Digitalization of Society and e-Government

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Abstract. Governments are increasingly utilizing digital technologies to deliver advanced electronic and mobile services aimed at bringing benefits to all people. All sectors have seen an increase in the provision of such services, albeit to varying degrees. A major trend is the increase in mobile technologies and applications. It entails new development opportunities for the poorest and the most vulnerable, and it is driving initiatives to promote sustainable development and new ways of providing services. As is the case for other aspects of e-government, the major challenge for the future will be to bridge the digital divides between countries and people. This requires policies in the social and economic areas, mobilizing technologies and providing services to the poorest and most vulnerable; while ensuring adequate attention to environmental aspects. The right mix of technological features and the settings marketing strategy makes possible for government to have a strong place on the market. The management orientation to the IT segment will show meaningful further orientation, which would be included on site for ideal effectiveness for all users.

Keywords: Digital, e-Government, Informatization.

1 e-Government

Bureaucracy and the complicated way of communication of entrepreneurs with public authorities represent a major problem of business development in Slovakia. "In order to remove this obstacle, in 2013 became part of the law system of the Slovak Republic Act No. 305/2013 Coll. on the electronic form of exercising the powers of the public authorities and on the amendment and supplementation of some laws (the e-Government Act). [10]" The main objective of the legislator was to create a legal environment for the execution of power of public authorities by electronic means, thereby simplifying, speeding up, streamlining and unifying individual communication processes while removing the excessive fragmentation of the legislation in the whole range of existing legislation in the area of electronic public services towards entrepreneurs and public authorities towards each other. "This law codifies electronic communication as a major form of communication between business entities and public authorities, as well as communication within the public

authorities together with the historically basic but still decisive and inevitable classical paper form. The e-Government Act establishes the power of public authorities to exercise the power of a public authority and to communicate with entrepreneurs electronically. [2]"

eGovernment The concept of computerization (electronisation) of the company is closely related to the informatization of public administration, nowadays often referred to as eGovernment. 13 eGov.sk defines eGovernment as "an electronic form of public administration through information and communication technologies. eGovernment is the use of IT tools and tools (in particular the Internet) to improve public services for citizens, entrepreneurs and the whole society. [1]"

1.1 Methodology

The studied issue is insufficiently scientifically processed due to its specificity and uniqueness. "Despite the general absence of this issue, it is possible to mention a number of specialists who deal with this issue, including D. Gregušová, B. Susko and M. Chlipala. [17]" Several scientific articles have been used to process this article, for example electronic filing and delivery, electronic depreciation and output of information systems of public administration as part of informatization in conditions of the Slovak Republic, Electronic form of execution of powers of public authorities or some (selected) legal aspects of electronic signature in the Slovak Republic. "In addition, the authors were based on professional literary literature, especially in the field of economics and law, as it is a multidisciplinary issue. From the point of view of the applied scientific methods of exploration representing highly qualified human activity aimed at obtaining scientific knowledge, the method of analysis, abstraction, comparison and descriptions was applied mainly to the penetration from the phenomenon. [15]"

1.2 Forms of eGovernment

"The issue of eGovernment applies to all levels of government – from local to international. According to the communicating parties, we distinguish the following forms eGovernment:

- G2C (Government to Citizens) - Online communication between the public administration and citizens,
- G2B (Government to Businesses) - Public Administration Online Communication with the business sector,
- G2E (Government to Employees) - Online communication between the public administration and staff of institutions under public administration,
- G2G (Government to Governments) - Mutual on-line communication between institutions of public administration,
- G2A (Government to Administration) - Electronic Communication between public administration and administration,

– C2G (Citizens to Governments) - Online citizens' communication towards public authorities. [6]"

Throughout the process of restructuring the public administration, the right use of information technology to overcome barriers to access to citizens and help create new services more targeted and flexible manner than it is now. Information technology can assist in the implementation of the demands of citizens have unlimited and uninterrupted access to information and government services, which is a precondition for ensuring inclusive information society for all. "From this perspective have a crucial role in the effective provision of public services and also to improve cooperation between public administrations in different countries of the European Union to take the appropriate authorities. [3]"

1.3   Global trends

The online services component of the E-Government Development Index (EGDI) is a composite indicator measuring the use of ICT by governments to deliver public services at national level. It is based on a comprehensive survey of the online presence of all 193 United Nations Member States. The Survey assesses the technical features of national websites as well as e-government policies and strategies applied in general and by specific sectors for delivery of services. "The results are tabulated and presented as a set of standardized index values on a scale from zero to one, one corresponding to the highest rated online services and zero to the lowest. As with the EGDI itself, the index values are not intended as absolute measurements. [8]" Rather, they capture the online performance of countries relative to one another at a particular point in time. Because the index is a comparative tool, a high score is an indication of best current practice rather than perfection. Similarly a very low score, or a score that has not changed since the last edition in 2012, does not mean there has been no progress in e-government development. The distance between scores conveys the gap in online service delivery (2014 UN E-Government Survey).

Too many peoples own cell phones. And especial smart phones, and that's the reason why should firms invest every year more money to increasing chance to accost a potential buyers. "Advertisement must be personalized with software applications and other IT possibilities. [14]"

1.4   Digital society

Share web pages are displayed on mobile devices is increasing, also increasing the number of users who are searching for products or services via their smartphones or tablets. This is evidenced by available statistics - one in six YouTube video is played in Slovakia for mobile and one in four search term in Slovakia is mobile. Website optimization for mobile devices are no longer an option but a necessity. "Companies that realize this will have an undoubted advantage in the future. It most likely be that firms which can do over the phone to optimize the purchasing process will lead to a much greater extent. [4]"

Some companies are more likely ignored video advertising into thinking that purchasing power population is less computer-savvy. That was indeed true until recently. However, overall informatics knowledge of the population has changed dramatically even with the advent of smartphones and tablets, which are equipped with Internet wireless and therefore more accessible to a wide range of the population. Marketers know the potential of Youtube ads for some time. Great price, huge hit key target groups, precise targeting and perfect measurability - all paying for video advertising on Youtube for example. In the US, increased ad spending in video advertising, according to data published emarketer.com year on year by 38.9%, digital video ad spending was in 2015 at $ 5.75 billion. While the United States should growth slow in recent years, in our period the increase is yet to come. "Although the video Slovak companies access with no unnecessary respect and use it especially strong brandy, really it is seen a gradual move towards their implementation. Being successful is liable to be largely anyone who can produce video content. [18]"

Marketing information system is an information system to support the marketing activities of the organization. Based on generally applicable definition, marketing information system "consists of people, equipment and procedures for the collection, classification, analysis and distribution of the required timely and accurate information to marketing decision. [5]"

2   Solutions for public administration

The expected increase in the availability and affordability of mobile devices, especially the ones with email capabilities, will drastically change the landscape of government services and related use of email and RSS. This change will be beneficial, especially in developing countries where the growth of these services in the social sector is expected to drastically accelerate as the affordability and availability of mobile devices increases. This not only will serve to bridge digital divide amongst regions as pertaining to the online services in social sectors, but will also contribute to sustainable development
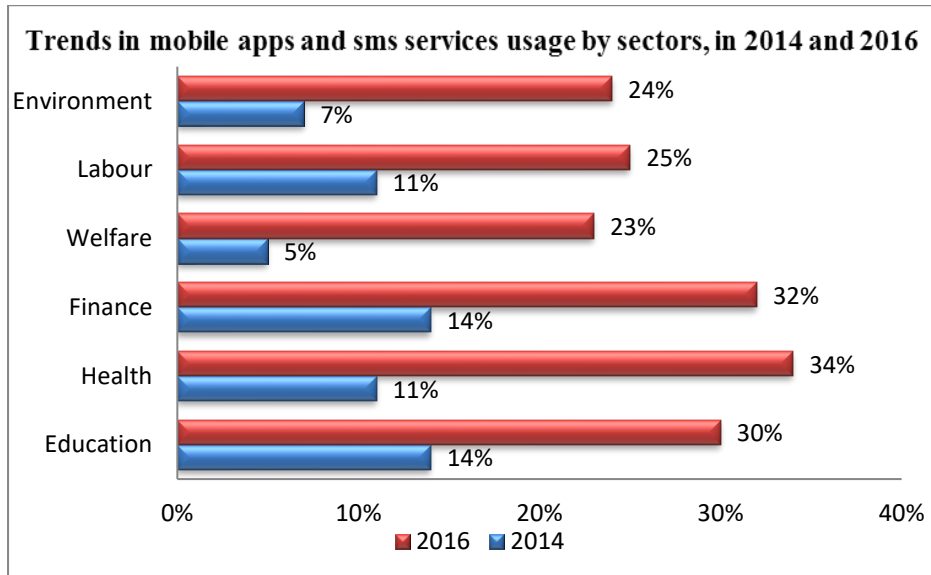
Fig.1. Mobile apps and SMS services between years 2014 and 2016 [12]

Mobile apps and SMS services show tremendous increases in almost all sectors. The highest growth in the mobile apps and SMS services was in the health sector, with an increase from 11 to 34% from 2014 to 2016, followed by the finance sector with an increase from 14 to 32%. Other sectors also experienced high levels of increase, respectively 7 to 24% for the environment, 14 to 30% for education, 8 to 23% for welfare, and 11 to 25% for labour. Figure 4.10 provides an overall picture of mobile services by sector for 2016. Updates via email or RSS experienced the highest number across the sectors as compared to mobile apps or SMS services. Mobile apps and SMS services have both been increasing in the last two years (Figure 1 and Figure 2), and the gap between the two online services is narrowing. However, the difference is still high in education (30 countries), finance (23 countries), welfare (22 countries), environment (22 countries), and labour (13 countries) [11].
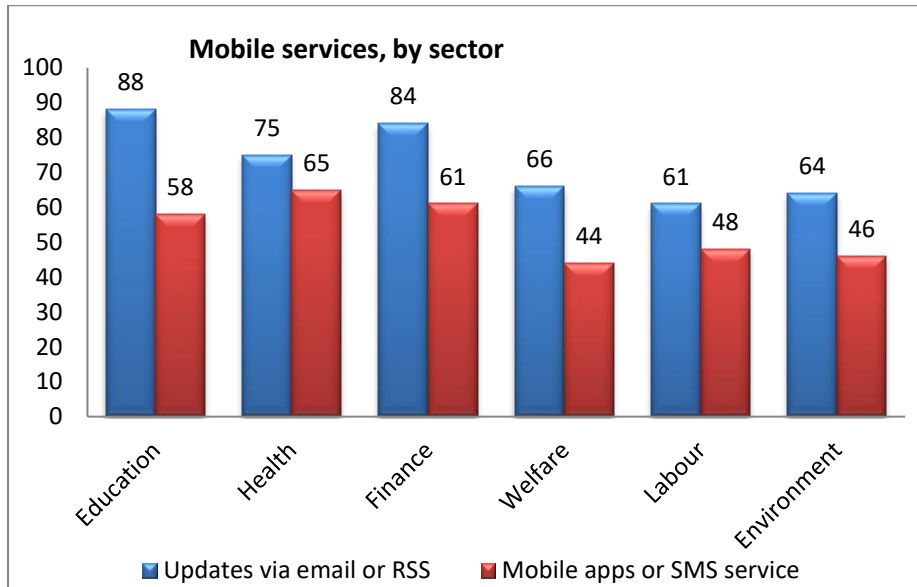
Fig.1. Mobile apps and SMS services between years 2014 and 2016 [12]

The 2016 Survey highlights two important phenomena. First, the social sectors such as health and education experienced an increase, which represents a strong commitment from governments around the world to utilize technology for the benefits of all and in support of sustainable development. "Second, given the trends highlighted by the 2014 and 2016 Surveys, it is expected that increases will occur in both services – updates via both email/RSS and mobile apps/SMS services – across sectors. Such increases will be determined by the availability and affordability of mobile devices. [7]"

2.1 Software solutions

Linux is highly flexible software solution due to its flexibility as well as stability and security. It is significant that became the foundation of the IT infrastructure of many commercial companies and institutions. In recent times various events show that Linux and open source technologies also have their place in government and even in many developed countries. Security of information systems and their level is extremely important indicator and is given directly to the man who created it, use and take care of it. This level is influenced by many factors such as: the overall quality of the information system, errors made in the development of the system and can create conditions for the emergence of other errors, inappropriate and insufficient care information system, sloppiness, irresponsible attitude and superficiality in the system operation, considerable influence external but also the internal temperature, unauthorized use of the system can attack the system, malicious data flows in the system, accepting data from illegitimate sources, preventive conservation, control,

and implementation of corrective measures to raise security levels. System security, however, degrades in proportion to the use of the system. "The main idea of Linux is that it is a software solution that is completely free, as is its development is an open source system. Cost savings on such a large environment like the government is a remarkable value that could involve substantial way to relieve the state budget. [12]"

3 Public administration research

The unequal management structures significantly exhaust the funds for the salaries of public servants, thus affecting the frequency and conditions of ordinary employees. They are not capable of being effective. Moreover, as the funds absorb some unnecessary features of their executives. "Addressing the problem of communication and a more effective early warning system would reduce the level of government. Due to the restructuring process, it would be very challenging, but in the short term it would lead to an improvement in public administration. [13]"

Digitization would be an important element in this respect as it simplifies the work of the employees and, at the same time, the development of the state administration should be offset by the tendency of reducing the administrative burden. This would lead to a reduction in the number of employees, but human capital could be relocated to sectors with a lack of manpower. Expenditure on the state would represent expenditure on staff re-qualification in this respect.

3.1 Basis of public administration management solutions

In addition to the development of infrastructure and Internet access, the improvement of basic services targeted at vulnerable groups have led to more inclusive public services at national level and contributed to the effort to overcome the digital divide. The digital gap generally persists between nations and regions and between men and women, younger and older generations, educated and less educated people and people of different population groups.

Also in developing countries, the need for understanding as important factors enables the sustainable development and prosperity of society even in less developed regions. "Connectivity and infrastructure development provide broad public access to state incentives for a broad mass of the population through mobile devices. [9]"

4 Conclusion

Bridging the digital divide between countries and people is a key objective of the international community. It requires international cooperation and support. It also requires mobilizing the public and private sectors and societies at large to develop the kind of devices, applications, technologies, and safeguards that can enable and mobilize ICT for addressing poverty, illiteracy, and disease. Progress has to be

accompanied by policies to equip people to use online and mobile services, and develop the necessary enabling environment and safeguards.

Several types of online transaction services have increased. Transaction services related to funds, personal accounts and public service payments a linear process, re-affirming the commitment of countries to increase public engagement online services, as well as improving the transparency of public finances. Improvement the business environment remained a priority for the 2014-2016 period with 37 countries introduction of online registration. However, the number request registration and licenses remain at a low level, while privacy and security concerns have blocked the efforts of countries to accept online requests in full.

"Accessibility of information has increased in the areas of education, health, finance, welfare, labor and the environment. Information about the environment and mobile apps and SMS services recorded the highest increase. [16]"

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