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Indicators of the Effectiveness of the Use of ICT in Public Administration and Their Calculation

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Abstract: *This article presents the indicators of the effectiveness of the use of ICT in public administration, their calculation and the main indicators of the effectiveness of Information Systems. In addition, it is considered how the above tasks are solved in different countries of the world and how they are solved in Uzbekistan.*

Keywords : *ICT, DABT, MABT, TABT, e-Corporation, G2G, G2C, G2B in public administration, Net Profit.*

The advantages of informatization are obvious – it leads to the direct release of the creative potential of the employees of the state government from the execution of many outdated functions on the collection, accumulation and initial processing of the management apparatus, giving the opportunity to focus on the development and adoption of appropriate management decisions – the main function of management.

This is the transition of Public Administration to a fundamentally new quality. As the main objective of the introduction of ICT in this area, we spoke about it in the first paragraph of this chapter.

But only in this way the definition of the concept of "ICT in public administration" will not be complete. The authors believe that it is necessary to emphasize once again that ICT should not be viewed as a simple "electronization" of management processes with the help of Information Technology. Both our own experience and foreign experience clearly demonstrate that attempts to automate well-known administrative and command functions through an attempt to restore the so-called "state (DABT), regional (MABT), network (TABT) and similar" automated control systems " of total accounting systems, known from recent history, are practically ineffective.

The modern possibilities of information technology make it possible to radically change the order of decision-making by allowing the execution of operations that can not be imagined in the "traditional human-performing" schemes of management. For example, the application of mathematical modeling techniques to determine the direct and much later consequences of making a clear management decision.

It is clear that the simple "electronization" of public institutions does not provide a huge increase in the efficiency of management activities, which is accompanied by the introduction of excise systems in public administration.

In other words, the increase in efficiency is achieved by a radical reorganization of the existing schemes and processes of Management in accordance with the capabilities of modern information technology and the conditions imposed by them on the functional organization of management activities.

In this context, the escalating administrative reforms create good conditions for the implementation of the ICT system in public administration in Uzbekistan. About it is mentioned in detail in the third

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chapter of this book.

And the introduction of some nimtisms requires the introduction of relevant amendments to the current legislation. For example, to introduce the procedure for issuing a passport through the Internet is not only an alternative technical solution, but also it is also necessary to make changes to the legislation on the passport system, which provides for these procedures the possibility that the passport holder will not be present personally.

Thus, "ICT in public administration" is not only the information and technical organization of Public Administration at the appropriate quality level. This is also a qualitatively different organization and management of relations and communication that exist in the Society of any country.

In a simplified form, the social life of any country can be imagined in the form of dynamic equality of relations of three important subjects. Citizens represent civil society as a whole – while the aggregate of business entities-represents the economy of the country, while the state is an integrated system.

The intregulatory role of the state in bunda is manifested in three-dimensional relations:

- Interaction of government institutions and local government bodies (government to government, or the world's generally accepted abbreviation-G2G);
- Interaction between government institutions and citizens of the country (government to citizens – G2C);
- Interaction between government institutions and business entities (government to business – G2B).

Civil-legal, social relations, rather than property, affiliation relations, etc., constitute the priority content of the relevant interaction.

Schematically, this interaction is expressed in Figure 1 (see below).

That is, the task of increasing the efficiency of Public Administration in the process of the introduction of ICT will be directed to the solution of the following problems:

- *how effective interaction of different government structures can be organized for the purpose of solving common tasks (G2G)*;
- *how to take into account the interests of citizens to the maximum extent and how to improve the quality of service provided to them in the relevant state institutions (G2C)*;
- *how to organize mutually beneficial relations of the state with business entities (G2B).*

The government presented above did not differ in anything from the scheme of interaction between different subjects of social life (G2G, G2C, G2B), in principle, in large business, especially in modern horizontal - integrated corporations, in which it performs an integrated function. Where citizens are replaced by direct customers, business entities-employees of the company and its divisions, and the state – the management of the company. There is no fundamental difference in the relationship between" subjects of the corporation "and" subjects of society".

However, even though e-Corporation and e-Governance are very close concepts and there is no fundamental difference between the automation process in large corporations and the automation process in the state, their goals and techniques are definitely different. First of all, it differs in terms of traditions and culture of Public Administration and corporate governance.

But nevertheless, a very important principle comes from the mentioned: the essence of any project of e - Governance, which is carried out in any country – is the introduction of a corporate information system on a national scale of all time.

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In order for this to work effectively in general (it does not matter whether it is in a corporation or in a country), simple, understandable and non - contradictory rules of management are necessary. They are generally available in corporations at this or that level because the effectiveness of business performance is an incredibly important factor. But in the field of state affairs, such rules are no less important. These factors are added to the criteria of usefulness and justice for society, especially in G2C and G2B nimtis. At the state level, these conditions are met differently in different countries, in the countries of the traditional democracy to a greater extent and in developing countries, as well as in those countries where Uzbekistan has a corresponding transition economy, to a lesser extent. Therefore, practical steps to implement large-scale administrative reforms in Uzbekistan are very important.

We will have to consider in the next two sections how these tasks are solved in different countries of the world and how they are solved in Uzbekistan.

And now we are fully prepared to give an alternative definition to the concept that interests us by identifying for ourselves what tasks are being solved in public administration and what elements of relations are being formed in a generalized way. To say the same: "ICT in public administration is a system of supporting and providing the entire society of internal and external relations in public administration with relevant information and communication technologies. It also includes the following: information and communication support of Public Administration on the basis of electronic means of processing, transmission and dissemination of information through communication networks (including the Internet;

- provision of services to all categories of citizens of all branches of state power by electronic means;
- to inform citizens about the work of state bodies through electronic means".

Or, in a laconic way: "a system of mutual information treatment of Public Administration bodies, society and citizens with the use of appropriate information and communication technologies".

Development of information in Uzbekistan, mass introduction and use of modern information technologies, techniques and telecommunications in all spheres of society's development, more complete satisfaction of citizens ' needs for information, creation of favorable conditions for expanding the use of world information resources are the main tasks of the development of the sphere of communication and Information Communication. Apart from these, it can also be said that the main tasks of development are to ensure that citizens can freely receive information through the internet at a convenient time and freely exchange those given.

It is recommended to compare the investment projects of automated information systems and choose the best one based on several indicators. The main indicators of the effectiveness of information systems are as follows:

- Net profit;
- profit taking index;
- internal mayor of profit making;
- the period of reimbursement of expenses.

Net profit (SF) is determined by the fact that the total result obtained is higher than the total cost spent. SF is calculated using the following formula if the costs are calculated at base prices or if inflation changes occur over a certain period of time:

$$C\Phi = \sum_{t=0}^{T} (R_t - 3_t) \frac{1}{(1+E)^t},$$

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Rt – t - the results achieved in step;

Zt – t - costs incurred in steps;

T – the last step of the calculations;

(Rt - Zt) – t – achieved effectiveness in step;

(1 + E) – profit coefficient;

E – profit.

The smariness of investment projects is assessed using the values of the indicators obtained at different times. If the net profit figure of the investment project is positive, then this project will be considered effective and it will be possible to consider the issue of its application. The greater the net profit value, the higher the efficiency of the project. If the net profit figure of an investment project is negative, then the project will not be effective, and investors will suffer.

In practice, a modified formula is also used to determine the net profit. To do this, (Z_t) removes the capital expenditure in the K_t-t – step from the total costs incurred in the t-step. The sum of net capital costs:

$$K = \sum_{t=0}^{T} K_t \frac{1}{(1+E)^t},$$

K – net capital expenditure.

The formula for calculating net profit will have the following appearance::

$$C\Phi = \sum_{t=0}^{T} \left(R_t - 3_t^+\right) \frac{1}{(1+E)^t} - K,$$

3_t^+ - while capital expenditure is not taken into account, t th costs being made in step.

It is possible to see the difference between the sum of the efficiencies achieved by this formula and the K capital expenditure used so far.

The profit taking index (FOI) is determined by the ratio of the sum of the achieved efficiencies to the used K capital expenditure:

$$\Phi O И = \frac{1}{K} \sum_{t=0}^{T} \left(R_t - 3_t^+\right) \frac{1}{(1+E)^t}.$$

The profit index is tied to the net profit index and consists of the same elements. Its value also depends on the value of the net profit indicator: if SF>1, then FOI>1 that is, the efficiency of the project is high, otherwise FOI<1-the result of the application of the project will not lead to an increase in efficiency.

Internal Revenue of profit (FOIM) is the amount of additional costs incurred (Ye_{1M} -) while the cost of capital and cost of capital are equal:

$$\sum_{t=0}^{T} \frac{R_t - 3_t^+}{(1+E_{IIM})^t} = \sum_{t=0}^{T} \frac{K_t}{(1+E_{IIM})^t}$$

It is necessary to take into account the following cases when using the internal meyori expander for profit:

• the internal meyori of profit making is not always available;

• the equation can have several roots.

The first situation is in very rare cases threeraydi. Although in the second case it is difficult to calculate the internal margin indicator of profit taking, it can also be calculated.

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The internal rate of return on profit of the project is determined in the process of calculations and then compared with the requirements of the capital expenditure entered by the investor to the profit Meyer. If the internal rate of return on profit is equal to or greater than the profit margin of the capital entered by the investor, the investment allocated to this project justifies itself and the problem of its acceptance can be considered. Otherwise, it is not worthwhile to invest in this project and implement it. If alternative investment projects see the net profit and profit of domestic investors, then in this case it is recommended to make a decision based on the net profit.

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