Theory of Change and its Potential Use in Performance Audits

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ABSTRACT

In performance audits, one should seek to know the audited object with the support of diagnostics techniques. One of the techniques, which present the possibility of opening new horizons and bringing new solutions to the Federal Court of Accounts in Brazil (TCU) is the theory of change. The theory of change is a graphic representation of how the implementation of a project, program or policy leads to the expected results and impacts. The theory of change shows in a sequence the inputs that the project, program or policy will use, the activities the inputs will support, the outputs that the program wants to obtain, as well as the expected outcomes and impacts. Furthermore, it identifies events or conditions that may affect the achievement of the results and the subjacent suppositions on how changes should occur and about the cause and effect relationship involved. It is possible to see that the tool can add significant value to the results of audits, and may be used to comprehend the functioning mechanisms of the audited programs; define control points throughout the development process of actions undertaken; indicate factors that interfere with the results of this process; and visualize the effects of recommendations issued, considering the other factors involved. In view of the above, it is believed that the theory of change may constitute an important tool for TCU for conducting quality performance audits with high technical standard.

Keywords: Performance Audit. Diagnostic technique. Theory of change.

1. INTRODUCTION

Few things can be considered as fundamental to the success of an audit as knowing with the appropriate level of depth the audit object. This is well explained in the international auditing standards, which determine that auditors should understand the nature of the entity or of the program to be audited (INTERNATIONAL STANDARDS OF SUPREME AUDIT INSTITUTIONS, 2015)[1]. This requirement is especially important when dealing with performance audits, which due to being more flexible in the selection of subjects, audit objects, audit methods and criteria require greater dedication from the audit team in order to know the subject, the program and the auditees.

In the performance audits conducted by the Federal Court of Accounts of Brazil (TCU)it is recommended that this search for knowledge be carried out with the support of several diagnostic techniques. The TCU's *Manual de Auditoria Operacional* (Performance Audit Manual - 2010) mentions the Swot analysis, the risk analysis, the stakeholder analysis, the map of products and the process map. All these methods are studied and tested in audits and have specific technical documents to help auditors at the time of application. The use of these diagnostic techniques ensures the systematic and documented construction of knowledge about the audit object. Each of these methods comprises various capabilities and meets different needs, and is defined as tools available for use by auditors, depending on their need.

Accordingly, the introduction of new diagnostic techniques is generally welcome, to the extent that it opens up new possibilities for audit work, such as when the Ishikawa analysis or fishbone diagram was used for the first time in a performance audit. The technique was introduced because it provided a new perspective, by enabling the mapping of several causal factors, as well as their interrelations, which determined the origin of a particular problem situation, perfectly fitting the needs arising from the issue that had motivated such audit[2].

Between June and July 2015, I had the opportunity to attend a training, called the International Program for Development Evaluation (IPDET)[3], which is sponsored by the World Bank in partnership with Carleton University of Canada and was held in Ottawa. We had four weeks of intense training on the evaluation of projects, programs and policies, which involved presenting theory and tools, as well developing case studies and group discussions. One of the most interesting techniques showcased in the training, which seemed to provide a wide range of opportunities for opening new horizons and bringing new solutions to TCU's work, was the theory of change, which is the representation of the operating logics of programs

and public policies to achieve their expected results and impacts[4].

This paper aims to present the said technique and describe its purpose, as well as to evaluate how it could be adapted to the Court's needs and used in the development of performance audits.

2. DEFINITION AND USE OF THE THEORY OF CHANGE

The theory of change is a graphical representation of how the implementation of a project, program or policy leads to expected results and impacts, considering the underlying assumptions on how changes should occur. It is a tool that can be used to design and evaluate the initiatives that seek to promote social changes; a kind of "blueprint of the building blocks" required to achieve the long-term goals of any government initiative aiming to promote changes in society (ACTKNOWLEDGE AND ASPEN INSTITUTE, 2003).

A theory of change should (MORRA-IMAS; RIST, 2009, p. 151):

- describe the sequence of inputs that the project, program or policy will use, the activities that the inputs will support, the outputs that the program seeks to attain, as well as the expected outcomes and impacts;
- identify events or conditions that may affect the achievement of the outputs;
- identify the assumptions that the program is making about the cause and effect relationship;
- identify critical assumptions that should be examined in an evaluation, based on the program context and the literature review.

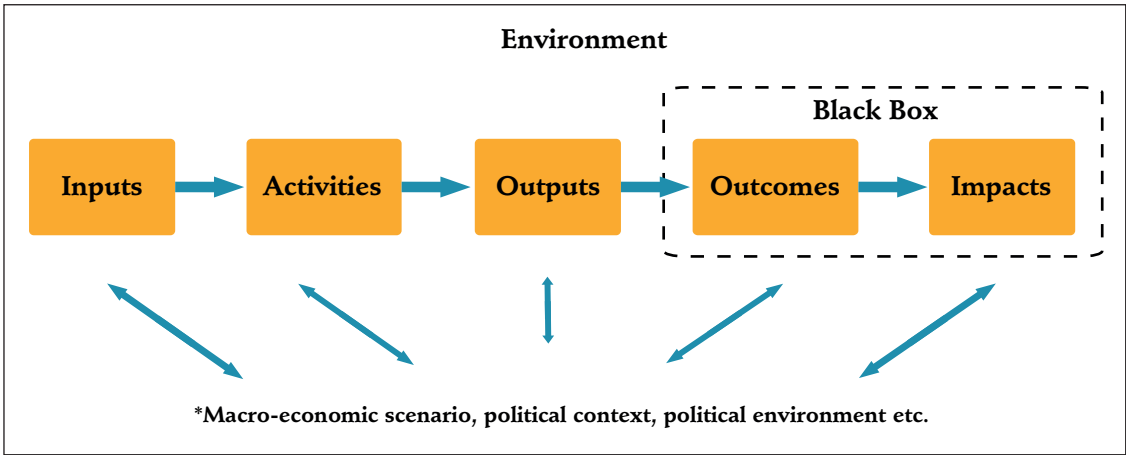
The theory of change reflects the beliefs about why the program should achieve its goals. It specifies the components of the programs and the relationships they hold. Therefore, the theory of change describes how resources are provided to enable an organization to implement activities for achieving specific goals, reflected as interrelated outputs, outcomes and impacts.

In addition, assumptions underlying the operational logic of the program should be identified. In a sense, the theory of change "opens the black box" to show how an intervention expects to convert inputs, activities and outputs into results and impacts (MORRA-IMAS; RIST, 2009).

The theory of change is quite often developed by government managers, as they produce the design for a given intervention, program or public policy. However, many government initiatives are developed without an explicit description of the theory of change.

Consequently, the theory of change frequently ends up being designed as part of a public policy evaluation. In an evaluation context,

Figure 1: From Inputs to Impacts



Source: PALUMBO, Salvatore (adapted from MORRA-IMAS; RIST, 2009, p. 152).

Note: Inputs are of financial, human and material resources. Activities are the actions performed. Outputs are services or goods produced. Results are the expected behavioral changes. Impacts are long-term improvements widespread in society.

the theory of change is usually developed at the end of the initial study on the evaluated program.

The use of the theory of change to describe an activity, program or public policy may provide several benefits, among which we highlight:

- enabling a clear view of how an intervention should work and the possibility of identifying potential design faults;
- enabling the identification of assumptions that may be associated with the risks of not achieving the expected results;
- making it easier to identify the issues to be evaluated;
- making it viable to reach a common understanding about how the program or the government activity works;
- helping to identify the program's key elements, which have a critical role in its success;
- making it easier to identify indicators for measuring the advances of the program or government activity; and
- enabling the presentation of results of a particular policy or program.

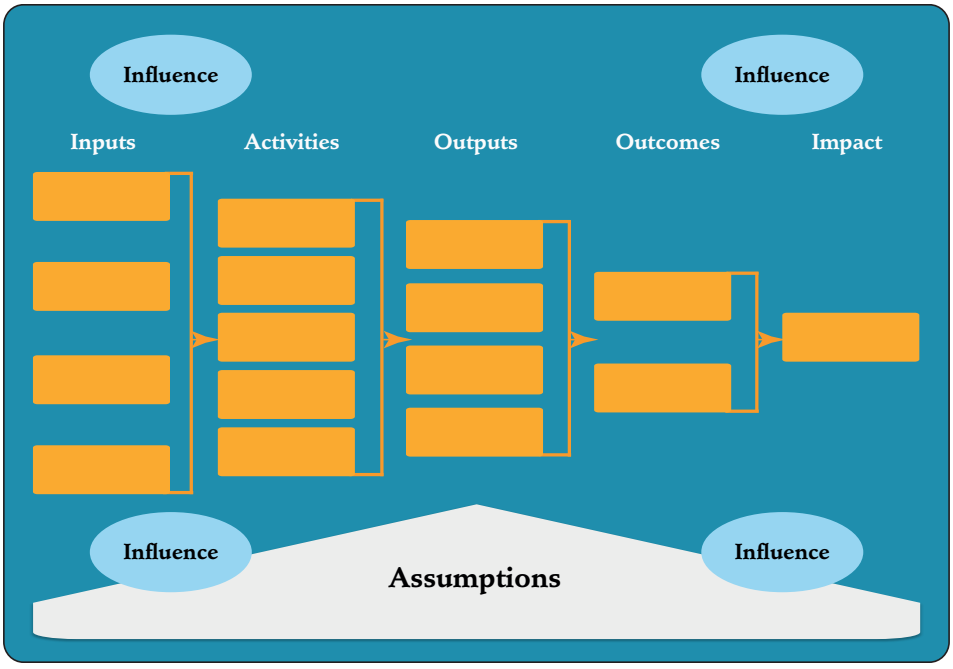
Prior to beginning the construction or revision of a theory of change, evaluators must have a clear understanding of the purpose and goals of the program, policy or activity involved. The following questions should receive special attention (INTERNATIONAL PROGRAM FOR DEVELOPMENT EVALUATIONS TRAINING, 2015):

- What knowledge supports the intervention?
- What is the rationale behind the intervention?
- What key assumptions are being considered?
- What other potential influences are operating in the context of the intervention?

Different models may be used to facilitate the construction of a theory of change. Figure 2 shows one of the flowcharts that adequately meets the technical requirements.

Figure 3, in turn, shows a finished example of a theory of change. Although it is not structured as the previous model, it provides a good idea of how the logic of a government initiative is supposed to operate.

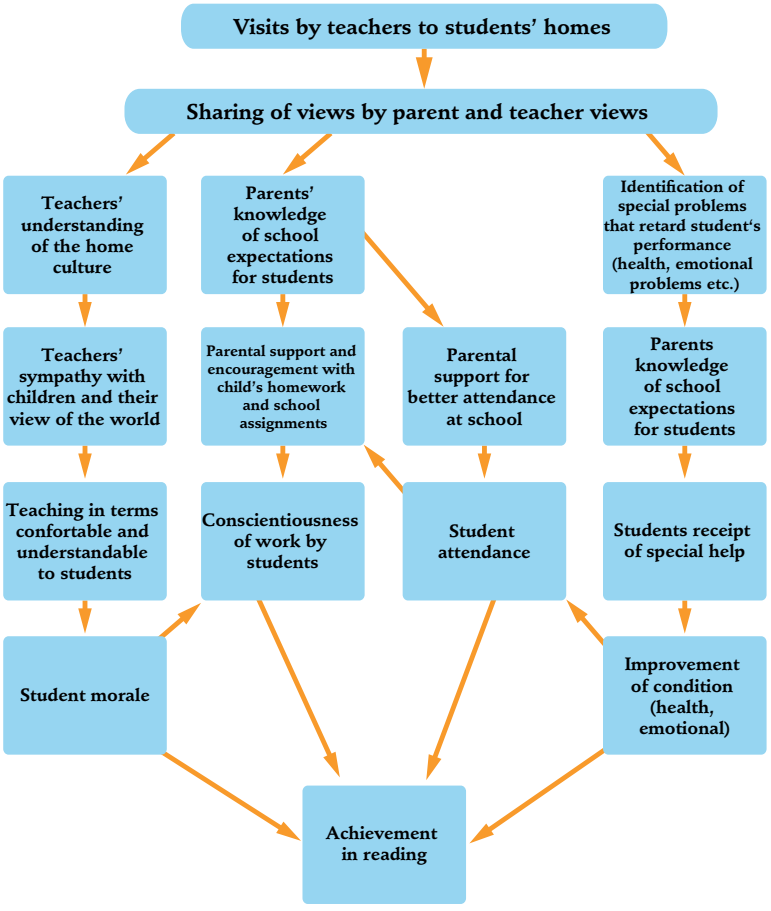
Figure 2:
Theory of Change Model



Source: IPDET, 2015

Figure 3:
Theory of Change
Examples

Note: This example does not explicitly identify the various components of the theory of change, which can be summarized as follows: teachers, students and students' households are inputs; visits are activities; conversations and parent awareness are products; greater empathy from teachers and the attendance of students are results; improved school performance is the impact.



Source: WEISS, 1972 *apud* MORRA-IMAS; RIST, 2009, with adaptations.

Assumptions:

- Parents are at home at the time of the visits.
- Teachers are willing to carry out the visits.
- Parents will welcome teachers into their homes.
- Parents will accept to discuss with teachers their view of educating their children.
- Teachers will better understand the culture of the families and will consequently be friendlier to their students.
- Teachers will adjust their way of teaching based on what they learned from the home visits.
- Parents wish to be involved in the process.

3. POSSIBLE WAYS TO USE THE THEORY OF CHANGE IN TCU'S PERFORMANCE AUDITS

As mentioned, given the variety of topics that are often subject to evaluation, the use of diagnostic techniques is quite common in performance audits to better understand their subject matter. Quite often, the methods employed derive from other areas of knowledge, especially social sciences, management and business management. Examples of such use are Swot analysis, which seeks to evaluate the strengths, weaknesses, opportunities and threats inherent in a project; process map, which seeks to understand the operation of work processes used by auditees and identify opportunities to streamline work routines; and stakeholder analysis, which aims to identify key stakeholders, their views and existing conflicts (THE FEDERAL COURT OF ACCOUNTS, 2010).

However, in order to fully employ methodological techniques derived from other fields of human activity in audits, they quite often need to be adapted to meet the specific needs of such audit modality.

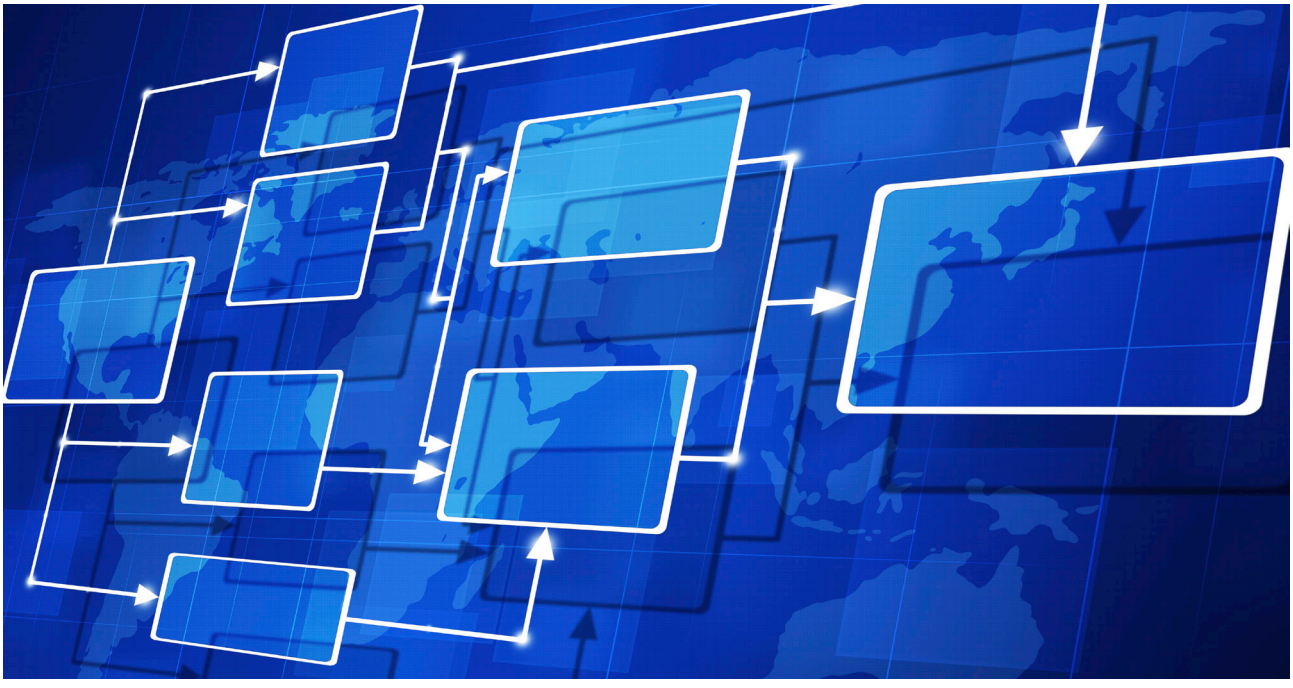
This was the case for the SWOT analysis, which, in the context of audits, has been used mostly as a diagnostic tool for identifying weaknesses and prioritizing aspects that need to be assessed during the development of the audit. To a degree that, in general, SWOT analyses are accompanied by risk analysis, in which weaknesses and threats unfold into corresponding risks. Within the scope of business management, on the other hand, Swot analyses have a more direct role in defining business strategies, providing elements to define a positioning for a certain company in the market. The idea is to take advantage of its strengths and opportunities, and at the same time protect it from the effects caused by it weaknesses and threats.

The Ishikawa analysis also falls into the same case. For the business environment, the designer of the technique, chemical engineer Kaoru Ishikawa, defined four fixed groups of problem sources (method; raw material; workforce; machinery) (DAYCHOUM, 2007). However, in the context of performance audits, the use of the "fishbone" was developed more freely, seeking to contemplate the groups of problems, which exist in the evaluated public policy.

Therefore, the theory of change technique, which is already being used within the international community of public policy evaluation, which involves several international organizations - especially the World Bank (IBRD), the Inter-American Development Bank (IDB), and the United Nations (UN) - may require adaptations to enter the field of performance audits.

However, we may already see that the tool can add significant value to the results of audits and may be used for the following purposes:

- understanding the operating mechanisms of audited programs, policies and government activities;
- identifying other factors that interact with the programs, policies and audited government activities and interfere in their results;
- defining control points throughout the development of the audited activity; and
- visualizing the effects of the recommendations made during the implementation of the audited activities.



The first approach mentioned corresponds to a more traditional use of the tool. It consists in using the theory of change as a diagnostic technique for audits to understand the structuring and functioning of audited government programs, policies and activities. In this sense, the mapping of the theory of change resembles two techniques that are already being used in performance audits, namely, the logical framework and the map of products.

By unawareness, the expressions theory of change and logical framework are frequently used as synonyms. The logical framework may be considered the first attempt to describe the components of government programs to demonstrate how activities lead to results. It also presents inputs, activities, outputs and outcomes. However, the theory of change, in addition to graphically laying out these components, is a causal model: it links the results to the activities to explain how and why the desired change will materialize. This is made possible by explaining the assumptions underlying the evaluated activity. In this sense, the logical framework comprises features that are more descriptive, while the theory of change comprises an explanatory feature (CLARK, H; ANDERSON, A. A., 2004).

The differences in relation to the map of products follow a similar rationale. This technique also identifies inputs, outputs and impacts. However, only the theory of change indicates assumptions involved, enabling the identification of beliefs that justify the chain of cause and effect defined for an evaluated object. These assumptions are key factors for the proper functioning of a program or activity under audit and the evaluation of the actual effects of the factors involved may be relevant to understand audit findings. Therefore, the theory of change provides an overview of the entire operational process of an audited activity, including assumptions about the cause and effect relationship, which is of great value for the perfect understanding by the audit team of the operational logic of the evaluated government initiative.

The second purpose mentioned also represents a unique feature of the theory of change in relation to other diagnostic techniques in use. It is justified by the possibility the theory of change has of indicating and considering other relevant factors - in addition to the audited policy or activity -with potential to influence the results that a certain policy seeks to achieve. Accordingly, the technique makes it possible to anticipate how external factors may contribute to or even hinder the achievement of defined goals.

As a third application, the theory of change tool may also be useful to identify control points throughout the development process of audited activities, which are significant for measuring performance indicators. In this sense, knowledge enabled by the theory of change may sustain the analysis of the quality of existing indicators and the formulation of recommendations to use indicators or improve the indicators already used by an auditee.

Finally, this new technique offers an opportunity to see how possible measures recommended

by the Court may be inserted into the chain of cause and effect relationship, which exists in a particular evaluated activity or public policy, and what consequences may result from this insertion. Thus, it would be possible to evaluate, through a qualitative analysis, which action could have a more beneficial potential effect, considering the context of the evaluated activity. Therefore, the use of the theory of change would represent an inventive initiative for the development of performance audits to the extent that currently, among the techniques used by TCU, there is not any a tool with such features.

The analysis developed so far seeks to evaluate, in theory, the potential benefits of this new methodology, considering a set of other tested techniques, which are available for this audit modality. However, when evaluating the possibilities of using the theory of change in performance audits, we must also consider to what extent there really is a demand for this methodology in the performance audits that are currently under development.

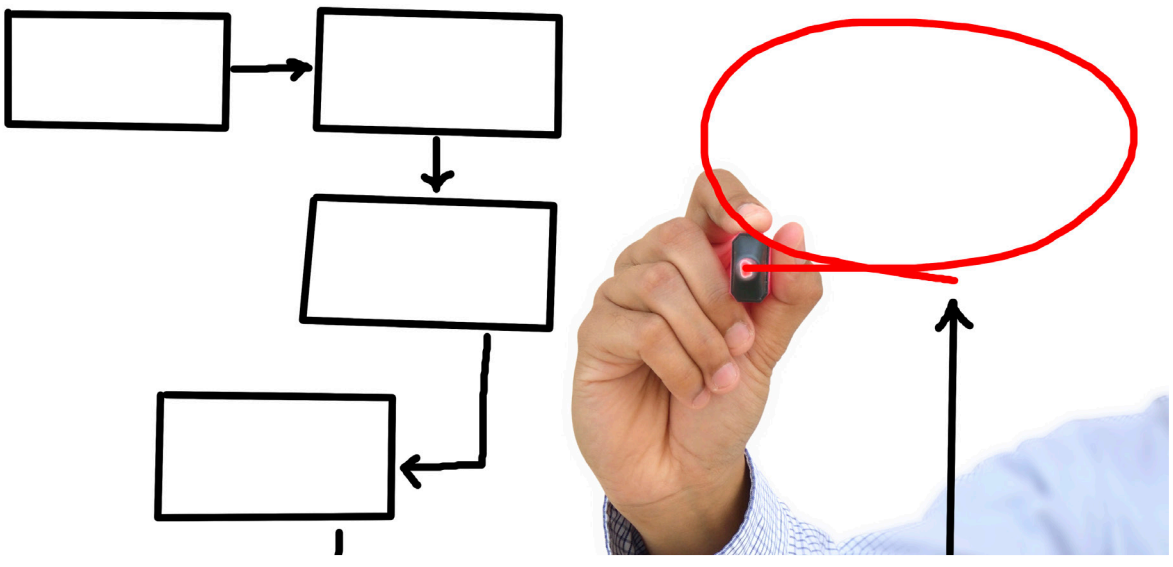
In this sense, the recent participation in a project developed by the TCU to measure the level of compliance of the procedures adopted by the Court to the international auditing standards gave me the opportunity to analyze a small random sample of six performance audits conducted by TCU in 2014. The analysis of the information gathered showed that this type of approach, defined by a detailed study of an audited object in the initial phase of an audit, which noticeably defined the audits carried out by the former Government Programs Audit and Evaluation Department (Seprog), is not being used a lot currently in the TCU. It was found that none of the six audits studied made use of diagnostic techniques.

Therefore, despite the potential of use of the theory of change technique in performance audit works, we have verified that demand for this new tool will probably be limited, being restricted to works that need a more in-depth study of the audited topics.

4. CONCLUSION

The theory of change is a qualitative technique with excellent potential for further improving the performance audits conducted by the TCU, to the extent that it enables a consolidated view of the full operation of the activity or public policy undergoing evaluation. The theory of change adds to the components that comprise to public policies information related to external influences and assumptions that sustain the cause and effect relationship, which, supposedly, lead to the expected results. For this reason, it allows for a very detailed and comprehensive analysis of the operational logics of an audited program or activity, and this may contribute to quality performance audits.

In addition, the technique provides an opportunity to assess the effects of possible recommendations and determinations by the Court within the set of factors found in the environment of the audited



object. This is not possible through other techniques that have been employed.

In spite of the potential shown, the current framework of performance audits under development in the TCU indicates that the demand for the use of this new methodological tool is limited, since many works related to performance have not used diagnostic techniques in the analysis of audited subject matters.

As a result, I recall the initial argument of this paper, which, based on the international auditing standards, emphasizes the importance of having adequate knowledge of the audited subject matters to develop high technical standard audits. In this sense, it is important to give greater emphasis to the study of audited programs and activities in the performance audits conducted by the Court. Therefore, it would be desirable for capacity-building activities for auditors begin to emphasize the need for diagnostic techniques in order to have a better understanding of the audited issues and bodies. I believe that, based on this new framework, the theory of change may constitute an even more important tool for conducting quality performance audits of high technical standard by the TCU.

NOTES

1 Fundamental Principals of Public Sector Auditing. International Standards of Supreme Audit Institutions(ISSAI 100/45).

2 This method was first used in 2008, in the audit to evaluate the concession and maintenance of sick pay benefits by the INSS (the Brazilian Social Security Institute). This audit sought to understand the reasons for the significant increase in the expenditures with this kind of benefit (TC 012.034/2008-7). Currently, the way the technique is used is explained in the TCU's technical document named *Técnicas de análise de problemas para auditorias* (Techniques to Analyze Audit Problems) (2013).

3 The IPDET is an executive training program whose goal is to equip students with the tools required to evaluate development policies, programs and projects, carried out in a local, national, regional or global scope.

4 Most information on the theory of change in this paper are referenced in the expositive classes and corresponding class notes given by professors Linda G. Morra Imas and Ray C. Rist.

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