

Tax administrative challenges of the digital economy: the Croatian experience

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Abstract

In a modern and dynamic market, complex social change affects society. The main drivers of change today are the speed of development of emerging technologies and increased digital connectivity, creating the digital economy. This article outlines the need to digitalise the Croatian tax administration to harmonise with other European Union member states, which are in the process of moving to digital delivery. The article analyses the strengths, weaknesses, opportunities and threats of the Croatian tax administration to evaluate the current implementation of electronic services and to suggest how it can improve its services through digitalisation. The results showed weaknesses, such as underdeveloped information and communications technology in rural Croatia, slow development of e-government and business, and data security problems; together with opportunities, such as lower hardware and software prices and to attract foreign investments.

Key words: digitalisation, tax administration, tax compliance, Croatia

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1. INTRODUCTION

Modern electronic communications and high-speed internet connectivity or services at lower costs are the main drivers of change in our economy and society. Digitalisation stimulates economic growth by creating new jobs, increasing savings by both individuals and public and private companies, improving productivity and offering new possibilities for personal expression and motivation. Digitalisation also drives high-level scientific research and innovation, and attracts a better-qualified workforce. It provides economic value at scale across capital, technology and employment.

In the European Union (EU), member states, including Croatia, apply regulatory policy for the welfare of economies and society. Regulation must be in the public interest. Digital regulation requires careful design to support economic development, investment, innovation and the relationship between member states, citizens and business. Fiscal policy plays an important role in shaping digital regulation to stimulate economic growth within the single market, reduce the tax burden of companies, and remove barriers, which could discourage investment and growth. On the other hand, the digital economy and digital sector must fairly contribute to the development of public finances, including taking account of the largest taxation problems in the single market: tax avoidance and aggressive tax planning.

The digital economy and the digital way of life are replacing traditional society, and affect every aspect of life, including tax systems, tax administration and tax procedures. Digitalisation of tax administration provides benefits for the secure collection of data and in determining tax liabilities for individuals, and the public and private sector generally. Digital tax procedures will better establish, collect and control tax revenues. By implementing digital tools, tax administration is better organised and more efficient, both in combating abuse and in improving the quality of tax reporting and tax collection.

In Croatia, a small country with an open economy and limited resources, the process of digitalisation within the tax administration requires radical changes in the way it is organised. It requires significant financial investment to create the electronic management and information systems to improve tax compliance by all taxpayers. Important factors in the development of an information society are the greater transparency that comes with access to public sector information, improved public administration and management, reduction of administrative burdens and addressing tax evasion. An information society enables broader participation of its citizens in digital culture, increases social capital and develops creative competencies.

This article addresses Croatia's need to digitalise its tax administration so that it is in harmony with other EU member states as they implement digital tax administration. The article analyses the strengths, weaknesses, opportunities and threats (SWOT) in the current implementation of information and communications technology (ICT) within the tax administration. Croatia acceded to the EU on 1 July 2013. Its tax administration faces great challenges, especially harmonisation with the comprehensive and modern approach of the EU and its objectives of fairness, competitiveness, integrity of the single market and sustainability in an economy becoming progressively more digital.

Following this introduction, section 2 of the article identifies the importance and characteristics of the digital economy, and key features and data about digital public services in Croatia. Section 3 describes the e-government model in Croatia and provides a review of the legal framework in the EU as it applies to Croatia. Section 4 provides

key features of the Croatian tax administration and uses a SWOT analysis of its electronic services. Section 5 concludes with recommendations for future research.

2. IMPORTANCE AND CHARACTERISTICS OF THE DIGITAL ECONOMY

In general, the digital economy, also known as the internet economy, refers to an economy based on ICT. As a new form of economy based on digital technologies, it is one of the most appealing opportunities for business growth and development. A recent study has shown that ‘it grows seven times faster than any other branch of economy and produces almost five new jobs for every two that are lost in the “offline” economy’.¹ Moreover, information, innovation and creativity form its basis, aiming at the optimal development of economic potential. To achieve successful improvement in the digital economy, every EU member state needs to have a supporting infrastructure (networks, telecom, hardware and software), e-commerce, e-government, and modernised ways of conducting business. This includes new skills, competences and processes. The role and level of development of the digital economy varies depending on the economic development of a country. Therefore, digitalisation is a very important process, as it is accompanied by a range of factors such as increased connectivity through faster and cheaper internet services, networking, mobility, integration, e-business, digital products and services, and new organisational forms.

To ensure that the EU member states, including Croatia, sustain their position in the digital economy, the European Commission in 2015 set out its Digital Single Market Strategy. A political priority of the European Commission is to open digital opportunities for individuals and businesses in markets and to create a stable tax framework for the digital economy to stimulate innovation, ensure tax certainty for business investment and to prevent new tax loopholes emerging in the EU market. The Digital Single Market Strategy is built on three main pillars:²

1. ‘[b]etter access for consumers and businesses to online goods and services across Europe [which] requires the rapid removal of key differences between the online and offline worlds to break down barriers to cross-border online activity’;
2. ‘[c]reating the right conditions for digital networks and services to flourish [which] requires high-speed, secure and trustworthy infrastructures and content services, supported by the right regulatory conditions for innovation, investment, fair competition and a level playing field’; and
3. ‘[m]aximising the growth potential of [the] European Digital Economy [which] requires investment in ICT infrastructures and technologies such as Cloud computing and Big Data, and research and innovation to boost industrial competitiveness as well as better public services, inclusiveness and skills’.

¹ Daniel Mondekar, ‘The Digital Economy in Southeast Europe: Opportunities and Challenges’ (Friedrich Ebert Stiftung Analysis, [26 September 2017]) 3, http://www.fes-croatia.org/article/?tx_news_pi1%5Bnews%5D=304&tx_news_pi1%5Bcontroller%5D=News&tx_news_pi1%5Baction%5D=detail&cHash=645035ea5e44f214950e01692ae7733c.

² European Commission, *A Digital Single Market Strategy for Europe*, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, COM(2015) 192 final, Brussels, 6 May 2015, 3-4.

2.1. Features of the digital economy

From a tax perspective, the Organisation for Economic Co-operation and Development (OECD) describes the key features that are relevant in the area of the digital economy as:³

1. '[m]obility with respect to (i) the *intangibles* on which the digital economy relies heavily, (ii) *users*, and (iii) *business functions* as a consequence of the decreased need for local personnel to perform certain functions as well as the flexibility in many cases to choose the location of servers and other resources';
2. '[r]eliance on data, including in particular the use of so-called "big data"';
3. '[n]etwork effects, understood with reference to user participation, integration and synergies';
4. '[u]se of multi-sided business models in which the two sides of the market may be in different jurisdictions';
5. '[t]endency toward monopoly or oligopoly in certain business models relying heavily on network effects';
6. '[v]olatility due to low barriers to entry and rapidly evolving technology'.

2.1.1. Mobility of intangibles, users and business functions

Intangibles are important elements in the creation of value and economic growth in different companies. In most cases, intangibles are present where technology is incorporated into a business model to manage tangible resources. For example, in companies, this can be software important for developing new products. In terms of tax rules, 'the rights to intangibles can often be easily assigned and transferred among associated enterprises, with the result that the legal ownership of the assets may be separated from the activities that resulted in the development of those assets'.⁴

In addition to intangibles, users and customers also play an important role. They can carry out commercial activities while travelling across borders. A typical example is when they reside in one country, purchase an application in a second country and use the application from a third country. The problem that arises is the identity and destination of users.

However, businesses are able to choose the optimal location for production activities, even if that destination may be distant from the destination of customers or the destination of other stages of production. Therefore, advances in technology, including information management software and personal computing, 'have significantly decreased the cost of organising and co-ordinating complex activities over long distances'.⁵

³ OECD, *Action 1- 2015 Final Report, Addressing the Tax Challenges of the Digital Economy*, OECD/G20 Base Erosion and Profit Shifting Project (OECD Publishing, 2015) 64-65.

⁴ Ibid 65.

⁵ Ibid 65.

2.1.2. *Reliance on data*

To increase the importance of businesses in the digital economy, data gathered from users and customers plays an important role. This data can include personalised and non-personalised data which can be collected in a number of ways, for example when registering for an online service, or recoding internet browsing preferences.. Given the massive use of data, there are issues with both accuracy and storage capacity. To solve these problems and take full advantage of the data, data analytics are becoming a driver for innovation in a number of scientific areas.

This is particularly evident in China, which is a major worldwide investor in digital technologies and one of the world's leaders in innovation and technologies in the digital economy. A recent McKinsey report has noted that the 'current value of China's e-commerce transactions is estimated to be larger than in France, Germany, Japan, the United Kingdom, and the United States combined [and] [p]enetration of mobile payments among China's internet users grew from just 25 percent in 2013 to 68 percent in 2016'.⁶

2.1.3. *Network effects*

These effects refer to the fact that decisions of users may have a direct impact on the benefit received by other users'.⁷ It can also refer to a communications network. The more users are on a network, the higher the value that is created. A typical example is a media sharing site (for example, LinkedIn and Facebook), where the content is generated by users and the experience of users is enhanced as additional users join and share content.

2.1.4. *Use of the multi-sided business model*

This model is 'based on a market in which multiple distinct groups of persons interact through an intermediary or platform, and the decisions of each group affect the outcome for the other groups of persons through a positive or negative externality'.⁸ An example of a positive externality is the card payment system, which relies on scale to increase customer benefits, while negative externalities can be found in the media industry (for example, newspapers, magazines, television, radio, and telephone books). 'Flexibility' and 'reach' present 'two key features of multi-sided business models in the digital economy': the former is important because the digital economy 'has enhanced the ability to collect, analyse and manipulate user and market data', while the latter 'makes it easier to locate the different sides of the same business model in different countries'.⁹

2.1.5. *Tendency toward a monopoly or oligopoly in certain business models*

Network effects play an important role in helping companies in certain markets to achieve a monopoly or oligopoly. However, the digital economy allows wider market influence, which can both create or moderate monopoly or oligopoly market power.

⁶ McKinsey and Company, *Digital China: Powering the economy to Global Competitiveness*, McKinsey Global Institute Report (December 2017) 1.

⁷ OECD, *Addressing the Tax Challenges of the Digital Economy*, above n 3, 70.

⁸ Ibid 71.

⁹ Ibid 72.

2.1.6. Volatility

Digital technologies drive internal business innovation. Improved or new procedures, products, and services can drive business changes ranging from the incremental to transformational. Organisations are focused on reducing costs, thus digital solutions are increasingly more accepted. Growth in ICT research and development will continue the transition to an information society and digital economy.

These features of a digital economy are seen as important for tax administration in all EU member states, and, as will be shown below, Croatia is far below the EU average.

To take one example, connectivity is an important feature of network effects, and although Croatia is significantly improving, it still performs worse than other EU member states. Therefore, neither government as a whole, nor the tax administration can work more effectively given low internet connectivity, speed and standalone fixed broadband. Consequently, the Republic of Croatia introduced a Strategy for Broadband Development for the period 2016-2020. The 2016-2020 tax administration strategy will use this to expand and enhance electronic business activity and communication with taxpayers, and to make tax compliance easier and faster. Despite the barriers, the Croatian tax administration has focused on continuous improvement of electronic services, with a priority placed on developing electronic communication with taxpayers.

2.2. Digital economy and society index

There are several indicators of the current state of digitalisation in the EU. One of them is the Digital Economy and Society Index (DESI), which is structured across the five principal areas and sub-dimensions and indicators set out in Table 1.

Table 1: Structure of DESI

Dimension	Sub-dimension	Indicator
Connectivity	Fixed Broadband	Fixed Broadband Coverage
		Fixed Broadband Take-up
	Mobile Broadband	Mobile Broadband Take-up
		4G Coverage
		Spectrum
	Fast Broadband	Fast Broadband Coverage
		Fast Broadband Take-up
	Ultrafast Broadband	Ultrafast Broadband Coverage
		Ultrafast Broadband Take-up
	Broadband Price Index	Broadband Price Index

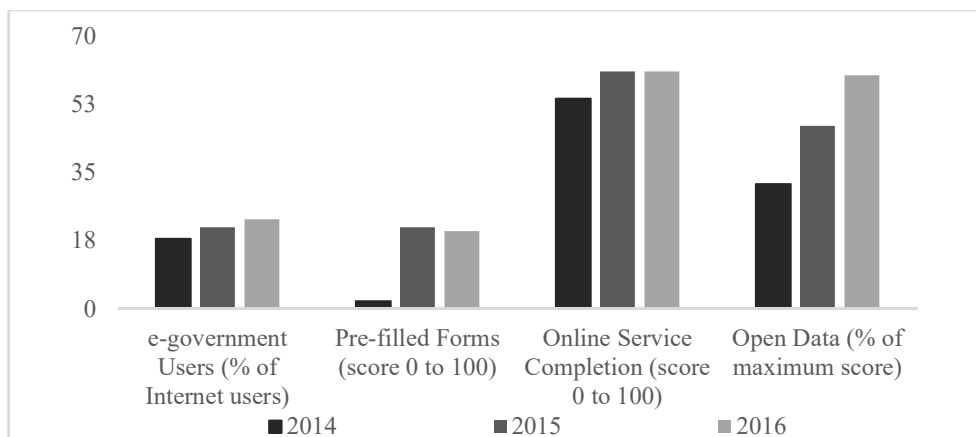
Digital Skills	Basic Skills and Usage	Internet Users
		At Least Basic Digital Skills
	Advanced Skills and Development	ICT Specialist
		STEM Graduates
Use of Internet	Content	News
		Music, Videos and Games
		Video on Demand
	Communication	Video Calls
		Social Networks
	Transactions	Banking
		Shopping
Integration of Digital Technology	Business digitisation	Electronic Information Sharing
		Radio-frequency Identification Technologies
		Social Media
		e-invoices
		Cloud
	e-commerce	SMEs Selling Online
		e-commerce Turnover
		Selling Online Cross-border
Digital Public Services	e-government	e-government Users
		Pre-filled Forms
		Online Service Completion
		e-government Services for Business
		Open Data
	e-health	e-health Services

Source: European Commission, *Digital Economy and Society Index (DESI) Methodological note 2018* (2018) 4, http://ec.europa.eu/information_society/newsroom/image/document/2018-20/desi-2018-methodology_E886EDCA-B32A-AEFB-07F5911DE975477B_52297.pdf.

The EU countries that most improved their digital economies in 2018 were Denmark, Sweden, Finland, and the Netherlands. At the bottom of the list were Romania, Greece, Bulgaria, and Italy. For digital public services, Finland had the highest score, followed by Estonia, Denmark and Spain, while Greece, Hungary and Romania had the lowest scores.¹⁰

In Croatia, digital services are provided through the e-citizens service. The e-citizens service consists of three main components (Central Government Portal system; National Identification and Authentication System; and Personal User Box System) and creates a joint public sector infrastructure. It provides simplified and faster communication between citizens and public administration and increased transparency of the public sector. According to DESI 2018, Croatia ranks 22nd out of the 28 member states in general. Croatia showed some progress during 2017 in terms of e-government, but remains at rank 25 in the DESI 2018 due to instabilities related to government policy and government decisions.¹¹ Figure 1 provides a more detailed overview of data and values related to digital public services in Croatia in 2014-2016.

Fig. 1: Digital Public Services



Source: European Commission, *Europe's Digital Progress Report 2017* (2017), country profile Croatia.

Observed data shows an increase in the period 2014-2016 despite instabilities in the government. There was an increase in the number of e-government users from 18 to 23 per cent and in the percentage of the maximum score of open data from 32 to 60 per cent. The only decrease was observed in the use of pre-filled forms, the score of which fell from 21 to 20 per cent. The e-citizens web portal was introduced in 2014, so the first results in terms of effectiveness were observed in 2015, and the use of pre-filled forms jumped from a score of 2 to 21 per cent.

E-citizens is a one-stop shop portal through a main web page (gov.hr), where the web pages of all the state administration bodies are included. It includes a personal mailbox dedicated to communication with the government and other state institutions. All e-

¹⁰ European Commission, *Digital Economy and Society Index (DESI) 2018* (2018), <https://ec.europa.eu/digital-single-market/en/de>

¹¹ European Commission, *Digital Economy and Society Index (DESI) 2018*, country profile Croatia (2018), 9, <https://ec.europa.eu/digital-single-market/en/node/66894>.

services of governmental institutions are found on the platform. These e-services include, for example: e-registers (birth and marriage); insurance records and health insurance; medical appointments; electronic employment status and tax cards; e-voters; e-certificates of residence, vehicle ownership, and online residence applications. As this is new to Croatia, it makes life easier and simpler for Croatian citizens. By activating their account through an online application (on computers and smart devices), citizens can see or obtain a wide range of government generated information and documents.

Based on the DESI, the key to success of the digital economy is the digitalisation of business to create an interactive interface and enable constant availability and a personalised approach. Therefore, Croatian companies and governmental institutions need to accelerate the digitalisation of business processes. This requires creation of new business processes that have greater flexibility and automation and require as little documentation and form filling as possible, while simultaneously ensuring a high level of security. Croatia's progress is not yet satisfactory.

For tax administration and e-government in Croatia, which aims for more efficient and effective public administration by supporting a new generation of e-government services, the most important dimension to improve on the DESI is digital technology. A more effective use of digital technology in public services will fulfil a more demanding set of business and citizens' needs and simultaneously reduce business and operational costs. In particular, the use of electronic systems in areas such as public procurement or taxation will increase efficiency, improve transparency and reduce opportunities for corruption and evasion.

3. E-GOVERNMENT MODEL IN CROATIA

The literature analysing the development of e-government is extensive.¹² The information age and knowledge society underpin the development of e-government. E-government has different definitions, but there is unanimity that it embodies delivery of services to citizens via the internet. The goal is to capture for government the benefits of the digital economy. Griffin and Halpin reported that the evaluation of e-government focuses on e-government stages of growth, electronic service delivery via the internet, stakeholder involvement and the cost and benefit of e-government.¹³ E-government aims to improve the quality of government and citizens' participation by facilitating citizens' ability to have their say in government, receive services from government organisations and be better informed about laws, regulations, policies and services. As such, it brings administration closer to citizens and businesses using the internet. The benefits are lower labour costs, improved efficiency and higher quality of services and transparency.

In 2017, Croatia adopted the 2020 e-Government Strategy as the e-government and government digitalisation plan and strategic document. The objective is to achieve

¹² See, for example, Duncan Aldrich, John Carlo Bertot and Charles R McClure, 'E-Government: Initiatives, Developments, and Issues' (2002) 19(4) *Government Information Quarterly* 349; Stuart Bretschneider, 'Information Technology, E-Government and Institutional Change' (review of Jane E Fountain, *Building the Virtual State: Information Technology and Institutional Change* (2001)) (2003) 63(6) *Public Administration Review* 738; Mete Yildiz, 'E-Government Research: Reviewing the Literature, Limitations, and Ways Forward' (2007) 24(3) *Government Information Quarterly* 646.

¹³ Dave Griffin and Eddie Halpin, 'An Exploratory Evaluation of UK Local eGovernment from an Accountability Perspective' (2005) 3(1) *Electronic Journal of e-Government* 13, 15.

interoperable government systems and services to provide e-government services and reduce bureaucracy. To achieve these objectives, the Croatian government faces several challenges. These include the training of public administration employees in the field of ICT, the creation of one-stop real-world shops, the regulation of business processes, the arrangement and collection of data in public registers and the development of a network which will provide ultra-fast access (100 Mbit and more) through public institutions, central government and self-government units.

The cost to overcome these challenges will be covered by national funds and co-financing by the EU under the Multi-Annual Financial Framework 2014-2020. It requires co-operation with other ministries, public institutions, businesses and the academic community. By implementing an interoperable government system, the Croatian tax administration may benefit from changes to its employment structure, which will increase flexibility. Digital administration will reduce the need for staff dealing with paper-based tasks. Staff will retrain and redeploy to provide services to taxpayers and manage compliance functions, such as crosschecking assets. To increase the flexibility of the tax administration, first requires harmonisation of the digital business model and the tax control model. Second, it requires amendment of the rules for the exchange of information between tax authorities internationally for effective prevention of tax avoidance.

Key strategies with which the e-Croatia 2020 Strategy is aligned include:¹⁴

1. the National Cyber Security Strategy (NCSS); and
2. the Strategy for Broadband Development in the Republic of Croatia 2016–2020.

Croatia complies with European Commission guidelines by providing and monitoring various services for citizens and businesses to develop its e-government. These services for both citizens and businesses include e-citizens, e-tax, e-health, e-schools, e-permit, e-tourism and many others. The preconditions for e-service development are electronic identification (eID), electronic documents (eDocuments), authentic sources, electronic safe (eSafe) and Single Sign On (SSO). In the area of finance and taxes, obligatory e-services include:¹⁵

1. fiscalisation: a service of the Tax Directorate which collects information on all invoices the moment they are issued;
2. services: submission of forms via the eTax portal, including groups of services/forms such as value added tax, income tax and contributions (JOPPD form), profit tax, consumption tax and lottery and prize draw competitions;
3. e-customs: the calculation and collection of tax revenues from customs duties on imports and exports, better and higher quality control of excise goods subject to excise duties;

¹⁴ Ministry of Public Administration, Croatia, *e-Croatia 2020 Strategy* (May 2017) 16, <https://uprava.gov.hr/UserDocsImages/Istaknute%20teme/e-Hrvatska/e-Croatia%202020%20Strategy%20-final.pdf>.

¹⁵ Ibid 34.

4. e-excise as of 1 September 2014: all excise duty payers and payers of special taxes are required to submit all forms electronically;
5. submission of Reports: for Receipts, Income Tax, Surtax and Contributions to Compulsory Insurance (JOPPD form);
6. electronic submission of all available forms: obligatory for taxpayers classified as medium-sized and large enterprises within the meaning of the Accounting Act.

Implementation of a computerised system will enable the tax administration to increase the efficiency of tax collection, make use of practically all data stored at the Croatian tax administration, select a reasonable number of taxpayers to be audited and improve the planning, conduct and control of tax audits. Automation of the tax audit process and use of software will expedite taxpayer audits, so they are less time-consuming for both taxpayers and tax officials, and audit quality will improve. Effective tax institutions and management of administration are essential to assure tax compliance. As tax administration largely relies on tax returns filed by taxpayers, control is exercised through the fiscalisation system; JOPPD form; and compliance risk management system risk analysis. This approach provides a coherent structure that encompasses the diverse actions needed to influence taxpayer compliance.

The objective of this strategy is also to increase the number of citizens who use aggregated e-services from 31.9 per cent in 2014 to 75 per cent in 2020, and the number of businesses from 92.7 per cent in 2013 to 97 per cent in 2020.¹⁶

3.1. Legal framework of the e-government model

Despite new and digital technologies, the question of information, data security and personal privacy is becoming a fundamental issue. It should be determined which amendments to existing regulations and/or adoption of new regulations at the national and local levels and at the level of public services are important for the digital economy and digital rights.

In the context of the European legal framework, the following directives, regulations and proposals are relevant: Directive 2006/123/EC on services in the internal market, Directive 2014/55/EU on electronic invoicing in public procurement, Regulation 910/2014 on electronic identification and trust services for electronic transactions in the internal market, Directive 2014/24/EU on public procurement, Directive 2011/24/EU on the application of patients' rights in cross-border healthcare, Directive 2003/98/EC on the re-use of public sector information, amended by Directive 2013/37/EU, and Proposal for a Directive of the European Parliament and of the Council on the accessibility of public sector bodies' websites.

¹⁶ Ibid 46.

Following its accession to the EU in 2013, Croatia also needs to comply with the EU General Data Protection Regulation.¹⁷ The legal framework of the e-government model in Croatia is regulated by the following legislation:¹⁸

1. Constitution of the Republic of Croatia (Official Gazette No 56/90, 135/97, 8/98, 113/00, 124/00, 28/01, 41/01, 55/01, 76/10, 85/10);
2. Act on Personal Identification Number (Official Gazette No 60/08);
3. Act on Protection of Personal Data (Official Gazette No 103/03); and
4. Act on Information Security (Official Gazette No 79/07).

This legislation establishes guidelines to resolve digital market issues and outline certain public administration rules. In future, there will be changes as the digital market expands.

4. TAX ADMINISTRATION ANALYSIS

The Croatian tax administration was founded in 1994 and has developed a high level of expertise and professionalism. It works within the Ministry of Finance and its primary task is to implement and administer tax regulations and regulations concerning the payment of obligatory contributions. The primary responsibility of the Croatian Tax Administration is to conduct the following:¹⁹

1. '[a]ssessment and collection of taxes and obligatory contributions';
2. '[review of] tax returns, their timely submissions and liability';
3. '[d]etermination of tax base and tax obligation';
4. '[t]ax audit – conducting tax audit and supervision of the calculation for obligatory contributions';
5. '[e]nforced collection – conducting enforced collection in order to collect taxes and obligatory contributions'.

Accession to the EU in 2013 brought new challenges for the tax administration, such as harmonisation of tax and customs systems with EU standards. The greatest changes have been recorded in the value added tax (VAT) system. The co-operation with other member states' tax administrations also needed to be improved. Currently, the Croatian Tax Administration conducts multilateral controls with other member states to prevent tax evasion and abuse of the VAT system. The organisation and operations are run in compliance with the following values and ethical principles: application of regulations;

¹⁷ EU General Data Protection Regulation replaces the Data Protection Directive 95/46/EC, Official Journal L 127, 23 May 2018.

¹⁸ Marija Boban, 'Information Security and the Right to Privacy in Digital Economy – The Case of Republic of Croatia' (2014) 37th International Convention on Information and Communication Technology, Electronics and Microelectronics (MIPRO) 1687, 1689, https://bib.irb.hr/datoteka/730071.DEGLGPS_01_2988.pdf.

¹⁹ Ministry of Finance, Republic of Croatia, *External and Internal Communication Strategy for the 2012–2015 Period* (Zagreb, October 2012) 1, https://www.porezna-uprava.hr/en/EN_publikacije/Documents/PU_strategija_publikacija_eng_preview.pdf.

fair, just and equitable treatment; efficiency; professionalism; and willingness to co-operate.

As a territorial organisation, the tax administration consists of the central office in Zagreb, seven regional offices (Large Taxpayers Office national, six regional offices territorial) and 57 local offices. The tasks are regulated by the *Tax Administration Act* as well as constitutional principles. Pursuant to this legislation, it provides expert opinions in individual cases on the application of regulations, participates in the work of the EU institutions in order to implement common tax policies, maintains administrative co-operation with the EU member states and third countries, and participates in the preparation and conclusion of international agreements.

According to the Strategy Plan for the 2016–2020 period, the following strategic objectives will be emphasised:²⁰

1. Fair and efficient public revenue collection – to achieve this, the tax system needs to be simple with clear regulations, taxpayers familiar with the procedure, awareness raised in society and the information system modernised, especially the set of electronic services ePorezna (e-tax administration). Easily accessible services will raise voluntary compliance to a higher level, where the tax administration will not have to perform costly audit procedures or enforced collection. Some of the activities that need to be provided within this strategic goal are: continuous modernisation of the information and telecommunications system to support all business processes; further development of the tax administration's website and call centre as the foundation of modern communications with taxpayers; creating new channels for targeted communications with taxpayers; strengthening the role of the central office in terms of capacity, structure and optimisation of internal organisational units; revision of tax regulations and establishment of a rational tax system etc.
2. Protection of the society and financial interests of the Republic of Croatia and the EU: this will be improved by introducing a compliance risk management system, with the aim of reducing any benefits that taxpayers might gain from any form of tax evasion and the aim of increasing confidence in the system. The activities within this strategic goal are: application of modern tools for detection of high-risk taxpayers and continuous development of the database and system for analysis of information on taxpayers; improvement of audit processes using information and telecommunications tools for e-audits and e-commerce; acceleration of the process of penalising taxpayers who do not comply with the law; and improvement of the exchange of data and other information with the EU member states and third countries.
3. Orientation towards co-operation and partnership to achieve a higher level of taxpayers' satisfaction; trust between taxpayers and the tax administration needs to be more developed. In order to strengthen the partnership, open communication with taxpayers is essential because it serves to inform and educate taxpayers about their rights and obligations. The strategic guideline to

²⁰ Tax Administration, Ministry of Finance, Republic of Croatia, *Strategy of the Tax Administration for the period 2016–2020* (Zagreb, 2016) 6–9, <http://www.porezna-uprava.hr/en/Documents/TA%20Strategy%202016-2020.pdf>.

improve this is distance learning for staff. The planned activities are: continuous strengthening of organisational culture; developing quality service in line with taxpayers' needs; 'Service Catalogue' development and continuous monitoring of key performance indicators; business process management regarding internal and external changes; education of taxpayers; performance monitoring of all the tax administration's units; and monitoring of taxpayers' satisfaction'.

4. Improvement of efficiency in the use of resources available to the tax administration to achieve the best possible results: financial resources need to be used effectively for funding necessary improvements; the information system must cover all core business processes and modern information and telecommunications equipment. EU financial sources will fund equipment modernisation. The activities planned within this goal are:²¹ improvement of the system of optimal planning and rational use of financial resources; establishment of a fully functional compliance risk management system; implementation of information and telecommunications solutions that will enable the simplification and automation of business processes; leaving employees more time for analysis and control; reduction of compliance costs; further development of intranet sites; and improvement of the exchange of information between public authorities in order to reduce administrative costs and improve services for taxpayers.

The strategic objectives are only for the 2016-2020 period, and the lack of publicly available reports from the tax administration makes it difficult to check the implementation status, especially with regard to the issues affecting digitalisation. Only the top management of the tax administration, headed by the general director, is responsible for monitoring and evaluating the implementation status and results. However, there are some key performance indicators publicly available on achievements and planned activities.

Key performance indicators of the tax administration show that the total cost of tax administration as a percentage of collected state budget revenues and other public levies amounted to (0.77) in 2014 and 2015, (0.80) in 2016 and (0.80) in 2017. For 2018 the plan is to be at the same level as in 2017. The number of services offered in ePorezna (e-tax administration), which is an important factor of digitalisation, increased from 25 (2014), 31 (2015) and 35 (2016) to 38 (2017). The 2018 plan is to increase to 40. The observable number of e-learning programs available for employees was 13 in 2016, 17 in 2017 and 23 planned for 2018. In addition, Crivelli presented the results of tax efficiency indicators where Croatia is ranked last among south-eastern EU countries (4.6).²² In future, the tax administration will require increased effort to achieve planned education of taxpayers and employees, adjustment of services in order to meet their needs and to modernise and simplify the tax system, so that it is available to anyone including on mobile phone applications.

The development of this modern tax administration system with e-services is limited by financial resources and infrastructure. However, the tax administration currently offers

²¹ Ibid 10.

²² Ernesto Crivelli, 'A basic tool to assess tax administration strength in emerging Europe' (2018) *Economics of Transition* (advance online) 30.

the following electronic services: ePDV electronic services for filing forms in the value added group of taxes; ePD electronic services for filing forms in the profit tax group; eID electronic services for filing taxes in the income tax group, ePKK electronic services for accessing the taxpayer's tax and accounting card, reviewing form status, accessing received forms and sending requests for electronic operations. Recently, the tax administration implemented two new e-services offered by ePorezna (e-tax administration) within personal income tax. They concern income earned abroad, so that taxpayers can fill in form INO-DOH or ZPP-DOH.

To create a modern digital tax administration, the process of digitalisation must consist of a standardised electronic form for filing tax returns; submission of accounting or other source data to support filings in a defined electronic format at a defined frequency; submission of additional accounting and source data and government access to additional data, such as bank statements; real-time cross-check of filings to prevent fraud and to assess tax without the need for tax forms.

As noted, the paucity of data requires a high level analysis of the current situation of the Croatian tax administration against the criteria identified above and in previous sections. To provide such a high level assessment of the critical elements of implementation based on the data available, a SWOT analysis of the tax administration's electronic services is shown in Table 2.

Table 2: SWOT Analysis of the Tax Administration's Electronic Services

<i>Strengths</i>	<i>Weaknesses</i>
- Professional information and telecommunication labour force - Information and communication services are free to use, easily available, well documented and secure - Lower costs of fulfilling tax liabilities - Connection with other public authorities and government institutions	- Lack of monitoring of key performance indicators - Data security problems - Shortage of information and telecommunication regulatory base - Underdeveloped information and telecommunication infrastructure in the countryside - Small percentage of information and telecommunication users of electronic services - Shortage of public access to the Internet - Slow development of e-Government and e-Business - Delays in formatting information in relation to the EU Member States - Lack of public presentation and citizen awareness
<i>Opportunities</i>	<i>Threats</i>
- Simplify tax procedures and reduce costs of taxpayers - Lower hardware and software prices - Improvement of compliance risk management system - Reduction of administrative costs and improvement of services to taxpayers - Development of Intranet sites - Rapid growth of ICT sector - Use of e-signature - Export of information and telecommunication services - Attract foreign investment - Broader application of information and telecommunication in the business and public administration sectors - Education and motivation of users for the use of electronic services	- Insufficient funds for modernisation - Insufficient number of employees - Brain drain - Diminishing opportunities to compete in the European and world markets - No reward system for employees - High dependency on external partners for improvement of core business processes

Source: Author's systematisation.

The implementation of new electronic services will be a great challenge for the public and tax administration. There are key risks due to limited financial resources,

insufficient skills, and the challenge of creating an information and communications infrastructure. These will be seen, for example: in digital exclusion in the sense that users or taxpayers do not have records in the appropriate digital format for compliance; lack of financial resources to simplify tax filings, or to buy new software which will comply with new requirements; inadequate security and privacy to avoid phishing and identity theft; and inadequate technological capabilities and standards. To create a more modern digital tax administration, some of these barriers need to be overcome. An essential element is the human factor. It will require a change in attitude towards taxpayers which makes all changes 'friendlier' for taxpayers. This includes providing assistance to taxpayers in fulfilling tax obligations electronically, timely control of fulfilment of tax obligations and efficient collection.

5. CONCLUSION

The digital economy as a concept and strategy will in future improve everyday life and create a dynamic environment. It will add value to industries, organisations and society. Communications and information technologies already make global markets available to small and medium-sized companies. It is no longer a privilege of the largest and wealthiest companies because now even the smallest companies can participate in the global market. Digitalisation enables easier and faster connection with and within companies, faster business operations and easier access to information necessary for doing business. Organisational structures must be designed to respond to the requirements of new processes and needs in a dynamic market. Data management has to be adapted to create a better connection with users for effective decision-making and to enable easier monitoring of their effect. Digitalisation significantly contributes productivity increases, creates new values and enables user monitoring of users, consumers and their personal habits. For all these reasons, digitalisation is attractive to government.

The developed world has embraced advances in new technologies and investment, but Croatia is lagging. In Croatia, the major benefit from digitalisation for its citizens will be to provide simpler, faster and more transparent services. The implementation of the electronic identity card (eID), on which an identity certificate can be stored for access to electronic service on the eGovernment portal, demonstrates this. The ePermit makes it possible to go through the entire procedure of issuing documents required for construction. For the health care system, the Central Healthcare Information System portal of the Republic of Croatia (CEZIH) allows citizens to arrange appointments with doctors, register newborn babies and check waiting lists for special medical treatment. There is also a mobile vehicle office for citizens living in rural areas or for those with disabilities or similar cases. For business users tax administration with the project ePorezna (e-tax administration) offers the following electronic services: ePDV electronic services for filing forms in the value added group of taxes; ePD electronic services for filing forms in the profit tax group; eID electronic services for filing taxes in the income tax group; and ePKK electronic services for accessing the taxpayer's tax and accounting card, reviewing form status, accessing received forms and sending requests for electronic operations. All of this is a part of future plan to create modern government and public administration only online, without paperwork.

Although, Croatia adopted the 2020 eGovernment Strategy, the current system will be upgraded by adopting new services. To overcome the challenges identified in the analysis and to enable Croatia to match the levels of infrastructure and service elsewhere

in the EU, changes require monitoring, including new legislation that will have practical implications, such as that related to issues such as copyright, consumer protection, privacy protection, and cybercrime. Croatia has legislation in force related to electronic communications²³, the *Act on Electronic Commerce*,²⁴ and other regulations which aim to require greater responsibility for publishing internet content.

A survey of Croatian citizens' satisfaction with digital public services by county should be an integral part of any future research. In order to know more about efficiency and the level of satisfaction of taxpayers and employees, a monitoring system that is more detailed and publicly available is essential. Recommendations for improvement in terms of challenges include: a quicker response to taxpayer expectations of contemporary e-service; increasing agility and responsiveness in dealing with rapid and unexpected changes; ensuring that everyday operations are supported by collaborative platforms and simplify integration needs; reducing the difficulty of transitioning to digital administration methods; developing new capabilities and establishing a data-driven and intelligence-led culture. This will ensure faster compliance processes, improved taxpayers service, prevention of tax fraud and evaluation of macro-economic trends and policy changes.

In the following 2018-2020 period the plan is to implement new e-services like the projects e-Business and e-Fees. The first project will allow business users to download all necessary documents on their computers or smart devices, such as certificates from the tax administration, health care insurance and pension insurance. The second project will serve as a system where business users or citizens will be able to pay certain fees on the spot or in advance, depending on their business operations. The objectives of all these projects are to reduce waiting lines and for administration, to achieve savings in maintaining devices such as printers and to adopt an online paper-free administration. In order to achieve an efficient digital tax administration, everyone must be involved: policy-makers, the tax administration, businesses, academia, accountancy firms and individual and business taxpayers.

²³ *Act on Electronic Communications*, Official Gazette, No 73/2008, 90/11, 133/12, 80/13, 71/14, 72/17.

²⁴ *Act on Electronic Commerce*, Official Gazette, No 173/03 [2003], 67/08, 36/09, 130/11, 30/14.