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“A MODERN VISION OF THE TAX ADMINISTRATION”

Topic 1

**THE INFORMATION AND COMMUNICATION TECHNOLOGIES-ICTS
AT THE SERVICE OF THE TAX ADMINISTRATION**

**General Directorate of Internal Taxes
Dominican Republic**

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Topic 1: THE INFORMATION AND COMMUNICATION TECHNOLOGIES-ICTS AT THE SERVICE OF THE TAX ADMINISTRATION

EXECUTIVE SUMMARY

This paper has been divided into three main parts with the intention of putting forward those aspects we believe allow Information and Communication Technologies to serve the Tax Administration.

First, we discuss the importance of implementing “Good IT governance”, understanding by it a set of actions that allow articulating the decisions regarding the management and the use of information technologies with desired behavior and the business’ objectives.

A classification of the types of IT governance is shown based on technology-related decisions. The classifications of the types of IT governance are: Business Monarchy, IT Monarchy, Feudal, Duopoly and Anarchic.

Secondly, the identification of the elements that must be considered for ICTs to serve a TA, namely:

- a. The definition of the role and the impact of ICTs on the organizational strategy.
- b. The alignment of ICT Vision with the organization’s strategies.
- c. The organization’s comprehensive vision.
- d. The tax administration’s transforming commitment of key processes both inwardly and outwardly.
- e. The ability to return to taxpayers, through the TA’s better services and more transparent actions, investments in ICT-related projects
- f. The legislation available to undertake modernizing processes

Next, a description of each of these elements and how they were approached at the General Office of Internal Taxes (DGII, in Spanish) of the Dominican Republic; the DGII’s experience with the use of ICT with a view to contributing to the achievement of its strategic guideline “Increase Tax Collection sustainably.” This discussion is based upon:

- The role assigned by the DGII to ICTs, in accordance with its vision, aimed at: *“Becoming a prestigious and trustworthy organization using policies, procedures and **information systems that operate efficiently**, with the aid of ethically and professionally unobjectionable people working under the guideline of increasing tax collection sustainably, reducing evasion and respecting taxpayers’ rights.”*

- The certainty that taxpayers' fulfillment level and the consistency thereof depend on organizational and technological performance, where technological performance is identified as the element that provides consistency to the achieved fulfillment level. Showing high performance in these two factors is what allows accomplishing a high level of fulfillment sustained over time.

The role of ICTs is seen to be explicitly included in the DGII's Vision. ICT, along with the policies, procedures and the ethically and professionally unobjectionable, are an indivisible unity apt to cut down evasion and achieve a sustained increase in tax collection.

The document describes the DGII's projects having a high component of ICT use, such as: Online Office, Fiscal Printers, Billing or Tax Receipt Control, etc.

The execution of such Projects have allowed the DGII, among other things, to move from receiving no online tax returns in 2005, to receiving 80% of VAT returns and 75% of Income Tax returns filed electronically in 2008.

Topic 1: THE INFORMATION AND COMMUNICATION TECHNOLOGIES-ICTS AT THE SERVICE OF THE TAX ADMINISTRATION

Public and private entities could be defined as organizations made up of processes; some are industrial processes, others are service processes, others are control processes. But they all are, ultimately, processes. In all cases what is pursued is the accomplishment of results for the benefit of another process, a client, a taxpayer or, in broader terms, a citizen.

Hence, talking about Information and Communication Technologies serving Tax Administrations (TA) is akin to talking about ICTs serving the facilitation and efficiency in the execution of the organizations' processes.

It is simply by observing how ICTs have transformed our way of life that we can understand how they have been serving organizations and the transformation of any process.

For example, in the field of medical processes, nanotechnology¹ has paved the way for the evolution of endoscopy, all the way up to creating minuscule cameras that are introduced as capsules in the human body so that experts can look inside it. Or how tomography, which reproduces the images of organs and their conditions, has contributed to the adequate diagnosis of illnesses.

If we conclude that ICTs have impacted all areas of our business, then they have clearly become indispensable and critical to the organization's good performance.

In the tax environment, we try to identify how processes can be transformed in order to manage taxes with a view to increasing or maintaining taxpayers' fulfillment levels and thereby preserve or increase tax collection. To make processes more efficient and effective, ICTs must serve this transforming goal.

For these tools to contribute significantly to the organizational objective there is the need to implement "Good IT governance". "Good IT governance" allows articulating the decisions regarding the administration and the use of Information Technologies with desired behavior and the business' objectives"²

¹ Nanotechnology is an applied science that controls and manipulates matter at a lower scale than a micrometer, that is, at the level of atoms and molecules (nanomaterials).

² IT Governance, Peter Weil and Jeanne W. Ross, Harvard Business School. IT Governance concerns the strategic and operating framework in which IT tasks and projects are developed within an organization for the achievement of desired behavior in the use of ICT.

IT Governance can be placed within the conceptual framework of “Corporate Governance”, which involves the management of organizations in order to provide strategic guidelines, assure the achievement of the company’s objectives, guarantee proper risk management and see that the company’s resources are used transparently and responsibly. What could be a more suitable tool to contribute to the objective of achieving operating transparency in the organizations than ICTs?

According to the book “IT Governance”, there are 6 IT governance models³: Business monarchy, Feudal, Federated, Duopoly and Anarchic. These models characterize the organization’s type of IT Governance based on the way they make decisions regarding the following aspects: role, architecture, infrastructure, applications or systems, investment focus and project prioritization. Let us take a look at the characteristics of each model:

- a. Business monarchy: In this model, the decisions regarding ICT aspects with respect to role, architecture, infrastructure, applications or systems, investment focus and project prioritization are made by senior management.
- b. IT Monarchy: In this case, the decisions regarding the above cited aspects are made by IT specialists.
- c. Feudal: Usually, in organizations having business units or functional or regional units, decisions are made in accordance with the needs of each business, functional or regional unit.
- d. Federal: The decisions regarding IT are made by senior management and the leaders of the organization or the business, without the necessary participation of IT.
- e. Duopoly: It represents a combination of models in which decisions are made jointly by IT specialists and the senior management, along with the business’ functional or unit leaders.
- f. Anarchic: The decisions are made independently by groups.

To discuss the trend in the use of one or another form of IT governance, an investigation was carried out with large profit and non-for-profit organizations. This study resulted, among other things, in the following conclusions:

- a. Eighty percent (80%) of private-sector organizations apply an IT governance model that combines Federal and Duopoly styles.
- b. In the sector of non-profit and governmental organizations, business monarchy prevails, except with regards to IT architecture, with fewer organizations operating under the IT monarchy model, focusing on decisions related to Technologies. Twenty percent (20%) of the organizations use the feudal model for IT-related decision-making.

This study provides an overview of the differences and similarities among the different types of organizations based on the way they implement IT governance. Although these findings do not necessarily show a trend in TAs, because it is a general study conducted in the public sector, we would like to underline that the participation of IT specialists in the decisions regarding the above stated aspects is substantially lower in this type of organizations.

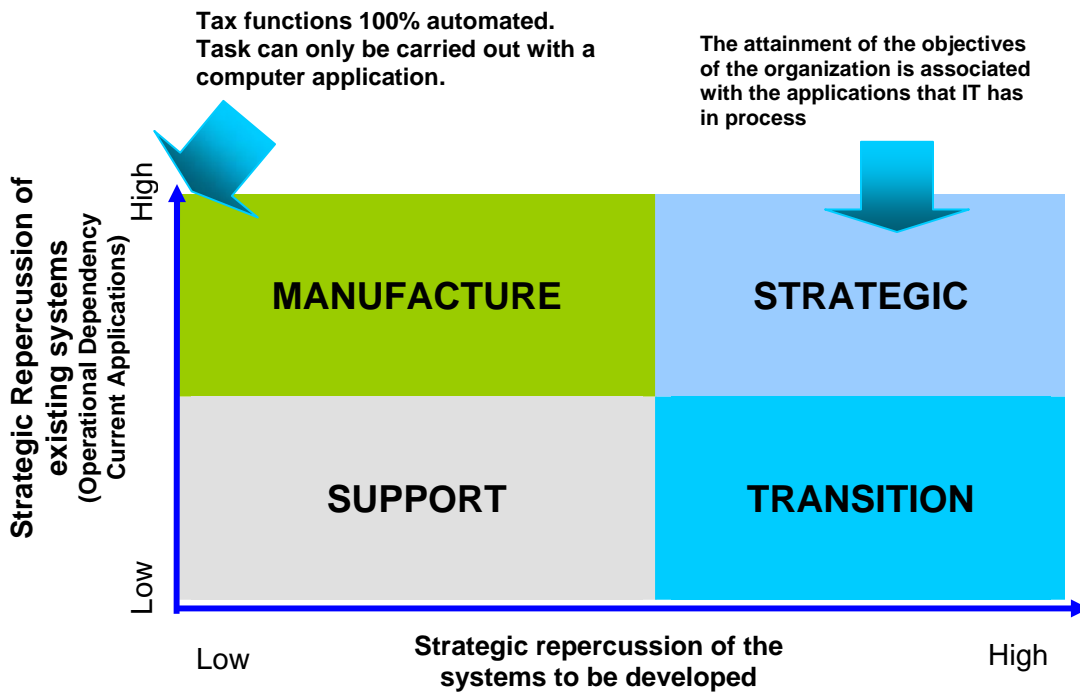
If we believe as good and valid that ICTs are indispensable tools for transforming processes, we should make certain that the decisions on this regard are taken based on the organization's needs and priorities and not on a part thereof.

In this sense, the trend is to have IT specialists participate in the decision-making process, and own the IT governance process. "IT governance requires someone who advocates and owns IT governance"."The CIO or the IT governance officer is the most effective mechanism to advocate and teach IT governance⁴". This is in no way intended to promote IT monarchy, but rather the idea that there should be someone responsible for the achievement of the objectives towards sound IT governance.

The McFarlan's matrix⁵ is a tool that allows measuring the good use of ICTs by identifying how they affect the organization. We should check whether IT actions (investment, applications, etc.) have been carried out and whether they have impacted the organization's strategic objectives.

⁴ IT Governance, Peter Weil and Jeanne W. Ross, Harvard Business School, 2004.

⁵ F. Warren McFarlan



By placing executed and to be executed projects in these quadrants we can see if the use we give to ICTs is aligned with the organization's strategic objectives and, therefore, if ICTs serve its transformation. Clearly, if the repercussion or impact of such projects does not transcend mechanization, speaking of process transformation is out of place.

Other models targeted at financial results measure the value added by ICTs based on their contribution to reducing costs or increasing revenues.

Although we said that organizations' process management is a common feature when approaching the issue of ICTs, we cannot disregard the fact that governmental organizations differ largely from private organizations in the manner they implement ICTs, and this is because they do not pursue profits, nor is there a competitive market in which they operate, nor do they fight for a share of the market.

Therefore, if these are the factors that allow weighing clearly the added value of ICTs in the accomplishment of the organization's objectives in the private sector, then public organizations must be more creative when it comes to these measurements.

Fortunately, in the case of TAs there are elements that allow measuring the added value of ICTs with regard to their impact on costs and revenues, much similarly as private organizations do. For example, some ICT projects can be tied to the generation of revenues deriving from tax collection, and similarly other projects can be tied to the reduction of costs to the TA or the taxpayer. Evidently, this type of aspects helps integrate the use of ICTs with the TA's strategic plans.

We have put forward the existence of a diverse conceptual framework that provides elements and tools for analyzing the issue of ICTs. We believed this was important to realize that the issue of the use of ICTs has been the center of attention of organizations and prestigious authors over the last years.

In our part, the rest of this document will be devoted to discussing the elements that we believe allow putting ICTs at the disposal of the Tax Administration and how they help transform tax processes when this task is successfully achieved.

Elements to be considered to put ICTs at the disposal of the TA:

The use of ICTs to improve Tax Administrations' processes has become a great challenge due to diverse reasons: the pressure by society for ever modern and efficient States in terms of operating costs, the demands of transparency in the use of resources and the Administration's actions, the complexity inherent in using ICTs adequately and the difficulties to determine the contribution of Technology to the transformation of each process and the transformation of the people managing them, or how technology contributes to more equitable actions of the administration.

Many are the aspects that turn the use of ICTs into a challenge; it is an exercise demanding big efforts to achieve results that can be regarded positive.

Additionally, for this positive assessment to last long, the challenge includes the objective proof that results obtained have helped improve the Tax Administration. Because of the large investments required it is essential to be perceived adequately by the citizenry and the taxpayers.

To this end, quantitative and qualitative metrics must be established to measure the impact of ICTs. In this way we will know whether we have fulfilled the citizens' demand for more efficient and effective services. All this without overlooking the fact that, in essence, TAs work to accomplish ever greater taxpayer fulfillment levels, and, that ICTs as any other resource, must contribute to meet this objective. This balance is key to fulfilling the TA's mission more effectively, having more satisfied taxpayers and more citizens content with the transparency of TA's actions.

On the other hand, the type of operations conducted by TAs helps impact positively on a great number of citizens, individuals and corporates. This allow the TA to become a promoter of modernizing processes of private and public-sector entities, as it encourages innovative practices based on the use of technologies that facilitate tax fulfillment.

This possibility of assuming a more relevant role becomes an additional pressure which, if assumed as a challenge, could represent a contribution to its reputation and credibility and, hence, a favorable element to promote transformation projects executed within the TA.

Another aspect that should help the TA become a role-model in their countries is that it can be perceived as an organization whose “business” is information, because it depends on systems and requires that the staff be composed of qualified people apt to manage information (information managers) to achieve a high performance.

The conditions have been set up for the TA to undertake projects of process transformation using ICTs and their potential for innovation as a supporting instrument for this transformation.

We have identified the elements that in our opinion should be considered to put ICTs at the disposal of a TA that purports to be more effective and efficient. These elements can be tied to the components that support good governance regulation of ICTs, namely:

- a. The definition of the role and the impact of ICTs on the organizational strategy
- b. The alignment of ICTs Vision with the organization’s strategy
- c. The organization’s integral vision
- d. The tax administration’s transforming commitment of key processes both inwardly and outwardly
- e. The ability to return to taxpayers, through the TA’s better services and more transparent actions, the investments in ICT-related projects
- f. The legislation available to undertake modernizing processes

Let us discuss each of them individually.

Regarding the first element, the role of ICTs in the organizational strategy is to emphasize that the TA’s management must be persuaded of the role that ICTs should play for the accomplishment of its strategic objectives. But expecting ICTs to solve all the TA’s problems means not knowing the possibilities of the tools, however extraordinary and amazing these might be.

The risks implied in not knowing clearly the role of ICTs are many.

Much time and money can be invested fruitlessly if our modernizing projects are designed to use ICTs as an instrument to execute conceptually old processes in technically modern ways.

Thus, for example, we could be wasting time and money creating innovative systems for using data with examining officers trained to review papers. We could be wasting time digitalizing documents or creating electronic documents to eliminate paper that is otherwise obligatory in judicial proceedings.

Much time and money can be invested pointlessly if we fail to outline institutional strategies that specify the expectations in respect of the use of ICTs.

Clearly, having a vision of the role of ICTs allows aligning the expectations of results with the organization's expectations and the remaining functions or processes.

In the case of Tax Administrations, the progress in the use of ICTs requires accompanying investments with human resource management projects in order to improve training and recruiting, rather than focusing on knowing competences, skills and potentialities. This will allow having staff that assimilates the process transformation more easily.

Every institutional strategy must be accompanied by a definition of the technological tools that must be used to achieve it. This assures that their contribution is objectively dimensioned.

If the TA intends to use ICTs to reduce tax fulfillment costs, we must be aware that designing and developing an Online Office allowing taxpayers to fulfill all their obligations without having to move from their shops is not enough; rather, an adequate use of such Office must be guaranteed, feedback mechanisms must be created in order to know users' needs and thus make the Online Office a long-lasting tool; and most of all, we see to it that taxpayers' costs are reduced. Only then can we say that the organizational objective was accomplished.

In a broader sense, Tax Administrations should be capable of making room for ICTs in their strategic plan. They must establish the degree of confidence on this tool. What type of relationship exists among the objectives related to tax collection, examination, service, etc., and ICTs; and whether they are counted on to innovate the way they carry out their functions or whether the use thereof is predetermined or limited by the knowledge of the tax function.

The second element we render essential to have ICTs serve the TA's objectives is to have a Vision of ICTs aligned with the organizational objectives.

This element is many times understated with the resulting absence of a vision that allows technology specialists to make the most suitable technical decisions for the organization and meet the organization's expectations with regard to Technology.

A vision of ICTs must include the necessary aspects to guide decisions regarding the selection of languages or the most adequate development tools, the equipment, the human resources or the technological processes. In other words, the decisions made regarding the elements cited by Peter Weil and Jeanne W. Ross in the book "IT Governance", that is, architecture, infrastructure, investments etc., no matter how far they are from the tax collection objective, should contribute to the organization's objective.

If IT areas have a vision that forces them to make technical decisions influenced by the organization's needs, ICT platforms will be more appropriate and the investments more reasonable. Determining what equipment or database to use is a technical decision, but must be permeated by the organization's reality and its purpose. Otherwise, we will have equipment and systems that will not contribute to the institutional development, to the intended TA transformation and will not impact taxpayers' levels of tax fulfillment.

The third element, the organization's integral vision, concerns the ability to favor the TA's objectives over the individual objectives of each of the areas that operate within the organization. This entails using all available factors, Technologies, Human Resources and the techniques to Improve Processes as a unity that pursues the best results for the organization.

Often, the management leaders of ICTs seem not to share the same objectives as the rest of the organization's leaders do; and at the same time the different leaders of processes seem to look at ICTs as a necessary evil. Both ends are explained by the lack of a clear Vision for ICTs and the absence of an understanding of the role of ICTs in the transformation of the TA. These ends definitely fail to contribute to our goal of having ICT serve the Tax Administration.

In other fields, we will not hear any successful medical professional of today say that endoscopy transformed by nanotechnology or the new tomography equipment we cited here before have substituted their medical knowledge for making diagnosis. However, new medical specialists had to acquire the adequate skills to apply and understand this technology and make a better medical diagnosis from the interpretation of results.

The objective pursued is that the functional leaders of tax processes and the IT leader work aligned with the organizational strategy and, therefore, towards the achievement of the TA's objectives. That they should move from their usual private or personal interest to an interest in the information required by the organization. It means stop seeing ICTs as simple, supporting tools and understanding them as indispensable tools for managing the information that is the input of tax management.

This alignment implies accepting that the transformation of processes will lead to an increase in the levels of tax fulfillment and, moreover, maintain fulfillment levels over time. Unless the tax authorities are committed to the transformation of processes, ICTs will be an ornament.

We have said here that transforming an organization requires that ICTs should serve this purpose, but with authorities able to assume responsibly the tasks inherent in any transformation project. This is addressed by the fourth element we have stated as essential.

The tax authorities must be ready to assume the commitments implied in the implementation of technologies and process transformation, for the idea is to get rid of prejudices and paradigms so that processes can be conducted differently, with the means available to us in the modern world.

Assuming the commitment to transform the organization using ICTs implies a change in paradigm. Some have taken this change in the way of seeing things to the point of saying that organizations have a real⁶ and a virtual value chain⁷. The virtual value chain would be that new paradigm of assuming the transformation of the organizations, achieving a replication of real processes into virtual processes. If tax authorities take on this commitment, they may – through the use of ICTs- create more efficient and effective mechanisms of interaction with taxpayers, suppliers and the citizens at large.

However, transforming processes is not an easy task; it may even imply a relative loss of power by the authorities as a consequence of ever transparent processes, where controls are increasingly objective and determined by the rules contained in computing systems. Likewise, the evaluation of officers, processes and results can be made more objectively. ICTs can impact positively on the way the results are shown to the employees, on the processes and on the organization.

When the tax authority decides to sponsor ICTs as a triggering element of the transformation of processes and organizations, it must be aware of the impact therefrom on the TA's evaluation processes.

This positive effect on the transparency in the use of ICTs, well propagated to the citizenry, becomes a factor affecting positively the continuity and the social acceptance of introduced changes.

The fifth element is concerned with the need that ICT projects be translated into better services for the citizens and more transparent actions of TAs.

For the society to perceive the positive impact of ICTs, the results must be shown beyond the impact on taxpayer control and improved internal processes. ICTs must be shown as contributing to a more transparent action of the TA and its officers.

The best way that the investment in ICTs can be valued positively is using ICTs to offer information on the TA's actions. It is essential for the society that public organizations show more transparent actions, and this conveys being accountable especially for the investment in ICT-related projects.

⁶ Porter, Michael. (1985), *Competitive Advantage*. The Value Chain is a form of analysis of the business environment, according to which the organization is broken down into its basic functions with a view to identifying the sources of competitive advantages in value-generating activities.

⁷ Thesis by Rayport and Sviokla, 1996

Definitively, from the taxpayers' perspective, the use of ICTs must be translated necessarily into better services; so including mechanisms for simplification and facilitation of tax fulfillment as a priority of TA's objectives is vital. To check if taxpayers and citizens believe that the right things are being done, we should interact with them.

In this sense, the policy of communicating with taxpayers and gaining their feedback on the TA plays a relevant role. This policy must be aimed at, on the one hand, the education on duties, rights and tax fulfillment modalities; and on the other hand, at conducting opinion polls intended to know what taxpayers think of the TA, its service and the tools provided for fulfillment.

Now, well, all these efforts are made within a certain context that is limited by the effective legal provisions; and this is addressed by the sixth element. Introducing ICTs with an innovative criterion also requires adopting the tax regulation so that electronic documents, digital signatures and electronic addresses may have legal value. In addition, the wording of the legal provisions should be sufficiently general to allow the TA to have the power to introduce the necessary changes in the administrative procedures.

The favorable impact of the regulation relative to electronic commerce and digital signature with the transformation of processes making use of ICTs is worth mentioning here. Projects such as the electronic invoice and the replacement of physical documents by electronic documents have received an important push from these laws that provide the legal support to the use of digitally-signed documents.

Internet at the service of the tax process transformation:

When speaking of Technologies that promote innovative practices, we have to highlight in particular the Internet.

There is no doubt that the Internet has been a key tool for the transformation of service processes. The influence has been so strong that the states have been forced to create strategies for improving citizen services based on offering them mainly on the Internet. *E-government*, as this objective of states has been named, has become a whole strategy for society transformation. And it is within the frame of these *e-government* strategies that ICTs are considered a powerful communication tool for transparency, cost reduction and administrative efficiency.

In the case of TAs, the way the Internet has allowed them to communicate with taxpayers, but also with the entities related TAs, has been determinant.

Over the last 10 years, the Internet has gone from being a communication means with taxpayers to becoming the basis for integration of data exchange procedures with taxpayers and the entities that forward information or conduct processes together with the TAs.

So, for example, the technical procedures for exchanging data with the banking institutions that receive tax payments or with the taxpayers that lodge tax returns or data have undergone an impressive transformation as a result of the Internet.

While some years ago data were submitted mostly in diskettes or CDs for their subsequent load into the TAs' systems, today data are received mostly through electronic means in predetermined formats. This has transformed impressively the quality of the data available to the TA and reduced the time and the staff in charge of carrying out the processes of checking data delivery and data loading.

For the TAs that have initiated their ICT modernization or integration process in the last years, Internet has definitely set the guideline. As for the reduction in taxpayer fulfillment costs, Internet provides tools for lodging tax returns, making payments, obtaining information, updating data, inquiring tax returns and payments, receiving notices and requesting services, among other things. For any diligence, Internet has become the best tool if simplification is sought.

In this sense, the Online Offices have become vital tools for reducing the costs incurred by taxpayers in fulfilling their tax obligations; not only in terms thereof but in terms of the efficiency of Tax Administrations' internal processes as well.

As for the transformation of processes within the organization, the Internet has impacted notably. One of these aspects is the processing of data forwarded by taxpayer, where taxpayer has gone from being a person obliged to deliver information to becoming a person obliged to process the information for delivery.

Furthermore, the relationship with the entities in charge of collecting taxes, such as banks, has been transformed by the introduction of their own online offices that allow our taxpayers, who are their clients, to make payments electronically. Moreover, this technological openness of the banking sector, which used to rely on closed technologies, has allowed updating taxpayers' payment data on line or in real time thanks to the open procedures of information exchange.

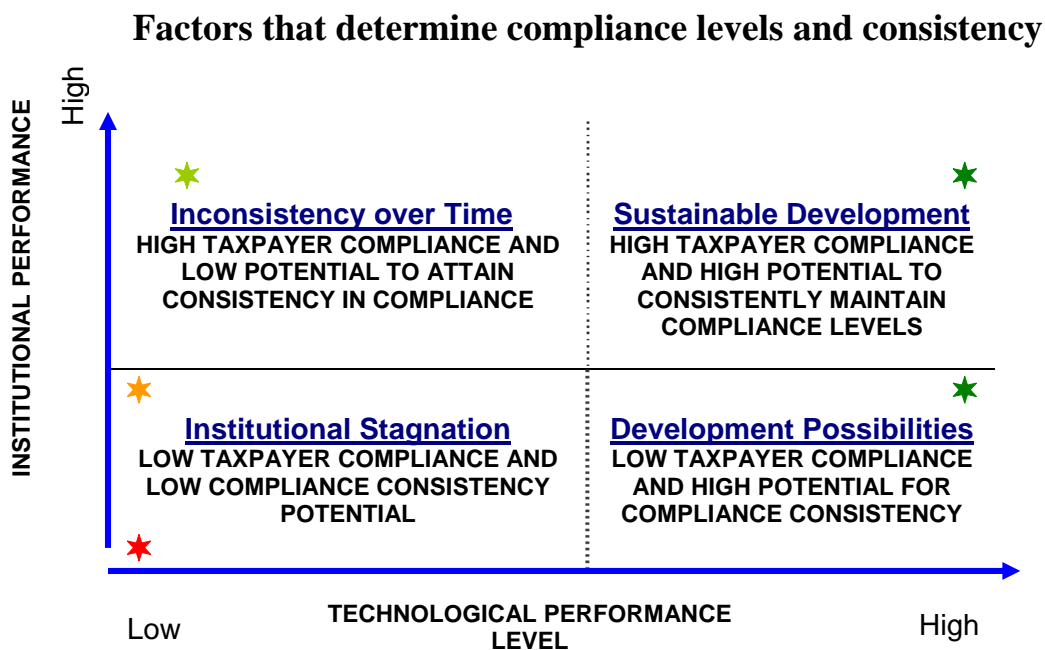
So the progress brought about by the Internet and its potential for the transformation of tax processes require the special attention of Tax Administrations. With this tool, the possibility of transforming tax processes into electronic processes is increasingly making sense.

The transforming experience of the DGII; how we approach each element:

In the following pages we will describe the way the General Office of Internal Taxes of the Dominican Republic (DGII) has approached each of the six elements that constitute critical factors to the success in the use of ICTs and the achieved results.

Over the last years, a modernization process has been implemented in the DGII in which ICTs have remained as a vital tool. This role derives from the certainty that maintaining a high level of tax compliance over time depends on the enhancement of the technological performance.

For the DGII, the reasons that explain the level of taxpayer compliance and its consistency over time⁸ are: organizational performance and technological performance.



The first one concerns “the Tax Administration’s ability to meet its short, medium and long-term goals and objectives.” This dimension comprises aspects such as the society’s perception of the organization’s effectiveness, the capabilities and attitudes of its human resources, the organizational culture that characterizes it, the quality of its actions from an ethical perspective, the taxpayers’ perception of risk and the institution’s leaders’ confidence in maintaining positions and influencing society.”

“Achieving high institutional performance” then becomes a sort of organizational leveraging factor that allows maximizing the institution’s resources. It is a way of using such intangible factors as credibility, respectability, leadership, etc., inherent in it, as most suitably.”

A high institutional performance brings about ever higher fulfillment levels, because taxpayers perceive an institution that meets its objectives. One of the ways of measuring institutional performance is through surveys, which the DGII conducts at least once a year.

⁸ Compliance Control, Juan Hernández Batista, 40th CIAT General Assembly 2006

The last survey carried out in Santo Domingo⁹ showed the following results: 89.5% of interviewees trust the DGII and 85.5% think the DGII's ethical behavior is between excellent and good; and 87.1% believe the DGII performs its tasks transparently.

The second factor has to do with the “ability to use the technological tools acquired and developed by the Administration in alignment with its strategic objectives. This dimension comprises the effective use of technology to improve the Tax Management tasks, guaranteeing taxpayers’ fulfillment and the return on investment in the short and medium term”.

Accomplishing a high performance in these two factors is what makes it possible to achieve a high level of compliance, but consistent over time. If an organization shows a high institutional performance but fails to use ICTs effectively, the level of compliance will undergo ups and downs, because the processes will depend on the people and their capabilities. When this high institutional performance is accompanied by a high technological performance, the accomplished fulfillment levels will be consistent over time.

For example, there can be outstanding staff, ethically and professionally unobjectionable, who may design a plan that will raise fulfillment levels; but its sustainability over time will depend on the computing systems that such staff designs for the continuity and objectivity of such plan; as well as on the decisions made by IT specialists regarding the technical design of these applications for stability and perdurability purposes.

In addition to this integral vision that implies understanding the processes, the technology and the persons as a single body to attain the effectiveness levels required from the TA in the modern world, we have structured a strategic plan with a strategic guideline and several objectives, each of them having strategic initiatives in the area of ICTs. Each objective has implied the incorporation of different types of technologies and systems.

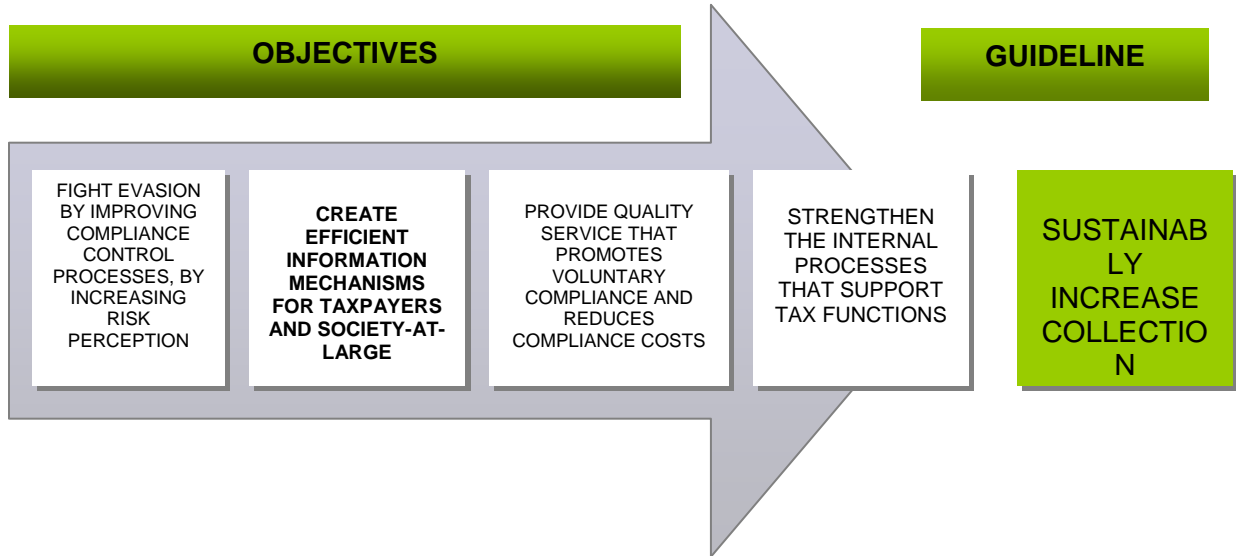
The role of ICTs is explicitly included in the DGII's Vision: *“Becoming a prestigious and trustworthy organization using policies, procedures and **information systems that operate efficiently**, with the aid of ethical and unobjectionably professional people working under the guideline of increasing tax collection sustainably, reducing evasion and respecting taxpayers’ rights.”*

From the declaration that reflects the organization’s aspirations we can see the intention to use ICTs efficiently for the attainment of the guideline; and ICTs, along with the policies, procedures and the ethically and professionally unobjectionable people, as an indivisible unity to reduce evasion and achieve a sustained increase in tax collection.

Furthermore, if we see the DGII’s planning as a flow of actions targeted at achieving a certain guideline, the graph below could be representative of this. From the graph, we can see how the guideline “Increase tax collection sustainably” is achieved in the four strategic objectives shown below:

⁹ Currently a new survey is being conducted.

DGII PLAN SUMMARY DIAGRAM 2004 - 2009



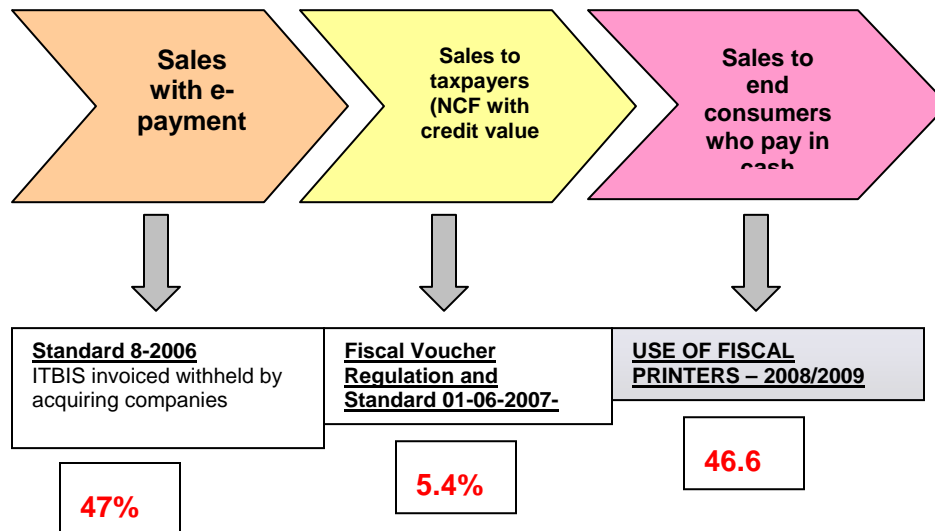
To cite an example, as part of the Objective “Fight evasion by improving tax compliance control processes, by increasing risk perception”, the project for the implementation of fiscal printers in all businesses of the Dominican Republic was developed. This project is part of the group of initiatives to reduce evasion¹⁰, which was formulated in late 2004 and implied the execution of several projects that helped increase DGII’s control over taxpayers’ sales. In the case of businesses, this project contemplates the installation of some 4,000 fiscal printers between 2009 and 2010 to cover all large taxpayers in the business sector and, therefore, 80% of the sales of such sector.

The fiscal printer project has a high technological content in that both the certification/ authorization of printers meeting control design requirements and the process of implementing and supervising them requires sound technical knowledge and 100%-dedicated IT staff. The graph shows that the DGII has adopted measures to control sales in the Business Sector, with ICTs playing a fundamental role in each measure.

¹⁰ As for control of ITBIS [tax on the transfer of industrialized property and services], the DGII outlined 2 big projects, namely:

- Withholding 30% of VAT (ITBIS in the DR) in payments in the business sector and payments with credit and debit cards, to be made by companies processing this type of payments. This implies having access to information on the sales performed with these means of payment.
- The control of invoices (fiscal receipts), with the DGII controlling the issuance of invoices and all persons taxed with the VAT (except for persons subject to simplified systems) supporting 100% of their purchases with authorized fiscal receipts and reporting them electronically. In addition, the main 4,000 taxpayers must report income.

Sales Control Measures for the Business Sector



Another project that will contribute to the transformation of many of the TA's processes is the introduction of the digital signature in more and more documents each time. The DGII completed the development of the application module of the digital signature for tax documents, along with the creation of a courier service option in the Online Office, where taxpayer can receive their official correspondence. The positive impact of this on the documents to be delivered to taxpayers through the Online Office is invaluable. The official communication between taxpayer and the Administration will change substantially from the generalization of the digital signature.

During the next 2 years, the DGII will distribute digital certificate cards to taxpayers for access and log-in to the Online Office.

To have ICTs serve the organization, we have written a Vision that guides actions and decisions in this area towards: *"Providing the DGII with the most suitable ICT platform for the fulfillment of its strategic objectives, using leading tools/equipment in the different segments of the ICT platform (servers, databases, system development, data storage development, security management and network development), to guarantee the largest availability of technological services to internal and external users, working with ethically and professionally unobjectionable people, motivated by and aligned with the organization's objectives, so that we may stand as a reference for the use of ICTs in the Dominican Republic"*.

This is our aim, that our IT people should feel that their actions contribute to the organizational objectives and that their decisions, however simple they might seem, have an impact on results.

There are different models for measuring the impact of ICTs on the organization. One of them is the Benefit-Beneficiary Matrix¹¹, which allows tying advantages to efficiency, and achieved effectiveness through the investment in ICTs or the implementation of an Information System. Measuring this can show the difference between the use and the lack of use of ICTs in the organization. .

Let us see two examples of the benefit-beneficiary matrix: the first one for the project of fiscal printers and the second one for the project of implementation of DGII's Online Office¹².

GIBSON-HAMMER MATRIX Implementation of Fiscal Printers

		BENEFICIARY		
		INDIVIDUAL	DEPARTMENTS	ORGANIZATION
BENEFIT	EFFICIENCY	Tasks Mechanization - Sales information is obtained electronically and can be exploited with data mining tools and audit. Software.	Processes Automation - Automates the receipt of sales transactions from taxpayers.	Border Expansion - Increases control on tax related transactions to which taxpayers are subject. - Increases taxpayer risk perception. - Increases society's trust in the mechanisms used for evasion control.
	EFFICAC	Job Improvements - Reduces mobilization to taxpayers' offices.	Functional Improvements - Allows focusing of examination actions on specific Taxpayer accounts. - Improves the quality of the data to be exploited through information cross-referencing.	Service Improvements - Favors the transparency of the selection process of the taxpayers to be examined.
	EFFECTIVENESS	Expansion of the different roles - Allows Auditors increase the analysis spectrum, as necessary, with the possibility of verifying taxpayers' historical behavior, trends and projections.	Functional Redefinitions - Transforms the methodology from examining paper registries to examine electronic registries. - Guides examination tasks to information cross-referencing. - Auditors' task assignments is done more effectively.	Product Innovation - Printer models certification, more directly through the Manufacture, directly. - Examination cost reduction. - Reduction in the risk of bribe attempts by reducing the frequency of in person visits and have results forecasts.

¹¹ It refers to Gibson's and Hammer's Matrix.

¹² Although these Projects do not obviously concern ICT exclusively, the IT staff dedicated to support them is very important, as well as the role played by the decisions on architecture, infrastructure, etc.; which are vital.

GIBSON-HAMMER MATRIX
Implementation of a Virtual Office

		BENEFICIARY		
		INDIVIDUAL	DEPARTMENTS	ORGANIZATION
BENEFIT	EFFICIENCY	Tasks Mechanization - Taxpayer is responsible of inputting their return information. - Payments receiving process outsourced to banks.	Processes Automation - Personalized notices to taxpayers. - Service requests.	Border Expansion - twenty-four hour service / 7 days a week. - The possibility of complying with formal duties from any place in the world with internet access. - Virtual extension of attention schedule on return filing dates and payment dates. - Guarantee of quality as well as the timeliness of the information.
	EFFICAC	Job Improvements - Significant reduction of the volume of Taxpayers requiring attention in person.	Functional Improvements - Significant reduction (with a trend towards eliminating) of the respective tasks inherent to the Compensation and Cashier process.	Service Improvements - Reduction in compliance costs. - Reduction in attention times. - Elimination of queue waiting times. - Elimination of intermediaries (advisors, messengers)
	EFFECTIVENE	Expansion of the different roles - The Cashier / Settlement Role is transformed into a Control Role	Functional Redefinitions - Local Administration functions are transformed from collection areas to control areas.	Product Innovation - Integration with Commercial Banks - 100% Real time transactions. - Single services platform in the Public Sector. Reduction in collection costs.

To corroborate the results presented, let us see some statistics on the implementation of DGII's Online Office from 2006.¹³

- a. Until 2005, no electronic tax return was received by the DGII. In 2008, 80% of the VAT returns and 75% of the income tax returns were received electronically. If the figures pertained only to Corporates, they would be 90% and 85% respectively.
- b. From 2007, when forwarding the purchases journal and the turnover of the main 4,000 taxpayers was made obligatory within the frame of the Project for Control of Invoices or Fiscal Receipts, 90% of the data from VAT taxpayers and 100% from the persons subject to declare income were forwarded through the Online Office.
- c. 82% of taxpayers who submit a tax return have an access code to the Online Office.

¹³ Data as of December 2008.

- d. According to a survey of Online Office users performed during the period February-March 2008, 99.7% of interviewees think that the Online Office facilitates their fulfillment, and 81.9% report to have cut down tax fulfillment costs.

In a broader context of the use of information exchange mechanisms through the Internet, 90% of ITBIS and Income Tax payments are made through the Banks, which connect to the DGII to apply them directly to taxpayer's Current Account. So, we have taxpayer data updated on line, with late payment control management depending only on the capability to follow up these non-performances.

Another way to measure the degree of alignment of ICT projects with the organization's strategic objectives is by distributing them as per the objective they pursue directly. For example, 70% of the projects implemented or conducted by DGII's IT Management over the last 5 years can be situated within one of the DGII's strategic objectives. The rest of the projects correspond to investments required to strengthen technological performance, allowing the DGII to have a robust platform. Hence, in 2008 the DGII inaugurated a Data Center that meets the requirements of international standards as to mechanical, electronic, architectural, security and communicational aspects, ranking third out of four, depending on each component ¹⁴.

This goes to show that the DGII has gone from being an organization based on manual procedures to one whose actions find in ICTs its best support. This causes an evolution in the development of ICT use, from executing projects for the benefit of individuals or work positions or functions and departments, to executing projects that transform the organization.

In general, the DGII's achievements in ICT-based projects have impacted favorably on the way of doing business in the Dominican Republic, as recognized by the World Bank in its 2009's survey on the modalities of doing business, called Doing Business. This study puts forwards:¹⁵ "The Dominican Republic is a global and regional transforming leader; it has speeded up the performance of diligences in several areas that can now be performed electronically. A system of tax return completion and tax payment, which began as a pilot project in 2006, is now in full operation. And businesspersons can complete diligences on line, including trade name verification..." The country went from ranking in the 139th position in 2008, to the 72nd position in 2009 in the Tax Payment category.

¹⁴ The Data Center has been designed in accordance with the international standard ANSI/TIA-942, regarding the Telecommunication infrastructure of Data Centers. This standard categorizes data centers in four layers. Hence, the center can be qualified as a Basic Level Data Center if it has no redundancy level; with Redundant Components, Concurrently Maintainable Data Center and Failure-proof, depending on mechanical, architectural, electrical, security or communicational aspects. We currently rank 3rd as to mechanical, electrical and communicational aspects, and we are working on a Contingency Center that will allow us to position ourselves in a higher level of the Standard.

¹⁵ The English text reads: "The Dominican Republic also reduced the corporate income tax rate from 29% to 25%, and abolished several taxes, including the stamp duty. The cost of property registration fell, thanks to a reduction in the transfer tax from 4.3% to 3%. Transferring property now costs 3.8% of the property value, down from 5.1%. In addition, authorities reduced the time to export by three days by improving the online portal for customs documentation and payment."

This represents a concrete way of impacting positively on the country's performance, improving tax-related aspects.

Converting Information and Communication Technologies into a tool at the service of Tax Administrations will depend on the ability of our organizations to integrate them to their strategic plans, so that IT specialists may have a framework that allows them to make adequate decisions in line with the organization's objectives; the capabilities of tax authorities to assume the challenge of transforming ICTs into a transforming element, and a legal framework apt to promote the use of technologies to transform processes.

With technologies allocated to the goals defined as strategic by the Tax Administration, we can try to improve tax fulfillment levels while at the same time impact positively on the TA's positioning within the society.

Tax Administrations have the opportunity to become a reference for the efficient use of ICTs to improve services, reduce operating and taxpayer costs and attain increasingly transparent management. Given its interaction with the production sectors of a country, it may become an entity that generates changes in the behavior of companies and its decisions can be used as triggering factors to "induce" the use of ICTs in the production sectors. In other words, the good use of technologies generates a substantial change in our organizations, both inwardly and outwardly.

In the case of the DGII we can affirm that everything has changed:

Virtually no tax return and payment documentation is processed at our offices because this is received through the online office and the banks; the details of taxpayers' purchases and expenses can be received electronically and are available in a Cross Information System; digitally-signed documents are being incorporated into tax processes; cross-information computing systems have allowed widening the coverage of examination actions based on the information produced; every employee performing a technical function is provided with a computer to perform their tasks.

Undoubtedly, over the last years the DGII has undergone important transformations.