Tax colletion and the use of ICT through the referenced payment: the perspective of taxpayers in Texcoco, State of Mexico, in 2019

La recaudación fiscal y el uso de las TIC a través del pago referenciado: la perspectiva de los contribuyentes en Texcoco, Estado de México, en 2019

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Abstract

In Mexico, the Tax Administration has committed to the use of Information and Communication Technologies (ICT) to avoid tax evasion and avoidance, which is why the Mexican government has proposed an information system to comply with tax obligations. This work aimed to evaluate the advantages and disadvantages of a new system called Referenced Payment. 110 taxpayers in the municipality of Texcoco, State of Mexico, were surveyed through directed sampling. The type of research was basic and the research approach was mixed and descriptive. SPSS software version 15.0 for Windows was used to systematize and analyze the data collected in the surveys. The results show a positive acceptance by taxpayers despite being a system that changed the way in which, for many decades, calculations and payments had been made to the treasury in Mexico.
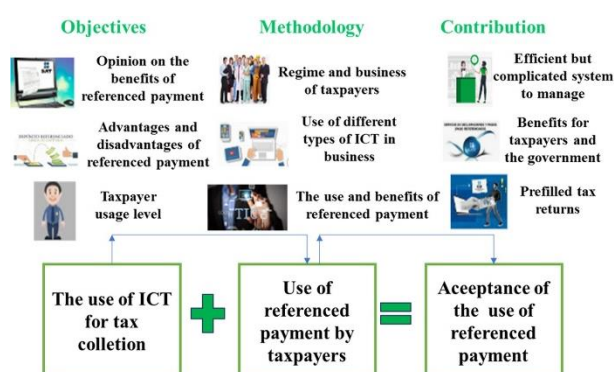
Resumen

En México, la Administración Tributaria ha apostado al uso de las Tecnologías de la Información y Comunicación (TIC) para evitar la evasión y la elusión fiscal, por ello el gobierno mexicano ha propuesto un sistema de información para cumplir con las obligaciones fiscales. Este trabajo tuvo el objetivo de evaluar las ventajas y desventajas de un nuevo sistema denominado Pago Referenciado. Se encuestaron a 110 contribuyentes en el municipio de Texcoco, Estado de México, mediante un muestreo dirigido. El tipo de investigación fué básica y el enfoque de la investigación fue mixta y descriptiva. Para sistematizar y analizar los datos recabados en las encuestas se utilizó el software SPSS versión 15.0 para Windows. Los resultados muestran una aceptación por parte de los contribuyentes de manera positiva a pesar de ser un sistema que llegó a modificar la manera en que, por muchas décadas se habían realizado los cálculos y los pagos ante el fisco en México.
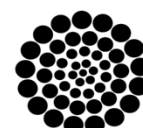
Evasion, Technologies, Referenced　　　**Evasión, Tecnologías, Referenciado**

Introduction

Mexico is one of the countries with a high rate of tax evasion and avoidance in Latin America (Licona Vite, 2011). (Licona Vite, 2011), which has led to a low level of tax revenue collection at the federal, state and municipal levels. The Mexican government has proven to be a changing agent according to the times and fiscal needs, and has therefore adopted new models and strategies for tax collection in order to avoid or reduce tax evasion and avoidance.

Therefore, the Mexican government has adopted technology as a tool to carry out its functions, including tax collection. It is known that the accelerated development of telecommunications and information technology has influenced practically all fields of human endeavour, so the technological revolution that humanity is currently experiencing is largely due to the significant advances in ICT and its application in all fields of society (Díaz Lazo, Pérez Gutiérrez, & Florido Bacallao, 2011). Some examples of the use of ICT have been in the management of Social Security (Romero Coronado, 2024), in stock market operations and financial management (Pardo Bernal, 2023) and (Espinosa Loor et al., 2023). As well as in the digital transformation in the era of a so-called 5.0 society (Maldonado Molina, 2024).

In this context, Mexico has implemented an information system called "Referenced Payment", which aims to increase efficiency, transparency, accessibility and responsiveness to the demands of taxpayers and organisations, as well as to achieve a competitive government that enables the achievement of economic and social development goals. However, this new form of collection has brought confusion and conflict for taxpayers, as for a long time they used to make their tax payments through the windows of the Tax Administration Service (SAT) modules. Therefore, the purpose of this paper is to analyse the viability, acceptance, use and efficiency of the system called "Pago Referenciado", from the users' point of view.

On the other hand, the reasons for implementing this new system for the calculation and payment of taxes in Mexico are analysed. The issue is relevant in the current Mexican context, as the Referenced Payment is part of a whole process of using Information and Communication Technologies (ICT) in the Mexican tax administration, which has been developing for several decades.

This highlights the fact that the digital era has taken off sporadically as changes in the way tax contributions are collected. In this context, ICT has been an instrument of cost reduction and information improvement for Mexican government management, as it is changing the nature of products and services (Macau, 2004).

It is worth mentioning that the study was carried out in the city of Texcoco, State of Mexico, a commercial and agricultural region, where the companies are in the range of micro and medium-sized enterprises. The type of research is basic and the approach is qualitative and descriptive, which made it possible to measure the level of use, the use and benefits of ICTs in tax collection, as well as to have a broad view of the acceptance or denial by taxpayers of the emergence of the "Referenced Payment" modality.

The document is structured as follows: first, a theoretical review of the Mexican tax system and technological progress is presented. Secondly, the level of tax collection in Mexico is presented. Thirdly, it discusses the "Referenced Payment" as a technological strategy for tax collection. In the fourth point, the methods and materials of the research are discussed, followed by the presentation of the results and then the discussion. Finally, the conclusions and recommendations are presented.

Bibliographic Review

According to Cajigas R., Ramírez, & Granados (2007), two of the most serious problems worldwide in terms of tax collection are tax evasion and tax avoidance. These authors mention that tax avoidance is understood as a lower payment of the tax payable by the taxpayer, as opposed to tax evasion, where the economic agent obliged to declare and pay a tax simply does not pay.

On the other hand, Tapia Tovar (2000) defines tax evasion as defrauding the tax administration by concealing or simulating income or expense accounts in order to pay lower amounts of tax. For this reason, Jiménez (2003) points out the importance of having an administrative control scheme that facilitates spontaneous and timely compliance in the payment of taxes.

Of course, the phenomenon of tax evasion is explained by a number of factors, among which the following stand out: broad tax exemptions, insufficient quality and quantity in the provision of public goods and services, the growing informal economy, excessive dependence on oil revenues, government administrative failures, legal loopholes in tax laws and, finally, political factors (Ayala Espino, 2000), all of which contribute to the Mexican government's tax administration problems.

As a result of the problems faced by the tax administration in Mexico, there is a need to create new strategies and methods to calculate the taxpayers' ability to pay, thus employing the use of new Information and Communication Technologies (ICT), in order to provide the tax administration with timely and reliable information (Cajigas R., Ramírez, & Granados, 2007). Hence, the tax administration needs to have information systems to reduce fraud rates and improve the proper functioning of the tax system. A tax information system is a strategic instrument for the collection, processing and distribution of information, and are also conditioning factors for the success and competitiveness of a government administration (Armas A. & Colmenares de Eizaga, 2007) and (Martín Granados & Valdés Hernández, 2003). On the other hand, it is recognised that the financial system is important for Mexico's economic development, together with the level of tax collection (Bonilla López, 2002). On the other hand, globalisation has led to the use of information and communication technologies in the economic, social, cultural and political life of society. Something similar happens with the technological revolution that conditions developed and developing countries to be at the forefront, and Mexico is no exception.

One example is that of Latin America, where the cases of Chile, Colombia and Venezuela stand out, which have been the main pioneers in adopting the use of ICTs for tax purposes. Meanwhile, countries such as Spain, Ireland and England have taken the strategic decision to give greater priority to the use of the Internet for tax purposes (Armas A. & Colmenares de Eizaga, 2007); (Abelló Silva, 2003) and (Rovira Ferrer, 2011).There are, however, advantages in the implementation and use of ICT in the audit process, some of them are: reduction of the cost of the data procedure, reduction in the use of paper and printouts, amendments of errors, change of schedules, administrative simplification.

Reduction in the hours-visits to the tax offices, transparency in the collection of taxes, provides information to the taxpayer, tax refunds via Internet, it has even reached the point that the tax administration directly sends drafts of the pre-calculated returns so that taxpayers can simply confirm them, as mentioned by Abelló Silva (2003), Armas A. & Colmenares de Eizaga (2007), Ríos Granados (2003) and Rovira Ferrer (2011).

Consequently, Téllez Valdés (2008) comments that information systems are part of the daily life of citizens around the world and play a fundamental role in the success of the universal economy. This brings advantages for governments, but also brings with it risks of malicious attacks against information systems, as attacks against information systems are a threat to the creation of a more secure information society and a space of freedom, security and justice. Therefore, the Mexican government should implement strategies to safeguard taxpayers' information.

In the case of Mexico, the tax administration has found itself in a new facet in the tax collection strategy since the beginning of the 21st century (Ríos Granados, 2003). On the one hand, it is presented as a welfare tax administration, i.e., as a tax collection agency that controls tax obligations, verifies and verifies compliance with tax obligations, and, finally, as a welfare or auxiliary agency (Hallivis Pelayo, 2000).Consequently, the Mexican tax system has a complex structure, which implies a growing role for social security contributions, the general sales tax, as well as a lower share of customs taxes (Vargas Téllez, 2010). Its complex structure makes the Mexican government implement some strategies for taxpayers. Thus, it establishes as an obligation for them to verify all their tax obligations through the Internet. Therefore, in a certain way, it becomes a tax administration friendly for taxpayers, in the sense that it offers through electronic media all the possibilities of assistance to taxpayers, but in another sense, it increases tax obligations via Internet in favour of a good management of the tax administration (Ríos Granados, 2003).Regarding the implementation of new technologies in tax collection, a transition period should be considered, where information on a documentary and electronic regulation is provided, in which a period of time should elapse before the new trends in electronic auditing come into force.

Article

The Tax Administration System (SAT) has implemented electronic accounting, electronic invoicing and referenced payment. The latter is the subject of study in this research.

Tax collection in Mexico

The Mexican tax collection system is not considered progressive, especially for the Tax Incorporation Regime (RIF), considered as small taxpayers, since the tax charged to this sector of the population is not proportional to the economic capacity of taxpayers. This regime is preparatory for the obligations they will acquire when they finally join the single regime that will prevail for business and professional activities.

Consequently, they will acquire greater fiscal responsibilities and increase their taxes. This sector of the population has a low economic capacity and may not have access to the use and application of information and communication technologies to keep accounts, register their receipts, file their tax returns, among others (Portillo Villalpando, López Lira, & Rivera Huerta, 2016). As a result, many taxpayers, far from paying taxes, will remain in informality.

According to World Bank data, Mexico has very low tax collection compared to other economies, due to its high rate of tax evasion and avoidance. Mexico's problem is that a significant proportion of the population does not pay taxes or pays symbolic amounts. The situation described above is confirmed by the World Bank in its Yearbook of Public Finance Statistics on tax collection as a percentage of GDP in Mexico. Hence, in 1972 tax collection was 7.61% of GDP, by 2017 it was 13.04% of GDP as shown in Figure 1.

Box 1

Figure 1

Tax collection (% of GDP) in Mexico
Source: (World Bank Group, 2019)

Consequently, due to the low tax collection, the Mexican tax administration has bet on the use of the Internet and information and communication technologies, so they have emphasised on having a database of taxpayers, trying to organise an "information system" in which all the taxpayer's information is stored regarding their tax obligations, such as having a record of all their transactions, payments, deposits, purchases, sales, place, date, in short, all the information concerning the payment and management of contributions, with the aim of increasing tax collection.

It is worth mentioning that tax collection in Mexico has been characterised throughout its history by multiple partial reforms, which have failed to increase tax collection, and have often only hindered and confused taxpayers.

Currently, the Mexican government has modernised its tax collection system by introducing and using Information Technologies (ICT) to automate its processes, to provide its services online, to implement communication with society, i.e. the government wants to consolidate itself as an electronic and cutting-edge government that can be competitive at a global level, so it has implemented the "Pago Referenciado" (referenced payment).

The referenced payment

The Referenced Payment is a new service for filing returns and payments through which taxpayers must make the payment of their federal tax obligations, by means of a capture line (reference). With this system, the Tax Administration Service (SAT) modernises the payment of taxes, as it uses dynamic electronic forms to facilitate the filling out, which also contain the option to automatically calculate the tax based on the direct filing of the returns with the SAT: Provisional and Definitive. This new declaration and payment system or Referenced Payment becomes one more tool for the tax authority, as every month it will know the amount of income, expenses or creditable taxes that the taxpayer has considered or generated for the determination of its tax obligations, which implies a greater internal and administrative control to avoid making mistakes that lead, for example, to the filing of complementary declarations. In the event that a tax payment is required, the taxpayer may make the payment in authorised banks, using the Referenced Payment service, i.e., through the following capture line.

Before the implementation of the "Pago Referenciado" in August 2002, the payment of federal taxes was made quarterly and with printed tax forms. In September 2002, the electronic payment scheme was introduced. This electronic payment scheme implied profound transformations in the SAT and in its interaction with the taxpayer, since it implied the use of 100% electronic formats, which include validations and arithmetic operations, as well as functionalities to select the tax, the concept, the periodicity, the period, the fiscal year and the type of declaration, which avoids the capture of this information, that is, it no longer has to be captured, since the tax declaration is recalculated with the data and transactions crossed by banks, suppliers, clients and creditors.

Undoubtedly, in recent years, the SAT has continued to strengthen its technological platform and develop new applications with the aim of making it easier for taxpayers to comply with their tax obligations.

With the Referenced Payment service, taxpayers file their returns on the SAT's Internet portal and pay their taxes in authorised banks, using the referenced deposit banking service, i.e., through a capture line. With this service, dynamic electronic forms are used with aids to facilitate filling out, which have the option of automatic calculation of the tax. In addition, the taxpayer only goes to the authorised bank if he/she has to pay tax.

The Referenced Payment allows, eventually, to have more points to make the payment of taxes such as self-service shops or other commercial establishments, which facilitates compliance, so taxpayers can make their payment with other options.

It should be noted that nowadays, practically all services offered by the SAT can be done online, at any time, without queues, without paper, and in an easier and faster way. Taxpayers no longer have to travel to do their paperwork; they can even receive guidance remotely, via telephone, chat, social networks or directly on the SAT's website.

Using online services saves time and resources for the benefit of citizens, and also reduces the number of visits to SAT offices, benefiting taxpayers who come for guidance, as they find greater availability of appointments and are provided with a better and more effective service.

To carry out the procedures from the Internet, taxpayers only need an Advanced Electronic Signature (e.firma or FIEL) or their Confidential Electronic Identification Code (CIEC), enter the SAT's Internet portal and make the Referenced Payment.

It should be noted that according to Mexican tax laws (LISR, 2019; LIVA 2019 and the CFF, 2019), taxpayers subject to file their returns and payments through the Referenced Payment system are the following:

a) Those who carry out business and professional activities and have the obligation to pay ISR (Income Tax), VAT (Value Added Tax), and IEPS (Special Tax on Production and Services).

b) Those who are registered in the Tax Incorporation Regime and are obliged to pay ISR and VAT.

c) Taxpayers who provide professional services for medical fees and who are obliged to pay ISR.

d) Those who obtain income from renting a house and commercial premises. They have the obligation to pay ISR and VAT.

Methods and Materials

The theoretical postulates that support the research are the Mexican tax laws, which indicate the guidelines for the calculation and payment of taxes, such as: the Income Tax Law (LISR), the Value Added Tax Law (VAT) and the Federal Fiscal Code (CFF).

Study region

The study region is located in the Municipality of Texcoco, State of Mexico, which is located in the eastern part of the State of Mexico. The general map of the Mexican Republic indicates that the geographical location of the municipality of Texcoco according to its territorial extension is located at 19° 23' 40" and 19° 33' 41" north latitude and between 98° 39' 28" and 99° 01' 45" west latitude. Texcoco has an altitude of 2,250 metres above sea level. It has a total territorial extension of 418.69 square kilometres.

The municipality of Texcoco is bordered to the north by the municipalities of Tepetlaoxtoc, Papalotla, Chiautla and Chinconcuac; to the south by Chimalhuacán, Ixtapaluca, and Chicoloapan; to the west by Atenco and Nezahualcóyotl; and to the east by the states of Tlaxcala and Puebla, as shown in Illustration 1.

The National Institute of Statistics and Geography (INEGI) carried out the population count in 2020 at the national level, and reported that the municipality of Texcoco has a population of 277,562 inhabitants. It should be noted that 2020 was the last population census in Mexico.
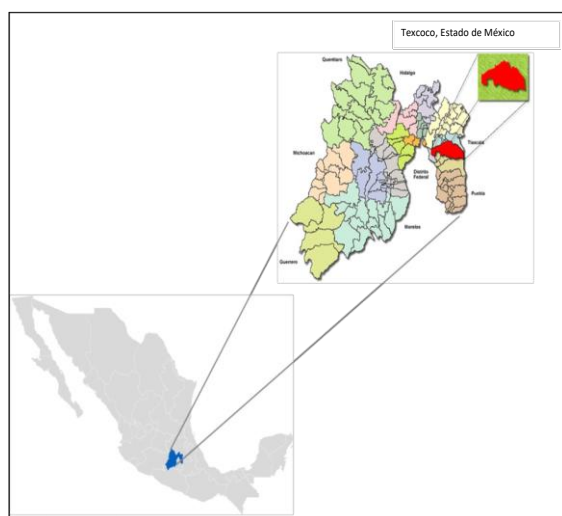
Box 1

Figure 2

Map of the location of the Municipality of Texcoco, State of Mexico

Source: Own elaboration

Object of study and unit of analysis

The object of study is Information and Communication Technologies (ICT) and the unit of analysis is the use of ICT for the payment of taxes through the "Referenced Payment" system.

Type and focus of the research

The type of research is basic, and the research approach was qualitative descriptive as well as quantitative, as the surveys were systematised in SPSS software version 15.0 for Windows.

Method and techniques used

The method used was analytical with the content analysis technique. Survey and interview techniques were used for data collection. For the analysis of the surveys, the statistical method was used in order to calculate descriptive statistics. SPSS (Statistical Product and Service Solution) software version 15.0 for Windows was used to collect, count, present, synthesise and analyse the survey data. This facilitated data capture, data analysis and systematisation.

Research sample

The type of sampling was non-probabilistic. Due to the fact that we did not have access to the complete list of companies and taxpayers registered in the Confederation of National Chambers of Commerce, Services and Tourism of Mexico (CONCANACO-SERVYTUR Mexico), this registry forms the total population of the universe of the sampling frame, and therefore, it was not possible to know the probability that each individual and/or company would be selected to have a statistical sample. Therefore, it was decided to select a convenience sample, i.e. from the population that was available and agreed to answer the survey. In this sense, only 110 taxpayers agreed to answer the survey, it is worth mentioning that the survey was carried out during three days and during working hours outside the offices of the module of the SAT offices in Texcoco, and they were randomly invited to participate by answering the questionnaire. Therefore, the research approach is considered mixed and does not introduce biases with respect to the population, since it is not possible to infer about the total population, however, the study provides empirical elements and an exploratory approach on the use and opinions about the Referenced Payment.

The field instrument

The survey was designed to measure the following variables and categories: a) the taxpayer's profile, where he/she was classified according to his/her branch of activity; b) the regime and line of business according to Mexican tax legislation; c) the different tax obligations he/she is subject to comply with; d) the type of ICT used to comply with his/her tax obligations; e) the use of the Pago Referenciado to comply with the tax authorities.

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Results

Based on the survey, the following results were obtained.

Economic activity carried out by taxpayers

88.5% of the taxpayers interviewed carry out activities in the tertiary sector, 8.85% carry out activities in the secondary sector and 2.65% are in the primary sector, so it is inferred that most of the taxpayers interviewed are service providers, such as transport, health, and traders, among other activities.

Tax regime under which taxpayers are taxed according to their economic activity

Most of the taxpayers surveyed are classified in the "Tax Incorporation Regime" (RIF), which amounts to 66.67%; most of the taxpayers in this regime are individuals providing services such as printing, restaurants, among others. This regime applies to taxpayers who only carry out business activities, sell goods or provide services, as long as they obtain income from salaries, wages, leasing or interest. One condition that must be met by this type of taxpayers is that their combined income does not exceed 2 million pesos per year, i.e., approximately $100,000 dollars per year. On the other hand, 26.13% of the taxpayers surveyed are under the regime of legal entities. It is worth mentioning that the regime of legal entities includes for-profit companies such as commercial companies, financial leasing companies, among others (LISR, 2019).

6.31% of the respondents are taxed under the business and professional activity regime, such as veterinary and dental clinics and offices, also known as individuals with business activity, which includes hardware stores, hardware stores, kindergartens, kindergartens, schools, mini-supermarkets, grocery shops, bars, canteens, economic kitchens, cafeterias, restaurants, mechanic shops, among others. Finally, 0.9% are taxed under the regime of income similar to salaries, this regime is for individuals who decide to provide their professional services to companies or other individuals, sporadically or temporarily.

Type of taxes they are subject to pay

Taxes such as Value Added Tax (VAT) and Income Tax (ISR) are at the top of the list, with 34.04% and 36.14% respectively. Thus, most of the taxpayers surveyed are registered in the Tax Incorporation Regime (RIF); the third tax with the highest tax collection is the Flat Tax (IETU) with 22.48% and lastly, the Special Tax on Production and Services (IEPS) with 4.26%.

How they paid their taxes

According to the surveys conducted, 58.77% already pay their taxes by funds transfer and 41.23% still go to the bank window, but more and more taxpayers are finding it necessary to adapt to the new change in the payment of their taxes, since this new form of payment by funds transfer is no longer a payment option, but an obligation as a taxpayer.

What type of technology (ICT) do taxpayers use?

28.57% of the people surveyed have mobile phone technology, in second place, the Internet with 26.46%, followed by e-mail with 20.9%, 13.76% have wireless communication technology (Bluetooth and Wi-Fi) and lastly, cutting-edge technology (IoT applications), representing 10.32%.

Use of the Internet for tax returns and payments

Regarding the use of the Internet to pay their tax returns, the results obtained in the survey show that 88.29% of the taxpayers surveyed use the Internet to pay their taxes, while 10.81% do not use it and the remaining 0.9% do not apply.

Benefits of using technology in tax obligations

An important point to analyse is the factors by which taxpayers have benefited from the use of the Internet to pay their taxes; 34.6% save time, 32.7% consider that they save money, 30.04% think that it saves paper and space, and 2.66% do not apply.

Security and safeguarding of information

We sought to find out what taxpayers use as a security system to protect their information. It was found that 48.57% of taxpayers protect their information on the company's server, 31.43% protect their information on their PC and external disk, 16.43% protect their information online and in an Internet cloud, and 3.57% do not apply this question.

Knowledge of the referenced payment system

62.16% of taxpayers surveyed say that they do know about the Referenced Payment System, 36.04% not enough and 1.8% have not heard anything about it, so it can be inferred that most taxpayers are already familiar with this platform in the calculation and payment of their taxes under this platform implemented by the Mexican government.Taxpayers obliged to file their tax returns and pay their taxes through the Sistema Pago ReferenciadoAccording to the taxpayers obliged to file their returns and payments through the Referenced Payment System, 81.08% of taxpayers are obliged to file their returns through the new Referenced Payment Service, while 18.92% of taxpayers do not yet apply this modality due to lack of knowledge.

Is the Referenced Payment System useful and timely? 50.45% of taxpayers consider that the use of the Referenced Payment System has been useful and timely for the filing of their tax returns and payment of taxes, compared to the way of filing previously used. However, 41.44% of taxpayers consider that the use of the Referenced Payment service is not sufficient, because they consider it is deficient and sometimes slow to use, while 8.11% consider it is not useful and even stated that the previous way of filing tax returns was more practical.

Capacity for handling the Referenced Payment System

According to the implementation of the new Referenced Payment Service, 66.67% of the taxpayers have not found it necessary to train or become trained in the handling of this new system; although 33. 33% of taxpayers have needed to be trained in the use of this new system, because they consider that it is a bit more complicated to use and difficult to understand, so they have had to seek some kind of advice either from a Public Accountant or from one of the SAT offices to obtain better advice on the use and management of the system.

Reasons to consider when implementing the Sistema de Pago Referenciado (Referenced Payment System)

Some of the main objectives considered by taxpayers to be covered by the implementation of the new Referenced Payment system by SAT is savings, since 28.08% of the taxpayers surveyed consider that saving paper, time and money has been the main objective covered by the implementation of the Referenced Payment. Taxpayers no longer have to go to SAT offices or bank branches, thus saving time and money, and most taxpayers used to spend a large part of their time in carrying out their formalities to comply with their obligations in due time and form. Consequently, the use of so much paper is avoided, as information can now be stored on electronic devices such as USB sticks, hard disks, or mobile phones.

According to the study, 25.77% of respondents believe that the use of this system will reduce tax evasion currently registered in Mexico, while 27.69% mentioned that it will increase tax collection, and 15.88% of taxpayers believe that it is a measure to stay ahead as an electronic government in order to streamline certain bureaucratic procedures.

Finally, 3.08% of taxpayers did not generate an opinion because they have not used this system.

Efficiency rating of the Referenced Payment System

The results show the acceptance of the system among taxpayers, where it can be seen that 45.05% consider the efficiency level to be good, while 23.42% indicate that the efficiency level has been excellent, allowing to speed up the fulfilment of their obligations, while the other 20.72% indicate that the efficiency level has been regular. 72% indicate that the performance of this system has been fair and that there is still much room for improvement to provide a better service, which suggests that taxpayers have a different perspective on the referenced payment system and that the sole purpose is to have a quality, efficient and effective system that facilitates the submission of their obligations. Finally, 10.81% did not express an opinion because they have not used it.

Discussion

From the results obtained from this research, it can be inferred that there are different sectors in which taxpayers in the municipality of Texcoco pay taxes, being the main generator of tax revenues the tertiary sector, and according to the field results, 60.36% of taxpayers are in the Tax Incorporation Regime (RIF), being these the main subjects that contribute to public spending through the payment of VAT, ISR and IETU in the municipality of Texcoco, State of Mexico. It can be said that the taxes that finance the public expenditure of this municipality come from taxpayers who pay taxes in the RIF, in such a way that the government has resources to meet its obligations to society, as mentioned by Bonilla López (2002).

On the other hand, as mentioned by Díaz Lazo, Pérez Gutiérrez, & Florido Bacallao (2011), we are currently living in an era of booming digital technologies, characterised by constant scientific and technological changes and innovations. These findings are congruent with the results of the research, since 100% of the respondents make use of some type of ICT, such as the Internet, wifi, local servers, mobile telephony, email, among others. In such a way that the Mexican Government is using ICTs that are nowadays in vogue as a mechanism for the calculation and payment of tax contributions. As is happening in other countries in Latin America and Europe, this is in agreement with Armas A. & Colmenares de Eizaga (2007).

In the above context, the results show that more and more taxpayers are using information technologies to comply with their tax obligations. In this respect, the survey showed that 58.77% of taxpayers use the transfer of funds to make tax payments, which agrees with Jiménez (2003) in mentioning that ICTs have been a tool that facilitates timely compliance in the payment of taxes. Therefore, 88.29% of the respondents use the Internet to make their tax returns and payments, due to the multiple benefits as mentioned by Macau (2004) when stating that the use of ICTs reduces costs and improves management information, which is consistent with the statement of a taxpayer with more than 20 years in his company when saying:

"…Since the implementation of the online payment of taxes and returns through the Internet as the Referenced Payment system, he considered that many of the businesses in Texcoco have felt a noticeable change since we save time going to the bank or dealing with the people at the bank and the SAT, and the process is faster". (Anonymous taxpayer, 2019).

This research allowed us to understand that the Referenced Payment system, far from being a headache for taxpayers, has been a friendly system, since 66.67% of the respondents did not need to undergo training, 50.45% said that the platform is simple and easy to use, 45.5% said that the system is good. However, there are those who believe otherwise, as one taxpayer who refuses to use the system commented:

"It is annoying to be dealing with accessing the page and even more so when I know that it is a service that is supposed to be available 24 hours a day and that if I do not do it on the date stipulated by the SAT, I have to pay more in surcharges" (Anonymous taxpayer, 2018).

In this regard, Rovira Ferrer (2011) mentions that despite the most advanced technologies, the tax administration still has deficiencies, since the rate of attention to all taxpayers' demands is still not one hundred percent, especially during tax payment periods, when the Referenced Payment platform is saturated.

Conclusions and recommendations

In addressing the research on Federal Tax Collection through ICTs, it is worth mentioning that the methodology designed has proved useful to conclude that the Referenced Payment is an efficient system that benefits the taxpayer and the government, the success is justified by the savings in paper, time, money and highlighting the flexibility of management at all times of the information. In addition, it allows to obtain guidance and advice via telephone or online, which speeds up the development of certain procedures. The results show a positive acceptance by taxpayers, despite being a system that came to modify and revolutionize the custom that had been in place for many decades, now it remains to measure its effectiveness for tax collection at the national level.

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However, the improvement of this system does not meet all the government's expectations, since it must be improved so that the tax administration can verify that the information captured by the taxpayer is true, since it is often the taxpayer who feeds and manipulates the system. Therefore, it is concluded that a limitation of the Referenced Payment system is that it is only focused on efficiency and not on effectiveness, therefore, tax evasion is still present.

In general, it is considered important to highlight that there is no 100% improvement in the implementation of this system, since there is no virtual surveillance to attack the threats, dangers and problems faced by taxpayers with the confidentiality of their information.

In addition, it is recommended to continue with the research and to evaluate the Referenced Payment system, its effectiveness in increasing tax collection and decreasing tax evasion in Mexico, starting with the government with the fourth transformation of President López Obrador.

Declarations

Conflict of interest

The authors declare that they have no conflicts of interest. They have no known competing financial interests or personal relationships that might have appeared to influence the article reported in this paper.

Author contribution

Teja-Gutierrez, Rebeca: Contributed with the project idea, research design, research type, approach, method, technique, field instrument design and application. She carried out the data analysis and the writing of the article.

Nidia-López,Lira: Supported the research design, data collection and systematization of the results. She also helped in the writing of the paper.

Loera-Suarez Verónica: She carried out the systematization of the background for the development of the state of the art. She also collaborated in the collection of data and the writing of the article.

Abbreviations

CFF. Federal tax code

CIEC.Confidential electronic identification code

CONCANACO-SERVYTUR. Confederation of National Chambers of Commerce, Services and Tourism of Mexico

e.Signature. Electronic signature

FIEL. Advanced electronic signature

IEPS. Special tax on production and services
IETU. Flat rate business tax

INEGI. National Institute of Statistics and Geography

ISR. Income tax

VAT. Value added tax

LISR. Income tax law

LIVA. Value added tax law

GDP. Gross Domestic Product

RIF. Tax incorporation regime

SAT. Tax Administration Service

ICT. Information and Communication Technologies

USB. Universal Serial Bus

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