

ANALYSIS OF PUBLIC ADMINISTRATION, EFFECTS AND IMPACT OF DIGITALIZATION AND INTEROPERABILITY IN PUBLIC ADMINISTRATION

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Case Study

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Abstract: For the purpose of digitization and interoperability of public administration, we researched the organization and challenges in public administration in Bosnia and Herzegovina as well as in general in public administration. We presented parts of public administration as well as the influences of public administration. The effects and influence of digitalization and interoperability in institutions in B&H, strategic approach to the development of public administration, the relationship between Vision and Technology as an indicator of business success in public administration are given. We also presented a view on the provision of digitalized and interoperable public administration services.

Keywords: digitalization, interoperability, public administration, Big Data.

INTRODUCTION

The introduction of public administration in digitalization and thus in interoperability requires that we use new technologies in an innovative way. Using ten good reasons for standardization and guided by the idea that standardization helps create sustainability and benefits for all people in global society, we researched and provided solutions to improve service delivery in public administration [1].

For the purpose of digitalization and interoperability of public administration, we researched the organization and challenges in public administration in Bosnia and Herzegovina. In order to successfully carry out digitalization and implement interoperability in public administration, it is necessary to standardize business processes in order to certify the quality of business and disseminate knowledge through IT and communication technologies.

In digitalization and interoperability of public administration, it is necessary to perform analyzes of business processes, their definition both through conceptual design and through physical design, using standardized tools. An analysis of long - term practice based on experiences gained in the preparation, development and implementation of various IT projects shows that without the use of IT tools in the preparation, development and implementation of IT projects, many IT projects do not even begin, not to mention the implementation and later reengineering business processes and IT projects.

Improving the performance of standardization and modeling of business processes in public administration gives business flexibility, high availability, tolerance to errors and disasters.

The introduction of new computer technologies creates opportunities for business processes that have not been digital so far to be introduced into

new services, thus indirectly creating a market that did not exist before.

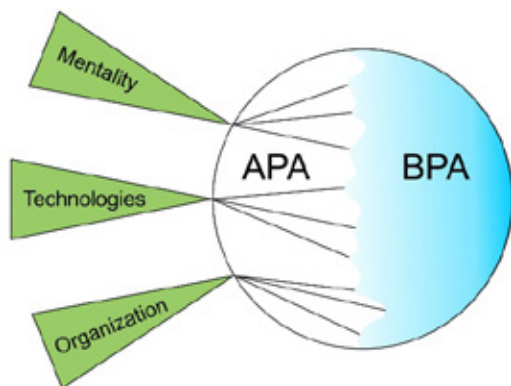
The introduction of digitalization and interoperability in public administration leads to the launch of public administration for intelligent and fast making the right business decisions in new and unexpected service conditions [2].

When creating a business strategy, successful management bodies use business intelligence to analyze and identify elements that significantly contribute to service efficiency and customer satisfaction. They base their business on the benefits of the shared knowledge and skills of all employees.

PUBLIC ADMINISTRATION

When we observe public administration in general, it is influenced by various factors.

According to the acceptance of new technologies and the introduction of innovations, we can divide public administration into advanced public administration and backward public administration.



Picture 1. Advanced Public Administration and Backward Public Administration

APA - Advanced Public Administration

BPA - Backward Public Administration

By introducing digitalization and interoperability in advanced public administration, we contribute to its improvement and flexibility, and it primarily affects it:

- Mentality - why, it is a willingness to accept change, a willingness to improve the process, a willingness to improve governance. Or simply a willingness to do things differently.

- Organization - we have in our organizations - public administration, different teams that we have to learn how to talk. e.g., we have teams in public administration for: applications, network, operations and security, etc.

- Technologies - new technologies, their introduction, use, etc.

The goal is to influence the backward public administration by introducing changes in mentality, organization and technologies, to change it into advanced public administration.

By creating individual habitus, we also create a sustainable ecosystem.

EFFECTS AND IMPACT OF DIGITALIZATION AND INTEROPERABILITY IN B&H INSTITUTIONS

The impact of digitalization and interoperability in institutions in B&H is a key driver for improving the quality of public administration. Digitization and interoperability are based on material and immaterial resources and unique knowledge of the implementation of digitization and interoperability in institutions in B&H, regardless of whether we are talking about the current we have or about some new, improved knowledge.

A strategy that implies the efficient use of resources enables the creation of knowledge that can be easily transformed into the market values of an improved organization and business processes. Research and introduction of digitalization and interoperability implies research of the connection between improved inputs and outputs, which is closely related to the performance of the organization and organizational units of public administration.

The development of digitalization and interoperability should have the highest priority in all organizations, especially in public administration, and should include, in addition to investments in development, research and investment in employees, organizations and practice.

The introduction of digitalization and interoperability should contribute to strengthening and improving the competencies of all actors and organizations, which includes the overall systemic environment in public administration.

The effects and impact of digitalization and interoperability in B&H institutions are as follows:

- Improving the process in public administration.
- Digitization of public administration.
- Interoperability of public administration.
- Provided preconditions for further work and development of digitalization and interoperability.
- Introduction and improvement of digitalization and interoperability with other institutions.
- Improving the quality of public administration services.
- Introduction of new public administration services.
- Introduction of business intelligence.
- Enabled easy creation of various reports.
- Cost reductions and Introduction of standards.

The main goal of introducing digitalization and interoperability of public administration is not only the realization but also the improvement of public administration capacity and indirectly encouraging employment and achieving sustainable development [3].

THE STRATEGIC APPROACH TO THE DEVELOPMENT OF PUBLIC ADMINISTRATION

The strategic approach to public administration and its services should contribute to improving the quality of life of all in B&H, as well as the economy by raising its competitiveness with the help of information and communication technologies that enable access to highly sophisticated and advanced electronic public administration services. The strategic approach should enable the creation of a strategic framework for a unique, functional and efficient public administration IT system that enables the provision of sophisticated and advanced electronic services.

The essence of the strategic approach is to recognize and create conditions for mutual compatibility of existing IT and communication systems and those that are coming, thus eliminating redundant functionalities.

What can be achieved with a well-designed strategy is:

- creating a safe environment for the use of public administration services,

- improving the quality of life by using advanced public administration services,
- raising the level of productivity of public administration by using IT and communication technologies and creating new competencies,
- achieving stronger connections between citizens and public administration through the use of IT and communication technologies,
- improving the competencies and efficiency of the economy through the use of public administration services and
- creating an environment and conditions for improvement and innovation thanks to the introduction of new IT and communication technologies in public administration, which is based on mutual cooperation of public administration bodies, scientific and economic institutions and recognizing the standards and functionalities of the European Union.



Picture 2. The interrelationship of vision and technology as an indicator of business success

Understanding technology is changing business and its basic business model is the starting point for transformation. Organizations that have introduced digitalization into their business are based on business improvement and building business intelligence systems, rather than on the application of individual technological solutions.

Business intelligence systems in public administration provide digital feedback that helps public administration gain better insight from data and turn it into intelligent action - to get in touch with business, citizens, empower employees, optimize business and create new services and business models. These rich business intelligence systems are a

combination of technology, people and processes. They define the competitiveness of the organization and the ability to improve the business processes in which it participates, and they are essential for digital transformation.

All this leads to the business success of public administration and its putting into service to everyone: citizens, businesses, and public administration bodies themselves. Achieving business success of public administration depends primarily on vision and technology. The business success of public administration itself depends on the relationship between vision and technology.

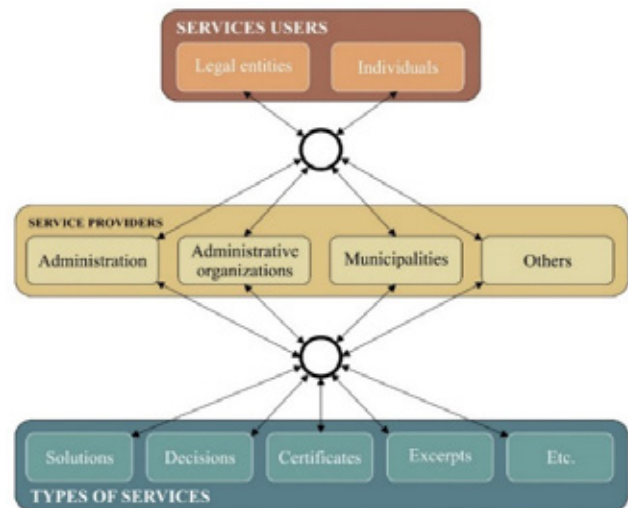
Computer technologies and vision can be used as a strategic resource for:

- improvement of business processes and thus changes in the organizational structure,
- using information technologies in creating new services and services and
- interoperability with other organizations.

The constant availability of public administration services is based on computer technologies that work constantly. In essence, the demands placed on computer technologies require their constant improvement, which is a great challenge. On the other hand, new technologies provide great opportunities to improve services, which is also a great challenge. Real - time public administration is a link between new technologies and new business process solutions.

The Decision of the Council of Ministers of Bosnia and Herzegovina accepted the recommendations [4] of the European Interoperability Framework 2.0 as the basis of the Interoperability Framework, in order to achieve the following purposes:

- exchange of electronic documents and electronic services between administrative bodies of the same level (own interoperability),
- electronic data exchange between administrative bodies of different levels (joint interoperability) and
- exchange of electronic documents and data with the institutions of the European Union and the governments of other countries.



Picture 3. Providing digitalized and interoperable public administration services

Users of public administration can request different types of services (listed in the picture above).

Public administration that includes all levels of the organization to the lowest level provides about 170 services or services to customers in Bosnia and Herzegovina. In order to provide free and low cost services to users, public administration in Bosnia and Herzegovina must be fully digitalized and interoperable. The power of public administration can be measured in the connection of its smallest link, i.e., the smallest organizational unit at the lowest level with all others. No matter what the industry sector, no matter what the customer base, web technology is going to be a major driving force for change. No company will be able to ignore this and any that do will fail. There is absolutely no question about that [5].

The service environments to come are characterized by rapid and radical change, with an emphasis on deliveries that are free, efficient, and user-friendly. Creating new services in public administration requires new ways of approaching service provision compared to previous service delivery. The user expresses the need for services that enable self-service or service, and the fact that the necessary data, information and the like exist in public administration.

The public administration's approach to the digital transformation platform development strategy must include three key areas for improvement:

- by creating new public administration services that enable the use of applications and data that go beyond individual devices,

- by reengineering business processes using digital tools, create new services in order to increase productivity and enable employees to focus on what is most important to them and the organization.
- for the needs of public administration to build an infrastructure that will be used to build an intelligent platform and Big Data in the cloud, which will allow public administration to integrate all its data that can be structured and unstructured, and where different public administration services can be created.

This solution enables further improvement and benefits for both public administration for citizens and the economy.

CONCLUSION

Companies that can best respond to markets that change quickly and frequently have better competitive advantages than those that fail to maintain the pace dictated by the globalization process [6]. This applies to both public administration and its ability to respond to the challenges ahead. The approach is designed to enable public administration to create intelligence systems that enable digital transformation and interoperability, through technology that enables others to improve business, build their own technologies and create solutions that help them achieve digitalization and interoperability of public administration.

By smartly managing digital transformation, we can boost productivity, increase mobility and create new digital services across and between multiple public administration organizations, as well as a wider range of citizens and stakeholders.

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