MINISTRY FOR DEVELOPMENT OF INFORMATION TEHNOLOGIES AND COMMUNICATIONS OF THE REPUBLIC OF UZBEKISTAN

TASHKENT UNIVERSITY OF INFORMATION TECHNOLOGIES

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UNITED NATIONS INDEX ON DEVELOPMENT OF THE ELECTRONIC GOVERNMENT AS A KEY INDICATOR OF INTRODUCTION OF INFORMATION TECHNOLOGY IN ACTIVITY OF STATE AUTHORITIES AND GOVERNING OF THE REPUBLIC OF UZBEKISTAN

5A350301 – Economics and management in sphere of ICT

WRITTEN FOR MASTER DEGREE DISSERTATION

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MINISTRY FOR DEVELOPMENT OF INFORMATION TEHNOLOGIES AND COMMUNICATIONS OF THE REPUBLIC OF UZBEKISTAN

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THE ANNOTATION OF MASTERS DISSERTATION

The actuality of theme: Nowadays, many governments are taking steps for e-government implementation, which allows enhancing the delivery of public services and citizens' engagements with government. E-government initiatives in many developing countries, including Uzbekistan, face many significant barriers regardless of how advanced or modest a country in terms of ICT infrastructure and deployment that can interfere with the progress towards realizing a proper implementation of e-government. E-government of Uzbekistan is still at the initial stage in transition to electronic services. So, this paper presents the main barriers affecting e-government development in Uzbekistan which negatively affected people's decisions to use the technology and inhibited decision makers from implementing or adopting e-government initiatives. This paper provides - firstly, a theoretical background which consist of e-government definition from different perspectives, the importance of e-government implementation, definition and types of e-government barriers, secondly, the current situation of e-government development in Uzbekistan and finally, the main barriers affecting the development of e-government in Uzbekistan.

The aim of the work and tasks: (1) analysis of best practices in the area of e-government implementation in developed countries; (2) analysis of problems related

to e-government implementation in activity carried out by public administration bodies for the previous years; (3) analysis of legislative basis for e-government implementation and development of recommendations on introducing law amendments regulating e-government implementation; (4) based on analysis conducted definition of the main direction and stages of e-government implementation in activity carried out by public administration bodies.

The object and predmet of the research: The development objective of thesis is assist in formulating ICT Policy, in the development of e-Government in support of governance reform, and in creation of enabling environment for ICT development in Uzbekistan by policy advice, pilot interventions and strengthening the public-private partnership in the ICT field of Uzbekistan. Therefore, the purpose of this thesis is to study progress of e-Government and identify obstacles of implementing and improving e-Government in Uzbekistan.

The styles and methods of the research: Progress in online service delivery continues in most countries around the world. The United Nations E-Government Survey finds that many have put in place e-government initiatives and information and communication technologies applications for the people to further enhance public sector efficiencies and streamline governance systems to support sustainable development. Among the e-government leaders, innovative technology solutions have gained special recognition as the means to revitalize lagging economic and social sectors.

Literature review: On the issue of international experience in the field of e-government, the mechanism of implementation of activities of the public administration, the efficiency of use of tools have been studied the work of international researchers who have extensive experience in the field of e-government and public administration. In addition, domestic work has benefited from the experience of economic studies, the effectiveness of the introduction of interactive services authored by scientific figures and leaders of state-owned enterprises has extensive experience in the field of information technology and e-government.

Description of applied research methods: To bring to the research is used of situation abstract-logical, monography, based on comparable, graphical, analysis, economy-mathematic and system analysis. The purpose of this technique is to reduce the subjectivity of human action which seeks to extract the most important information from the original document and present them in a compressed form; to improve the quality of secondary documents prepared; reducing the time and cost of their intellectual training.

Theoretical and practical importance of research results: To improving efficiency and transparency of government services, government authorities may increase the frequency of interaction between citizens and government as well as improving the quality of the government services and trust. E-Government in definition is the delivery of government services to citizens, businesses, and government organizations through the use of internet, web based applications, and Information and Communication Technologies is the solution to build more reliable and efficient contact with citizens. Like the developing and developed countries, Uzbekistan also has been processing the various aspects of ICT, IT, and e-Government. Though, in order to implement and improve e-Government; Uzbekistan has faced with some obstacles.

Scientific novelty of research: The principal difference between the approaches of studies is a personal experience that upholds the author, is to use practical skills. First introduced to the scientific study of the problem of development in the UN ranking for E-Government readiness. Volume is devoted to little-known problem which is already a pretty urgent.

Content of the thesis: In the first chapter of a thesis is a description of the general concept of e-government development, UNDESA role in the development of the new guidelines and practices of implementation mechanisms to improve key indicators of e-government rankings.

The second chapter details disclosed methodology for calculating sub indexes used

in the assessment of the main indicators, as well as the recommendations on how to use METER designed to simulate the preliminary results in the ranking of e-government.

In the third chapter disclosed the issue of international experience in the case of the Republic of Korea and the measures taken to integrate the Korean experience in Uzbekistan. In addition, this chapter developed specific practical measures to improve the location of the republic in the UN ranking of e-government, the implementation of which is proposed to carry out the first half of 2017.

Thesis consists of introduction, three chapters, conclusion and the list of reference. Total 102 pages, contains 11 tables and 10 pictures.

Scientific director _____

(signiture)

Master's student _____

(signiture)

МИНИСТЕРСТВО ПО РАЗВИТИЮ ИНФОРМАЦИОННЫХ ТЕХНОЛОГИИ И КОММУНИКАЦИИ РЕСПУБЛИКИ УЗБЕКИСТАН
ТАШКЕНТСКИЙ УНИВЕРСТИТЕТ ИНФОРМАЦОННЫХ ТЕХНОЛОГИЙ

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АННОТАЦИЯ МАГИСТРСКОЙ ДИССЕРТАЦИИ

Обоснования темы магистрской диссертации и её актуальность: В настоящее время многие правительства предпринимают шаги для внедрения электронного правительства, которое позволяет повысить предоставления государственных услуг и обязательств граждан с правительством. Инициативы «Электронного правительства» во многих развивающихся странах, включая Узбекистан, сталкиваются со многими значительные препятствия, независимо от того, имеют ли страна передовые или более скромные ресурсы в плане инфраструктуры ИКТ, которые могут вмешаться в прогресс и достижении надлежащего осуществления «Электронного правительства». «Электронное правительство» в Узбекистане находится на переходном этапе к

транзакционным государственным услугам и в целях обеспечения широкого использования информационных технологий в деятельности государственных органов для предоставления гражданам электронных государственных услуг ООН раз в два года проводит комплексное исследование уровня развития электронного правительства в странах мира. Все страны, охваченные данным исследованием, ранжируются в рейтинге на основе взвешенного индекса оценок по трем основным составляющим: электронные услуги, ИКТ-инфраструктура и человеческий капитал, которые имеют равный вес при определении общего рейтинга страны.

Объект и предмет исследования: Целью разработки диссертации является содействие в разработке политики в области ИКТ, в развитии электронного правительства в поддержку реформы управления, и в создании благоприятной среды для развития ИКТ в Узбекистане политических консультаций, экспериментальных проектов и укрепления государственно-частное партнерство в области ИКТ Узбекистана. Таким образом, цель данной работы является изучение хода развития «Электронного правительства» и выявить препятствия для внедрения и совершенствования «Электронного правительства» в Республики Узбекистане.

Цели и задачи исследования: (1) анализ лучшего опыта в области внедрения «Электронного правительства» в развитых странах; (2) анализ проблем, связанных с «Электронного правительства» реализацию в деятельности, осуществляемой органами государственной власти за предыдущие годы; (3) анализ законодательной базы для внедрения электронного правительства и разработка рекомендаций по внесению изменений к закону, регламентирующие реализацию «Электронного правительства»; (4) на основе анализа, проведенного определения основного направления и этапы внедрения «Электронного правительства» в деятельности, проводимой органами государственной власти.

Научная новизна: Принципиальная разница между подходами исследований является личный опыт, что отстаивает автор, заключается в использовании практических навыков. Впервые представленная в научном исследовании проблемы развития в ООН рейтинга по электронному правительству готовности. Объем посвящена малоизвестным проблему, которая уже довольно актуальной.

Основные задача и гипотеза исследования: При формировании показателя субиндекса «электронные услуги» со стороны экспертов ООН оценивается 8 национальных веб-сайтов государственных органов: Правительственный портал, Единый портал интерактивных услуг, Минтрудсоцзащиты, Минвуз, Минобразования, Минфин, Минздрав и Госкомприроды. По результатам рейтинга 2014 года Узбекистан по субиндексу «электронные услуги» занял 72 место в мире, 5 место в СНГ и 2 место в Средней Азии.

В целях повышения значения показателей субиндекса «электронные услуги», выработки оперативных организационно-технических мероприятий по совершенствованию 8 национальных веб-сайтов государственных органов и обеспечения вхождения по субиндексу «электронные услуги» в 50 лучших стран в мире и в тройку лидеров среди стран СНГ предлагается принять следующие меры:

1. Сформировать постоянно действующую рабочую группу из числа ответственных лиц соответствующих комплексов Кабинета Министров, Госкомсвязи, Минтрудсоцзащиты, Минвуза, Минобразования, Минфина, Госналогового комитета, Госкомстата, Гостаможенного комитета, Минздрава и Госкомприроды для подготовки плана практических мер;

2. Создать в сети Интернет Единый портал открытых данных (data.gov.uz), консолидирующий всю общедоступную социально-экономическую и общественно-политическую информацию в различных форматах данных;

3. Соответствующим министерствам и ведомствам в обязательном порядке в своих сметах на ИКТ предусмотреть финансирование работ по

совершенствованию своих веб-сайтов и внедрению комплексных электронных услуг в соответствии с прилагаемыми адресными рекомендациями корейских и международных экспертов;

4. Совместно с Министерством иностранных дел и Представительством ПРООН в Узбекистане принять меры по налаживанию тесного сотрудничества и партнерства с Департаментом ООН по экономическим и социальным вопросам, ответственным за формирование рейтинга электронного правительства;

5. Для улучшения показателя «электронного участия» ответственным министерствам и ведомствам активизировать работу по использованию социальных сетей и медиа-ресурсов для освещения своей деятельности.

Обзор литератур по теме исследования. По вопросу международного опыта в сфере электронного правительства, механизм реализации мероприятий в части государственного управления, эффективность использования инструментов были изучены работы международных исследователей, которые имеют огромный опыт работы в сфере электронного правительства и государственного управления. Кроме того, были использованы отечественные работы по опыту экономических исследований, эффективности внедрения интерактивные услуги авторами которых являются научные деятели и руководители государственных предприятий имеющий огромный стаж работы в сфере информационных технологий и электронного правительства.

Характеристика метододик, применяемых в исследовании: Прогресс в сфере оказания онлайн услуг продолжается в большинстве странах по всему миру. В соответствии с Обзором Организации Объединенных Наций, многие из них правительств ведут действия инициатив развития системы «Электронного правительства» и ИКТ приложений для граждан, а также для дальнейшего повышения эффективности государственного сектора и оптимизации систем управления для поддержки устойчивого развития. Среди лидеров по рейтингу «Электронного правительства»,

инновационные технологические решения получили особое признание как средство активизации экономических и социальных секторов. Цель этой методики является снижение субъективности человеческого действия, направленного на извлечение наиболее важную информацию из исходного источника и представить их в сжатом и практичном виде; чтобы улучшить качество предоставляемой услуги; поможет сэкономить время и стоимость интеллектуальной подготовки.

Теоритическое и практическое значения результатов исследования: В условиях глобализации государства сталкивается с необходимостью пересмотреть свои отношения с бизнесом и гражданами. Требования к эффективности G2B и G2C взаимодействия являются одними из наиболее приоритетных. ИКТ является наиболее передовой и как доказано международным опытом, мощный инструмент для повышения эффективности правительства.

Характеристика и структура работы. Магистерская диссертация состоит из введения, трех глав, заключения и списка литератур. Работа содержит 102 страницы, 10 таблиц и 10 рисунков.

Научный руководитель _____

(подпись)

Магистр _____

(подпись)

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INTRODUCTION

Relevance and justification of the research. During the past years after gaining independence Uzbekistan has managed to establish ICT basis for national state system. However public administration, including economy, to high extent has preserved numerous elements of administrative command system. This situation is incompatible with the course for further economy liberalization and ensuring sustainable economic growth. In this regard, implementation of administrative reform is priority driven assuming realization of program aimed at optimization of functions, structure and mechanisms of executive power.

The President of the Republic of Uzbekistan, in his statement during the meeting of the Cabinet of Ministers 1 defined 5 directions of administrative reform implementation in the country. One of them assumes fulfilling measures towards gradual modernization and raising efficiency of work carried out by public administration system based on introduction of advanced information and communication technologies, reduction of useless accounting and paper document circulation. Hence, the President set the objective to synchronize administrative reform and implementation of e-government elements.

Therefore the Government realizes that e-government implementation is one of the components of administrative reform implemented in the country.

Goals and objectives of the research. The main goal of the research paper lies in definition of the main directions of E-Government implementation in Uzbekistan through interrelations with administrative reform.

Objectives of thesis: (1) analysis of best practices in the area of e-government implementation in developed countries; (2) analysis of problems related to e-government implementation in activity carried out by public administration bodies for the previous years; (3) analysis of legislative basis for e-government implementation and development of recommendations on introducing law amendments regulating e-government implementation; (4)

based on analysis conducted definition of the main direction and stages of e-government implementation in activity carried out by public administration bodies.

The goal of this thesis is not to focus on the disparities between the best and the worth in terms of using ICTs, but rather, the goal is to provide government leaders and policy makers with strategies on how to assist governments in developing countries to be successful in using ICTs to do the business of government in ways that genuinely support the human development needs of each and every person. Paradoxically, the likelihood that developing countries may be successful at delivering e-Government services goes far beyond just making more investments into ICTs.

Under current conditions e-government in Uzbekistan means reconstruction of interrelation mechanisms between citizens and the state, private sector and the state with an aim to broaden public access to information and documentation of government authorities, ensuring transparency and accountability of power to population.

Object and subject of study. The main factors hindering ICT application in activity carried out by public administration bodies and creation of e-government in Uzbekistan are the following:

1. Reading of existing public administration authorities to perform their duties under conditions of information openness, accessibility and transparency for citizens and private sector;

2. Lack of effective mechanisms promoting ICT introduction in all areas of social life;

3. Lack of open dialogue between the state, civil society and private sector on priorities as well as e-government formation mechanisms.

The break-through in the area of e-government is extremely important for Uzbekistan. In this regard it is not casual that the Government makes substantial efforts aimed at strategy formulation assuming broad introduction and application of modern ICT means. During the last two years the following acts

were adopted in the country: the Decree of the President of the Republic of Uzbekistan "On further computerization and introduction of information communication technologies" of May 30, 2002, that defines the most urgent objectives in this area and "Program on computerization and information-communication technologies development for 2002-2010" (June 6, 2002), endorsed by the Decree of the Cabinet of Ministers
(The Program is currently under revision).

In many ways, e-Government is not easy. Build a web site and expect users will use it is an approach that has failed many early government efforts into e-Government. Uzbekistan government organizations face great levels of uncertainty in developing and providing e-Government services because of the complexity of the technology, deeply entrenched organizational routines, and great diversity in the acceptance of ICTs by individuals. Computer systems are like clay that is molded to shape in reflection of the values and vision of the artist. Similarly, e-Government systems reflect the values of the stakeholders involved with designing the system. An unfortunate by product of early e-Government initiatives in developing countries is that the design of some online services were inadvertently biased towards the values of the government, its contractors, funding organizations and donors, and not necessarily centrally designed based on the values, desires, and abilities of the different segments of the public served by the government. As governments develop greater skills and capabilities to build and manage e-Government applications, the greater the likelihood that the e-Government system will deliver satisfactory services to citizens. But, this will only happen when the design of the system indisputably incorporates the values of the citizen and considers the willingness and ability for citizens to use the system.

Tasks and assumptions of research. Uzbekistan needs a radical acceleration of e-government development in order to substantially reorganize the state bodies' back-offices and significantly improve on that basis service

delivery for citizens and businesses in scope, coverage and quality within the next five years. The latest

executive decisions issued by the President and the Cabinet of Ministers in 2012, including the creation (reorganization) of the State Committee for Communications, Informatization and Telecommunications Technologies and empowering it to coordinate other state bodies, demonstrate a strong political will to move much faster in this field than before.

Literature review. On the issue of international experience in the field of e-government, the mechanism of implementation of activities of the public administration, the efficiency of use of tools have been studied the work of international researchers who have extensive experience in the field of e-government and public administration. In addition, domestic work has benefited from the experience of economic studies, the effectiveness of the introduction of interactive services authored by scientific figures and leaders of state-owned enterprises has extensive experience in the field of information technology and e-government.

Description of applied research methods. Methods of historical analysis, induction, systems analysis, graphical approach, modeling, statistical comparison and economic modeling were used during the work with data for study. The laws and regulative acts of the Republic of Uzbekistan, the works of the President of Uzbekistan, the researches of our and foreign scientists are taken as the basis for the dissertation. Information of the State Committee on Statistics and reports of the State Committee for Communication, Informatization and Telecommunication Technologies of the Republic of Uzbekistan were also used as United Nations E-Government Survey 2012 and 2014 methodology is main source of research.

Theoretical and practical importance of research results. Theoretical value of thesis is the possibility of applying the data provided in study and the results of analysis in teaching and learning a number of subjects related to telecommunications and economy of ICT. Especially this material can be used

by teachers of training center of "E-Government" to highlight the importance of online services. The practical value of dissertation is the possibility of implementing the results of the research both in conducting scientific researches in ICT, in formation of e-Government development strategies and elaboration of management decisions in ICT policy of the government and development of informational economy.

Scientific novelty of research.

-factors which influence on the formation and development of interactive services in e-government system were studied;

-economic efficiency of governmental electronic services was defined, indicters of economic efficiency were investigated;

-model for determining the cost-effectiveness of the provision of public services online was developed;

-development of e-government in Uzbekistan through reengineering of government processes was investigated;

-recommendations on improvement of economic efficiency of governmental electronic services were formulated.

Structure of the thesis. Thesis consists of introduction, three chapters, conclusion and the list of reference. Totally 102 pages, 10 tables and 10 pictures.

I CHAPTER. GENERAL CONCEPT OF E-GOVERNMENT DEVELOPMEN INDEX

1.1. Defining of E-Government

"We must be aware that without a radical, I would say the explosive progress towards widespread introduction into all areas of the economy, in our everyday life of modern information and communication systems, it is difficult to see the future. We need in the shortest time possible not only to eliminate the lag occurring in many kinds of information services, but also to enter into the category of advanced countries with a high level of ICT ".

(I.A. Karimov).

Governments saw the use of ICT as the "silver ballet" that could finally resolve the lack of coherency in governmental service delivery, and at the same time free up recourses through efficiency and effectiveness gains.

Government is the system of polity in a state; that form of fundamental rules and principles by which a nation or state is governed, or by which individual members of a body politic are to regulate their social actions. Every government consists of different government departments, organizations and agencies.

Information and communication technologies significantly influence the work of local and central government agencies.

There is no universally adapted definition of the E-Government (Electronic government) concept. The United Nations and American Society for Public administration (ASPA) define e-Government as "utilizing the Internet and the world-wide-web for delivering government information and services to citizens".[1] The World Bank defines e-government as "the use by government agencies of information technologies (such as Wide Area Networks, the Internet

[1]Report on Benchmarking E-government: A Global Perspective. United Nations Division for Public Economics and Public Administration .ASPA 2002 y.

and mobile computing) that have ability to *transform* relations with citizens, businesses and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, or more efficient government management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth and/or cost reduction".

"E-Government" essentially refers to improving the efficiency and effectiveness of service delivery in the public sector by using Information Technology (IT), Information and Communication Technologies (ICTs), and other web-based telecommunication technologies. e-Government promotes and improves broad stakeholders contribution to national and community development, as well as deepen the governance process. E-Government includes the use of electronics in government as large-scale as the use of telephones and fax machines, as well as surveillance systems, tracking systems and even the use of television and radios to provide government-related information and services to the citizens.

There are primarily four types of interactions of government deployment:

1.Government to Citizens (G2C), refer to the interaction between government and the citizens, including dissemination of information to the public, basic services in various sectors, such as healthcare, education, agriculture, administration and finance, public access, and so on.

2. Government to Government (G2G), refer to the interaction between the agencies within the department (inter-government relationship) and interactions between different government level and attached agencies and bureau (intra-government relationship). G2G also refers to the standard the being used in order to communicate with each other and streamline processes.

3. Government to Business (G2B), refer to interaction between government and business stakeholders, including disseminations of rules, policy and regulations, within small, medium or large enterprises. From the

perspective of business, it will be reducing cost, through improvement of e-procurement, increased competition and streamlined regulatory processes.

4. Government to Employee (G2E), refer to the relation between government and its employees, such as improving day-to-day functions, gives a training for the employees. This relationship is also known as internal effectiveness and efficiency (IEE).

According to picture 1, e-government has 4 components:

E-democracy (electronic democracy) means using 21st century Information and communications technology to promote democracy. That means a form of government in which all adult citizens are presumed to be eligible to participate equally in the proposal, development, and creation of laws.

E-management (electronic management) was coined by Francis Ohanyido as about the process of getting people together to accomplish desired goals. E-Management comprises planning, organizing, staffing, leading or directing, and controlling an organization (a group of one or more people or entities) or effort for the purpose of accomplishing a goal through the deployment of ICT and manipulation of human resources, financial resources, and natural resources.

E-commerce is a type of industry where the buying and selling of products or services is conducted over electronic systems such as the Internet and other computer networks.

Finally, the main component e-services (electronic service or online services), represents one prominent application of utilizing the use of Information and communication technologies (ICTs) in different areas. However, providing an exact definition of e-service is hard to come by as researchers have been using different definitions to describe e-service.

According to draft law of Uzbekistan: an interactive public service – the public service provided by the public authorities to individuals and legal persons

through the telecommunications network by means of information systems of public bodies;[2]

Rowley defines e-services as: "…deeds, efforts or performances whose delivery is mediated by information technology. Such e-service includes the service element of e-tailing, customer support, and service delivery".[3] This definition reflects three main components- service provider, service receiver and the channels of service delivery (i.e., technology). For example, as concerned to public e-service, public agencies are the service provider and citizens as well as businesses are the service receiver. The channel of service delivery is the third requirement of e-service. Internet is the main channel of e-service delivery while other classic channels (e.g. telephone, call center, public kiosk, mobile phone, television) are also considered.

"E-Government" refers to the use by government agencies of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth, and/or cost reductions.

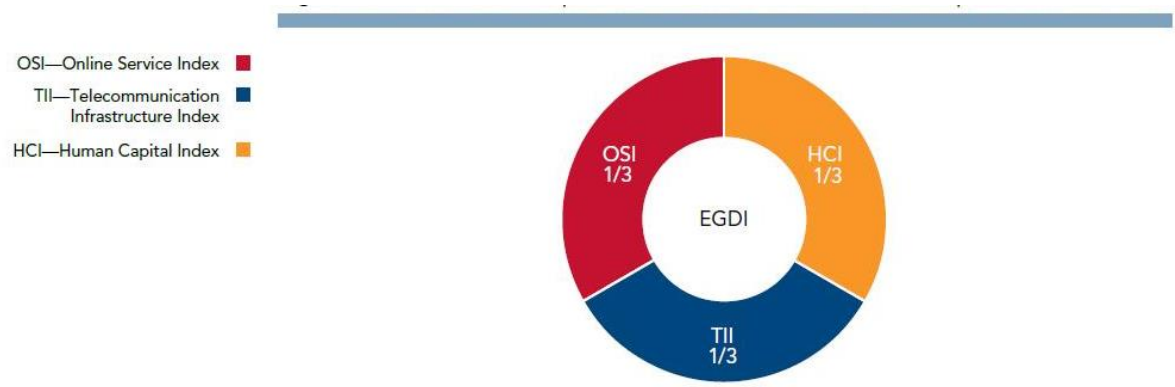
A number of definitions for e-government have been offered in the existing literature. The Global Study of E-government (UN/ASPA, 2001), a recent joint research initiative for global E-government by the United Nations (UN) and the American Society for Public Administration (ASPA), provides a broad definition for E-Government.

[2]Draft Law of the Republic of Uzbekistan on Electronic Government. 2013-2014 y.y.
[3]http://17sunnyeservices.blogspot.com

1.2 United Nation E-Government Survey

It has been over a decade since the United Nations started assessing the global e-government development through the initiative1 "Benchmarking E-government: Assessing the United Nations Member States" in 2001. Since then, there has been increasing evidence through public policy formulation and implementation that e-government, among others, has played an effective enabling role in advancing national development. At the same time, the United Nations E-Government Survey has gained wide acceptance as a global authoritative measure of how public administrations provide electronic and mobile public services. The biennial edition of the United Nations E-Government Survey aims to exemplify successful e-government strategies, pioneering practices with a view towards administrative reform and sustainable development. The conceptual framework of the E-Government Development Index (EGDI) 2 remains unchanged since its inception in 2001. Based on a holistic view of e-government development, the methodological framework has remained consistent across Survey periods, while at the same time its components are carefully adjusted to reflect evolving knowledge of best practices in e-government and changes in the underlying supporting ICT infrastructure, human capacity development and online service advancement, among other factors. The EGDI is a composite measure of three important dimensions of e-government, namely: provision of online services, telecommunication connectivity and human capacity, as illustrated in Figure 1.1. Each one of these sets of indices is in itself a composite measure that can be extracted and analyzed independently (see section on Survey Methodology).

Since its inception in 2003, the conceptual framework of the United Nations E-Government Survey has adopted a holistic view of E-Government development resting on three important dimensions:



Picture-1.1.The three components of the E-Government Development Index[4]

i) the availability of online services, (ii) telecommunication infrastructure and (iii) human capacity. The methodological framework has remained consistent across survey periods while carefully updating its components to reflect evolving successful e-government strategies, pioneering practices and innovative approaches to tackling common challenges for sustainable development.

The United Nations E-Government Survey's conceptual framework is based on the following guiding principles.

- First, E-Government in this Survey is considered to be the means to an end, the end being development for all. It is considered to be a powerful tool at the disposal of governments, which, if applied effectively, can contribute substantially to eradicating extreme poverty, protecting the environment and promoting social inclusion and economic opportunity for all. It is intended to support the development efforts of United Nations Member States.
- Second, the Survey and its results must be placed in the context of the overall
- Pattern and level of development of each country concerned. It is vital that the assessment of the on-line presence of governments highlighted by the Survey does not provide a distorted picture of the progress made—and challenges faced—by Member States. At the same time, it is equally important

[4] http://edu.uz/ru/pages/enrollment-plan

to underscore the promise of e-government. Therefore, main measurements in this Survey are based on e-government readiness, which duly takes into account not only countries' specific e-government initiatives, as evidenced by web presence, but also their infrastructure and human resource endowments.

- Third, the focus of the Survey is on provision of socio-economic and environmental services to the population through the use of e-government as a programmatic tool, as well as on participation and social inclusion.
- Finally, the Survey assesses e-government readiness worldwide, taking the view that the ultimate objective remains the "inclusion of all" in development.

The United Nations E-Government Survey is produced every two years by the Department of Economic and Social Affairs. It is the only report in the world that assesses the e-government development status of the 193 United Nations Member States. It serves as a tool for decision-makers to identify their areas of strength and challenges in e-government and to guide e-government policies and strategies. The publication also highlights emerging e-government trends, issues and innovative practices, as well as challenges and opportunities of e-government development. Each chapter provides an analysis of the Survey's data, as well as highlights strategies, challenges and opportunities so as to provide policy options. The Survey is intended for government officials, academics, intergovernmental institutions, civil society organizations, the private sector and citizens at large.

The theme of the 2014 edition of the United Nations E-Government Survey E-Government for the Future We Want—is particularly relevant to addressing the multi-faceted and complex challenges that our societies face today. The publication addresses critical aspects of e-government for sustainable development articulated along eight chapters.

Chapter 1 presents an overview and broad analysis of the 2014 *Survey* data by providing progress at a glance, regional developments and information by specific country groups, including Small Island Developing States,

Landlocked Developing Countries and Least Developed Countries. Chapter 2, on progress in online service delivery, presents how online services are measured and explains what is new in the 2014 *Survey*. Chapter 3, which focuses on e-participation, examines global and regional rankings of e-participation, as well as trends by sectors and levels. It also highlights opportunities and challenges in this area. Chapter 4 focuses on the critical role of whole of government to promote holistic and integrated approaches to e-government development. It explores how to promote collaborative leadership, shared organizational culture, institutional frameworks for effective coordination and accountability; innovative processes for service delivery and citizen engagement; and IT management strategies for enhanced collaboration. Chapter 5, which focuses on mobile and other channels for inclusive multichannel service delivery, explores the global and regional trends of various channels of public service delivery, including web portal, email, SMS text service, mobile portal and mobile application, social media, public kiosks, public-private partnerships, counter and telephone services. It also examines principles of a multichannel approach. Chapter 6 looks at trends in bridging the digital divide and offers an overall picture of digital connectivity with a specific focus on e-services for disadvantaged and vulnerable groups at the national level. It seeks a better understanding of the challenges that Member States face in tackling this important issue. Chapter 7 outlines the current situation of e-government usage and highlights the efforts made by 193 United Nations Member States. It offers insights into greater service uptake in a multichannel world and it captures e-government benefits for sustainable development through increased user uptake. Chapter 8 offers global and regional trends in Open Government Data (OGD) and examines the findings of the 2014 *Survey* in this area.

Survey also examined the specific challenges and progress of e-government in the following three country groups: the Least Developed Countries (LDCs), Small Island Developing States (SIDS) and Land-Locked Developing Countries (LLDCs). Despite the serious economic, social and

environmental challenges which many of these regions and groups face, they each show outstanding examples which overcome their regional and income constraints to achieve significant e-government development.

In terms of online service delivery, the 2014 Survey saw an increased emphasis on e-participation features and evidence of Open Government Data initiatives on national websites given the evolving expectations about transparency and participation in public affairs. E-environment was also included in the basket of basic online services assessed—alongside education, health, finance, labor and social welfare functions—given the need to promote environmental stewardship.

Since the modern service model implies distributed service concepts such as outsourcing, the government may not be necessarily hosting its own the e-Government. In this situation, other stakeholders such as Electronic Service Providers and Service Developers may also be involved in the stakeholder model. The Electronic Service Providers are acting as the bridge between the Network Operators and the Government to relay and process the requests from the End Users.

In the first stages of providing government services online, agencies set up their websites and migrated online their existing information services, such as publications and forms. Then agencies identify services and programs appropriate to delivery through the Internet, and make them online as required by government policy.

We can divide online services into groups according to types of:

Services to the population: civil registration, registration of property, educational services, social services, registration of visas, obtaining a work permit and etc.

Services to business: starting a Business, registration of licenses and permits, filing tax and statistical reporting, electronic payments and etc.

The interaction between state bodies: electronic document management, human resource management, financial management, state procurements, etc.

A website is a set of related web pages served from a single web domain. A website is hosted on at least one web server, accessible via a network such as the Internet or a private local area network through an Internet address known as a Uniform resource locator. All publicly accessible websites collectively constitute the World Wide Web.

Revising and enhancing government websites, and the services provided through them, is a continuous process, mainly because the Internet itself does not remain static. All government agencies redevelop or redesign their original websites almost every year. They also develop additional websites and portals that were linked to the main agency website. These activities increase the amounts and types of information and services available online, and permit more transactions between agencies and their clients and other stakeholders, and other agencies.

A web portal is most often one specially-designed Web page at website which brings information together from diverse sources in a uniform way. Usually, each information source gets its dedicated area on the page for displaying information (a portlet); often, the user can configure which ones to display.

Agencies saw the potential benefits of their websites as reduced costs, particularly in having a lower cost means of communication, and the more efficient and cost-effective delivery of timely and relevant information and services to clients and stakeholders. Benefits to agencies' staff included many of the same benefits as external users, particularly the wider availability of government information. One agency indicated that having a website enabled agency managers to take advantage of the latest and best communications technology and electronic facilities, which enabled them to improve services.

Online services, when properly designed and implemented, carry considerable potential to speed up government processes, to use less human and material resources, and therefore to save time and money. It stands to reason that

traditional, paper-based administrative systems have an inherent disadvantage when compared with electronic ones, as online forms and payments are quicker and require less handling of documents, postal costs, personnel costs, storage space etc.

E-Government benchmarking means undertaking a review of comparative performance of e-government between nations or agencies. E-Government benchmarking studies have two purposes: internal and external. The internal purpose is the benefit achieved for the individual or organization undertaking the benchmarking study. The external purpose is the benefit achieved for users.

Deriving from the main audience, the main purpose of benchmarking are:

a) Retrospective achievement: letting policy makers know in comparative terms how their country or agency has performed in some e-government ranking (e.g. it is a useful tool … to gain a deeper understanding of the relative position of a country via the rest of the world economies);

b) Prospective direction/priorities: assisting policy makers with strategic decision-making about e-government (e.g. we aim to help governments identify the course of action that will most likely deliver high performance in e-Government).

c) Accountability: enabling governments and agencies to be held to account for the resources they have invested in e-government. Ministries of Finance/Treasuries may share an interest in this purpose. For all these groups, e-government officials may have their own purpose of using benchmarking in order to justify politically their investments in e-government.

One of the most famous benchmarking systems in the world is The United Nations e-Government Readiness Index, which consists of:

- The web measure index;
- The telecommunication infrastructure index;
- The human capital index.

The web measure index is based upon a five-stage model, which builds upon the previous levels of sophistication of a Member State's online presence.

As a country migrates upwards through the various stages, it is ranked higher in the web measure index. These stages are: emerging, enhanced, interactive, transactional and connected.

The web measure survey assessments are based on a questionnaire, which allocated a binary value to the indicator based on the presence/absence of specific electronic facilities/services available. The primary site is the national portal or the official government home page of the Member States. Where no official portals are available, other governmental sites are assessed.

The telecommunication infrastructure index is a composite index of five primary indices relating to a country's infrastructure capacity as they relate to the delivery of electronic services. These are:

1. Internet Users /100 persons
2. PCs /100 persons
3. Main Telephones Lines /100 persons
4. Cellular telephones /100 persons
5. Broad banding /100 persons

The human capital index is a composite of the adult literacy rate and the combined primary, secondary and tertiary gross enrolment ratio, with two thirds weight given to the adult literacy rate and one third to the gross enrolment ratio. The data for the adult literacy rate and the gross enrolment ratio is drawn primarily from the United Nations Educational, Scientific and Cultural Organization.

Benchmarking is an activity to study the best practices of other countries or ministries and utilize them as learning opportunities for the development of an organization. Currently, most of countries, exposed to common mega-trends, make it easier to benchmark such cases. However, their social, cultural and religious features including the political, administrative and market system are quite distinctive. Bearing in mind an old saying that an orange tree in the south becomes a trifoliate orange tree, if planted in the north, benchmarking should be carefully done; a case relevant to each country's unique situation should be

chosen and customized. Benchmarking is not limited only to success cases. It is more important to gain a lesson by thoroughly studying failure cases. In addition, the context, along with facts, should be carefully looked at in order to overcome the errors in benchmarking. A lot of cases prove that the obstacles for successful E-government are to be found at a variety of levels; the condition, circumstance and culture of the times at the macro level, laws and leaderships at the level and project management at the micro level. Therefore, it is crucial to study failure factors examined in multiple levels.

As e-government activity grows over time, the key issues – and, hence, the demand for benchmarking data – are felt to change over time, as illustrated in picture 6. We can see that after investigating readiness, availability and uptake of electronic services, important issue is to examine impacts which in terms are: efficiency, effectiveness and equity.

The principle of economic efficiency is based on achieving the most favorable relationship between the set purpose and the means used to attain it, i.e.: the benefits anticipated from an ICT project should stand in highest ratio possible to the anticipated costs for attaining them.

There are clear opportunities for the future improvement of e-participation, including technology trends towards, for example, social media and mobile devices/technology which are inherently interactive, as well as crowd sourcing. There are also severe challenges, including the digital divide, low user take-up and the lack of incentives to participate. These opportunities and challenges call for effective strategies to create an enabling environment for e-participation, including appropriate legal and institutional frameworks, capacity-development for digital media literacy for citizens and a seamless integration of online and offline features for public participation.

Successful strategies need to address both formal and informal approaches to citizen engagement. To increase the likelihood of success for e-participation strategy, governments can benefit from those platforms and channels that are already in use by citizens rather than creating new ones. Promoting a clear idea

and understanding of e-participation by integrating both online and offline communication tools and channels will help reach groups that are difficult to reach. Governments should encourage issues-related participation and provide consistent feedback on consultations to citizens. Motivating engagement depends more on a sense of belonging to a political community with shared traditions and values than simply civic duty, as it does on linking these directly to the pressing issues of sustainable development.

Every two years, the United Nations Department of Economic and Social Affairs (UNDESA) through its Division for Public Administration and Development Management (DPADM) publish the United Nations E-Government Survey. The Survey provides a snapshot with relative rankings of e-government development of all Member States of the United Nations. By ranking the performance of countries on a relative scale, the Survey provides relevant information to support policy makers in shaping their e-government programs for development. As a composite indicator, the e-government development index (EGDI) is used to measure the willingness and capacity of national administrations to use information and communication technologies to deliver public services. This measure of the index is useful for government officials, policy makers, researchers and representatives of civil society and the private sector to gain a deeper understanding of the comparative benchmarking of the relative position of a country in utilizing e-government for the delivery of inclusive, accountable and citizen-centric services.

The Survey provides insights of common themes and different strategies in development patterns among regions and across countries. By tracking the progress of countries globally over time, the Survey seeks to better understand the challenges that the United Nations Member States face in developing their E-Government programs. The challenges include (a) how to promote greater use of e-government while ensuring equal access to services; (b) how to leverage resources to integrate new technologies into traditional development patterns while ensuring that such opportunities are fully utilized; (c) how to devise

appropriate e-government strategies and policies that can help to overcome inadequate human resources capabilities, infrastructure, as well as language and content. The Survey also highlights broad trends among countries and across regions. By providing better understanding of the emerging patterns of countries' performance across the world, the Survey contributes to the ongoing discussion of the critical role of ICT in development. The Survey also identifies countries and areas where the potential of ICT and e-government have not been yet fully exploited.

The EGDI is based on an expert assessment survey of the online presence of all 193 United Nations Member States, which assesses national websites and how e-government policies and strategies are applied in general and in specific sectors for delivery of essential services. The assessment rates the e-government performance of countries relative to one another as opposed to being an absolute measurement. The results are tabulated and combined with a set of indicators gauging a country’s capacity to participate in the information society, without which e-government development efforts are of limited immediate use.

Although the basic model has remained consistent, the precise meaning of these values varies from one edition of the Survey to the next as understanding of the potential of e-government changes and the underlying technology evolves. This is an important distinction because it also implies that it is a comparative framework that seeks to encompass various approaches that may evolve over time instead of advocating a linear path with an absolute goal. Mathematically, the EGDI is a weighted average of three normalized scores on three most important dimensions of e-government, namely: scope and quality of online services (Online Service Index, OSI), development status of telecommunication infrastructure (Telecommunication Infrastructure Index, TII) and inherent human capital (Human Capital Index, HCI). Each of these sets of indices is in itself a composite measure that can be extracted and analyzed independently.

EGDI = 1/3 (OSInormalized + TIInormalized + HCInormalized) Prior to the normalization of the three component indicators, the Z-score standardization procedure is implemented for each component indicator to ensure that the overall EGDI is equally decided by the three component indexes, i.e. each component index presents comparable variance subsequent to the Z-score standardization. In the absence of the Z-score standardization treatment, the EGDI would mainly depend on the component index with the greatest dispersion. After the Z-score standardization, the arithmetic average sum becomes a good statistical indicator, where "equal weights" truly means "equal importance." For standard Z-score calculation of each component indicator:

$xnew = x - \mu$

where: x is a raw score to be standardized;

μ is the mean of the population;

σ is the standard deviation of the population.

The composite value of each component index is then normalized to fall between the range of 0 to 1 and the overall EGDI is derived by taking the arithmetic average of the three component indexes. As indicated, the EGDI is used as a benchmark to provide a numerical ranking of e-government development across United Nations Member States, yet this approach has its own weaknesses. The methodological framework for the United Nations E-Government Development Index has remained consistent across the Survey editions. At the same time, the Survey has been adjusted to reflect emerging trends of E-Government strategies, evolving knowledge of best practices in e-government, changes in technology and other factors, and data collection practices have been periodically refined.

1.3 Open Government Data

One of the tools used to increase transparency and participation is Open Government Data (OGD), which can be defined as government information

proactively disclosed and made available online for everyone's access, reuse and redistribution without restriction. The term OGD came into prominence relatively recently after the publication of a set of principles by a group of experts and advocates in Sebastopol, California, United States of America. Often referred to as the "8 Open Government Data Principles" or "Sebastopol Principles" 1 they set out best practice recommendations on how governments publish data on the Internet. OGD introduces a new approach to publishing government data and helps bridge the gap between government and citizens. It represents the ability of all stakeholders to have full and free access to public data and opens up the opportunity for people to evaluate the performance of various administrative institutions. Combined with the use of modern ICTs, this open platform allows for greater accessibility of key records to a much wider audience. Making data easily available gives citizens the opportunity to make informed decisions about public policies and identify development opportunities. Consequently, opening up government data can lead to more efficient use of resources and improved service delivery for citizens.

The Survey started its assessment with the basic premise that all government data can be made public as long as there are no conflicting privacy or national security concerns. During the initial assessments, researchers looked for the mere presence of datasets in national government portals. In the succeeding assessments, they evaluated and categorized the type of data available according to sectoral focuses, such as education, health, finance, social security, labour and environment. Table 1.1 summarizes the main features of Open Government Data assessed in these national portals.

Table-1.1

Summary of features assessed related to data publishing[5]

Existence of datasets in government portals including sectorial datasets for education, health, finance, social security, labor and environment

[5] http://edu.uz/ru/pages/enrollment-plan

Existence of dedicated portals for data publishing such as open government data catalogues
Availability of datasets in various technical formats particularly in those formats that enable accessibility
Number of different government agencies that provide datasets
Guidelines by government agencies describing how to make use of datasets
Availability of datasets on location information such as maps
Availability of public channels to propose new datasets

All sources of data used in this chapter come from this questionnaire, unless otherwise stated. Table 1.2 presents the countries that scored higher than 66.6 per cent on data publishing in 2014. Figure 8.1a highlights the regional representation of countries with a higher than 66.6 per cent score in data publishing. 2 21 countries from Europe, 15 from Asia and 9 from the Americas are on this list, as well as 3 African countries and 2 countries from Oceania. Figure 8.1b presents the distribution of countries with a score higher than 66.6 per cent according to income level; 86 per cent of these are high income or upper middle income countries.

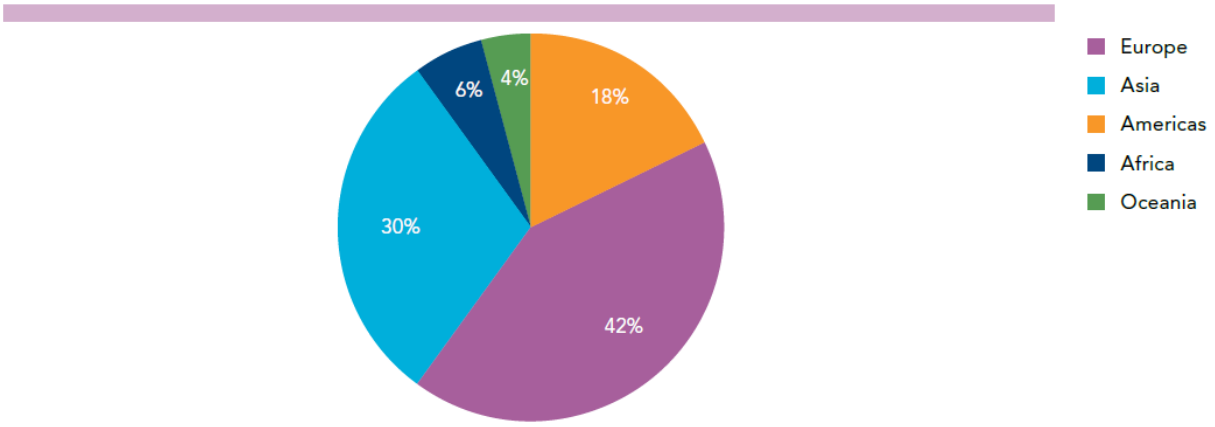


Figure-1.2. Countries with a score higher than 66.6 per cent, by region[6]

[6] http://edu.uz/ru/pages/enrollment-plan

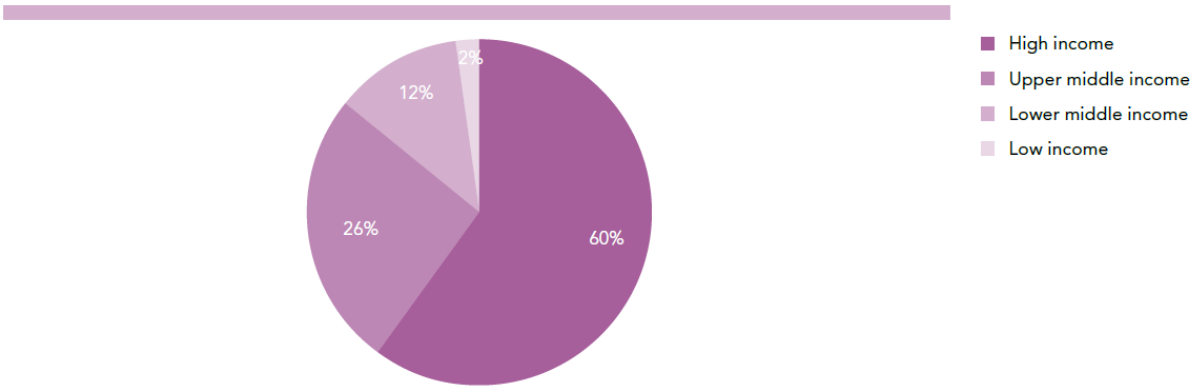


Figure-1.3. Countries with a score higher than 66.6 per cent, by income level[7]

1.2-table.

Countries with with a score higher than 66.6 per cent in data publishing[8]

Albania	Denmark	Italy	Netherlands	Singapore
Australia	El Salvador	Japan	New Zealand	Spain
Austria	Estonia	Kazakhstan	Norway	Sri Lanka
Bahrain	Finland	Kenya	Oman	Sweden
Belgium	France	Latvia	Peru	Thailand
Brazil	Georgia	Lithuania	Portugal	Tunisia
Canada	Germany	Luxembourg	Qatar	United Arab Emirates
Chile	India	Malta	Republic of Korea	United Kingdom

As the next step, researchers tried to locate sectorial datasets for education, health, finance, social security, labor and environment, as well as checked for the availability of any data related to disadvantaged and vulnerable groups, including immigrants, women, youth, people living in poverty, the illiterate, persons with disabilities and older persons. According to Figure 8.2,

[7] http://edu.uz/ru/pages/enrollment-plan
[8] http://edu.uz/ru/pages/enrollment-plan

130 United Nations Member States share data on government spending, 115 on education data, 109 on health, 107 on labor, 106 on the environment and 94 on social welfare. In addition, the Survey noted that 97 out of 193 United Nations Member States have data specifically on disadvantaged and vulnerable groups. Sharing data on government spending was the most common data publishing activity undertaken by United Nations Member States. The advocacy of various nongovernmental organizations in this area, such as OpenSpending,3 which aims to track every government financial transaction across the World, or Open Budget Surveys, 4 a global research and advocacy program promoting public access to budget information and the adoption of accountable budget systems, seems to contribute to this trend.

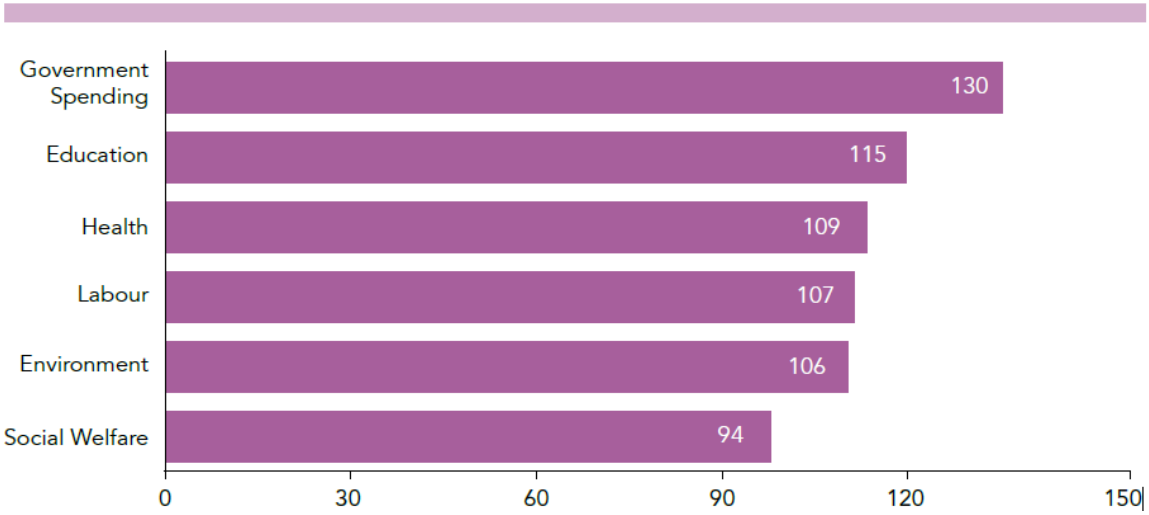


Figure-1.4. Number of countries offering data, by sector[9]

Assessed whether government data is made available in a form that ensures ease of use and reuse. Indicators of accessibility included presence of a dedicated data portal, availability of guidelines on how to make use of datasets, existence of a feedback mechanism to propose new datasets and technical openness of datasets (i.e. availability of datasets in various formats including in machine-readable structured formats, or non-proprietary formats like CSV instead of excel), open standards and availability of Application Programming Interfaces (APIs) to access the published data.

[9] http://edu.uz/ru/pages/enrollment-plan

While a large number of United Nations Member States provided sectorial data, only 46 of these have taken the next step and established dedicated portals for data sharing, as seen in Figure 8.3. In Europe, 44 per cent of countries (or 19 countries) have dedicated open data portals as compared to 7.4 per cent in Africa. Kenya, Tunisia, Morocco and Ghana are the only African countries with an open government data portal. The majority of countries with open government data catalogues are high income and upper middle income (nearly 85 per cent). Kenya is the only low income country with an OGD portal; the lower middle income countries with such portals are India, Sri Lanka, Morocco, Republic of Moldova, Ghana and Indonesia. The utility, quality and accessibility of information depend on the format used for data publishing. Processing and analyzing data through software programs (technical openness) requires open standards and open file formats exploring, sorting, filtering and recombining data. Technical data standards allow policy makers to compare datasets and generate the creation of relevant data. When data becomes more accessible, more people can engage in and benefit from data analysis which, in turn, can contribute to better policymaking. The 2014 Survey checked the availability of various data types in different formats and noted that 86 countries provide data in machine-readable structured data (e.g. Excel), 56 in non-proprietary formats (e.g. CSV), 24 countries provide Application Programming Interfaces (APIs) and only 11 countries provide data in open standards from W3C such as RDF and SPARQL.

Government agencies can increase the benefits of OGD initiatives by providing detailed descriptions of data fields as well as tools and guidelines for how to analyze and make use of the datasets. In 2014, 34 countries offered this type of instructional information. For example, the open data portal of Kenya has a section specifically for developers where it lists the tools designed to access and integrate the data. In the same section, developers can also learn more about upcoming events like workshops on utilizing government data and get information on the APIs used to provide access to the data.

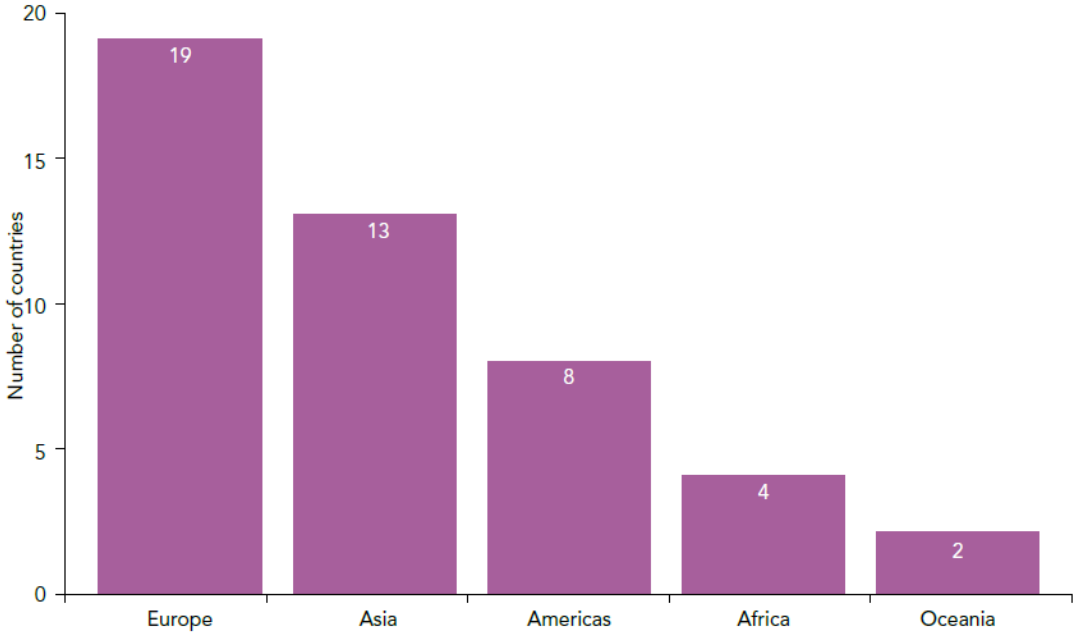


Figure-1.5. Countries with OGD portals, by region[10]

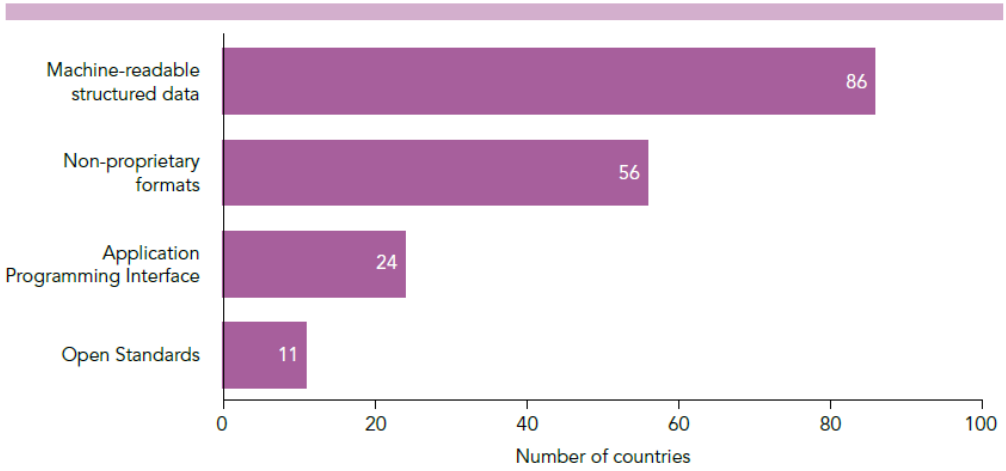


Figure-1.6. Availability of data types in different formats[11]

Following a demand-driven approach into publishing datasets can help ensure that governments meet their citizens' needs. Governments can collect feedback on which datasets to publish by surveying citizens and other potential users, like civil society organizations, academic institutions or businesses. While individual citizens may want information useful for their daily lives, civil society groups would likely be more interested in data to help them hold

[10] http://edu.uz/ru/pages/enrollment-plan
[11] http://edu.uz/ru/pages/enrollment-plan

governments accountable or data that can be used for advocacy. Businesses by contrast demand high-quality raw data to create value-added products and services. The 2014 Survey noted that 31 of the countries with a dedicated data portal have a section in their portals to receive inputs on the data types to be published.

Providing datasets in bulk, with open standards and an open license, eases the job of data analysis and increases participation in policymaking. Providing datasets as they are, however, is already beneficial for transparency, participation and efficiency. The 2014 Survey scored Ireland, El Salvador, Luxembourg, Peru, Qatar, Georgia, Latvia, Lithuania, Thailand and Argentina higher than 66.6 per cent in data publishing, even though those countries do not have dedicated open government data portals. Researchers, nevertheless, were able to access many relevant databases across portals. This implies that they already have policies in place for centralizing and digitizing data and that they are ready to take the next step: publish data in bulk and in open formats through dedicated portals. Greece, Malta, Ghana, Slovakia and Indonesia, conversely, have open government data catalogues but did not score higher than 66.6 per cent in data publishing, suggesting these portals should include a wider range of government agencies and more varied datasets in machine-readable formats.

Freedom of information legislation is essential for the development of Open Government Data. The foundations of OGD lie in the people's right to information, as enshrined in article 19 of the Universal Declaration of Human Rights and as recognized by the international community. The multilateral system, including the United Nations and other regional organizations, has addressed the right to information, commonly referred to as Freedom of Information (FOI), extensively through international treaties, conventions and other sources of international law.

Domestic laws in about 93 Member States have addressed the subject through specific legislation (e.g. FOI acts, Access to Information Acts, etc.). 35 countries only have a FOI article in their constitutions—24 have relevant draft

legislation. Meanwhile, 41 countries have no FOI legislation at all. Privacy of personal information as well as confidentiality in national security matters need to be protected when publishing government data for public access and use. Preliminary research by UNDESA5 found that 79 countries have addressed data privacy and security through specific legislation, usually called Data Protection Acts (DPAs).15 only have data privacy and security provisions in their constitutions, six have relevant draft legislation and three countries cover data privacy in their access to information laws. 90 countries have no legislation on this at all. Very few countries have passed or even drafted legislation requiring government data to be published in machine-readable formats with open licenses.

Among the few recent initiatives taken by various national governments, in August 2011 New Zealand approved comprehensive general principles for data management6 drawing from several aspects of the 8 Principles for Open Government Data.7 These state that government data and information should be Open readily available, well managed, reasonably priced and re-usable, unless there are necessary reasons for its protection. The amendment made to the European Union (EU) Directive 2003/98/EC in June 2013 introduces a genuine right to reuse all content that can be accessed under national laws and invites Member State to make more documents available in machine-readable and open formats. The Republic of Korea enacted a law in July 2013 requiring government agencies to publish data in machine-readable formats.8 An executive order in May 2013 by the United States of America 9 which makes the open and machine-readable format the new default for government information, declared that information is a national asset whose value is multiplied when made easily accessible to the public. The Russian Federation's Government Order No. 583 of 10 July 2013 set out the rules for classifying public sector information as open data, the timeframe for updating this information, as well as other requirements concerning the publication of information as open data

Data is considered open when it is shared with an open license in a way that permits commercial and non-commercial use and reuse without restrictions. While the 2014 Survey did not assess the licenses in depth, a quick review of the data catalogues revealed that licenses vary from strict, with clear copyright statements, to less strict. The Creative Commons Attribution 3.0 License11 is one of the most common license types, used, for instance, in Australia, Austria, Chile, Germany, Italy, New Zealand and Uruguay. Countries such as Albania, Bahrain, Morocco, Netherlands and Tunisia use a common adaptation of the Open Knowledge Foundation's Open Database License. In Austria in particular, cooperation between federal and local governments has led to the endorsement of a Creative Commons Attribution License for government data. Alliances such as these bring together federal, state and city governments, as well as local communities, to forge common standards and develop conditions in which OGDs can benefit all stakeholders.

An overview of the data catalogues reveals a variety of agencies and ministries responsible for open government data initiatives across countries: the Department of Finance and Deregulation in Australia,12 the Federal Ministry of Finance in Austria, 13 and the Ministry of Finance and the Accountant General in Israel,14 to name a few. In some countries, like Colombia15 and Ghana,16 the initiative is undertaken by the Ministry of Information and Communication Technologies. In others, there is cooperation between agencies, as with the Ministry of Finance and Infocom Development Authority in Singapore,17 and the Ministry of Finance and Public Administration and Ministry of Industry, Energy and Tourism in Spain.18 Finally, in a few countries—France, the United Kingdom and the United States of America—a specific unit under the executive branch is engaged, like France's Etalab.19 While there are different agencies responsible for open government data initiatives in different countries, one common need within government agencies is having an individual responsible for institution-wide control, governance and utilization of data. This individual, usually called a Chief Data Officer (CDO), would also be responsible for the

formation of new strategies around government data. It has already been noted that some governments, particularly at the local level, are moving towards having CDOs. For example in the United States of America, the Federal Communications Commission (FCC), has appointed CDOs at every one of its major bureaus including Consumer & Governmental Affairs, Enforcement and Public Safety and Homeland Security, to emphasize the importance of this role.20 In a similar development, the newly enacted open data law by the City of San Francisco established the CDO position to implement the open data policy in cooperation with departmental data coordinators. 21 The CDO role is relatively new to government, although it has been common in the private sector since the early 21st century. Frequent changes in technology and advances in the types and formats of data available, as well as the emerging concept of transparency, are leading administrative institutions the world over to appoint Chief Data Officers at various levels.

Since open government data initiatives require cooperation among various government agencies, strong political and top level management support is needed. A vision should be complemented with a well-thought-out policy and strategy. Countries that have progressed on open government data already have strong policies in place. For example, Bahrain's OGD policy aims to enhance public participation and private sector involvement by publishing datasets via their Open Government Data Portal, thereby allowing everyone to develop web and/or mobile applications that improve government transparency and public participation. The National Policy on Data Sharing and Accessibility (NPDSA) 22 of India aims at increasing the accessibility and sharing of non-sensitive data among registered users, as well as the availability of this data for scientific, economic and social development purposes. The open data policy of the Obama Administration of the United States treats information as a valuable national resource and a strategic asset for the Federal Government, its partners and the public and further states that executive departments and agencies must manage

information as an asset throughout its life cycle to promote openness and interoperability and properly safeguard systems and information.

I Chapter Conclusion

Public administration, being the cornerstone of governments' work is essential for improving peoples' lives. As illustrated in this chapter, amidst the economic, social and environmental challenges, e-government has continued to play an important role in enabling the delivery of quality public services that meet citizen needs and goals by transforming how the public sector works. Considering that the EGDI is a broad relative index, caution should be taken against interpreting positional changes in rankings across similarly ranked countries. 'Higher' rankings do not necessarily mean 'better' or "desirable" outcomes. As such countries must decide the level and extent of their e-government initiatives based on their specific national development context. Regardless of the complexity and diversity of countries in the world, some general conclusions at the global and regional levels can be made. In addition to effective planning and deployment of e-services, governments may consider enhancing their ICT infrastructure and raise the level of human capital, including improvement of the ICT literacy of citizens, to make use of the new technologies to realize the full benefits of online and mobile services. This should go hand in hand with capacity development of leadership in e-government and public servants as facilitators of online public services. To further increase the scope and extend the use of online services, governments could provide even more citizen-centric and user-friendly services putting the needs of citizens at the core of planning and implementation of online services by engaging those (citizens) in consultative processes. Furthermore, countries may explore avenues to strengthen regional and global cooperation mechanisms with a view to facilitate national development goals, thus encouraging coherence and coordination among countries. Nevertheless, in all regions there are outstanding stories, which show countries, overcoming obstacles and resource constraints to achieve improvements in leveraging e-government to achieve national development objectives.

II CHAPTER. CURRENT STATUS OF UNITED NATIONS SURVEY E-GOVERNMENT INDICATORS IN THE REPUBLIC OF UZBEKISTAN

2.1 Online Service Index

Continuing the presentation and analysis of the world e-government rankings, this chapter reports on global progress in online service delivery as evidenced by the 2014 United Nations E-Government Survey data and considers factors that may be helping or hindering the roll-out of e-services at the national level. The analysis attempts to shed light on the meaning behind the numbers by highlighting successful strategies and discussing some common challenges and barriers to achieving an efficient and effective public administration as a condition of good governance.

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 it described in chapter 1, the index values are not intended as absolute measurements. 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.

Taking into account the new and emerging trends since 2012 the 2014 Survey questionnaire was improved to encompass the new developments with a focus on:

- the rising importance of a whole-of government approach and integrated online service delivery;
- the use of e-government to provide information and services to citizens on environment related issues;
- e-infrastructure and its increasing role in bridging the digital divide, with a particular emphasis on the provision of effective online services for the inclusion of disadvantaged and vulnerable groups, such as the poor, the disabled, women, children and youth, the elderly, minorities, etc;
- the increasing emphasis on service usage, multichannel service delivery, open government data, e-procurement;
- The expansion of e-participation and mobile government. The outcome was an enhanced Survey instrument with a wider range of point distributions reflecting differences in levels of e-government development among countries. To arrive at a set of Online Service Index values, more than 90 researchers - qualified graduate students and volunteers from universities in the field of public administration—assessed each country's national website in the native language, including the national portal, e-services portal and e-participation portal, as well as the websites of the related ministries of education, labor, social services, health, finance and environment as applicable. To ensure consistency of assessments, all the researchers were provided with a rigorous training by e-government and online service delivery experts, with years of experience in conducting the assessments. All the researchers were guided by a Data Team Coordinator who provided support and guidance throughout the assessment period. Researchers were instructed and trained to assume the mind-set of an average citizen user in assessing sites. Thus, responses were generally based on whether the relevant features could be found and accessed easily, not whether they in fact exist although hidden somewhere on the sites. While it is possible,

although implausible, to search the sites meticulously for all content and features, this approach misses the key point that the average user needs to find information and features quickly and intuitively for a site to be "usable" with content readily discoverable by the intended beneficiaries.

The data collection and Survey research ran from May 2013 until the end of June 2013. Each country was assessed by at least two researchers who conducted the Survey in the country's national language in May-June. After the initial assessment, the evaluations by the two researchers on each country were compared and questions with discrepancies were reviewed again by the researchers. The third phase, from July to August, was the final review by the Data Team Coordinators who analyzed all the answers and, where needed, carried out further review and verification processes using multiple methods and sources before the scores were sent for approval by a senior researcher. Through this multilevel approach, all surveyed sites were thoroughly assessed by at least three people, one of whom has years of experience in assessing public sector online services and reviewed by one of the Data Team Coordinators. Once the evaluation phase was completed, the statistics team produced the first draft of the OSI ranking. The data was extracted from the platform and the raw OSI scores were created. Rankings were compared with previous OSI scores, and any discrepancies were reviewed thoroughly. The Survey questionnaire is organized in specific thematic sets of questions (subthemes) structured in four patterns corresponding to the four stages of e-government development (see Figure A.4).The patterns have been designed to provide a qualitative assessment within a rigorous quantitative methodology. Each question calls for a binary response. Every positive answer generates a new "more in depth question" inside and across the patterns. For the 2014 Survey questionnaire, the thematic subthemes identified are:

- Whole-of-government;
- Multichannel service delivery;
- Bridging the digital divide;

- Increasing usage;
- Open Government;
- E-participation. The outcome is an enhanced quantitative Survey with a wider range of point distributions reflecting differences in levels of e-government development among countries. The total number of points scored by each country is normalized to the range of 0 to 1. The online index value for a given country is equal to the actual total score less the lowest total score divided by the range of total score values for all countries. For example, if country “x” has a score of 114, and the lowest score of any country is 0 and the highest equal to 153, then the online services value for country “x” would be: Online Service Index (Country “x”) = (114–0) (153–0) = 0.7451.

In the formation of online service index formed a team of researchers, which assesses the 8 sites of state bodies of the country: the site of the Government, the education, health, social welfare and finance. The related portals or their affiliates are valued as an integral part of these sites.

The study contains four evaluation areas (according to the 4 stages of e-government) and includes questions relating to:

- Basic information services (reference)
- Advanced information services (one-sided)
- services based on electronic communication (interactive)
- The combined electronic services (transaction)

Almost all the questions imply a definite answer (yes / no), where for each "yes" answer is given one point for the answer "no" - zero points. The exception concerns some questions covering information on the number of forms and electronic services available, which are measured at ten points each. Authority’s sites request information and opinions from citizens using Web 2.0 technologies and other interactive tools. Electronic services and e-solutions provide the unbroken flow of information between departments and agencies. Information, data and knowledge disseminated by the government through the integrated application.

2.1-table[12]

The indicators of online service

Ranking	Country	Online service index	1 stage, 7%	2 stage, 24%	3 stage, 30%	4 stage, 39%	Total
53	Uzbekistan-2010	0.3778	52%	39%	18%	10%	-
72	Uzbekistan-2012	0.4967	100%	62%	21%	39%	43%
74	Uzbekistan-2014	0.4488	88%	41%	23%	24%	42%

In the formation of the United Nations Online Services Index researchers estimates eight web sites: the government website (in the case of Uzbekistan - www.gov.uz), the Ministries of Education websites (www.uzedu.uz), Labor and Welfare (www.mexnat.uz), health (www.minzdrav.uz) and finance (www.mf.uz). The related portals or their affiliates are valued as an integral part of these sites.

The study contains four evaluation areas (according to the 4 stages of e-government) and includes questions relating to:

- initial information online presence;
- an expanded presence in the information network and the provision of electronic services;
- the provision of services on the basis of electronic interaction;
- Electronic services, combining both governmental structures among themselves and ensuring the involvement of citizens in the activities of state bodies.

Currently, Uzbekistan has the following characteristics:

As can be seen from the table the lowest figures for the 3rd and 4th stages. The third stage implies that the government sites are involved in the two-way

[12] http://edu.uz/ru/pages/enrollment-plan

communication with the citizens, including queries and access content of public policies, programs, regulations, etc. Sites authorities allow non-commercial transactions, such as e-voting, downloading forms and forms, tax returns, the possibility of application of certificates, licenses, and permits. They also handle commercial operations.

The fourth stage implies that the authority's sites request information and opinions from citizens using Web 2.0 technologies and other interactive tools. Electronic services and e-solutions provide the unbroken flow of information between departments and agencies. Information, data and knowledge disseminated by the government through the integrated application. When providing services the emphasis shifted from orientation on the needs of the state to citizen needs when e-services to citizens throughout their lives. At the same services are available to meet the specific needs of certain groups (for example, visually impaired citizens). Governments create the conditions under which citizens can be more involved in the activity of state bodies in order to have a real opportunity to influence decision-making.

The countries with Internet penetration level of over 50% can receive up to 25 additional points for use on the official websites of blogs, discussion forums, online chat, e-voting and the submission of online applications, the ability to track the procedures of the public service.

Challenges in reviewing a country's online presence.

The United Nations Member States are sent an invitation to provide information regarding their website addresses (URL) for different government ministries and the national portal(s). Information was also requested with regards to URLs for open government data, e-participation and the designated authority in charge of e-government policies. 80 Member States returned this information, compared to 50 in 2012. All appropriate sites are then utilized during the verification process. One of the essential decisions for researchers when undertaking this Survey is to identify the specific site(s) to review as the national government site for each country. Regardless of the sophistication of e-

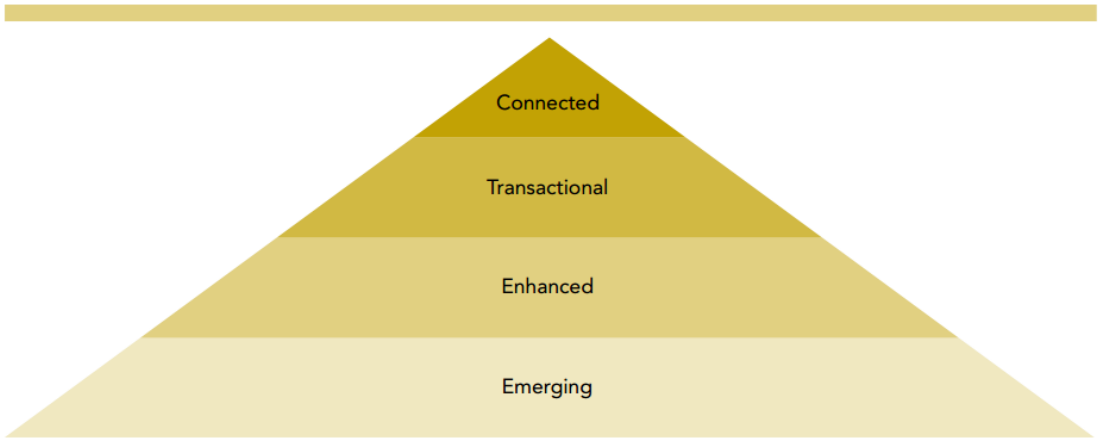
government in a specific country, the priority for users is to find a clear indication as to which of the many potentially available government sites could be deemed as the "official" national government site—in a sense, the gateway or starting point for national users. Not only is this fairly easy to do—a simple, clear statement at the chosen website is sufficient to start—but also an important step towards providing government information and services to the public in an integrated, usable and easy-to-find manner. Many countries have in fact engaged in the procedure of actually noting on their national site that it is their "official" Government site, or "Gateway to Government," or other such statement. Yet not all countries provided the appropriate URLs. Thus, some discretion is exerted when deciding whether to use the country-provided websites. What is noteworthy in this Survey is that the researchers not only reviewed the national portals but also undertook exhaustive research on e-participation and open government data where applicable. One dilemma facing researchers is that a number of countries provide more than one apparently legitimate national access point. While some have simply not yet consolidated their government entry points into a single site or portal that could be clearly distinguished, others have actually taken this approach on purpose— offering different access points to different audiences. Considering that the use of integrated portals or multi-portals is emerging as a trend in e-government strategies worldwide, researchers would select the integrated website as a National Portal or other portal if it were deemed to be the official homepage of the government. However, more than one site could be scored if they were clearly part of a tightly integrated "network" of national sites. It should be noted that for those countries for which more than one site was assessed, having more than one national entry is neither a disadvantage nor a benefit. Some countries do not offer certain public services at the federal level, but rather at the sub-national or local level. No country is penalized for offering a service at the sub-national level as opposed to the federal level per se. In fact, when the issue arises researchers tend to be inclusive

in assessing the matter as long as the information and/or service can be found from the national level.

A more difficult problem arises when not only a specific service is located at the local level but when the entire ministerial functions are altogether missing at the national level. If researchers are unable to locate a ministry as per the above described method, then the final step is to find out whether the country in question actually has such a ministry at the national level or whether the functions might be locally administered. Integrated portal and multi-portal approaches some countries have adopted a different approach to their online e-government portal, through utilizing multiple websites for different topics. Hence, instead of centralizing all the e-services, e-participation and forms in one portal, they have been made available on separate websites for a more audience-targeted approach. Researchers made sure to examine all possible websites when making the assessment, through links or search engines, to cover all government websites where relative information can be found. Even though the norm has been to follow a one-stop-shop type of service delivery and an integrated portal approach, countries who have used a decentralized approach have not been penalized in their score, and the assessment was conducted as though for a single portal. For example, Finland has a website www.valtioneuvosto.fi which is the information portal of the Finnish Government, whereas the website www.suomi.fi is the e-service and public service information portal with also open government data. Information on e-participation is centralized on the websites www.kansalaisaloite.fi and otakantaa.fi. This approach of having several websites for different purposes (information, services, participation and open government data) is typical of several European countries. Accessing websites in national official languages the research team was fully equipped to handle the six official languages of the United Nations, namely Arabic, Chinese, English, French, Russian and Spanish. However, as in previous Survey cycles, the team went beyond this mandate and made an effort to review each website in the official language of the country or, where that was not possible, in another of

the languages available on the site. Translators provided assistance as necessary so that possible errors based on language have been reduced to a minimum. Data quality checks In order to ensure the data quality, UNDESA has put Survey procedures under close monitoring including developing a standard web-based application platform for data collection and storage, preparing the methodological and training guidelines for researchers and instituting a training program for either group training or individual hands-on support for researchers to resolve thorny issues. Among other tasks, team members were asked to justify the selection of URLs and indicate whether the URLs had been reviewed in past Surveys. Regular meetings were held to discuss concerns and ensure consistency of evaluation methods.

UNDESA applied the Survey scores to generate an ordering of online service presence of all United Nations Member States and compared them with the historical results in previous Surveys so as to detect possible shortcomings in the process. The new scores are then compared to scores from the previous Surveys by removing the new questions and only considering the ones that remain unchanged.



2.1-picture. The four stages of online service development[13]

Stage 1 Emerging information services.

Government websites provide information on public policy, governance, laws, regulations, relevant documentation and types of government services provided.

[13] http://edu.uz/ru/pages/enrollment-plan

They have links to ministries, departments and other branches of government. Citizens are able to obtain updated information in the national government and ministries and can follow links to archived information.

Stage 2 Enhanced information services. Government websites deliver enhanced one-way or simple two-way e-communication between government and citizen, such as downloadable forms for government services and applications.The sites have audio and video capabilities and are multi-lingual. Some limited e-services enable citizens to submit requests for non-electronic forms or personal information.

Stage 3 Transactional services. Government websites engage in two-way communication with their citizens, including requesting and receiving inputs on government policies, program, regulations, etc. Some form of electronic authentication of the citizen's identity is required to successfully complete the exchange. Government websites process non-financial transactions, e.g. filing taxes online or applying for certificates, licenses and permits. They also handle financial transactions, i.e. where money is transferred on a secure network.

Stage 4 Connected services. Government websites have changed the way governments communicate with their citizens. They are proactive in requesting information and opinions from the citizens using Web 2.0 and other interactive tools. E-services and e-solutions cut across the departments and ministries in a seamless manner, information, data and knowledge is transferred from government agencies through integrated applications. Governments have moved from a government-centric to a citizen-centric approach, where e-services are targeted to citizens through life cycle events and segmented groups to provide tailor-made services. Governments create an environment that empowers citizens to be more involved with government activities to have a voice in decision-making.

In line with the global trend towards a more citizen-centric approach as driven by the demand for greater efficiency and cost-effectiveness of the public sector, the Survey questionnaire has been designed to reflect this paradigm of e-

government. As mentioned above, user take-up has been included as one special subject in the Survey, which encourages the governments to take account not only of the supply side but also the demand side of e-services. Accordingly, the research team was instructed to enforce this approach consistently throughout the whole Survey. If features could not be found easily, quickly and intuitively, then a site would score poorly. In 2015 according to Uzbek-Korean project it was invited experts from National Information Agency under Ministry of Government Administration and Home Affairs of the Republic of Korea. The main purpose was to evaluate aforementioned web sites before UN expert's evaluation. The result of each ministries approach will be published in my thesis.

2.2. Telecommunication infrastructure index

Research shows that every 10 point increase in broadband penetration increases economic growth rates, on average, by 1.38 per cent in low- and middle-income countries. 1 Ten years ago, there were only eight cell phones for every 100 people in the developing world while today there are almost 90. 2 opening opportunities for tens of millions of people who previously felt marginalized or isolated and unable to participate fully in society and engage with others. In this context, the influence of mobile broadband in the overall telecommunication infrastructure in any one nation is important. Given the availability of suitable data, 3 a new wireless broadband subscription indicator was included in the computation of Telecommunication Infrastructure Index (TII) in the 2014 Survey. The TII is an arithmetic average composite of five indicators: estimated internet users per 100 inhabitants, number of main fixed telephone lines per 100 inhabitants, number of mobile subscribers per 100 inhabitants, number of wireless broadband subscriptions per 100 inhabitants and number of fixed broadband subscriptions per 100 inhabitants. The International Telecommunication Union is the primary source of data in each case. The TII

has remained largely unchanged since 2002, except for the replacement of online population with fixed-broadband subscription and the removal of number of television sets in 2008; the replacement of personal computer (PC) users with fixed Internet subscriptions in 2012; and the replacement of fixed Internet subscriptions with wireless broadband subscriptions in 2014. The improvement of data quality and coverage has led to reduction in some data gaps that appeared in prior Surveys. However, in the case where gaps still occurred, data was retrieved firstly from the Word Bank data base; and secondly, when all previous measures proved unsuccessful, the most recent ITU data was used.

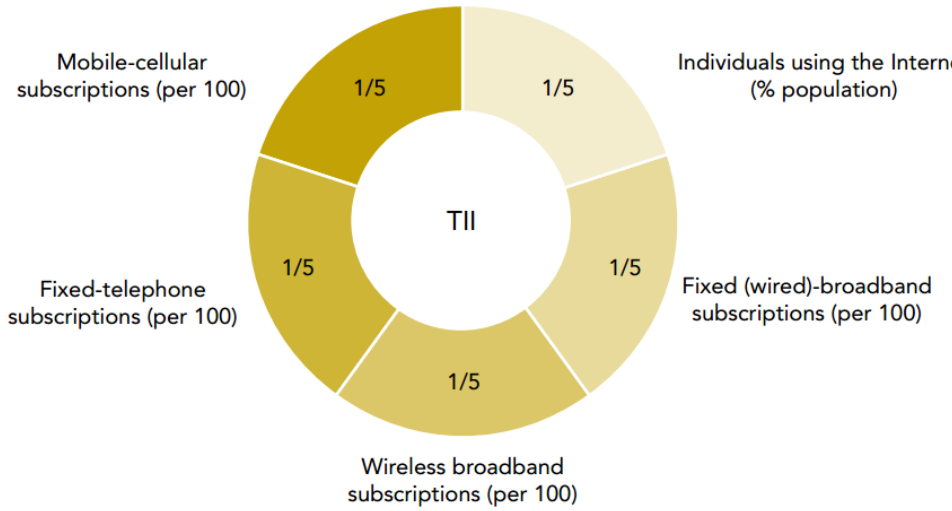


Figure-2.2.Telecommunication Infrastructure Index (TII) [14]

An evaluation in 2014 Uzbekistan index ranking of e-government was 0.4695. By subindex "human capital" of Uzbekistan in 2014, he took 86th place in the world. It should be noted that in comparison with 2012 (74 in the world), the country's ranking in the subindex "human capital" decreased by 12%, which in particular affected the country's overall position in the rankings of e-government development. All the countries covered by this study, are ranked in the ranking on the basis of the weighted assessments of the index in three main components: e-services, ICT infrastructure and human capital, which have equal weight in determining the overall rating of the country.

[14] http://edu.uz/ru/pages/enrollment-plan

2.2- table

Telecommunication infrastructure Index and changes of its[15]

TII (2002)	*TII (2003)*	*TII (2004)*	*TII (2005)*	*TII (2008)*	*TII (2010)*	*TII (2012)*	*TII (2014)*
Internet users	Internet users	Internet users	Internet users	Internet users	Internet users	Internet users	Internet users
Online population	Online population	Online population	Online population	Fixed-broadband subscriptions	Fixed-broadband subscriptions	Fixed-broadband subscriptions	Fixed-broadband subscriptions
Personal computer (PC) users	Personal computer (PC) users	Personal computer (PC) users	Personal computer (PC) users	Personal computer (PC) users	Personal computer (PC) users	Fixed Internet subscriptions	Wireless broadband subscriptions
Fixed-telephone subscriptions	Fixed-telephone subscriptions	Fixed-telephone subscriptions	Fixed-telephone subscriptions	Fixed-telephone subscriptions	Fixed-telephone subscriptions	Fixed-telephone subscriptions	Fixed-telephone subscriptions
Mobile-cellular subscriptions	Mobile-cellular subscriptions	Mobile-cellular subscriptions	Mobile-cellular subscriptions	Mobile-cellular subscriptions	Mobile-cellular subscriptions	Mobile-cellular subscriptions	Mobile-cellular subscriptions
Television sets	Television sets	Television sets	Television sets	-	-	-	-

Telecommunication infrastructure composite value=

Arithmetic Mean (Internet user Z-score
+ Telephone line Z-score
+ Mobile subscription Z-score
+ Wireless broadband subscription Z-score
+ Fixed broadband Z-score)

Finally, the TII composite value is normalized by taking its value for a given country, subtracting the lowest composite value in the *Survey* and dividing by the range of composite values for all countries. For example, if country "x" has the composite value of 1.3813, and the lowest composite value for all countries is -1.1358 and the highest is 2.3640, then the normalized value of TII for country "x" would be:

$$Telecommunication\ Infrastructure\ Index\ (Country\ "x") = \frac{[1.3813-(-1.1358)]}{[2.3640-(-1.1358)]} = 0.7192$$

2.3 Human capital index

All the countries covered by this study, are ranked in the ranking on the basis of the weighted assessments of the index in three main components: e-services, ICT infrastructure and human capital, which have equal weight in determining the overall rating of the country.

An evaluation in 2014 Uzbekistan index ranking of e-government was 0.4695.

By subindex "human capital" of Uzbekistan in 2014, he took 86th place in the world. It should be noted that in comparison with 2012 (74 in the world), the country's ranking in the subindex "human capital" decreased by 12%, which in

15

particular affected the country's overall position in the rankings of e-government development.

When forming the index subindex "human capital" by the UN experts calculated the raw data obtained on the basis of UNESCO's statistics, which include four indicators:

- The level of literacy among the adult population is calculated as the percentage of literate population aged 15 years and older. This figure is one third of the sub-indices;
- Aggregate share of students is calculated as the ratio of the total number of students in the educational institutions of 1-3 stage among the population under the age of learning in educational institutions 1-3 stage. This figure amounts to 2/9 of the sub-indices;
- The expected duration of schooling is 2/9 of the sub-indices;
- The average duration of schooling is calculated as the average of years of education of the population aged 25 years and above. This figure amounts to 2/9 of the sub-index.

In the republic the necessary information to form the sub-index "human capital" has the following state agencies: the Ministry of Higher and Secondary Special Education, Ministry of National Education, the State Committee for Statistics and the Ministry of Finance (the list of the primary statistical data is attached).

In order to increase the value of the country indicator in the forthcoming UN study conducted in April-May this year, and given that its value depends on the timeliness, quality and relevance of the data provided for the calculation of the country indicator in the sub index "human capital".

Primary statistical data for the settlement of sub-index "Human capital" according to UNESCO questionnaires according to the questionnaire "Students and school teachers":

1. Enrolment by level of education, training load, by type of educational institution;

2. The contingent of students of formal education for adults by level of education, age;

3. The number of school teachers on teaching levels, workload, by type of educational institution;

4. The number of school teachers with pedagogical training for teaching level;

5. The number of school teachers with special education by teaching level.

According to the questionnaire, "Spending on education":

1. Expenditure on education by level of education, source and destination;

2. Expenditure on education by level of education, by types of educational institutions and of expenditure.

According to the questionnaire "The contingent of students and faculty":

1. Enrolment by level of education, training load, by type of educational institution;

2. Enrolments by level of education, the fields of education;

3. For the first time arrived at the level of the International Standard Classification of Education and for the first time received in the tertiary education level, the international standard classification of education and sex;

4. Enrolment and first arrived on tertiary education by age;

5. Enrolment at the tertiary education by country of origin and gender;

6. The number of graduates by level of education, the fields of education;

7. Teaching staff by level of education, employment status, by type of educational institution and the floor.

According to the questionnaire "Standardized training time":

1. The normalized time of year for students in primary education state educational educational institutions by years of training;

2. Standardized training time per year for pupils in state educational educational institutions of primary and secondary education by grade;

3. The number of sessions for pupils of primary and secondary education in state educational institutions in the educational year in the subjects and classes.

2.4 METER in Uzbekistan

The report is structured in a way to follow the logic of the METEP Questionnaire – the main instrument of assessing and visualizing the state of e-Participation of countries and institutions on the basis of the responses given to the Questionnaire's respective parts and sections. Part A (fact-based questions) contains the results for Legal/Regulatory and Organizational Frameworks, as well as for Channels and Capacities at the national (central) level of governance in Uzbekistan. Part B (fact/experience-based questions) focuses on e-Participation at institutional and agency levels, while Part C (perception/experience-based questions) addresses all e-Participation issues across the board as viewed by officials and specialists, with special emphasis placed on the progress made for e-Information, e-Consultation and e-Decision-making at national and agency levels – the key pillars of e-Participation.

The report is based on the information collected through the METEP Questionnaire at the Capacity Building Workshop organized in Tashkent during April 26 – May 1, 2015 by the Division for Public Administration and Development Management (DPADM) of the United Nations Department of Economic and Social Affairs (UNDESA), in cooperation with the United Nations Development Programme (UNDP) Country Office Uzbekistan, Ministry for Development of Information Technologies and Communications.

The METEP results demonstrate that Uzbekistan is advancing in using ICTs for engaging citizens. The overall progress of such advancement can be assessed as predominantly moderate, with some areas being at the higher level of 'good progress'. The country has a national legislation and regulatory framework supporting the e-participation that would require additional streamlining and outreach activities to publicize it to the citizens. Coupled with a strong government's commitment to support participatory activities, the overall readiness to advance e-Participation is solid.

However, the actual practice on the ground is not on par with the potential offered by such readiness that has yet to be translated into a set of enabling conditions. Apart from the use of social media, the government at national and country level does not have dedicated system of e-participation tools especially in the area of e-consultation and e-decision-making that would be accepted and easy to use by the public. Partly, this is due to the absence of a coherent policy at the national level that could create a supportive framework for central government agencies, counties and grassroots communities.

While there is room for improving legislation in the field of e-Participation, the main emphasis should be placed on expanding real-life projects and initiatives, particularly by line ministries in the field of economic and social planning and development, environment, transportation, education and etc. Yet without a clear enabling framework and related guidance, it will be difficult not only to launch new e-participation activities, but to ensure they produce a desired outcome and eventually visibly increase the efficacy of democratic participation in public affairs.

When considering the development and deployment of new e-participation tools, a priority should be given to e-Consultation and e-Decision-making projects which would integrate information provision in the above sectors. The launch of new projects should be accompanied by building relevant competencies of government officials tasked with citizen engagement (and appointing new staff when needed) and the development of relevant e-tools. There is a need for more specialized ICT tools including the broader use of the social media for public consultation and voting targeting specific population groups. It is also advised to undertake a thorough review of all central government and country agencies that deal – or should – deal with citizens in a far more pro-active manner. In addition, a national poll to measure citizens' demand for e-Participation services is recommended for devising better targeted policies.

METER is an online, interactive tool to assist governments and decision makers at any level throughout the world in developing, monitoring, refining and

improving the context within which information and communication technologies are used to transform government; in a sense in creating the context for e-government.

Transforming government through an e-government strategy is not an easy endeavor. Realizing this transformation requires a fundamental change in how a government delivers public services and in how the public interacts with the government. E-Government plays a central role in this transformation. E-Government however, cannot materialize by simply imposing new technologies onto existing operations of government; new capability must be created through commitment, legal, policy related, organizational and technological changes. E-Government requires policy shifts as well as operational changes. If governments are to be effective in creating an enabling environment for e-government, leaders must commit to the changes regardless of the level or complexity of these changes.

METER consists of five main pillars, or building blocks, considered as key to the establishment of a supportive enabling environment for e-government. The pillars are: commitment, legal, vision and policy, organization, and technology. Within each pillar there are a number of subthemes and related statements identifying essential factors, choices and challenges likely to influence a government's capability to effectively harness technology as an enabling force for government transformation.

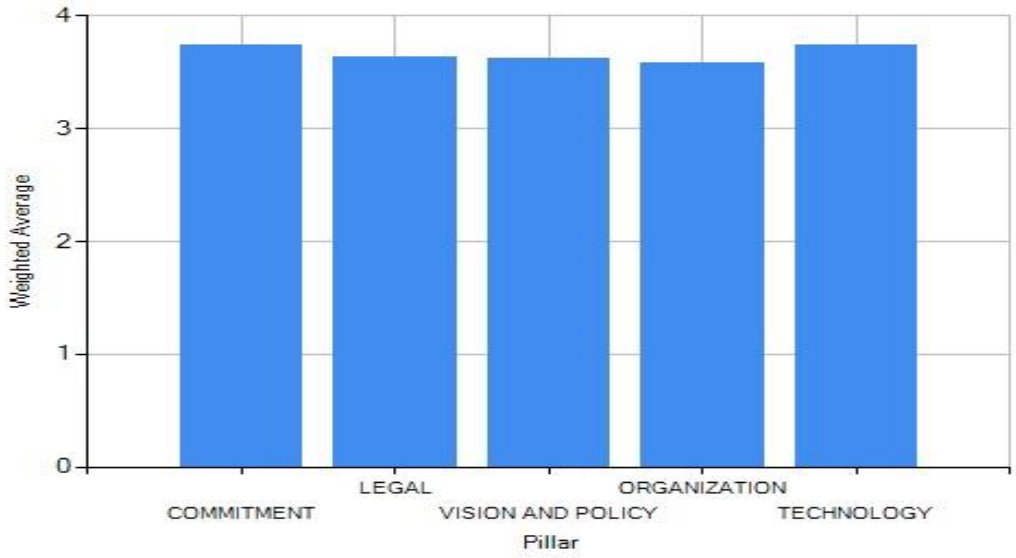
METER contains five sections that correspond to these five pillars or building blocks. Each section contains a brief description of the building block and a listing of the related sub themes. Each sub-theme contains a brief description followed by a series of statements. You are have asked to answer each statement by selecting whether you Strongly Agree, Agree, Neither Agree or Disagree, Disagree or Strongly Disagree with the statement as it relates to your own individual situation.

Approximately 25 participants representing various ministries took part in the METER exercise. All of them were from the IT division within their

respective ministries. Thus, the results do not cover the vast spectrum of public administration. Overall, the participants answered positively to the vast majority of the survey statements and thus the overall score is fairly high. The results below is a snapshot of the participants points of view of how Uzbekistan is handling the five pillars of commitment, legal, vision and policy, organization, and technology.

During the discussion which took place, a number of issues can up that contradicted the high scores in the METER statements. E-Services is still a major barrier to e-government development, there is still a gap between urban and rural connectivitiy, the legal framework needs to be strengthen and althought there is a strong commitment from the leadership in Uzbekistan, there are still some major challenges that need to be met.

Overall results of METER by pillars



2.3.- picture. Overall results of METER by pillars[16]

Commitment

E-Government requires a strong commitment from government leaders. The resources required for creating an enabling environment for e-government, include new policy frameworks, organizational capabilities and approaches to

[16] http://edu.uz/ru/pages/enrollment-plan

deploying human and financial resources. Leveraging such resources toward a priority such as e-government requires significant attention from leaders.

Building human capacity is also critical and should been seen as a prerequisite for e-government implementation. Transformation is only possible with the right governance structure combined with the political will. Commitment from leaders is thus necessary to guide the interweaving of strategic goals and programmatic actions necessary for effective e-government.

Sub-themes contained within this section are:

C1 Access to training resources

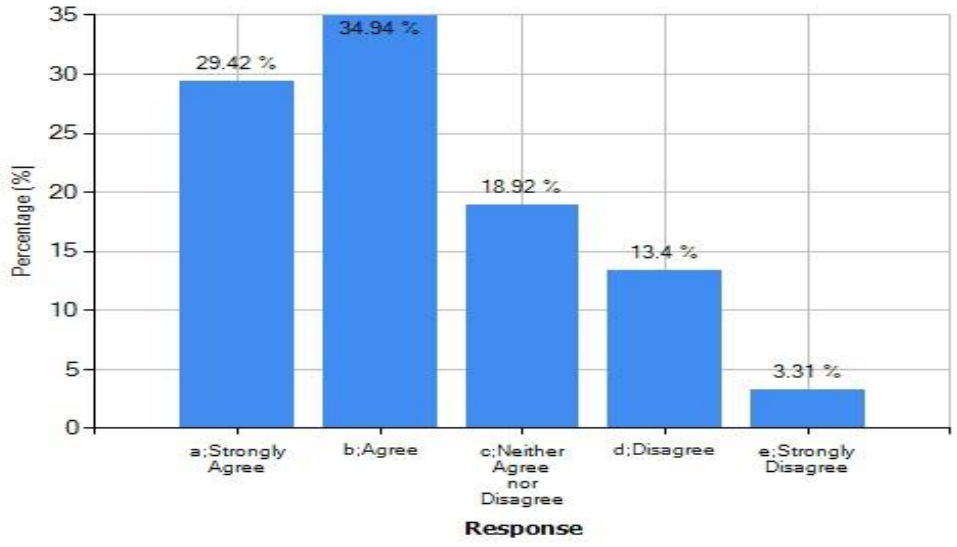
C2 Commitment to high quality, on-line access

C3 Innovation capability

C4 Partnership development

About 64% of the participants felt that commitment was a strength with Uzbekistan, while 19% felt that it was neither a strenght or weakness and 17% felt is was a weakness.

Commitement Pillar



2.4-picture. Commitement Pillar[17]

For the most part, the participants believed that access to training and commitment to high quality on-line access was not an issue in the urban areas

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for both citizens and businesses. There were some issues when it came to the rural areas. A slight majority felt that the rural population did not have the same access to the Internet, training and capacity building.

When we looked at the commitment of government to train its civil servant in ITC related subject. Approximately 60% felt that government provided adequate training.

Government provides adequate training approximately 40% felt that government did not provide enough training to keep its civil servant up-to-date with the new trends of ICT and e-government. This should be one area that ministries need to focus on to ensure that civil servant have the necessary capacities to handle the transformation of government using new technologies.

II Chapter Conclusion

The Government of Uzbekistan wanted to improve its e-services to its citizens, businesses, and government operations for greater efficiency, data availability, transparency, and accountability. The information and communication technology (ICT) adoption rates in Uzbekistan are relatively low compared to other states in the region. Falling far behind in rankings of East Asian emerging economies, in 2010 Uzbekistan ranked 87 out of 104 countries. At that time, Uzbekistan worked with the Republic of Korea, which was ranked #1, to develop an e-Government Master Plan to reinforce the ICT structure, establish e-procurement to improve the efficiency of internal administration, and realize local e-government. Although the Government has made significant progress in establishing key policies, in general, it has not established the appropriate regulatory and policy framework to maximize the benefits of e-government. Adding to this challenge, many organizations charged with achieving the development goal are underperforming.

Recommendations on the online sirvices index:

1) Prepare and submit the name of the authorized body in the UN Department of Economic and Social Affairs of the national list of sites subject to evaluation (gov.uz, mexnat.uz, edu.uz, uzedu.uz, mf.uz and minzdav.uz).

2) It is necessary to carry out a number of activities focused on a thorough audit of the sites above mentioned institutions, and elaborate the plan revision sites to accommodate the maximum position, outlined in the indicators taken into account in the assessment of sites by the UN experts (criteria applied).

3) Develop a set of recommendations for implementing the components of the site, the relevant UN methodology.

Recommendations on the telecommunication infrastrucrure index:

Identify the responsible department GoskomSITT for timely and high-quality statistical information in the ITU and RCC as telecommunications infrastructure development of the country according to the evaluation criteria

For example, the number of broadband subscribers per 100 people is based on subscriber figures only Uzbektelecom.

1) The need for a focused and progressive policies for the development of broadband, as well as to reduce the cost of Internet access for end users

2) Taking into account the tendency to reduce the number of wire lines in the countries leaders of the rating, to develop this direction only to enhance Uzbekistan's rating impractical, but it is necessary to pay special attention to the development of mobile broadband, especially in view of inaccessibility of certain regions for the construction of wired infrastructure

3) There is also a high probability of a possible adjustment of the method for calculating the specified index, for example, the indicator "number of fixed telephone lines" can be excluded.

4) Revise the methodology for counting the number of Internet users

5) In cooperation with the State Statistical Committee to develop a method of counting the number of personal computers (conducted by poll)

Regarding the METER conclision, the participants as a result of the debates understood that even though they believed that the statements in the METER were being positively observed by their respective ministries, in most cases, this was not the case. The debates identified key challenges that still exist and that each ministry needs to meet. These include developing integrated e-services; making senior management fully aware of the benefits and challenges that e-government presents; implementing an open government approach, which included open government data; greater use of social media and big data for measuring and analyzing impact; continue to strengthen the current infrastructure, especially in the rural areas; introduce business reengineering processes and workflows when implementing e-services and other government services; and start to market the positive aspects on e-government that are currently happening in the country.

The full results of METER for Uzbekistan can be found in the URL unmeter.org/reports. The id is administrator and the password is pass@123. We

urge that each ministry undertake their own respective METER exercise to identify the perceived strenghts and challenges that currently exist. This will allow them to create a roadmap and strategy to meet the current challenges.

In connection with the above, it is proposed:

1. Upgrade the websites of the ministries of education, labor, health, finance and government portal in accordance with the criteria of the UN, created on the site of state agencies conditions for disabled users

2. Create a full mobile version of websites of state bodies with the same opportunities as on the official website

3. Implement and provide services through EPIGU

4. Provide information to the ITU on the basis of the current criteria for evaluation (re-order the collection and provision of data to the ITU).

III CHAPTER. BENCHMARKING AND PERSPECTIVES OF IMPLEMENTATION OF THE BEST PRACTICE IN UZBEKISTAN

3.1 Progress in online service delivery in the Republic of Uzbekistan

Currently, Uzbekistan is in the process of formation of the institute consistent e-government services. Since the establishment of the Single interactive state services portal (EPIGU) introduced the order of 265 electronic services for businesses and households. However, most of them is informational in nature and the services that operate in an interactive form are at the initial level of maturity, that is, only a certain stage of the service is translated into electronic format. According to statistics, many of these services receives a relatively small number of applications per year. For example, existing services in the area of licensing implemented on EPIGU that all 28 applications were received in 2500 with the launch of EPIGU, 4 services in the field of education - 250 applications. The reasons may be different: the difficulty in obtaining services in electronic form, the focus of services to meet the needs of a limited circle of people or businesses. To realize the full potential of e-government is not enough to create electronic services and improve the level of maturity if it is not demanded by society, that is not focused on a large layer of the population or business, it is not aimed at solving the most pressing and urgent problems. When transferring public services in interactive form its relevance and social importance should be the main factors that determine the priority of such a transfer.

If, on the one hand, the reason for the lack of demand for services lies in the absence of on-demand services EPIGU, on the other hand, it is dictated by their incomplete implementation in electronic form. For most services, it is now required to provide all or part of the accompanying documents in traditional form or scanned versions, which ultimately deprives EPIGU comparative advantages over the traditional form of service provision.

Thus, the implementation of projects for the introduction of e-services is not limited to the digitization of documents, as is all of the following major components:

- Creation of information systems and databases;
- Simplification of the mode of supply, by optimizing the administrative procedures;

This is also evidenced by international experience - without optimization and process improvement of public services, ICT projects will lead to the automation of redundant, duplicative and inefficient administrative procedures.

Thus, this document is designed to prepare concrete proposals for the phased introduction of interactive public services demanded a high degree of maturity of the line with a view to optimizing the administrative procedures, availability of information systems and making the necessary changes to the legislation. Implementation of measures in the long term, in addition to creating an effective mechanism of interaction between the state and the population, deepening administrative reform, and further promote openness and transparency will strengthen the position of Uzbekistan in the UN ranking of the next round of assessments in 2018. [1]

The relevance of this document is the need to create a common strategic approach for coherence and a parallel study of the issues of implementation of interactive electronic services, in return for public service information. Adopted a number of decrees and resolutions of the President of the Republic of Uzbekistan, aimed at regulating the sphere of development of the set of KIS, GIR, IS with funds allocated from the state budget. On the other hand, accepted regulations on the formation of public services registry, shapes and forms, the translation traditional public services in the provision of electronic format. However, not all technical / technological and administrative aspects of the provision of services and issues of translation in electronic format synchronized.

This document covers the analysis of the following services, including their descriptions, legal and technological basis of their provision, and the current target of providing services scheme, problems and recommendations:

• Services in placing children in mainstream schools;

• Services in placing children in state pre-school establishments;

• submission of documents for admission to the state universities of the Republic of Uzbekistan;

• registration (re-registration) of the vehicle;

• payment of fines for traffic violations.

The above-mentioned services for the study were chosen for the following reasons:

1. The data services are provided across the country in large numbers and affected the legitimate rights and interests of the general population. The amount of the annual provision selected for the study of public services specified in the description of each service. It is not at all the services of researchers was able to get reliable statistics, but it has been suggested to their mass;

2. studied services are included in the list of services, which are valued at the rankings of the UN E-Government, and consequently the quality, transparency and multi-channel provision of these services will directly affect the ranking of online services to the Republic of Uzbekistan and the ranking of e-government development.

3. At present, work has begun on the development of conceptual and technical documents for the establishment of information "Talim" system, which is aimed at maintenance of state bodies in the sphere of education. A study conducted in the framework of this review, which incorporates the three services in the field of education, allow to outline the main technical and administrative aspects, which need to be addressed when creating ICC "Talim".

This document is to serve as a basis for developing a plan for the automation and optimization measures service delivery procedures and their implementation in electronic format on EPIGU sites and departments.

In this thesis one public service in education area will be described “Submission of documents for admission to the state universities of the Republic of Uzbekistan”.

This public service is the realization of the right of every citizen to receive an education. At the end of 2015 it was filed more than 606 thousand. Documents applicants for admission to higher education institutions of the republic. Total in Uzbekistan operate 57 universities and 18 branches of universities, they trained 239 thousand. Students, including in 2015 the quota was made about 58 thousand. Students.

In this section will be considered a service for submitting documents for admission to the Bachelor's public universities of the country.

1. General characteristics of the provision of services

1.1. Description

The right to admission to higher education institutions have the right to citizens of the Republic of Uzbekistan who have completed secondary, specialized secondary or vocational education, as well as foreign nationals.

The service today is exclusively in the traditional form by personal delivery of documents to the selection committee, as well as the preliminary gathering of a number of documents. http://edu.uz/ru/pages/enrollment-plan

For foreign citizens a special procedure of admission to higher education institutions, which was approved by Resolution of the Cabinet of Ministers "On Improving the reception and training of foreign nationals in the educational institutions of the Republic of Uzbekistan" dated August 4, 2008 № 169

Currently MHSSE work on the translation of this service in electronic form, but did not consider the possibility of optimization services: reduction of documents, improvement in the application form, the provision of the documents after testing. It is suggested that at this stage, before the introduction of e-services to consider the option of optimizing it.

1.2. Required documents

Declarations of acceptance of applicants accepted for study selection committee of higher education institutions from June 20 to July 20, inclusive, State Conservatory of Uzbekistan from 20 June to 15 July. Applicants take in the selection committee of higher education institutions the following documents:

A. Statement by the Rector, indicating the direction and form of language learning. The application form is approved by the Ministry of Higher and Specialized Secondary Education;

B. The original of the document on average (based on grade 11) or secondary special and professional education;

C. Medical certificate form 086-y;

D. A copy of the passport (under 16 years of age, provide a copy of birth certificate);

E. 6 color photographs in the size 3.5h4.5 cm;

F. Persons arriving in special correspondence branch, pass the extract from the employment record in the prescribed manner and the recommendation from the employer. In a special section the persons who have only secondary special, professional education and have at least 3 years of teaching experience.

Applicants entering the Institute of Physical Education, in addition to the above documents, rent a document confirming the sporting skills (book sports category), 8 photo cards (for special examination of sports).

The winners of international and republican Olympiads, contests and competitions entitled to preferential admission to study (See. Appendix 2) pass the original document confirming his right to enroll in the non-competitive basis.

Citizens who have served military service in the Armed Forces of the Republic of Uzbekistan shall pass to the above documents the original recommendations of the established sample studies from the military unit in which the applicant was held for military service (See. Appendix 3).

Passport and document on military duty imposed personally.

1.3. The current scheme is the provision of services («As-Is»)

1st step: The applicant (applicant) provide employee selection committee required documents. Documents submitted by the applicant within the period from 20 June to 20 July.

2-step: A member of the selection committee of the institution checks the documents for compliance. If the documents are not complete and / or do not meet the requirements, they come back for revision.

3rd step: The applicant fills out the application form, signed by the employee and provides a selection committee.

4-step: A member of the selection committee gives entrant notification of acceptance of documents, which is the basis for admission to the tests.

n. 10 of the Regulation "On the procedure for admission, transfer, recovery and removal from school of students in higher education and training institutions", approved by Cabinet Ministers Decree at 18 June 2010 № 118

5-Step: An employee of the institution receiving the commission makes the applicant data in a single information system of the State Testing Center (CTC). All public higher education institutions of the Republic of Uzbekistan have access to this system.

6 step: In the National Centre for testing via the information system are checked against data (passport number, diplomas, etc.) with other databases (checks whether the student has studied at the undergraduate or not yet) and in case of any discrepancy is notified schools.

7-step: State test center a week before the test (every year after July 20) prepares and sends to schools' lists DTM ", which are admission to the exams. Upon completion of the test on August 1, in the sheet applicant writes the unique number assigned to the exam books, which allows following the announcement of the test results to find out your score.

8-step: Schools distribute "sheets DTM" applicants.

Law of the Republic of Uzbekistan "On education" of 29 August 1997 (the most common sets standards of conduct in the field of pre-school education);

Resolution of the Cabinet of Ministers "On approval of provisions on the admission, transfer, recovery and removal from school of students in higher education and training institutions" dated June 18, 2010 № 118 (the text of the provisions contained in the official language);

Resolution of the Cabinet of Ministers "On Improving the reception and training of foreign citizens in educational institutions of the Republic of Uzbekistan" dated August 4, 2008, №169;

Resolution of the Cabinet of Ministers of the Republic of Uzbekistan "On improvement of activity of the State Testing Center under the Cabinet of Ministers of the Republic of Uzbekistan" dated 24 June 2004 # 293;

2. The current state of information resources and systems of government agencies involved in the provision of services

The provision of public services in placing children in state pre-school educational institutions are involved the following state bodies -The Ministry of Public Education, the National Testing Center, National Center for personalization. According to Table 7, the information systems related to this service are under development.

3.1-table

Status information systems related to the service by submitting documents for admission to universities[18]

Name of authoruty	The name of the system / database	Term of realization of the planned	Current status
Ministry of education/MVSSO	CIS "Talim"	1 quarter 2020	Develop an action plan, a road map and a concept
GCT	Unified information system MTC	finished	Implemented

[18] http://edu.uz/ru/pages/enrollment-plan

Ministry of health	Unified electronic medical records AIS "medical records"	2016	During the development phase
State personalization center	Base Personal Data	2 quarter 2016	During the development phase
Mimistry of Justice	Information system Single e-archieve notes of civil acts	2016	Implemented

3. Problematic Factors technical

This service is inherent identical problems as the previous two services in the field of education in view of the fact that the development of the main complex "Talim" information system will be implemented according to the plan of measures in 2020. Lack of information systems, will delay the possibility of creating a full-fledged automated services 4 level of maturity.

organizational

The questionnaire takes 45 minutes on average, this is due to the lack of clear instructions for completing the questionnaires, requirements to underscores, the field does not represent the need (information about the parents). On each applicant is allocated a single application form, if necessary supplemented by the application form, the candidate should make a copy of their own.

4. The target model for the provision of services («To-Be»)

1st step: The applicant (applicant) shall submit an application in person or through EPIGU official website MHSSE. In a statement filled with data from the certificates (number, date of issue, etc.), as well as all other necessary data.

2nd step: The selection committee with the help of the information system provides a reconciliation of the data with other database (DB individuals, certificates database, etc.). If there are discrepancies or documents do not meet the requirements of the information system automatically generates and notifies applicants.

3-step: If the documents meet all the requirements of IP generates electronic "sheet DTM" (or any other document allowing to go on test exam). If the appeal was through EPIGU, the DTM sheets are sent through a personal account of the applicant or by e-mail.

4th step: The selection committee through a system of interdepartmental cooperation notify the State testing center of issued sheets DTM.

Note: In the list of documents, health certificate and other certificates (disability, military service, etc.) are not required. This information is obtained after admissions entrance exams through interdepartmental cooperation with relevant ministries and agencies, as well as institutions.

5. Recommendations and Action Plan

5.1. Improvement of the legislation

Although it does not provide PCM №118, the selection committee gives entrant notification of acceptance of documents, which is the basis for admission to the test; further proposed that this be as important to acknowledge receipt of the documents by admission committees. To do this, add paragraph Regulation that the selection committee issues a notification of receipt of the documents indicating the package of documents handed over by the entrant

Table-3.2[19]

Creation of Information Resources / Systems

System name	Functions in public service delievery
KIS "Ta'lim"	- Automation of electronic submission of the application for obtaining services through integration with EPIGU;
Edinao E-ticket medical AIS "Medkarta"	- Ensuring the collection of information through channels of inter-agency cooperation with a database of individuals, the Ministry of Health, the INR alumni database
Data base citizens	- Verification of the reliability of the information provided in the application to the information received

[19] http://edu.uz/ru/pages/enrollment-plan

	by SMEV;
IS "E archive records acts of the Civil states"	- Ensure the automatic processing of the application;
Data base alumni medium (the base class 11) or of a special medium, PROFESSIONALNOGO education & attestatov.	- Issuing DTM sheet (pass the exam)

5.3. institutional arrangements

On the site there is sufficient information about the list of documents, timing of the provision of services. It is proposed as a link to the list of high schools with addresses, names of departments, admissions contacts during their work that the applicants would have been easier to make a choice, and they knew the location of the university location to apply in the traditional way.

5.4. Optimization of administrative procedures

Optimization of the procedure of applying for admission to higher education institutions is the result of the following changes:

• Automate the process of service provision. Automating the process will allow radically simplify the process of providing services, to eliminate the human factor, to use administrative resources more efficiently, eliminate the need to physically visit various instances, including repeated visits to the university to obtain a sheet DTM. The number of steps will be reduced from 8 to 4.

• Reduce the time of the service. As a result, full automation and the elimination of the human factor to be obtained after the response is reduced to 2 days.

• Reduce the number of submitted documents by users. At full optimization services, the number of documents is reduced to 5 (plus photo) to 1. Documents (application + photos) can be brought in person or electronically via EPIGU. Application form need to be reviewed in order to speed up the ability to fill it.

Table-3.3[20]

Reduction of documents as a result of the transmission channels for interagency interaction information.

№	Current	Suggeting
1	Application form	The electronic form through EPIGU
2	Help 086	It is proposed in order to obtain interagency electronic interaction for those professions where there are requirements for physical training. For those professions where there is no such requirement, it is proposed to refuse to provide the document.
3	Certificates and other documents proving the required level of education	In cases where persons with disabilities are special conditions for testing, only in these cases may require the conclusion of the medical institution confirming the disabled.
4	Copy of the passport	Transmission of information from the database of certificates and other documents proving the required level of education for intra-system interaction within the CIS "Talim".
5	The photo	Transmission of information from a database of individuals data SMEV
6	Employment history	The electronic form is attached to the electronic application form

Despite the diversity of research conducted on the developmental stages of informationization and the mature level of Korea's e-government, detailed descriptions of the effects of such achievements remain insufficient. This study seeks to explain the core success factors or the impact factors of the success of Korea's informatization and e-government achieved in two decades since the project was first launched from the cause and effect perspective. The e-government's achievements and the success factors will be explained in accordance with the horizontal factor flow (environment, input, transformation, output, and feedback) as presented in the general system theory.

[20] http://edu.uz/ru/pages/enrollment-plan

3.2 Best practice of methodology on Korean Republic case

The Korean government provides major G2C and G2B services through a single window, not through individual government websites. It is part of efforts to get close to citizens and businesses as 'one government' through intergovernmental cooperation and collaboration.

e-Government1) refers to the government's efforts to transform both internal and external governmental relationships through the use of information technology such as the Internet (OECD, 2004: 23, UNDESA, 2003: 1-2). The successful progress of Korea's e-government since 1980 is not attributable to a drastic, shortterm measure taken at a certain point in time but to the accumulated results of long-term, progressive evolution. In other words, the success of today's e-government can be interpreted as a process of dynamic growth achieved through countless trials and errors over a lengthy period of time. If this is true, then identifying which approaches the Korean government has taken and why and how it took them to achieve such success could be of inestimable value. Despite the diversity of research conducted on the developmental stages of informationization and the mature level of Korea's e-government, detailed descriptions of the effects of such achievements remain insufficient. This study seeks to explain the core success factors or the impact factors of the success of Korea's informatization and e-government achieved in two decades since the project was first launched from the cause and effect perspective. The e-government's achievements and the success factors will be explained in accordance with the horizontal factor flow (environment, input, transformation, output, and feedback) as presented in the general system theory. However, the study has its limitation of approaching the evolution process of the egovernment from historical description method. In other words, no scientific analysis methods such as in depth analysis on specific cases or statistical analysis on evidential data were employed to conduct cause and effects comparison among the success factors. The study categorizes the development stages of Korea's e-

government and analyzes the factors that were applied for establishing visions and project objectives per each stage, priorities, leadership, implementation system, financial and technical resource distribution, feedback, and learning processes. Such analytical study is hoped to contribute towards understanding the cause and effect relationship of the success factors of Korea's e-government from historical point of view.

Korea's e-government has undergone comparably notable development phases per administration, technological advancement level, and mid-long term planning. Characteristics comparison of such development phases is an important process in analyzing the changes of the e-government success factors.

After the 1980s, the Korean government launched various projects, all with different time frames and strategies. These projects were National Basic Information System Project (1987~1996), High Speed Broadband Network Project (1995~2005), Framework Plan for IT Development (1996~current), and e-Government Project (2001~current). The e-government, which was first commenced as an effort to computerize the administrative process, has gone through significant enhancement process with the advancement of information technology, automation of work process, and linkage with process innovation, as well as change in political leadership, implementation organization, and legal basis. In 1983, the Chun Doo-hwan Administration (1981~1987) established the National Basic Information System Plan3) for building 5 major national basic information networks by mid '90s as a part of the preparation project for the egovernment to raise the Korea's IT infrastructure to those of advanced nations'level. The first stage of the e-government (1987~1995) was launched as the 1st (1987~1991) and the 2nd (1992~1996) National Basic Information System Project in pursuant to the Act on IT Network enacted in 1986. During the process, the IT Network Development Committee lead the automation of government administrative process by building nation's core DB on information of citizens, real estate, and automobile and by distributing PCs. The 2nd phase of the National Basic Information System Project was pursued by individual

ministries and offices through constructing interconnecting computer network environment. The 2nd stage of the e-government (1996~ 2000) is the e-government growth process through development projects in accordance with the IT Development Framework Plan established in pursuant to the IT Development Framework Act. Particularly, the period is categorized as internet's explosive growth period as the social networking that links the entire nation through mass distribution of internet service and mobile telecommunication service as a result of the high speed broadband network project that was fully launched in 1995. The 3rd stage of the e-government (2001~2007) is the maturity stage. On February 2001, the Special Committee on e-Government under the leadership of the president was established and the importance and priority of the e-government project was elevated as presidential agenda and implemented throughout all the government ministries and institutes. During this period, the administration wide work process become computers.

Table-3.3

Maximize the internal administrative process[21]

Year		83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	00	01	02	03	04	05	06	07
Administration		Chun Doo-Hwan					Noh Tae-Woo						Kim Young-Sam					Kim Dae-Jung				Roh Moo-Hyun			
IT Development Policy	Nationwide IT Network	Planning				Phase 1					Phase 2														
	High Speed Network													Phase 1			Phase 2			Phase 3					
	IT Development Framework Plan															Phase 1			Phase 2		Phase 3				
	e-Government																			Phase 1		Phase 2			
e-Government Phase Category		Preparation Phase				1st Stage										2nd Stage					3rd Stage				
						Phase 1					Phase 2										Phase 1		Phase 2		

* Source: PCGID (2005), MIC NIA (2005), Special Committee on e-Government (2003).

[21] http://edu.uz/ru/pages/enrollment-plan

The IT development project was formed and implemented in mutual interaction of needs and seeds in the political & social as well as economic & industrial technical environment. Since the 1980s, globalization, free market, and revolution in knowledge and information provided necessary factors to the government's response efforts. The efficiency oriented New Public Management (NPM) ideology and pursuit of value (Hood and Jackson, 1991: 33-4; Martin, 2002: 130-131; OECD, 1995:28) by the advanced nations as a result of oil crisis became the turning point for the establishment of small and efficient government. As a result, the Stage 1 e-government project is comparably the starting point for formation of small and efficient administration in Korea.

The Stage 1 emphasized the formation of small and efficient government as the transitional method from dictatorship to democracy. The Chun Doo-hwan Administration emphasized reduction management and strengthening market competitiveness. It benchmarked policy objectives of the advanced nations and pursued National Basic Information System Project focused on human resource reduction and improved productivity. During the same period, the TDX Digital Switch, TICOM, high speed semiconductors, CDMA, and other core information technologies were consecutively developed and the foundation for the growth of IT industry was established. In addition, universities'facilities and support for R&D activities were expanded to foster professionals in IT field and launched computer distribution project for schools. The Stage 2 was the period of mass public distribution of Internet service through high speed broadband network project to expand national IT development efforts with strategy of building small and efficient government, globalization, free market and high speed broadband network that surpasses those of other advanced nations. In 1993, USA's Clinton Administration built the National Information Infrastructure (NII) to form "a government that works better and costs less"(US NPR, 1994), and in response, Japan established New Social Capital Plan and European Union pursued the Trans-European Network (TEN). To proactively

respond to the globalization, the Kim Young-sam Administration (1993~1997) actively participated in the Uruguay Round, WTO and OECD and presented a vision for formation of small but powerful government for construction of New Korea and New Economy. Together with political and democratization activities, civic movements became vitalized and medias promoted campaigns themed "We may be behind in industrialization but let's lead in informatization". In addition, universities and corporations implemented IT learning courses and competitions and other activities for nationwide expansion of informatization, such as distribution of personal computers in local communities, were implemented.

In addition to the needs that arose as a result of the Asia's financial crisis during the end of 1997, the Stage 3 reflects the demands of the period, which was the vitalization of competitive market and advancement of democracy, both pursued by the Kim Dae-jung Administration (1998~2002). The administration was the first turnover in ruling political party in Korea. As the measures for the economic crisis, which is interpreted as a result of failure in manufacturing industry, the government resorted to venture industry policy and exerted efforts to expand social application of information technology. After the economic crisis and about the period when restructuring of 4 major sectors were being completed, the administrative process innovation through e-government was selected as the government's new reform strategy. In other words, the government selected the strategy for establishing government innovating program that will reduce the nationwide hardship that accompanies manpower reduction, privatization, and other physical restructuring process while minimizing complaints from those who became the target of restructuring and to improve government's productivity and enhance the service provided to citizens. (Special Committee on e-Government, 2003: 55). In addition, around 2000, world's leading IT icons including Alvin Toffler, Bill Gates, and Masayoshi Son, as well as international media have praised Korea as a nation that has

succeeded in IT development and has no other nations to benchmark from and suggested Korea to identify and pursue its own unique development model.

The Phase 1 of the 1st Stage Project (1987 ~1991) involved building 5 major national information DB of administration, finance, education & research, national defense, and national security. The 2nd Stage Project (1992~ 1996) was the project for building 7 management systems including public welfare, postal service, meteorology, oceanic freight, and intellectual property rights. The administrative inter-department network built as a part of the National Basic Information System Project, internal process has made the internal government process more efficient while automating mass public civil services. For example, the citizen's registry management process, which was previously conducted by a civil service clerk at the dong-office via copying the amended or full registry of the original created manually, was changed to computerized system and citizen's reporting of change of address was able to be conducted from distant location thanks to the inter-department network by district government branches. Such ability to process administrative services from remote locations through the inter-department network is the significant achievement of the 1st Stage eGovernment Project (Song Hee-joon, Kim Junhan, 1991). Simultaneously, the 1st Stage contributed transparency in economic activities by implementing real name verification policy for financial activities (Aug. 1993) for civil services, real estate, and financial transactions as well as the real estate real name verification policy (Jul. 1995) (O Gwang-seok, 2005: 49). However, there was the limitation of having such verification certificates to be issued only by the issuing agencies in their premises via visit in person process because the internet service was not yet widely distributed. The 2nd Stage included the development of the initial versions of homepages, document distribution system, and e-approval system lead by the MIC under the guidance of the IT Development Committee. Through the innovation of the Common Business Process (CBP) (OECD, 2005: 69), which organized the work activities networked through time and space, the inter-department sharing and communal usage was launched. The

3rd Stage was primarily focused on the multi-department front office services but its priority elevated as the Presidential Order eGovernment Project. However, during the formation and implementation process of the e-government's 11th project or the 31st roadmap, it was implemented as the participatory governance with active management by the Special Committee on e-Government (Outside Initiative Model, Cobb et al.). In other words, to overcome the limitations of not being able to seamlessly implement the Inside Initiative Model as a result of lack of inter-department cooperation and coordination and to pursue projects in nationwide level, the president utilized the professionalism of external organizations and governance (Song Hee-joon, 2004). However, in the 3rd Stage, there are certain 14 Informatization Policydifferences in implementation strategies between the Phase 1 and Phase 2 Projects. The former is more inclined towards the centralized model with the governance by the Special Committee on e-Government until the completion of the project but the Phase 2, although its agendas are similar to the Phase 1, it is more inclined towards the Inside Initiative Model with each independent departments taking charge of their portion of the project from implementation to completion. The 1st Stage e-Government Project was composed of 11 segmented projects consisting of 4 front office related, 4 back office related, and 3 infrastructure related projects. Majority parts of the 4 back office management process also includes system for mass public service and it is composed of multi-department projects such as G4C and SIIS. The 2nd Stage e-Government Project consisted of 4 sectors, 10 agendas, 31 major projects, and 45 unit projects.

<Chart 6> Formation of the Phase 1 and Phase 2 e-Government Project

Phase	Front Office	Back Office	Build Infrastructure	Total
Phase 1 e-Government	4	4	3	11
Phase 2 e-Government[6)]	9	13	9	31

It's roadmap included first, integrate and expand the infrastructure from multi-department network to nationwide network; second, develop interactive websites (Q&A, FAQ, etc.), and details for stimulating participation by customers, relative parties, civic groups, and general population in government policy activities to ensure transparency in civil service handling phases and governance perspective; and third, the roadmap includes advanced integrated design model for government's functions, duties, information resource, and other core factors, applied in all branches throughout the government.

Table-3.4

Evolution of e-Government Visions and Objectives[22]

<Chart 5> Per Stage Evolution of e-Government Visions and Objectives

Stage	Plan	Vision	Primary Objective	Administrative Principal
I	Phase 1 Information Network (87-91)	Create Small Government & Advanced Economy	- Improve public service productivity & delivery method - Enhance citizen's convenience - Improve national competitiveness	Efficiency
	Phase 2 Information Network (92-96)	Create Small But Powerful Government	- Create small but efficient government - Achieve speedy response in civil service	
II	Framework Act on Informatization Promotion Plan (96-00)	Create Small But Efficient e-Government	- Innovation in civil service - Promote public's utilization and transparency of government information - Create infrastructure for the expansion of usage of administrative information - Supplement and upgrade existing system	Efficiency + mass public service
III	Phase 1 e-Government (01-02)	Become World's Technologically Advanced Nation in the 21st Century	- Administrative service for mass public - Corporate friendly environment - Improved productivity and transparency of administration - Achieve stability and reliability of information infrastructure	Efficiency + mass public service + transparency
	Phase 2 e-Government (03-07)	Create World's Most Advanced Open e-Government	- Create networked government through innovation in service delivery - Create knowledge based government by improving efficiency and transparency - Create People's Participating Government that upholds citizen's rights	Efficiency + mass public service + transparency + participation

The implementation organization is organizational resource employed during the

[22] http://edu.uz/ru/pages/enrollment-plan

implementation stage of the project. It is the combination of government group and external group mutually interacting the interests and leadership of the president to achieve the policy visions and strategies under the given political and industrial, economic and industrial, as well as technological conditions.

3.3 Ways of implementation and development foreign experience in Uzbekistan.

The development of communication, information and telecommunication technologies as an important factor in improving the welfare of the people and the country's economic growth is one of the main priorities of the state policy of Uzbekistan. This is further confirmed by the adoption of the Resolution of the President of the country on June 27, 2013 the Comprehensive Program of development of national information and communication system of the Republic of Uzbekistan for the period 2013-2020.

The main objectives of the adoption of the program is the further development and widespread implementation in all sectors and spheres of modern information and communication technologies, ensuring accelerated development of information resources, systems, and networks, as well as encouraging expansion of the range and improve the public services provided online to businesses and households.

A comprehensive program of national information and communication system of the Republic of Uzbekistan for the period 2013-2020 years, divided into two programs. The first program of development of telecommunications technologies, networks and communications infrastructure in Uzbekistan, and the second program to create complex information systems and databases of «e-government».

The program of development of telecommunication technologies, networks and communications infrastructure aimed at expanding the network of fixed and mobile broadband switching centers transmit voice and data traffic, the modernization and expansion of the main telecommunications networks, the

creation of the necessary infrastructure for the development of multimedia services.

For example, until 2020, the work planned to expand the optical broadband networks and the construction of fiber-optic communication lines, the further installation of base stations across the country EDVO, 3G and 4G LTE. Provides for the establishment of studios for providing multimedia services to the corporate sector, centers of information services, data storage and processing, and storing frequently used data (caching centers).

Also among the priorities is the implementation of the necessary measures for the development of the «e-government».

The program for the development of the «e-government» include the development and adoption of the law "On e-government", the development and adoption of standards and regulations on inter-agency collaboration and data sharing, formation of databases in different directions, creating new and integrate existing systems of information systems in public procurement, taxation, customs clearance, health, education and many others.

The Center of development of "e-government" and the Center for information security. It is assumed the introduction of a single platform of "e-government", which will be the basis for developing new and integrating existing information systems.

Information interaction of state bodies in the "e-government" with corporations and individuals will be carried out through a recently launched in test mode Single portal of interactive government services, providing access to information about the services and functions of state agencies, enabling users to exchange data in electronic form, registration requests through a single point of access to integrated online public services.

To identify the members of the "E-government" program provided for a project to create a unified system of identification based on public key infrastructure.

Key projects of development program "E-government" is to develop national databases and registers: the data on natural and legal persons, information on transportation, cadastral information, property, common directories and classifiers, etc.

For effective management, accounting and improve information security of departmental information resources and databases will be created an interdepartmental State Data Center of the "E-government", which should provide centralized storage and handling of departmental information resources, as well as the integration of inter-departmental information systems.

Thus, as a result of the introduction of "E-government" will move to a fully transactional services that eliminate the need to visit different instances and communication with civil servants for public services to citizens and businesses, which in turn will help create for them more amenities and better business conditions.

The future of Uzbekistan lies in the fact that the process of e-government implementation must be synchronized with the general administrative reform which is much more difficult. In this regard the starting point for e-government shaping in Uzbekistan at the current stage should become development of the E-government Development Concept and Strategy defining the main provisions base on the general logic of administrative reform. But at the moment the situation with e-government implementation in Uzbekistan is complicated by lack of comprehensive administrative reform concept. As a result during development of ICT Concept and Strategy it is impossible to ensure interrelation of objectives, outputs and tools of e-government and administrative reform.

The following may de considered as the main principles of E-government Development Concept stipulated by general logic of administrative reform: Leading role of the central Government. The Government should be ready to accept the leading position in the area of electronization and informatization of society through development of a common ICT introduction strategy. Ensuring openness and broad coverage. It is necessary to substantially expand access to

information and improvement of opportunities to use it due to innovations applied. It is important also to increase the range of e-services rendered by the Government and provision of full coverage of all social segments. The services should be available for all citizens any time. User-oriented approach. First of all, the government institutions should focus on the needs of citizens (users) study their requirements and improve their work in order to fulfill them. In this regard some relative steps should be undertaken in this direction, in particular revision of assessment system of civil servants' and government institutions' performance, expanding opportunities fro control over public administration performance by citizens and business. Integrated public services. Public services should be rendered within the framework of fully integrated system. This assumes creation of a unified governmental portal to join web-sites of various government agencies. Moreover it is necessary to establish close government network ensuring integration of departmental databases – e-applications should ensure interaction among various government structures and bodies complying one single system and being fully compatible.

Close connection between the Government and private sector. Public administration bodies should cooperate with private sector more often with an aim to ensure fast and effective introduction of e-solutions, support permanent knowledge exchange among citizens, business and government authorities. Administrative reform implementation and introduction of e-government elements are mutually related. It is necessary to consider that while evaluating perspective positive outputs to be achieved within the framework of administrative reform by using solutions and tools of egovernment it is quite difficult to divide objectives of administrative reform and e-government tools to achieve the objectives set. The same tools of e-government can make positive effects in various aspects of administrative reform. The objectives set define the following:

A comprehensive program of national information and communication system of the Republic of Uzbekistan for the period 2013-2020 years will open

new paths for the further development of the information society in the country and its integration into the global information space.

III Chapter Conclusion

1. Raising efficiency of public administration bodies (both central and local) based on egovernment tools application relates to:

• Creation of governmental e-database, including opportunity for remote access (intranet);

• Introduction of integrated systems of e-document circulation;

• Discussion of draft decisions and governmental programmes at Internet-forums of governmental portals.

• Development of electronic official and administrative regulations based on comprehensive functional analysis conducted.

2. Reduction of transaction costs of entrepreneurial activity and simplification of public service provision to citizens is possible only upon introduction of the following r-government elements:

• Filling on-line e-forms of applications, accounting (in particular the tax ones), payment of services rendered by government institutions, etc.;

• Creation of integrated information collecting and assembling systems, abolition of useless ones;

• Practical implementation of "e-window" concept for solution of broad range of issues regulating economic activity (registration, licensing, taxes, subsidies, etc.);

• Based on launching governmental portals creating environment for simplified access of citizens and business to official information, reduction of time loss of individuals and legal entities.

3. Ensuring more transparency of administrative system at all levels applying e-government tools can be achieved through the following:

• Launching integrated governmental portals;

• Placement of maximum volume of information for citizens and business including updated legislative base, description of administrative procedures necessary for citizens and private sector.

CONCLUSION

Under conditions of globalization the government faces necessity to revise its relations with business and citizens. Requirements to efficiency of G2B and G2C interaction are among the most priority driven ones. ICT is the most advanced and, as proved by the international experience, powerful instrument for raising efficiency of the government. The main problems within the process of forming e-government in Uzbekistan are currently the following:

Main recommendations of the thesis:

1. It is necessary to elaborate legislative basis regulating public administration performance aimed at ensuring transparency, establishing e-mechanisms of G2B and G2C interaction. In this regard it seems reasonable to:

• Formulate Concept Paper and Strategy of E-government Development in Uzbekistan;

2. It is necessary to revise the mechanisms of financing ICT introduction process into public administration performance. Introduction of a separate expenditure item to the state budget, not less than 1% of total state budget for ICT development, elaboration of a mechanism of coordination and monitoring of costs with an aim to reduce unjustified overspending or non-targeted spending of budget funds by this expense item.

3. further ICT infrastructure development in the country would require:

• Amendments and addenda introduced to the Programme on Computerization and Information-Communication Technologies Development for the period of 20013-2020 ;

• Ensuring adequate financing for activities within this Programme;

• Revision of certain target indices of the Programme, in particular: the quantity of ports of data transmission networks, Internet users, coverage of settlements on the part of Internet centers;

• Reduction of restricting procedures for activity carried out by business structures in the area of telecommunication services provision: licensing, authorization, certification;

4. It is necessary to introduce amendments into current legislation regulating ICT application in various aspects of political, economic life of the country (e-government, e-commerce and eeducation).

Under current conditions in Uzbekistan e-government, first of all, means improvement of public administration system performance and optimization of interaction mechanism between the Government and business with an aim to reduce pressure on entrepreneurship and cur down transaction costs for business activity, expanding access for entrepreneurs to information and documents of government institutions necessary for business development. In particular, e-government implementation will allow to solve the following problems of public administration system that currently hinder effective promotion of SME development.

First, formulate and improve normative-legal grounds to ensure information openness of public administration bodies through ICT means, thus increasing opportunities of business on the part of timely receipt of information from government agencies (for instance, statistics data, e-forms of tax and statistics accounting, e-forms of customs documents, etc.). Second, ICT application at public administration bodies will allow maximum reduction of administrative procedures focused on the work with paper data carriers that raises costs both of citizens and legal entities while interacting with government bodies. Given limited budget resources the main efforts in the area of e-government implementation in Uzbekistan is reasonable to focus of the following directions that in mid-term perspectives would ensure positive results within G2B interaction. 1. Currently implemented projects aimed at introduction of e-forms into the Tax and the Customs Committees' performance. Legal entities have to spend lots of time and resources for interaction with these bodies. Launch of e-mechanisms of filling and submitting tax declarations will ensure substantial saving of business resources as well as to cut down man-hours of the tax services. The same results can be achieved upon introduction of e-forms of customs declarations. Unified electronic information system of foreign trade

transactions launched in 2003 ensured substantial simplification of interaction between various government agencies involved into the process of foreign transactions regulation. Further improvement of this system through introduction of mechanism of filling and submitting e-forms of customs declarations and registration of export-import contracts would allow to reduce costs of legal entities. Moreover the legislative ground has been already established by adopting the law on electronic digital signature and creating the Republican testing center. 2. Introduction of e-forms of accounting and submitting statistics data within the system of the State Statistics Committee and other respective agencies. In particular, launch and further development of websites focused on provision of statistics data would ensure more adequate receipt of relevant information necessary for elaboration and development of business projects. For the moment legal entities have to submit more than 30 forms of statistical reports. Development and launch of e-forms of statistical reports would ensure substantial reduction of costs both for entrepreneurs and government agencies. Implementation of administrative reform in Uzbekistan and introduction of e-government elements are interrelated. E-government is a process of transforming traditional government, where e-technologies serve as a tool for this transformation. Experience of other countries shows that e-government implementation is very complicated and expensive undertaking. In case e-government is not a component of a larger programme aimed at transforming government performance in the area of information management, increasing the level of service provision to citizens and private sector, than the time and funds spent will not bring the benefits expected. In Uzbekistan, at the current stage only the Government can act as initiator of e-government implementation, it should be noted that efficiency of e-government programmes and projects will remain low even under conditions of proper financial and technical provision due to lack of critical measures undertaken within the framework of administrative reform.

Good governance become to good e-government.

LIST OF REFERENCES

I. Legislation of the Republic of Uzbekistan.

1. Law “On communication” of the Republic of Uzbekistan, dated 13.01.1992 №512-XII (with amendments and additions).

2. Law “On telecommunications” of the Republic of Uzbekistan, dated 20.08.1999 №822-I (with amendments and additions).

3. Law “On informatization” of the Republic of Uzbekistan, dated 11.12.2003 №560-II.

4. Law “On digital signature” of the Republic of Uzbekistan, dated 11.12.2003 №562-II.

5. Law “On electronic document management” of the Republic of Uzbekistan, dated 29.04.2004 №611-II.

6. Draft Law of the Republic of Uzbekistan on Electronic Government. 2013-2014 y.y.

II. Decrees of the President of the Republic of Uzbekistan and resolutions of the Cabinet of the Ministers.

7. The Decree of the President of the republic of Uzbekistan“On measures of further implementation and development of modern information and communication technologies” dated 4.02.2012.№PD-1730.

8. The Decree ofthe President of the republic of Uzbekistan “On measures for further development of the national information and communication system of the Republic of Uzbekistan” dated 21.03.2012. № PD1730.

9. The Decree of the President of the republic of Uzbekistan “On creation of the State Committee for communication, informatization and telecommunication technologies of the Republic of Uzbekistan” dated 16.10.2012 №PD-4475.

10.The Decree of the Cabinet of Ministers of the Republic of Uzbekistan "On measures for further improvement of interaction of public and economic governance, the local authorities with legal entities and individuals using information and communication technologies" dated 23.08.2007. №181.

11. The Decree of the Cabinet of Ministers of the Republic of Uzbekistan “On measures for further improvement of the governmental portal with the provision of online public services” dated 30.12.2012, №378.
12. The Decree of the Cabinet of Ministers of the Republic of Uzbekistan ”On measures to organize the activities of the e-Government center and the Information security center” dated 16.09.2013. №250.

III. Publications of the President of the Republic of Uzbekistan.

13. Karimov I.A. Our main task – the country’s development and welfare of the people. – Tashkent.: Uzbekistan, 2010., P.54.
14. Karimov I. A.The Speech of the President of Uzbekistan at the meeting of the Cabinet of Ministers on January 18, 2013, dedicated to the summary of social and economic development in 2012 and main priorities of economic program for 2013.
15. Karimov I.A. Development of the country rapidly mobilizes all the possibilities of the continuation of proven strategies reform. Uzbekistan. 2014. P.64.

IV. Main references.

16. United Nations E-Government survey 2014, E-Government for the future we want, United Nations New York, 2014
17. Joon Song H. E-government in developing countries: Lessons learned from Republic of Korea. UNESCO: Communication and Information in Asia, 2006.- 87 p.
18. Heeks R. Understanding and Measuring eGovernment: International Benchmarking Studies. E-Participation and E-Government: Understanding the Present and Creating the Future. Budapest, Hungary, 2006 – 46 p.
19. AbrahamsL., Newton-ReidL..e-Governance for Social and Local Economic Development: Gauteng City Region perspective. LINK Public Policy Research Paper No. 9, 2008. - 46 p.
20. Rodrigo L. MartnandJorge M. Montagna. Business Process reengineering: Role in Electronic Government. 2008. – 49 p.

http://sedici.unlp.edu.ar/bitstream/handle/10915/24431/Documento_completo.pdf?sequence=1

21. Delivering Efficiency: Understanding the Cost of Local Government Services. Communities and Local Government: London, 2008.– 59p. http://www.fitting-in.com/reports/costingframework.pdf

22. Alhujran O. Determinants of e-government services adoption in developing countries: a field survey and a case study. University of Wollongong, 2009.- 314 p.

23. Dr. Yuri Misnikov. Local Governance Support Project: participation and Partnership. Assessment of e-governance system of Uzbekistan based on the desk review results. UNDP Uzbekistan, 2013.–30 p.

V. Additional references.

24. Report on Benchmarking E-government: A Global Perspective. United Nations Division for Public Economics and Public Administration. ASPA, 2002. – 92 p. (http://www.carib-is.net/sites/default/files/publications/Benchmarking%20Eovernment%20A%20Global%20Perspective%20-%20UNPAN%202002.pdf)

25. European Commission. "Preparing Europe's Digital Future – i2010 Mid-Term Review", European Commission, 2008. – 165 p. http://ec.europa.eu/information_society/eeurope/i2010/docs/annual_report/2008/i2010_mid-term_review_en.pdf

26. OECD e-Government Studies. Rethinking e-Government services. User-centred approaches. OECD.Paris, 2010. – 125 p.www.oecd.org/publishing/corrigenda\

VI. Periodical and statistical publications and reports.

27. Audit Report No.26. Measuring the Efficiency and Effectiveness of E-Government. Australian National Audit Office. Commonwealth of Australia, 2004.- 100 p. http://www.dcita.gov.au/cca

28. E-Ready for What? E-Readiness in Developing Countries: Current Status and Prospects toward the Millennium Development Goals Prepared for info Dev 2005, The World Bank, USA, 2005. – 253 p.

29. UNDP Uzbekistan, UNDP Local Governance Support Project: Participation and Partnership (LGSP), Progress Mission Report, 2013.

30. E-Government Economics Project (eGEP): Expenditure Study. Final Version. DG Information Society and Media European Commission, 2006. – 69 p.
http://www.umic.pt/images/stories/publicacoes200709/Expenditure_Study_Compendium.pdf

31. The User Challenge. Benchmarking the Supply of Online Public Services, European Commission, Directorate General for Information Society and Media. Brussels, 2007. – 122 p.

32. United Nations e-Government Survey 2008. From e-Government to Connected Governance. United Nations New York, 2008. – 246 p.

33. GPR Reading Supplement handbook. Government Processes Reengineering. National Institute for Smart Government, 2012.– 65 p.www.nisg.org

34. Yearbook. International telecommunication union. Measuring the Information Society 2012.ITU, 2012. – 71 p.

35. United Nations E-Government Survey 2012.E-Government for the People. New York, 2012. – 11 p. http://www.un.org/en/development/desa/publications/connecting-governments-to-citizens.html

36. Measuring information society. International Telecommunication Union Geneva Switzerland, 2013. – 157 p.

37. Trusted e-ID Infrastructures and services in EU. TSP services, standards and risk analysis report. European Union Agency for Network and Information Security, 2013. – 66 p.www.enisa.europa.eu

VII. Thesis from scientific journals and conferences.

38. Reddick C. Citizen Interaction with E-government: From the Streets to Servers? // Government Information Quarterly, 2005. pp 38-57.P.

39. Contini, F., Cordella, A. Information system and Information infrastructure deployment: the challenge of the Italian e-Justice approach // Electronic Journal of e-Government №5.2007. Pp.65-69.

40. Kim, K., Jeong, I., Park, J., Park, Y., Kim, C., & Kim, T. The impact of network service performance on customer satisfaction and loyalty: High-speed internet service case in Korea // Expert Systems with Applications, 2007. Pp 822-831.

41. Codagnone Cr., Arne-Undheim T. Benchmarking E-Government: tools, theory, and practice // European journal of e-Practice №4.Efficiency and effectiveness. 2008. Pp.92-98. www.epracticejournal.eu

42. Bertot J.C., Jaeger P.T., McClure C.R. Citizen-Centered E-Government Services: Benefits, Costs, and Research Needs //The Proceedings of the 9th Annual International Digital Government Research Conference: Montreal, Canada. 2008. - Pp137-142.

43. Sh.Shermatov. Collaboration in the development of e-government in Uzbekistan // Best SoftUz.2013. P.25.

44. Korchieva A.U. Challenges for online services implementation and barriers to e-government adoption //2014, 386-389 pages.

VII. Dissertations and auto abstracts.

45. Yang Wang. Motivation, Barriers and Impacts of Mobile Technology in Four OECD Countries: A Literature Review of e-Government Service Deployment: Diss. Master of Comp and Inf Sciences.-Auckland University of Technology, 2010. – 109 p.

46. Heeks R. Benchmarking e-government: Improving the Nationel and International Measurment, Evaluation and Comparison of e-Government.Institute for Development Policy and Management. 2006. – 98 p.

47. Hannes Lehemets Quality Assessment of Estonian e-Government Services:Master’s thesis. - Institute of Computer Science. Tartu, 2012.- 68 p.

48. Maranny E.A. Stage Maturity Model of m-Government (SMM m-Gov) Improving e-Government performance by utilizing m-Government features: Master thesis. -Business Information Technology, 2011. - 139 p.

VIII. Internet web sites.

http://gov.uz/uz- The Governmental portal of the Republic of Uzbekistan

https://my.gov.uz/en - The single interactive state services portal

http://unpan3.un.org/egovkb/Portals/egovkb/Documents/un/- UN Department of Economical and Social Affairs

http://en.wikipedia.org - The free encyclopedia

http://www.uz.undp.org - United Nations Development Programme

http://stat.uz/en/index.php - The State Committee of the Republic of Uzbekistan on Statistics

http://www.ziyonet.uz/ - Scientific Portal

http://ccitt.uz/uz/ - The State Committee for Communication, Informatization and Telecommunication Technologies of the Republic of Uzbekistan

http://press-service.uz/en/ - Press Service of the President of the Republic of Uzbekistan

http://parliament.gov.uz/en/ - Official website of Legislative Chamber of OliyMajlis of Uzbekistan

http://www1.worldbank.org/publicsector/ egov/egostudies.htm - World Bank eGove - Govstudies

http://www.egovlinks.com - eGovLinks

http://www.socitm.gov.uk/egovindex/policy. htm - SOCITM e-Government Index (The Society of Information Technology Management)

http://www.developmentgateway.org - Development Gateway

http://www.unpan.org/egovernment.asp#digital - UNPAN (United Nations Online Network in Public Administration and Finance)

http://ec.europa.eu/ - European Commission