



**THIRD REGIONAL TRAINING WORKSHOP ON
TAXATION**



Brasilia, Brazil, December 3 – 5, 2002

Topic 4

**INFORMATION TECHNOLOGY IN SUPPORT OF THE TAX
ADMINISTRATION FUNCTIONS AND TAXPAYER ASSISTANCE**

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1. Introduction

Throughout the years, the tax administrators have been constantly concerned about developing new ways of improving institutional performance by increasing the effectiveness of tax control and providing taxpayer services that may allow them to better comply with their tax obligations.

With varying levels of result, a fundamentally important problem appears to be the difficulty faced by the tax administrations to adopt and put into operation integral management models that may lead their administrative processes. The complexity of the mission of the tax administrations and the dispersion and multiplicity of its various activities in a permanently changing environment, call for the development of these models which are, in essence, the determining success factor of the organization in complying with its mission.

If there is no adequate integral management model that may guide and ensure the organization's action toward achieving the objectives, which may, in turn, allow it to fulfill its strategies and mission, coherent results with the purposes sought will not be achieved and it will likewise be very difficult to obtain good results with respect to control as well as adequate levels of taxpayer services.

Additionally, in operational terms there have been difficulties related to the implementation of information systems whose qualities and merits may allow it to become part of the organizational context wherein they render their services, with adequate levels of effectiveness.

This document will be focused on showing how technology allows for making significant changes, in the administrative process in general, as well as in the control of taxpayer obligations and in the better provision of services by the tax administrations. Concepts which are basic, although essential for purposes of the subject matter being considered, will be presented, and likewise, an analysis will be made of the importance of digitalization of the management processes and daily activities, until arriving at the integration of information and the control of results.

2. Basic Concepts

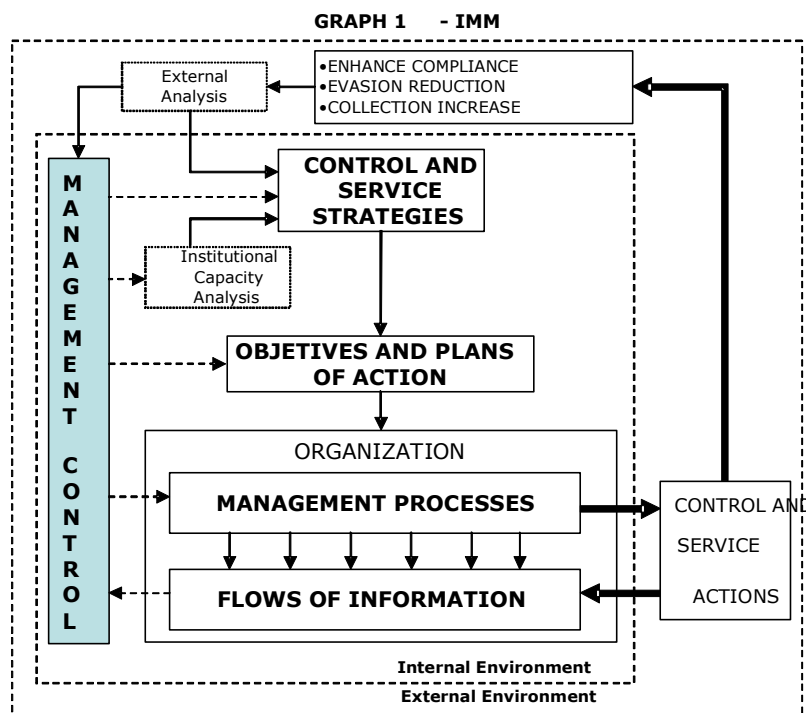
The adoption of an integrated management model is of great value for the adequate functioning of the tax administration. As part of the IMM, initially one must define the strategy, which will be adopted to control the compliance of the obligations of the taxpayers and the strategy to provide these taxpayers with services, which will facilitate the complying with obligations and also the need for additional control.

Starting from an adequate analysis of the outside environment and real internal capabilities, one must explicitly determine the control strategies and service for the taxpayer. This means establishing clearly on which sector of taxpayer or segments of tax evasion one will act, what actions will be taken to control efficiently the sectors of major noncompliance, how one will make available the resources to exercise the controls, what actions will be taken to improve institutional abilities and related control capabilities, and what type of service and attention will be offered to the taxpayer.

The IMM must ensure that these strategies will be translated into measurable and realizable objectives, and specific action plans. That the plans of action are executed through the administrative processes and that these processes are controlled and evaluated.

The administrative process (planning, organization, direction, execution and control) will be inserted in the IMM, establishing work and information flows, which operate horizontally through the different key areas finalizing in specific actions of service to, or control of, the taxpayers. In this manner the operating work is a part of the flow of a process and not as something separate, to ensure its integration and consistency with specific and superior objectives and strategies.

The integration of the administrative process by means of process and information flows constitutes the basis for carrying out effective control actions and for offering adequate services to respond to taxpayer needs.



Results achieved must be permanently measured to guarantee compliance with the strategies and the institutional mission, by means of management control systems, in a continuous cycle which permanently provides feedback to the administrative process. This is one of the keys to institutional success and for this reason we will analyze it hereunder.

Technology will allow the evolution of the tax administrations wherein administrative control (AC) plays a preponderant role. It will allow passing from the measurement of production or service units, to the relevant measurements of the performance of processes, and the measurement of final results of the operation. But this is only possible if one has an IMM available which functions in accordance with the needs of the tax administration, and which develops and strengthens the key factors for the success of the mission.

However, establishing an IMM is a necessary condition but not sufficient to obtain an effective AC. The different models used have not been able to guarantee that the departmental and individual performance will coincide with the overall performance needs. The objective of AC necessarily implies the realization of a level of performance to be compared with the expected behavior at each level. But, until now the information systems have not provided sufficient help to achieve a detailed measurement in lower organizational levels, which would be the starting point to consolidate the different levels of behavior.

Much effort has been made by the tax administrations to collect, validate, and consolidate information of the activities of the operation, through information systems not integrated to the flows of processes and information.

The purpose of obtaining information, has also brought the generation of new manual processes of work, in addition to those already established, principally at the local levels. In the central levels of the organizations, it has created bureaucracies for the sole purpose of creating new procedures to collect information, validate reports submitted and carry out the consolidation of information for global reports

These efforts, in many instances, have resulted in measurements and reports, with a low level of trustworthiness, and in many instances incoherent in the face of changes in the variables, the processes or the manner used to collect data.

To establish a good AC, one must take great care in the efficiency of the information process, to generate and obtain information which is really necessary, not redundant, because we run the risk of flooding ourselves with data which is unusable when we wish to measure the results of the operation.

The information for the AC must be adjusted to the needs of the tax administration, which are determined by specific characteristics such as the type of management used, the levels of authority, the level of performance of the body of directors and executives.

It is convenient to determine the areas and key factors of the operation and establish for each one, what is the relevant information which will allow us to follow the route and measure the pulse of its performance with the frequency and opportunity we require.

In relation to the use of the information we have to determine in real terms its trustworthiness. This means among other things to guarantee the objectivity in its supply and precision and ensure that it may be unified with other information and maintain its significance.

The new technologies provide new opportunities, bring us additional speed to obtain and use the information and help us reduce errors associated with the generation and supply of information.

The information obtained this way is an effective support to the taking of decisions, its breadth and easier availability are useful to us to achieve better adaptation of our processes to the environment. We can with greater ease use variables with a certain quantity and quality.

The availability of the same invites us to stimulate the processes of analysis and diagnostic and allows us to determine clearly the cause of difficulties, helping those in position of responsibility to resolve them.

As a result the organizational dynamics are strengthened and better factors of competitiveness can be constructed.

3. Vision of the impact of new technologies in the tax administration.

When we refer to new technologies, we are talking principally of the infrastructure of connectivity at high speed, the software and hardware products which operate on it, and the effects of the synergy of their popularization on all areas, and the subsequent impact on technological evolution.

There is ever more greater speed in communications, which will probably reach the same or somewhat slightly lower rates achieved in computer processing, but which nevertheless will be substantially greater than the current ones. The communications network infrastructure with high speed links and accordingly, more users connected thereto is expanding very rapidly. This is generating growth of the internal webs for the use of systems under web technology, growth of specialized software products, new tools for the development of software and new computer standards used for accounting and financial programs. Also, new elements of security and authentication of transactions are being generated.

The progressive growth of the capacity of processing and storing will continue probably at greater speed than the present one, which will make it increasingly cheaper to access these tools. Many more digital accounting, financial and tax transactions will exist.

The popularization of systems that operate in real time will permit the immediate interconnection with different databases and the immediate crossing of transactions for their verification, loading or tax credit.

Now it is possible to have access to the systems from anywhere, with only a PC and a navigator, or a mobile phone, which in turn causes the systems to adjust themselves, change their formats, and modification of processes.

The new technologies reduce processing times and production cycles, permit rapid adjustments in the procedures, grant greater flexibility, which translates into increase in effectiveness.

The impact of the new technologies in the tax administrations, is a consequence of their employment on a worldwide basis. Their rapid expansion, growth and increasingly lower cost, permits us to achieve clear advantages to improve our administrative processes.

Now we can offer services which were not feasible before. We can locate our offices to attend the taxpayer in any part of the world in which a PC connected with Internet exists. Our services can be available to anyone, without requiring physical presence in any of our geographical offices. Taxpayers can file returns or make their payments from their homes 24 hours a day, 7 days a week and our operating costs to provide this service, are minimal compared with the traditional operating schemes.

Technology allows us increasingly to know more details of each taxpayer and administrate this information to be able to offer personalized services and specific specialized controls.

The quality of the information of the transactions carried out by the taxpayers with the tax administration improves significantly. Not only can we capture the data from the source that generates them, but we can offer the programs that allows them to generate the data, prepare their returns, settle their taxes and in general allows them to comply with their tax obligations.

We can also increase the means to receive mass information from taxpayers and information agents, reducing significantly the time for processing and availability of that information. Many of the controls that were applied traditionally through massive subsequent procedures can now be applied interactively on line.

It is now easier to capture more and better information from the external environment in which our administrations interact. The possibility of capturing internal information also grows.

In addition to the obvious advantages related with the contact with taxpayers, internally the benefits are very important. In the first instance, we can have direct contact, on line and interactive with all our branches and employees. The aspects of releasing information to employees at all levels is simplified by publicizing the information in our internal portal or the simple use of e-mail.

The interaction between the different organizational levels and employees that make them up is now possible on a dynamic basis. New mechanisms are created to carry out the work on a group basis. Before it was necessary to transfer people in order to carry out any work on a team basis or execute different activities of the same process. Now you only have to connect them.

Now it is easier to create information, process and chain of activity flows that pass through the barriers of the organizational structure. We can make the employees carry out the work using information systems, in a flow of integrated processes that connect different organizational levels, and different geographic sites.

In administrations with preliminary levels of development and less structured levels of management, it is very easy to rapidly install services which allow all dependencies to capture the information of their administration or their activities when they are not integrated with processes web, or they load the information of nonintegrated activities.

We can now interconnect old applications with new applications. We can develop products which allow us to consult on line our old data bases to extract information that is mixed with other information, supplied by new information systems.

All the information required by an employee is available on the screen of his PC or his mobile phone.

The new technologies revolutionize the work of our auditors. Not only because of the access to better sources of information, which will allow better planning of activities, but because during the audits, specific software products will guide you interactively in the realization of the field work. The cross of information and the validation of data "in situ" will allow you to take better decisions. The information you obtain and with which you feed our systems will be the best element to guarantee the effectiveness of their activity and will also allow measurement of performance.

The new technologies qualify us to improve our IMM. All stages of the administrative process (planning, organization, management, execution and control) may be carried out with greater speed, better information and by interrelating the different organizational levels.

For example, from the overall analysis of the tax returns, information from other parties and relevant economic data, one can establish guidelines and trends that allow one to define in a dynamic manner programs of tax control, to be executed on a real time basis carrying out the selection of cases to verify, control and audit.

In the same sense the information systems permit one to carry out the assignment of cases to the employees, in accordance with their workloads and their professional profiles. Starting from there, the system will guide the employee in the steps he must take, to carry out the specific control in each case assigned to him, in order to obtain the final results of his actions.

The final results obtained, the adjustment of a return, the completion of presentation of a return, or the payment of an amount past due, not only feed the system for the individual evaluation of an employee. They also feed the global analysis starting from the consolidation of the individual results, which permits measuring the impact generated by the control programs executed, determine level of compliance with the objectives and readjust the guidelines and tendencies to generate new control programs in a cycle of increasing the permanent value.

Consequently, the process of feeding the results is accelerated, the agility of the planning process is increased, one obtains closeness with reality, and communication and interactivity is improved.

4. Digitalization of management

Good information is obtained directly from the source in which it is generated. It is better, if during the generation of the information, the relevant data of the same, which is known in other instances, is extracted and stored simultaneously. It is even better, if during the generation of the information, it is stored in such a manner that the relevant data can be extracted at any time in the manner required.

Previously we mentioned the need of establishing workflows and horizontal information throughout different key areas of the organization, which finalize in actions against the taxpayers. We also mentioned the importance that the operating work is involved in as part of the flow of a process.

In addition, we should think what would happen if all the operating work, including the simplest used in the control of taxpayers, is carried out with the help of modern technology, which simultaneously stores information and feeds the following task in the sequence of the process. We should now think that this occurs with all the tasks in the process of administrative control.

In this manner, we would have all the information required instantaneously. We could know at each moment, what is happening with the task, each process, with each objective, with each planned strategy. We can know the result of the last month in relation to the current one, from yesterday to today, including at a detailed level.

In this manner the management control information would be the result of the realization of the processes and not the result of executing additional operating task, such as filling out a form or preparing a report. The administrative control information would be a natural element of the execution of the processes, it would be an aggregate value obtained during its execution. Additionally this information would be a natural element of management, direction and planning.

If operational tasks are part of the flow of a process, assisted by technology, which provides feedback and allows or renders possible their execution, they add value to the productive chain which is promoted through the use of technology.

In this manner, to the extent one climbs the organizational pyramid, one obtains a more structured vision of the activity, with more opportune, trustworthy and precise information. Management can introduce permanent change and adaptation to processes through rapid change in workflows and information, which are dynamically incorporate and promote automatic follow-up.

In this kind of context, the IMM (see Graph 1) must function adequately as the processes of management control, which are translated into actions of control and services to taxpayers, supplying flows of information for management control. The

latter feeds the same processes for adjustments which might be applicable, also feeds action plans, whose correction also produce corrections feeds back the formulation of control and service strategies that will cause adjustments in the objectives and action plans. In this way, there is a permanent cycle which results in ever more effective actions and permanent improvements in compliance, reduction of evasion and certainly increase in collection.

5. The process networks

Since the control base is in the processes, and in how these, when integrating and flowing through the organization, generate information flows, we should analyze the creation of networks of processes. In essence, they are the ones that allow us to undertake the control and service actions and certainly may guarantee us a better quality in taxpayer assistance. **The importance of this aspect is also found in technology's significant contribution to this area.**

Conceptually, we have analyzed how these processes follow strategy, i.e. how the control and service strategy, finally, is the one determining which services should be put to work to achieve the planned actions. Therefore, we will not focus on practices to adequately define processes, but rather on the way in which we may use technology to build processes dynamically.

We will add to the technological definitions known by everyone such as Internet, intranet, e-mail, Web applications, databases, call-centers, one more: work flow.

The workflow consists of partial or total process automation, during which documents, information or tasks are transferred from one person to another to carry out other activities or tasks, according to a set of predefined rules¹. The workflow allows us to create networks of processes totally or partially automated.

The workflow management systems feature easy integration with other information systems, being these workflow managers too, specific applications, e-mail, document managers, or any other information system. Moreover, the standards of new technology regarding IT, have taken care of their connectivity. That is, their capacity to interact and interrelate with various software and hardware products.

The previously mentioned allows us to use different ways to facilitate how tax administration employees carry out their activities, the interaction between different areas, organizational levels and geographic locations, and the access to multiple information of different nature. This allows us to offer the taxpayer various ways to facilitate the compliance of their obligations and provide better levels of service too.

To make more effective the creation of networks of processes, it is essential to identify the key management factors and work on them to define their most relevant processes, their main indicators and the priority order for their integration. The design of processes will consider the most adequate technological means to apply, and the scope of automation, i.e. up to what point technology interferes to carry out day-to-day tasks.

¹ See Document WPMC-TC-1011 The Work Flow Management Coalition.

When the network of each process is created, all the steps to be carried out to the end are defined. Actually, these steps are manual or automated activities, which use and generate information, and may be carried out by participants or computers. At the same time, when each activity is performed, other systems may be used to consult information and carry out, through or in them, specific activities. The sequence of steps to carry out and their alternatives, the way to perform activities and tasks, performing options, and minimum and maximum time to carry out each task, are included in a set of rules applicable to each process.

The participants in each process are assigned to the network and associated to the steps and activities they may perform. They will have cases specific assignments, on which they will perform the corresponding part of the process. The system will control the set of predefined rules that are applied to each case that transits the network of the process.

The network of processes will take advantage of all available means. Aspects like use of e-mail to warn a participant or his supervisor, the next deadline of a step regarding an important subject. Or the use of mailing lists to warn a group of taxpayers in regards to the start of coercive collection, when their cases reach a specific step of the network. Likewise, the carrying out of preplanned telephone calls and the connection to the network participant responsible for the case, when the taxpayer is contacted. It may carry out preparatory activities of information too, like performing automatic petitions of images of charter documents to the register, from the assignment of new cases to auditors.

It is pursued each task should be carried out through the network of processes, using the available information in the systems of the organization as much as possible during performance, and seeking the result directly updates such systems.

As it can be noticed, there are no conditions to the organizational structure, at hierarchical level or to the geographical location of participants. Thus, the information flows, mentioned throughout the current document, will be produced.

To control management results and determine the level of compliance with objectives and strategies, the data from operations are needed. It is essential to understand too, what this data means. For this, we should create information flows digitally capturing data from the very first moment of management, making a continuous analysis in all the activities of all the organization's processes.

In the statistical part, what can be achieved through the networks of processes is to obtain detailed data regarding the functioning of each management activity carried out and its operations; unify this data at different levels and stages, producing statistics indicating tendencies and rules on which to base analysis, planning decisions; extract relevant information to control processes and their results; and finally capture detailed information regarding the taxpayer as an individual, in order to offer him services and effective and personalized control.

6. Integration of information and control of results

In the previous point, we focused on the networks of processes, and we saw how these provide important information. However, there is other information not necessarily produced too, by automated networks of processes, which should be integrated to the control of management results.

It is in such areas as the receipt of tax returns, registration of taxpayers, filing of reports by information agents, collection operations at banks, where new technologies have ever more frequently shown their potential. They have allowed for fully reconsidering the strategies of the tax administrations and introduced significant improvements in related operational processes.

Although these processes might not require automated networks for their execution, especially if they are carried out through Internet or by magnetic means, it is necessary to establish integration mechanisms by connecting various organizational levels and entities, through shared databases and compatible software that may allow for controlling management results with information originating from these systems. Through the automated use of the different information systems it is possible to perform a complete management control of the IMM.

We may pass from units of production and services measurement, to performance of processes relevant measurement, and from these to final results of management measurement.

As an example of this necessary transition, we may present the following analysis:

A measurement of units produced would indicate the quantity of audits carried out or the larger taxes defined by the audit branches.

A measurement of the result of the audit process, would show the percentage of reduction of evasion caused by the audits carried out, which may be obtained, from the measurement which gave place to the objective planned and the specific selection of individuals to supervise.

Still, a measurement of management final results would show us how much voluntary compliance has risen, as a result of the organized strategies and their corresponding plans of action.

The final reflection is that currently technology allows the evolution from managerial control of processes to managerial control of results. It is our duty to promote this evolution by encouraging the transition in the way of measuring performance, as fundamental element for determining the levels of compliance with our strategies and global objectives.

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