

Opinion

The pillars of the data analysis strategy and consumption of information at the TCU

Efficiency and effectiveness: words that summarize the fundamental needs imposed on all organisations, public or private - that is, to deliver relevant results with the use of the least amount of resources. Doing in the best way possible what should best be done makes efficiency and effectiveness concepts strongly connected. Misalignment between the two can represent excellence to the contrary: to be doing very well something that should not be done. The TCU, with its mission of improving public administration for the benefit of society through external control, must also seek to perform its mission more and better.

Specifically regarding the TCU, as is an auxiliary body of the power to oversee the legality and legitimacy of spending, as well as the proper operation of public policies, we can synthesise efficiency and effectiveness as the need to “do better and choose better what to do.” Given the limitations of resources, it is becoming increasingly important to be accurate in the planning phase, designing control activities based on the risk, materiality and relevance identified in each of the objects. “Doing better” represents the proper functioning of the work processes related to external control activities, which demand the full functioning of the methods and availability of tools and trained professionals.

In order to plan and execute work in the most desired way, one of the essential inputs is information. It is the correct and timely use of information that allows organizations to make more appropriate decisions about what to do and how.

Despite the challenge of efficiency and effectiveness being perennial in the corporate world, the scenario today requires us to think about new alternatives. Considering that the amount of information systems has increased to the point where the main administrative acts and facts (contracting, bidding, payments, benefit granting, etc.) can be represented digitally, information on the state’s functioning and external control interests are increasingly available - ready to be analyzed and consumed.

The trend towards the massive use of public data is in place and is similar to the current reality of private organizations. Information is and will be increasingly more abundant, distributed and fluid, adaptable to the interpretation of several players. It will thus be increasingly difficult (if not impossible) to retain information or prevent it from being combined to generate other information. *The abundance of information, coupled with the endless ways of combining it, imposes another challenge on us:* to consume it. Having the fastest route to get from one point to another on torrential rainy days is encouraging, even though you know that it only occurs because there is a community of users who contribute by producing and consuming information simply and cheaply. Effective and efficient, is it not?

Whereas the correct use of abundant information on the functioning of the State is a fundamental condition for the proper management of public resources, how to enable public agencies, including control agencies, to make full use of this input in order to increase their efficiency and effectiveness at possible costs? In other words, what needs to be done, in a pragmatic way, for public institutions to adapt to the current reality of demanding better products and services and work better, from the point of



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view of using information as an essential resource? How can we deal with already recognised difficulties and make a move towards instrumentalising work processes with information that is necessary and sufficient to fulfil its purpose?

The following are three pillars inspired by the functioning of public and private national and international institutions that have served as the basis for TCU's strategy, directed towards the full use of information for the sake of control. The execution of coordinated actions has allowed the TCU to advance in the use of data analysis techniques to produce and consume useful information for planning and executing control actions. The belief is that the foundations presented here can be considered by other control bodies, as well as by any Brazilian public institution that wishes to rethink its operation based on the intensive consumption of information.

Two premises were essential to establish the pillars. Both directly confront some myths concerning Public Administration and, for this reason, can be counterintuitive at a first glance. The myths:

1. Stability. It must be questioned whether, as was (or still is) widely

understood, public institutions have institutional stability and sufficient resources to implement public policies under their responsibility. The global public and private corporate environment is one of uncertainty, subject to constant and increasingly drastic changes.

2. Infallibility. We need to recognise that complex solutions are naturally subject to glitches and failures. In certain environments, particularly for public institutions operating in a highly regulated environment, failures can generate discomfort and, ultimately, accountability. The reaction to this is imposed as an inhibition to the emergence of new initiatives for fear of failure. In this context, a new relationship with the risks must be established without, obviously, challenging the principle of legality to which all public initiatives are bound.

Therefore, it is necessary to find solutions that provide new products and services for the proper functioning of institutions, characterised by *innovation in*

an environment of uncertainty. Presented by Eric Ries in his book *The Lean Startup*, this is precisely the concept of start-up, upon which the pillars of promotion of the full use of information by and for control are being sedimented in the TCU's strategy. Let us look at the pillars:

I. Governance

Support from top management and leadership. These are often the most important enablers of corporate governance because they represent the prerequisites for the superior guidelines that support the mission. Without the clear support of top management, transformative initiatives are no more than good ideas that are about to be overcome by fatigue.

However, guidance alone is not enough. The guidelines need to be turned into strategies. In the TCU's case, which was directed towards promoting the use of information for control activity, the choice was to bolster the decentralisation of data analysis activities to the technical units. The departments of external control began to train their auditors to begin the data analysis work, as well as to seek

access to information that would be useful to their work, to use technological support tools and to form an interest and research group on the subject.

The sum of support from top management with the formation of teams of auditors has generated positive results and reinforced promotion of the construction of a new culture, where decentralisation and coordination among the roles encourage the consumption of information for external control activities. The success of this strategy depends, among other factors, on the clarity of the roles and responsibilities of each stakeholder, on the trust among stakeholders, on the experimentation and agile testing of data procedures and on the rapid assessment of results, whether they are positive or negative.

In two years, many TCU technical units led audit work using data analysis techniques. Without claiming to be exhaustive, they are:

- Ruling 539/2015-Plenary, derived from the Centralization-Oriented Audit led by the Department of External Control of Mato Grosso (Secex-MT) whose rapporteur was Minister Benjamin Zymler. The objective of the audit was to validate the selection of control objects based on a predictive data analysis of voluntary transfers.
- Ruling 718/2016-Plenary, carried out by the Department of External Control - Social Security, Labour and Welfare (SecexPrevi) having Minister Vital do Rêgo as rapporteur, which aimed at structuring a continuous oversight of social security benefits regarding their concession, maintenance and payment in the scope of the National Institute of Social Security.

In 2016, some TCU technical units (like Secex-MT, SecexPrevi, Secex-CE and

Secex-Education) formalised the existence of their own data analysis centre, made up of auditors capable of using data analysis techniques in their tasks. The work of these groups is based on collaboration and integration with the other TCU support units, seeking to insert new methods and tools into the daily work processes with a light and results-oriented structure.

New institutional groups have emerged at the external level to enhance collaboration and joint work related to data analysis. We highlight the national strategic information network for external control (*Rede Infocontas*), created in 2013 and which recently bolstered the creation of an information analysis unit in each of the state courts of accounts in Brazil. At the international level, a working group on Big Data and Analytics, made up of several countries including Brazil, was created at the last International Congress of Supreme Audit Institutions, held in December of 2016. The objective is to promote collaboration and the exchange of good practices, as well as to discuss and encourage the design of new strategies and the use of new methods and tools based on information to improve the effectiveness and efficiency of the Supreme Audit Institutions. In addition, like what already occurs in TCU with the role assigned to

the Information Management Secretariat for External Control (Seginf), Supreme Audit Institutions of the U.S., India and China have created organizational structures responsible for establishing and executing the corporate strategy for the use of information and data analysis techniques in their operations.

Once the guidelines have been established, the strategy defined, the professionals trained and the objectives defined, it is necessary to get the tools and inputs.

II. Plataforma

In the words of researcher Doug Laney, "information is only useful when it can be fully used." If information is the input, the raw material, its full use does not only depend on its existence or availability. The task of making information consumption truly simple involves developing new methods, tools and professional skills, but first information must be obtained and made fully available for use.

This is the essence of Labcontas, a virtual environment created and managed by the TCU, which allows auditors to access internalised information from dozens of databases resulting from cooperation agreements between Federal



Public Administration institutions and the TCU itself.

In order to consolidate itself as a de facto collaborative platform, Labcontas is also used by external partners; mainly state courts of accounts (TCEs). There are currently 25 of these partners, of which 20 are TCEs, which use the software and the public information of the platform and, in return, contribute public information about the functioning of institutions from their jurisdiction and of mutual interest to control partners (contracting a determined state from the federation, for example).

Having a central point that gathers information and software for all its collaborating professionals is essential for data analysis and the consumption of information to be more efficient. The recent stimulus to open the data in public government, embodied with the publication of regulations that support the exchange of information between the public agencies (see Decree 8.789/2016) added to the increase in the quantity of information available (not always quality), suggests the emergence of structuring initiatives geared towards *the construction of an open public data platform* of the State, focused on the advanced analysis of information by public organizations, which would serve as a point of contact for initiatives both in the area of control actions and in the intention to become an effective instrument for management.

With the environment ready, information available and the structure assembled, it time for products.

III. Information-based solutions

The global organisations that have consolidated their operations based on the production and consumption of information have a true neurosis in attempting to keep their information ready for use in the simplest possible way and at a marginal cost, close to

zero. In other words, the main goal is to make information very easy to use and inexpensive.

The point is that, though we have qualified teams and data at our disposal, if the intent is to foster the internal and external information-consuming ecosystem, solutions that solve the problem need to be built (whether it is to plan an audit or have inputs to hold a manager accountable or not) in a very simple way, in the vision of the one who will use this input to make decisions. Even if solutions use complex algorithms based on machine learning and cognitive processing or more recent indexing and content relevance calculation techniques, what should matter to the auditor are the results that are obtained from those products and how reliable they are for each purpose.

Concerning the TCU, it is worth mentioning the DGI Consultations, a solution that provides a search interface for information produced and under the stewardship of the TCU in a simple and direct way and that exemplifies how auditors for the sake of their daily work can access a great volume of information in a very simple way. Inspired by this example and made possible through cooperation with the Brazilian Ministry of Transparency, Oversight and the Office of the Comptroller General, ALICE (Analyzer of Bids, Contracts and Public Calls) produces and sends automatic electronic messages containing a risk warning on bids published on the previous day, considering aspects such as the amounts involved and indications of irregularities obtained directly from the texts of the public calls for bid in comparison with TCU precedents.

These are two examples of information-based solutions that serve as a further tool to support risk-based planning processes, as well as providing relevant inputs during the execution of controls and process instructions through the comprehensive use of internal and

external information available at TCU. The time is not far when even automatic preliminary analysis of the evidence can - why not? - be delivered to auditors, to support them in their evaluation work.

Recognising the importance of the full use of information in public control institutions is a fact, but carries with it many questions. The heterogeneous maturity of organizations and the passive problems that affect their full functioning make any change of strategy in the way work is done very challenging. However, today's demands do not seem to provide us with alternatives other than to enter the reality of the fourth industrial revolution, of digital thinking, where the consumption of goods and services is characterized by the requirement for low cost and quality. These societal desires emerge and are increasingly directed towards the functioning of the State.

In addition to a critical analysis on the common sense of the functioning of public organizations, the need to shape up to this new reality imposes on public professionals an honest reflection on their role as part of an organization that will never be ready enough, but that needs to deliver more and operate better.

In a pragmatic way, it is already possible to see good results from the execution of the strategy of using information and data analysis in TCU's work processes. Apart from the occasional scaremongering, but keeping alive the ability to be inspired and compare oneself to a global and local reality, there is no alternative but the constant rethinking of the way the mission of public institutions must be fully fulfilled. The desired increase in efficiency and effectiveness certainly involves the full use of information, which demands involvement and increase of the interaction between professionals with complementary profiles, the use of new technologies, the management of information and, above all, a change in the way of planning and executing the work processes.