

Auditing in Food Processing Unit

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[Course]

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Chapter 1 Introduction

1.1 Background

Scientific research on the subject of information audits began in the 1970s, observing a wide range of them in the world literature ranging from the proposal of various approaches, models and methodologies and their application in various case studies, extending to the actuality. Among the most cited authors in studies on these topics are the English Steven Buchanan and Forbes Gibb, who have provided definitions and a methodology widely used worldwide, in different organizational contexts (Lateef and Omotayo, 2019). Between 1993-1998, the definitions of this process refer to an examination of information resources, information systems and their flows based on decision-making and compliance with organizational objectives. But as of 2001, it is linked to internal control processes in organizations and its results favor the redesign and implementation of information management policy.

Information auditing offers a better understanding of the organization and the information process that occurs in it and helps to develop an information strategy or document business processes (Pantry and Griffiths, 2014). It diagnoses the efficiency of the organization's information system by identifying poorly used information resources, areas lacking information in relation to production or service processes and difficulties in the information policy that the organization manages. It allows to know how information flows through the organization, facilitating employees to improve tasks (knowing who knows what) and allowing managers to know the departments that communicate regularly with others, which helps to plan efforts and resources (Kilzer, 2012).

It is oriented towards the explicit assets existing in an organization, such as records and documents in its electronic repositories or not, databases and collections. Identify if there is redundancy, duplication, inconsistency, incompatibility in the information management system and analyze the skills and expertise of employees. It is a very useful process, if you want to create, evaluate or restructure an information service, establish a corporate information policy, redefine the strategy in relation to information, implement an intranet and carry out knowledge management projects.

Thus, the information audit allows to know the reality of an organization in all its levels with regard to its established systems to manage the information, either of the business scope (providing valuable information on requirements, opinions, organizational culture, flow of information, gaps and duplication), or also in service organizations such as in information institutions (analyzing whether the quality indicators correspond to the cost and benefit of the information systems, services and products they offer).

1.2 Problem Statement

The Food Hygiene Committee defines the Hazard Analysis and Critical Control Point System - HACCP, as it establishes verification procedures to confirm that the HACCP System works effectively. Verification can be defined as the application of methods, procedures, tests and other evaluations, in addition to monitoring, to determine the conformity of the HACCP Plan; that is, assess whether the Principles of the system were applied correctly, and if the plan was properly and consistently implemented. Verification is one of the seven basic principles of the HACCP System, and must be carried out with the objective of ensuring its effectiveness in everything related to the production of safe food in the area of public health.

The American legislation for fish and fishery products, provides for a reassessment to adapt to the HACCP plan every time a change occurs that may modify the hazard analysis or any other changes in the plan. It also states that at least one re-evaluation must be carried out per year. The audit is an organized process of gathering information necessary to verify the efficiency of the HACCP System and is carried out systematically, including with observations and review of records in place, to assess whether the planned actions are those indicated to grant food safety (Kotsanopoulos and Arvanitoyannis, 2017). It is a planned and organized activity, and because it is formal it is based on previously established rules and guidelines.

In order for companies to effectively implement the HACCP System, their decisions must be based on objective evidence and not on preconceived notions or assumptions. As regards the audits of this system, the scientific basis is a preponderant element (Baş et al., 2006). This will ensure a correct evaluation of the practical operating conditions of the plan to ensure food safety, and thereby achieve its main objective. It is concluded that, in practice, the audit process seeks to achieve the three main objectives:

1. Verify if the written Plan was prepared on a scientific basis and if it complies with the principles of the HACCP System;
2. Verify if the written Plan is being applied in practice;
3. Verify if the practical application of the written Plan is reaching the desired goals, mainly in relation to the development of safe products and consumer health

1.3 Purpose of the Study

The implementation of food safety systems is a progressive and timely process, which must be kept up to date (Roussy and Brivot, 2015). This is a challenge for companies, which, in addition to performing their production processes, must constantly monitor them to meet food

safety requirements. This research study is going to discuss an innovative audit process of food processing department.

1.4 Research Objectives

- To discuss the process of internal audit for food processing department
- To define the importance of internal audit for food processing department
- To explore an innovative audit process for food processing department

Chapter 2 Literature Review

2.1 Internal Audit

Abbott et al. (2016), indicate that the internal audit is in charge of monitoring and supervising the company's activities to achieve the objectives of the company, and they carry out an investigation in which the internal audit uses it as a tool to the prevention and detection of business fraud. Internal auditors help members of an organization in the effective fulfillment of their responsibilities by providing analysis, evaluations, recommendations and advice. Saputra and Yusuf (2019) said the internal audit is responsible for controlling facts in relation to standards or policies that have previously been dictated by the senior management of the companies. Among the functions of the Internal Audit are:

1. Know that an organization has been created through which you can have knowledge of the management of the company;
2. Verify that this organization works according to plan;
3. Examine and appreciate the rectitude, sufficiency and application of accounting, financial and operational criteria;
4. Carry out all the checks that are necessary to ensure that the information responds to reality;
5. Verify that there is a functional division of work that meets the requirements of Internal Control;
6. Judge the acceptability of what is established as “nor-ma” by the different levels of management;
7. You must verify the acceptability of the company's asset, both in its aspect of integrity and accuracy, and in terms of its justification from the management point of view;

8. You must verify that the economic information includes all the obligations that exist against third parties;
9. Recommend operational improvements, as a consequence of the control carried out.

Following the guidelines of Jespersen et al.(2016), the audit mission ceases to be limited to mere control activity and assumes an advisory function to the company's governing bodies; It fulfills two specific functions: (1) it controls the effectiveness of the policies and means used by the company by discovering any deviation from the planned; and (2) recommend appropriate measures to correct or improve certain actions. For its part, internal auditing is an excellent support tool for the management of organizations. Hanskamp-Sebregts et al. (2019), state that the relationship of the facets that characterize the internal audit:

- To be an advisory body at the service of the Directorate;
- Be independent within the organization;
- Subordinate only to Senior Management, guarantor of the independence of criteria;
- Be a control of controls;
- Contribute to the improvement of the efficiency of management by improving the procedures and information and management systems.

It is important to note that the distinguishing feature of this type of audit is its complete separation from the rest of the organization's operations. Qu (2018), points out that the internal audit is a mechanism of selective and independent control of the usual internal control gears that make the operation of the company.

On the evolution of the internal audit over time, Horvat (2018), specifies the existence of four phases that are detailed below:

1. A first phase associated with verification and very focused on inspection
2. A second phase focused on the concern of compliance basically with the procedures and processes implemented in the organization
3. A third phase where the internal audit expands its performance focusing on the operational areas of the company, beyond the pure financial field (80s)
4. In the fourth phase, during the 1990s, internal auditing takes place in a context where profound changes occur in the way companies organize and manage. The revolution of computer systems allowed obtaining financial and non-financial information, more timely and reliable, to support management activities.

Internal Audit is also an important requirement to achieve a quality certification.

International ISO 9001 standards highlight the importance of internal audits as a management tool to monitor, verify and improve the effectiveness of the implementation of the quality and environmental policy (ISO 2000) (Horvat, 2018).

An Internal Audit prevents and detects fraud and helps to avoid and demonstrate routine activities that generally take place in large companies, as well as in medium and small ones. It is vitally important to implement internal auditing in business structures, since it allows the effective prevention of possible employee and managerial fraud. The businesses must invest in staff training on issues related to fraud and audits and controls, as it will be the way in which a culture of prevention, detection and notification of frauds that may occur will gradually be created.

Chambers and Odar(2015) said, an Internal Audit is the general audit process for the entire activity of the company. It is done on behalf of the company, for its own purposes, with

the objective of verifying the effectiveness of the norm implemented. The objectives of an internal audit are:

- It is an objective activity of assurance and advice of the norm implemented and implemented.
- It is designed to add value and improve the operations and processes of a company.

It helps a company meet the planned objectives, providing a systematic and disciplined approach to evaluation and improvement of the effectiveness of risk management and control processes.

The internal auditor can be internal company personnel or external personnel hired to perform an internal audit. To be qualified to perform an internal audit, for this he must have an accredited course of the standard that you will audit and have experience in the company sector. The auditors must be independent of the audited activity. In small businesses, auditors may not be completely independent of the activity they are going to audit.

If the company has hired an external auditor, and is a member of the company's HACCP team at the same time, that person will not be able to perform internal audits in the company, since the certification auditor could determine an NC in a fundamental BRC clause or IFO KO requirement. The auditor, in the company of the person in charge of quality or designated person of the food industry, carries out inspections of the production facilities (Roussy and Brivot, 2016). However, without a sustainable management system, the results of the hard work to meet the requirements of food safety certification systems, such as BRC, IFS or FSSC 22000, can begin to degrade rapidly between routine audits.

2.2 The Audit Process

According to Fielding et al. (2005), among the verification actions, an audit of the HACCP System is an activity that must be planned in advance in an establishment dedicated to the production, handling, storage and trade of raw materials and food. A methodology must then be used to evaluate the effective operation of the written plan at the end of the work and, fundamentally, if the system guarantees the supply of food that is safe for the health of the consumer. For this, it is important that the audit team follow a logical sequence of steps that will facilitate obtaining the necessary information. It is important to highlight that there should not be a "mathematical" obligation in the exact monitoring of the steps. Therefore, the following set of steps must be followed by the audit team during an HACCP System audit process.

- a) Initial meeting;
- b) Preliminary verification, in situ, of the infrastructure of the establishment and confirmation of the flowcharts contained in the HACCP plan;
- c) Audit of Good Manufacturing Practices (GMP) and Standard Operating Hygiene Procedures (SOHP);
- d) Audit of Critical Control Points - CCP;
- e) Audit of registration procedures;
- f) Preparation of the audit report;
- g) Final Meeting

This sequence will facilitate the activities to be carried out by the auditors, avoiding loss of time. Audit procedures should be, whenever possible, as rational, logical and practical. However, it is important to emphasize that there should be no hurry to perform the work. The minimum time required for the execution of the audit may vary depending on the type of

establishment and product to be audited in addition to the effective operation of the HACCP System.

2.2.1 Initial Meeting

The audit must be initiated with a preliminary meeting, of which at least one legal representative of the establishment to be audited (preferably a member of the General Directorate), the HACCP Team Coordinator and the auditors should participate. The first step is to inform the representatives of the establishment about the methodology that will be implemented during the work and explain in detail the main objectives of the audit. It should also be clarified that all procedures adopted have the primary purpose of verifying whether the HACCP plan is being implemented in the elaborated manner, thus guaranteeing the production of food that is harmless to the health of the consumer (Jackson, 2006). This verification is based on the detection of facts (positive or negative), always with the accompaniment of members of the HACCP team during the work.

In this initial meeting, coordinated by the lead auditor, it is important to obtain detailed information on the aspects that may directly or indirectly interfere in the evaluation of the effective operation of the plan. The confidentiality character that will be maintained over any of the information received or verifications made during the audit should be highlighted. Some of the fundamental aspects that should be addressed in this step are:

Problems related to the raw material (s): it is important to obtain information, mainly from the HACCP team coordinator, about the aspects related to the raw material used in the production of the products and that require more care and workforce of the HACCP team (Rodrigues et al., 2012). For example, specific problems with certain suppliers of cattle from the

same region, where during the post-mortem inspection of animals, the incidence of flatworms was verified.

Problems related to the production, handling and storage of raw materials and products: it is necessary to know the specific difficulties of the establishment that require greater attention by the HACCP team. One of the difficulties could be some deficiency in the establishment's operational scheme, with the potential to cause cross contamination and that requires permanent control measures by the HACCP team to guarantee the product's safety conditions (Läikkö-Roto et al., 2016). For example, the existence of the crossing of production lines of raw products with cooked products, which requires operation of lines at different times. It always begins with the elaboration of cooked products, after rigorous cleaning, disinfection and sanitation procedures of dependencies, facilities and equipment. Another example would be the use of certain additives and / or ingredients that require preventive measures to control hazards related to safety aspects.

Markets with which it commercializes or intends to commercialize: the information regarding the markets with which the company currently works or on which it has future interests is very important, considering certain specific laws of import markets such as the European Union (EU), USA, etc.

Problems related to the final product: information regarding non-conformity (s) of the final products (microbiological and chemical parameters above the allowed limits, reason for return of lots, claims and / or praise of customers in general and consumers), must be obtained during the initial meeting.

How and by whom the HACCP plan was prepared: information related to the characteristics of the development of the HACCP plan can be obtained with questions such as the following:

- Was the plan prepared by the company's HACCP team or did the company resort to consulting work?
- If a consultant has participated, did the professional work together with the HACCP team or did he develop the plan alone?
- Did the consultant visit the establishment and know in detail its operating conditions?
- If there was no external consulting support, was the plan developed only by the coordinator or by the HACCP team?
- If the plan was prepared by the team, who participated in it?
- Was the effectiveness of the control measures at the Critical Control Points validated in practice during the development of the plan?
- What technical literature, legislation and other publications were consulted for the elaboration of the plan?
- Was there direct or indirect participation of government bodies in the development of the plan? (Läikkö-Roto et al., 2016)

The answers to these questions, associated among other things to the previous analysis of the plan and to the verifications made during the audit, will provide important information to the auditors about the effective operation or not of what was written (need to adjust the procedures that are being executed in practice to what is written, or vice versa; need to completely rearm the plan; need to reformulate the HACCP team; need to train the HACCP team; need to resort to external consulting, etc.).

All information received at the initial meeting facilitates the audit work and its final evaluation, after "crossing" with other information obtained in other steps of the verification process. The efficiency of conducting the initial meeting directly interferes with the results of the audit itself. At that exact moment, the "creation of a favourable climate" for the auditors' work begins, when the objectives of the audit are presented in detail to the General Directorate of the establishment and the HACCP team. This characteristic is clearly observed in external audits, carried out by the health authorities of the different countries.

2.2.2 Preliminary Verification

At this stage, in a preliminary verification, the audit team must observe the entire layout of the establishment, as well as confirm the operating conditions of the products specified in the HACCP plan, which have been benefited at that time. This action is characterized by a simple walk of the auditors through the different stages of the production process, preferably from the dispatch of the final product to the receipt of the raw materials.

This audit step may take some time and should not be done in a hurry. The auditor's passage through the establishment sectors results in a thorough observation of each area of the processing. Thus, the use of the senses of vision, hearing and speech are essential for:

- Perceive exactly what is happening;
- Listen if necessary, what people are talking about;
- Feel the need to ask and talk with the operators. Some questions may be asked at that time:
 - What job are you doing?
 - Does this work always in the same way or is there another way to do it? (Mensah and Julien, 2011)

In the case of questions posed to persons considered "key" in the control of the process, their names must be noted and at a later step (audit of the registration procedures), the investment made by the company for the training of these technicians can be verified. With this preliminary assessment the auditors have the opportunity to verify other objective evidence, such as delays and unnecessary stoppages in the production line (problems related to the time / temperature binomial that can cause, for example, toxin formation), possibility of cross contamination , operations where products are handled excessively, etc.

2.2.3 Audit of Good Manufacturing Practices (GMP) and Standard Operating Hygiene Procedures (SOHP)

The effectiveness of the HACCP System depends on prerequisite programs, which provide the basic operational and environmental conditions for the production of safe and healthy food. The HACCP System must be implemented on a solid basis of compliance with current Good Manufacturing Practices (GMP) and Cleaning and Disinfection Procedures (C & D), which are part of the GMP.

When the GMP program is not implemented and controlled efficiently, it is necessary to identify additional Critical Control Points that demand a greater workforce to maintain control of aspects that may affect the health of the consumer. Cleaning and disinfection (C &D) must be part of a written program that the establishment must develop, implement, monitor, correct (when necessary), verify and document (Amoa-Awua et al., 2007). That program should cover the following topics:

- Water portability;
- Hygiene of the contact surfaces with the product;
- Prevention of cross contamination;

- Personal hygiene;
- Protection against contamination / adulteration of the product;
- Identification and proper storage of toxic products;
- Employee Health;
- Comprehensive pest control

+6 Portability of the water used in the activities of the establishment, including for ice making. The use of drinking water, in sufficient quantity, is a mandatory condition in food producing establishments. As it is a basic requirement, auditors should verify whether the control exercised in the establishment is effective to guarantee the physicochemical and microbiological conditions of the water used in the handling of raw materials and in food production (Nada et al., 2012). In other words, the company must demonstrate in practice the procedures it adopts to achieve those objectives. Some actions that auditors can perform are:

- Verify the monitoring procedures performed (for example, water chlorination check) to control that requirement;
- If levels of free residual chlorine are found below the recommended values (for washing bovine skeletons, for example), check the corrective actions taken by the company (interruption of the slaughter until the adjustment of the automatic chlorine dispenser; new washing of the skeletons that already passed to the storage chambers after the last monitoring done at the levels of free residual chlorine, etc.);
- Evaluate the verification procedures adopted (internal audit, etc.);

- Verification of the registration procedures (forms for recording the monitoring of the control of industrial water chlorination, results of microbiological analysis of the water used for washing the skeletons - this documentation must be verified at the time of the audit of the registration procedures)

Whenever they deem it convenient, auditors may develop other verification procedures, such as:

- Check hygienic conditions of the water supply source (municipal network, well or reservoir water);
- Obtain information on the occurrence of lack of water supply during work in the establishment;
- Perform a visual inspection of the water condition in the reservoirs;
- Verify the closing conditions of the reservoirs and their respective controls (sealed, locked with padlock, etc.);
- Verify if the non-potable and potable water pipes are correctly differentiated, and if the connections between the different types of water do not cross, as well as the hot and cold water pipes;
- Verify the plans where the details that identify the water distribution system inside the establishment were projected, with the indication of the non-potable water pipes, as well as the location of the different water collection points for water analysis. laboratory. This material, as well as most of the documentation to be audited, must be verified during the audit of the registration procedures. This method facilitates the development of the verification process, since documents are usually filed in the HACCP team coordinator's

office. In this way unnecessary comings and goings are avoided in the establishment, with wasted time and procedures are streamlined (Navarri and Bédard, 2008).

Surfaces in contact with food, including utensils, should be cleaned to protect them from contamination. In this item, the audit team should focus their attention on checking the actions established by the HACCP team, which aim to control the hygienic conditions of the surfaces that came into direct contact with the product such as verification of monitoring procedures for surface hygiene control; Verification of corrective actions taken; Check the surface verification procedures; Verification of the registration procedures. This documentation must be verified during the audit of the registration procedures.

Pathogens can be transferred to a food from contact with another food, from contact with handlers, with support surfaces or with air. As for all SOHP items, auditors should verify monitoring procedures, corrective actions taken and verification and registration procedures, which guarantee the prevention of cross contamination in the raw material handling and product development lines.

Verify the monitoring done in the operation of washing the raw material as one of the pollution prevention methods cross-raw raw material with semi-finished products, already subjected to the cooking phase. Verify the corrective actions taken, in case the monitoring procedures have found deficiencies in the operation of the raw material washing machinery, and that these deficiencies compromise the operation. Check the verification procedures that verify the efficiency of the washing (Rodrigues et al., 2012). This documentation must be verified during the audit of the registration procedures. Verify the records (microbiological results of the final product that check the cross contamination control).

Verification of the monitoring carried out, regarding the physical hygiene of the officials, uniforms, hygienic habits, etc. Verification of corrective actions taken, when failures related to personal hygiene are observed during monitoring (for example, removing operators who are using dirty uniforms from the handling and processing areas). Check the verification procedures that certify the efficiency of personal hygiene. Verification of registration procedures.

Auditors should check the monitoring procedures, corrective actions, verification and registration to verify the effectiveness of the controls exercised by the HACCP team, regarding the protection of raw materials and products against contamination caused by foreign materials (lubricants, pesticides, cleaning agents, disinfectants, condensation, metal fragments, etc.)(Läikkö-Roto and Nevas, 2014). Similarly, packaging materials and surfaces in contact with food should receive the same protection against contamination.

The auditee must be able to demonstrate that he adopts preventive procedures against contamination caused by chemical agents in food and packaging materials. It must also be ensured that area supervisors are really responsible for monitoring and applying corrective actions in any situation that may involve contamination. The audit team must verify whether the supervisors properly trained the operators for the correct use of chemical agents in the work areas. The auditors should check the results of the verification procedures implemented by the company to evaluate the effectiveness of the controls established by the HACCP team regarding protection against contamination or adulteration of the products (Powell et al., 2013). As a later stage, auditors should verify, among other aspects, whether records related to the purchase and use of chemical agents are being properly archived for a period of time compatible with the approvals made by the responsible authorities.

The products or agents used in the cleaning, disinfection or sanitation procedures must not contain undesirable microorganisms and must be safe and adequate, according to the conditions of use (Marriott et al., 2018). Regarding this SOHP requirement, auditors should verify whether their practical execution offers, mainly, the necessary guarantees for the proper identification and storage of toxic chemical agents used by the company and under the control of the HACCP equipment.

The work carried out by the HACCP team must assure the auditors duly monitored some basic aspects in terms of health conditions of the collaborators, to avoid microbiological contamination of raw materials and products, packaging materials and contact surfaces with the food. In practice, the auditors must be shown that the company controls the health status of any employee who has been detected - through a medical examination or by observation of a supervisor - who is a carrier of a contagious disease or has an injury open (including inflammations), or any other source of infection where there is a possibility of contamination of the food.

Auditors should verify monitoring activities. They must include observation and notification of any health problem reported by a collaborator. The audit team must check the corrective actions, the verification procedures and the records to evaluate the efficiency of the control of the health conditions of the collaborators. These observations can generally be made in the company's own medical department, where appropriate, together with the professional in the responsible medical area and with the HACCP team coordinator (Luthringer et al., 2015). Auditors should also check that whether the health discomfort is always reported to the area supervisor or not, especially: cold, bellyache, sore throat and diarrhoea.

Pests cause harm to man, not only because of the risk they pose to health by disease transmission but also by the damage they cause to food storage, and by contamination of packaging, products and environments. The HACCP team must demonstrate that it exercises effective control of pests, such as insects, rodents, etc. This control can be developed by the establishment's staff (Noordhuizen, 2008), as long as it is properly trained, or it can be outsourced to another specialized company with the proper approval of the competent official institution.

The monitoring object of the audit includes the activities carried out by the person in charge of the supervision of the areas most susceptible to the development of pest niches and also those related to the reception of loads in the industry and the frequency of monitoring to check the effectiveness of control. The audit team must check the corrective actions (for example, the modification of substances used in the fight against rodents, motivated by the ineffectiveness of previously applied products), the verification procedures (for example, internal audit) and records (for example, a plane with the location of traps). Auditors can do other additional checks such as:

- a) External conditions of the building (construction and maintenance, regarding the prevention of entry of contaminants and pests);
- b) Conditions of garbage containers (location, closure, cleaning, etc.); III) dependency conditions where the chemicals used are stored;
- c) Verification of the concentration of chemical substances, places where they are applied, method and frequency of application;
- d) Verify if the substances used were approved by the competent official authority and if their use complies with the instructions contained in the label;

- e) Verification of control over the possible entry of animals, such as birds, dogs and cats;
- f) Records concerning integrated pest control should be verified, preferably at the time of the audit of registration procedures (Mortimore and Wallace, 2013).

In addition to the audit of the Standard Operating Hygiene Procedures (SOHP), other aspects are considered important in the prerequisites program and auditors should check them. Some of those aspects are

2.2.4 Instrument calibration

During the verification of this item, the audit team must receive information and accompany the calibration work, whenever possible, together with the people who carry out these activities. It is important that the equipment undergoing calibration be the same as those used in the Critical Control Points (CCP) (Noordhuizen, 2008), for example, temperature monitoring instruments. Documentation regarding the calibration of instruments must be verified during the audit of registration procedures.

2.2.5 Product collection program

The auditors should receive the information, generally given by the professional responsible for the dispatch of the products to the consumer markets (wholesalers and retailers, for national and international markets) and verify if there are written procedures -implemented by the company- that ensure, by For example, the collection of the batch of a product efficiently, quickly and as completely as possible, when necessary.

The audit team must select one of the products included in the HACCP plan, of a certain production date and request that all the knowledge information of the company, regarding the current location of said product be available to better verify the efficiency of the program of collection (Welty, 2009).

2.2.6 Audit of Critical Control Points - CCP

This is the most important part, considered the "heart" of the HACCP System Audit.

With the verification of the CCPs, the audit team can assess what is essential in the audit. That is, knowing if in practice the products made by the company are under control in regards to consumer health. During this process the audit team must, together with the HACCP team coordinator, go to the production line and, at each Critical Control Point (CCP) provided for in the HACCP plan for the product or products that are currently being prepared, verify if the principles of the HACCP System are applied correctly (Heinz, 2013), complying with the establishment plan and the specific product.

In practice, at that stage and based on the Summary of the HACCP Plan for said product, auditors should request clarifications from the person responsible for monitoring the CCP in order to assess their level of knowledge about the actions they take and verify if the danger (s) are under control. After receiving the information, the monitor must execute the aforementioned actions in the presence of the auditors. In that process, auditors should ask the monitor responsible for the CCP about the following aspects:

- I. What hazards need to be controlled? (answer: pathogen contamination);
- II. What control measures are implemented, in the sense of controlling hazards? (answer: time / temperature);
- III. What critical limit must be met in that case? (answer: 122 degrees for 1 hour);
- IV. How is monitoring being done in that CCP? (answer: continuous, thermocouple);
- V. How often is monitoring done? (answer: continued by thermograph);
- VI. What procedure is performed in case of detection of deviations in the critical limits?
(answer: paralyze the production line and readjust the equipment; reassess the product);

VII. What forms are used in this CCP? (answer: thermograph graph) (Herath et al., 2007).

With this data, the audit team can obtain a series of information on the effective operation of the HACCP System, such as: technical knowledge of the operator about the activities that he carries out and about the plan itself, need for training, etc. The information received and the actions checked, together with the other verifications made in the other steps of the audit, enable the auditors to conclude whether the food is being produced under control in the aforementioned to public health aspects. It is important to highlight some practical details that directly influence the quality of work during the CCP audit:

- The largest possible number of CCPs of the products provided for in the HACCP Plan, which were prepared during the audit, should be audited;
- It is essential that the audit team conduct its own hazard analysis, based on all available information and checks made to conclude whether the estimate of probability of occurrence (risk) and the expected severity for those hazards identified by the company are really scientific based. The particular characteristics of each establishment and each product should be considered;
- The criteria for this evaluation must be based on the fact that the dangers are of such a nature, that their prevention, elimination or reduction to acceptable levels is characterized as essential for the production of safe food. The team of auditors should assess whether the planned control measures can really be applied to each of the hazards, evaluate their effectiveness in the control and if only the measures that are included in the plan and that are in execution are sufficient to guarantee the safety of the food. Auditors should keep in mind that hazard analysis is the basis for the identification of CCPs;

- On the other hand, you should check if the non-compliance with these limits will really cause the loss of control of the process, with the consequent elaboration of food harmful to the health of the consumer;
- Observe carefully if the monitoring procedures are really effective and if they comply with the HACCP plan. It must be verified if the responsible monitor communicates - immediately - the occurrence of any deviation detected in the process or product, allowing the immediate taking of corrective actions. Auditors should ensure that the frequency (interval between observations) of monitoring procedures (when not continuous) keeps the hazards under control (Kumar and Budin, 2006).

It is very important to also verify that whether the planned corrective actions really enable the resumption of control of existing hazards. If these actions also reach those products that have already passed in a CCP since the last monitoring done, until the moment when the diversion was detected (for example, at 2:00 p.m.) An analysis of the thermal process in cans in the CCP Heat treatment and all complied with the HACCP plan; at 3:00 p.m., a new analysis was carried out and nonconformities of these measures were detected, compromising the sterilization of the cans. Corrective actions, planned and put into practice(Lytton and McAllister, 2014). Are they giving conditions of identification and retention of the products that were made between 2:00 p.m. and 3:00 p.m. for reassessment, for release or for rejection?

It must be verified if the records used in the CCPs were completed, dated and signed correctly by the persons responsible for the procedures performed (monitoring and corrective actions). If the audit team deems it necessary, samples of the final product can be collected for laboratory analysis to verify the effectiveness of the control exercised in a given CCP (Manning and Soon, 2014). On many occasions, during the CCP audit, it is necessary to ask other people

(operators, for example) questions about some important technical details for the evaluation of the effectiveness of the control performed there (Powell et al., 2013). In certain cases, phrases spoken by auditors of the type: "remain calm, continue to do what you normally do, because we are here to learn with you", they help a lot in obtaining better information and verifying how the actions actually take place.

2.2.7 Preparation of the Audit Report

This step requires an extreme concentration of the auditors, to seek to prepare a document that reflects, in the most faithful, fair, objective, succinct and transparent way possible, all the positive facts (conformities) and negative (nonconformities) detected during the stages previously described from the audit of the HACCP system. The report must contain in its conclusions an objective response to the 3 questions that motivate the conduct of this type of audit:

- I. Was the HACCP Plan written on a scientific basis and obeys the principles of the HACCP?
- II. Is the Plan being implemented in practice? In other words: Is what is written in the plan put into practice?
- III. Is the practical application of the written Plan achieving the expected results? In other words: Are the hazards identified by the Plan controlled? (Chesworth, 2012)

It is essential that when analyzing all the information and verifications received, the risk and severity of the hazards that may occur as a consequence of the nonconformities detected are always considered. When the Auditors team uses a checklist, that list may be recorded as an integral document of the report.

2.2.8 Final Meeting

Whenever possible, the final meeting should be attended by the same people present at the opening meeting. The lead auditor should coordinate the meeting in a logical sequence and address the points such as 1) reiterate that confidentiality will be maintained; 2) present a brief summary of what the audit covers and record once again the methodology used and the objectives of the audit; 3) make references to conformities and nonconformities; 4) for all the negative aspects (nonconformities), it should be emphasized that the execution of corrective actions is fundamental, respecting a priority scale, so that the control of public health hazards is the main goal to be achieved; 5) make it clear how the operating conditions of the establishment are in relation to current legislation (national and / or importing countries) (Gaikwad et al., 2018).

The audit report should be delivered preferably to the general management of the company at the final meeting, with a copy for the HACCP team. This procedure is very important, since the audit process officially ends with a written result that reflects the current situation of system implementation, and therefore, materializes all the work developed by the team of auditors. The report must be read and explained in detail by the audit team, at which time all possible doubts and questions must be elucidated, presenting the necessary technical-scientific basis.

Chapter 3 Methodology

The methods used in the study presented were: Analysis-synthesis to form the theoretical and methodological basis. The Historical-Logic to analyze the logical and historical development of the main postulates on information auditing their methodologies and methods. The Systemic-structural to address the relationships between the aspects that address the various methodologies and models, in order to establish contact points and differences, with a comprehensive approach. The documentary analysis, based on the review of the specialized literature on the subject, locates the theoretical and conceptual references in the various sources of information available that support the theoretical and conceptual basis of the study presented.

3.1 Methods of analysis used in audits

Information resources are all the tools, equipment, supplies, physical facilities, people and other resources used by an organization, as well as the capital, investment and expenses involved in providing the aforementioned support resources. They consist of data, knowledge, raw information, information flows, documents, documentary information and information evaluated, produced, gathered or acquired by the organization, as well as the technologies and people involved in its elaboration, management, storage, analysis and dissemination (Senft et al., 2016). Inventory of information resources includes locating and describing their characteristics and structure; analyze its availability, dynamics and use; and evaluate their employment and assess their ability to generate knowledge.

Information flows provide an internal perspective of the information generated in the organization, who produces it, who uses it, and how they do it. They can reveal failures in the provision of information and loss of links in the information chain (Orna, 2010). They express the graphic representation of the different processes through which information flows in an

organization, providing a better understanding of the interrelationships between its systems and subsystems. This analysis allows examining the information life cycle according to the processes; know what information is exchanged; determine where it is sent, or received within the organization; and detect who modifies it, how and when.

Information maps are visual representation tools that describe resources according to the business functions that support and determine their role in the organization. Depending on the characteristics of the information, its registration, location and treatment may be documentary, records or data, electronic documents, knowledge, and external information. This type of analysis shows the relationship between resources, processes and key areas that need or lack information and those with redundant information. It also serves as the basis for strategic information planning.

Questionnaires and interviews are used and the use of closed questions is observed, to investigate aspects such as:

- a) Access to data and information based on the needs of each process or task
- b) The behavior of the flows;
- c) The management of the key RIs for the organization;
- d) The valuation and the cost attributed to the information.

In general, these are the methods of analysis that are repeated in the literature reviewed on the subject, but there is a more comprehensive view of this process from 2007 with the publication of Buchanan and Gibb (2017) who consider that this type of audit should not only focus on data and information, but should cover the analysis of knowledge and inquire about experts, networks and communities that sustain or can provide knowledge to the business; the

documented experience; the results that can be shared; intellectual property; where the relevant knowledge and its importance are stored and retrieved. In this way they envisioned a new purpose and point of contact with knowledge audits.

3.2 Methodologies and Models Audits

The authors of this investigation agree with Orna (2015) in that the information audit, unlike the accounting audits or other modalities that are fully or fairly standardized, does not have a standard methodology and agreed, nor of guidelines or norms according to which to contrast the result obtained and the presumably optimal situation. In the literature reviewed several authors appear who propose methodologies and models. Others, analyze from a critical position the different models and methodologies and others apply them in case studies in banking, medical, consulting, libraries, archives, information centers, museums, governmental and non-governmental organizations, public sector organizations, universities and research centers.

In relation to the classifications or typologies of information auditing, these have been addressed by several authors among them Botha & Boon (2013) who establish five classifications of the methodologies for information audits, these are: cost-benefit, geographical approach, of management information, operational advisors, and hybrid audits. Also Buchanan & Gibb (2017) based on the taxonomy given by Earl (2011) and adapted by Gibb et al. (2016), propose a classification of information auditing according to the perspective or approach towards which they are focused (towards the strategy, towards the processes and towards the resources).

Taking into consideration the classifications described above, some of the methodological approaches most commonly used to carry out this process and its classification.

An additional classification option is also proposed since it can sometimes be seen that an author focuses his methodology on more than one approach, which is why the hybrid approach (EH) is included (combines more than one approach).

After being framed in the different classifications or approaches of information auditing, a reflexive analysis of different methodologies reviewed in this research is carried out, classified according to the approach towards which they are focused.

3.3 Audit Methodologies Focused Towards Processes

Its objective is to analyze the weaknesses of the reporting system. It is only focused on the analysis of this and cannot be applied to other fields, functions or processes. Therefore it is included in the process approach. Stages of Reynolds (2010) methodology

- Inventory the distribution of formal information
- Consider the purpose of the report
- Identify the weaknesses of the system
- Identify priority areas to make improvements
- Propose design changes
- Implement the changes that have resulted

3.4 Methodologies of Audits Focused on Resources

Methodology of Alderson (2013) compare options based on costs in relation to the benefits derived from them. They are oriented to the system and to the analysis of the value of the information based on cost-benefit criteria. Alderson (2013) proposes to calculate the cost reduction, in search and return profiles on investment and Riley, established a series of cost factors to consider when acquiring a new information product. It is included in the resources

approach; because although it does not examine the different sources, it focuses its analysis on the costs of other resources linked to the information and does not associate them with the strategic aspects of the organization. It places greater emphasis on the quantitative measurement of costs, but does not assess them qualitatively, nor does it consider the analysis of the organizational environment or information needs. Stages of Alderson (2013) methodology

- Define the objectives to be achieved by the system;
- Assess alternatives to achieve the objectives;
- Determine the costs of these alternatives;
- Model the cost of each alternative;
- Establish cost criteria;
- Study the results

3.5 Information Audit Methodologies with Hybrid Approach

Gruber methodology (2003) considers the efficiency and effectiveness with which information resources are used, managed and protected, the reliability of the system and its compliance with current obligations, regulations and standards. It is considered a hybrid approach because it encompasses not only the strategic analysis of the organization, but also identifies technological resources and needs based on tasks. Here, its approach to processes is perceived, although it does not include flow mapping. Something significant is that Gruber dedicates a specific phase to the design of the questionnaires, which in other methodologies is part of some of its stages. Stages of the Gruber methodology

- 1) Define the organizational environment;
- 2) Plan the audit in detail;

- 3) Identify user information needs;
- 4) Design the questionnaires;
- 5) Send memos to the interviewees and meet them;
- 6) Research the technology;
- 7) Analysis of the findings;
- 8) Cost and value;
- 9) Generate and evaluate solution alternatives;
- 10) Monitor the adoption of standards and regulations;
- 11) Write the final report;
- 12) Implement monitoring mechanisms

Gillman methodology (2005) has been applied mainly in information institutions.

Emphasize more in the analysis of the SI than in the cost-benefit of the information resources and try to identify the main components of the system to map them in relation to each other. It is classified as a hybrid because it focuses not only on strategies and goals, but towards the identification of resources and their flows for each service or process in this type of organization, analyzing the value of the information that travels through them. Stages of the Gillman methodology

- Identify the main sources
- Determine the objective of information resources
- Detect the information centers that provide general or specialized services
- Identify the services provided
- Determine the position of the information center in relation to the organization
- Draw recommendations

Normally the audits propose a stage of monitoring and control of the recommendations issued by the previous audit. However, in information audits, only 38% of the proposals studied include a recurring audit. Finally, it is noteworthy that in most of the study sample, the authors include the analysis of the cost-benefits of information resources, thus recognizing the importance of measuring the efficiency and effectiveness of their use.

Chapter 4 Results and Discussion

4.1 The Innovative Smart Audit

Smart auditing offers great organizational privileges, which can be applied in both private, public and social sectors; that is to say, it goes beyond strictly diagnostic and evaluation approaches to standard performance, which in turn allows to move from one order of ideas to a different one, being seen as a tool of stabilizing strategies that successively balance the convergences that may arise. It is necessary to highlight that its importance lies in the fact that it allows the company to adapt to the changes that may occur, thus preventing any eventuality that implies risks for them. It is important to highlight that this continuous analysis of organizational performance is a complete system that includes historical behaviour in order to analyze the causes and effects.

Smart auditing is a vision that opens the way for an organization not only to evaluate its behaviour and generate the necessary measures to correct and redirect its actions in order to fulfil its purpose in terms of efficiency and effectiveness, but to establish itself as a source of change that allows to generate knowledge and new ideas to learn (Bukhsh and Weigand, 2017). It represents the opportunity to train an entire organization to adapt and establish a dynamic system of transfer of ideas that empowers it to achieve continuous improvement based on knowledge and innovation.

It is also a form of compensatory feedback that responds to pressures with accessible but well focused responses, performed at appropriate times and places to produce representative and lasting results. The key point is to learn to see structures instead of facts to infer patterns of change instead of static snapshots, perceive the logical simplicity that exists in the background of

complex problems, and be able to understand that the maximum potential of work lies in the ability to objectively focus on intrinsic solutions, not secondary ones.

The smart audit is based on information and concrete facts, reviewed in the light of a constructive attitude, guided by a commitment to truth, values, responsibility and ethics. The smart audit is a connotation expressly formulated with the intention of providing another angle of scope and the benefits that this tool offers in its classic version. The essence of smart auditing is its vision based on information and concrete facts (Rozario and Vasarhelyi, 2018), reviewed in the light of a constructive attitude, guided by a commitment to truth, values, responsibility and ethics.

This order of ideas makes the organization permeable and reasonably increases the alternatives that strengthen the decision-making process, without eliminating risk or uncertainty, but confronting them from a more integrated perspective, as a result of the combination of qualitative and quantitative information that it conforms (Dai and Vasarhelyi, 2016). The consequence of this assessment is the adoption of a mental model through which the audit visualizes that organizations only learn through individuals who learn, so that an opening to an intelligence applied in both convergent and divergent problems is necessary.

In this way, the organization can develop team learning by converting experiences in knowledge and problems into opportunities to grow individually and organizationally. The interaction for change increases the ability to assimilate the results produced by the application of the audit, and transform them into a behaviour that combines respect and understanding for people and the organization, unleashing their potential to change by conviction, not by obligation.

Being efficient as internal audit professionals and as a Department is not a choice in today's world: it is essential to achieve success. Without a doubt, to survive, prosper, innovate, excel and lead in this new reality will require us to increase efficiency, effectiveness and go beyond. But, what does the term efficiency really mean? The word efficiency comes from the Latin *efficientia* which means: action, strength, production. Summarizing efficiency means doing more with less.

The internal audit profession is refocusing and expanding its horizons. They are not only judged by the products and services they offer to the companies, but also credibility is demanded in the quality of the work they do; so they must consider how well they can perform their function. Remember that auditors who review business processes have to help the owners of those processes to improve time cycles, productivity, quality, staff turnover, customer satisfaction and financial results (Rozario and Vasarhelyi, 2018). Adding value helps auditors become catalysts of change for ineffective and inefficient business processes.

Given this situation it is vital that auditors ask themselves: What are the most effective strategies? How can they do more with less? What are the best practices? What should they change? And most importantly: How can they achieve success? Following are the main problems or blind spots that affect the internal audit profession today.

4.2 Annual Plan

- Not develop an annual internal audit plan based on risks. Always do the same. This means that audits are the work approach is always the same or exactly a work list equal to last year.
- Do not provide consulting services. Hiding behind independence and objectivity so as not to add value. Never allow staff to add value through being part of strategic groups or

meetings. Do not participate in special projects. Not keeping in mind the needs of our customers.

- Failure to meet established deadlines. Not complying with work schedules, both quarterly and annually.
- Inflexible annual plan, not updated periodically, not having an adjustable annual plan based on the current state of the business risk assessment.
- Not having developed an assurance program and improving quality.
- Not having clearly defined the performance measures of the department.
- Forget about best practices and the use of technology to do the job.
- Be a data provider instead of a knowledge generator. Development of kilomeric reports. Such reports are so long and so detailed that users navigate a sea full of information
- Lack of relevance - Include insignificant problems in the report. Without worrying about what is really important.
- Issuance of late audit reports. Not follow up properly. Do not worry about what happened after an assignment is finished.

The crisis is the best blessing that can happen to people and countries, because the crisis brings progress. Creativity is born from anguish as the day is born from the dark night. It is in the crisis that inventiveness, discoveries and great strategies are born. Who overcomes the crisis overcomes himself without being overcome. Who attributes to the crisis their failures and hardships, violates their own talent and respects the problems rather than the solutions.

The real crisis is the crisis of incompetence. The disadvantage of people and countries is laziness to find the exits and solutions. Without crisis there are no challenges, without challenges life is a routine, a slow agony. Without crisis there are no merits. It is in the crisis where the

best of each one emerges, because without crisis every wind is caress. To speak of crisis is to promote it, and to silence in the crisis is to exalt conformism. Instead we work hard. The solution to the current crisis facing the Internal Audit departments is to create: An intelligent audit approach, that is, a Smart approach.

During the last five years we have witnessed the great technological transformations, which has allowed to have Smart Phones, Smart TV, etc. Likewise, in order to face the current remains, it is essential to develop a Smart Audit model, which allows us to combine effectively:

- The strategic plan
- Dashboard use
- Implementation of a Balance Scorecard
- Quality Assurance and Improvement Program
- Cutting edge technology
- Department staff
- Best practices and
- The tools to measure the performance

Many auditors are completely convinced that by implementing the Smart Audit methodology, the efficiency and effectiveness of the food processing unit will increase dramatically (Raphael, 2017). Obviously, it is not a quick process.

4.3 Interaction for change

The organization that has in mind to maximize its results, minimize the margin of error and, in any case, accept the restrictions as an inherent circumstance to the work, not as a limitation, finds in the smart audit a favourable field to know, understand and evolve. This

acceptance increases the ability to assimilate the results of the application of the audit, and transform them into a behaviour that combines respect and understanding for people and the organization, unleashing their potential to change by conviction, not by obligation.

However, the fundamental content of such an approach is closely related to the operating conditions and environment of the organization; that is, in each case it will present its own phytosomy, with a unique profile, despite the coincidences or similarities with similar organizations (Abbott et al., 2016). This will allow the company to develop a characterization aimed at strengthening aspects such as:

- Strengthen personal and organizational identity
- Promote multidisciplinary work
- Promote tolerance
- Manage polarity and correspondence as equilibrium factors
- Integrate compensation and mobility into the pace of change
- Consolidate the creation, generation and regeneration of mental models
- Contextualize the causation
- Flex the lines of action
- Create a clear awareness of the value of being and of being

Based on the clarification of these components, it is necessary for the organization to carry out a cause-effect analysis in which it interrelates the key variables of each phase, factor or element to be examined; hence, he will discern the reasons why the same action may have different consequences in the same environment and in different periods.

According to this approach, the historical behaviour of the organization must first be considered, in order to have a starting point that is a frame of reference for the reasons, facts, purposes and background that place it in context. Then, it is convenient that the food company reviews its level of performance through the analysis of the variables that directly or veiled influence it, such as:

- Strategy
- Assumptions
- Unspoken rules of the game
- Culture

This review should weigh the origin and consequences of each of the variables and their effect as a whole, considering the different aspects of the strategic approach, according to their level of application (corporate, functional, business and global), strategic selection (international, multinational, global and transnational), mode of entry (export, license, own subsidiary, franchise, strategic alliance, acquisition and merger), strategic alternative (cost leadership, differentiation, concentration, diversification, integration vertical, horizontal integration and global subcontracting), and strategy to integrate personnel (ethnocentric, polycentric, regiocentric and geocentric) (Lenz and Hahn, 2015).

The individual and organizational assumptions immersed in the underlying lines of perception and reaction; the unwritten rules of the game (motivators, facilitators and indicators), visualizing its side effects and culture as the total sum of beliefs, attitudes, values, habits, customs and ways of doing things that members of a society share depending on its social context (high and low), values that support it (adaptable, achievement, clan and bureaucratic),

and dimension (distance from power, evasion of uncertainty, individualism and collectivism, masculinity or femininity, universality or particularity, neutrality or affectivity, specific or diffuse relationships and personal fulfilment or attribution).

Finally, the results obtained will allow to provide feedback in a general and particular way.

- The organization will be in a position to implement the actions required to define a model that directs the organizational change
- The crucial responsibility for carrying out an effort of this nature lies in determining the direction of the change, which implies examining the predominant internal and external circumstances to locate the reality of the organization.
- Assigning responsibility for guiding change means appointing a group with sufficient power to be the leader of the change, for which a group with personnel from all hierarchical levels must be established, but in which senior management representatives predominate.
- Developing the vision and strategy means having the ability to visualize the ideal image that is expected to be achieved with the change, which must be conceived and shared by all those responsible for commanding it: also, chart the path that will be followed to achieve its realization in real terms
- Communicating the vision of change requires selecting and implementing all possible means and channels to transmit and reinforce the vision throughout the organization.
- Delegating powers to implement the change means giving the organization's staff the authority and responsibility necessary to foster the change and eliminate resistance to it.

- Set short-term goals with the purpose of strengthening staff's confidence in the change, by obtaining advances that will be recognized and accepting that progress is made in a positive way.
- Consolidate achievements to produce deeper change. The fact of gaining credibility and obtaining encouraging results keeps the morale and attitude of the organization's staff at a high and permeable level, which makes it essential to strengthen the change, to avoid and extend it.
- To conclude, new approaches must be integrated into the organizational culture, relating new behaviours to relevant achievements, and highlighting the benefits of adopting new behaviour patterns (IAASB, 2016).

4.4 Administrative Audit

Once the historical trajectory is defined in terms of causation, it is necessary to measure the nature of the change in terms of its probability of occurrence, that is, how predictable or unpredictable it is. In the first case it is not only possible to estimate it, but it also provides the opportunity to anticipate the actions to face it. In the second, act quickly and flexibly to make an adjustment on a personal and organizational level. Also, in parallel, the intensity and speed of the change should be evaluated, as far as possible, to develop the ability to respond quickly and consistently.

In a complementary way, it must be clear that the process of change takes place within a dynamic field of forces, which unfold in the context of the prevailing conditions and act in several ways. Some of them, drivers, such as innovation, creativity, adaptation, structural, technological and people's adjustments, tend to leverage it to produce new conditions that favour initiatives to evolve towards renewed states with a different perspective. Others, the stabilizers,

represented by the rational management of emotional and spiritual intelligence, stress, conflict and crisis, even with an underlying political line, maintain the balance so that stable conditions prevail, which although have an intrinsic load of change, also maintain the lines of action tested (Goldacre, 2015). Finally, restrictive ones, such as resistance to change due to models and mental maps, habits, protection of the status quo, past experiences and unwritten rules of the game, openly inhibit it to preserve conditions without change. In reality, the combination of forces is so subtle that it can become imperceptible, so it is necessary to use a deep vision to make it tangible.

To specify the source of the change, the origin of the forces that influence it must be reviewed. In this order of things, there are two sources of change: external and internal. External forces can be framed in three environments:

- External environment set of forces and conditions external to the organization that exercise real and potential power in their performance.
- Work environment forces with characteristics that affect the organization immediately.
- General environment forces that regularly affect the external and task environment.

The sum of these forces involves different areas of influence at the level:

- Technological innovation, changes in production processes and organizational management.
- Economic inflation, unemployment, interest rates, economic and industrial cycles, structural changes, gross domestic product, foreign direct investment.
- Political-legal framework, public spending, international regulation.

- Socio-cultural demography, culture, socio-economic level, social values, reference groups and coexistence.
- Global environment, cultural dimension, negotiation relations.
- Customers interest, nature, location, purchasing power, cost of change.
- Competitors rivalry, entry barriers, substitutes.
- Suppliers number, capacity, market, agreements, treaties.
- Regulatory agencies, interest groups, investment, infrastructure, standards of action.
- Strategic partners forms of strategic partnership, participation, coordination.
- Labour force supply and demand, affiliation, unions (Combes et al., 2018).

Internal forces are generated in the internal environment, which represents the key factors and forces within the organization that affect the way they operate. The levels in which they interact are:

- Investors Assembly
- Board of Directors
- Strategic approach
- Management style
- Work force
- Organizational culture

In order to unite the forces of change, it is necessary to calibrate the intermittence between the simple and the complex by means of actions aimed at:

- Boost self-awareness
- Reconcile collaboration and co-development

- Articulate values
- Create chains of ends and means
- Set up the dialogue
- Activate self-organization
- Master the paradox
- Promote tacit and explicit cooperation

Once the change framework has been defined, a model is required to guide the process. For that purpose, the forces of change must be aligned as a macro-envelope in which change is a constant that defies the established order of things, whose real background is a break in the links of proven viability. In that sense, change is not only the way to try new ways of being, but it is the starting point to implement a different way of thinking, in which risk and uncertainty become criteria to solve both functional and dysfunctional aspects. It is the alternative to turn weaknesses into strengths and threats into opportunities (Gustavson and Sundström, 2018). Moreover, to redirect strategic planning and visualize strengths as core values, weaknesses as potential for change, opportunities as a projection of core competencies and threats as strategic rivalry.

The background of change is then a form of strategy to build new mental models, revitalize attitudes, rethink customs, renew beliefs, break habits, learn new ways of doing things and boost values to support it, without forgetting that the key does not It is what the right values are, but what the authentic values are. The magnitude of its essence is also a way to reconsider the arguments and positions that have justified the inertia for the design of scenarios, assuming that projection and extrapolation are sufficient to prospect.

From this perspective, the process of change is immersed in a state whose only balance is the optics with which it faces. For this, it is necessary to have a vision of change that amalgamates nature, depth, intensity and speed, while focusing that within the range of its continuity there is some discontinuity, which is latent not as a counterpart but as a sign of alternation, and that each and every one of the movements that are carried out to implement it are consistent with a superstructure beyond simplistic approaches.

In general, the process of change flows in two ways: minor change and profound change. The minor change arises due to the need to modify rather the form that the fund, whose origin, management and consequences flee freely and are natural, since it does not require greater preambles or exhaustive monitoring. Its own dynamic makes it agile, permeable and to some extent imperceptible, since its automatic adjustment adapts and inserts reality almost instantaneously. The major change is carried out in two ways: sequential action and dialectical analysis. Sequential action occurs when the change implies, to a greater or lesser extent, actions of form and substance (Tackie et al., 2016). By its nature it does not require very complicated movements, nor a very analytical review of the conditions to carry it out, but its actions do require time and concentration for its execution, however minimal. The dialectical analysis entails concrete variations in form and substance, as well as a specific set of ideas that compares and interrelates thesis and antithesis to arrive at a synthesis that, by way of conclusion, is an alternative selection.

The fact that both minor and profound changes are made in a continuum of forces of change, makes its flow permanent, which translates into a tacit process of constant management, as a way of self-management, that at some point it will become a multi-digestion or express management of change. Once the boundaries of change have been established, their management

proceeds. Although the interrelation of forces and the magnitude of the change define its nature, origin, direction and ranges to implement it, the dose of energy, information and knowledge that are used are keys, as they constitute the platform that groups attitudes, interpersonal relationships, motivation, strategy, intercultural sensitivity, competence and leadership to guide it.

In order to guide the management of change in a logical way, it is necessary not to lose sight of the fact that its concept is based on the self-similarity between linear and non-linear thinking, that is, between the concrete and the abstract. In this way, the context determines the area of influence historically viable in real time, but preserving the dimension of the internal equilibrium of time, while the sense implies examining the predominant internal and external circumstances to locate the competitive position of the organization. The next step is to carry out a diagnosis to formulate an interpretative proposal of reality, which needs a consensus for its implementation, which means integrating a team to lead the change based on a strategy that visualize the expectations and consequences that are expected to be achieved, as well as chart the path to follow to achieve it.

With the purification of points of view, perspectives and a fundamental route, its implementation continues, which requires a transmission of the initiative through all possible means and channels, including the creation of specific routes for ensure timely execution. In parallel, it is convenient to assign to all those responsible for implementing it the decision-making powers necessary for its consolidation, which should be achieved gradually to reinforce the credibility and acceptance of change, a condition that allows its strengthening to extend it more deeply and create the conditions for the birth of a culture of change. To ensure the continuity of the change and channel its management, it is a priority that the actions for its

monitoring and evaluation are carried out under a permeable and fluid perspective, based on a thought although analytical, also capable of being open to uncertainty, sensitivity towards the emergent and the absent information, to achieve a total feedback.

Conclusion

The field of smart auditing offers an immense range of possibilities, since it can be used in the public, private and social sectors, in any type of organization, under all kinds of system and context, where analysis and prospecting go further beyond strictly diagnostic and evaluation approaches to standard performance, since it visualizes the way in which strategies, stabilizers or emergencies, successively balance convergence and divergence (Aalst et al., 2015), under a sub-lying pattern that interrelates concepts with the facts.

Smart auditing is a strategy tool that allows you to move from one order of ideas to a different one, by linking the chain of sequence of causes and effects with extreme sensitivity to link commitments and integrations into a whole. It is undeniable that this version of the audit oscillates in the range of the classical scheme, but its perspective and trends vary according to specific and clear differences to be specified, since it has a clear orientation towards learning, to channel the information in distributed form, to consider a plurality of visions to define structures, manage resources and create, add and innovate value (Bukhsh and Weigand, 2013). Specifically, it allows to capture an architecture concentrated in core elements. Its fundamental components are:

- Core competencies leverage real and potential capabilities to manage strategic processes and intelligently manage superior performance.
- Strategy lays the groundwork for an integrated vision of the distinctive skills, learning and experience at the different levels and areas of influence of the organization.
- Culture sensitively articulates attitudes, values, habits, customs, assumptions and ways of doing things in different dimensions.

- Values expresses the intellectual and affective conditions that influence the personal, social and organizational behaviour of individuals.
- Leadership aligns inspiration with performance as the heart of change.
- Structure transforms the organization's sound into an element of the value chain to make it a competitive advantage.
- Technology delineates the platform to effectively manage information and strategic systems such as flows and processes.
- Profitability allows the achievement of superior and sustainable performance in all types of industry.
- Intellectual capital converts intangibles into market, intellectual property, personal and infrastructure assets.

By virtue of this, organizations that make use of intelligent auditing will necessarily have to look forward and consider the resources and benefits that each of them contains. The field of smart auditing visualizes the way in which strategies, stabilizing or emerging, successively balance convergence and divergence, under an underlying pattern that interrelates concepts with facts.

By virtue of the foregoing, organizations that use smart auditing will necessarily have to look forward and outline a solid and well-founded framework for action, which will allow them to have an integrated global vision of each and every one of the structural components and from the environment, to derive the measures and decision criteria to impact their performance in a conscious and harmonious way and take advantage of the benefits of having a strategic weapon to self-produce shades consistent with an internal rhythm according to their reality.

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