

Letter to the Reader

Dear reader,

This issue of the *TCU Journal*, in line with the current situation of the country, covers the trending topic of the last few weeks, that is: fighting corruption, for corruption is responsible for affecting society's self-esteem, for infecting the political system and sweeping the economy.

Misuse of public resources, a well-known fact by all of us, does not only affect us today, but also influences the future of the generations to come, because it takes away the basic conditions for a long lasting and socially sustainable development. According to the latest studies, the average cost of corruption, every year, is between 1.38% and 2.3% of Brazil's GDP.

To this end, it became relevant to mention how the Supreme Audit Institutions (SAI) actions impact on the development of mechanisms that may inhibit unsound practices to the Public Administration and, subsequently, harmful to society.

Audit institutions, as we all know, already show in their reports verification regarding aspects that, somehow, show evidence of procedures and practices that might lead to any potential misuse of public resources. Although, it is important to always seek improvement of the oversight methods and techniques adopted, so we can detect mismanagement of public funds before it happens.

The Federal Court of Accounts of Brazil (TCU) has invested continuously in initiatives in this direction. In October of 2015, TCU started the "Fight against Misappropriation and Irregularities" Project, within the General Secretariat of External Control (Segecex), which purpose is to disseminate good practices in facing fraud and corruption in the Public Administration and, as part of the second phase of the project, to elaborate guidelines on how to act focusing on fighting such irregularities.

More recently, in last January, we created the Department of Special Operations for Infrastructure (Seinfra-Operações), responsible for the oversight and other activities related to the "Operação Lava Jato" (Operation Carwash) investigation, and the following up on the Leniency Agreements signed with the Comptroller General of Brazil (CGU), according to the statement of the head of the Department, Rafael Jardim Cavalcante.

It is also important to mention the article by SAI Portugal, "the external control as a tool for fighting corruption – the role of the Supreme Audit Institutions", written by Portugal's government auditor Ruth Serra, in which, after writing on the characteristics of the different types of audits, she demonstrates the importance of forensic audit for preventing and detecting fraud.

However, to achieve agility and efficiency of procedures and optimization of results, it is essential the use of new technologies and paradigms associated with the intensive use of electronic data.

An important condition to leverage oversight activities in an increasingly connected society is the extraction of information and knowledge from the abundant sources of data available today. TCU, aware of this reality, and in order to make our performance even more focused, timely and efficient, has encouraged the use of the data applied science to the External Control. That is the scope of the article "Computational Intelligence applied to the external control: pattern classification using artificial neural networks".

Similarly, TCU has invested in advanced data analysis, seeking to build predictive models. Techniques such as deep learning, presented in the article of the federal government auditor, Luis Andre Dutra e Silva, are among those used in the Court. Segecex, through the Department of Information Management for the External Control (Seginf), has coordinated initiatives for developing structuring corporate solutions, such as "e-contas" and "e-TCU", as well as elaborate predictive models to support planning and implementation of actions, such as the risk rankings in voluntary transfers and in public procurement. The Court, however, still has a long way to go.

This vision of the future is confirmed on the interview of the Chief Scientist of the US Government Accountability Office (GAO), Timothy Persons, in which he expressed his position on the use of data analysis in the activities of External Control. According to him, information processing is not going anywhere, and it is a mistake to consider it as a trend. In the interview, the scientist explained the various uses of this tool and stated that the SAIs, that have fight against corruption among their challenges, would reach better results if they include advanced technologies to their resources.

Enjoy the reading!

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