials or techniques, improvement and automation of processes (reengineering).

Courtney's identification of the shape of the future is analyzed in more concrete ways by Gordon, since one of the ways in which organizations deal with change is through flexible structures that facilitate the process of adapting change and another behaviorally. Supported by culture, leadership, it also incorporates the technological aspect as the cause of the independent change to the turn of the organization as Courtney mentions.

The structural approach (based on processes) is shared by Coronilla and Del Castillo (2000) cited by Rubio (2009) in the actions that derive from the functions, the procedures; likewise Acosta (2002), mentions the relationship with the activities of the organization, the first ones are presented in the processes that lead to the scope of the organizational mission; the seconds in the support and coordination processes, in charge of synchronizing the operation of the areas that make up the organization, however they are the result of a process of reconfiguration of the organization; which require time and not all organizations can afford; it is for this reason that Gordon adds to the change the technological approach as an accelerator and determining factor of causes of organizational change.

For García, Rojas & Díaz (2011), the causes of organizational change are given in three dimensions, the first is in the context, where the need to change converge or diverge; the second, is the content, this is presented as evolutionary when the change is gradual and is carried out so naturally that it does not generate conflicts or in a revolutionary way when it modifies the structures and rules of the organization, the third dimension of change is in the process, these can be tangible or intangible.

The context of the organizations is diverse, so the form and speed of the changes varies from sector to sector, in some the need for change occurs in years, while in others in months, Courtney already indicated in the ways to configure or adapt to the future, and is taken up by Rubio (2009), as incremental transformations, anticipated or emerging, in order to adjust its operation to new requirements.

Organizational change can originate from various causes (reasons), some of which originates in processes, infrastructure, services or culture; which generates uncertainty about the way to face the changes; there is a diversity of opinions on the aspects to consider in an organizational change.

5. External and internal forces of change

Returning to the foregoing in the origin of the change by Heraclitus of Ephesus (544 to 484 a.C.), on the existence of two major currents (Forces). Beckhard (1973) exposes the planned effort as a principle of Organizational Development (DO) and later incorporates organizational change (Beckhard, 1992), as the internal or external environment, there is a struggle of opposites (constant) in every act associated to man, and the process of organizational change is not the exception.

This struggle of opposites in the process of change, as internal and external forces work together tracing paths for survival, and that for Silva (2002) cited by Dominguez (2009) has influence on the "decisions of those who have the task of directing organizations" (p.14), as a consequence of the transition suffered by organizations for Rivera, (2013) due to the process of adoption and / or adaptation.

External forces

Everything that is outside of organizational control can become a force for change, so it is necessary to know it. Stewart (1992) mentions that the external forces that are involved with the process of change are four, the first is the social environment, which has a great influence on the working environment such as clothing, religion, customs, norms, cultures, age, education and standard of living, among other aspects, these can influence both individuals and groups, as the environment in the organization. The second is the economic, this affects the income level of people; the interest rates, exchange rates, the type of goods that can be acquired, the production of the companies, among others, are modified.

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The third is politics, influences organizations through national or international laws, through taxes, regulations, changes in public policies. Finally, innovation, use of new techniques, modification of procedures, knowledge necessary to work in the environment, increasingly demanding, the introduction of new technology, machinery, equipment, work tools are drastic changes for some workers.

A consequence of life in society has an impact on individuals, so individuals are continuously adjusting their behavior, that is, they do not remain static in the face of social changes. Similarly, the economy of people and organizations, undergoes adjustments through periods of abundance interspersed by periods of austerity, so, you must learn to deal with adoption and / or adoption processes, as mentioned by Rivera (2013), you can reduce the periods of austerity of the organization and therefore that of the people. The change in policy, mentioned by Stewart (1992), can affect individuals, as their freedoms (social change) are restricted, as their income is reduced by the payment of taxes (economy), to the over-regulation to effect some procedure (bureaucracy); to the change in the regulations derived from a change in the law.

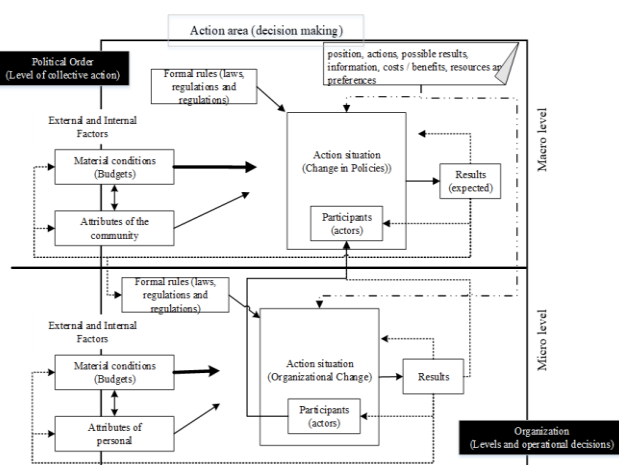


Figure 2 Change in the organization from public policy
Own elaboration based on Kiser and Ostrom (1982),
Ostrom (2005), in Real (2007)

Organizations are affected in a similar way, however, this requires an analytical approach (methodical), as is the IAD (Institutional Analysis and Development Framework), as mentioned by Kiser and Ostrom (1982) cited by Real (2007), present the change in policies as the result of micro-processes, based on the relationships of the subsystem (strategic relationships, limited rationality).

With the areas of action, given that these interactions are considered in the context of institutional structures, acting as a guide of individual action; the policy space, as elements of the subsystem's environment, where stability in a public policy is directly related to the autonomy of the subsystem, and its decision-making capacity, therefore, the rules that affect the participants, the positions and the Control decisions are of special importance, this is illustrated below.

The subsystem conformed by the area of action (decision making), the participants (actors) that try to influence decisions in the levels of collective action or in the operational decision; and whose actions within the subsystem vary, depending on the components of the action situation (origin of the change), the formal rules (laws, regulations and regulations) and informal rules that are managed between the components and the factors (external and internal), which are not necessarily under control. The decision making for Kiser and Ostrom (1982), are exemplified by the change of policies (laws, normativities), how they affect the organization and the subsystems that make it up; where the magnitude of the change does not stop its daily activity as mentioned by Robbins (1999) derived from its autonomy to adapt to the future.

Internal forces

The internal forces are factors that originate or drive changes, emanate from the organization itself, arise from the analysis of organizational behavior, are displayed as alternative solutions, creating the need for change. In this regard Stewart (1992) mentions that the level of motivation of workers can favor a change. While for Robbins (1999) the motivation is the will to exert high levels of effort for the fulfillment of the institutional goals, without neglecting the satisfaction of the individual need. However, for Hellriegel, Jackson & Solcum (2005) motivation is a source of energy that incites, inspires, impels and influences people to action.

Therefore, it is necessary to acknowledge (know) if the personnel that work in the organization are motivated since they are the ones who will make the effort during a change process, and if they lack this motivation or it decays, the initiative (process) of change, it will be diminished. García, et. al., (2009), mentions that the motivation increases to the extent that satisfaction of the needs of the individual is perceived and the importance that it assigns to different components of their work environment.

Within these components of the environment, Stewart (1992), mentions the relationships between individuals and groups, a good working environment, an adequate management of conflicts between individuals, between individuals and interest groups or with unions, among others. workers and hierarchies (heads, authorities), favors communication in the organization.



Figure 3 Elements of the environment, Da Silva (2002) *Theories of Administration*, p. 53, cited by Domínguez & Giordano (2009).

For Fernandez (2005) communication allows building an identity of the organization, in a climate of trust and encouragement, deepen knowledge of the company as an entity, make public the achievements (achieved) by the organization, individually inform the members of the organization, promotes communication at all levels. For his, part Nosnik (2000) cited by Santana (2011), characterizes the organizational communication system as an important means that the organization has to adapt to the changes it experiences as a system, therefore it can be studied as a process or as a series of superimposed processes. Communication is a set of effective activities, which allow to create and / or maintain good relations with and among the members of the organization, integrated and encouraged to contribute with their work to the achievement of organizational objectives, to make known the need for change.

Returning to what was stated by Domínguez & Giordano (2009), "the demands that lead organizations to change are the environmental trends constituted by internal factors:

Structural management or by strategy for competitiveness; and external: social, economic, political, legal, cultural and ecological "(p.14).

For McKelvin & Aldrich (1983) the external and internal forces work together to generate a change, while for Stewart (1992) the external forces are involved, that is, they have some relation but do not establish any proportion or level of affectation, while that for Carrión & Machado (2006) and López (2013) only create the need for changes of internal order.

The internal and external forces of change configure different routes, for which the managers of the organization must be careful when selecting what change or changes are needed, to manage the change process, it must take into account the costs and the problems that entails face it, as illustrated in the following image. Zamora (2018) a simple definition of the concept of change could be when you consider that "change" means that the new state of things is different from the past state of things.

However, change is a process that involves modifying power centers, uses and customs, both personal and group, risk, dominate fears and resistances. Changes in an organization go beyond implementing technological advances, redesigning the structure or developing new business strategies.

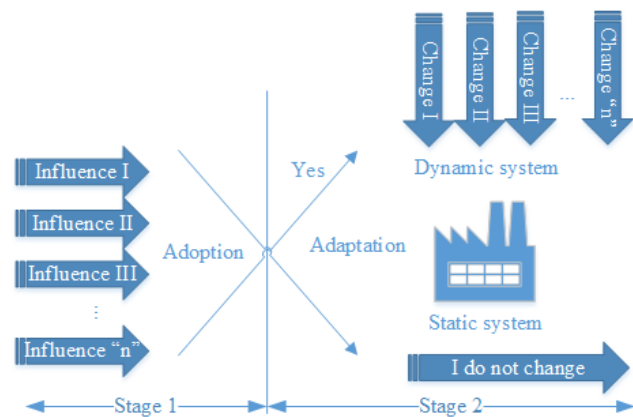


Figure 4. General perspective of organizational Change: adoption and adaptation processes, Rivera (2013, p.97) "Organizational change: a strategic process of adoption and adaptation" Postgraduate Studies and Research Section, UPIICSA, IPN

Any change tends to affect the human "Factor" system, in this regard De Faria (1995), mentions that any change in the technical or administrative system affects some modification of activities, tasks or attributions of people.

Organizational change: What really changed?

In the organization the formal and the informal coexist, Selznick (1957), quoted by Pelayo (2001) refers about the coexistence between the ideal and the real of the organization, in this duality can understand how an organization generates rules and forms of behavior particular of this organization. Therefore, the change that occurs in an organization depends on the talent (capacity) and the aptitude (skills) of the managers to operate them (execute it). Allaire and Firsirotu (1992) cited by Rodriguez (2009), mention that this change can focus on systems, structures, culture and / or strategies, this is not exclusive, the change can be focused on one of these elements, or in combination of some or all of them.

6. Change in the system

When talking about system is not in reference to a computer system or a development of a computer application (program), it is in reference to the system of established order, for Katz and Kahn (1977) in Pelayo (2001) organizations are systems that achieve stability through structures of authority, reward mechanisms based on values; changing when there are significant changes. While Miller (1978) cited by Pelayo (2001) are a "set of interdependent units that establish strong links between them, ie, that the mobilization of a unit means the readjustment or mobilization of the rest of the system", to this type of Systems are known as loosely coupled systems. Weick (1982) cited by (Pelayo 2001), states that systems loosely exist when the relationship between unit A and unit B is:

1. More sporadic than constant.
2. More casual than consistent;
3. More significant than significant
4. More indirect than direct, and
5. More eventual than immediate "(weick, 1982, cited by pelayo, 2001: 46).

The organization for Pelayo (2001); Thompson (1967); Scott (2001); Schein (1985), is a loosely coupled system that has a defined structure, ie part of a hierarchical authority (not necessarily rigid) and limited decision making capacity, (establish strong links) and where one or more are pursued determined ends, from several functionally differentiated and coordinated means (interdependent units) requiring that they be interpreted as a system.

Returning to Selznick's (1957) discussion of the coexistence between the ideal and the real, where the struggle of opposites is necessary to remain in motion; in the definition of a system that are a set of interdependent units, in which it is not ruled out that these units come into conflict, but, rather, that said conflict is part of the interdependence.

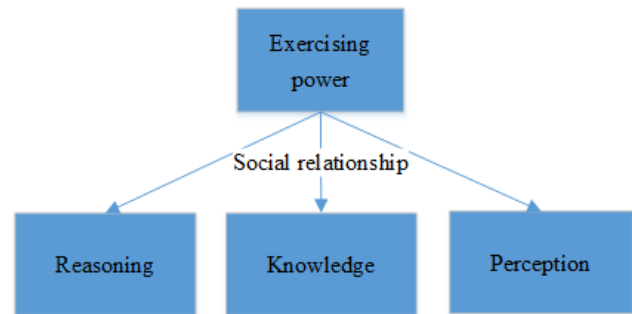


Figure 5 The nature of power and control, own elaboration based on Adams (2007)

The affirmation of Allaire and Firsirotu (1992), on the fact that the changes are focused on the systems and the characterization that they are loosely coupled as is a corporate organization.

7. Change in the structure of the working groups

The changes for Drazin (1990), cited by Pelayo (2001) are actions of individuals or groups to establish, maintain or defend the power reserve; they are the fruit, the result of negotiation or perception in a power structure, they are characterized by modifying the functioning of an organization. Changing the structure has been studied by Pelayo (2001) emphasizes the need to transform structures and the implementation of new forms of organization, reassessing the work.

The relationship between actors and structures for Cabrero (2000), cited by Pelayo (2001) becomes more complex and requires imaginative, creative and permanent approaches that allow to establish the balance between the organizational order and individual action. While for Acosta (2002) it refers to the transformations suffered by the organization itself in its functionality, specialty and control processes, product of its own learning; organizations of pyramidal structures and rigid chains of command, at the time were perceived as highly specialized or bureaucratic.

For Adams (2007), the change in structure has its origin in man (being), modifying its behavior, so that it agrees with that of others, with its own desires, to achieve it manipulates the environment (indirect control) where is exercising power (control system) over the capacity for reasoning, knowledge and perception.

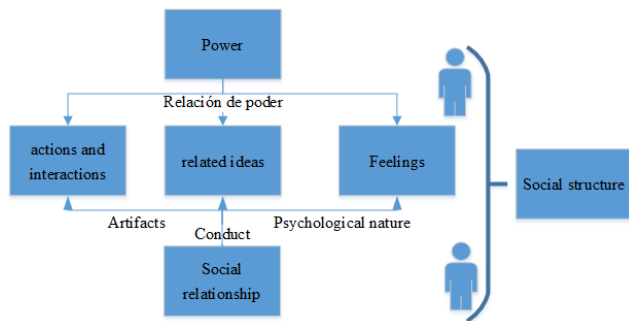


Figure 6 Social Control System, own elaboration based on Adams (2007)

The Power for Adams (2007) is part of the Control System, of the greater effort of human beings to adapt when creating new and more complex structures, where the borders and the disposition (structure or arrangement) of self-organization are delimited, this it also involves a social relationship, what in it "exists" is a set of actions and interactions, and a related set of ideas and feelings, said "relationship" refers to a particular set of psychological (processes) in terms of behavior (evident process), and artifacts, that involve two or more individuals, giving rise to power relations.

Power relations for Adams (2007) are conceived as the interaction between two people, these can take the form of egalitarian or subordinate, in the first the actors assume that their relationship is equity / cooperation, while in the second one of the actors is in a subordinate position and the other as a subordinate, the person who represents authority or who assumes a superior power, is by the fact of having control over the elements of the environment.

The basis of the power structure that the human being (man) has built around them, are actually a series of relationships (power) that allow increasing the chances of survival (social relationship), as mentioned by Adams (2007), this through controlling (energy manipulation) the processes (physical elements) of the environment, that is, based on the control of knowledge (and events), however, to exercise power is not enough to have control.

It is also necessary (it is required) to recognize the nature of the effect of the control, or rather, the effective control in the decision making in order to exert power.

The granting of power from one individual to another represents, both in a hierarchical relationship and a coordination (delegate power), this leads to an affectation to the behavior of the individual which goes beyond their own control, that is, the power that emanates is transformed into a series of corporate structures (system), where the leader reached a source of power, allowing some independence with respect to the power assigned to him by the members of the group according to Adams (2007), however, control and decision-making that entails, depending on the way in which the position or position of structure was obtained, on the possession of skills (reasoning) and / or superior knowledge.

8. Organizational culture

The term culture is studied by Insaurralde (2010) tracing its origins to the Latin *culturam*, whose translations can be understood as cultivation or being in the care of something, in the sixteenth century the term was resignified to the cultivation of the mind, about Molano (2007) alludes that the term was taken from Cicero who metaphorically had written the *animi cultura* (cultivation of the soul). While the term *Kultur* implied a personal progression towards spiritual perfection, by later in the eighteenth century transforming into civilization as mentioned Kuper (2001) cited in Molano (2007) is associated with material progress.

The organizational culture for Smircich (1983) is a means to improve the performance and achievement of the objectives; culture is a resource that generates value, and that is not possible to be replicated (copied) by competitors. In the end (later) Schein (1985) cited by Insaurralde (2010), formulates that culture is understood through artifacts, values and assumptions, where the first (is the surface of culture) are the tangible aspects and visible from cultural activity, the latter represent the social, philosophical, goals and standards. Finally, third parties are beliefs regarding reality and human nature. While for Barney (1986) the organizational culture becomes competitive advantage and at the same time as a strategic asset.

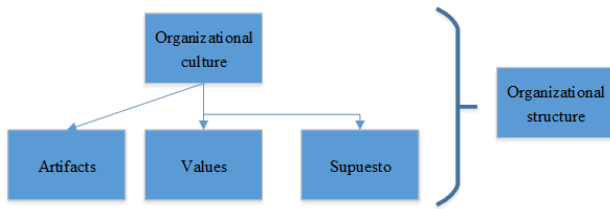


Figure 7 Formulation of culture, own elaboration based on Schein (1985)

The changes in the organization, for Allaire and Firsirotu (1992) cited by Insaurralde (2010), are due to the fact that they are small companies, and therefore producers of their own culture; similarly for Acosta (2002) they are a change in the culture of the same; such changes may cover the entire organization, or only a part of it; a change in culture modifies the values that regulate the behavior of individuals and organization, among individuals themselves, in the same way customs and knowledge (assumptions) are affected, this makes culture a means to achieve the goals of the organization (artifacts).

Allaire and Firsirotu (1992) cited by Insaurralde (2010), mention that organizations are small societies, and therefore producers of their own culture; similarly for Acosta (2002) the changes in the organization are related to a change in the culture of the same; such changes may cover the entire organization, or only a part of it; a change in culture modifies the values that regulate the behavior of individuals and organization, among individuals themselves, in the same way customs and knowledge (assumptions) are affected, this makes culture a means to achieve the goals of the organization (artifacts).

Culture for Rendón and Montaña (2009) represents the symbolic life of a community, while the organizational culture associates a series of resources to delve into the hidden aspects of the organization's functionality (operation); On the other hand, Rodríguez (2009) mentions that cultural references are the sum of experiences in the cultural education of managers and other members of an organization, of organizations originated in other social units and in the geographical environment in which it operates..

The cultural references mentioned by Rodríguez (2009) are:

- National: includes beliefs about employment, labor relations, accepted uses of authority and other forms of shared relationships that are manifested in laws, customs and other social institutions.
- Regional: refers to significant variations of national cultural patterns that exist within a country -such as those of the north in relation to the center or the south-. It also includes regional guidelines covering more than one country.
- Professionals: refers to beliefs and values shared by professional groups such as doctors, nurses, lawyers, computer workers and other similar groups.
- Institutional: values of non-profit organizations such as political, religious, professional associations and unions.
- Sectoral: refers to common assumptions in an industry or sector of activities about the appropriate form of behavior or practices such as agricultural, mining or fishing. (Rodríguez, 2009, p.71).

Through the artifacts, values and assumptions, one can get to understand the social conformations exposed by Allaire and Firsirotu (1992), achieving with them the cultural changes as Acosta (2002) affirms, in the process of self-regulation of the mentioned borders by Adams (2007), the symbolisms and functionalities of Rendón and Montaña (2009) and the cultural referents of Rodríguez (2009), thus conforming the changes in the organizational structure and culture.

9. The organizational policy

The model of economic man is opposed to the idea of administrative man, Simon (1947) cited by Pelayo (2001) argues that in the individual there are certain natural limits to store and process information, and their behavior is not in terms of looking for what better, and only the best possible solution, maximization; but it is satisfied with the solution that satisfies the preferences (minimum that it has), it is a limited rationality, to this possible solution we can understand it as the political (decision making).

Kiser and Ostrom (1982), the changes that are presented in the policies are the product of the relationships of the subsystem as well as the elements of the environment. Where the stability in a policy is related to the autonomy of the subsystem and the capacity of decision thus influencing the organization, through laws, taxes, normativities and specificity of work.

However, for Adams (2007) it is about the influence of one man over another, that sooner or later, will raise the question of politics, which is part of most systems as a constant effort to maintain and reproduce an order previously established. That like Tyrantia Geidt (2007) is an omnipresent element in all human relationships, hence the models must take it into account.

Similarly, the policy for Dominguez (2009), is part of the demands that lead organizations to change. In recent years laws have been approved or reformed with the aim of promoting and promoting the use of ICT. In Mexico, the Inter-Secretarial Commission for the Development of Electronic Government (CIDGE) was created, a collegial body established by Presidential Agreement, on December 9, 2005, whose objective is to "Promote and consolidate the use and exploitation of Information Technologies and Communications (TIC) in the Federal Public Administration "(*gob.mx*, 2017).

Subsequently, on February 4, 2016, the "AGREEMENT is published which modifies the policies and provisions for the National Digital Strategy, in the area of information and communication technologies, and in information security, as well as the Administrative Manual of General Application in said matters. "(Official Gazette of the Federation, 2017).

In this agreement, the National Development Plan (2013-2018), the Program for a Close and Modern Government (2013-2018), in which the adoption and development of Information and Communication Technologies is fostered, is retaken. (ICT), modernization and improvement of government services, this through the "Administrative Manual of General Application in the areas of information technology and communications, and in the security of information" (MAAGTICSI), published on May 8, 2014 and in accordance with the "Administrative Manual of General Application on Procurement, Leases and Services of the Public Sector" (MAAGMAASSP). (Official Gazette of the Federation, 2017). With them, it is intended to reduce the technological backwardness of the Federal Public Administration, in addition to the administrative simplification of the processes contained in it; It begins with the standardization of terms as established in Chapter I, entitled "Object, Scope of Application and Definitions", Article 2: This section contains definitions regarding technology, such as:

- ICT: Information and communication technologies that include computer equipment, software and printing devices that are used to store, process, convert, protect, transfer and recover information, data, voice, images and video; "(Official Gazette of the Federation, 2017: 12).
- Computational Application: software and / or computer systems, which are made up of a set of components or programs built with tools that enable a functionality or digitize a process, according to previously defined requirements; "(Official Gazette of the Federation, 2017: 9).
- ICT Infrastructure: the hardware, software, networks and facilities required to develop, test, provide, monitor, control and support ICT services; "(Official Gazette of the Federation, 2017: 11).

The definition of computer application is made in references to the development of a program (software) to perform a specific task and that can make use of a hardware device, so it is necessary to manage the technological infrastructure with which the institution has.

Green Technologies: the set of mechanisms and actions on the use and exploitation of information and communication technologies, which reduce their impact on the environment, contributing to environmental sustainability; even considering the recycling of components used in the use of these technologies; "(Official Gazette of the Federation, 2017: 12).

ICTs have the characteristic of interoperability, standardization of their components and the sharing of resources through the configuration of the local area network, because the efficient use of these technologies reduces the environmental impact.

Definitions for improvement

Bases of Collaboration: the consensual instruments celebrated by the institutions to establish actions that modernize and improve the provision of public services, promote productivity in the performance of their functions and reduce operating expenses, in order to increase efficiency and effectiveness and comply with the objectives set forth in the Program and formalize the commitments, as well as their respective performance indicators; "(Official Gazette of the Federation, 2017: 9).

Guidelines: Guidelines for the application and monitoring of measures for efficient, transparent and effective use of public resources, and budgetary discipline actions in the exercise of public spending, as well as for the modernization of the Federal Public Administration, published in the Official Gazette of the Federation on January 30, 2013; "(Official Gazette of the Federation, 2017: 12).

PETIC: the set of projects developed by the Institutions, consisting of a maximum of 7 strategic projects, in the terms established in this Agreement; (Official Gazette of the Federation, 2017: 12).

Promoting modernization, through a collaborative base decreases the redundancy of information, promotes the interoperability of systems, which translates into an improvement in services and a reduction in processing times, this as part of the guidelines for the modernization of public administration, for them, public institutions grouped no more than seven strategic projects as part of the Strategic Program of Information and Communication Technologies (PETIC).

10. System integration and open data interoperability

- Computation in the Cloud: the model of digital services that allows institutions to access a catalog of standardized digital services, which can be: infrastructure as services, platform as services and software as services (...)
- Decree of Open Data: the Decree establishing the regulation on Open Data published in the Official Gazette of the Federation on February 20, 2015 (...)
- Technological Domain: the logical groups of ICT called domains, which make up the technological architecture of the Institution, which may be, among others, security groups, central and distributed computing, end user computing, telecommunications, collaboration and email, internet, intranet and computer applications;
- EIDA: the Interoperability and Open Data Scheme of the Federal Public Administration, established by means of an Agreement published in the Official Gazette of the Federation on September 6, 2011; (Official Gazette of the Federation, 2017: 10).

Encourage the use of open data in corporations, has the purpose of generating trust through transparency and access to information, for them, the access and interoperability decrees are the basis for the cloud computing scheme, since, for one side is based on providing information at any time, as well as without dependence on a particular system (platform), as in the past, certain applications required a browser, base operating system or a specific program to access the information.

11. Access security, information security.

- Digital Identity: the unique identification of a physical or moral person through the Single Population Registration Code (CURP) or the Federal Taxpayer Registry (RFC) e.firma, before a computer application or an electronic service; (...)
- ERISC: ICT security incidents response team at the Institution (...)
- MAAGTICSI: the Administrative Manual of General Application in the areas of information technology and communications, and in the security of information. Sole Annex to this Agreement; "(...)
- National Single Window: the one established through the Decree published in the Official Gazette of the Federation on February 3, 2015; "(Official Gazette of the Federation, 2017: 11-13)

Derived from a cloud computing policy where users can request almost any information or perform a procedure through the single window, which is part of the national program for the modernization and administrative simplification gob.mx, this program must be applied by every instance of government, to improve the attention to citizenship, so it is necessary to identify and access these systems through digital identification, which leads to significantly improve access to and security of information (MAAGTICSI), which requires a specialist in the field and a framework of operation.

Project management in the field of information technology and communication:

- Executive Portfolio of ICT Projects: Total set of ICT projects that the institution will propose to the Unit for follow-up.

- Operational Portfolio of ICT Projects: Total set of projects that support the daily operation of the UTIC and are not considered as strategic.
- ICT Policy Management Tool: web system used to carry out the communication of reporting activities established in the Agreement, considering the PETIC report, obtaining the technical opinion issued by the Unit, authorization by the UPCP, the business architecture, the MAAGTICSI, among others; (...).
- Portfolio of ICT projects: is the total of ICT projects grouped according to their classification in the Executive Portfolio of ICT Projects and Operational Portfolio of ICT Projects that the Institution plans to develop, in the terms established by the MAAGTICSI; (...).
- Proyectos de TIC: el esfuerzo temporal que se lleva a cabo para crear un producto, servicio o resultado de TIC y que cuenta con presupuesto para su ejecución; considerando 2 tipos: proyectos operativos que soportan las actividades diarias de la UTIC y proyectos estratégicos en los términos señalados en el presente Acuerdo; (...).
- UTIC: la Unidad de Tecnologías de Información y Comunicaciones o área responsables de las TIC en la Institución.” (Diario Oficial de la Federación, 2017: 11-13).

In Chapter III called "Policies for the National Digital Strategy", Article 5, The Information and Communications Technologies Unit (UTIC), establish the technological record through the ICT Policy Management Tools, in this, it is integrated with an estimated budget and interoperability of the systems, in the month of October of each year. Article 6 establishes the Strategic Portfolio of Strategic ICT Projects (PETIC), with a maximum of 7 projects, to be delivered in the month of December of the same year, contemplating, among other things, its impact on strategic objectives.

ICT, information technologies and communications, are the technologies needed for the management and transformation of information, and very particularly the use of computers and programs that allow creating, modifying, storing, protecting and recovering that information (Sanchez , 2008).

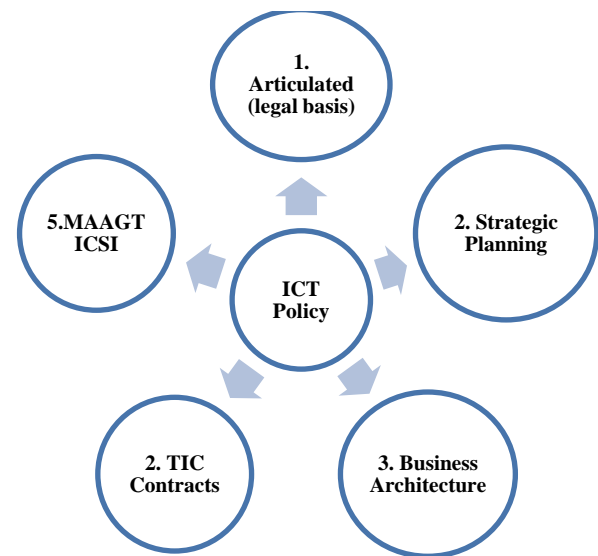


Figure 8. Main elements of the ICT Policy. Own elaboration based on the 8 Policies, in the Matter of Information Technologies and the MAAGTICSI (2018).

In Article 8 and 11 states that public institutions should share resources, such as infrastructure, ie the shared use of telecommunications networks and encryption system for data security. While in Article 9 and 10 the hiring and leasing process is proposed, through public bidding with the invitation of at least three suppliers, a technical opinion, a detailed design of the modular base application, in addition to the provisions of the fraction V of Article 10 of the "totality of its components as they are, the source code, the object code, the physical and logical design, the technical and user manuals; except for all those who already have a registration, patent or license to use;" (Official Gazette of the Federation, 2017: 17)

12. Organizational innovation

One of the factors that increase productivity is technological change, for Schumpeter (1978) cited by Montoya (2004), they are the cause of a constant transformation process, that is, the phenomenon of technological innovation; It is important to clarify that the importance lies in provoking revolutionary changes in the organization or in the management processes.

However, for Dávila (1991) quoted by Pelayo (2001), innovation is understood as: accomplishing new things, achieving or seeking new combinations of resources, doing things in a new way. The main characteristic of competitiveness, for Porter (1991) cited by Soto-Muciño (2016) is the innovation in the organization must be permanent, although it requires a continuous effort for its success.

Innovation for Tissen, Andriessen and Deprez, (2000), is assumed as the anticipation and adaptation to change, is related to the capacity of organizations, therefore, organizations must be proactive. While for Cabrero (2000) cited by Pelayo, (2001) is the relationship between actors and structures, they become more complex and require imaginative, creative and permanent approaches that allow to establish the balance between the organizational order and individual action.

One of the factors that shape competitiveness is innovation for Miltenburg (2005) cited by Soto-Muciño (2016), defined as the ability to quickly introduce new products / services or make changes in current ones. While for Robbins & Judge (2013), it is a specialized exchange rate, the application of an idea to start or improve a product, process or service. According to the Oslo manual (2006) in a series of modifications introduced progressively, that is, a generally continuous process of adoption of innovations, characteristics of the sectors of low or medium technological content.

Respond to the need to install (in the servers) capacities aimed at the continuous improvement of public management by recognizing the processes that all entities live in order to generate, systematize and transfer information necessary to respond to the challenges and needs of public entities. It requires a commitment from the organization, which is why, through the Institutional Training Plan, it is sought the integration of programs that allow to receive knowledge and promote multiplying agents in the work team, thus favoring a culture of knowledge that impacts the processes of the corresponding entity, for its better functioning of operation.

Sources of innovation

The sources of innovation are for Zimmermann (2000), within the organization, in the structures, in the administration and in the excess of resources, which is the responsibility of the members of the organization to obtain the best performance. First of all in the organizational structure, since it influences positively; in organic organizations there is less differentiation, that is, there are few hierarchical levels, so they are vertical and centralized in their daily operation, thus promoting flexibility and organizational adaptation, allowing the creation and adoption of innovations.

Second, the administration provides legitimacy and knowledge, how to do the tasks and obtain the desired results, that is, it allows to follow up on the activities that are carried out, as well as improving the quality achieved, reducing the time processing allowing it to be used in developing new ideas.

Third, there must be an excess of resources, since these allow an organization to innovate, assuming the cost of instituting or assimilating failures, only then innovation flourishes. In aspect of the communication between units is extensive, and it is required to be facilitated in the organization between the different departments, through the creation of committees and task forces, which combine the various profiles thus promoting innovation in the organization. However, Zimmermann (2000) mentions that they are several of the best organizational innovation ideas that were never put into practice.

The principles of innovation in culture

Innovation implies a radical uncertainty, Nelson & Winter (2000) mention that due to this uncertainty, people and organizations do not agree on the direction they will take, which implies that the main function of an efficient institutional structure is effective selection of innovations, accepting and spreading the good ones and eliminating the bad.

So, innovation is a discipline, whose principles can be learned, built, practiced, implemented correctly can lead to improve the performance of organizations and sustainable growth, the culture of innovative organizations is based on principles such as:

- Environment: Organizations must cultivate passion, encourage learning, reflect, in the same way they must stimulate and challenge people to take risks, to think independently...
- Values: these are the guide and give direction to the organization, the ethical work that supports our actions inside and outside the organization
- Resource: The resources of an organization are the human capital that is in it, that through creativity and knowledge, achieve great transformations.
- Processes: attention must be paid to opportunities for improvement, no matter how big or small it may seem
- Behavior: Innovation must be timely, flexible, adaptable, collaborate, resistant, capable of making brave decisions under conditions of uncertainty and dealing with ambiguity "(Nelson & Winter, 2000).

A group of workers can become a team of innovators, this is achieved if they share a vision and language of innovation; they have at their reach the tools to build processes for continuous improvement.

Some of the organizational changes can be presented in the structure, Acosta (2002) refers to the transformations that the organization suffers in its functionality, specialty and control processes, product of its own learning; organizations of pyramidal structures and rigid chains of command, at the time were perceived as highly specialized or bureaucratic, however, at present the flat and multifunctional structures have shown to have a better ability to adapt and respond to changes.

Innovation in the organization

Martínez, Carrasco. & Bull (2018) the adoption of technology and new methods of work by collaborators is often difficult to achieve, generating in most cases a resistance to the changes proposed by managers or heads of small and medium-sized areas Business. Given this problem, a series of models have been generated in the academy to address the management of the change. Within these proposals, one of the most outstanding corresponds to the classic change management model called the Three Step Model proposed by Lewin.

This model identifies three stages to manage the change in the companies, which correspond to the phases of: unfreezing of the old practices, displacement and change of the organization towards the new direction and re-freezing of the most effective ways in the organization (Mengíbar, del Rio and Terol, 2007).

Garbanzo (2016) it is necessary to have an organizational capacity of teaching developed at the interior of this, and it is properly an innovation that guides the organizational development, this positively influences the promotion of innovations and competitive organizational management. Learning is considered an eminent condition for change based on the level of knowledge of each organization, which includes both cognitive and behavioral components associated with knowledge. Innovation involves profound changes and transformative responses to contextual demands, which in turn translate into the development of labor competencies of the member staff of the organization, and generate a greater growth of the organization and adaptive capacity exemplary permanently, understanding the organization from a systemic approach.

Innovation is defined as the process of creating and implementing a new idea:

Hellriegel, Jackson, S. & Solcum (2005, p.355)
Innovation always involves the breaking or redefinition of some procedure or the emergence of an emerging thought, which put into practice contributes to new organizational schemes in search of institutional objectives; is to do something new, different. The ideas that underpin innovation can arise within the organization as well as externally.
Dynamic organizational environments promote change and innovation more easily. Innovations can occur in the technical, processes and procedures of the administration.

The concept of innovation for Damanpour, (1991) cited by Soto-Muciño, Reyes and Infante (2016), is very broad, reflecting the existence of a wide variety of dimensions (phenomenon), it can be a new product or service, a technology, a structure or an administrative system. For them, organizational innovation is defined as the adoption of new systems, policies, programs, processes, products or services, generated internally or acquired (Daft, 1982, Damanpour & Evan, 1984, Zaltman, Duncan & Holbek, 1973). According to Jiménez-Narváez (2005), he argues that there are various theoretical references from the economy that study innovation as a theoretical problem.

The integrative proposal for the study of innovation is known as the theory of systemic competitiveness, and, in a large social plane of intervention and general action, the concept of national innovation system, in a particular plane of governmental intervention as a policy of development, are the works of Lundvall (1992) and the Sussex School for the sustainable development of technological capabilities, through a holistic and integrating vision, closely related to the theories of organizational development.

The success of an organization depends to a large extent on the use of knowledge and skills, innovative creativity and motivation, both of its staff and its allies: suppliers, collaborators or the customers themselves-users of the services, as well as the organizational learning, all of them circumscribed in the value chain of the organization. Very large and bureaucratized organizations can be as innovative as small and unbureaucratized ones.

Organizational innovation before change for Lam (2005) cited by Oslo (2006), "is a response to technological change, when in fact innovation in organization could be a necessary and prior condition for technological innovations" (page 18). In addition, that organizational innovation also refers to the implementation of new methods of organization.

This is a fundamental element of organizational learning that is a systemic process, which has a knowledge structure that evolves, are developed on a permanent basis responding to the transformations of the context that occur in different ways depending on each case. Thus, innovation is understood as a process that articulates the accumulation and combination of new knowledge (Acosta, 2011).

According to Garbanzo (2016), he proposes that an organization that learns has the necessary internal resources to promote the transformations it requires, as well as the ability to promote a culture of permanent improvement and optimize the performance of each individual that makes it up. In learning organizations, innovation and change are seen as processes inherent to the internal culture. There are characteristics of organizations that learn, worthy of consideration in the educational field:

- The leadership is shared.
- Innovation is part of the culture.
- The attention to the target population is a priority.
- The members of the organization are part of the identification and solution of problems.
- Work resistance is approached correctly.
- Regarding the media, both the management and the rest of the levels know and share the scope, objectives and goals.

Considering that there are determining elements in public organizations that must learn in themselves according to their particular activity and that require considering, from their management, in the different elements that articulate, that favor efficiency in the organization based on knowledge mutual, and for this it should be considered that this group is participating fully, then it requires a current dynamics of the public organization that must leave behind traditional organizational paradigms to give rise to new conceptions, which should be supported in the development with a philosophy of innovation.

13. Change Process

Organizational change is presented in different ways, as García Rubiano, Rojas and Díaz (2011) suggest, it is possible to classify it in the following way:

- a. Changes in the systems is presented in three ways, the first as the change within the system, in this one acts on the effects and not on the causes; the second as a change to the system, modified the processes that are operated, and finally of the systems, that is, by a change in technology that can be accessed, thereby allowing significant advances.
- b. Lack of opportunity, is based on the reduction of expenses and the development of strategies to increase profits.
- c. Adaptation-transformation, in this type of change seeks the adaptability of people and transformation of the environment.
- d. Fluid structures, accelerated changes, although the changes have not been fully understood, the following transformation has been initiated, which is why discontinuous scenarios are more similar to fluids than structures.

- e. Continuity-discontinuity, the discontinuity of the changes, changes break with the logical sequences of improvement, disruptive innovations.
- f. Linear-systemic thinking, the type of linear thinking perceives changes as simple sequences in a direct cause-effect relationship, while the systemic integrates the variables of their environment (García Rubiano, Rojas and Díaz, 2011, p.128).

The change in the systems is a process of adoption and adaptation of technologies, which is regularly given by obsolescence, which allows to lead to processes of adaptation-transformation, in these the skills and knowledge are put to the test, without embargo, if changes are radical adaptation time is increased, which can lead to continuity-discontinuity changes, if they are prolonged irremediably lead to processes of change due to lack of opportunity, if the technological change had taken correctly this would be seen as a process of linear-systemic thinking change. So the classification of Novoa can also be understood as the transition of a process of change badly carried out (executed).

For Levinthal (1991) quoted by Rivera (2013) the processes of organizational adaptation and selection are not contradictory perspectives to analyze organizational change, nor simply complementary points of view; these two processes have a very strong relationship of interdependence in which the learning of the organizations contributes to the organizational inertia that is the basis of the selection process.

On the other hand, is Greiner (1967) cited by Bartlett and Kayser (1997) Carrión & Machado (2006, p.14) as one of the scholars who has contributed the most to his contributions to Organizational Change and who has made a large amount of studies on the subject, which have led him to differentiate a program of successful change from another failure, and for this he considers three methods when initiating a process of change; first, unilateral action; Secondly, the shared power and finally the delegated authority.

14. Managing change and overcoming resistance to change

To overcome resistance to change Robbins and Judge (2013), in their study of organizational behavior, mentions that there are eight tactics:

The first is education and communication; resistance is reduced by communicating to employees the reasons for change, the effects of misinformation or poor communication causes anxiety, therefore, by reporting on the facts and the needs of change, resistance is mitigated giving rise to the generation of commitment to make the change a reality.

The second is to promote Participation; when an individual is part of the initiative or when they have made a significant contribution, their participation reduces resistance, earns commitment and increases the quality of decision to change.

The third, is to create support and commitment, to manifest a weak commitment to change, resort to the status quo and resist holding on to the current situation.

The fourth is the development of positive relationships individuals are more willing to accept changes, when you have a relationship of trust with superiors, likewise, a work environment should promote personal development, this will lead to more positive relationships with respect to the process of change.

The fifth tactic is based on Implementing changes with justice, a way in which the organization can reduce the impact of change, resides in how the process of change is executed, that is, the fundamental thing is change and the intention to improve and not to keep privileges.

The sixth, is the manipulation and co-optation, initially refers to the attempts to exert a covert influence. Twisting and distorting the facts to make them appear more attractive, hide unwanted information and create rumors for employees to accept the change. While in the second place the manipulation and participation of the organizational leaders is combined, by granting them positions or key roles to obtain the support.

The seventh, is to select the individual, the right selection, adopt a positive attitude towards change, be willing to take risks, a flexible behavior, stability to accept and adapt easily to change are related to personality.

The eighth, the coercion. It consists in the direct application of threats or force to those who resist.

Other important factors intervene to overcome resistance to change, according to Hellriegel and Slocum (2004) cited by Dorta (2011):

1. **Empathy and support.** Understand how employees experience change Help identify those who are concerned about the change and understand the nature of their concerns.
2. **Communication.** People are more likely to resist change when they feel insecure about the consequences. Effective communication reduces gossip and unfounded fears. Proper information helps employees prepare for change.
3. **Participation and inclusion.** Perhaps the most effective individual strategy to overcome resistance to change is to involve employees directly in the planning and implementation of the change. The participating employees will be more committed to implementing the planned changes, and are more likely to generate certainty that they will work correctly than those employees who have not participated (Dorta, 2011).

Conclusion

This paper describes the aspects related to the change management process in organizations, and how it can be addressed to satisfy the need to respond to the circumstances of the environment, with the requirement to adapt to certain characteristics of change, desirable and superior how to do it in the organization itself.

The management of information in organizations is a transcendent issue at present, since the changes in the working groups at the integral level demand the improvement of their operation structures, currently this improvement propitiates the management for a transition of the private sector and public, with the merger or a transformation towards digital work structures. However, there are difficult scenarios to understand and talk about a process of change in the behavior of the groups and identify the characteristics of the organization at the individual and organizational level, where the application and understanding of the operations actions will have to be carried out of change managers in the cluster.

Likewise, the methodology to be used and its sensitivity analysis, in application of hard and soft technologies by the organization, is of great importance, this will allow to identify the set of minimum factors to be modified in order to unfreeze the existing prejudices in the working groups, for its adaptation and improvement of its own competences in its operation activities, in addition, the planning of a change project must have the participation of all the actors involved in the organization.

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