

FROM E-GOVERNANCE THROUGH M-GOVERNANCE: TURKEY APPLICATIONS

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—Abstract —

Today, the utilization of technology has gone beyond the traditional use of banking and trading; yet begin to come out in governmental issues. Technology, that is used in voting and referendums which are the requirements of democracy, has become accessible not only electronically but also through portable devices. The concept of mobile government (m-Government), can also be defined as the delivery of government services to the doorstep of citizens personally. By m-Government, governance issues are aimed to happen in a free and flexible way; thus the link and interaction between government and citizen will also be increased.

Mobile governance is admitted as the next step of electronic governance and has yet started being used in Turkey. Turkey, that has solved infrastructure problems about information with e-governance, is planning to reach the level of European Union countries in mobile governance services. However, social transformation is always in the forefront and the problem of acceptance of either mobile or electronic applications by citizens arises. And that can be seen as a barrier in the development and the use of modern tools of democracy.

The study is about to explain the concept and the use of m-governance, also the transition period of e-governance through m-governance. Especially, the importance and the place of m-Governance during EU adaptation process is being discussed. As such, both interviews with the m-Governance authorities in cities where m-governance is applied and comparisons of these cities with EU countries are also aimed.

Key Words: *M-Governance, Democracy, Local Government, E-Understanding.*
JEL Classification: H11, H19.

1. INFORMATION SOCIETY

During the process of industrialization, economic stagnation in most countries in 1967, oil shortage in 1973 have effected the development of technology to use energy more efficiently. The new technologies that are formed to help development of environment conscious, has built a new society which is called as “knowledge society” (Akarcalı, 2010). When the social process is considered, agrarian society has upgraded to industrial society and that has upgraded to “knowledge society”. Within this knowledge society “knowledge” and “information” concepts have gained importance. Information is the raw data of knowledge. Data, results and signals are the first thing that comes to mind. Knowledge is the filtered, distilled and cleared information. Knowledge is data, that is processed, has a meaning for its owner and assumed to have a strategic importance for managerial decision or have a certain real value. Knowledge society is a society in which the knowledge is the main source at power and capital. In this society knowledge is not an aim but a tool. And it is the main power that enlightens and directs every step of society. In this society knowledge is a way of life and thinking (Fındıkçı, 1998).

Representative democracy in industrial society has changed to participatory democracy in knowledge society. For this society infrastructre (to store, to duplicate and distribute), human resource (qualified work force to store the data), and the required and adequate characteristic of knowledge (cheapness, standartization and mobility of knowledge; the integration to the international information system) is required (Akarcalı, 2010).

An organization that makes knowledge is closely linked with ideals more than ideas. And that reality makes innovation. The core of innovation is to re-create the world with a special vision or idea. And to make a new knowledge, is to make the organization involve into the renewal process of the people and organizational constantly (Nonaka, 2004).

2. GOVERNMENT

Government is the form of a nation that has a legal characteristic. Government is the system of legal norms that is in effect. Government is consist of three elements which are country, people and power. As such, government is a political

structure which is located on a country and consists of people who are governed by a superior power that has a forcing authority among them (Kapani, 2003). Country, in terms of government, is a piece of land where people that make a community; and that people reside at this land, form the population. The behavior of these people during the interaction with each other, is influenced by the geographical conditions of the land and the democratic structure of the people. Country is not only a physical element but also a common design of cultural element (Duverger, 2004).

Platon explains the aim of government as the rationality that can separate the fair from the unfair. And also says that the governors can only be fair when they have the adequate knowledge about governing and equipped with wisdom. He also made suggestions about how to make “right” citizens and things to do to make the system work efficiently. But education is above all. Platon emphasizes the rightfulness of the restraintment of the governors more than the governed ones (Redhead, 2001). According to Aristoteles, freedom, which is one of the characteristics of government, is “the eligibility of any people for any governmental function; ruling each other, and ruling each other in turns...”. He also stressed the importance of caring of the common utility (Schmidt, 2002). When Rousseau published his work that identifies the “Social Contract” 1762; he brought along the argument “equity”. In the absence of equity, a social contract would be hard and be quite unnecessary. This situation for the use of political authority, is a civil commotion. The public is a group, which has made a contract that can both represent its own will power and arranged them by laws (Hampsher-Monk, 2004).

The search of a powerful government, creating a belief in remaining the weakness and incompetence of democratic order and, problems that occur due to these matters have made people look for a powerful government as the survival mean. “Who will build the **strong** power?” will be an important question. The power of the government that will be supported with a strong power is the dominating thought (Özek, 1997).

3. E-GOVERNMENT

ICT and Internet technology, has seemed to promise great opportunity to increase efficiency and effectiveness in public sector. There are three main factors that contributes to this phenomenon. The first one is the perception of unsustainable

levels of public expenditure that do not produce efficient public services, due to waste, delays, mismanagement, corruption or poor organizational and management skills. The second one is the revival of neo-liberalism which emphasizes the efficiency of market competition and the need to make government more like a private sector. The third and the last is the rapid development of IT and the increasing awareness of its potential (Gang, 2005).

The term “e-Government” can be defined as “the use of information and communication technologies which is a more efficient system compared to others, to deliver information and/or services to citizens, external organizations, elected representatives and other stakeholders” (Sundar and Garg, 2005). In other words, e-government is servicing to citizens, private sector establishment and other public institutions more efficiently, faster and transparently using electronic information and communication technologies. E-government is to refresh itself by putting emphasis on organizational learning, innovation and entrepreneurship. It’s a model for the government to refresh itself in the structural and mental context (Şahin, 2008). Considering e-government applications only as the use of ICT’s for delivering service will not be enough. Apart from delivering services, e-government applications mean the change in understanding that implies the evaluation by maximizing human resources, work process and potentials of citizens (Balci, 2003).

There is no doubt that governments generate information that they will want to communicate with their citizens. E-government provides a platform where the content can be processed and integrated. The ease of understanding this information is also an important issue (Richards et al.) E-government applications have some advantages. These are saving government expenditures, controlling documents, providing the transparency and increasing the quality of public administration, delivering public services continuously, increasing the ways of participating to public decisions and providing an easy and fast access to public services (Nohutçu and Demirel, 2005).

In order to develop e-government, there are four stages which can be listed as the information, interaction, transaction and transformation stages. In *information* stage, having a network is important. The information about the operation of the office (e.g. opening hours, consulting hours of departments, deadlines) is transmitted via SMS, or when it is possible for citizens to express their opinion. *Interaction* stage is required to download various forms and documents for official

procedures. When there is a real response to a reply from the local authority given to a notice or report (e.g. acknowledgement, promising measures to be taken; sending list of data required for procedures, listing duties). In *transaction* stage, the websites of public institutions have to be functional. When mobile devices permit an official conversation between the officer and the citizen, independently of place and time (e.g. payment of local tax, official dues or public service fees via mobile phones). In *transformation* stage, during delivering service the opportunity to monitor and control the citizens will be increased and this will help to develop the participatory governing understanding. When the public office is re-structured, is suitable for e- and m-governance and new management and legal systems are introduced. (Uçkan, 2003; Tozsa and Budai, 2005).

One major goal of e-government is provide an efficient and cost-effective infrastructure that enables access to online resources for all citizens. But today, citizens are in search of a system that provides access anywhere and anytime. As there is a growing number of citizens who became mobile and the number of mobile phone devices. Also emerging opportunities for new services for citizens based on mobile technology is called m-government (Stanoevska-Slabeva and Hongisto, 2005)

4. M-GOVERNMENT

The considerable difference between Internet access and mobile phone penetration has led to m-government all over the world. Together with electronic government has always accompanied the modernization of public administration, as m-government is the widest social and technological system (Tozsa and Budai, 2005).

As the government comes up at any time, anywhere and with its every institutions, this can be named as m-government. M-government can also be stated as the existing aspect of e-government with its every institutions in every where and at any time (Sevgi, 2009). In terms of easing the bureaucratic and political processes, m-government has been loomed large.

Digital governance is a governmental understanding that aims to ease citizens daily life by technology. For example, inside the Turkish Grand National Assembly (TGNA) building, secure wireless network is being used. TGNA releases the members of parliaments' "facebook" and "twitter" pages at call. Among all the members of the parliament, 46 of Justice and Development Party

(AKP), 21 of Republican People's Party (CHP-main opposing party) and 5 of Nationalist Movement Party (MHP-second opposing party) are using social media effectively. (dijitaldevlet.tc/category/makale, 2011).

SMS is considered as an important tool in m-government, because it makes possible reach a great number people in a shorter time. SMS notifications concerning m-government are mostly about tax administration, customs administration, education, jurisdiction, emergency management, security and police administration, document administration, border guard service (Tozsa and Budai, 2005).

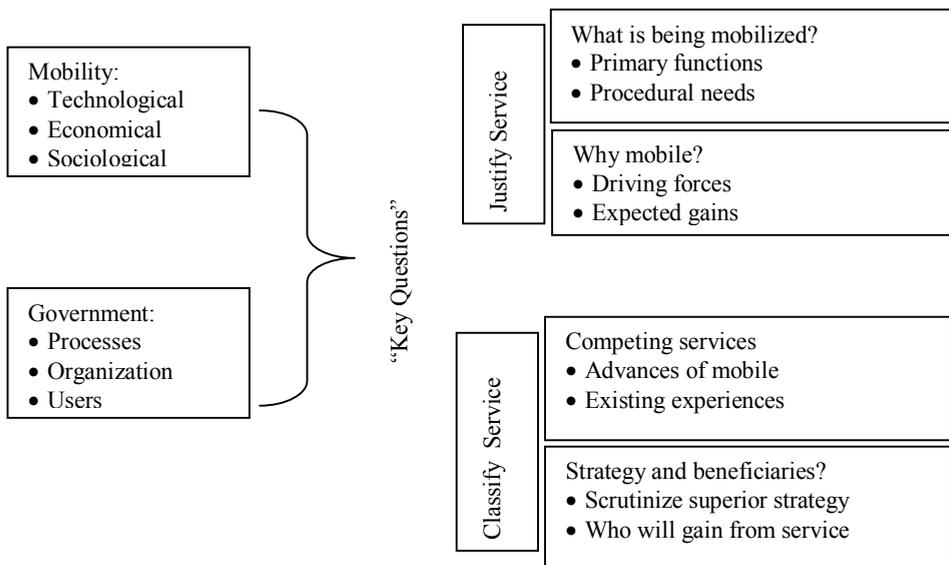
Countries that are e-governing have started to use m-governmence as a new generation. From now an e-government applications will be available for I-Phone and I-pad users. Today "www.turkiye.gov.tr" delivers e-government producers to citizens. Apart from "Apple IOS" application named as "m-government" which is produced by Turkcell communication service, it is available to access to the system by using mobile sign or e-government password that can be obtained from PTT offices (The General Directorate of Past and Telegraph Organization). Information can be obtained and transactions can be made any public instutions such as Ministry of Healthy, Security General Directorate, Ministry of Education, Office of the Land Registry, insuarence (sosyalmedya.com/m-devlet, 2012).

As an example "District Police" concept has come into service via the adress www.turkiye.gov.tr in January 6,2012 named as "Access to District Police Via Web Project." Also security office under Security General Directorate as the coordinator, the partners who are Information Process Office and Turksat A.S, are also delivering m-government services. (dijitaldevlet.tc/category/makale, 2011).

M-gov have some advantages among any other government mechanisms to deliver service (Borucki et al.) The main advantage of e-government is the 24 hour/7 days-a-week service that provides continuous access to the local government offices. However m-government provides accessibility from anywhere. M-government provides an accessibility and the fast data transfer that makes governance more productive and efficient. Though m-government ensures a constant link between the public authority and the citizen. However, elder and the poor citizens are the ones for whom m-government is not necessarily available (Tozsa and Budai, 2005). It is usually understood as meaning taking services to the customer or to the relevant location, instead of making the customer having to visit council offices (Gang, 2005).

The second advantage will be in the impact on structure and business process. So (1) there will be an reduction in the number of people performing the job; (2) new virtual departments will be established as mobile technologies enable government employees to spend their time in the field; (3) the organizational structure will become flatter with fewer hierarchical levels and looser connections between employees; (4) as the business processes are streamlined on a single, shared platform by gathering, updating and processing data from all departments anytime and anywhere, the processes will be more efficient (5) as the civil workers may need to acquire new skills such as learning how to use a new wireless device or how to enter information via wireless networks, training for new skills will be needed (6) as the civil workers will become more mobile than before, they will be re-named as virtual workers and that will encourage a more flexible environment (Borucki et al., 2005).

Although m-government has many advantages, before implementing m-government system, some questions have to be answered. The questions are;



Source: Roggenkamp: 2007: 81

5. M-GOVERNMENT APPLICATIONS

The increasing number of m-government applications all around the world have shown that there are many opportunities for governments to improve their services and cut down costs. Thus m-government applications enable an increase in organizational effectiveness. Traffic updates, emergency assistance, notification for tax and bill payments, field inspections, and a tracking system for stolen vehicles are some of the common applications used by the public authorities (Borucki et al., 2005).

Today public institutions in Turkey have started using m-government-government applications in many fields. One of them is called Mobile Information Project, implemented by the Ministry of Education, together with the Avea Mobile Phone Service Provider Company. It enables the students and their parents to connect to the ministry database via a mobile phone, and search for the information such as the students' attendance records, exam dates and grades, and the school curricula. Also the system serves as a mobile intranet that enables the Ministry personnel to access the current information about their promotion and/or placements. Also in Turkey, mobile technologies are used in the National Judicial Network (Ulusal Yargı Ağı, UYAP) Project. The project aims to integrate all the courts and other organizations in the judicial system in Turkey with an electronic network. This will ease the transfer of judicial information among them, in order to create a more efficient and transparent judicial system, which works better, faster, and cheaper. Moreover, in Bahçeşehir, there is even a pilot study for mobile e-voting. Municipalities such as Çorlu, Yozgat and Eskişehir are also transmitting municipal information received by mobile phones (Yıldız, 2007).

İzmir Metropolitan Municipality is a local authority that has developed its service quality in e-governance. The municipality is using e-municipality service under e-government applications in order to deliver local public services and to announce them to its citizens. Besides the delivery of these services via e-government; the municipality is working on m-government applications. Before all "e-transaction center" is formed. This center is an important institute as it eases the local services via web. According to the information as it eases the local services obtained from the center, the municipality is servicing its citizens in many issues by using information technologies. These services can be listed as insurance center, advert tax payments, infected waste, transportation registration tax, taxi and taxi-like transportation registration tax, service vehicle operating licence,

administrative fine, occupancy tax, rent owings payments. Only logging in via web is adequate. These services are also delivered as m-governance. The municipality is seeking for working on how to spread the service constantly.

Local services indicated above are the ones that can be obtained without going to the municipality building, or any other instutions. Citizens can pay their fines, pay their fees, and obtain information by using e-transaction center. Also the web site and the electronic payment communication form has eased the access. To have the people's opinions about e-transaction center, an electronic form is formed. So that by this form, the expectations and demands of the citizens about these applications is evaluated.

İzmir Metropolitan Municipality has formed "Freeman Communication Center, Demand Forms" to have the demand and suggestions about the services. Access to municipality for 24 hours is available by this freeman information system. One can subscribe to the e-transaction centre with a username and a password. For example water shortages in the area is announced via e-transaction and furher information is also provided. The public is informed about general announcement by electronic bulletins.

Today e-municipality understanding has changed into m-government so that the requirements of the age about mobile communication network is tried to be fullfilled. Advances in mobile phones technologies have brought along the access to municipality services 24 hours, obtaining information and transacting fast. Citizens will be aware of the public goods and service produced by the information age, within m-government concept. İzmir Metropolitan Municipality is announcing and informing its citizens in all activities via internet network. As the information age begun, local authorities began to take place in these studies. 21st century is the age that shows the development process of e- and m-government concepts. In terms of an effective time management, it is important to buy goods and services by using not only an internet connected computer, but also mobile phones and PDA's. Public institutions in many cities are giving more attention to m-government applications in Turkey. Many public institutions about education, health, energy, security, city planning are attempting for the m-government application to serve vigourously. In order to announce public services to citizens and serving the services fast and easily, m-government applications are used. Central and local authorities are working hard to increase their service quality and serve the best in a short time within this m-government process.

The Aydın Municipality has designed its m-government application mostly on e-government. The Municipality is serving e-zoning, e-cemetery and any other municipality related payments via web. Also it has application wide range of database with 1500 modules named Intelligent City Automation System (AKOS). Through this system every information about the city has been detailed and automated. Besides every data is automated as a part of geographical information system. So that the m-government can reach any infrastructural or superstructural data. Moreover, data about public institutions are loaded up to the City Guide thereby required data is provided and an easy access to any public institutions. Through AKOS as the m-government has detailed every assets they own, they can make plans more effectively and accurately.

Aydın Municipality has given registration number to its citizens and has integrated it to the citizens' mobile phone number. So that the Municipality has prepared application comprehensive database for its citizens. Within this context of m-government, Aydın Municipality is providing access to its citizens for transmitting announcements via SMS. Besides, the Municipality can inform the citizens about environment clear-up tax, property tax and other payments. However the Municipality is using m-government applications only in order to inform the local residents. The main reason of this is that citizens are preferring to visit public offices personally. Aydın Municipality is also using m-government system as a part of customer relations management (CRM). The system is used for complaints-demands and suggestions.

M-government applications in Aydın Municipality are not only for citizens but also for the Mayor and the Deputy Mayors. For this, a system that can be named as Mobile Mayor is loaded to the Mayor's and her deputies' mobile phones. So that administrators can reach to any data related to the city from any location. This situation has removed the necessity to stay in their offices and has provided them the opportunity to stay mobile.

The m-government applications used by Aydın Municipality do not have a further level. The Municipality is complaining about the inadequate database infrastructure of the GSM operators. In fact the infrastructure of the system is needed to be prepared more powerful. Moreover the citizens are not yet ready for m-government applications. In this sense, the efficiency of the system should be questioned for which the citizens are not using e-government applications effectively.

BIBLIOGRAPHY

Akarcalı, Bülent (2010), *Bilgi Toplumu Nedir?*,

<http://www.ekodiyalog.com/Makaleller/bilgi-toplumu-nedir?> [Accessed 01.04.2012]

Balcı, Asım (2003), *E-Devlet: Kamu Yönetiminde Yeni Perspektifler, Fırsatlar ve Zorluklar*”, Kamu Yönetiminde Çağdaş yaklaşımlar, Ankara: Seçkin Yaklaşımlar.

Borucki, Chet, Arat, Seda, Kushchu, Ibrahim (2005), “Mobile Government and Organizational Effectiveness”, The First European Conference on Mobile Government, Sussex, pp. 56-66.

Duverger, Maurice (2004), Çev: Şirin Tekeli, *Siyaset Sosyolojisi*, Yedinci Basım, İstanbul: Varlık Yayınları.

Fındıkcı, İlhami (1988), “Enformasyon Bilgi Toplumu Dünyası; Bilgi Toplumunda Eğitim ve Öğretmen”, *Bilgi ve Toplum Dergisi*, April.

Gang, Song (2005), “Transcending e-Government: a Case of Mobile Government in Beijing”, The First European Conference on Mobile Government, Sussex, pp.476-485.

Hampsher-Monk, Lain (2004), Çev:Necla Arat, *Modern Siyasal düşünce Tarihi, Hobbes’tan Marx’a Büyük Siyasal Düşünürler*, Birinci Baskı, İstanbul: Say Yayınları.

<http://sosyalmedya.com/m-devlet> [Accessed 01.04.2012]

<http://www.dijitaldevlet.tc/category/makale> [Accessed 24.12.2011]

Kapani, Münci (2003), *Politika Bilimine Giriş*, On Beşinci Baskı, İstanbul: Bilgi Yayınları.

Nohutçu Ahmetand Demokaan Demirel (2005), “Türkiye’deki E-Devlet Uygulamaları”, *Türk İdare Dergisi*, Vol:77, No:778.

Nonaka, I. (2004), *The Knowledge – Creating Company*. Hitotsubashi on Knowledge Management. Singapore:John Wiley&Sons Pub.

Öğüt, Adem (2003), *Bilgi Çağında Yönetim*, İkinci Baskı, Ankara: Pegem Yayıncılık.

Özek, Çetin (1997), Devlet ve Din, Birinci Baskı, İstanbul: Ada Yayınları.

Redhead, Brian (2001), Editör:Hikmet Özdemir, Siyasal Düşüncenin Temelleri, Birinci Baskı, İstanbul: Alfa Yayıncılık,

Richards, Mike, Adam, Karim and Price, Blaine, A. (2005), “It’s Okay To Be A Dog On The Internet – Privacy And Trust In E-Government”, The First European Conference on Mobile Government, Sussex, pp.342-348.

Roggenkamp, Klas (2007), “It’s the Mobility: Stupid”: Designing Mobile Government”, (in: İbrahim Kushchu, *Mobile Government An Emerging Direction in e-Government*), New York: IGI Publishing, pp.60-85.

Schmidt, Manfred G. (2002), Çev: M. Emin Köktaş, Demokrasi Kuramlarına Giriş, İkinci Baskı, Ankara: Vadi Yayınları.

Sevgi, Murat (2009), *M-Devlet*, <http://blog.milliyet.com.tr/m-devlet/Blog/?BlogNo=17> [Accessed 30.03.2012]

Stanoevska-Slabeva, Katarina, Hongisto, Patrizia (2005), “The Turku Approach to Create a Wireless Infrastructure”, The First European Conference on Mobile Government, Sussex, pp. 1-14.

Sundar, Diatha Krishna and Garg, Shashank (2005), “M-Governance: A Framework for Indian Urban Local Bodies”, The First European Conference on Mobile Government, Sussex, pp. 395-402.

Şahin, Ali (2008), Türk Kamu Yönetiminde Yapısal Dönüşüm ve E-Devlet, Konya: Çizgi Kitabevi

Tozsa, Istvan and Budai, Balazs (2005), “M-Government in Hungary”, The First European Conference on Mobile Government, Sussex, pp. 414-425.

Uçkan, Özgür (2003), E-Demokrasi ve Türkiye, Kamu Yönetiminin Yeniden Yapılanması İçin Strateji ve Politikalar-I, İstanbul: Literatür Yayıncılık.

Yildiz, Mete (2007), “The State of Mobile Government in Turkey: Overview, Policy Issues and Future Prospects”, (in: İbrahim Kushchu, *Mobile Government An Emerging Direction in e-Government*), New York: IGI Publishing, pp.252-267.