



TAXPAYER REGISTRATION

The Foundation to
Effective Domestic
Revenue Mobilization

April 2024

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Executive Summary

The main objective of a tax system is to raise revenue to deliver valuable public services for citizens, and doing so while promoting trust, fairness, and incentives that enable investment, innovation, and businesses to thrive.

In this paper, we summarize the steps to modernizing the taxpayer registration function as fundamental to building an effective tax administration, and instrumental to successful domestic revenue mobilization (DRM).

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The reliability and integrity of the taxpayer database is of permanent concern for tax administrations (TAs) around the world. Numerous TAs have undertaken registry cleansing initiatives to eliminate duplicate records and invalid entries, but the resulting efforts are often unsustainable over time.

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TAs around the world are increasingly taking steps to transform their taxpayer registration function in a fully digitally integrated process, that can sustainably provide an accurate and up-to-date taxpayer database, where the quality of information is optimal to feed the rest of the core tax administration processes in support of domestic revenue mobilization.

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DAI's Public Sector Transformation (PST) Framework is a multi-stage framework that facilitates the transformation and optimization of three key ingredients in any public sector modernization initiative: capacities (people), process (laws and regulations, processes/procedures) and systems (technology).

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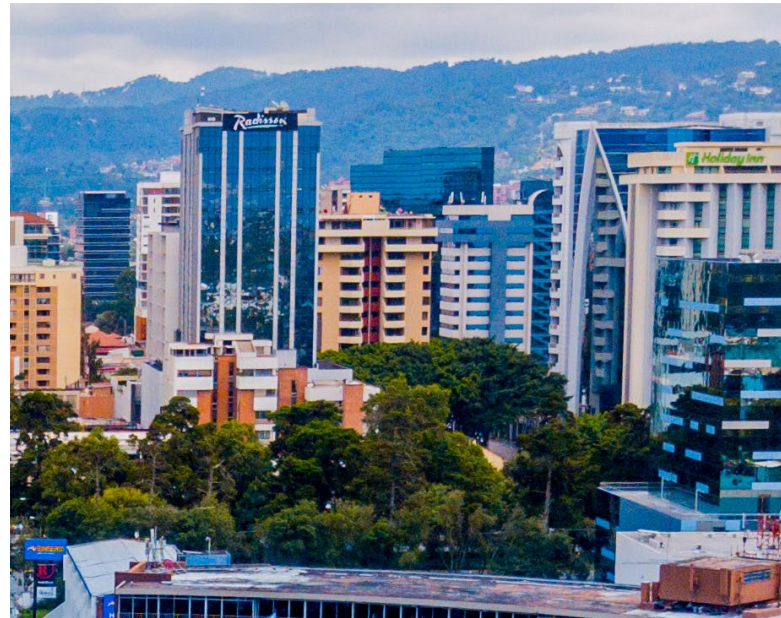
This paper provides a case study for applying DAI's PST Framework for modernizing the Taxpayer Registry of Guatemala's Tax and Customs Administration (SAT), following four continuous and interrelated stages: (1) assess and define; (2) develop, deploy, and transition; (3) stabilize; and (4) optimize and innovate.

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With DAI's support through the USAID-funded Fiscal and Procurement Reform Project and National Institutions Strengthening projects, Guatemala's SAT designed, developed and launched the Digital Taxpayer Registry (Digital RTU). Efforts resulted in 51 percent increase in the tax base of identified taxpayers with tax obligations, a 60 percent reduction in taxpayer information errors, a 100 percent reduction in face-to-face interactions during the registration process, and enhanced exchange of information within SAT and with other government agencies.

Introduction

Taxpayer registration forms the cornerstone of effective domestic revenue mobilization, with initiatives supported by organizations such as DAI in partnership with international aid agencies, exemplified by Guatemala's Tax and Customs Administration's transformation into a fully digital, cutting-edge taxpayer registry, illustrating the complexities and successes of modernization efforts in tax administration.



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At the core of every country’s tax administration is the taxpayer registration function, which maintains and supplies vital information to other parts of the tax administration’s core functions—such as filing, collection, audit, and service—and in most cases also to external users. Despite its importance, the reliability and integrity of the registered taxpayer database—the main output of this core function—is of permanent concern for tax administrations around the world.

DAI—through its partnership with bilateral aid organizations—such as the U.S. Agency for International Development (USAID), the European Union (EU), and the U.K. Foreign, Commonwealth, & Development Office (FCDO)—has led the assessment, design, and implementation of taxpayer registration modernization efforts in more than a dozen countries, including more recently in [El Salvador](#), [Guatemala](#), [Jordan](#), and [Liberia](#). This best practice note provides a case study and key lessons learned from DAI’s recent engagement in supporting Guatemala’s Tax and Customs Administration (SAT) to modernize and launch a fully digital, cutting-edge, cloud-based taxpayer registry (dubbed the Digital RTU), through USAID’s [Fiscal and Procurement Reform Project \(FPRP\)](#) and the [National Institutions Strengthening Project](#).

The Registered Taxpayer Base as the Core

The Tax Administration Diagnostic Assessment Tool (TADAT)—designed to objectively assess key tax administration outcomes—identifies the integrity of the taxpayer database as the first performance outcome area to assess and a fundamental initial step in administering taxes.



“Without complete and accurate information about the taxpayers registered with the tax administration, and an understanding of the profiles of those who choose to remain outside, it is not possible to provide effective and efficient services to support voluntary compliance and take action against non-compliance, fundamental to building an effective tax administration.” (TADAT’s Field Guide).

While many TAs have undertaken registry cleansing initiatives to eliminate invalid entries, resulting efforts are often unsustainable over time. Outdated information, dormant and deceased taxpayers, duplicate records, and non-localized taxpayers are just a few examples of the challenges that TAs face in keeping the integrity of the registered taxpayer database. Retaining the integrity of the registered taxpayer database calls for an accurate and up-to-date taxpayer database of all those required to register and an expectation to detect unregistered taxpayers. The taxpayer registry database—and, more importantly, the quality of the information stored in the registry—is fundamental in supporting the rest of the core tax administration functions and instrumental to successful domestic revenue mobilization.

Steps to Modernizing the Taxpayer Registry

FIGURE 1: DAI'S PUBLIC SECTOR TRANSFORMATION (PST) FRAMEWORK



DAI's Public Sector Transformation (PST) Framework is a pragmatic set of guidelines following international good practice that provides a structure for approaching the transformational task, adaptable to the country context. This multi-stage framework facilitates the optimization of the three key ingredients: Capacities (people), Processes (laws and regulations, processes, and procedures) and Systems (technology) in any public sector modernization effort. The four stages in the PST Framework (Figure 1), include:

1. Assess and define: Examine current legislation, processes, organizational structure, capacities, supporting applications, and data. Define short to mid-term legislation adjustments, reengineered processes, data quality approaches, and change management and training plan. Present technical, financial, and capacity requirements for success.

2. Develop, deploy, and transition: Develop technical requirements (i.e., use cases) and coordinate software development tasks with counterparts. Deploy data quality plan and establish third-party information channels. Implement change management actions including internal and external communications and training. Deploy reengineered governance, processes, technology, and trained staff in support of the organization's objectives.

3. Stabilize: Realize the benefits of the reengineered processes by making sure the system works as intended and adjustments are quickly made when needed. Undertake user feedback to assess areas requiring stabilization and improvement.

4. Optimize and innovate: Optimize operations and monitor and evaluate achievement of the intended objectives of the processes, the enabling applications, ensuring that the organization undertakes continuous revisions and improvements.

The Case for Improving Taxpayer Registration

The importance of maintaining a robust taxpayer registry cannot be overstated, as it forms the backbone of effective tax administration systems worldwide, enabling accurate identification, location, and recording of taxpayers' obligations.



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Unfortunately, not all TAs prioritize maintaining a solid taxpayer registry, that is, a dynamic, regularly updated, well-maintained, and organized taxpayer database. The effectiveness of all other TA functions highly depend on the quality of information provided by the taxpayer registry, which enables accurately identifying, locating, and recording taxpayers' obligations. The following are examples of how the taxpayer database is used in other core functions:

- **Taxpayer service** actions such as developing outreach campaigns to specific cohorts of taxpayers, taxpayer types, or a particular industry are impacted by a lack of accurate emails, taxpayer phone numbers, industrial classification, and other vital data, reducing the effectiveness of such efforts.

- **Compliance risk management** assessments created with poor quality data of taxpayers' characteristics, including geographical location, business volume, and economic activity, hinder the TA's capacity to generate trustworthy risk-based analysis of non-compliance.

- **Tax audits** may lack proper information on ownership structures for companies, limiting their ability to detect beneficial owner tax evasion. Understanding the beneficial owner structure is essential to ensure proper reporting and taxation.

A weak taxpayer registration function can also have severe effects on taxpayers through onerous registration processes, unnecessary face-to-face interactions, or duplicate requests for information already available at the TA or elsewhere in government, resulting in high taxpayer compliance costs. Results from the 2018 tax perception survey in Guatemala, supported by the FPRP project, found that prior to the digital taxpayer registry (Digital RTU) launch, nearly 70 percent of taxpayers visiting tax agencies did so to take care of a registry transaction—mostly to obtain a taxpayer identification number (TIN), to update their registry information, or to unregister.

Furthermore, a [Tax and Gender Assessment](#) in Guatemala found that far more men are registered taxpayers—65 percent versus 35 percent of women—both as employees and business owners. Additional analysis through [focus groups](#) with women entrepreneurs found that tax compliance costs more for women in indigenous and rural populations. While most Guatemalans in rural areas travel long distances to reach a tax office, women might travel with children and elders for whom they provide care or can have difficulty accessing restrooms during long wait times or might not be provided priority service if pregnant or taking care of children. All these concerns were documented and taken into consideration in Guatemala's taxpayer registration transformation process.

The Transformational Process into Guatemala's Digital RTU

The transition to Guatemala's Digital RTU marked a significant milestone in modernizing the taxpayer registration process, aligning with the country's broader agenda for process optimization and technological advancement, supported by DAI's multidisciplinary approach.



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DAI's approach to improving the taxpayer registration function helped Guatemala's SAT to transform its taxpayer registry into a modern, fully digital Unified Taxpayer Registry (Digital RTU). The Digital RTU, initially launched in March 2020, became a pioneer initiative within the country's broader modernization agenda involving process optimization/automation and technological transformation, framed around a new operating model focused on facilitation and service delivery.

In supporting the SAT to design, develop, and launch the Digital RTU, DAI used its four-stage PST Framework in the context of tax administration. Beginning in 2017, DAI quickly mobilized its transformation team consisting of tax administration, business processes reengineering, change management, and technology experts to support SAT's modernization team. DAI's transformation team supported SAT officials to undertake stage 1, "assess and define," coupled with intensive training on business process methodology, change management, and project management. During this first stage, DAI's transformation team identified several key issues and opportunities for improving the SAT's Taxpayer Registry, including:

- **Update legislation and processes.**

Registry legislation dates to 1971, when the concept of a unique taxpayer identifier was introduced. Supporting processes and procedures are defined as a paper-based, face-to-face process with multiple levels of

time-consuming manual validations.

- **Eliminate face-to-face service delivery model.**

Taxpayer registration services were delivered through face-to-face interactions. Tax agencies were always crowded with new registrants, or existing ones wanting to update their records annually, as mandated by law.

- **Enhance the supporting technology.**

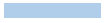
From the application to the supporting infrastructure, technology support was outdated and always on the brink of collapsing. There were no web-enabled services.

- **Standardize service delivery.**

Taxpayers complained about differing requirements and processing times across tax agencies. Some taxpayers would commute large distances only to go to a tax agency with better trained staff or improved facilities.

- **Improve data quality and consistency.**

Data quality issues ranged from incorrect dates, fields with illegal characters, duplicate TIN numbers, taxpayers with multiple TIN numbers, and outdated economic classification identifiers. Further cross-referencing enabled SAT to identify inconsistencies in taxpayer obligations (i.e., importers not affiliated to income tax and domestic VAT regimes).



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DAI supported the “Define” stage working in close collaboration with the SAT’s Collections Department (in charge of the Taxpayer Registration function), the TA Project Management Office, and a designated team of TA professionals delivering:

- **Optimized processes.** Redesigned lean processes based on premises that included limited interaction with the taxpayer, minimal request of supporting documentation, fast review and approval processes and, whenever possible, automatic issuance of taxpayer identification and tax obligations in a single interaction.

- **Web-enabled service delivery model.** Supported by a cloud-based technology architecture, for virtually all the registration and data maintenance steps for taxpayers. The new system implemented all functionality, previously serviced exclusively in TA agencies, in a modern cloud-based web platform.

- **Data cleansing strategy and execution.**

A data cleansing task force was engaged prior to the implementation of the new system. The team clearly defined baseline data and individual data cleansing strategies based on the particular issue needing resolution. Some solutions involved automatic processing. Others required validation with external sources and even manual treatment for some data. The team, including functionaries from different areas of the TA, raised the data quality level before the migration effort.

- **Communication and training strategy.**

An internal and external communication strategy was drafted for the TA execution, including relevant communication and training materials, targeted engagement with key external stakeholders, and an initial definition of roles and responsibilities for the implementation of the new system.



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For the “Develop, Deploy and Transition” stage 2, DAI engaged local Guatemalan resources, particularly in software architecture and development. The DAI technical team seamlessly integrated with the TA’s technology team and successfully developed software applications based on the business process and use cases produced in the “Define” stage. The technical team also supported data migration efforts. At the end of the project, the technical resources recruited by DAI secured contracts with the TA, guaranteeing knowledge transfer and continued support and expansion to the newly deployed system.

Nevertheless, deployment of the Digital RTU was far from pain-free. It was first launched in March 2020 and its initial deployment coincided with the COVID-19 pandemic lockdown period. The effort, led by the SAT’s Registration Department, successfully deployed the new Digital RTU—a state-of-the-art system—which offered Guatemala’s taxpayers a fully digital taxpayer registration service—which was timely and crucial during those lockdown months. Key achievements include expansion of the tax base through a 51 percent increase in identified taxpayers with tax obligations; 60 percent reduction in taxpayer information errors; enhanced exchange of information with other government agencies through improved information; and automated validations to ensure sustainability of the data cleansing efforts.

In a subsequent engagement, as part of USAID’s National Institutions Strengthening project assistance to SAT, DAI continued providing support in the expansion of the Taxpayer Registry by supporting the “Optimization and Innovation” stage. The “Stabilization” stage was led and completed by the TA’s technical and technological teams. Initiatives identified and supported included:

- **Proposed changes to legislation.** The DAI team proposed repealing the Unified Taxpayer Registration legislation and the incorporation of key elements in an updated Tax Code. The proposals, which include the introduction of the Electronic Tax Domicile and greater integration with external sources of information to proactively update the registry, remain pending approval. Timing is crucial for promoting legislative changes that require approval from Congress. In Guatemala, there have been ongoing discussions about updating the tax code, including the taxpayer registration legislation. At the time of writing, these changes are pending approval in Congress.

- **Additional registries integrated into the Digital RTU.** Reengineer the foreign trade registries for consolidation into the Digital RTU, leveraging the opportunity to include standardized anti-bribery controls into the new processes.

FIGURE 2: MAIN FEATURES OF GUATEMALA'S DIGITAL RTU



• **Interconnectedness with other government entities.** Even when system interoperability was considered from the get-go, inter-government politics hindered previous efforts. In the new planned release, the Digital RTU will be able to connect and communicate with other government agencies, including the Ministry of Commerce, Social Security Administration, and the National Registry of Persons, in a coordinated manner and without efforts from the end user (the taxpayer).

• **Risk-based approach to taxpayer registration.** The initial design of the Digital RTU incorporated some essential risk evaluation for business registration applications. Further expansion to this function is planned where artificial intelligence (AI)-based services categorize applications based on a set of established risk criteria, and applications are then processed and categorized by risk levels, depending on the applicants' risk scores. This is an effective and innovative approach to integrating compliance risk management initiatives into the registration process.

By the time the National Institutions Strengthening project ended, Guatemala's SAT had made significant strides to enhance the Digital RTU through the updates mentioned above and others that are ongoing. The SAT has a much more solid taxpayer registration function: with more accurate information on taxpayers, no duplicate and dormant records, a complete view of taxpayers' data for all staff that requires information, integration with other subsystems and government agencies, and it is in the process of generating pre-filled or estimated tax assessments to facilitate compliance of small businesses. The SAT has been praised for its efforts that have also contributed to significant increases in tax revenue collection, surpassing the annual collection target in fiscal year 2023 by nearly 10 percent, and reaching tax-revenue-to-GDP of 12 percent—the highest since the Fiscal Pact of 2000.

Recommendations and Lessons Learned From Guatemala

In the evolving landscape of global energy transitions and economic realignment, the trends outlined in this white paper add up to a paradigm shift in the way governments and industries approach local content strategies.



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The Taxpayer Registration Digital Transformation journey is not as straightforward as one may think, but the good news is that transformation is achievable. By applying DAI's Systems Optimization Framework and using proven techniques and tools, the team delivered technical assistance to Guatemala's SAT resulting in more efficient processes and systems that promote integrity within Guatemala's Tax Administration. DAI understands the issues associated with modernizing taxpayer registries, and its methodology, tools, and human capacity are well-positioned to face them.

DAI's experience with improving taxpayer registration systems and public sector transformation in general yields the following key lessons learned:

Become a trusted advisor. Working closely with all the organization levels and being honest in what can and can't be achieved is crucial in earning the trust of government counterparts. Never promise what you know cannot be achieved. Always look for a position where you are considered a strategic partner, not just another time-consuming advisor.

Strengthen the project management office (PMO) function. The Tax and Customs Administration's PMO was crucial to the success of the project. It provided a single point of contact for issue resolution, progress reports, and access to upper levels in the organization. A well-established and efficient PMO makes a big difference in implementation.

Understand how the organization assigns resources. Government institutions are guided by strict processes. Take the time to understand how resources are assigned to the engagement, and always look for your initiatives to be included in the annual planning process.

Facilitate change management. In the business process re-engineering activities, DAI provided guidance in change management to the Tax and Customs Administration, including developing a communications strategy and providing training to its modernization and core process improvement teams.



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Interoperability is crucial. Data exchange with other government agencies is hard to achieve. Political hurdles are usually harder to overcome than technical issues. Understand the political and technical requirements for data exchange early in the project.

Data quality is fundamental. Focus on typical data issues such as duplicates and incomplete fields but also pay special attention to data that drives other functions in the administration, such as economic activity. Fix those first.

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