

## **Mobile Government in the Context of Citizen Oriented Administration: A General Assessment Regarding the Practices in Turkey**

H. Tugba Eroglu and Hayriye Sağır

Department of Public Administration, Selcuk University FEAS, Konya, 42075, Turkey

**Abstract:** With leading to the malfunctions and slowness in presenting service of the status quoist, excessive rule based and process oriented structure of classical public administration, in order to be able to recover the loss of reliability appearing to the administration, the unavailability of a change in public administration has become one of the most important titles of the last century. Understanding of new administration is based on the effectiveness, quality, rapidity, low cost and productivity in presenting service. Those public administrations begin to present their services through internet and that the applications of e-government become widespread have strengthened a citizen-oriented administration approach. However, the fact that the social expectations are continuously increasing in the direction of receiving quicker, cheaper and more effective service has emerged mobile government, the next stage of e-government. Mobile government is an application that enables the citizens to access the services offered by public instates and institutions everywhere and every time where and when mobile access is possible and to make use of those services. Mobile government is very significant in terms of self renewal of institutions and better serving the public. On the other hand, upon creating contemporary citizen awareness and participation of individuals in this process with a participatory awareness it is assessed to be a means for creating social innovation. The role of mobile government in the citizen oriented administration understanding becoming widespread is getting more significant gradually for offering public services in a shorter time and easier access of the citizens to administration units.

**Keywords:** Active participation, citizen orientation, e-government, mobile government

### **INTRODUCTION**

In the last quarter of the twentieth century, as a result of status quoist, centralist, process oriented, strict bureaucratic and hierarchical structure of classical administration understanding causing awkwardness and malfunctions in provision of public services and increase in source and time waste the trust of citizens to the government decreased. The market economy, neo-liberal policies, changing social expectations arising from the economic developments, political changes and technological progresses experienced in this era made a change in administration compulsory. Classical administration understanding was replaced by a result oriented, open, transparent, accountable, participatory and citizen oriented administration understanding.

Inevitability of a change in public administration in order to regain the trust for administration lost due to the structure of classic public administration which is status quoist, centralist, extremely normative and process oriented causing malfunctions and slowness in service provisions has been the most significant subjects of the last century. The new administration understanding is taking effectiveness, high quality, speed, low cost and efficiency in service provision as

the basis. Public institutions starting to offer their services via the internet and widespread of e-government applications strengthened a citizen oriented administration understanding. Nevertheless continuous increase of social expectations for faster, cheaper and more efficient service revealed mobile government which is the next step of e-government.

In the new administration understanding, use of information and communication technologies is a determinative characteristic. Upon the government services being offered by means of the internet and mobile devices electronic government and mobile government which is the complementary of it has developed. However while e-government and m-government applications progress in certain countries; they are still weak in others. And Turkey is an interesting example. Although the e-government studies are still in initial stages, mobile infrastructure (only 3G net) has developed relatively (Çilingir and Kushchu, 2004).

E-government is defined as performing organizational changes and developing public services and providing democratic developments and in order to provide support for public policies using information and communication technologies in the services offered

by public administration (Şişman *et al.*, 2011). Nevertheless now mobile technologies have been accepted as one of the most significant service sectors of the government in various countries. It was detected that as of the end of 2011 80% of the world population are mobile telephone users. Today mobile telephones are one of the most widespread technologies used by mobile technologies in order to provide e-government services. Mobile technologies including mobile telephones, PDAs, wi-fi and all sorts of information and text messages facilitate accessing wireless net and the internet which provide many advantages including easy and comfortable communication access (Jahanshahi *et al.*, 2011). Since they are now acquired more easily by the citizens in public administration and provide easier access using mobile technologies in the provision of public services increases gradually.

In this study where the conceptual framework of mobile government is drawn generally and its purposes and benefits are mentioned, examples of mobile government applications in Turkey are given and its role in a citizen oriented administration becoming widespread is emphasized.

#### **DEFINITION AND SCOPE OF M-GOVERNMENT**

The progresses in e-government oriented technologies and services are realized so rapidly that it attracts the attention in all over the world. E-government efforts aim at transition to utility in the improvement of basic functions of governments through many innovative information technologies forms, particularly web based internet applications. Those functions are now getting widespread through the use of mobile and wireless technologies and take a new direction: Mobile government (m-government) (Carcillo *et al.*, 2006). With those applications named as mobile government accessibility to citizens in service provision gets even easier and the level of political participation of the citizens increase.

E-government services develop through mobile applications and mobile technologies. In this process the concept of mobility in government is settled. Mobility provides the users the chance to access service and information for days and 24 h independent of time and place and become a part of daily life (Turkish Data Processing Society, 2009). As a result of processes of globalization, information society and digitalization traditional administration understanding became historical. Today the citizen taking place in almost all decision making and application processes as organized or non-organized is perceived as the most significant administration principle. This situation can easily be provided using 7/24 formulation. The citizen has the chance to connect with each unit and director of public administration all the time. At the same time this process enables the administration to respond the

expectations and problems of the citizen with a rapid reflex (Çukurçayır, 2011).

E-government contains the use of information communication technologies in order to support government transactions and provide government services more rapidly and effectively (Nava and Davila, 2005). Use of mobile devices including smart telephones, internet equipped telephones and personal digital assistants force the government for the development of m-government (Ntaliani *et al.*, 2008). In order to provide public services more effectively and efficiently mobile devices create much diverse means.

Use of e-government applications via the mobile devices are defined as m-government. M-government expresses the use of wireless technologies including PDAs, laptops and mobile telephones in the distribution and provision of government services. M-government is a complementary of e-government. M-government is the use of all sorts of mobile technology, applications and services strategically by public institutions for the purpose of providing the citizen, business world and for themselves (Nava and Davila, 2005; Şişman *et al.*, 2011). An interactive interaction becomes in question between institutions and citizens by means of any message sent to mobile telephones or the programs downloaded in smart telephones.

It is a reality that governments pay effort to provide more access to the citizens, enterprises and public officers to the information and services through mobile devices. M-government which contains alternative supply channels which is a subset of and e-government is implemented in many countries of the world including the USA, Sweden, Denmark, Korea and Canada (Ntaliani *et al.*, 2008).

Mobile telephone technology provides certain facilities to the user against the difficulties in other devices (for example fixed telephone). One of them is confidentiality, here personal data are saved in mobile telephones and protected under the surveillance of its owner. Furthermore mobile telephone has the advantage of being used everywhere. On the other hand, m-government provides multidirectional advantage with the effective use of wireless devices (Abanumy and Mayhew, 2005; Signo, 2012).

It shall not be false to claim that m-government is a new phenomenon arising from the latest developments in mobile devices and wireless technologies. M-government is accepted as a new approach to offer the society the services all the time and everywhere by means of different communication channels and technologies, m-government is a complementary part of e-government as its subset.

One may group m-government definitions as follows Bensghir (2009):

- **Instrumental view:** M-government is reduced to provision of service by means of mobile technologies.

- **Technological oriented view:** Mobile Technologies are emphasized.
- **Change-transformation oriented view:** In wireless and cyber media organization of work as independent of time and place, bringing sources together in cyber media and emphasize is made on organizational configuration and processing that would enable the realization of production and presentation functions again in the cyber media (mobile work).

Institutional and technological oriented views are only the apparent face of the m-government. Change-Transformation oriented view requires emphasizing work organization and source administration in the publicity with new technologies including web 2.0, mobile 2.0 etc., (Bensghir, 2009).

Mobile telephone use has increased rapidly till 2010. While the intensity of fixed telephone subscriber was 27% in 2002, at the end of 2010 it diminished to the level of 22%. And the intensity mobile telephone subscriber became 83.9% as of the end of 2010 upon the rapid development experienced. The increase in the intensity of broadband subscriber continues and the intensity of subscriber realized in 2010 as 11.6%. The users increasingly demand broadband access services due to developing electronic services. On the other hand, from 2009 when 3G mobile broadband services started to be provided the use of that technology increased rapidly as well (DPT Information Society Office, 2011). It is anticipated that this increase shall grow gradually.

Although m-government applications are at the initial stage yet, it is apparent that they have significant influence in creating tools and complex strategies for e-government studies. M-government is unavoidable; many people have human mobile telephones and communication through mobile internet is getting widespread rapidly. Mobile entry has been a natural part of daily life -everywhere and every time- and their transformations became compulsory in order to provide effectiveness of governments in services (Carcillo *et al.*, 2006). Mobile telephone has become an integral part of the individual of our date. For this reason with m-applications the chance to reach more citizens was acquired.

**Functionality of m-government:** M-government is configured over e-government studies. Technological progresses in the field of wireless internet, the benefits acquired from business value models arising from those developments and the expectations of the citizens for better and more suitable government services make m-government applications unavoidable. Some of the m-government services are deemed as the repetitions of e-government services in mobile field. However the real values of m-government studies reveal through the use

of wireless and mobile infrastructure (Amine *et al.*, 2005). Although m-government services are deemed as the repetitions of e-government services in mobile field, they are quite useful for the disadvantaged social sections without computer literacy or internet access to make use of the mentioned technologies.

Mobile telephones are preferred more due to access ease, field of influence, easiness of conformity, interaction being much, cost being low receiving effective results (Hellström, 2008). The following criteria are assessed to be significant criteria in terms of effectiveness of m-government (Al-Khamayseh *et al.*, 2006):

- Awareness
- Infrastructure administration
- Mobile penetration
- E-government framework
- Standards
- Acceptance
- Cost
- E-government
- Portals and Gateways
- Access
- Legal situations
- Security and confidentiality
- Infrastructure
- User requirements
- Special partnership
- Strategy
- Quality

When assessed together with those success factors, m-government reveals a model with strong aspects together with the existence of mobile signature infrastructure, starting to use mobile signature applications in the public field as well, mobile telephone subscriber intensity becoming more than 90%, mobile banking payment systems getting widespread and m-services in the public field (forest fire warning system, cell publications of municipalities including UYAP SMS, EGM warning). Nevertheless m-government taking rather restricted place in the national, institutional strategy documents of the targets for mobile services, in development plans and programs, delays in the licensing of WiMax technology, difficulties faced in realizing information society strategy, the fact that in m-government institutional and technological oriented view is widespread, mobile applications being known less, information defects of public institution directors and experts related to mobile technologies are defined as the weak aspects of the model (Bensghir, 2009). While m-government realizes the targets expected from it, the continuity of strong aspects is provided and meanwhile which strategies should be followed in order to strengthen the weak aspects shall be revealed.

**Purposes and benefits of m-government:** M-government is seen as a strong component of e-government to facilitate provision of more and better service to the citizens. M-government removes the accessibility and mobility restrictions of future administration and e-government as a multi-channel administration and thus facilitates access to government services everywhere and every time by means of wireless networks. In addition to this general purpose, other purposes of m-government may be listed as follows (Nava and Davila, 2005; Jahanshahi *et al.*, 2011):

- Increasing the added values of e-government services
- Creating convergence between internet services and wireless services and implementing public services
- Adding mobile value and improving e-government services
- Application of e-government services through wired and wireless internet
- Improvement of communication between the government and the citizen and creating public sector information and sharing the same
- Developing internal performances of public sector
- Increasing democratic participation through the participation of citizens in mobile elections and political decision making mechanism using mobile devices
- Mobile technologies do not only provide mobile communication between the citizen and the government but also aims at transaction and interaction between the citizen and the government

M-government provides the users with access mobility every time and everywhere. The supported methods and terminals are diversified, many users may use them and standards are many (Abramowicz *et al.*, 2006). Depending on the usage advantages of m-government, its benefits are rather much. One may summarize those benefits under the following titles (Jahanshahi *et al.*, 2011; Çilingir and Kushchu, 2004; Trimi and Sheng, 2008):

- Upon the correct and efficient use of information in service provisions m-government plays a significant role in increasing efficiency in the institutions.
- M-government enables the services to be provided with higher quality being accessible, reliable and ability to communicate in a shorter period of time.
- M-government enables more effective transactions to be realized with the advantages of usability, availability and safety.
- M-government plays significant roles in the improvement of the performance of the administration upon exhibiting a more transparent and accountable administration understanding.

- More people can be reached by means of mobile devices. Persons are active as users of mobile communication although they may not use computer and internet. Due to the fact that citizens are reached by means of a familiar and proper device, the acceptance and usage of online government services increase.
- The most significant is that m-government provides the citizens use easiness all the time and everywhere.
- Compared to the wired networks wireless networks seems to be a solution with lower cost for countries with intense population and hard land conditions.

## MATERIALS AND METHODS

Mobile applications offer many opportunities for open administration, citizen oriented administration. Mobile technologies offer opportunities particularly for local administrations to improve their communication with the local people. M-government technologies offer more flexible communication alternatives at the same time. E-government increases the communication channels. However m-government provides additional communication alternatives and offers a broader usage and accessibility Jackson (2011). Mobile technologies provide a significant alternative channel for interaction between authorities and citizens. More people can access those channels and the notifications provided through those channels are accessed instantly compared to other restricted channels (Rodrigues *et al.*, 2005).

The use of field of m-government applications with many advantages is broadening in Turkey as it is the case in the entire world. According to the results of Household Data Processing Technologies Use Research realized in Turkey in April 2011, 42.9% of the households in overall Turkey have the chance of internet access. This proportion was 41.6% in the same month of 2010. Computer usage proportion is 46.4% and internet usage proportion is 45% in Turkey for 2011. Looking through the proportions of existing of data processing technologies, PC ownership proportion was determined to be 34.3%, portable computer ownership proportion as 22.6% and mobile telephone ownership proportion as 91.9% (TÜİK, 2011). Although computer and internet usage proportion increase in years they do not yet have a usage field as common as mobile telephones.

Depending on the commonness of use of mobile telephones, provision of services via mobile devices gets widespread increasingly as well. The applications are placed in various plans although not sufficient. It is stated that emphasize is usually made on e-government in Information Society Strategy and Action Plan (2006-2010) with regard to m-government. In the action plan it is stated that passenger and driver informing systems shall be established for orientation of transportation demand via different channels (internet, mobile,

electronic plates); a feasibility report shall be prepared for standardization, dissemination and integration of electronic payment systems, smart card, mobile and e-ticket applications in public transportation all around the country; in the electronic services to be provided by all public institutions use of a common e-payment and mobile services platform shall be provided (Bensghir, 2009).

It is stated that 2009 Program is a document where mobile concepts are used at highest level. In 2009 Program arrangement for mobile net enterprises, mobile number transfer, 3G mobile communication license tender and mobile broadband access are available (Bensghir, 2009).

Various studies are executed for realizing the targets included in the scope of those plans and programs. Those studies are classified as follows under general titles:

- **Informing service-informing per SMS:**
  - Ministry of Justice, Ministry of National Education, Ministry of Culture and Tourism, General Directorate of Security, Social Security Institution, General Directorate of Government Meteorology Affairs, Presidency of Income Administration, Customs Under secretariat, Turkish Statistics Institution
- **Service provision:**
  - Ministry of health
  - Getting appointment
  - Presidency of income administration
  - Tax calculation
  - Query
- Business processes, transferred applications integrated with mobile technologies
  - General directorate of security
  - MOBESE applications
  - Ministry of health
  - Pilot tele
  - Medicine applications

Mobile government Portal was created in Turkey for m-government applications. This application that may run in more than 300 mobile telephone models was developed by Aradiom. This program which uses mobile security and safe connection types is decorated by rich graphics. With the Mobile government Portal Application, the citizens may access many services and information provided by the official institutions of Republic of Turkey from mobile telephones. In order to try Mobile government Portal Application, upon writing "m-government" in the short message section of your mobile telephone and sending message to 1600 from mobile telephones with Avea and Turkcell lines, the address of the program that could be downloaded depending on the brand and model of the mobile telephone is sent back in SMS form. Mobile

government system covers informing services related to public services and provision of e-government services that may be used by identity verification ([www.letsgomobile.org.tr](http://www.letsgomobile.org.tr), 2012).

Some of the m-government applications may be listed as follows ([www.avea.com.tr](http://www.avea.com.tr), 2012; [www.letsgomobile.org.tr](http://www.letsgomobile.org.tr), 2012):

- Details of accident, damage, policy, unjust treatment and insurance for the vehicles can be inquired from 5664 with "Damage Vehicle Inquiry Service".
- By means of UYAP (National Judgment Network Project) portals within the Ministry of Justice, the citizens and lawyers may access much information easily. With UYAP interactive SMS service the information, data and announcements realized by the judicial units including courts, Public Prosecutor's Offices and executive offices and to be notified to the parties are received immediately and easily per SMS. The service is available for Avea all subscribers whether invoiced or not. It is sufficient to send the identity number and file number together with relevant command to 4060 in the service in order to access case details of the relevant person.
- With İBBCepTrafik service offered by Avea jointly with Istanbul Metropolitan Municipality to its subscribers as well as instant traffic situation details any time and from anywhere. İDO (Istanbul Sea Buses) Mobile Information Service enables the passengers to send message to 3436 and learn average waiting time instantly. Users may also send their suggestion to İDO per short message and all suggestions are assessed by İDO Call Center.
- TEDAŞ invoice information may be inquired through SMS as well. Furthermore within the scope of m-government services easy access to statistical information is provided from TÜİK Inquiry Service. The desired information may be accessed by subscribing to the service or sending the key words to 3737.
- Those subscribers who want to be informed about the housing projects offered for sales by Housing Administration Presidency (TOKİ) through "Mobile Learn TOKİ Mobile Information Service", part of Avea, m-government application may receive that information in the form of SMS in their mobile telephones.
- One of the most important studies of m-government studies in Turkey is the Mobile Democracy Project having a separate place in strengthening local democracy and disseminating citizen oriented administration understanding.

Mobile Democracy Platform Project executed by Mobile Democracy Society is a project targeting at

bringing local administrations and the citizens on the same platform. The project has been established on the basis of Callbroadcast Technology using GSM Cell Channels unlike SMS. The municipalities using the project are entitled to send the citizens three publications a day with regard to the issues concerned with their cities. The project has two basic components: "888 YayınCell Information Channel", "3870 Interactive Participation Channel" (Muti and Kanadıkırık, 2008).

The Platform mediates by means of 888 Cell Broadcast Channel assigned by Turkcell for direct access of local administrations to the citizen; and for the citizens to send their demands, complaints, suggestions or information requests to the local administration by means of 3870 SMS channel. Furthermore upon the use of 888 YayınCell Information Channel and 3870 Interactive Participation Channel together local administrations are enabled to perform mobile surveys or mobile referenda for the citizens. This project can only be benefited by Turkcell user citizens in overall Turkey. The purpose of the project is to realize one-to-one communication of institutions particularly the municipalities with the citizens on the basis of minimum cost maximum benefit understanding (Muti and Kanadıkırık, 2008). Municipalities perform emergency broadcasts, alert broadcasts, important days and celebration broadcasts, announcement broadcasts, municipality service broadcasts, information broadcasts, urban awareness development broadcasts, city and actuality broadcasts, making the citizen aware on healthy life broadcasts. The targets of the project are as follows (Muti and Kanadıkırık, 2008):

- To create cities with strong technological infrastructure, equipped with data processing technologies, sensitive to the environment, with strong economic and social structure, thinking the life standards of its own generation, sustainable, able to compete with other cities on urban plain and develop urbanism concept in the manner to be aware of this
- To increase competition power of cities
- To create information society
- To use alternative technologies and spreading those technologies
- To prevent informative exclusion and provide equal access to social life for the disadvantaged groups
- To use m-government applications as a support to e-government applications
- To facilitate public processes for public employees and citizens
- To provide added value to the individuals and national economy
- To be an alternative communication channel in emergency

With 888 YayınCell Information Channel the administration may offer its citizens all sorts of informing and conscientiousness broadcasts related to the city using cell broadcast systems. This system may be used only by users who may demand. All broadcasts are checked and political and promotional broadcasts are not allowed (Muti and Kanadıkırık, 2008). Mobile Democracy Project is a project executed for the purpose of strengthening communication between the local administrations and local people and spreading local democracy. Studies are conducted in the municipalities within the scope of the project in conformity with the purpose of the project.

Mobile Democracy Project is a significant project in terms of increasing the interaction between the local administration and local people in conformity with a citizen oriented administration understanding. One may generally summarize the studies realized in this context as follows.

In this study, a mobile government application are examined to projects carried out by the municipalities. Mobile government projects carried out by municipalities, via the web pages were investigated. Particular, in this study is given to municipalities providing services within the scope of Mobile Government Platform.

**Akhisar municipality:** Akhisar Municipality opened 888 broadcast channel for Turkcell subscriber citizens from mobile telephones and announced that they could access information on Akhisar free of charge. Additionally, it stated that they could send any suggestion or idea on their region to the line numbered 3870 per SMS. Education, culture, more effective use of the system where innovations regarding Akhisar per message were emphasized too (Akhisar News Channel, 2011). Furthermore in Akhisar Municipality T-Municipality (telephone municipality) services were started. The citizen is provided with the means of access to Akhisar Municipality for 7 days a week and 24 h a day for complaint, notification, recorded complaint tracking, taxation system, water debt and informing about events ([www.akhisar.bel.tr](http://www.akhisar.bel.tr), 2012).

**Akyazı municipality:** Akyazı Municipality informs city dwellers about all subjects of public order, education, health, culture-art in its region by means of 888 YayınCell Municipality Information Channel. Akyazı Municipality provides the citizens information on many issues including things to be careful in the winter, socio-cultural events in the city, environmental issues, traffic and health and many other significant issues related to the city such as pharmacies on duty and electricity-water cut by means of cell informing messages sent to the citizens free of charge. Municipality makes broadcast through the base stations within its own boundaries the broadcast hours of which are 08:00-22:00 excluding emergencies by sending

maximum three messages a day. This service which is not allowed to highlight any political party, authority or group or to carry messages with political contents is only realized within the municipality neighboring area ([www.akyazi.bel.tr](http://www.akyazi.bel.tr), 2012).

**Antakya municipality:** And in Antakya Municipality, municipality services are events are notified to the citizens as soon as possible by means of 3870 Information Message Channel and Yayincell 888 ([www.hataygundem.com](http://www.hataygundem.com), 2012).

**Edremit municipality:** In the explanation made by Edremit Municipality with regard to the issue, it was stated that the said application is only for serving to the citizens and the citizens could access the true news regarding the municipality from the relevant authorities instantly thanks to the message arriving to the mobile telephones. The citizens who want to make use of this service should open 888 Cell broadcast channel of their mobile telephones ([www.korfez.burhaniyehaber.com](http://www.korfez.burhaniyehaber.com), 2012).

**Aydın municipality:** Aydın Municipality makes municipality services and all sorts of announcements available for its citizens in the form of information message everywhere within the neighboring area free of charge by means of YayınCell 888 Municipality. All information including possible activities, road, water, weather and traffic conditions are accessed through mobile telephones ([www.aydin-bld.gov.tr](http://www.aydin-bld.gov.tr), 2012).

**Bodrum municipality:** Local Administrations Communication Platform was given by Turkcell Institutional Service Partner ECOTEL Authorities to the employees of Bodrum Municipality for promotion, informing and education purposes. Bodrum Municipality held the first informing meeting with regard to transition to this new system in 2008. With this system the Municipalities aim at creating a completely new communication platform with a new urban culture and urbanization approach that could develop social life awareness, make their citizens to be participatory in all issues related to their city. Bodrum Municipality targeted at responding informing all city dwellers to gain information (water cut, road and weather condition, real estate and environment cleaning taxes etc.) in its own region by means of 888 YayınCell information and creating a platform on which the city dwellers may send their suggestions and ideas about all sorts of subjects regarding their region including transportation, cleaning, health, education, culture-art to 3870 as an SMS and thus become participatory ([www.bodrum.bel.tr](http://www.bodrum.bel.tr), 2012; [www.bodrubha.com](http://www.bodrubha.com), 2012).

Bodrum Municipality acting on the basis of the motto of “Bodrum Municipality is Always with You; Let’s Make Bodrum Nice Together” is one of the leading municipalities establishing a system that

enables the citizens to have a more active word in administration by forwarding their suggestions and demands. Mobile Democracy Platform which may now be accessed through web site and which enables to follows daily 888 municipality channel messages of Bodrum Municipality started a new culture service that gives the citizens to win books. Citizens becoming a member of the internet site of [www.mobildemocracy.com](http://www.mobildemocracy.com) shall write bodrum 888 and send it to 3870 as a message and shall have the chance to win books under benefiting from this social responsibility project according to the daily drawing among book ciphers ([www.bodrum.bel.tr](http://www.bodrum.bel.tr), 2012; [www.bodrubha.com](http://www.bodrubha.com), 2012).

**Konak municipality:** Konak Municipality started to use 888 Urban Communication and Collective Announcement System offered in Turkey in order the municipalities to announce their services and events to the citizens. 888 Municipality Broadcast Channel created for the purpose of communication ease of mobile telephones owned by almost everyone today shall provide easy communication between Konak Municipality and Konak people and shall inform the local people about the city. With this system which shall enable the people of Konak to be informed about the announcements, events and services of the Municipality; they have the chance to access alerting information including tax payment dates, accidents and road situations, concerts and opening ceremonies. Now free information shall be provided from mobile telephone including alerting information like “Due date for waste task payment”, suggestions like “You are invited to the concert” and useful information like “Your road shall be closed due to excavation works” sent in the form of short messages ([www.konak.bel.tr](http://www.konak.bel.tr), 2012).

**Elazığ municipality:** 888 YayınCell that started broadcast in 2006 through the social project of Local Administrations Communication Platform was used to inform the city people about significant issues including pharmacies on duty firstly and then it was used to inform the public about water cuts, road construction works and special days. Elazığ Municipality that started to send significant announcements including pavement occupations, street animals and campaigns and publications for city cleanness regularly recently reaches the citizen with a fast communication net with this application. Elazığ Municipality uses 3870 interactive message line in order the people to send the Municipality their views and complaints more easily and rapidly as required by co-administration understanding ([www.elazig.bel.tr](http://www.elazig.bel.tr), 2012).

**Adapazarı metropolitan municipality:** Adapazarı Metropolitan Municipality considers all demands and complaints on municipality through the messages sent

to 3870 and solve the problems by means of SMS. The messages sent should be assessed by the solution desk personnel. Information on the issues sent to the relevant units and solved is notified through a message to the mobile telephones. Upon the establishment of solution desk it is made easy to send the demands and complaints to the Metropolitan Municipality ([www.sakarya.bel.tr](http://www.sakarya.bel.tr), 2012).

**Serik municipality:** When you write Serik, leave a space and write the complaint or the information requested and send the short message to 3172 from telephones with Turkcell, Vodafone, Avea lines. Serik Municipality informs the citizens in this way ([www.serik.bel.tr](http://www.serik.bel.tr), 2012).

**Çanakkale municipality:** Using YayınCell, Çanakkale Municipality informs the citizens about subjects including emergency broadcasts (water-electricity cut, blood announcement), alert broadcasts (meteorology, traffic, places of sacrifice), significant days and celebration broadcasts, announcement broadcasts (opening, concerts, events), municipal service broadcasts (tax, police, cleaning, science affairs, marriage, health services), information broadcasts (giving significant telephones, lost belongings, picnic fields), city and actuality broadcasts (informing about bus cards, public improvement, tax installations) ([www.canakkale.bel.tr](http://www.canakkale.bel.tr), 2012).

**Söke municipality:** Söke Municipality informs the local people about all sorts of subjects including public order, education, health, culture-art through 888 YayınCell Municipality Information Channel. Söke Municipality provides the citizens information on many issues including things to be careful in the winter, socio-cultural events in the city, environmental issues, traffic and health and many other significant issues related to the city such as pharmacies on duty and electricity-water cut by means of cell informing messages sent to the citizens free of charge ([www.soke.bel.tr](http://www.soke.bel.tr), 2012).

**Nusaybin municipality:** Mobile democracy work, one of the new services of Nusaybin Municipality continues increasingly. Mobile democracy applications which provides information on cultural, artistic activities, Municipality works, pharmacy on duty and various announcements and actual issues related to the city is a free service of Nusaybin Municipality. With the short message sent to the citizens' mobile telephones citizens are enabled to be informed faster ([www.nusaybin.bel.tr](http://www.nusaybin.bel.tr), 2012).

**Gerede municipality:** Gerede Municipality informs the local people about all sorts of subjects including education, health, culture-art, death announcements in

its region through 888 YayınCell Municipality Information Channel. The purpose of this project is to create individuals whose social life consciousness is developed, who are sensitive for the issues of their city and who can give ideas and urban culture ([www.gerede.bel.tr](http://www.gerede.bel.tr), 2012).

**Kocaeli metropolitan municipality:** Kocaeli Metropolitan Municipality sends message to the citizens through 888 Free Information Line in order to inform disabled citizens about significant events through cell broadcast of "Local Administration Mobile Communication Platform". The citizens may benefit from the service which is indicated by United Nations as one of the best projects of the world without paying any fees. Thus the citizens who had to go to district governor's offices, municipalities previously in order to receive consultancy services can access any information without leaving home. Metropolitan Municipality offers many services for disabled citizens. The Metropolitan Municipality who tries to solve the problems of the disabled through significant works including Call Center of "I'm Disabled", Home Care Service provides SMS service for the purpose of informing them. The service realized since 2006 can be used by all citizens who activate their 888 cell broadcast channel. Through the service provided, it is aimed that the disabled citizens may be informed about how home care money or disabled salary is received, which disabled materials may be provided from social security institution, how they can use social activities including theater, football match etc. free of charge from the messages and thus informed and so take their places in the life. Furthermore news related to the disabled and many announcements are sent to mobile telephones per SMS thanks to this service. On the other hand, with the application of "Kocaeli Cell", another project performed by the Metropolitan Municipality it was made possible to access many details related to municipality services and the city instantly ([www.kocaeli.bel.tr](http://www.kocaeli.bel.tr), 2012).

**Kumluca municipality:** The Municipality which aims at informing the citizens free of charge through 888 Cell Broadcast service is rather successful in the sequence of municipalities providing service within the scope of Mobile Democracy Platform and it is included in the list of leading municipalities. At the same time, a survey study may be performed in cell broadcast. In the survey performed about which subjects the citizens wanted to be informed with regard to their mobile telephones, the demands were as follows: marketplace prices 53%, funeral announcements 18%, cinema movies and séances 10%, pharmacies on duty 10%. For those who are outside the boundaries of Kumluca and who cannot benefit from the service a group named "Mobile Democracy Kumluca" was established in the social share site Facebook. Mobile Service is

broadcasted in the group page of “Mobile Democracy Kumluca” in the Facebook site ([www.kumluca.bel.tr](http://www.kumluca.bel.tr), 2012).

**Fatih municipality:** Fatih Municipality which introduced one of the most comprehensive mobile municipality applications in the world became the 1<sup>st</sup> of Turkey in the category of medium sized municipalities in eTR awards the 9<sup>th</sup> of which is organized this year by TÜSİAD and Turkish Data Processing Foundation with Fatih Mobile. Fatih Mobile, an application using which the citizens may have the chance to receive information on Fatih county and Fatih Municipality through their mobile devices, perform interactive municipality transactions rapidly and easily offers a rich user interface developed specially. The applications classified under eight titles are as follows: the Mayor, Fatih Municipality Communication Center, County Guide, e-municipality, Actual Culture Art and Services. Furthermore under those main titles there are 65 sub-modules. Transactions including administration data, municipality call center, illustrated suggestion and complain message sending, debt query and debt payment are performed easily by means of the mentioned sub-modules. Citizens may track culture and art events calendar, receive information about pharmacy on duty, Fatih photo gallery, places to go, social facilities, actual news and announcements using mobile devices and they have the chance to be provided service in a broad range including tender announcements, marriage appointment calendar, tax period reminders ([www.fatih.bel.tr](http://www.fatih.bel.tr) 2012).

**Beyoğlu municipality:** Through the project of “Pull, Forward, Manage Beyoğlu from Cell Phone” realized jointly by Beyoğlu Municipality and Turkcell the citizens can access the municipality by means of mobile telephones and forward their complaints as documented and photographed. Furthermore citizens shall have the chance to direct the future of Beyoğlu by means of the surveys performed in interactive media. With the application, the citizens shall be able to be informed in advance in situations including electricity and water cut. Nevertheless the application may create difference in emergency cases. In emergency cases that may occur with regard to health or public order, the system may define the closest addresses and detect the location of concerned individuals instantly. For the application that Turkcell users may make use of as free of charge it will be sufficient for the users to download the application names “Beyoğlu Municipality” from smart telephones in order to start to use the system ([www.beyazgazete.com](http://www.beyazgazete.com), 2012).

## CONCLUSION

Toward the end of twentieth century the status quoits, strict and normative structure of classical

administration became unable to respond the increasing expectations in the society. Furthermore service provision of the administration which fails to be in conformity with the developing technology slows down, workload is increasing and against this change and transformation the functions of administration are insufficient. It became compulsory for the administration to change in order to provide better, higher quality and cheaper service.

Realization of public services depending on information and communication technologies may be assessed as a real revolution in administration understanding. Thus the citizen has the chance to make use of any public service in front of the computer without going to public institutions. On the other hand, many negativities causing waste of time and source including waiting for a long time, collecting documents which may be expressed as the negativities of bureaucracy are now encountered by the citizens. Without any time and place restrictions the provision of public services gets easier gradually. This renewal is named as e-government in government understanding. Public services are offered to the citizens electronically and the complaints, suggestions and expectations of citizens are forwarded to the concerned instates and institutions through the same channels. The purpose is to increase government and citizen interaction and to provide spreading of an opener and citizen oriented administration understanding.

However even those developments are insufficient against a continuously self-renewing technology. The developments in information and communication technologies have gained even more significance recently upon the spreading of use of mobile devices. Among those devices, use of particularly mobile telephone is quite common. Access to the mobile telephones being easier, its use being more understandable and availability to use everywhere and every time makes service provision through mobile devices more attractive. This change is the indicator of transition from e-government understanding to m-government understanding.

Public institutions selected the way of reaching the citizens in the shortest time and most easily through m-government. This application is a very significant development particularly for local administrations to increase the communication with the local people because with the new administration understanding local administrations aim at strengthening local democracy and increasing participation. M-government is really a very significant step for the participation of the local people.

M-government applications are assessed to be a rather influential enterprise for informing the citizens, creating a participatory administration understanding and first of all strengthening and expanding local democracy.

In order a reform to be revealed in its real meaning, e-government, m-government applications are certainly

significant, it is unavoidable to provide the personnel, technical means and infrastructure required for this. But more significant thing shall be the realization of mental change for the continuity and effectiveness of reform.

## REFERENCES

- Abanumy, A. and P. Mayhew, 2005. M-government Implications for E-Government in Developing Countries: The Case of Saudi Arabia. Retrieved from: [http://mgovernment.org/resurces/euromgov2005/PDF/1\\_R351AA.pdf](http://mgovernment.org/resurces/euromgov2005/PDF/1_R351AA.pdf) (Accessed on: May 1, 2012).
- Abramowicz, W., A. Bassara, A. Filipowska, M. Wisniewski and P. Zebrowski, 2006. Mobility implications for M-government platform design, cybernetics and systems. *Int. J.*, 37(123): 119-135.
- Al-Khamayseh, S., E. Lawrence and A. Zmiewska, 2006. Towards Understanding Success Factors in Interactive Mobile Government. Retrieved from: [http://www.mgovernment.org/resurces/euromgvo2006/PDF/2\\_Al-Khamayseh.pdf](http://www.mgovernment.org/resurces/euromgvo2006/PDF/2_Al-Khamayseh.pdf), (Accessed on: June 2, 2012).
- Amine, B., C. Mohamed and K. Yosra, 2005. M-Government: The Convergence between E-Government and Wireless Technology. Retrieved from: [medforist.grenoble-em.com/Contenus-ConferenceTunisiaIEBC2005/papers/June25/12.-pdf](http://medforist.grenoble-em.com/Contenus-ConferenceTunisiaIEBC2005/papers/June25/12.-pdf), (Accessed on: June 15, 2012).
- Bensghir, T.K., 2009. M-government Enterprise in Turkish Public Administration: Opportunities and Problems. Retrieved form: [http://www.mgovernment.org/wp-content/uploads/2009/06/turksel\\_kaya\\_bensghir\\_firsatlar\\_sorunlar1mb.pdf](http://www.mgovernment.org/wp-content/uploads/2009/06/turksel_kaya_bensghir_firsatlar_sorunlar1mb.pdf), (Accessed on: May 12, 2011).
- Carcillo, F., L. Marcellin and A. Tringale, 2006. Blueto: A Location-based Service for M-government Solutions. Retrieved from: [http://www.mgovernment.org/resurces/euromgvo2006/PDF/7\\_Carcillo.pdf](http://www.mgovernment.org/resurces/euromgvo2006/PDF/7_Carcillo.pdf), (Accessed on: April 24, 2012).
- Çilingir, D. and İ. Kushchu, 2004. E-Government and M-Government: Concurrent Leaps by Turkey. Retrieved from: <http://www.mgovlab.org>, (Accessed on: January 14, 2012).
- Çukurçayır, M.A., 2011. Citizen Relations Administration. In: Kesik, A. and H. Canpolat (Eds.), *Globalization and Transformation in Public Administration*. Seçkin Publishing House, Ankara, pp: 305-319.
- DPT Information Society Office, 2011. State Planning Organization Presidency of Information Society Office. Ankar, Turkey, pp: 117-119.
- Hellström, J., 2008. Mobile Phones for Good Governance-Challenges and Way Forward. Retrieved from: [http://www.w3.Org/2008/10/MW4D\\_WS/papers/hellstrom\\_gov.pdf](http://www.w3.Org/2008/10/MW4D_WS/papers/hellstrom_gov.pdf), (Accessed on: March 1, 2012).
- Jackson, N.M., 2011. Mobilizing Governments. Retrieved from: <http://americacityandcounty.Com/technology/government-mobile-technologies-201105>, (Accessed on: February 11, 2012).
- Jahanshahi, A.A., S. Mohammad, S. Khaksar, N.M. Yaghoobi and K. Nawaser, 2011. Comprehensive model of mobile Government in Iran. *Indian J. Sci. Technol.*, 4(9): 1188-1190.
- Muti, A. and G. Kanadıkırık, 2008. Mobile democracy platform project. Proceeding of (inet-tr'08 – XIII), Internet Conference Manifestos in Turkey, Ankara, 9: 10-13.
- Nava, A.S. and I.L.Z. Dávila, 2005. M-government for Digital Cities: Value Added Public Services. Retrieved from: [http://www.m4life.org/proceedings/2005/PDF/31\\_P135LI.pdf](http://www.m4life.org/proceedings/2005/PDF/31_P135LI.pdf), (Accessed on: May 4, 2012).
- Ntaliani, M., C. Costopoulou and S. Karetsos, 2008. Mobile government: A challenge for agriculture. *Gov. Inform. Q.*, 25(700): 699-716.
- Rodrigues, H., C. Ariza and J. Pascoe, 2005. On the Development of an Open Platform for M-Government Services. *Mobile Information Systems II IFIP International Federation for Information Processing*, UK, 191: 79-90.
- Signo, C.M., 2012. PNP Text 2920 Service: A Communication Perspective on M-government: Philippine Context. Retrieved from: [http://www.cprsouth.org/wp-content/uploads/drupal/Cristina\\_Signo.pdf](http://www.cprsouth.org/wp-content/uploads/drupal/Cristina_Signo.pdf), (Accessed on: January 3, 2012).
- Şişman, A., Z. Alkış and E.E. Maraş, 2011. The obstacle before the development of E-government and M-government: Digital gulf. *Map Tech. Electron. J.*, 3(1): 27-37.
- Trimi, S. and H. Sheng, 2008. Emerging trends in M-government. *Commun. ACM*, 51(5): 53-58.
- Turkish Data Processing Society, 2009. Union of Public Data Processing Centers Directors. *Public Data Processing Platform XI, Security in Mobile Applications*, Ankara.