

## Pertinence of a Continuous Audit in the Organizations

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**Abstract:** This paper highlights the strategic benefits of Continuous Audit (CA). To make these benefits evident, the concept and ways of operating traditional audits were used, taking into account: response times of their usual operations and later, establishing differences with concepts and response times with the Continuous Audit, is made to arrive of Information Technology. In this way, the limitations and disadvantages of the Traditional Audit were described, on the one hand, and, on the other, the advantages and strategic benefits of the CA. The research was supported, with the application of a survey, to a representative sample of manufacturing companies in CDMX. The results showed that 94% were unaware of the Continuous Audit. However, the large consulting firms stated that they work with companies that do apply CA. The final result has been to take advantage of the great value of the traditional audit, such as its independence and the relevance of its reports, and to promote the relevance of a Continuous Audit, which records the operations at the moment in which they are happening, that is, say, real time. In this way, the Continuous Audit strengthens and raises the importance of a Traditional Audit, turning it into a strategic area, due to the opportunity and immediacy with which it would inform senior management and due to the impartiality of its contents.

**Key words:** continuous audit, real time, strategic intelligence, timely decisions

**JEL codes:** M4, Y, Y4

### 1. Introduction

This paper aims to highlight the strategic benefits of Continuous Audit, as well as its importance within organizations. When knowing the scope of the Continuous Audit, which is based on Information Technology, the question arose as to why little is said about this subject in Mexico, for which it was necessary to investigate how much, within the companies, was known or This technique was used, so a qualitative investigation was carried out.

For the research process, a questionnaire was developed to carry out a convenience sampling of a population of 1320 companies. The survey was applied to companies from the 16 City Halls of Mexico City. The results showed that none of the 105 companies in the sample knew about Continuous Auditing and only 6 (5.7%) found the idea extremely interesting but did not apply it. This does not mean that in Mexico there are no companies that operate with Continuous Audit, some consulting firms, especially large corporations, said whether to prepare audited financial statements for companies that work with Continuous Audit but did not reveal their names. On the other hand, in an interview with a director of the *bepensa* company, he told us about the very important changes in

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his organization and the transformations they experienced when implementing the Continuous Audit.

The presentation briefly addresses the ways of operating the traditional Audit and the disadvantages it has in the face of new technological changes.

It continues with the background of Continuous Audit and the Continuous Audit models within a company are reviewed, from 1989 to 2014. Subsequently, some definitions and concepts are disclosed, to then talk about the expected benefits with the adoption of the Continuous Audit.

The advantages of the Continuous Audit are exposed, detailing the scope of its possibilities. Then they have also wanted to enumerate, separately, the strategic benefits of the Continuous Audit that constitute the value and the qualitative change of the traditional ones.

The results are that the Continuous Audit does not eliminate the traditional Internal Audit, on the contrary, EMPOWERS IT, since the mismatch problems caused by the latter's traditional ways of operating are resolved. That there is a niche of opportunities for the Application of Continuous Audit in organizations, which will contribute to greater administrative and financial efficiency of companies, which will surely benefit.

## 2. Traditional Audit

Currently, the traditional Audit, despite giving testimony of very valuable facts and operations and using very advanced computer systems, respond slowly, reflect the history of at least one year or more, with all the implications already known, such as ceasing to be timely with their reports, thus confirming their traditional profile.

“Until now and less and less, Internal Audit performs tests of controls retrospectively and on a cyclical basis, often many months after business activities occur. Testing procedures are often based on a sampling approach and include activities such as reviews of policies, procedures, approvals, and reconciliations. At present, however, it is recognized that this approach only offers internal auditors a limited scope of evaluation and, in general, it is too late to represent real value in terms of business performance or regulatory compliance.”<sup>1</sup>

The tasks of verifying, being alert and observing the fulfillment of goals, verifying, evaluating and above all identifying risks, deviations, etc., are activities that must be shown in an efficient and timely manner and make them transcend to obtain the greatest benefit within of organizations, since they form an important part of the heart of a dynamic and modern intelligence in companies.

In this sense, the Continuous Audit does not negate or replace the traditional ways to carry out an audit, it only triggers results that make more sense now than in the immediate future.

### 2.1 Disadvantages and Restrictions of Conventional Periodic Audits<sup>2</sup>

“Although conventional auditing is very useful, it is not perfect:

- Audits only provide a snapshot of a company at a specific time. This means new business issues can go undetected for many months, depending on how often you audit.
- Audits only analyze a subset of transactions and information. If these data are not representative, underlying issues may be missed.
- Audits require a lot of manual work from multiple people. This makes them very resource intensive and limits the frequency and depth of the audit.

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<sup>1</sup> <https://www.auditool.org/blog/auditoria-interna/1399-ique-es-la-auditoria-continua>.

<sup>2</sup> <https://idea.caseware.com/es/need-to-know-continuous-auditing/>

- The audit is often a lengthy process that can take weeks or months.”

“Instead, Continuous Audit helps you solve these problems. It provides an automated, data and standards-based method that addresses some of the shortcomings of conventional auditing. It does this by using advanced technology, (Artificial Intelligence) and data science to speed up the procedure. Continuous Auditing results in faster identification of new issues, improved transaction analysis, broader coverage, fewer resources required for auditing, and the ability to detect changes over time.”

“This type of technology applied to internal auditing also requires adaptation and simulation using traditional audit standards and methods.”<sup>3</sup>

## 2.2 The Survey and Its Results

It is striking that an idea such as the Continuous Audit does not have a wider diffusion, as demonstrated, although on a very small scale, by the survey that we carried out in Mexico City, which was focused exclusively on Manufacturing companies.<sup>4</sup>

**Table 1 Who Do Continuous Audit in CDMX**

Directory: Manufacturing Industry by town hall in CDMX, 2019

No.	Manufacturing Companies by Mayor	Total Companies	Respondents- -who know
1	Industry-manufacturing-Cuauhtémoc	145	10- -2
2	Azcapotzalco Manufacturing Industry	74	5
3	Cuajimalpa Manufacturing Industry	35	9
4	Manufacturing Industry Iztacalco	163	8- -1
5	Iztapalapa Manufacturing Industry	174	3
6	Manufacturing Industry Magdalena Contreras	11	3
7	Manufacturing Industry Miguel Hidalgo	173	19- -2
8	Milpa Alta Manufacturing Industry	11	3
9	Tláhuac Manufacturing Industry	51	2
10	Tlalpan Manufacturing Industry	53	12- -1
11	Manufacturing Industry Venustiano Carranza	40	2
12	Manufacturing Industry Xochimilco	25	6
13	Industrial Vallejo Mayor's Office Azcapotzalco	101	11
14	Manufacturing-Álvaro Obregón	89	4
15	Manufacturing Industry-Benito Juárez	110	2
16	Manufacturing Industry-Coyoacán	65	6
		<b>1320</b>	<b>105- -6</b>

**Source:** Secretariat of Economic Development, Government of the CDMX, 2019.

It was intended to make a census of the companies that perform Continuous Audit in Mexico. In subsequent analyzes it will be possible to reflect a greater number of companies. The exercise consisted of 1320 companies, which was the base of companies of the Manufacturing Industry that was obtained from the Secretariat of Economic Development of the Government of CDMX in 2019.<sup>5</sup>

<sup>3</sup> Available online at: <https://idea.caseware.com/es/need-to-know-continuous-auditing/#:~:text=La%20auditor%C3%ADa%20continua%20da%20como,medida%20que%20pasa%20el%20tiempo.>

<sup>4</sup> Source Business Directory, available online at: <https://www.sedeco.cdmx.gob.mx/servicios/servicio/directorio-de-empresas-de-manufactura.>

<sup>5</sup> Source Business Directory, available online at: <https://www.sedeco.cdmx.gob.mx/servicios/servicio/directorio-de-empresas-de-manufactura.>

The results were the following. Of the universe of 1320 companies, 105 were surveyed, for having had a way of contact with them. Of the remaining 1,215 companies, only a few registered an email. In short of the total universe, only 8% responded. The results were that only 6 companies were aware of the subject, but none of them did Continuous Audit. The survey and directory are attached to the paper.

In a video conference with a director of the Bepensa company, a company located in Mérida Yucatán, he transmitted to us the important changes that the organization experienced after the Internal Audit became a Continuous Audit. He confirmed the strategic role now played.

### **3. Continuous Audit and Its Background**

The appearance of the Continuous Audit (CA) has its roots from the contest of computer systems, which, initially ventured with great force in military, financial, commercial, sports, administrative, accounting areas, etc. making life easier for organizations and institutions that saw the future in computer systems and the development of their own projects.

The results obtained with efficiency in military, space, banking, academic, financial and commercial sectors and areas, to speak only of the most significant, were the ones that evidenced the usefulness of computer systems that, as a practically parallel effect, were reflected in accounting and financial companies, which were gradually adopting the concepts and computer systems.

The accounting in the companies adopted the forms that made their operations easier and faster, and it was the ideas of efficiency, order, classification, security, crosses and indexes that had a financial meaning, those that found relief in computer systems and the possibility to multiply accounting and financial records of any kind in a very efficient way.

“Computer-assisted Audit Techniques are not new, they appeared in the 70's and have been evolving along with Technology, as can be seen in the following table. Today their use is not exclusive to the execution phase of the Audit to obtain evidence, but rather they are present in the different phases of the audit, from planning to monitoring.” (Valencia Duque, Francisco Javier, & Tamayo Arias, Johnny Alexander, 2017).

“The Continuous Audit process arose out of the efforts of Vasarhelyi and Halper to measure and analyze the billing process at AT&T in 1989. That work demonstrated the emerging need to change the information access and assurance paradigm, for Thus, the Canadian Institute of Certified Public Accountants CICA and the American Institute of Certified Public Accountants AICPA formed a working group, which issued a joint report in 1999, on Continuous Auditing.” (Martha Fernández Montaña, 2017).

Valencia Duque, Francisco Javier, & Tamayo Arias, Johnny Alexander, in 2017 carried out an extraordinary investigation about the development over time of the Continuous Audit and the conclusion of their work was the following.

#### **3.1 Continuous Audit Models Within a Company: A Taxonomic Proposal**

“...approximately 30 schemes have been identified to carry out a Continuous Audit process in a period between 1989 and 2014, as can be seen in chronological order in Table 2...” (Valencia Duque, Francisco Javier, & Tamayo Arias, Johnny Alexander, 2017).

**Table 2 30 Schemes Have Been Identified to Carry Out a Continuous Audit Process**

No.	Year	Schemes	References
1	1989	Modelo de Groomer & Murthy.	Groomer & Murthy, 1989
2	1991	Continuous Process Auditing System (CPAS) (Caso AT & T).	Vasarhelyi & Halper, 1991; Du & Roohani, 2007
3	2001	Continuous Audit: Model Development and Implementation within a debt covenant compliance domain. (Modelo Woodroof)	Woodroof & Searcy, 2001; Searcy & Woodroof, 2003; Blundell, 2007; Ye & Li, 2010; Aboa, 2014
4	2002	Model Rezaee.	Rezaee, Sharbatoghlie, Elam, & McMickle, 2002; Rezaee, McMickle, Sharbatoghlie, & Elam, 2004; Blundell, 2007; Ye & Li, 2010; Abdolmohammadi & Sharbatoghlie, 2005; Aboa, 2014
5	2002	China National Audit Office.	Wenming, 2007
6	2003	Model for secure continuous auditing (Modelo Onions)	Onions, 2003; Blundell, 2007; Ye & Li, 2010; Aboa, 2014
7	2004	Hospital corporation of America (HCA).	Kevin, 2004; Alles, Tostes, Vasarhelyi, & Riccio, 2006; Chan & Vasarhelyi, 2011
8	2004	A continuous auditing web services model for XML-based accounting systems	Murthy & Groomer, 2004
9	2005	Implementation Case in the Royal Canadian Mounted Police (RCMP).	Baksa & Turoff, 2010; IIA, 2005
10	2005	Continuous Audit Model of the Institute of Internal Auditors.	IIA, 2005
11	2005	Model for transaction-based continuous auditing	Abdolmohammadi & Sharbatoghlie, 2005; Sharbatoghlie & Sepehri, n.d.
12	2005	Embedded Audit Modules in Enterprise Resource Planning Systems: Implementation and Functionality.	Debreceeny, Gray, Ng, Lee, & Yau, 2005
13	2006	Continuous Monitoring of Business Process Controls (CMBPC) (Caso SIEMENS).	Alles, Brennan et al., 2006; Alles, Kogan, & Vasarhelyi, 2008
14	2007	Agent-based Continuous Audit Model (ABCAM).	Chou, Du, & Lai, 2007; Ye & Li, 2010
15	2007	A Theoretical and Technical Model of an External Continuous Auditing System.	Lee & Chou, 2007
16	2007	Continuous Auditing from a practical perspective.	Handscombe, 2007
17	2007	Continuous Auditing Model in the context of independent audits.	Du & Roohani, 2007
18	2008	On application of SOA to Continuous Auditing.	Ye, Chen, et al., 2008
19	2008	The Web-service-based Continuous Auditing Model (WSCAM)	Ye, He, et al., 2008
20	2008	Audit Server model, of the Provincial Energy Company of Córdoba (Argentina).	Castello, Morales, & Wolfmann, 2008
21	2010	Continuous Assurance - ISACA Guide 42.	ISACA, 2010
22	2010	Continuous Auditing Immune Model based on Object-oriented Rule Base (CAIMOR).	Ye & Li, 2010
23	2010	Unibanco Case (Brazil).	From Aquino, Lopes da Silva, Sigolo, & Vasarhelyi, 2010
24	2010	Continuous Audit: best practices and real case.	Jolly & Alcarraz, 2010
25	2010	Continuous Audit Model proposed by the Institute of Chartered Accountants of Australia.	Vasarhelyi, Alles, & Williams, 2010a
26	2010	Modelo CRCA (Continuous Risk and Control Assurance)	Marks, 2010
27	2011	Innovation and practice of continuous auditing	Chan & Vasarhelyi, 2011
28	2011	Mainardi methodology	Mainardi, 2011
29	2013	The predictive audit framework	Kuenkaikaew & Vasarhelyi, 2013; Kuenkaikaew, 2013
30	2014	Guide to successfully implement a continuous audit model	Institute of Internal Auditors of Spain, 2014

“However, both internal and external audit designs have been oriented towards a technical point of view, MCL (Monitor Control Layer) being the most used technique.”<sup>6</sup>

### 3.2 What Is Continuous Audit

“Continuous Audit (CA) is known by different names. Continuous Assurance, Continuous Auditing (CA), Continuous Compliance Monitoring (COMO), Continuous Control Monitoring (CCM), Continuous Data Auditing (CDA), Continuous Monitoring (CM), Continuous Risk Monitoring and Assessment (CRMA), Enterprise Risk Management (ERM), Predictive Auditing, Prevent.” (Martha Fernández Montaña, 2017).

Continuous Audit “It is a method used by auditors to carry out activities related to reviews in real time. Technology plays a critical role in automating the identification of exceptions or anomalies<sup>7</sup>, analysis of patterns of digits in key numeric fields<sup>8</sup>, trend analysis, analysis of detailed transactions with limit values and thresholds, testing of controls and comparison of the process or system over time or with other similar entities.” (Institute of Internal Auditors of Spain, October 2014).

[...]

“... A CA approach allows internal auditors to have an in-depth understanding of critical control points, rules, and exceptions. With frequent and automated data analysis, risk assessments and controls can be performed in real time or near real-time. They can analyze key business systems to detect both transaction-level anomalies and data-driven indicators of control deficiencies and emerging risks.” (Auditool, CREADO, 29 November, 2018)

“Implementing a Continuous Audit model allows Internal Audit Departments to quickly determine where to pay more attention and resources, increase the scope and ability to mitigate risks, improve understanding of processes and, therefore, improve the quality of audit. assurance provided to Senior Management and the Board. (Institute of Internal Auditors of Spain, October 2014)”

The Continuous Audit. “CA is not a technique, nor is it part of the audit process, as established by different models proposed in previous visions, it is a new type of audit that can permeate other types of audits, which can lead to developing it autonomously. or integrated with the other audits and whose requirement is that the business processes that are subject to evaluation are business processes permeated by technology (Duke F. J., 2015)”<sup>9</sup>

“Continuous Auditing depends on effective internal audit tools, robust and flexible platforms or software.”<sup>10</sup> Continuous Audit systems will quickly gather, process and analyze large amounts of data. This demands excellent integration with transaction processing systems and data warehouses.

An example that allows to approach in a colloquial way the meaning of the CA or Audit in real time is the following. In one of the classes of the Diploma in Project Management taught by the Autonomous Technological Institute of Mexico (ITAM), they talked about the importance of an Operations Manager in a factory (as responsible for the manufacture of a complex process) of being attentive to the series production of a standard electronic component.

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<sup>6</sup> Source Business Directory, available online at: <https://www.sedeco.cdmx.gob.mx/servicios/servicio/directorio-de-empresas-de-manufactura>.

<sup>7</sup> This is a definition very important that strengthens the idea of how to closely follow the main processes of the Core Business of a company, at the time when operations occur.

<sup>8</sup> This is a definition very important that strengthens the idea of how to closely follow the main processes of the Core Business of a company, at the time when operations occur.

<sup>9</sup> This is a definition very important that strengthens the idea of how to closely follow the main processes of the Core Business of a company, at the time when operations occur.

<sup>10</sup> Available online at: <https://idea.caseware.com/es/need-to-know-continuous-auditing/#:~:text=La%20auditor%C3%ADa%20continua%20da%20como,medida%20que%20pasa%20el%20tiempo>.

The control of the manufacturing process is carried out from a cabin where there are various control panels called viewers, each viewer allows the observer to see a part of the manufacturing process, in such a way that the Manager can stop at any given time, the lag or deviation of the manufacturing of the component in one of its processes.

Each process, in the manufacture of a component, corresponds to a program that is linked to specific control parameters, previously designed to achieve a certain number of parts with the desired quality. At the moment in which an anomaly (risk) arises, which is linked to a certain control, the production system launches an alarm and notifies the operator that something is happening. At that moment, the operator evaluates the risk and decides: if he makes the appropriate decision to correct or, if warranted, stop the process. This is the spirit or essence of Continuous Auditing.

If we transfer this idea to the level of control risks in a commercial, operational, financial, administrative process, etc. of a certain company, where it is possible to establish parameters, goals, risks, objectives, etc., it will operate very similarly to this example and excellent results would be obtained.

This way of closely attending to a process is the central idea of Continuous Auditing, of witnessing the current status in which said processes are lived and determining what to do, in a timely manner, when matters deviate from the parameters that we have set for that the goals and objectives of our strategic plan are met.<sup>11</sup>

“...Continuous Auditing is a method used to carry out risk and control assessments automatically, in real time, with programmed results on a day-to-day basis or when required.” (Nahun Frett, 2022)

What are the benefits expected from the implementation of a Continuous Audit scheme: (Frett, 2012)<sup>12</sup>  
Among the most important are:

- “Know the operation of the main processes in real time.”
- “Make timely decisions, in order to correct any deviation.”
- “Greater capacity to mitigate risks.”
- “Reductions in the cost of evaluating internal controls.”
- “Greater confidence in financial results.”
- “Improvements in financial operations.”
- “Reductions in financial errors and the possibility of fraud.”
- “Key steps in the implementation of the Continuous Audit system”<sup>13</sup>

Continuous control evaluation:

- Identify critical control points.
- Define control rules.
- Define exceptions.
- Design a technological approach to control testing and to identify deficiencies.

Continuous risk assessment:

- Define the entities to be evaluated.
- Identify risk categories.

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<sup>11</sup> Available online at: <https://www.gestiopolis.com/la-planeacion-estrategica-en-el-proceso-administrativo/>.

<sup>12</sup> Available online at: <http://nahunfrett.blogspot.com/2012/10/auditoria-continua.html>.

<sup>13</sup> Available online at: <https://es.linkedin.com/pulse/la-importancia-de-auditor%C3%ADa-cont%C3%ADnua-en-los-programas-soto-uribe>.

- Identify risk and performance indicators driven by data.
- Design analytical tests to measure higher levels of risk.

Inform and manage results:

- Establish priorities and determine the frequency of Continuous Audit activities.

Advantages of Continuous Audit<sup>14</sup>:

- 1) “Continuous audits use internal audit tools to automate, verify, and identify certain information and transactions.
- 2) Continuous Audit grows from a corporate culture of supervision and ensures compliance with policies and procedures at all times.
- 3) Continuous Audit relies on internal audit tools to gather data on an ongoing basis.
- 4) Get constant reports on the state of the organization at any time.
- 5) Identify potential risks and correct problems early, instead of identifying them later when they are already critical problems.
- 6) Continuous Audit can examine the entire repository of financial, operating and transaction data, giving you a broader view.
- 7) Continuous Audit offers a proactive view of company operations, giving directors more data with which to make informed strategic decisions.”

### 3.3 Strategic Benefits of Continuous Audit

The spirit of the Internal Audits converted into Continuous Audit, are the strategic intelligence of the companies and of the areas that walk hand in hand with the Strategic Planning, when this is the case. The strategic benefits are in sight and are:

- Have information in real time, that is to say at the moment that the operations take place in the areas that are part of the Core business and those that are the heart of the business.
- Have advance financial information and make decisions together to take advantage of gaps that give the company an advantage or, on the other hand, to avoid greater risks and unexpected losses.
- Have results of operations that are linked to other companies, whether they are intermediate inputs, final products or financial assets.
- Have impartial reports, with the corresponding data analysis, generated by the Continuous Audit before those generated by the substantive areas.
- Have an area, now converted into a highly trusted impartial adviser or consultant.
- Have the bases for a more realistic design of strategic planning.
- Have KPI's, indicators, analysis and key rates.
- Continuous Audit is ideal for fraud prevention.

What is listed here is what makes a Continuous Audit area a strategic and impartial advisor within companies.

### 3.4 IT Platforms for Continuous Audit

There are many platforms used today for Continuous Audit. CaseWare IDEA's Audit Platform Provides

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<sup>14</sup> Available online at: <https://idea.caseware.com/es/need-to-know-continuous-auditing/#:~:text=La%20auditor%C3%ADa%20continua%20da%20como,medida%20que%20pasa%20el%20tiempo.>

World-Class Continuous Audit Tools<sup>15</sup> IDEA helps detect fraud, identify anomalies, and track trends and patterns.

Vilma Álvarez Intriago in her article Application of a Continuous Auditing Model, Using JD Edwards EnterpriseOne summarizes by saying that “Commonly, the Systems Audit departments, in their annual plan, assign a high number of hours and resources for the review of the information generated by the modules of the company’s ERP, this leads to leaving fundamental aspects in terms of technological risks, such as: IT Governance Evaluation, Privileged Accounts Review, DBMS Analysis (database management system), DRP and BCM Review. In this article, she tells us a Continuous Audit model was implemented in four companies that use JD Edwards Enterprise-One as ERP and the results obtained compared to a traditional systems audit were evaluated. As a result, it was obtained that the Continuous Audit model performs a complete review of the ERP, presenting reliable results, optimizing time and human resources.”

**Table 3 Continuous Audit Tools<sup>16</sup>**

Cynthus	<a href="https://www.cynthus.com.mx/modelo-de-auditoria-continua-para-auditoria/">https://www.cynthus.com.mx/modelo-de-auditoria-continua-para-auditoria/</a> <a href="https://www.cynthus.com.mx/analitica-de-datos-y-tecnicas-de-visualizacion/">https://www.cynthus.com.mx/analitica-de-datos-y-tecnicas-de-visualizacion/</a> <a href="https://www.cynthus.com.mx/monitoreo-continuo-de-controles/">https://www.cynthus.com.mx/monitoreo-continuo-de-controles/</a>
GRC	Corporate Governance, Risk and Compliance (GRC) Software Automated and customized GRC solutions for your business. <a href="https://www2.deloitte.com/es/es/pages/governance-risk-and-compliance/solutions/GRC.html">https://www2.deloitte.com/es/es/pages/governance-risk-and-compliance/solutions/GRC.html</a>
CAATT	Computer Assisted Audit Tools and Techniques
ERP	<a href="https://dynamics.microsoft.com/es-mx/erp/erp-software/?&amp;ef_id=EAIAIqObChMI9_On8qit-AIVTgytBh2EbgbxEAAAYASAAEgKW1fD_BwE:G:s&amp;OCID=AID2200033_SEM_EAIAIqObChMI9_On8qit-AIVTgytBh2EbgbxEAAAYASAAEgKW1fD_BwE:G:s&amp;gclid=EAIAIqObChMI9_On8qit-AIVTgytBh2EbgbxEAAAYASAAEgKW1fD_BwE">https://dynamics.microsoft.com/es-mx/erp/erp-software/?&amp;ef_id=EAIAIqObChMI9_On8qit-AIVTgytBh2EbgbxEAAAYASAAEgKW1fD_BwE:G:s&amp;OCID=AID2200033_SEM_EAIAIqObChMI9_On8qit-AIVTgytBh2EbgbxEAAAYASAAEgKW1fD_BwE:G:s&amp;gclid=EAIAIqObChMI9_On8qit-AIVTgytBh2EbgbxEAAAYASAAEgKW1fD_BwE</a> <b>Conventional ERP System Presentation Procedures</b>

With the previously analyzed, it has been tried to describe, in a general way, the concept of the Continuous Audit. It now remains to analyze the main processes of the Core Business,<sup>17</sup> relevant in themselves, to be closely observed and which are the *raison d'être* of each of the companies in which it is desired to adapt a Continuous Audit scheme. It is very important to consider the analysis of the operational controls of said processes and the risks identified.

On the other hand, it will be necessary to adopt or design the IT systems that will run parallel to the risks, processes and controls. Only then will it be possible to visualize the Continuous Audit model that fits the company. Previously, it will be necessary to configure a methodological model that integrates the entire project, which of course includes simulation tests that will give certainty and guarantee the implementation of Continuous Audit in a specific company.

### 3.5 Continuous Audit in Other Professional Fields

The possibilities of Continuous Audit have scope that transcends the scope of companies. The benefits of this concept appear in the following table that was designed with the idea of publicizing its scope of application.

<sup>15</sup> Available online at: <https://idea.caseware.com/es/need-to-know-continuous-auditing/#:~:text=La%20auditor%C3%ADa%20continua%20da%20como,medida%20que%20pasa%20el%20tiempo.>

<sup>16</sup> Available online at: <https://www.core.ac.uk/download/pdf/234099511.pdf>.

<sup>17</sup> These are the main processes, those of great value for the entire organization, which constitute the heart of the company.

**Table 4 Continuous Audit Models Disseminated in the Literature, the Academy and Professionals**

Process	Enterprise	Model	Sector
Measurement and Analysis of the billing process.	AT & T	CPAM -The Continuous Process Auditing System	Private
Debt payment agreements in a bank	Banking Sector	Continuous audit Model development and implementation within a debt covenant compliance domain (Modelo Woodroof)	S.D.*
Continuous Monitoring of Human Resources, payroll, suppliers and accounts payable.	Hospital Corporation of America (HCA)	Hospital corporation of America (HCA).	Private
Generic processes	Different ERP's	Embedded Audit Modules in Enterprise Resource Planning Systems: Implementation and Functionality	S.D.
Audit of SAP modules	SIEMENS Corporation	CMBPC - Continuous Monitoring of Business Process Controls	Private
Construction of a government audit information system to promote a new audit model.	China National Audit Office	Online audit in the Chinese government sector	Public
Payroll system	Provincial Energy Company of Córdoba (Argentina).	Modelo Audit Server.	Public
Banking Processes	UNIBANCO (BRAZIL)	Six Steps to an Effective Continuous Audit Process	Private

\*S.D.: Sin Determinar (undetermined)

Source: Valencia Duque, Francisco Javier, & Tamayo Arias, Johnny Alexander, 2017.

## 4. Conclusions

The Continuous Audit is the obligatory step of the traditional audits, it constitutes the pulse in figures of an organization in the hands of Senior Management.

Continuous Audit is the modern face of Traditional Internal Audit. The one that takes up and now shows the strategic part and the spirit of independence that was dormant in the traditional concept of Internal Audit. With the support of Information Technology, the Continuous Audit operates in real time using observers who monitor the company's controls and processes. These observers live the dynamism of the company's operations and know the operations at the moment in which they are taking place.

Based on the above, the communication channels will improve and now it will be possible to know in advance: trends, goals, deviations, fraud, risks, opportunities to correct or reinvest, etc., opportunities that will translate into decisions that will be far from uncertainty, which at another time altered the course of what was planned.

The Internal Audit converted into Continuous Audit, will be the strategic intelligence of the company, due to the opportunity and immediacy with which it will inform senior management and due to the impartiality of its contents. This did not happen before.

## References

- Coderre D. (2009). *Fraud Analysis Techniques Using ACL*, John Wiley & Sons.
- Auditool N. F. (Noviembre 2018). Available online at: <https://www.auditool.org/blog/auditoria-interna/1399-ique-es-la-auditoria-continua>.
- Blundell A. (2007). "Continuous auditing technologies and models", *Computers & Security*. Nelson Mandela Metropolitan University, available online at: <http://linkinghub.elsevier.com/retrieve/pii/S0167404806000964>.
- Colombia F. J. (n.d.). *Continuous Audit: A Tool for Improving the Effectiveness of Organizational Control*, Bogotá Colombia. Available online at: <https://www.gob.mx/cms/uploads/attachment/file/3263/directorio-oic-040515-v02.pdf>.

- Duque F. J. (2015). “La Auditoría Continua, una herramienta para la modernización de la función de auditoría en las organizaciones y su aplicación en el Control Fiscal Colombiano”, Manizales, Colombia: Universidad Nacional de Colombia.
- Frett N. (2012). “Blog de Nahun Frett”, available online at: <http://nahunfrett.blogspot.com/2012/10/auditoria-continua.html>.
- Heffes E. (2006). “Theory to practice; continuous auditing gains”, *Financial Executive*, available online at: <http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:Theory+to+Practice:Continuous+Auditing+Gains#0>.
- Available online at: [https://www.ecured.cu/Inteligencia\\_operacional](https://www.ecured.cu/Inteligencia_operacional).
- Instituto de Auditores Internos de España, T. I. (Octubre de 2014). *Guía para implementar con éxito un modelo de Auditoría Continua*, Madrid, España: Instituto de Auditores Internos de España.
- López Domínguez I. ((n.d.). Available online at: <https://www.expansion.com/diccionario-economico/valor-en-riesgo-var.html>.
- Mercantiles L. G. (DOF 14-06-2018). Available online at: [http://www.diputados.gob.mx/LeyesBiblio/pdf/144\\_140618.pdf](http://www.diputados.gob.mx/LeyesBiblio/pdf/144_140618.pdf).
- PMI E. D. and Blanco L. (n.d.). “Comercio Internacional, S.A. de C.V.”, available online at: <http://www.pmi.com.mx/Documents/Estructura%20de%20las%20Empresas%20del%20Grupo%20PMI.pdf>.
- Available online at: <http://sjf.scjn.gob.mx/sjfsist/Documentos/Tesis/2004/2004357.pdf>.
- Trader A. (n.d.). “Commodities: Petróleo crudo, Aspectos fundamentales del petróleo”, available online at: <https://www.tecnicasdetrading.com/2014/02/commodities-petroleo-crudo.html>.
- Valencia Duque F. J. and Tamayo Arias J. A. (Septiembre-diciembre, 2017). “Continuous audit model: Classification recommendations”, *Journal of Information Systems and Technology Management*, Vol. 14, No. 3, pp. 463-481.