Turkish Local e-Governments: a Longitudinal Study

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Abstract : This article is based on a longitudinal exploratory study of the Turkish local e-governments between September 2005 and December 2006. 3,228 Turkish local governments constitute the sampling framework of this paper. The first part of the study, which took place in 2005, indicated that only 969 authorities were online. But the second part, issued at the end of 2006, showed that 1,591 units were online. The purpose of the second study was to explore the degree of change and how this change occurs in a certain time line among those authorities. Despite some theoretical studies in this field, no research was held on local e-governments, particularly, in a longitudinal dimension in Turkey. That's why this study is unique in terms of covering the overall picture of the local activity on the topic of e-government.

Keywords: Turkish e-governments (e-Government), Turkish local e-governments (e-Government), e-municipality, e-administration, Turkish local governments, e-Turkey.

1. Introduction

e-government, contrary to common belief, is not solely a new hype of the "e-"s. Nor is it a "new emergent area of research in the discipline of public management" (Criado et al., 2003: 3). Actually, it is an intersection of such multidisciplinary areas as organization theory, social science, informatics, computer science, public administration, business administration, economy, political science, law, government professionals, library science and so forth. (Löfstedt, 2005: 5).

Today, the explosive growth in Internet usage accompanied by rapid development of Information and Communication Technologies (ICTs) and e-commerce/e-business in the private sector has put growing pressure on public entities to serve citizens electronically (Ho, 2002). But, the change or reform catalyzed by ICTs should not be confused with reform efforts through IT in administrations (Kraemer and King, 2003). It's a "paradigm shift" (Persiteras et al., 2002), in that governments are being "reinvented" (Jain, 2004) and "digitalized" (Lee et al., 2005).

Starting with central government institutions, these new reform efforts passed through local governments, as well. The aim is to achieve efficient, inclusive, transparent public administrations. The need for change in terms of pressures stemmed from fiscal and performance issues, the rising tide of digital citizens, new technologies creating new networks, and globalization lead the way to reorganization efforts (Tapscott and Agnew, 2001). Local governments play a key role here because they provide the basic services locally or regionally, where they are the closest to the citizens. Transformation of local government services into e-services by making them available anytime and anywhere requires collaboration and coordination of every actor responsible to the citizens.

2. Turkish context

Dating back to earlier efforts with inauguration of administration reforms, the Turkish context of e-government is very centralized. Begun by the AKP government's Short Term Action Plan, the famous STAP (2004), the dispersed initiatives were joined under one control mechanism, the State Planning Organization (SPO); then, the recognition of Turkey's candidacy accelerated e-government initiatives into a full force. In 2002, the First National Information Congress was held by the government and Non-Governmental Organizations (NGOs). This congress led to the realization of the e-Transformation project. Soon after, e-Transformation projects were imported into the STAP (Akman 2005). However, unlike the European region, Turkish local e-government projects are scant and not widespread. The weight has been put on the central e-government and the local agenda has been neglected (Çakal, 2005). There also are some credible examples of government-to-government (G2G) and government-to-citizen (G2C) levels. Only after the introduction of the new law on local governments, which created a crescendo in the beginning, has the government encouraged the establishment of Urban Information Systems among local units with populations above 50,000. This, according to 21 Turkish authorities from different jurisdictions, accelerated the pace of local e-government initiatives. But these haven't changed the current situation and it is difficult to find relevant literature on e-government at all, let alone local e-government.

The aim of this paper is to give a recent portrait and progress of the Turkish local e-governments in terms of certain "e-" - topics on a longitudinal scale (2005 - 2006). Those are;

- ICT infrastructure
- Websites
- E-services of Turkish Local e-governments.

The paper is divided into two parts. The first part comprises a literature review of local e-government in the country. And the second part, through a two folded perspective, incorporates the findings in general. The methodology for gathering information is based on web scanning (websites of the authorities, governmental online repositories) and interviews with the key personnel in the local governments. The interviews took place mostly as online chats except three from Istanbul jurisdiction.

3. Literature review

Research on local e-government, exists almost none, among the Turkish Academia. Nonetheless, as of the year 2005, for the first time, two individual research projects took place under the tutelage of TurkStat (2006a and 2006b): Municipal Web Services and Municipal City Information System Researches. Both researches supplied fruitful information within the framework of reflecting the recent status of local e-government initiatives. The weakness of these studies in particular is about the sampling; they didn't cover the whole municipalities.

According to the results of Municipal Web Services Research (TurkStat, 2006a), among the 662 municipalities with population above 10000, 99 % have Internet access and 82 % have Intranet. 64 % of the above mentioned municipalities has websites, while 24 % of the ones which do not have websites are planning to have a website in a year. The summary of the findings is given below (TurkStat, 2006a:1);

- Among the information on the websites of the municipalities, the contact information and completed and ongoing jobs have the biggest share (% 94 and % 92).
- % 82 (50/61) of the municipalities having higher population (>250000) in their localities updates their websites on a daily basis. The municipalities which do not update their websites are found mostly in localities with the population group 10000-20000 (%28).
- % 30 of the municipalities uses newspapers and magazines, % 54 uses billboards, and % 43 uses other websites for the promotion.
- % 52 face the problem of qualified staff, % 28 software costs, and % 28 permission for e-signature collection while providing web services.

Both of these studies were accomplished simultaneously while this research was on progress. The findings and results overall, complement each other. The importance however, of all the field researches remains.

Yıldız (1999) found in 1999 that there were only 30 websites of Turkish municipalities where almost all of them were brochure wares and no clues of interactions were detected. The only information related to the local area was based on the mayor's biography and his/her services. This view was similarly supported by Bensghir's (2000a, 2000b, 2000c) websites analysis of three metropolitan cities Istanbul, Ankara and Izmir one year later. Güler's study (2001), on the other hand, was to find out the computer diffusion of the Turkish local governments. In her study she explored the recent status of local e-government initiatives among the e-Turkey efforts and complaint about the same problem of coordination. She underpinned two significant developments on the local agenda; YerelNet (LocalNetworks) and YerelBilgi (LocalInfo) projects. The research highlighted the figures provided by YerelBilgi. 69 % of the Turkish local governments had at least one computer. And among those computer owners, the Internet penetration was 22 %. The type of connection was only dial-up, during the time of the study, broadband services were scarce. Her findings also evidence the clear danger of disparities among the regions. Marmara, the richest of all, has the highest ratios, whereas, south-east regions, lack both computer and Internet diffusions. Meanwhile a recent research carried out by some Turkish scholars (Köylü et al., 2005) about e-government maturity indexes highlighted insufficiency of standards among the Turkish governmental websites including the municipalities.

4. The study

The basic resources used for this study are as follows:

1. Directorate of Local Administrations website (www.mahalli-idareler.gov.tr)
2. YerelBilgi (LocalInfo) website (www.yerelbilgi.gov.tr)
3. TurkStat (Turkish Statistical Institution) website (www.tuik.gov.tr)
4. YerelNet (Local Net) website (www.yerelnet.org.tr)
5. Google, Yahoo search engines.

6. Domain Checker Softwares.

Lack of a coordination entity for local units in general was the main obstacle during the demanding task of collecting data. Even the same data was kept differently among these resources like the numbers of municipalities. There were different numbers ranging from 3215 to 3228. After e-mail/phone exchanges it was decided to use the sampling number of 3228 supplied by TurkStat. According to Tuncer and Kasapbaş (2000) the distribution of the Turkish municipalities by their status is given in the below table. However, their data about the number of these municipalities are also different than the others. So, although it was adapted, some minor corrections were made accordingly to reach the exact number of 3228.

Table 1: Distribution of municipalities by their status (Tuncer and Kasapbaş (2000). Revised through recent TurkStat data.)

Distribution of Municipalities by their Status	
Metropolitan	16
Metropolitan District	58
Metropolitan Lower-tier	31
Provincial centers	65
Districts	792
Counties	2266
TOTAL	3228

It should be kept in mind that the selections of local administrations were only limited by municipal entities. The other local government bodies are not taken into consideration because through the view of efficiency, subsidiary and some other additional factors not only did villages become over pacified; the SPAs as well lost their entity of locality and became the extensions of central governments (Aydemir, 2003).

Totally, there are 39634 units of local governments in Turkish Republic. Of those, 3228 are the municipalities and form the base sampling framework of this study. The table below highlights the distribution of these local administrations according to their entities.

Table 2: Number of local administrations in Turkey (YerelBilgi, YerelNet, Directorate of Local Administrations, and different sources)

81	SPAs
3228	Municipalities
35232	Villages
1079	Local Administration Unions
14	Municipal Associations
39634	TOTAL

The Internet connections and types of connections of the municipalities are disseminated on YerelBilgi's website. But the data available in the repository is so dispersed that it was a laborious and time-consuming task to collect the relevant information. It took months and 3-4 hours of demanding time and too much patience each day and not all the local administrations were willing to cooperate. So, in that case, search engines or if possible, the website of the local entity, were searched to reach the data.

5. The findings

The findings will be presented in a two-fold way. The first part is comprised about the basic indicators at present. Meanwhile, the second part is made up by the e-service provisions offered by these authorities.

5.1 Part 1

Before getting started with the first part, it should be useful to give a general picture of the progress made by the local governments in Turkey. It was Güler (2001) who first observed the local governments and supplied useful data to the literature. Her basic findings are compared to ours in table 4 to see the pace of change in the time scale from 2001 to 2006.

Table 3 Güler's research (2001) compared time scale

YEARS / Variables	2001	2005	Change %	2006	Change %
Internet Access	467	2545	545%	2649	4%
IT Dept	381	419	110%	429	2%
Websites	150	969	646%	1591	64%

The progress within the first time scale between 2001 and 2005 is worth to consider. During the interview sessions authorities gave basic causes like decrease of the cost of computers and related media, enthusiasm of the younger generation working in those local governments, pressures by citizens, companies and mass media as well as globalization issues like integration with both into national level and international level. But from 2005 to 2006 this pace seemed to be slowed a little bit. This was not because of the budget constraints or similar reasons but mainly due to the weakening of the pressure groups both from the media as well as from the public. This assumption was substantiated by the mass media between 2005 and 2006. There were only 11 news coverages related to e-government. However, neither of them became headlines. Similar trend, a slowing process, was also being observed in the development process around the world (West, 2004).

It was clear to see the contrast in the findings about the websites and Internet access. Internet access was higher than the websites. When the reason for this was asked to authorities, different replies came up. 109 of them agreed that the project of YerelNet supplying a static website with basic facts for each local administration was seen as adequate. This view was also supported when YerelBilgi datasets were examined. 102 of the local authorities gave the URL addresses of themselves with the extension of "YerelNet.gov.tr" or "yerelnet.tr".

The recent status of the local authorities, as of December 2006, is given below. Table 4 shows the distribution of the local authorities through some basic indicators like Internet access, websites, IT Department ownership and e-services offered.

However, there were significant discrepancies among local governments with regard to the level of implementation of e-government initiatives. For example, the size of local jurisdiction was strongly associated with having a website. This point of view was also consistent with the literature (Moon, 2002; Criado et al., 2003; Holden et al., 2003). According to table 4, the most crowded groups, the last three, with the population 100,000 and above, completed their infrastructure as "e" enablers. On the other hand, the biggest municipal group (2001-5000 and 51,30 %), had almost the least website (37,20 %). Similarly, low rates were also observed in the other indicators like IT department ownership (5,07 %) and e-service provisions (1,63 %) except the Internet access (80,31 %). The reason having a low online presence on Internet was the same as stated earlier. Static websites in the YerelNet servers were considered as enough.

Table 4: Basic indicators of the local authorities by population groups (as of December 2006)

Population Group	Municipalities	%	Internet Access	%	Website	%	IT Dept	%	E-service	%
0 – 2000	354	10,97	260	73,45	64	18,08	11	3,11	3	0,85
2001 – 5000	1.656	51,30	1330	80,31	616	37,20	84	5,07	27	1,63
5001 – 10 000	558	17,29	471	84,41	322	57,71	46	8,24	20	3,58
10.001 – 20.000	274	8,49	255	93,07	220	80,29	51	18,61	29	10,58
20.001 – 50.000	181	5,61	171	94,48	168	92,82	83	45,86	35	19,34
50.001 – 100.000	83	2,57	81	97,59	79	95,18	52	62,65	16	19,28
100.001 – 250.000	61	1,89	60	98,36	61	100	58	95,08	34	55,74
250.001 – 500.000	40	1,24	40	100,00	40	100	38	95	26	65,00
500.001 +	21	0,65	21	100,00	21	100	21	100	18	85,71
Total	3228	100	2689	83,30	1591	49,29	444	13,75	208	6,44

As for the type of connections of these local administrations see the table below to gather some general information about their connections.

Table 5 Internet access types of the Turkish local governments (as of December 2006)

Population Group	Municipalities	%	Internet Access Types									
			ADSL	%	56K	%	LEASED LINE	%	CABLE NET	%	FRAME RELAY	%
0 – 2000	354	10,97	38	10,73	222	62,71	-	-	-	-	-	-
2001 – 5000	1.656	51,30	397	23,97	929	56,10	-	-	3	0,18	-	-
5001 – 10 000	558	17,29	277	49,64	193	34,59	-	-	1	0,18	-	-
10.001 – 20.000	274	8,49	186	67,88	69	25,18	-	-	-	-	-	-
20.001 – 50.000	181	5,61	138	76,24	33	18,23	-	-	-	-	-	-
50.001 – 100.000	83	2,57	62	74,70	19	22,89	-	-	-	-	-	-
100.001 – 250.000	61	1,89	54	88,52	3	4,92	3	4,92	-	-	-	-
250.001 – 500.000	40	1,24	36	90,00	-	-	2	5,00	2	5	-	-
500.001 +	21	0,65	18	85,71	-	-	2	9,52	1	4,76	1	4,76
Total	3228	100	1206	37,36	1468	45,48	7	0,22	7	0,22	1	0,03

83,3 % of the local governments was connected (80,20 % the previous year). But only 37, 8 % (all broadband connections) of these were broadband connections (30,36 % the previous year). The rest was still dial-up (45, 48 %). Additionally, there are also examples of some advanced broadband connections, like leased lines, cable net, and frame relay. And the upward tendency to get connected in the near future gives signs of accelerations when asked in face-to-face sessions.

A careful study on the political background of the local governments will draw certain conclusions from the following table.

Table 6 Basic indicators of the local authorities by political parties (as of December 2006)

PARTY NAME	Total Municipalities	%	Internet Access	%	Website	%	IT Dept	%	E-service	%
AKP	1776	55,02	1499	84,40	903	50,84	271	15,26	131	7,38
CHP	469	14,53	393	83,80	235	50,11	73	15,57	39	8,32
DYP	382	11,83	289	75,65	153	40,05	27	7,07	15	3,93
MHP	248	7,68	210	84,68	128	51,61	28	11,29	8	3,23
ANAP	103	3,19	89	86,41	56	54,37	19	18,45	11	10,68
SHP	67	2,08	58	86,57	36	53,73	14	20,90	1	1,49
SP	60	1,86	56	93,33	22	36,67	4	6,67	-	-
INDEPENDENT	55	1,70	40	72,73	23	41,82	3	5,45	-	-
DSP	32	0,99	27	84,38	19	59,375	5	15,63	1	3,13
GP	13	0,40	9	69,23	3	23,08	-	-	-	-
BBP	12	0,37	9	75,00	7	58,33	-	-	-	-
YTP	7	0,22	6	85,71	2	28,57	-	-	-	-
ÖDP	2	0,06	2	100	2	100	-	-	-	-
BTP	1	0,03	1	100	1	100	-	-	-	-
DP	1	0,03	1	100	1	100	-	-	-	-
TOTAL	3228	100	2689	83,30	1591	49,29	444	13,75	208	6,44

AKP is the leading political party in 2004 local elections and owns the government as well. So is it with local e-governments. However, not only AKP in this respect, but also the bulk of other political parties (2/3) come to realize the importance of being online. Website rates are almost identical. On the contrary, e-service provisions tend to increase slowly when compared to website rates. Given to the rapid developments in the infrastructure and announcements on the websites of more than 100 jurisdictions (those are not in the framework of 208 e-service providers), future plans comprise delivering of basic e-government services such as querying debts for utilities, online forms and so forth.

When the types of connections are studied, once again AKP predominates both in broadband (ADSL, Leased Line, Cable Net, Frame Relay) and in dial-up (56K). All parties seem to be aware of the importance of broadband connection. As of September 2005 there were 995 broadband connections, including leased line, cable and frame relay. Towards the end of 2006, however, this rates reached to 1221. Obviously, there is a tendency to switch from dial-up to broadband Internet connection. During the face-to-face interviews, authorities highlighted the strategic importance of being online; the best way to become a part of the world. Among those 208 e-service providers 202 asserted that the range of their e-services started with economic concerns. The similar curve was also observed in the Turkish local governments; first, main departments (Finance, personnel, and so forth.) were interconnected to build a Local Area Network (LAN) in the house. Meanwhile, one computer or a server was also connected to the Internet. An "eager-beaver" or a "champion" built a static website. Actually, it was a "brochureware", usually consisting of static information pages, and rarely downloadable forms, and e-mail.

Table 7 Internet access types of the local governments by political parties

PARTY NAME	Total Municipalities	%	Internet Access Types									
			ADSL	%	56K	%	LEASED LINE	%	CABLE NET	%	FRAME RELAY	%
AKP	1776	55,02	677	38,12	812	45,72	7	0,39	2	0,11	1	0,06
CHP	469	14,53	181	38,59	211	44,99	-	-	1	0,21	-	-
DYP	382	11,83	118	30,89	169	44,24	-	-	2	0,52	-	-
MHP	248	7,68	97	39,11	112	45,16	-	-	1	0,40	-	-
ANAP	103	3,19	44	42,72	44	42,72	-	-	1	0,97	-	-
SHP	67	2,08	38	56,72	20	29,85	-	-	-	-	-	-
SP	60	1,86	16	26,67	40	66,67	-	-	-	-	-	-
INDEPENDENT	55	1,70	12	21,82	28	50,91	-	-	-	-	-	-
DSP	32	0,99	15	46,88	12	37,50	-	-	-	-	-	-
GP	13	0,40	2	15,38	7	53,85	-	-	-	-	-	-
BBP	12	0,37	1	8,33	8	66,67	-	-	-	-	-	-
YTP	7	0,22	1	14,29	5	71,43	-	-	-	-	-	-
ÖDP	2	0,06	2	100	-	-	-	-	-	-	-	-
BTP	1	0,03	1	100	-	-	-	-	-	-	-	-
DP	1	0,03	1	100	-	-	-	-	-	-	-	-
TOTAL	3228	100	1206	37,36	1468	45,48	7	0,22	7	0,22	1	0,03

5.2 Part 2

As was told before, out of 3228 municipalities 1591 had an online presence on the web. But among those web presences only 208 jurisdictions offer a variety of e-services. By December 2006, of those 208 e-service provisions, only 136 seemed to be functioning. The rest were either still not ready or temporarily out of order.

Another point on those 208 local authorities was the number of IT department ownership. 141 local authorities stated that they run an IT department whereas the rest didn't own one. In addition to this, 17 of those local authorities had dial-up connections compared to those with 191 broadband connections.

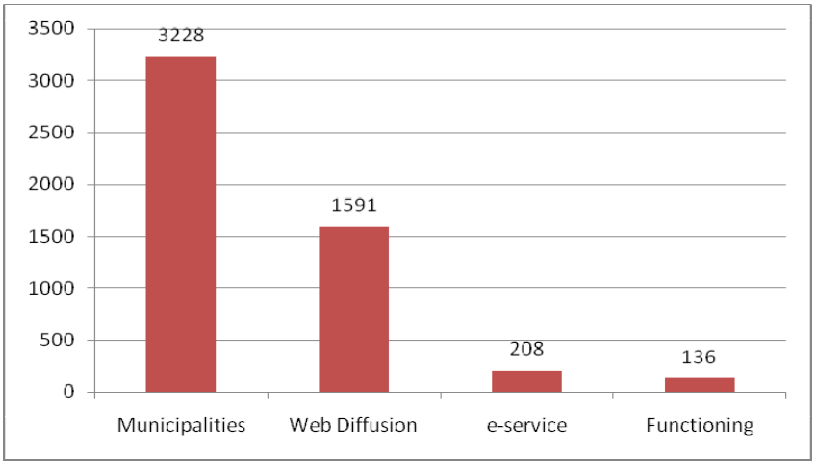

Figure 1 Municipalities, websites and e-services

What is more, (of those 208) 47 underlined that they had either an ISO 9000 or ISO 9001:2000 certificate. All these 47 authorities also added that Total Quality efforts were started along with e-government activities simultaneously. So, the evidence seems to indicate that the TQM and e-government efforts started together among the Turkish Local Governments initiatives.

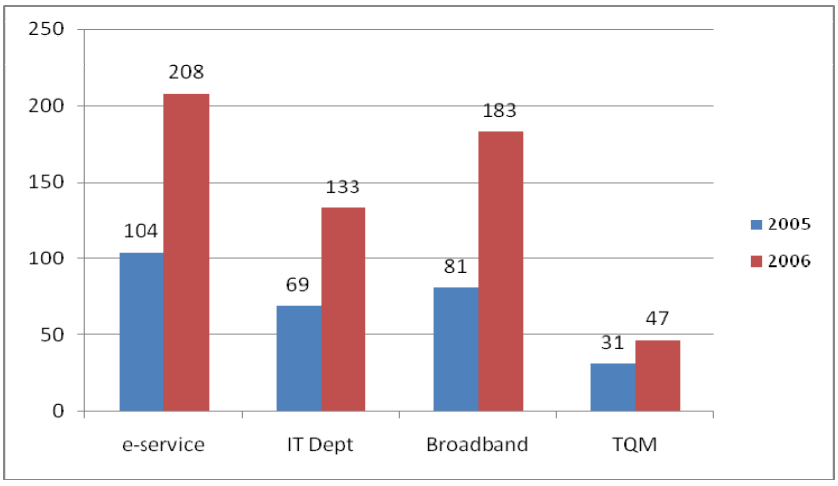

Figure 2 E-service, IT department ownership, broadband connectivity and TQM efforts

Every local authority running a website put e-forms or downloadable forms under the obligatory context of Freedom of Information Act. Another enabler is the recent Municipal Act (#5393) declaring and encouraging the formation of Urban Information Systems and Strategic Planning Procedures. The laws on e-signature and related regulations have already been on circulation but there was a general hesitation about the implementation and widespread use of e-signatures in the public (Koyun, 2006). Though, 31 of those e-service providers declared their plans on preparing the electronic and administrative infrastructure for the usage of e-signatures.

However, the provision and the process of development of e-services varied greatly from one authority to other both in terms of quantity and quality. The examples of the e-services supplied by the Turkish Local Governments had also complex transactions signaling sophisticated back-offices. This assumption was supported by 4 of the local jurisdictions in terms of reengineering efforts. The simplest service offered online in terms of transactions was querying tax debts in the local authorities' database. More complex transactions like paying taxes online by credit cards, filling online forms, political forums, and so forth were also available and in use.

During the interview sessions 8 of the authorities acknowledged that implementation of e-services brought a bulk of financial returns, particularly in tax revenues. 202 authorities admitted that economic concerns were the main motivator of being online. That's why initial step of being online plans was always aligned with economic gains. Putting cultural and public events online were being realized only after the economic returns were visualized; a typical trait followed by 7 of those local e-governments. The basic services supplied by the

Turkish Local Governments are stated in table 8 below. Notice that those items are also ingredients of MeGAP-3 (The Municipal E-Government Assessment Project) framework (Flak et al., 2005).

Table 8: Basic e-services provided by the Turkish local e-governments (as of December 2006)

E-service	Type of Function	N	%
Bidding announcement/Query	Interactive/Info.dissem.	100	73,53
Querying debts	Interactive	128	94,12
Online tax paying (property, billboards)	E-commerce	77	56,62
Forums	Interactive/E-democracy	34	25
Demographic Information	Info. dissemination	136	100
Online forms	Interactive	125	91,91
Downloadable forms	Interactive	60	44,12
Search Engine	Interactive	67	49,26
Strategic Plan	Info. dissemination	25	18,38
Querying land/building permit	Interactive	45	33,09
Document Management System	Interactive	65	47,79
Online GIS	Interactive	40	29,41
Business License/payment	Interactive/E-commerce	69	50,74
Transportation	Info. dissemination	33	24,26
Online petitions	Interactive	117	86,03
Job applications	Interactive	11	8,09
Minutes of meetings	Interactive	66	48,53
Live traffic/web cams	Info. dissemination	40	29,41
Querying Utilities/ Payment	Interactive/E-commerce	117	86,03
Scheduled e-meetings	E-democracy	4	2,94
Applying for utilities/tax declarations/registrations	Interactive/E-commerce	24	17,65
Streaming video of meetings	E-democracy	14	10,29
On-line surveys/polls	E-democracy	75	55,15
Querying Libraries/Booking	Interactive	7	5,15

Since the year 2005 what has been changed can be better traced in figure 3. Particularly the increase in websites is noticeable (64 %).

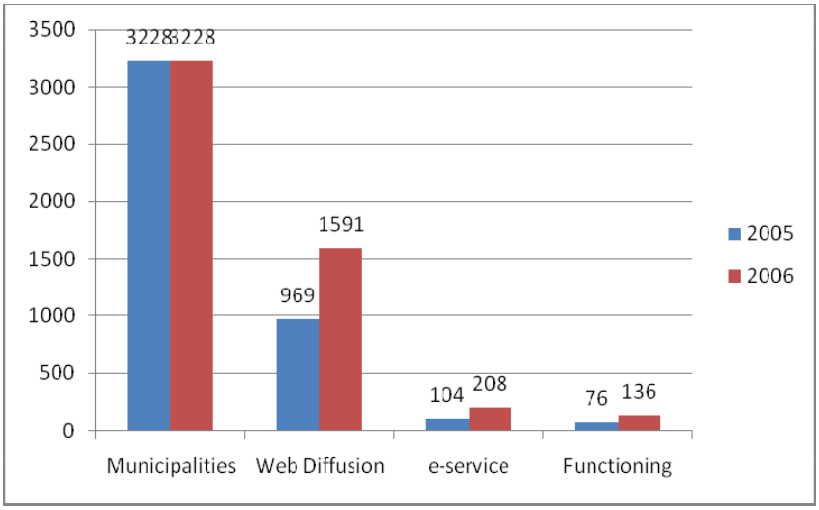

Figure 3 The change between the time scale 2005 and 2006

Other interesting findings in the same time scale about the infrastructural ingredients are viewable in figure 4. The rate of e-service provisions increased and so did the broadband connections. The slow pace of IT department ownership indicates high tendency in outsourcing of e-services, including the lack of technical skills as an obstacle in the same area. These were also verified during the interview sessions.

During the interview of one of those authorities (Metropolitan district) in Istanbul province, it was astonishing to learn that the gains by being a Local e-Government could be beyond expectations. The mayor and his administration were concerned about the fact that there was a great loss in the overall tax income. Their fears were totally confirmed after the enabling of the e-GIS; they realized that tax declarations submitted

were below the rate of real situation. The total loss in property tax was 24.19 % whereas in environmental tax it was 27.06 %. This makes about 20 % increase in overall income of the jurisdiction.

Leviable Independent Sections in the District		**169,493**
Homes	111,060	
Businesses	58,433	
Taxpayers Total	191,499	
Total Loss in Property Tax (24.19 %)		**40,995**
Homes	25,863	
Businesses	15,132	
Total Loss in Environmental Tax (27.06 %)		**45,866**
Homes	18,619	
Businesses	27,247	

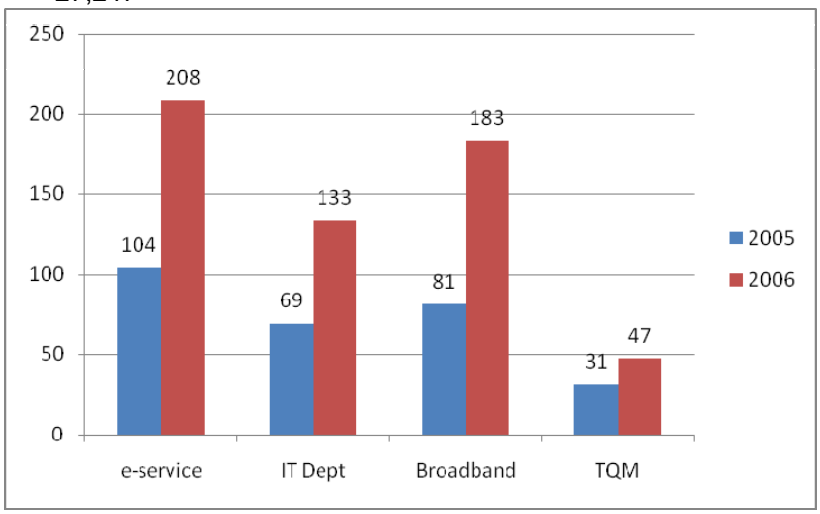

Figure 4 The change of infrastructure during 2005-2006 (208 local e-governments)

6. Conclusions

It is quite natural to expect efficiency and productivity gains that will justify an investment in a new technology. This attitude or a trend is easily discernable among the local authorities. And that explains why the first new applications appear as a solution to an existing task requirement-automation. However, the change in work processes regarding reorganization of the services needs some time and experimentation with the new network technologies. Though 10 of those interviewed stated initialization of reorganization efforts or already reorganized to make most of the new technology. It is difficult to see applications of e-democracy and social issues before evidencing economic returns. The push for the Turkish governments doesn't come from bottom-up as expected, but from top-down (only 12 local governments admitted a supply and demand framework during interviews). This is, as was stated in the literature earlier by Ho (2002), rather internal; the focus was on managerial operating efficiency and enhancing internal communication through ICTs.

Another issue posing a problem during the research period was the risks of digital exclusion. It was undervalued by the authorities into not owning or knowing to use the computers and the Internet. But usability and accessibility problems detected during the observation process were prominent. Only 3 of the websites were complying with international standards. Physically impaired, elders, and children were not taken into consideration during the design processes. No information was available on their sites.

Consequently, as 1/3 of the Turkish Local Governments confirmed, the most fruitful and efficient results will be realized only after the encompassing of the Local Authorities into the National Strategy. Hence, the foundation of a steering mechanism will ensure them becoming a "virtual" local government.

Local e-government is not only an online presence to enhance the quality, speed of delivery and reliability of services to its citizens and to business but a democratic mechanism fulfilling its responsibilities by attempting

to increase accountability, transparency and quality of services by adopting ICTs to modernize and change the way their administrations work.

This study opens the door for future research on the pace and sequencing of e-government's spread across the nation; particularly of local e-governments. The scant literature on central e-government policies and implementations is far from being considered as "academic" in context. It deserves careful studies of, for instance, best practices that should continue into what the leading edge is and where others should follow. Our paper suggests strong correlations between quality efforts and e-government initiatives, but further research is needed to explore the associations between strategic alignment and e-government implementations as well.

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