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EFFICIENCY OF ELECTRONIC GOVERNMENT SYSTEMS[3]

Digital technologies change common and routine processes and open new opportunities for their optimization. Our research aim was to test the hypothesis about the efficiency of information technology tools in public institutions' management; is the e-government system dependent on the level of information technology development or on the level of institutional development? An empirical analysis of the effects of institutional and technical factors on e-government systems in a sample of 193 countries was provided. Were studied data about the e-government system quality and development; of the institutions, Internet, and telecommunication development as well as statistical information about e-government service websites using. The intensity and efficiency of using e-government systems depend on the mentioned factors. The level of institutional development affects the intensity and effectiveness of the use of e-government systems both directly and indirectly, through a variable characterizing the quality of e-government systems. Advanced information technology factors only indirectly affect the intensity and effectiveness of the use of e-government systems. There is no statistically significant inverse relationship between efficiently and effectively operating e-government systems and variables which characterize the institutions and information technologies development. New rules and procedures in the electronic environment can generally affect the development of state institutions. However, such effects were not detected in our research.
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JEL: D80; G14; O32; O33

1. Introduction

The implementation of digital technologies leads to the optimisation of government processes and changes the established citizens' habits. Digital technologies remain purely scientific and technological achievements until implemented in practice and the possibility of their application in a particular area is the necessary attribute and the criterion of success (Benito et al., 2019; Hennart, 2019). As soon as digital technologies are put into practice, their basic rules, restrictions, and processes moved to the forefront in addition to technical capabilities.

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This is especially relevant in the fields of economics, finance, and management (Nambisan et al., 2019). So, the introduction of digital technologies depends not only and not so much on the technologies' quality but on their ability to incorporate into the structure of existing institutional relationships which often completely changes present relationships (Gevorgyan and Gevorgyan, 2021). Rules and procedures for digital technologies introduction have their effect on the risks associated with their introduction: Digital Interdependence Risk, Cyber Security Risk, Personal Data Risks, etc. (Luo, 2021).

Digital technologies' implementation success depends both on the introduced element and on its implementation rules. In almost all countries of the world, efforts are put in to implement and improve the so-called e-government systems aimed at transforming the system of public services, regulation, control, document management, and information into interconnected digital platforms (Twizeyimana, Andersson, 2019). This process is much more successful in developed countries and there are a lot of problems with their implementation in developing countries (Nkohkwo, Islam, 2013). The particular merit (public value) of these technologies is in their widely applied at the state regulation and management levels as well as by businesses and citizens (Bannister, Connolly, 2014).

2. Literature Review

The effect of digital technology implementation on public administration quality is not a new research topic. Its effect in increasing effectiveness on public administration and providing public services was discovered in the early 2000s (Heeks, 2001).

The issue of digital technologies' public value achieved is one of the key notions discussed on e-government. In viewing of Castelnovo (2013) the public value assessment should be focused not on the benefits for individual citizens but rather on certain beneficiaries-groups such as taxpayers or definite consumers of certain government services. Harrison et al. (2012), and Jørgensen and Bozeman (2007) note that public value creation is mainly the objective of public companies. The capabilities of e-government are implemented through the websites of government organizations. The effectiveness of e-government largely depends on the technical characteristics, availability, and relevance of the data published as well as the quality of provided services.

Seulki and Taejun (2019) evaluated the e-government efficiency through the analysis of public service websites that allowed to identify of the involvement level in the electronic public services obtained by citizens and organizations. This data can be used by government agencies to change electronic services' rules and technical characteristics. So, e-government introduction can be assessed by the indicators of the state's institutional development (Cordella, Paletti, 2017; Wang et al., 2018).

Ismail et al. (2020) studied local government bodies in Indonesia and proved that the e-government system significantly reduces the corruption level by increasing the transparency and accountability level in the local government structures. So, this can be considered both at technical and organizational levels, already at the planning period.

Another approach for studying the effect of the state digital technologies implementation is the conducted analysis for a certain country's group in the comparison of the digitalization levels and the institutional development indicators. Suardi (2021) has studied 47 Asian countries by using the components of the E-Government Development Index to assess the level of digitalization. This allowed him to determine global trends in the development of e-government systems and made a conclusion that each digitalization component has a positive effect on the corruption perception level reducing. Adam (2020) has studied this topic in African countries. He has used the mediation analysis with structural equation modelling and has discovered a significant relationship between the information technology development indicators, e-government, and the quality of institutions.

Structural equation modelling (Keith, 2019) has been frequently used in macroeconomic research. For instance, in the Wang et al. (2021) study structural equation modelling was applied to the problem of determining the effectiveness of international investment in infrastructure with Chinese contractors in a sample of 141 countries over a 9-year period (2009-2017). In Dell'Anno's (2020) study the structural equation modelling with the analysis by partial least squares has been used to study the level of perception of corruption in a sample of 165 countries for the period of 1995-2016. This approach can be used to study small and medium-sized enterprises' behaviour in the digital technologies implementation in business processes. Luqman and Abdullah's (2011) research was conducted at 337 small and medium-sized enterprises and identified factors that determined digital technologies' usage. Urbach and Ahlemann (2010) present a general description of approaches that are directed at solving problems in the information technologies field.

3. Research Methods

We provided an empirical analysis of the effect of e-government systems factors by a sample of 193 countries. Mediation analysis with structural equation modelling to assess the performance of e-government systems and their effect on numerous technical and institutional variables has been used.

3.1. Data Description

This research used 4 data groups.

Data about the e-government system development and its quality level: data from the "United Nations Global e-Readiness Reports and the e-Government Surveys" prepared by the Division for Public Administration and Development Management (DPADM) of the United Nations Department of Economic and Social Affairs (DESA) is used. These studies are published biennially in the UN e-government survey (UN, 2020). DPADM publishes 2 indexes, namely, the E-government development index and the e-participation index. The e-government development index is the main index and consists of 3 parts: the provision of online services, the infrastructure of telecommunication services providing the e-government system, and the educational level of potential e-government users. The e-participation index is an additional index characterizing the assessment of e-government services usage level by

various beneficiaries. 3 components of the e-government development index and the e-participation index are used.

The second data group characterizes the development of the Internet and telecommunication technologies in general in countries, without regard for e-government systems. For these purposes, the authors use 5 indicators from the World Bank Development Indicators database that characterize various aspects and sectors of the telecommunications industry (The World Bank, 2020a).

The third group of data characterizes various aspects of the institutional development of countries. So, Worldwide Governance Indicators (WGI) are used (The World Bank, 2020b). These indicators are calculated on the basis of surveys conducted among representatives of business, government, and non-profit organizations in various countries around the world.

The fourth group of data refers to statistical information on the use of websites providing e-government services. Since e-government services are provided through different government-related websites in different countries, it is impossible to find a holistic approach to assess the usage statistics of these websites. On the other hand, in each state, there are tax authorities that provide very similar services to both citizens and the business community of the country. In all the countries studied in the article, these public authorities provide services electronically to some extent. Therefore, in this article, the researchers adhere to the approach of assessing the intensity and effectiveness of the use of e-government services using indicators of Internet traffic on the websites of tax authorities in different countries. This approach allows us to assess the statistical data on the use of e-government services in the entire sample of countries studied in this article. At the same time, with all the possible variety of electronic services provided by the tax authorities in different countries, there is a certain unification based on the functional similarity of the operations of these authorities. This approach can be called using a proxy variable. For these purposes, information from the website https://www.alexa.com is used, which provides information about website traffic. Since website traffic can be quite volatile over time, statistics for a fairly long period of time, namely, the 4th quarter of 2021 is used.

The designations of all used variables, titles and descriptions thereof, are presented in Annex 1. These databases are combined in the current research and a database of 25 indicators for 193 countries has been created.

3.2. Model

According to the authors' assumption, e-government systems are based on 2 components – information technology advances and the institutional development of countries. The model constructed in this paper allows answering the question of whether the information technology and institutional development of countries really determine the level of use of e-government systems, and if so, how important the above components are. In addition, it allows determining how these characteristics affect the use of e-government systems directly or indirectly, through a variable characterizing the level of development and quality of e-government systems. It is also possible to determine the ratio of direct and indirect interaction of these characteristics in e-government systems.

The reverse effect of e-government systems on the information technology and institutional development of countries is also possible. Mediation analysis with structural equation modelling makes it possible to test this hypothesis as well.

3.3. Main Hypotheses

In this paper, the authors explore the relationship between the following characteristics:

1. Level and quality of the e-government systems using (hereinafter, this latent variable is denoted as Usage);
2. Assessment of the effectiveness of the rules and procedures of the e-government system (EGov);
3. Level of institutional development of countries (WGI);
4. Level of information technology development of countries (WB_Tech).

Such hypotheses are tested:

1. The importance of e-government systems in a given country (Usage variable), based on the level of their use, depends on the level of information technology development (WB_Tech variable) and on the level of institutional development (WGI variable). If this hypothesis turns out to be correct, simply improving the technical capabilities in the field of information technology in a particular country will not lead to the formation of e-government systems. A certain level of institutional development is also required for the success of e-government systems. Testing this hypothesis can answer a question from the perspective of the development of public administration systems, namely, whether the investments in information technology tools for managing public institutions can be effective without certain structural changes and institutional reforms.
2. The usage level of the e-government system in a particular country depends on the level of information technology development and on the level of institutional development. Whether the development of information technologies in the country in itself (directly) leads to the development of effective e-government systems or whether special, targeted measures are needed to create these systems is also very important from the perspective of strategic planning and allocation of resources of the state budgets of countries.

3.3. Mediation Analysis with Structural Equation Modeling

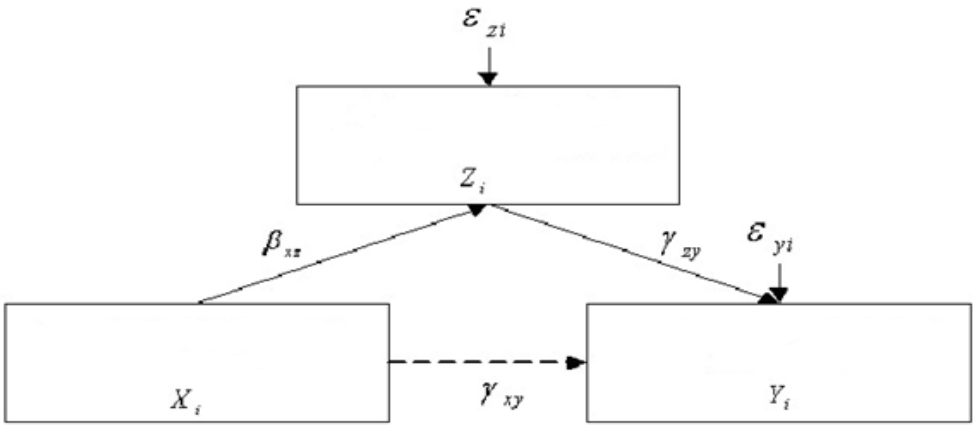
All 4 characteristics (Usage, EGov, WB_Tech, WGI) used in this paper are determined on the basis of a set of variables, which are given in Annex 1 and grouped in accordance with the above-mentioned characteristics. In fact, these 4 characteristics are latent variables. Different methods of factor analysis may be applied to determine and use these characteristics, and afterwards, to use the latter in regression analysis. However, the authors take a different approach and apply structural equation modelling, which enables the simultaneous application of factorial and regression analysis. To describe latent variables and

complex relationships, mediation analysis with structural equation modelling is used (Preacher et al., 2007).

Despite the outward similarity, structural equation modelling is fundamentally different from regression analysis. In regression models, a clear distinction can be made between dependent and independent variables. In structural equation modelling, these concepts are used only in a relative sense, since in one model equation, a variable can be dependent, and in another, the same variable can become independent. This approach makes it possible to use structural equations as models for identifying causality.

Structural equation modelling is often presented as a diagram (Ho et al., 2012). These diagrams consist of nodes representing variables and arrows showing relationships between those variables. In these diagrams, latent variables are depicted as a circle or ellipse, and the observed variables are depicted as a rectangle or square. Arrows represent the effects of one variable on another, and double-sided arrows represent mutual effects. Often the same principles are used to represent the error rates of the estimated parameters.

Figure 1. A structural equation model with mediation



Source: Gunzler et al., 2013.

Figure 1 shows a simple example of a structural equation model with mediating variable Z. Figure 1 shows a causal diagram for three variables using a structural equation model with mediation. Variables Z and Y, which are affected by other variables, are endogenous, while variable X, which affects only other variables, is exogenous. This example assumes that there are no latent variables. Therefore, all variables are represented by rectangles.

The diagram above can be represented by the following system of equations (Gunzler et al. 2013):

$$\begin{aligned} Z_i &= b_0 + b_{XZ}X_i + \varepsilon_{Zi} \\ Y_i &= Y_0 + \gamma_{YZ}Z_i + \gamma_{YX}X_i + \varepsilon_{Xi} \end{aligned} \quad (1)$$

The errors in the equations are not correlated. This is an important condition in structural equation models with mediation. It is also assumed that the errors have a multivariate normal distribution.

In structural equation models with mediation, the following terminology is often used:

γ_{XY} – Coefficient of direct effect;

$\gamma_{YZ} * \beta_{XZ}$ – Coefficient of indirect effect;

$\gamma_{XY} + \gamma_{YZ} * \beta_{XZ}$ – Total effect coefficient.

The above diagram and equations are the most common form of structural equations with mediation.

SEMs allow for the modelling of complex relationships between observed and latent variables, making them a versatile tool for a variety of purposes.

SEM is based on several assumptions, including linearity and normal distribution of factors. Violations of these assumptions can lead to biased parameter estimates and inaccurate estimates of model fit. There are various methods for evaluating structural equation models with mediation (maximum likelihood method, generalized least squares method, weighted least squares method, etc.). Many of the mentioned methods are implemented in various software packages. SEM estimation can be computationally intensive, especially for large data sets or complex models. This may require specialized software resources. In this paper, the maximum likelihood method and the R package lavaan library (Rosseel 2012) are used to build models.

4. Results

To test the hypotheses, many models were tested with different configurations of structural equations. Testing of these models already at a preliminary stage showed that only the models, in which the latent variables EGov and WB_Tech are exogenous, have significant statistical results. Thus, in the model described, these variables are exogenous, while the latent variables Usage and EGov are endogenous.

The regression equations in the final model are as follows:

$$\begin{aligned} \text{Egov} &= a_0 + a_1\text{WB\_Tech} + a_2\text{WGI} + \varepsilon_M (\text{Mediation effect}) \\ \text{Usage} &= b_0 + b_1\text{EGov} + c_1\text{WB\_Tech} + c_2\text{WGI} + \varepsilon_T \ \ (\text{Total effect}) \end{aligned} \tag{2}$$

where:

c_1 and c_2 – coefficients of direct effect;

a_1b_1 and a_2b_2– Coefficients of indirect effect;

$c_1 + c_2 + a_1b_1 + a_2b_2$ – Total effect characteristics;

ε_M – Error in mediation equation;

ε_T – Error in total effect equation.

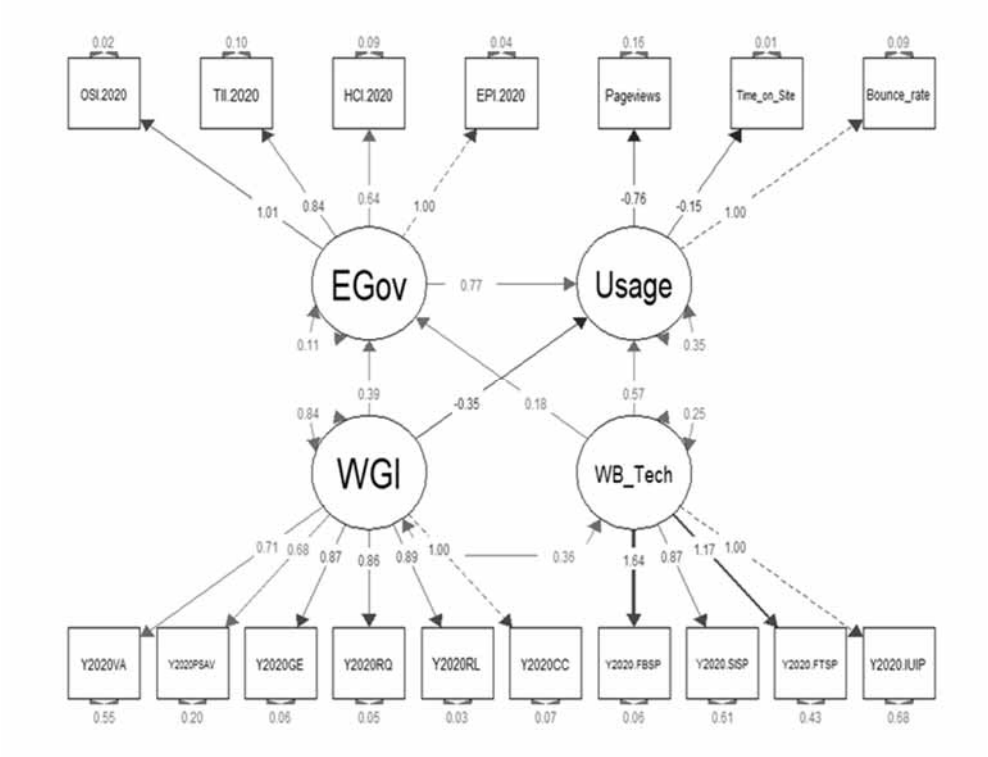
Table 1 below shows the estimates of the regression equations obtained when testing the final model using the maximum likelihood method.

Annex 2 provides complete information about the model under test, including the definition of latent variables (available in the form of lavaan package output). Figure 2 shows a diagram of the final structural equation model with mediation, built using the R package semPath program (Csardi and Nepusz, 2006). Here, the usual notation used in the schematic description of structural equations is used.

The results obtained (Annex 1 and Figure 2) indicate that the model used is generally statistically significant, as evidenced by the results of the Chi-square test. All coefficients of the regression equations are also statistically significant, except for the regression of the WB_Tech variable on Usage.

In the process of shaping latent variables, only statistically significant initial variables were left in the model. As a result of this approach, the Usage latent variable is formed using only three variables, namely, Bounce_rate, Time_on_site, and Pageviews, although initially, the model included all variables indicated in the section "Site traffic data from Alexa.com" (Annex 1). The latent variable WB_Tech is formed without the variable Y2020.MCSP.

Figure 2. Diagram of final model with mediation



Source: authors' calculations.

It is very important that the coefficients of indirect (ab) and total effect of exogenous variables on endogenous ones are also statistically significant at the 10 percent significance level. The values of variable variations are also evaluated in the model. It is evident that the estimates of the coefficients of variation of almost all variables, both latent and non-latent, are significant at the 10 percent significance level. Thus, the results obtained indicate the adequacy and good statistical properties of the model.

5. Discussion

The consideration of the obtained results should be started with latent variables in order to better understand the relationships between the latter. Latent variables WGI, EGov and WB_Tech are based on the characteristics high value of which show a high level of development of institutions, e-government systems and information technology environment, respectively. That is why the coefficients of all characteristics underlying these latent variables in Annex 2 have positive values. It is worth mentioning that the Mobile Cellular Subscriptions (per 100 people) variable, labeled Y2020. MCSP, is not significant for the WB_Tech latent variable, which is most likely due to the fact that the use of mobile communication is definitely not correlated with Internet use, especially with the use of digital technologies in public administration systems. All other variables tested for these three latent variables turned out to be significant and were included in the final model.

Latent variable Usage requires more detailed consideration. It is based on the characteristics of the Internet traffic of the tax services in the countries under study and characterizes the intensity and effectiveness of the use of digital technologies in the public administration system. Certainly, this variable characterizes the intensity and effectiveness of the use of digital technologies in the field of tax and, possibly, customs regulation; however, the authors of this article extrapolate the significance of this variable to the entire public administration system based on the assumption of the homogeneity of the use of digital technologies by individual systems of the state apparatus in a particular country. This assumption is justified since all assessments of the level of digitalization of individual countries do not operate with separate indices for describing specialized areas of public administration. Nevertheless, even if certain unevenness in the use of digital technologies in various areas of public administration is allowed, it will not affect the final results obtained in this paper.

Only 3 of the 10 tested variables, characterizing the Internet traffic of tax services of the countries under study, turned out to be significant for constructing a latent variable. These are the variables that are somehow related to the behaviour of users on the Internet resource. All other variables related to the ranking of websites, the number of search queries, and links to other websites turned out to be insignificant for constructing the Usage latent variable in the model for testing the effectiveness and intensity of the use of digital technologies in public administration systems.

The three variables that have proved to be statistically significant for constructing the Usage latent variable are as follows: Daily Time on Site, Bounce Rate, and Daily Page Views per Visitor. That is to say, the Usage latent variable can be represented as a variable, the high value of which corresponds to fewer page views and less time spent on the Internet resource.

It should be noted that the high value of this indicator can, on the one hand, indicate the effectiveness of the resource from the perspective of the provision of public services, since the users can get the necessary information and services with fewer pages viewed and less time spent. On the other hand, a low level of this indicator may mean that users spend more time on websites and view more pages, which might have a positive effect if the users receive several interconnected services on websites. Table 1 may indicate that the first assumption is most likely correct since the effect of the index – characterizing the level of development of e-government systems EGov on the Usage variable – is positive and statistically significant. Table 1 may indicate that the direct effect of the information technology development of countries on the intensity and efficiency of the use of e-government systems is insignificant. This means that the high level of information technology development in the country does not yet ensure the intensive and efficient use of state Internet resources. The direct effect of the institutional development of countries on the intensity and efficiency of the use of e-government systems is significant and negative. At the same time, the indirect effect (through the EGov variable) of the WG_Tech and WGI variables on the Usage variable (coefficient ab in Annex 2) is positive and statistically significant at the 10% significance level.

Table 1. Estimates of the regression equations of the final model

	Estimate	Std.Err	z-value	P(>|z|)
Usage				
WGI (c2)	-0.349	0.207	-1.686	0.092
WB_Tech (c1)	0.571	0.458	1.246	0.213
EGov				
WB_Tech (a1)	0.177	0.083	2.133	0.033
WGI (a2)	0.392	0.12	3.265	0.001
Usage				
EGov (b1)	0.769	0.379	2.026	0.043

Source: authors' calculations.

This result can be interpreted as follows: the information technology development of countries has an indirect positive effect on the intensity and efficiency of using e-government systems, and it affects through the existence of a high-quality e-government system. The institutional development of countries has a positive effect on the intensity and efficiency of the use of e-government systems only through a variable characterizing the high-quality e-government systems. In the absence of high-quality e-government systems, the direct effect of the WGI variable on Usage is negative, which means that the institutional development without high-quality e-government systems leads to an increase in average page views and time spent on Internet resources. This result is logical since a high level of institutional development leads to a more intensive search for digital methods for obtaining public services; however, the poor quality of e-government systems increases the time spent and resource viewing by agents.

E-government service quality (the EGov variable) is positively correlated with both the WB_Tech variable (5% significance level) and the WGI variable (1% significance level). This is evidenced by the coefficients a1 and a2 indicated in Table 1.

Variables characterizing the institutional development and the level of information technology development of countries affect the intensity and effectiveness of the use of e-government systems through the variable characterizing the quality of these systems as well as directly in the case of the WGI variable (see discussion above). The ab/total coefficient ratio shows the ratio of the indirect and the total effect of exogenous variables on the Usage variable. This ratio is near 2/3 and means that exogenous variables affect the Usage variable mostly indirectly.

A direct effect is also available. It means that it is impossible to have an effectively functioning e-government system without a certain level of institutional development and a developed information technology system.

6. Conclusion

The intensity and efficiency of using e-government systems depend on the level of development of information technologies and institutions. These factors affect the intensity and effectiveness of the use of e-government systems in different ways. The level of institutional development affects the intensity and effectiveness of the use of e-government systems both directly and indirectly through a variable characterizing the quality of e-government systems. Developed information technology factors only indirectly affect the intensity and efficiency of using e-government systems, namely, through the variable characterizing the quality of e-government systems. A certain level of institutional development is necessary for the effective operation of e-government systems. E-government systems can only exist in a certain institutional environment. Technical solutions and information technology development are prerequisites for the development of the e-government system. However, the existence of productive rules and mechanisms for their implementation are of major importance for the successful use and effective operation of the mentioned systems.

There is no statistically significant inverse relationship between high-quality and efficient e-government systems and variables characterizing the development of institutions and information technologies. This kind of link is unlikely in the case of information technologies. But in the case of institutions, it might well exist since the creation of new rules may affect the development of institutions as a whole and the creation of new behaviour stereotypes. However, such an effect was not found. It means that it should not be expected that the creation of e-government systems may lead to structural changes and institutional reforms.

The analysis of the latent variable of efficiency and intensity of the use of e-government systems – based on the characteristics of Internet traffic – showed that variables, based on user behavioural preferences, are important for this indicator, which indicates the efficiency and intensity of the use of e-government systems are based largely on the institutional and behavioural aspects of social and economic reforms.

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Annex 1

Name	Short Name	Description
UN e-governance indicators		
E-Participation Index	EPI.2020	
Online Service Index	OSI.2020	
Human Capital Index	HCI.2020	
Telecommunication Infrastructure Index	TII.2020	
World Development Indicators		
Secure Internet servers (per a million people)	Y2020.SISP	
Fixed broadband subscriptions (per 100 people)	Y2020.FBSP	
Mobile cellular subscriptions (per 100 people)	Y2020.MCSP	
Fixed telephone subscriptions (per 100 people)	Y2020.FTSP	
Individual Internet using (% of population)	Y2020.IUIP	
Worldwide Governance Indicators		
Voice and Accountability	Y2020VA	
Political Stability and Absence of Violence/Terrorism	Y2020PSAV	
Government Effectiveness	Y2020GE	
Regulatory Quality	Y2020RQ	
Rule of Law	Y2020RL	
Control of Corruption	Y2020CC	
Site traffic data from Alexa.com		
Site's Overlap Score	Site_Overlap	Comparative level of the current site's audience and similar sites: calculated from an analysis of common visitors and/or search keywords. A higher score means a higher audiences overlap.
Alexa Rank1 Today	Alexa_1	In global internet traffic and engagement over the last 90 days, as of 1 October 2021
Alexa Rank2 Today	Alexa_2	In global internet traffic and engagement over the last 90 days, as of 31 December 2021
Country Rank Alexa	Country_Alexa	
Search	Search	Traffic in % that comes from both organic and paid search.
Total Sites Linking In	Linking	Sites that link to this site (recalculated weekly).
Visitors by Country	Visitors_Country	Visitors from a country
Daily Time on Site	Time_on_Site	Daily average time in min. and sec. that a visitor spends on a site.
Bounce rate	Bounce_rate	
Daily Page Views per Visitor	Pageviews	Site visits percentage: consists of a single-page viewing.

Annex 2

lavaan 0.6-9 ended normally after 83 iterations:
Estimator –ML;
Optimization method – NLMINB;
Number of model parameters – 40;
Number of observations – 32;
Model Test User Model:
Test statistic – 266.482
Degrees of freedom – 113
P-value (Chi-square) – 0.000
Parameter Estimates:
Standard errors – Standard
Information – Expected
Information saturated (h1) model – Structured

	Estimate	Std.Err	z-value	P(>|z|)
LATENT VARIABLES				
Usage = ~				
Bounce_rate	1.000			
Time_on_Site	-0.145	0.027	-5.403	0.000
Pageviews	-0.763	0.138	-5.536	0.000
WB_Tech =~				
Y2020.IUIP	1.000			
Y2020.FTSP	1.168	0.428	2.729	0.006
Y2020.SISP	0.871	0.389	2.238	0.025
Y2020.FBSP	1.641	0.528	3.110	0.002
EGov =~				
EPI.2020	1.000			
HCI.2020	0.642	0.110	5.854	0.000
TII.2020	0.844	0.122	6.945	0.000
OSI.2020	1.013	0.086	11.765	0.000
WGI =~				
Y2020CC	1.000			
Y2020RL	0.895	0.057	15.689	0.000
Y2020RQ	0.860	0.060	14.294	0.000
Y2020GE	0.874	0.064	13.766	0.000
Y2020PSAV	0.684	0.094	7.310	0.000
Y2020VA	0.707	0.149	4.757	0.000
REGRESSIONS				
Usage ~				
WGI (c2)	-0.349	0.207	-1.686	0.092
WB_Tech (c1)	0.571	0.458	1.246	0.213
EGov ~				
WB_Tech (a1)	0.177	0.083	2.133	0.033
WGI (a2)	0.392	0.120	3.265	0.001
Usage ~				
EGov (b1)	0.769	0.379	2.026	0.043
Covariances	Estimate	Std.Err	z-value	P(>|z|)
WB_Tech ~~				
WGI	0.358	0.154	2.324	0.020

	Estimate	Std.Err	z-value	P(>|z|)
VARIANCES				
Bounce_rate	0.091	0.062	1.480	0.139
Time_on_Site	0.006	0.002	3.139	0.002
.Pageviews	0.160	0.053	3.026	0.000
.Y2020.IUIP	0.681	0.175	3.881	0.000
.Y2020.FTSP	0.427	0.116	3.688	0.000
.Y2020.SISP	0.606	0.155	3.902	0.000
.Y2020.FBSP	0.057	0.078	0.738	0.461
.EPI.2020	0.040	0.015	2.723	0.006
.HCI.2020	0.091	0.024	3.815	0.000
.TII.2020	0.104	0.028	3.711	0.000
.OSI.2020	0.018	0.012	1.526	0.127
.Y2020CC	0.065	0.021	3.159	0.002
.Y2020RL	0.033	0.012	2.652	0.008
.Y2020RQ	0.047	0.015	3.131	0.002
.Y2020GE	0.056	0.017	3.256	0.001
.Y2020PSAV	0.202	0.052	3.876	0.000
.Y2020VA	0.553	0.140	3.952	0.000
.Usage	0.347	0.118	2.942	0.003
WB_Tech	0.248	0.163	1.516	0.130
.EGov	0.105	0.032	3.278	0.001
WGI	0.842	0.227	3.716	0.000
DEFINED PARAMETERS				
Ab	0.437	0.239	1.826	0.068
Total	0.659	0.356	1.850	0.064