

# The Effect of Electronic Data Interchange (EDI) on Improving Tax Compliance Rates

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## Abstract

*Kosovo's tax administration plays a fundamental role in the state's functioning, carrying out many duties and obligations. In addition to these duties, TAK also acts as a stabilizing element for the macro-fiscal economy. In addition to the importance of human resources, the function of information technology is unquestionably crucial in achieving TAK's objectives. The implementation of information technology has resulted in the mechanization of several processes, simplifying the gathering of data and the distribution of tax responsibilities. Advanced information technology systems have improved communication channels with taxpayers and other individuals or groups involved, promoting increased transparency in tax information management. The adoption of the Electronic Data Exchange (EDI) application has resulted in advantages not just for TAK but also for taxpayers and the general public. There are several benefits to using TAK, such as increased efficiency in processing tax return data, less dependence on people specifically assigned to tax return processing, and a lower likelihood of errors in tax returns. The benefits for taxpayers and citizens include the convenience of filing and paying taxes, the option to do so online at any time, and the ability to access online services without the need for in-person engagement with tax authorities. Another vital part of TAK's employment of information technology is the facilitation of online declarations and payments, as well as digital connections with taxpayers. This progress has led to higher adherence to tax obligations and a decreased incidence of tax evasion.*

**Keywords:** Tax, Evasion, Taxpayers, Economy, Payments

## INTRODUCTION

The Tax Administration of Kosovo (TAK) is a crucial entity in the Republic of Kosovo, responsible for the fundamental task of collecting and supervising tax collections. TAK operates as an independent executive agency under the authority of the Ministry of Finance, Labor, and Transfers. Its main role is to implement the tax policies of the country. This entity's role is critical in providing the necessary funding for public services, thereby improving the overall well-being of the population.

The main goal of TAK is to ensure the effective and fair collection of taxes that contribute to the country's progress. This involves the surveillance and implementation of tax regulations while providing tax services in a manner that is equitable and easily understood. In addition, TAK is responsible for promoting a favorable business environment and lobbying for the implementation of higher levels of integrity and responsibility. The Tax Administration has a vital role in supervising tax collection by implementing policies and procedures that are in accordance with tax regulations. TAK's goal is to improve revenue collection efficiency and reduce tax evasion by utilizing sophisticated information and technology systems. The utilization of information technology has resulted in the mechanization of several processes, simplifying the gathering of data and the distribution of tax obligations. Advanced information technology (IT) systems have also enhanced communication channels with taxpayers and other stakeholders, promoting increased transparency in tax data administration. Another crucial part of TAK's employment of information technology is the facilitation of online declarations and payments, as well as electronic engagement with taxpayers. This progress has resulted in a higher level of adherence to tax obligations and a lower incidence of tax fraud.

TAK has consistently pursued technical progress, transitioning from the first utilization of computer systems to the integration of contemporary digitized platforms such as EDI. This technological breakthrough has enabled taxpayers to submit tax declarations and make payments at any time of the day, as well as effortlessly fulfilling numerous demands using this platform. As a result, there is no longer a requirement for taxpayers to

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be physically present at TAK's counters. These technological improvements have increased taxpayer compliance by simplifying the procedure and creating an atmosphere of confidence through prompt and efficient delivery of high-quality services at a low cost. Undoubtedly, the Tax Administration of Kosovo has received consistent support from stakeholders, including both internal and external partners. These supporters have continuously aided in the achievement of the organisation's objectives to establish an environment that is completely in line with the latest advancements in information and communication technology.

## **MATERIALS AND METHODS**

Before fully digitizing its services, such as adopting the EDI platform and beyond, the Tax Administration of Kosovo mainly relied on conventional techniques. These systems utilized manual processes, relied heavily on physical documentation, and required substantial human participation. Within TAK, these manual operations involved a variety of tasks, including registering taxpayers, entering data from different tax returns into the central system, handling various forms of tax declarations, and manually inserting data on received payments.

### **Registration Process**

Prior to the digitization of services, taxpayers would initiate the registration process by directly engaging with the tax authorities, which involved a manual registration method. Typically, this process required the submission of tangible forms along with corroborating paperwork. Frequently, further documentation was necessary, particularly when the taxpayer first interacted with TAK in person, which raised the possibility of technical mistakes that could impede or alter registration data. In addition, the dependence on physical archives for preserving supporting papers presented a potential risk of loss due to insufficient upkeep, neglect, or unforeseen circumstances.

Once taxpayers completed and formalized their documentation with one governing body, they were required to repeat the submission procedure with another governing body. For example, taxpayers first registered with KBRA and then used the documents they got to obtain a fiscal number from TAK. Afterwards, they went to Kosovo Customs to obtain the required certificate for situations involving the import or export of commodities. Throughout this process, TAK mandated that its staff provide these services. Because Kosovo had more than 10 regions at the time, there was a significant level of staff involvement, especially during the registration phase. The method required manual verification of the submitted information, which made it complex and burdensome for both taxpayers and the institutions involved. The efficient processing of registration requests relied primarily on the availability of sufficient labor.

### **Manually Inputting Data into The Declarations-System**

Upon registration, taxpayers are required to fulfill their tax obligations by diligently filling out and sending their tax declarations to the offices of the Tax Administration of Kosovo (TAK). Originally, TAK had to print the forms and make them accessible for taxpayers to get from their offices. Afterwards, individuals filled out the papers and sent them back to TAK offices. Over time, this conventional approach transformed into a more efficient and simplified procedure. Currently, taxpayers make use of the TAK portal, where they enter their fiscal number and retrieve the necessary forms immediately from the TAK website. Subsequently, they complete the forms and submit them to the TAK offices.

The tax administration staff plays a crucial role in manually entering the data retrieved from the filed forms. Due to the large number of these statements, a significant number of employees are required to specifically handle the input of this information into the system. In addition, they carefully examine the data to detect any possible omissions or inaccuracies.

### **Processing of Payments**

The tax administration staff plays a crucial role in manually entering the data retrieved from the filed forms. Due to the large number of these declarations, a significant amount of manpower is required to handle the input of this information into the system. In addition, they carefully examine the data to detect any possible omissions or inaccuracies in record-keeping.

## Handling Requests and Corrections

In addition to the standard procedures of registration, data submission, and payment, taxpayers frequently require supplementary inquiries or rectifications. These inquiries may pertain to the process of obtaining reimbursements or correcting mistakes in their declarations. In the conventional paradigm, managing these requests required tangible documents, which contributed to a bureaucratic procedure dependent on manual processing and replies. These variables contribute to an elevated risk of potential misuse, wasted time, and the engagement of a significant number of personnel, among other difficulties.

## Challenges Associated with Traditional Processes

**Staff augmentation request:** These procedures' labor-intensive nature necessitates a substantial workforce, resulting in a higher number of personnel involved in manual processing. Staff are required not only for directly interacting with taxpayers but also for a variety of activities such as entering data, verifying its accuracy, and handling correspondence.

**Extended processing duration:** The need for physical verification and the increased amount of documentation lead to extended processing times. As a result, taxpayers have delays in obtaining confirmations, satisfying a range of demands such as refund claims, acquiring different certificates, or answering other concerns. **Notable data entry mistakes:** Dependence on human-driven manual data entry raises the likelihood of technical faults. Errors occur while manually entering information, such as taxpayers' names and financial data, due to the lack of proper verification by the accepted systems.

**Insufficient transparency:** The conventional system's lack of up-to-date information and openness can cause taxpayers to feel frustrated and erode their trust in TAK. As a result, this could impact their adherence to tax responsibilities. Taxpayers may have difficulty monitoring the status of their claim submissions or comprehending the development of their tax-related procedures. **Shift away from conventional procedures:** Time-consuming procedures, excessive paperwork, and inherent difficulties in ensuring data precision while reducing processing time have marked the conventional approach to overseeing the entire tax process over the years. The need for a large staff and the probability of data entry errors underscore the restricted efficiency of this strategy. The transition to digitalization offers a chance to tackle these difficulties and enhance the overall efficiency and effectiveness of tax administration procedures.

## RESULTS

The transition from a manual to a computerized system in the Tax Administration of Kosovo not only involves a change in operations but also symbolizes a movement in the overall mindset regulating the handling, execution, and administration of tasks related to the complete tax management process. This metamorphosis progresses through multiple stages, each marked by unique alterations, difficulties, and possibilities. **Acknowledging the necessity for alteration:** The initial stage of the transition involves recognizing the constraints and deficiencies of the existing manual system. The obstacles encompass a wide range of issues, such as effectively handling a large amount of material, dealing with lengthy processes, and reducing the heightened chance of errors. We should view these obstacles as opportunities to effect change, aiming to simplify and streamline work within the TAK institution and for taxpayers. The objective is to enhance taxpayers' convenience in meeting their tax obligations.

**Exploring technical options:** As we begin the process of digitization, we are considering several technological solutions. These include adopting reliable digital platforms, implementing automated data entry methods, and integrating secure online payment channels. The primary objective is to utilize technology in order to optimize processes and improve overall effectiveness. Advancements in information technology have recently enabled the automation and modernization of different job processes, particularly within financial systems. The Kosovo Tax Administration must promptly rectify and proactively mitigate any deficiencies in work procedures pertaining to tax declarations and payments, as these constitute essential components of the tax system.

Through these procedures, all taxpayers consistently disclose and satisfy their tax responsibilities for different categories of taxes. The development of the electronic declaration system emerged as an imperative required

by the prevailing circumstances. Before the implementation of the electronic declaration system, individuals had to manually complete tax declarations by hand, making three copies, and then submit them to commercial banks for tax payment processing. Technological errors were inevitable when filling out tax declarations by hand. These problems occurred during the completion process, commercial bank processing, and the final stage of manually recording notes in the Tax Administration's information system. This procedure, which consists of a sequence of interconnected acts, is applicable to the vast majority of the approximately 80 thousand taxpayers now working in Kosovo.

The Tax Administration officials have devised a plan to create an information system for tax declaration digitization. This entailed creating the structure of the work processes and addressing the pertinent technical components of the software solution. At first, the software component's development was contracted out, resulting in an expenditure of around 100,000 euros for the creation of the program. Gradually, the potential for progress in the field of equity, diversity, and inclusion (EDI) has been acknowledged, resulting in the adoption of significant alterations. Information technology engineers and tax experts in the Tax Administration of Kosovo have meticulously and expertly collaborated to build a new platform. This platform encompasses supplementary functionalities, the capacity for advancement, and the ability to include novel elements. It enables the efficient handling of modifications in work procedures and adjustments to emerging technology. The EDI platform currently only requires operating fees for engaging IT and tax specialists in its development and maintenance.

Addressing and effectively handling resistance to change: A major obstacle to this transition is the need to overcome opposition to change, which is present among both tax administration workers and taxpayers. Traditional manual laborers may be reluctant to use digital equipment due to concerns about possible job displacement or discomfort stemming from a lack of familiarity with new technologies. At the same time, taxpayers may face difficulties adjusting to digital platforms, especially if they are used to traditional paper-based transactions.

Like any alteration in an organization or institution's operational procedures, the process of digitizing tax declaration and payment has faced inherent opposition, both internally within TAK and externally among other involved parties. Overall, the difficulties have primarily stemmed from work processes and procedures rather than technical ones. These factors include resistance to change, hesitancy, skepticism, uncertainty, and the need for a shift in mindset toward work—adopting new ways of thinking and approaching tasks. These reforms have impacted multiple stakeholders, such as commercial banks, the central bank, and the System for the Management of Public Finances of the Republic of Kosovo, among others. The primary obstacle has been to convince other institutions that this system will function efficiently, fulfilling the needs of all parties and guaranteeing exceptional effectiveness and dependability, with a critical focus on delivering an even greater level of security. One further obstacle has been the absence of a legal and technical framework pertaining to digital identification. This necessitated the adoption of conventional solutions that are mutually agreeable to TAK and taxpayers. Incorporated training programs: To address objections and facilitate a seamless transition, extensive training programs assume a central role. We specifically develop these programs to enhance the current skills of employees, providing them with the necessary knowledge to digitize and manage the new systems. Simultaneously, we provide taxpayers with easily accessible guidelines and support to facilitate their transition to digital platforms. Deployment of a robust and protected digital framework: Digitization necessitates a resilient and protected digital framework. The platform's construction has placed a significant emphasis on digital security measures to protect taxpayer information, ensuring data integrity and confidentiality. This phase has involved rigorous testing, the deployment of encryption techniques, and ongoing surveillance to safeguard against future cyber threats. This phase has involved thorough testing, the implementation of encryption mechanisms, and continuous monitoring to protect against future cyber threats.

Ongoing enhancement of the system. An essential element of the transformation involves focusing on improving the user experience for both tax administration personnel and taxpayers. The creation of digital platforms with user-friendly interfaces facilitates the navigation of complex procedures. Taxpayers go from tedious paper-based processes to convenient online interactions, resulting in higher satisfaction and improved

operational efficiency. Amidst the current period of swift technological advancement and the consequential transformative shifts in several spheres of life, tax administration services are being digitized. Information technology is essential for achieving certain services efficiently.

Both taxpayers and relevant organizations will increasingly favor electronic declarations as their preferred medium. As institutions and taxpayers progress and update, the electronic declaration forms will transition from the current way of uploading or submitting information through websites and web forms to a more sophisticated approach that involves direct system-to-system contacts. This form would not only streamline the automation of the declaration as a self-service but also have the ability to eliminate the entire declaration procedure, contingent upon specific conditions.

The Tax Administration's website offers Acrobat Reader (pdf) for download, which initiates the process of digitizing tax declarations. A year later, the process of fully digitizing tax declarations and payments was implemented through a pilot project exclusively for declaring value-added tax (VAT), which was only available to taxpayers inside the Large Taxpayers Unit. In under 3 months, the system gained the ability to facilitate value-added tax (VAT) declarations for all taxpayers. A year later, we expanded the digitization process to include the declaration of withholding tax (tax on salaries) and pension payments for all taxpayers in the Republic of Kosovo, including corporations, public enterprises, and state organizations. All three of the aforementioned declarations are monthly declarations that apply to all taxpayers who are required to declare and make payments. As the EDI platform has progressed, services have been added in chronological order. Simultaneously, efforts have been made to optimize and adapt the best practices, focusing on simplicity and usefulness. Later on, the process of digitalization was expanded to encompass four declarations of quarterly installments for personal income tax (TAP) and corporate income tax (TAK), as well as the annual declarations of the relevant taxes. Starting in 2014, the process of digitizing all tax declarations has been implemented. In addition to electronic declarations, the option to make electronic payments has been made available. Furthermore, an electronic tax certificate has been implemented. Every taxpayer has the ability to retrieve their tax records, oversee tax accounts, get important information by email using the EDI platform, and declare purchases.

**Live surveillance and documentation:** An important effect of digitalization is the ability to observe tax-related activities in real time. Tax officials are able to obtain up-to-date information, which allows them to make prompt decisions. Real-time monitoring not only improves administrative procedures but also increases the efficacy of law enforcement measures. The electronic declaration platform enables real-time, 24/7 access to all services and monitors all taxpayer activity. Furthermore, TAK facilitates thorough surveillance of timely tax submission and settlement. **Iterative enhancement and adjustment:** Digitization is a continuous process of adjustment and enhancement rather than a single occurrence. The tax administration adopts a culture of ongoing learning, regularly updates its basic systems, and integrates comments from both internal stakeholders and taxpayers. This dynamic method ensures that digital platforms adapt to technological progress and users' varied needs.

The transition from manual to digitization in TAK is a substantial advancement in the way partnerships operate with their tax systems, leading to the termination of traditional methods. The trip is marked by difficulties, adjustments, and the achievement of concrete advantages. As we have advanced through different procedures over time, they have not only improved operational efficiency, but also contributed to a more convenient and user-friendly experience for taxpayers. The digital age opens up new avenues for transparency, adherence to regulations, and informed decision-making, laying the foundation for a modernized tax system ready to face future challenges.

### **EDI services and their influence on compliance**

The utilization of the EDI (Electronic Data Interchange) application by taxpayers has significantly transformed the procedure of submitting and settling tax liabilities, hence revolutionizing the tax filing and payment process. The technique, commonly referred to as electronic filing (e-filing), offers a sophisticated and efficient approach to tax procedures. Starting in August 2011, the EDI Application enables taxpayers to create online accounts with the Tax Administration of Kosovo (TAK). Through these accounts, taxpayers can electronically complete and submit their tax returns at any time, 24 hours a day, 7 days a week.

Initially, this platform solely concentrated on enabling the submission and payment of value-added tax (VAT) for enterprises that fall under the Large Taxpayers Unit. Starting in 2013, all taxpayers were given the chance to use this platform to electronically file and pay their taxes. This modification has resulted in a discernible improvement in the effectiveness and ease of the tax procedure for all the individuals or groups concerned. Before this technological innovation, as previously mentioned in this article, tax declarations were completed manually in three copies and physically sent to commercial banks together with the associated payments. The electronic filing system has greatly reduced many difficulties and technical mistakes in the tax process. Before the system was implemented, the majority of the 60,000 active taxpayers in Kosovo had to undergo a time-consuming and burdensome procedure of manually completing and submitting tax returns. This entailed a protracted series of steps, including the submission of paperwork to banks, manual processing, and registration in TAK's information system.

The progress in information technology has brought about substantial benefits for tax administration, tax inspectors, and especially enterprises. The electronic declaration system has proved to be an effective tool for reporting and paying tax obligations. The contemporary procedure has effectively tackled the aforementioned difficulties, serving as a straightforward and efficient instrument for both taxpayers and professionals and accountants who actively utilize it to meet their tax responsibilities. After digitizing all tax declarations, it has been seen that the system is now being used by 100% of taxpayers for electronic declarations and tax payments. This significant achievement demonstrates that the use of information technology has resulted in a significant increase in both the tax procedure's utilization and effectiveness. From 2012 to 2022, there has been a substantial increase in the number of electronic declarations, reaching a peak of over 3 million in 2022. The swift and effective progress provides compelling proof that the implementation of digitalization and integration of information technology in the realm of taxes has led to a significant overhaul and enhanced services for all stakeholders.

These outcomes, among others, succinctly sum up the consequences of this transition.

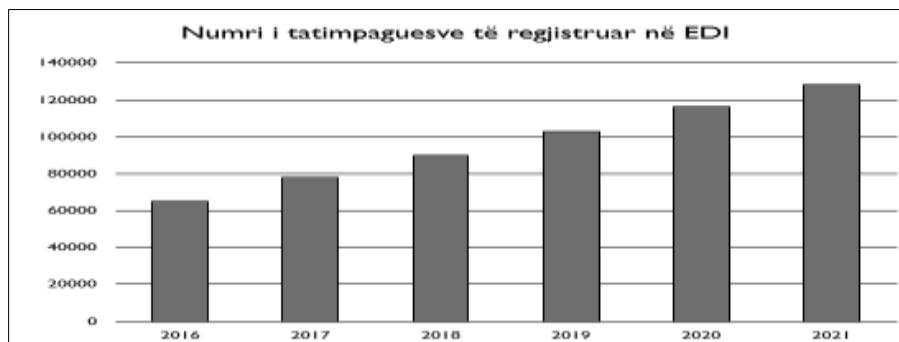
- Greater transparency
- Lower costs and potentially higher income
- Increased efficiency and effectiveness
- Improved audits
- Prevention and fight against corruption
- Facilitates interoperability (ability to share information and use it)

This text provides a summary of the development of the EDI platform over time, as well as the broadening of its service offerings. It has transformed into a comprehensive platform that addresses a wide range of requests, not only from taxpayers to TAK but also in the opposite way by offering secure and stable channels of communication for conveying messages from TAK to different taxpayers. These contacts include information sharing and other essential engagements that are critical for effectively managing the process of fulfilling tax obligations. This is consistent with TAK's objective of gathering taxes and contributions to improve the overall welfare of the country's inhabitants.



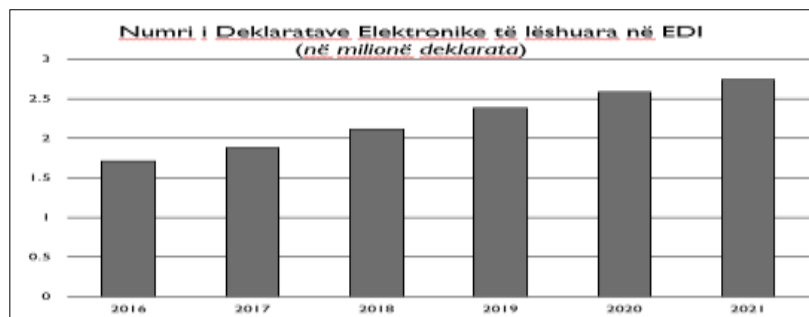
**Figure 1:** The evolution of Electronic Data Interchange (EDI) since its inception.

The number of taxpayers enrolled in the EDI system has steadily increased year over year. The increase in the number of taxpayers, due to the addition of additional individuals who pay taxes, has contributed to the rise in registrations in the EDI system. The following is an annual breakdown of the number of taxpayers registered in the Electronic Data Interchange (EDI) system.



**Figure 2:** The total number of taxpayers who have enrolled in the Electronic Data Interchange (EDI) system

By December 31, 2022, the EDI System had a total of 141,886 registered taxpayers. It is essential to emphasize that taxpayer registration is only done through the one-stop-Shop centers located at the municipal level. This allows taxpayers to conveniently visit these facilities, where they may submit their registration requests and complete all essential procedures, eliminating the need to visit various institutions. The one-stop-Shop centers function as a centralized hub that provides a wide range of services linked to registration. The number of electronic declarations has been increasing annually due to the growth of the taxpayer population and a significant improvement in compliance among those who had previously neglected their tax responsibilities for a long time.



**Figure 3:** Total count of electronic declarations generated in the Electronic Data Interchange (EDI) system.

TAK's annual work report states that there were 2,754,090 electronic declarations submitted between January 1, 2021, and December 31, 2021. However, over the corresponding period in 2022 (from January 1, 2022, to December 31, 2022), this figure rose to 3,071,646. There has been an increase of 317,556 electronic declarations compared to the corresponding time in the previous year, indicating a growth rate of 11.53%. Here, we provide a breakdown of the electronic declarations for the year 2022. The declarations are organized by month and tax type and include the corresponding tax accounts.

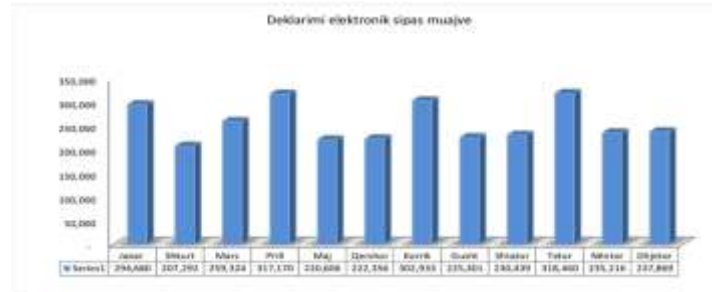


Figure 4: A monthly electronic declaration for the year 2022

Here, we have listed the electronic declarations organized according to several tax categories, specifically tax accounts.

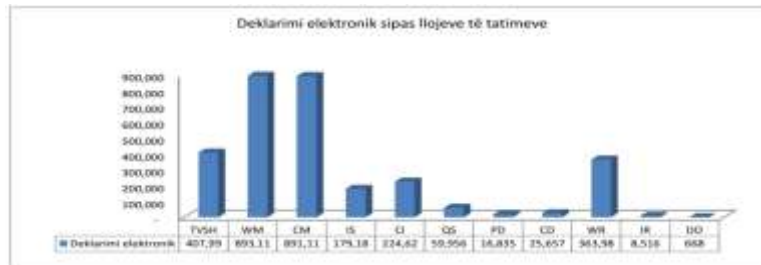


Figure 5: Electronic declarations categorized by tax kinds

In relation to additional services offered to taxpayers, we will now detail the actions carried out by TAK to provide these services to taxpayers.

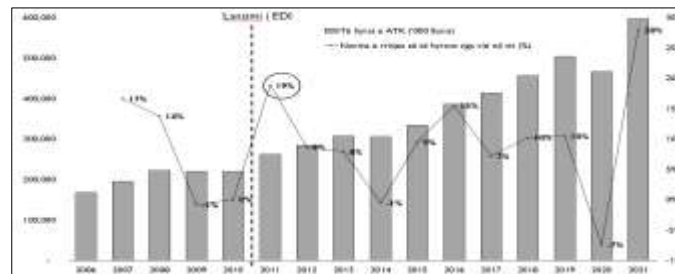


Figure 6: The tax revenues of TAK and the annual increase rate.

In regards to the creation of new applications, we have provided a table that outlines the development, interventions, and ongoing activities related to the implementation of new applications in TAK. The Central Office of TAK has exclusively carried out activities related to providing electronic responses, resulting in a total of 3,690 answers. The chart clearly and significantly contrasts with the 38 physical responses, highlighting a significant disparity in the number of responses.

Table 1: The data shows the number of electronic declarations categorized by month and tax type for the year 2022.

Muaj	TVSH	W/M	DM	IS	CI	QS	PD	CD	WH	IR	DO	
1	294,680	207,292	259,324	317,170	230,688	222,546	302,933	235,321	244,439	316,403	235,216	237,888
2	294,680	207,292	259,324	317,170	230,688	222,546	302,933	235,321	244,439	316,403	235,216	237,888
3	294,680	207,292	259,324	317,170	230,688	222,546	302,933	235,321	244,439	316,403	235,216	237,888
4	294,680	207,292	259,324	317,170	230,688	222,546	302,933	235,321	244,439	316,403	235,216	237,888
5	294,680	207,292	259,324	317,170	230,688	222,546	302,933	235,321	244,439	316,403	235,216	237,888
6	294,680	207,292	259,324	317,170	230,688	222,546	302,933	235,321	244,439	316,403	235,216	237,888
7	294,680	207,292	259,324	317,170	230,688	222,546	302,933	235,321	244,439	316,403	235,216	237,888
8	294,680	207,292	259,324	317,170	230,688	222,546	302,933	235,321	244,439	316,403	235,216	237,888
9	294,680	207,292	259,324	317,170	230,688	222,546	302,933	235,321	244,439	316,403	235,216	237,888
10	294,680	207,292	259,324	317,170	230,688	222,546	302,933	235,321	244,439	316,403	235,216	237,888
11	294,680	207,292	259,324	317,170	230,688	222,546	302,933	235,321	244,439	316,403	235,216	237,888
12	294,680	207,292	259,324	317,170	230,688	222,546	302,933	235,321	244,439	316,403	235,216	237,888
<b>Gjithëse</b>	<b>3,071,646</b>	<b>407,399</b>	<b>893,111</b>	<b>893,111</b>	<b>179,185</b>	<b>224,426</b>	<b>59,956</b>	<b>16,835</b>	<b>25,657</b>	<b>344,58</b>	<b>8,516</b>	<b>688</b>

Note: Tax Administration of Kosovo



Table 2: 2022 activities conducted by TAK's Central Office.

Description of activities	Number
Replies in hard copy	38
Replies in soft copy	3690
Replies in soft copy - Regions	61
Replies via the TAK website	650
Replies to journalists	6
Total replies	4445
Notifications to taxpayers	36
Information materials	1
Participation in working groups	60
Implemented activities	151
Cooperation with other departments	87
Workshops/trainings for taxpayers	7
Attendance in trainings and courses	5
Trainings for TAK staff	3
Meetings with taxpayers	262
TAK activities with the Media	1

Below is a quantitative depiction of the activities carried out by TSD Regional Offices.

Table 1: 2022 activities conducted by TSD Regional Offices

Region	DTM	OSJET-PR 1,1,3	Gilan	Ferizaj	Prizren	Gjakovë	Pejë	Mitrovicë	Total
Requests	4,602	45,588	13,101	12,091	26,728	8,048	8,027	6,503	124,688
Notifications	278	1,958	737	159	98	104	142	195	3,671
Protocols/Submissions	26	13,945	4,628	2,332	1,353	2,761	4,373	1,056	28,474
Pension contributions		17	9,477	9,955	14,584	4,557	5,864	6,750	51,204
Other works	167	2,390	7,523	946	1,116	95	318	319	13,094
Legal advice	47	930	453	2,043	2	53	2	1,796	5,326
Certificates created	27	2,185	324	495	907	4	43	352	4,537
Approval of change of email		993	252	360	345	56	87	238	2,331
<b>Total:</b>	<b>5,147</b>	<b>66,006</b>	<b>36,495</b>	<b>38,381</b>	<b>45,133</b>	<b>15,678</b>	<b>18,876</b>	<b>17,809</b>	<b>233,325</b>

This table provides a comprehensive breakdown of the number and categories of certifications issued by TAK, categorized according to the nature of the requests.

Table 2: Quantity and categories of certificates issued by TAK in 2022.

No.	Type of tax confirmation letter	TAK	Online Persons	Online EOI	Total	Structure by type	
		1	2	3	4	5=2+3+4	6
1	Visa application	26,170	32053	18,521	76,744	58.3%	
2	Other	7,228	8,445	-	15,673	10.9%	
3	Application for a tender	2018	-	10,262	12,280	8.5%	
4	Application for a loan	1029	-	7,780	8,809	6.1%	
5	Application for a grant	1216	-	6,459	7,675	5.3%	
6	Citizenship waiver	1904	3555	89	5,548	3.8%	
7	Application for subsidies	716	-	4297	5,013	3.5%	
8	Application for license	482	-	2904	3,386	2.3%	
9	Business deregistration	1970	-	1	1,971	1.4%	
10	Application for donation	32	-	1346	1,378	1.0%	
11	Granting of citizenship	953	273	142	1,368	0.9%	
12	Application for extension of license	69	-	1056	1,125	0.8%	
13	Deregistration of the fiscal cashier	854	-	1	855	0.6%	
14	Application to change last name	414	-	133	547	0.4%	
15	Extension of KS residence permit	107	135	201	443	0.3%	
16	Application for customs warehouse	24	-	405	429	0.3%	
17	Application for line extension	34	-	390	424	0.3%	
18	Change of business form	378	-	1	379	0.3%	
19	Maternity leave	15	217	132	364	0.3%	
20	Annual turnover	17	-	1	18	0.0%	
21	Change of business ownership	6	-	1	7	0.0%	
<b>Total</b>		<b>45,636</b>	<b>44,678</b>	<b>54,122</b>	<b>144,436</b>	<b>100.0%</b>	

*The Effect of Electronic Data Interchange (EDI) on Improving Tax Compliance Rates*

According to TAK's annual report, the Filing/Non-Filing Unit, which is in charge of managing matters related to the submission and payment of tax obligations, received approximately 3,000 responses to an equal number of questions submitted through the EDI platform in 2022. You can find this information on TAK's website. To provide further information, we present the data in a tabular format.

**Table 3: In 2022, EDI inquiries were conducted.**

Description of activities	Number
Inquiries made in EDI	2,947
Replies through edi@atk-ks.org	2,947
Phone calls	1,394
Closing (clearing) of tax accounts/contributions	
VAT account – Value Added Tax	19
IS account – Small individual businesses	426
IL account – Large individual businesses	21
QS account – Small corporations	589
CI account – Individual contributions	23
WM account – Withheld tax	34
CM account – Pension contributions	34
QL account – Large corporations	1
IR account – Tax on rent and intangible assets	6
WR account – Tax on interest, rent, property rights, special categories, etc.	18
PD account – Personal income tax	33
CD account – Corporate income tax	33
DO account – Partnership income tax	10
Total tax clearing accounts	1,247
Adjustments related to processing of declarations and payments	130
Analysis of list of taxpayers with active VAT accounts, whose VAT certificates are cancelled	-
Analysis of the list of taxpayers with closed VAT accounts, whose VAT certificate is active	-
Verifications of requests of regional offices for the regulation of tax accounts	-
Other activities	-

Below is a tabular depiction of the comprehensive performance, encompassing activities and system uptime as a percentage: The following data represents the total performance, measured in terms of activities and system availability, expressed as a percentage.

**Table 4: Overall system performance as a percentage.**

1	Administrimi i SISTEMEVE	Nr.
1	Aktivitetet	393
	Disponueshmeria e sistemeve %	99,97%
	Arkat Fiskale	99,96
	Mail Servers	99,95
	EDI	99,97
	Blerjet	99,97
2	Vërtetimi Tatimor	99,99
	Uebfaqja	99,98
	AtkportalI	99,99
	Kuponat Fiskal	99,98
2	Administrimi i RRJETAVE	Nr.
1	Aktivitetet	290
2	Disponueshmeria e Rrjetes %	98,8
3	Administrimi i DATABAZAVE	
1	Aktivitetet	1988
	Disponueshmeria e Databazave %	99,49
	Kosprod	97,99
2	Dw	99,94
	Intdb	99,86
	Publicdb	99,89
	Dw1mw	99,67
4	Disponueshmeria mesatare e komplet sistemit %	97,34%

**Table 5: Advancements and endeavors in emerging applications**

No	Name of App	Duration	Description
1	Development of the functionality for divisions 3 and 4	60 days	Design of Forms, creation of objects in DB and Implementation of SMRM
2	Implementation of WEB API of the SMRM cadaster	60 days	Development of client for WEB API consumption
3	Reporting the employer and the filing of the report in the portal	30	Creating objects in the DB, Import of test-data and implementation in the website
4	Placement in GG of the WEB API from ARC and placement in GG	10	Creating access to WEB API of ARC for TAK needs

5	Request of the transfer of tp from small business to large business (IL-PD and QL-CD)	80	Designing forms, creating objects in DB, testing and implementation in SMRM
6	Preparing the environment to take over statements from MFLT	30	Design, testing and publication of reports in the portal
7	Creating WEB API for Municipalities, residences and addresses from CAK (cadastral Agency)	30	Development of the server and connection with the database
8	Creating financial statements in the portal	40	Design, creation of datasets, and publication in the portal
9	Defining security criteria in EDI	40	Exploring best solutions and their implementation
10	Defining criteria in the non-filers report	30	Design, creation of datasets, and publication in the portal
11	Expanding VKME with new fields	30	Development of client for WEB API consumption
12	Implementation of the registration of natural persons, DI return, in EDI	20	Creating objects in the DB, Import of test-data and implementation in the website
13	Implementation of the function for the initiation of the Refund Claim from TAK	30	Creating the adequate form for such cases, Creating procedures for the taking over of cases according to the criteria as per the Directors instructions
14	Registration of persons for applications of 100 EURO benefit	10	Designing forms, creating objects in DB, testing and implementation in SMRM
15	Preparing the environment for the taking of statements from MFLT	30	Design, creation of datasets, and publication in the portal
16	Expanding VKME with new fields	30	Development of client for WEB API consumption
17	Implementation of the registration of natural persons, DI return, in EDI	20	Creating objects in DB, Importing test data and implementation in real environment
18	Implementation of the function for the initiation of the Refund Claim from TAK	30	Creating the adequate form for such cases, Creating procedures for the taking over of cases according to the criteria as per the Directors instructions
19	Registration of persons for applications of 100 EURO benefit	10	Designing forms, creating objects, in DB and implementation in the website
20	Preparing the environment for the taking of statements from MFLT	30	Design, creation of datasets, and publication in the portal

The table above illustrates that the collective average availability of all systems in TAK is 97.34%. The EDI component is particularly noteworthy for its outstanding availability rate of 99.97%. This demonstrates an extremely high level of performance across the systems, emphasizing the importance of the EDI system as the most interactive platform for connecting with taxpayers and facilitating the entire process of meeting tax obligations. Undoubtedly, the range of services and conveniences provided to taxpayers during the fulfillment process, along with the strategic utilization of information technology to gather all data in a centralized data warehouse and the implementation of advanced analytical tools in strict adherence to compliance risk management methodologies, have resulted in noteworthy achievements. Currently, TAK is experiencing revenue growth that is more than double the GDP's growth rate. This accomplishment is credited to the successful execution of digitization, the commitment of personnel, and the methodical utilization of risk assessment to identify non-compliant taxpayers. In order to provide more clarity about the previously mentioned points, we hereby present the yearly tax income trend as follows:

## DISCUSSION

Current status of EDI: Currently, the EDI system enables the electronic submission and settlement of taxes via the platform. Users can access the platform by logging in with their created accounts, resulting in a significant improvement in efficiency for both TAK and enterprises. The EDI system provides the following services:

- Declaration and payment of all types of taxes;
- Declaration and payment of pension contributions;
- Correction of all types of taxes/pension contributions;
- Outstanding liabilities;
- Printing of payment receipt;
- Online payment of taxes/ contributions;
- Filing history;
- Tax balance;
- Taxpayers overview;
- Payrolls;
- Workers list;
- Purchase and sales books;
- Tax certificate;

Application for VAT registration;  
Change of profile and password;  
Appointment of tax professional/accountant;  
Request for help etc.

In addition to the electronic filing of taxes, we have implemented a number of novel electronic services, including:

On-line tax certification for individuals and businesses;  
Purchase and sales books;  
Online registration for VAT;  
Online request for VAT, PIT and CIT refund;  
Verification of employers;

As a result of the COVID-19 epidemic, a range of computerized services were implemented. Initially, businesses had the opportunity to request reimbursement for rent and staff remuneration during the pandemic. These services, as well as others, were included in the EDI framework and remain accessible today in the form of subsidies.

**The Future of Electronic Data Interchange (EDI):** The swift and uninterrupted progress of information and communication technology is a persistent challenge for all platforms, including the EDI platform, to keep up with the changing demands and remain in sync with technological advancements. However, in the following sections, we will outline three specific requirements or developments that the future EDI should include in order to fulfill the needs and expectations of taxpayers and beyond. The following items are included:

Full digitization of all services;  
Enhancement of interoperability between the system and the taxpayer; and  
Integration into even broader platforms.

## **CONCLUSIONS**

Although the Tax Administration of Kosovo is a relatively new institution that was established in January 2000, its development of the EDI application has earned high regard from all stakeholders, including businesses, local entities, and international supervisory institutions. This is because it provides secure and effective services for tax declaration and payment.

The implementation of electronic tax declaration and payment alternatives via the EDI platform has not only decreased tax collection costs by decreasing the requirement for manual processing by staff but has also led to cost reductions for enterprises. Furthermore, it has reduced the probability of errors when filling out tax declarations.

The additional benefit of digitizing the tax system using the EDI platform is the availability of round-the-clock online electronic services. These computerized services eliminate the requirement for businesses to allocate their people to physically visit TAK offices in order to receive services.

Given the ongoing and swift progress of information and communication technology, the task for the future is to fulfill the demands and keep up with the new developments brought about by technology. This is applicable to all platforms, including the

### **Electronic Data Interchange (EDI) Platform.**

The current information technology system at TAK has restricted capabilities. To ensure that it can effectively support the advancement of services and reforms, it is crucial to enhance the capabilities of the IT system. Based on the studies conducted in this study and the positive assessments of the successful digitization of the tax system, the following recommendations have been made:

Establishment of a new IT system;

Development of the electronic invoice (e-invoice) module;  
 Development of a cash management module with software access;  
 Full digitization of all services;  
 Enhancement of interoperability between the system and the taxpayer; and  
 Integration into even broader platforms.

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