Roadmap for organizational, legal and technical reforms to improve public services

CITIZEN-CENTRIC APPROACH TO DELIVERY OF PUBLIC SERVICES

" Only good functioning administration can translate good policies into results that contribute to the development of the society. "

Introduction

The goal of each government is to advance the common goals of the society. Building a broad vision of the high goals or concerns of a society can generally be divided into the following priorities:

- improving the services for citizens;

- improving the productivity and efficiency of government institutions;

- strengthening the legal system and law enforcement;

- promoting priority economic sectors;

- improving the quality of life of marginalized groups; and

- to strengthen governance and increasing public participation.

To achieve these goals, governments around the world have embraced the e-government concept because through the application of technology as a tool, the government is most easily transformed from autocratic into civic-oriented government, most effectively changing the way of functioning and the way in which it deals with the information, it changes the attitude of officials and administration towards their jobs and the attitude towards the citizens. The concept of e-government introduces a new culture of work by imposing the need for building active partnerships between government, citizens and the private sector.

Accepting the e-government concept, governments at central and local level, publish important information online, automate procedures and connect with citizens electronically. One of the main motives is the belief that e-government can change from a clumsy and inefficient bureaucracy to a quick and efficient administration, and thus to change the image of the government for better. In this way, in addition to achieving other key goals, confidence by the citizens and companies towards the government would be built.

Although the concept of e-government has been in use over two decades, including the improvement of public services delivery, there are still challenges the governments are facing with in its successful implementation. It is a complex process that is determined by the development of technologies, the business sector demands and the citizens' personal habits. The governments are, therefore, expected to constantly have a clear vision, strategic and action plan for e-government, through which they will clearly determine the way they plan to improve their work and to improve further the delivery of public services, respectively, reach the high social goals.

Today governments and the public sector are under enormous pressure to continuously improve their work. A general success factor is the strong coordination, but in terms of public services, there are several challenges that the decision-makers are facing with:

- Political decisions for changes are necessary because often innovations in public services do not require big investments, and rather they are of technocratic nature. Equally, such decisions must be made on the basis of wide consultations with all stakeholders, primarily citizens, in order to build mutual trust and minimize possible resistance to changes.

- It is important to build the institutional capacities of existing institutions. In order to have sustainable reforms, sustainable institutions must be built.

- It is necessary to establish a system to stimulate innovative work both at the level of institutions that need to implement the reforms, and at the level of employees.

- Transparency helps in the implementation of changes in the public sector work because it avoids the barriers in the communication between institutions, citizens, and the accountability of institutions to the public.

- In most cases, in countries where the delivery of public services has successfully improved, investment in technology that supports the services is necessary. Service reform includes IT tools, systems, their simplicity to be easy to use, but also building capacity to use technology, and changing policies and the legal framework for the application of technological innovation.

Taking into account all these factors, the purpose of this document is to highlight the most current challenges and highest e-government priorities in the context of public services identified at EU level and, through appropriate recommendations, link them in a national context.

Harmonization of national reforms with the EU guidelines for e-government

By joining efforts at European Union level, the availability and acceptance of e-government services can be increased, and thus resulting in faster, cheaper, more user-oriented digital public services. Countless cross-border and digital public services contribute to competitiveness and make the EU a more attractive place for investment and living.

The European Union adopted the EU e-government Action Plan 2016-2020[1], which clearly outlines where it wants to reach the end of this period. The evaluation results of the previous Action Plan for e-government 2011-2015 showed that the Plan had a positive impact on the e-government development at European and Member States level. This has contributed to the harmonization of national e-government strategies and exchange of best practices and interoperability of solutions among member states. In particular, the Action Plan implementation led to the development of technological enablers that are key to facilitating access to and use of public services. However, citizens and companies still do not fully enjoy the benefits of digital services that need to be easily accessible across the EU.

Hence, the EU e-government Action Plan 2016-2020 puts the focus on accelerating the digital transformation of the government and it should serve as a catalyst for coordinating efforts to modernize the public sector and resources in the field of e-government. The plan sets out the following priorities:

- By 2020, public administration and public institutions in the European Union should be open, efficient and inclusive; they should provide unlimited, personalized, user-friendly and comprehensive digital end-to-end digital services for all citizens and companies in the EU;

- To use innovative approaches for designing and delivering better services in line with the needs and demands of citizens and companies;

- Public administrations (in the EU) to use the opportunities offered by the new digital environment to facilitate their interactions with stakeholders, and among themselves.

The Republic of North Macedonia has been following the development trends of the EU in this field for a long time, and at the very beginning of the e-Government concept (2000-2002), the basic principles and goals of e-government have been clearly identified. Hence, e-government measures were shortly included in strategic documents[2], and some of the same goals, although modernized and updated, are also found in the current Strategy of Public Administration Reform 2018-2022[3] (hereinafter: SRY). Given that the priority area 4- Providing services and ICT support to the administration is fully dedicated to e-government aspects, it speaks about the importance that the government gives to this process, respectively to the importance of improving the services, as the face of the administration that is visible to citizens.

A similar situation is encountered throughout the European Union, where, apart from retaining the principles, it is important that the activities that enable the application of these principles are repeated and renewed, since it can never be said that the principles are fully implemented and that there is nothing to be done further. After many years of implementation, it is clear that e-government is a self-evolving concept that is driven by new trends, new technologies and the belief that it can always be better.

1 Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52016DC0179; https://ec.europa.eu/digital-single-market/en/european-egovernment-action-plan-2016-2020

2 National Strategy for the development of the Information Society with the Action Plan 2005, http://www.mio.gov.mk/sites/default/files/pbl_files/documents/strategies/Strategija_i_Akcionen_Plan.pdf

National Strategy for the development of electronic communications with information technologies http://arhiva.mioa.gov.mk/files/pdf/dokumenti/Nacionalna_strategija_za_razvoj_na_elektronski_komunikacii_so_informaticki_tehnologii.pdf

National strategy for development of the next generation of broadband internet, 2009 http://arhiva.mioa.gov.mk/files/pdf/dokumenti/Nacionalna_strategija_za_razvoj_na_sledna_generacija_shirokopojasen_internet_09.pdf

National operation broadband plan, 2019, http://www.mio.gov.mk/sites/default/files/pbl_files/documents/reports/nacionalen_operativen_brodbend_plan_finalna_verzija_02.04.2019.pdf

3 Available at: http://mioa.gov.mk/sites/default/files/pbl_files/documents/strategies/srja_2018-2022_20022018_mk.pdf

Based on the EU e-government Action Plan 2016–2020[4], the European Commission prepared benchmarks to measure the service delivery improvement. Monitoring the achievement of benchmarks gives an image of the e-government services state and it is an essential indicator of how the European Union manages to cope with socio-economic challenges. The benchmark analysis is also used as a tool to compare the processes and indicators for the work of the institutions, despite the established working standards and good practices. The benchmarks are also one of the components of the EU Open Method of Coordination[5], and are also used as a way of mutual learning, mutual monitoring and contribute to the approximation of Member States' policies. The benchmarks have a defined basis on which the progress of countries is measured and compared. Regarding the innovations in the public sector, monitoring according to these benchmarks shows whether there is improvement in the quality and efficiency of services, and also gives guidance to governments to overcome any shortcomings. Tracking the given benchmarks is the first step in the learning cycle and improvement.

The monitoring of progress in the delivery of public services is carried out regularly in EU member states and some candidate countries, while the Republic of North Macedonia will be assessed according to specific benchmarks starting in 2019. To this end, the European Commission refers to services whose efficiency will follow over the coming years, more specifically 118 services relating to various life events, categorized in eight areas:

Manner and procedure for starting a business (for example, preparing a business plan, gathering information where you can find support for starting a business, registration in competent institutions and funds, registration for a tax number, registering employees);

Family (for example, obtaining birth certificates, obtaining personal documents, exercising parental rights);

Employment (for example, exercising unemployment rights, advising on financial borrowing, labor market counseling, job search assistance, counseling for re qualification);

Learning/studying (for example searching for educational programs, recognition of diplomas, scholarships, financial counseling, career counseling, practical work)

Initiation of a misdemeanor procedure (for example obtaining accurate information about the procedure, evidences, rights of the party, deadlines, legal remedies)

General business procedure (for example, obtaining detailed information about tax procedures, payment of contributions, accounting procedures, financial statements);

Owning a vehicle and driving (for example, buying, importing, registration of a vehicle);

Moving (for example, changing personal documents, obtaining information about public services at the place of relocation, such as schools, hospitals).

These services mainly apply to citizens, although there are services for legal entities also. Interesting fact is that even services that apply solely to legal entities in our country, the European Union considers them to be for the citizens, too, for example for those who want to start a business at a given moment.

Since life events are given by the European Commission, public institutions in RNM accept these services as mandatory to be in the improvement list, although in response to citizens' requests they should work to improve other services. Many researches show that the most commonly used services are the ones necessary in the citizens' life cycle, and the most frequent ones include also services in the areas of health and social protection, as well as numerous services in the field of education[6].

In addition, according to the recent survey on satisfaction of public services[7] made on a representative sample of citizens on the territory of the Republic, it is equally evident that services in the area of health and social protection are the most important for the citizens. They should, therefore, be prioritized by the state because they include the most vulnerable categories of citizens, who deserve the greatest protection in every solid state..

4 Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52016DC0179; https://ec.europa.eu/digital-single-market/en/european-egovernment-action-plan-2016-2020

5 EU open method for coordination, https://eur-lex.europa.eu/summary/glossary/open_method_coordination.html

6 Publication: 14 most frequently asked questions for 14 most frequent public services (available at http://www.cup.org.mk/publications/14%20FAQ_mk.pdf); Publication: Analysis of the benefits and costs of introducing electronic administrative services (available at http://www.cup.org.mk/publications/Analiza_na_pridobivkite_i_trosocite_od_voveduvanje_e-uslugi.pdf); Publication: Report on citizens' perceptions of the rights and services of social protection and social insurance (available at http://www.cup.org.mk/publications/Socijalna-zastita_f.pdf); Publication: Report on citizens attitudes and opinions of on the quality of public health services (available at http://www.cup.org.mk/publications/Zdravstvena-zastita_f.pdf).

7 Да се вклучи тука линк до резултатите од нашата анкета, ако не ги спремиме тогаш до анализата на Розалија

National institutions should carry out self-assessment of the public services delivery , customer satisfaction, problems of legal, technical and organizational nature, and afterwards to prioritize the ones on which improvement they will work on.

Based on the services that will be assessed by the EC in the next period (as benchmarks for measuring progress), the state should make an internal assessment of the manner in which the services are being implemented, their complexity, the involvement of a number of institutions, the necessary evidence, the compensation required by the citizens, whether it is necessary for the citizen to appear personally etc., Self-assessment should also include an aspect of considering the possibility of completely stopping certain services, because in conditions of complete exchange of data and information on official duty between the institutions, some services would become redundant (primarily refers to acts arising from the records of the institutions).

Self-assessment is assumed that is already ongoing in relevant institutions, although it is not reflected as a special measure in the relevant documents. It must inevitably be based on the burden of assessment for the citizens, that is, the time, labor and money the citizens should invest, respectively all improvements should be in terms of simplifying all procedures for the citizens. External researches show that there is considerable simplification in relation to the required evidences/ documents in a number of commonly used services for the exchange of data and information among institutions. For example, for marriage no longer is required excerpt of birth certificate of the persons who are concluding the marriage, but only identification documents, which contain all the data that are needed (comparison 2015 to 2018[8]).

External research, in particular the surveys conducted within the framework of this project, can be used to help self-evaluation. In a telephone survey conducted on a representative sample of respondents from the general population on the territory of the country[9,] relative satisfaction among the citizens is evident in general by the public services delivery.

Chart: How satisfied are you overall with the public service delivery that you have received?
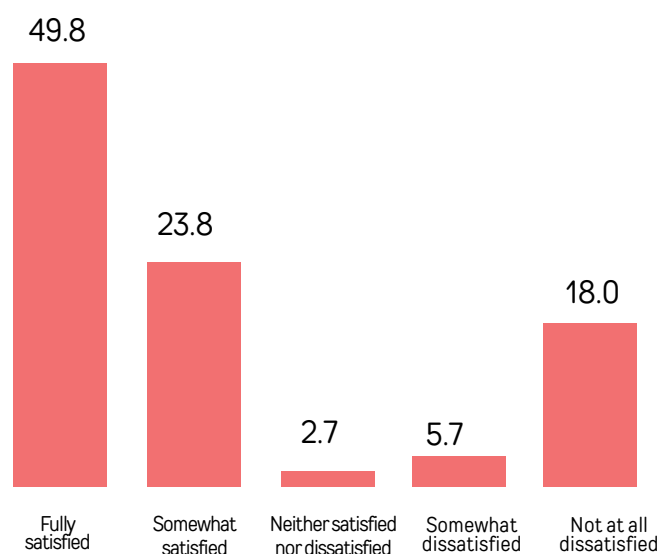
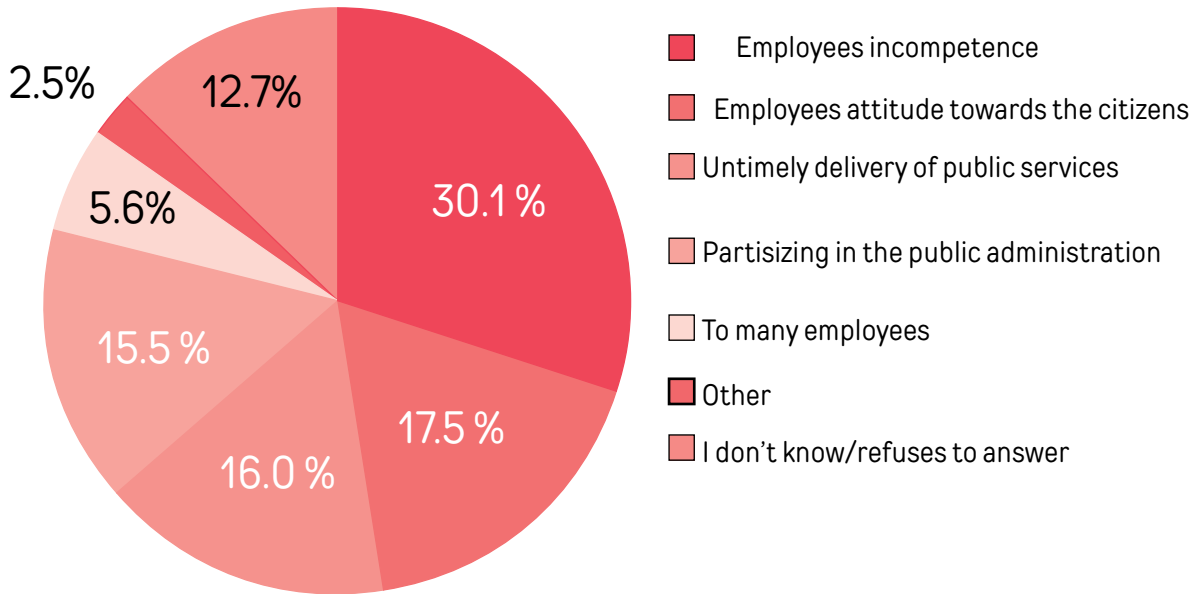8 Publication: 14 most frequently asked questions for 14 most frequent public services (available athttp://www.cup.org.mk/publications/14%20 FAQ_mk.pdf); Publication: Analysis of the benefits and costs of introducing electronic administrative services (available at http://www.cup.org.mk/ publications/Analiza_na_pridobivkite_i_trosocite_od_voveduvanje_e-uslugi.pdf);

9 Или до анкетите или до анализата на Розалија

On the other hand, citizens impression is different when asked about different standard aspects of the services – satisfaction with the time, funds the citizens need to pay, quality of services, employees attitude, equal treatment, availability, information the institutions provide for the services, as well as the possibility of leaving an opinion on the services and addressing higher institutions for exercising their rights. The citizens pointed out the problems they most often face with in obtaining the services..

Chart 2: Which, in your opinion, are generally the biggest problems in the public services delivery?

Legend:
- Employees incompetence
- Employees attitude towards the citizens
- Untimely delivery of public services
- Partisizing in the public administration
- To many employees
- Other
- I don't know/refuses to answer

Values: 30.1 %, 17.5 %, 16.0 %, 15.5 %, 5.6%, 2.5%, 12.7%

They made suggestions on what should be the institutions priorities for improving the services..

Chart 3: What, in your opinion, is the highest priority in the reform of the public services delivery?

Legend:
- To reduce prices of public services
- Public services to be provided electronically
- To reduce delivery time of public services
- To publish all necessary information about the services
- To improve competences of the servants
- Other
- I don't know/refuses to answer

Values: 27.4%, 9,5%, 15.1%, 6.4%, 29.7%, 2%, 9.8%
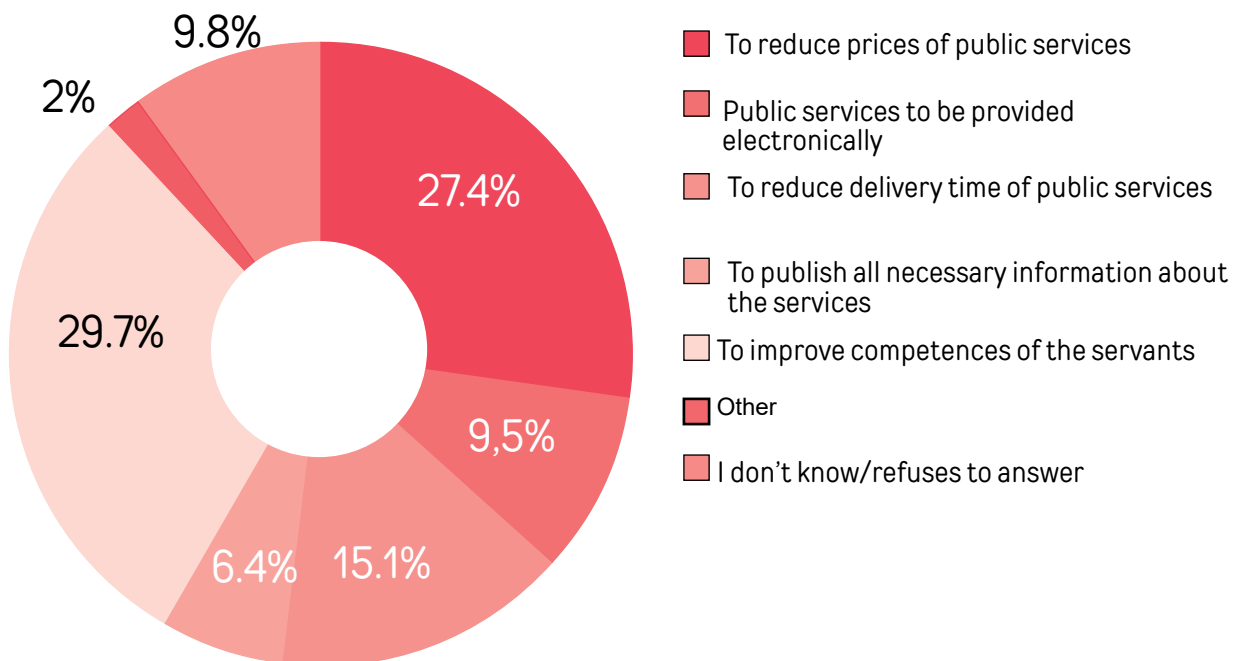
Realizing citizens' requirements, the state is obliged to take into consideration their experiences and to make priorities that will be a guideline in the reform measures. On the basis of priorities, most required services should be developed if they do not exist, or to be improved if they already exist. The most important thing is services to be tested. The European Commission for the above mentioned survey for testing the services utilized the secret client method. In the RNM there are cases where already developed digital services in practice encounter non-digital barriers, and examples are given within this text.

Part of the services defined as benchmarks by the EC, and it is evident that in our system they are not recognized as services the institutions should offer. They either do not exist at all or are provided by autonomous institutions. For example, the services "Certifying general management qualifications" or "Obtaining advisory services prior to financial borrowing" do not exist at all for citizens and the state should first consider which of these new services would be useful. Another option is for the state to identify for which purposes or procedures or other services these new services are bound, and whether it has the necessary data to deliver such services.

On the other hand, when analyzing the listed services, one can find services that are offered by independent institutions such as universities. In order to promote such services, the state must be prepared to exchange information and data with institutions outside the public sector in order to successfully delivery of some of these selected services. For example, it would be generally advisable to include services from universities and the Employment Agency in order to match the quotas of newly enrolled students to the labor market deman

Additionally, self-assessment should include some court services, which are part of the EU benchmarks and are inevitably tied to citizens' life events. Addressing problems related to these services would most likely be covered by measures outside the priority area Delivering services and ICT support to the administration in SRJA because this group includes activities for public services improvement implemented through procedures that are regulated by the Law on General Administrative procedure[10].

Recommendation

We recommend self-assessment to include some of the court services, university services and services from other bodies that are not currently envisaged in the reform measures.

Recommendation

In accordance with the planned measures of the SRJA, but also according to the comparative experience of the countries with the most successful models of public services delivery, it is necessary to prioritize the digitization of the public institutions registers.

SRJA explains that "Some of the state bodies registers are not yet fully digitized, and to a large extent existing registries are not at a satisfactory level of quality that hinders the interoperability process. The inadequate quality of data in public registries makes it difficult to exchange evidence and data ex officio which is a key prerequisite for the quality of public services. "With this, the state shows the awareness that digital registers are a prerequisite for better services, but in the Annual Report for the implementation of AP for SRJA[11] there is no information on progress in this field. From the experience of the leading e-government country, Estonia, we can learn that the initial efforts and investments were exactly in the development of an electronic register of the population, digitization of the real estate cadastre, records of registered persons for health and social protection[12].

Hence, it is recommended that the highest priority is to start with these registers, primarily with the digitization of citizens' registers. EC benchmarks include services within the competence of the Public Revenue Office, the Central Registry, the Employment Agency, the Health Insurance Fund, the Pension and Disability Insurance Fund, the Office for Management of Registers of Births, Marriages and Deaths, the courts, universities, which simply results in conclusion the modernizing should start exactly with their registers. This, of course, is not the same task for all institutions, since some of them already have electronic records, so there should be an improvement in quality and data security. On the other hand, citizens' needs must not be forgotten and ranking of their health, social and educational services as the most important ones, so the registers of health and school institutions must not be left only in paper or isolated from the overall state system.

10 Official gazette nr. 124/2015, available at: http://mioa.gov.mk/sites/default/files/pbl_files/documents/legislation/ZOUP_23072015.pdf
11 Annual report on the implementation of the AP for SRJA 2018 available at: http://mioa.gov.mk/sites/default/files/pbl_files/documents/rja/ godishen_izveshtaj_srja2018_finalen_21052019.pdf
12 https://e-estonia.com/

Adjusting the services according to the needs and habits of the user

User orientation or customer centricity indicates the extent to which the service is available atline, its mobility and usability (in terms of availability of online support mechanisms and feedback information), and how much it is based on the citizens needs..

User centricity is best addresses with personalization. Personalization can be of key importance to encourage the use of e-government services. Personalization of e-services can be the answer to the questions why people do not use e-government services when they are available, or how can e-government services better respond to users' needs or what can the governments do to reach out to their citizens and companies.

User centricity is based on the idea of serving the citizens and companies in the most optimal manner. The most important indicator for the e-government functioning is the extent to which public services meet the expectations of users across Europe. The e-government assessment contains three indicators, which measure the extent to which government services: are available atline, meet usability standards (offer support, help, and feedback on Internet functionalities) and are formatted for mobile devices.

Recommendation

Provide a mechanism for measuring the satisfaction of service users.

The success of e-government management requires continuous input and feedback (collecting opinions) from those who use e-government services, that is, from citizens, companies, or even public sector employees when they appear as users of such services. 88% of e-government services in the EU, or nine out of ten measured services offer online support for their users through online chats and places for comments that make it easier for citizens to use the service and can also comment on the areas the service can be improved.

As a well-accepted model, the citizens' individual behavior is used to assess the effectiveness in different domains of services. User perceptions of the offered e-services are crucial. A strong link between the context of the service and the user satisfaction implies the need of evaluating e-government services to focus on service users (citizen's side) rather than the government (the service provider's side). Hence, a strong link is needed between decision-makers at all levels and citizens' demands. The role of users (citizens) is crucial to gain a better measurement of satisfaction. The relationship between the government and the citizens can not be investigated without the citizen's participation. In order to improve the services, but also the citizens to be satisfied, it is necessary to know what the citizens expect as end users, and it is, therefore, necessary to establish a mechanism for gathering feedback and opinions. When the services are developed in order to fulfill the citizens' expectations, then the citizens will use them again because they get what they expect.

The planning of our country's efforts is in the same direction with the given recommendations. Namely, as a prerequisite for the promotion of services, SRJA emphasizes the need to improve the quality system in the public sector because "methodologies for measuring customer satisfaction are not continuously applied"[13].

Recommendation

The services offered online, at the beginning at least for the most commonly used services, should be adapted for use via a mobile phone.

Taking into account, as already said, customer centricity is the most important parameter for measuring the e-government success, public administrations are increasingly focusing on the user needs. EU countries in average fulfill 82% of customer centric measurement (measured in 2016-2017)[14]. According to sub-indicators, such as fulfilling the usability standards, online services account for 88%, and 83% is the satisfaction with the online services availability. This reflects the continued effort and prioritization by public administrations to digitize public services. Additionally, states are looking for a way to improve the availability of mobile phone services for all eight measured life events. For six out of ten public services it has been confirmed that they are compatible with mobile phones, i.e. 62%. This means that this aspect matures, but it has not

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13 Measure 4.2.2. Improving the quality system in SRJA.
14 https://ec.europa.eu/digital-single-market/en/news/egovernment-benchmark-2018-digital-efforts-european-countries-are-visibly-paying

yet reached the level of other indicators of customer centricity. Hence, enabling the delivery of e-government services on multiple devices remains the optimization goal to strive for.

According to the results of the EU e-Benchmark15, it is evident that even the EU needs to strengthen this priority. Namely, for public services that are subject to measurement, and previously already mentioned as prioritized, it is measured whether a particular service is available atline, whether it is easily usable and whether it has the option to use it from the mobile. The display of the results shows that the services available atline are largely simultaneously and easily usable, but they are not always adapted for use via a mobile phone. This also applies to services offered through portals in EU Member States and the services that are directly online.

In that context, the same recommendation remains in the national context for RNM also, that is, the services offered on-line in the future to be adapted for use by mobile phone, because in that way the citizen can faster and easier reach the desired goal, so the adaptation of e-government services in a mobile phone version can be an incentive for citizens to use e-government services.

Increased trust in the institutions

Openness and transparency

Openness and transparency as good governance principles are used in different contexts and begin to sound like shabby phrases. But experts who have the knowledge will confirm that it is about two self-developing principles that, when well implemented, open up space for an even higher degree of improvement in the way of management and legitimacy in the achieved results.

Open and transparent operation of the public administration means that institutions should share information of public interest and enable citizens and companies to have access to the data, and to additionally control their own data. It should allow users to monitor the administrative processes that concern them in order to engage, and institutions to open for cooperation with the stakeholders (such as business, researchers and civil society) in designing and delivering services.

Recommendation

To involve citizens in the procedures of their concern, from their design, to monitoring the course of implementation.

Personal data protection

Recommenda tion

When providing services, the institutions should inform users on how their personal data are handled and should inform citizens about the way they can control their data.

One of the EU's measures for strengthening trust in institutions is exactly through the public sector attitude towards the citizens' personal data. The government transparency regarding the citizens' personal data is assessed through the extent to which the authorities proactively inform the users on how the users' personal data are handled. Citizens require easy electronic access to their personal data. This increases the legitimacy and security of data processing and improves the quality and accuracy of the stored personal data. It is vital to maintain the trust between the citizens and the administration to instruct citizens that they have full control over their own sensitive data. In addition to national legislation, the accuracy and overall use of personal data are also protected by the European Data Protection Law (GDPR)[16]

This issue in SRJA foresees the cooperation of all public sector institutions with the Personal data protection directorate, and in that direction, cooperation can contribute to easier implementation of the recommendation..

15 Ibid.
16 Regulation (EU) 2016/6798.

To strengthen the legal protection of personal data and digital security in RNM

One of the ways to strengthen citizens' confidence in the government in the context of transparency, personal data protection and digital security is by strengthening the legal protection. All initiatives should overcome the fundamental respect for the legal framework for personal data protection and privacy and IT security, integrating those elements into substantive legal protection. These are important prerequisites for increasing the confidence and security of the citizens, which are a prerequisite for the acceptance of digital services. In that direction, in RNM, it is necessary to provide appropriate legal qualification for the acts that would contain the substance of actions, which are a violation of the personal data protection and can be characterized as a specific criminal act.

Social inclusion
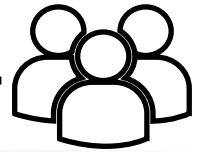
Recommendation

To implement measures that enable digital inclusion in order the digital reform to provide better services for all citizens in society.

One of the main benefits of digitizing the services is that they will become more accessible. However, in order to achieve good digital inclusion in society, it is necessary to implement several measures:

- Accessible information and communication technology: this technology should be made more accessible for all citizens and to encourage the creation of new methods for technological development (simple designs that suit all citizens),

- Technology that helps: to support the development of ICT that will help persons with disabilities to enable them to perform activities that they could not perform previously and to communicate easier,

- Skills and digital skills: support for citizens to actively combat marginalization and social exclusion, including through compulsory ICT education,

- Social inclusion: greater involvement of marginalized groups in public, social and economic activities through social inclusion projects.

Legal reforms to improve public services

Legal framework

All expectations for improvement of public services in the digital environment are directed towards the new legal framework, respectively the new laws adopted in April and May 2019, and which should be implemented as a short-term priority.

The legal package consists of the new laws:

- Law on the central register of the population[17]
- Law on electronic management and electronic services[18]
- Law on electronic documents, electronic identification and confidential services[19]

The laws address the basic aspects of electronic delivery of public services:

- Institutions can no longer "hide" for lack of authorization for mutual exchange of information and documents
- The exchange of documents is carried out ex officio
- It overcomes the problem of referring citizens from one institution to another and their waiting at the counters

The main dilemmas about the new legal framework relate to the fact that institutions have very short implementation deadlines. For example, although the Law on the Central register of population provides for a postponed application of 3 months after the entry of the law into force, the Ministry of Information Society and Administration (MISA) should establish the Register within this deadline of 3 months. This deadline from the current point of view seems unrealistic, but preparations for the establishment of the registry are ongoing. On the other hand, the deadline for other institutions in terms of their obligations under the same law is longer, respectively it is envisaged one year after the entry into force of the law.

In the Law on electronic management and electronic services and in the Law on electronic documents, electronic identification and confidential services, the entities whose work regulates these laws or bodies in the public sector are obliged to harmonize their work with the new regulations within 1 year from the day of their entry into force. There is a great deal of concern about whether these bodies have the capacity and the ability to prepare accordingly, when their capacities are monitored and criticized on a daily basis. Equally, the capacities of such bodies are different from each other and it will be quite difficult to apply the same approach to digital transformation for all of them.

The risk in this situation is that this legal framework could become one of those with good regulation, but it remains not implemented, and only on paper.

Recommendation:

It is necessary to prepare a plan to enforce the law, especially since it is a matter of horizontal regulations that reflect the work of several institutions / levels of management.

Alternatively, if there is a violation of the deadline each institution will have to indicate when it will align its operations.

The provisions of the new laws are a huge burden on MISA, as an institution owner and institution responsible for the functioning of the Register and the system for interoperability of information systems of the public sector institutions. MISA should primarily strengthen its own capacities and the readiness to manage these processes, but the real workload will be known only after they become fully operational. For the time being, MISA coordinates the preparation and it is

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[17] The Law is available at: https://www.pravdiko.mk/wp-content/uploads/2019/05/Zakon-za-TSentralen-registar-na-naselenie-21-05-2019.pdf
[18] The Law is available at: https://www.pravdiko.mk/wp-content/uploads/2019/05/Zakon-za-elektronsko-upravuvane-i-elektronski-uslugi-21-05-2019.pdf
[19] The Law is available at: https://www.pravdiko.mk/wp-content/uploads/2019/05/Zakon-za-elektronski-dokumenti-elektronska-identifikatsija-i-doverlivi-uslugi-22-05-2019.pdf

MISA is taking over huge responsibility on itself by concentrating the responsibility for the interoperability system, the National portal for e-services and the Central Register of Population, which according to international experiences is huge centralization. For example, again in Estonia, "there's no centralized database, all information are stored in a dispersed data system that can be exchanged upon request at any time". According to the officials in Estonia, this provides greater security of data, and every involved institution is responsible.

In the same sense, we recommend to consider the idea that is being raised on several occasions for establishing a separate agency, which will have the authority to implement the new legal framework, will build IT facilities in support of all institutions involved in the e-government, and for its functioning will be accountable to the MISA as a policy holder.

Recommendation

It is recommended to strengthen the capacities of MISA to own and manage all the processes envisaged in their legal framework. MISA should coordinate capacity building in other institutions in order to successfully implement the laws.

Legal protection

Additionally, MISA has the legal authority to monitor the implementation of the new legal framework, but there remains a dilemma on what would be done in case of non-implementation. Is MISA really prepared to initiate misdemeanor proceedings against other institutions? This measure is connected with building confidence in systemic solutions in the institutions because there are other laws in which certain institutions have horizontal jurisdiction, and there is no practice/the case of initiated procedure from one institution to another.

Recommendation

In order to ensure adequate legal protection, it is necessary to provide training for the courts, and hence it is recommended the new laws to be introduced to the Academy for Judges and Public Prosecutors, which would carry out trainings including the misdemeanor judges.

Catalogue of services

The EU has currently identified as a problem also that information, advices, problem-solving mechanisms, contact points and procedures for the EU's single market are not functioning as a whole, but they are fragmented, incomplete, insufficiently interconnected and insufficiently easy to use – both at the EU level and at the national level, too. This makes it difficult for users to find the information and assistance they require. For more efficient cross-border functioning of the services and enabling users to implement the most commonly used national procedures completely online, the European Commission proposes the creation of a Single Digital Portal[20], based on:

- existing portals, contact points and networks,
- to expand, improve and rationalize all information,
- for assistance and problem solving service

In RNM, the new laws provide for the establishment of a National electronic services portal, which will be an electronic platform that will enable the use of electronic services, an activity that is already being implemented. The basis of the National Portal for e-services will be the Catalog of Services, in which the services are determined, the competent body that provides each individual service, the law from which the service arises and the competence of the body, the necessary conditions that need to be fulfilled for the use of each individual service, as well as the evidence needed to use the particular service, based on the law.

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20 https://ec.europa.eu/growth/single-market/single-digital-gateway_en

With the functioning of the portal as a central point for services and a central point of view which services are available, it is expected that the practice will show how services can be improved, but other aspects are already identified even now when filling in the Catalog[21].

Namely, automating the processes through the portal can emphasize bottlenecks in every procedure for obtaining the service. But this require to measure the processes through the portal or if it is possible to collect feedback on customer services. The application of services will show whether the acceleration of deadline processes can be accelerated by automating sub-processes or some steps in the procedure, without affecting increased number of human resources that need to be involved, because in such case the idea for the efficiency of the service is lost.

Recommendation

Comparison of the services in the Catalog to be used to rationalize the deadlines for some of the services.

If a comparison is made between certain services, it may be possible to advance with the first step of digitizing registers. For example, the Ministry of the Interior issues Citizenship Certificate (over the counter, in paper form) immediately upon the submission of the request, while the Office for Management of Registers of births, marriages and deaths requires 5 working days for the Birth Certificate. On average, all other documents of this type (certificate of criminal record, certificate of business ability) are obtained in 1-2 working days).

The catalog can contribute to rationalize the requested documents. For example, if it is believed that the regulated length of service is determined by a certificate from the Pension and Disability Insurance Fund, from which is evident the period until when an employee has paid contributions, and thus the experience is recorded. If after that period there is no registered experience, same certificate should be used, respectively to prove that the person is unemployed. In such case this certificate can also be used as a confirmation of unemployment, instead of providing a separate document from the Employment Agency.

When reviewing the laws, all the evidences required by the citizens should be seen, how many of them are really needed, whether most of the conditions that are provided for the services could not be verified through the institutions' registers (whether someone is unemployed, whether there is any income, whether there are assets, etc.), only as a data yes or no. Realistically services can be simplified now, indeed, some of them which are for obtaining certificates from institutions will become unnecessary when the system will get information itself. A minimum should be required from the citizen, and everything else is work of the institutions.

The purpose of these examples is to point out the need not only to improve the services by automating them, but also to accelerate, rationalize, and so on. Hence, the establishment of the Portal e-services and the Service Catalog should be seen as a source of correction in the home laws governing the provision of specific services by the institutions.

Recommendation

Moving services from the traditional to the digital environment can and should be justification for the rationalization of procedures and regulatory guillotine

Additionally, with the inventory of services in the catalog, is gradually identified in which of them procedure can be simplified, to unify, to align the deadlines, remedies, etc., to pass new laws instead of the old with more changes, so citizens do not know which provisions are in force. Such promotion of the provisions regulating the services is aimed at legal certainty of the citizens.

The analysis of the legislation showed that among them is used different terminology (for example: it is not used the terminology of the original law), that usually there are not specified evidences the citizen should submit, therefore, one has to apply several times to the institution before getting service, for most services, prerequisites for using the services are listed, so citizens depend on the interpretation of the institutions, and some laws still require evidence that is obtained ex officio.

All the above recommendations go in line with the recommendations of the Action Plan for e-government 2016-2020, in which the EC recommends Member States to prepare flexible legislative frameworks that can adapt to changes because of the application of principles for improving public services in accordance with the plan.

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[21] Within the project "Civil-based approach to public services delivery" funded by the European Union and co-financed by the Government of the United Kingdom, in the Catalog of services were filled in the necessary data for a number of services for the further use in the National Portal for e-services.

Single point for services and e-services intermediaries

Administrative office that provides access to services of many competent authorities and in which can be picked up acts adopted by the authorities that the administrative office is aimed for, and services that a user has previously filed for a specific service which is provided by the authority in accordance with the law, in the new legal framework is introduced as "Single point for services" (One stop service). The first office of this type is open and operates in Skopje22. The single point service also provides information services for different types of services provided by public authorities. Such initiative is to be greeted as a solution for easier access to the services at the counter, especially since neither the EU has a tendency to completely abolish the off-line services (which are received at the counter, with personal contact).

Yet, in order to stimulate the use of e-services, the most progressive aspect is the introduction of intermediary for administrative services, the so-called proxy agents. An intermediary for administrative services by electronic means is an administrative employee in the public bodies, who on behalf of and on the account of the electronic service user undertakes appropriate actions, that is, helps the user to access the electronic service.

Recommendation The development of e-service intermediaries' function and capacities is crucial for the successful delivery of e-services. Their function can be fitted into the work and premises of already existing institutions and it is not, therefore, necessary to invest much in the establishment of several offices "Single Point for Services".

There's no doubt the work of "Single point of service" can be seen as a transitional solution towards greater digitization of services and their wide acceptance, when Internet use is pervasive and is expected to grow more by new / future generations .

Electronic identification and electronic signature

The European Commission's "eIDAS" Regulation[23] allows citizens, businesses and public administrations to use electronic identification and trust services (for example, electronic signatures, time stamps, registered electronic delivery and web site authentication) for access to online services or managing electronic transactions. The regulation advocates for electronic identification (eID), authentication and confidential services. It has actually established a framework to ensure that electronic interactions between enterprises are safer, faster and more efficient, regardless of the European country in which they are taking place, and with this new draft Law on electronic documents, electronic identification and confidential services[24], such a framework is set up in the Republic of North Macedonia.

The types of e-services for electronic identification that have been developed so far in the Member States include public and private sector services, such as linking tax offices, social security departments, or vehicle registration services. For private sector services as an example can be mentioned postal, banking and cloud platform service.

The "eIDAS" regulation says that in the EU an electronic signature can not be stripped of legal importance only because it is electronic and that electronic signatures are admitted as evidence in court proceedings. But in some of the EU Member States it has been ascertained that the eIDAS's actual permissibility with legal provisions is insufficient and provisions that govern the validity of electronic signatures are needed. Such legal inconsistencies in the laws discourage companies from executing documents electronically, although it would be faster and easier. This may disproportionately affect small companies and newly established enterprises, which do not have access to legal expertise the same way as the larger ones.

The application of the new draft provisions in the RNM for the application of electronic documents should overcome numerous current problems.

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22 Annual report on the implementation of the AP for SRJA 2018 available at: http://mioa.gov.mk/sites/default/files/pbl_files/documents/rja/godishen_izveshtaj_srja2018_finalen_21052019.pdf
23 https://ec.europa.eu/digital-single-market/en/trust-services-and-eid
24 Text proposal available at: http://mioa.gov.mk/sites/default/files/pbl_files/documents/legislation/zededu.pdf

Example from everyday life:

When filing documentation in a particular institution, a payment slip for paid administrative fee was attached to the documentation. The administrative fee was paid by e-banking and printed and attached to the documentation. The official in the institution did not accept it because there was no seal on it. At the end, the party was asked to go to a bank to put a seal on the printed payment slip. This example completely trivializes the goal and the purpose of e-banking as a service.

Recommendation

It is of particular interest for the whole society to ensure timely application of new legal solutions that confirm the explicit permission of the electronic signature in the legal circulation. It is equally important as soon as possible to test their success, as well as the citizens' satisfaction, in order to eliminate possible barriers.

It is also necessary to invest in human resources with appropriate training on these issues, in order to avoid inefficiencies in electronic services due to human factors.

Organizational reforms to improve public services

Readiness for e-government is not just a government problem. Once the vision and priority sectors for e-government are established, it is important to assess the level of e-government readiness. The assessment of e-government readiness requires examination of the government itself – institutional framework, human resources (including ICT managers, public procurement officers, etc.), available budget resources, cross-sectoral communication, etc. National infrastructure, education, information policies, private sector development and other issues are also factors for the readiness of society. Additionally, less developed countries also face a problem of poor linkages, as well as the development of human resources, including low ICT literacy. However, with good planning, specific applications, services and information may be developed that can be delivered in a targeted, useful way for the identified users.

In order to address all aspects, the EU Strategy for single digital market[25] sets the strategic goals for "modernizing public administration, achieving cross-border interoperability and facilitating easy interaction with citizens" in order to accelerate the digital transformation of public administrations in member states and the Commission. In view of these policy priorities, the e-government Action Plan 2016-2020 sets out specific activities to accelerate the implementation of existing legislation and related legislation and linked download of public services electronically.

Organizational reforms necessary for improving public services can be grouped as follows

- Modernization of the administration
- Stimulating citizens and companies to use e-services and based on their experiences, to improve the services
- Investing in human capital in institutions

Modernization of the administration

Recommendation

To modernize services according to the needs and habits of users – the citizens and the companies

Since the e-government emerged in the late 1990s, the public sector has invested heavily in information and communication technology (ICT) to support their work processes and to allow the use of their services electronically. However, by increasing the use of e-commerce in the private sector, citizens have become more experienced in the use of electronic services, thus expecting a similar high standard of quality of services from government institutions. Modern and efficient public administrations should provide fast and quality services to citizens and an environment that is beneficial for businesses.

Example of everyday life: The requirements for obtaining a certificate for paid taxes are submitted to the tax department in Kumanovo, and then they are sent to the Regional Directorate in Stip, so they issue such certificates and return them back to Kumanovo. At the time of applying for subsidies / direct payments to farmers, many applicants appear at the same time, and a total chaos happens in the institution while processing the certification requests (although it is only one sheet of paper with basic data!). The requests in paper form are forwarded to Stip (although the institution is connected electronically to the departments and regional directorates!), The courier ex officio goes once a day, and then the processed requests with the certificates are returned back in two or three days, although all this could be completed electronically, since it is about the same institution.

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25 The EU Strategy for Single digital market, https://ec.europa.eu/digital-single-market/en/policies/shaping-digital-single-market; https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52015DC0192

Public administrations need to transform their back offices, re-examine and redesign existing procedures and services, and open their data and services to other administrations, companies and civil society.

The European Commission emphasizes the importance of including key factors for the creation of digital public services appropriate for the future. Key enablers such as electronic identification, electronic document, authentic sources and a single sign facilitate the transformation of public administrations into a clean and user-centered public service. Therefore, the EC emphasizes the need to modernize public administration with ICT through the use of key enablers.

In the national context, key enablers are generally covered by SRJA. There is a lack of many measures to fulfill the principles of standard digital services (digital by default), especially since the coordination burden is with one institution (MISA), while the success of this principle of modernization of services concerns all institutions.

It is assumed that other principles and their implementation would be covered by the envisaged e-government Strategy with an action plan[26].

Organizational change in public services to attract the interest of citizens

Recommendation

To stimulate citizens to use e-services by promoting the benefits to citizens of using e-services

The way in which the services are delivered affects the citizens' behavior. If the citizen's assessment that a certain behavior will lead to the desired personal outcome (for example, cheaper services, lower costs) and the citizen has a positive experience, then the desire and intention of that citizen to continue to use the services of e-government will grow.

An important factor is the social environment, that is, the media, friends, family and collaborators who share the experience of using e-services have an impact on the awareness of every citizen and increasing the level of trust. The lack of information is the basic barrier for the use of e-services. Therefore, citizens' awareness needs to be strengthened and the improved services promoted, and a key way to stimulate the use of e-services is through their promotion. Taking into account the research from the mentioned survey[27] that showed that in the RNM citizens prefer to go to the counter, one of the ways of promoting the electronic services will be informing the citizens about the advantages of using a certain service electronically, rather than in the traditional way.

Recommendation

The results of the measurement of citizen satisfaction to be analyzed and used for adjustment, redesign and promotion of the services

The need for determining mechanisms for measuring citizens' satisfaction with the quality of services and the way they are obtained is explained in more detail in the section "Adjusting the services according to the needs and habits of the user". In the context of organizational changes in institutions, and in order to improve services, it is necessary to use the results of those measurements appropriately, and on their basis to make interventions for adjustment, redesign and improvement of services.

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26 Measure 4.1.1. A strategic approach in the process of digital transformation from SRJA envisions the preparation of this strategy.
27 Линк до анкетата или анализата на розалија

The need to develop and invest in the technical competencies of public sector employees

Investing in human capital within the public sector is a recommendation at EU level so that the administration can deliver services at a satisfactory level. It is therefore essential that the public sector has a sufficient number of qualified personnel for the application of ICT technologies (including managers with experience in procurement, evaluation and implementation of ICT solutions).

A positive example in the national context is that the modernization of the administration and its ICT modernization is the responsibility of the same ministry. It allows to develop training in line with new technologies and to respond to the challenges and needs that will emerge before the employees, so that they can deliver the required service quality.

This is not just about the services that need to be digitized in the future. The need is evident with the current range of services. For design: to be in a separate square.

Example of everyday life:

In the City of Skopje, a client was returned because the document issued by the Agency for Real Estate Cadastre has been electronic. The official in the City of Skopje did not accept the document and requested the client to return to the Agency for Cadastre and to issue a stamped document. Later, the party was called to return to the City of Skopje, and the document was received by another counter-worker. This suggests that apart from the technical implementation of electronic services, the reason for their inefficiency can be a human factor.

Optimization of investment in public services

To build a public sector that suits the future, the government needs to adjust faster. Digital transformation is not only about new technologies, it also requires changes in organizational structures, management, work processes, culture and way of thinking. It also means the realization of a broader vision of relationships and business models that will redesign the way the public services function. Only then will governments cover the wider benefits that digital transformation can bring to people and society.

In one of the World Economic Forum reports[28], it is mentioned that with the exception of some outstanding innovative solutions, most governments are lagging behind the corporate world in harnessing the power of digitizing. In terms of digital progress, it is estimated that the gap between growth in the use of ICT by individuals and engagement of governments in the digital economy is increasing..

Recommendation

In order the public services delivery to keep the pace with the business sector, it is necessary for the government to connect with external partners in the business sector and to work with them to develop new models for delivering public services..

Namely, today's citizens expect public services to be so personal and tailored as the services they receive from the private sector. Governments should reconsider how digitizing services can be used to improve the citizens' experience from the beginning to the end of delivery of the service itself. This requires the application of the concept "citizen in the first place" as a culture and way of thinking when creating policies and delivering services. The ultimate goal is to improve the quality of services, promote transparent and effective interaction, increase public confidence in the government and improve citizens' results.

At the same time, it is undeniable fact that widespread digitization transforms the way in which organizations interact with other businesses and users today. As citizens in the world become more competitive in technology and switch to digital platforms, companies are constantly adapting and finding new ways to deliver services in order to have satisfied users.

28 World economic forum, https://www.weforum.org/reports

Bearing in mind that the business community has more insight into the needs of the end users, and it is also a fact that the services offered to companies are better and offered at a more advanced level, it is recommended that the improvement of the services to the citizens to be delivered in consultation with companies that collect data for users satisfaction with their services.

Governments must think differently about their role, to become a platform for partner ecosystems, including agencies, private businesses, non-profit organizations, social enterprises and citizens who together can develop innovative services and business models. It is therefore important to consult the business community about modernization and new trends in service delivery, or to adopt best practices.

The use of advanced analyzes allows governments to continuously collect data from people and devices to improve service design and personalize delivery. For example, data collected through the service My Term can be analyzed and see what assistance or additional service would help patients, and which is not provided for or it is not part of the health service (Internet consulting, support group of the same category of patients or additional sources of help in their condition, etc.).

Recommendation

To consider the analysis of the possibility of commercializing some public services and creating new sources of revenue

Also, the government does not have to be strictly tied to the delivery of public services, at least not entirely. One of the possible solutions that should be considered and analyzed is the possibility of commercializing some public services and creating new sources of income.

In conditions of uncertain growth and increased demand, governments must find sustainable ways to finance public services and infrastructure. Digital technologies create opportunities to explore new service delivery models, improve resource management through smarter costs, and link money invested in programs and services with the results they produce for citizens, increasing accountability and trust.

Outsourcing of public services refers to non-competitive public services and works. In case the government outsources public work or service, the contract usually involves the transfer of control and cash flows from a private company in exchange for an investment of some kind. Governments do not outsource key functions, such as military operations, police enforcement, fire protection and tax collection, in line with the EU framework for Services of General Interest[29].

For non-essential functions, governments often co-operate with private companies in public–private partnerships, where private service providers deliver services to the public. Areas where there is an opportunity for outsourcing are water reservoir, energy, gas and heating, waste management, public transport, parking lots, road toll collection, prison management services, pension fund management from mandatory pension insurance, etc.

But the government should not outsource the unwanted functions in order to get rid of them, on the contrary, only those services that provide the greatest competitive advantage and cover the total costs should be outsourced. In the interest of transparency and to avoid of the possibility of abuse, all outsourcing contracts should be publicly available to citizens. Outsourced services should have all the mechanisms for protecting the interests of taxpayers who pay for these services, respectively measuring the cost of efficiency, measuring of customer satisfaction and measuring the good management of these services.

Outsourcing of government functions can offer significant cost savings in advanced economies in servicing high-tech products or cover parts of public services with low profitability.

More recently, governments are exploring "shared services" to allow sharing the costs and benefits of shared services. This way of carrying out public tasks allows governments to avoid capital investments by having service providers serving multiple authorities

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29 Quality framework and Guide to services of general interest, available at: https://ec.europa.eu/info/topics/single-market/services-general-interest_en#documents

To create conditions for Open e-government services

Provided the recommendations in the previous chapters are met, the next step to be considered is Open e-government services30. This recommendation from the EC can be successfully implemented in RNM because there is already an open data policy.

Open e-government services are inclusive, digital services based on collaboration, which are characterized by planned and targeted effort to increase openness and collaboration through technology in order to increase the overall value.

The concept of open e-government services is based on:

- Cooperation in designing and creating innovative solutions through joint design, co-production with the public sector, companies, civil society and citizens;

- Adoption of new and collaborative models for service delivery (through public, private and non-governmental actors, both within and across national borders);

- Acceptance of creative alternative technological solutions (use of social media, mobility, large data, cloud computing, etc., packaged in new digital solutions);

- Preparedness for experimentation and entrepreneurship (the public sector should become more entrepreneurial).

Collaboration is understood at many levels and between different stakeholders. Citizens, businesses and civil society can directly co-operate with the public sector or indirectly, for example, by using open data published by public institutions. When talking about open e-government services, the role of institutions can range from that of a provider (for providing services), an enabler or a direct contributor. Privately developed applications that have an effect on the public interest can also be considered as open e-government services (for example: measuring air pollution through the My Air application created on open data).

Open services are interoperable and reusable services (service from services) that can be taken and combined from the public sector by third parties, too, in order to provide value-added services to their customers. Managing open services requires complete solutions to support the development, publishing and distribution of new services, but at the same time solutions to manage their access (including security and payment) and validation (for example, the ability to test them prior to their use) .

For the reuse of open data, open source software and open services, third parties play a key role, and third parties can be citizens, companies or in general all users. Citizens could be much more involved in the production, combining, embedding and delivery of a variety of basic services. In that sense, the involvement of third parties may be the key to providing a higher value for society, provided that the government opens the data it has in disposal in accordance with the Law on the Use of Public Sector Data31.

Application of new technologies for the public services delivery

Internationally, there are excellent examples of how new technologies are used to promote services to citizens and businesses. Again, Estonia appears as a pioneer in the new technological ways of realizing citizens' rights by electronic identification. So within a short period upon the introduction of the new ways of identification in front the public authorities, even 12.2% of Estonians already vote through mobile phones32.

In Estonia, every citizen can sign with electronic signature using his e-card for identification, identification with a mobile phone or smart identification, for uninterrupted use of e-services.

To consider using new technologies for e-identification and access to public services based on positive experiences internationally.

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30 Analysis of the Value of New Generation of e-Government Services and How Can the Public Sector Become an Agent of Innovation through ICT, European Commission

31 Law on the use of public sector data, Official gazette nr. 27 date 05.02.2014 г.

32 https://e-estonia.com/solutions/e-identity/mobile-id

Mobile phone Identification allows citizens to use mobile phones as a safe digital way of identification. Just like e-cards, with this kind of identification, they can access public services and digitally sign documents without having to require special card readers or personal contact. The system is based on special SIM cards for mobile phones, which are received through mobile operators. Digital certificates are placed on SIM cards that bind to a separate application, which is required for identifying and signing electronically. It is simply used in this wa

- The citizen chooses the option to identify a mobile phone on a particular site,
- The phone shows when a connection is established,
- The user inputs his PIN code,
- The user is checked and can access the service.

Since using mobile phones is the most widespread, the option to use mobile phone ID is very easy to access and is expected to be quickly accepted

Smart identification is a new mobile application, easy to use, which can be a way of identifying anyone who does not have a separate SIM card, and has a need for secure electronic official communication. This is a simple way to access accounts, perform transactions, get e-services, and even sign documents. The EU recognizes this way of identification as sufficiently safe and allows digital signing, but also requires it to be accepted by all EU member states[33]. Smart identification can be used in all smart devices and everything that is needed is an Internet connection. According to existing experiences, downloading the smart application is free and unlimited.

Given that these ways of identification are simple for users, adaptable to needs and situations, it is shown that they are quickly and widely accepted, and states claim that they are cheaper solutions. It is recommended the competent institutions in the country to consider their use. Additionally, besides the premise that such modern solutions would be appropriate in the Republic of North Macedonia, are the data for 2018 for the use of ICTs and the Internet, which is

- Internet access from home had 79.3% of households in RNM,
- Internet used 79.2% of the total population aged 15 to 74 years.[34]

Many governments already use this security technology to maintain and maintain public infrastructure (there are examples of preventing numerous accidents in rail traffic). Then, this technology, in combination with other technologies, is used to manage disasters (examples of survivors of disasters, thanks to artificial intelligence they have sought for help), and nowadays through technologies that use real-time data, combined with machine-learning are built emergency rescue systems. And many other things are possible with artificial intelligence such as identifying the affected areas, managing disaster situations and monitoring people. Another positive example is traffic management as a situation where we all find ourselves. Traffic data can be synchronized with artificial intelligence with no need for manual operation. Sometimes, the traffic police must stop the traffic light and manually manage the traffic according to the situation. If smart traffic lights were installed, they would control traffic based on traffic, rather than on previously set rules.

Techniques for artificial intelligence are increasingly expanding and enriching decision support through means of coordinating data delivery, new trends for data analysis, forecasts, developing data consistency, quantifying uncertainty, predicting the data needed to the user, providing information to the user in the most appropriate forms and giving suggestions on how to act in a given context.

A worrying question today for many is whether democracy can survive artificial intelligence because "it can not be locked in a box." It is a fact that in the wake of this digital revolution some functions of the government will be eliminated, but at the same time it will enable new tools smart citizenship and an open government that can boost democracy.

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33   From November 2018, more information on https://ec.europa.eu/cefdigital/wiki/display/SDBX/Introduction+to+e-signature
34   Announcement Usage of information and communication technologies in households and individuals, 2018, published on 22 October 2018, available at: http://www.stat.gov.mk/PrikaziSoopstenie.aspx?id=77&rbr=2783