

# Evaluating the Awareness of E-Governance and the Willingness to Adopt Government Online Service

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## Abstract

*E-governance is a new revolution in this era that changes the way of dealing with government. E-governance is considered as a new model of administration which is set to revolutionise the world of management. Basically it works in the government sector to extend different services to both public and private sector. The question arises: as to whether the citizens already have used the new services provided to them by e-governance websites through the internet? Therefore, the objective of this paper is to understand the awareness and demand for e-governance online services among the internet users of the population of Local government in India. However, the internet users have close links to internet the findings of this research brought out the fact that the general awareness of the availability of local government online services amongst internet users is low.*

*Keywords: E-governance, e-services, Adoption, Awareness, online service.*

## 1. Introduction

This era is the age of knowledge, where information has become a key resource in life and becomes very important in all public and private applications. Lack of awareness of new technology and its benefits is an important criterion linked to the process of adoption and use by the citizens to realize the value of this technology. The technological tools have been created by the information community to access the information in easy way to make our life easier. Information plays a key role in all applications like education, medical services, banking applications, agricultural, down to the small details concerning the citizen's life, which is the backbone of economic life.

Most of the e-governance initiatives in India were based on common service centres (CSC) where the services provided through counters in first-come-first-serve base, in that citizens have to visit these CSCs during the working hours (some centres 10 AM to 5 PM) in the working days only, and somebody has to do the job, even if the citizens have the ability to use the computer and the internet. Table 1 shows the internet usage in Asia, it showed that India has more than 81

million internet users by September 2009, the users growth between 2000 and 2009 was 1,500 percent. India stood third in Asia with 11 percent of internet users after China and Japan [9].

Table 1 Asia internet usage and population

Country	Population (2009 Est.)	Internet Users, (Year 2000)	Internet Users, (Year 2009)	Access to Internet (% Population)	User Growth ( 2000-2009 )	Users (%) in Asia
China	1,338,612,968	22,500,000	360,000,000	26.9 %	1,500.0 %	48.8 %
India	1,156,897,766	5,000,000	81,000,000	7.0 %	1,520.0 %	11.0 %
Indonesia	240,271,522	2,000,000	30,000,000	12.5 %	1,150.0 %	4.1 %
Japan	127,078,679	47,080,000	95,979,000	75.5 %	103.9 %	13.0 %
Korea, South	48,508,972	19,040,000	37,475,800	77.3 %	96.8 %	5.3 %
Pakistan	174,578,558	133,900	18,500,000	10.6 %	13,716.3 %	2.5 %
<b>TOTAL ASIA</b>	<b>3,808,070,503</b>	<b>114,304,000</b>	<b>738,257,230</b>	<b>19.4 %</b>	<b>545.9 %</b>	<b>100.0 %</b>

With this large number of internet users we can ask two questions: Firstly, “does the local government in India provide its online service through internet and make it accessible, easy to use, secure and cheap for the internet users any time anywhere?” Secondly, “do the citizens (specially the internet users) aware and ready to adopt these services?”The government agencies would provide support and guide people in finding information they need, encouraging them to do this on-line rather than access the services of various departments face-to-face or over the phone. The objectives of this research are to measure internet users’ awareness of online services or new initiatives of e-governance, where it is necessary to measure the perceptions and knowledge of citizens, and find out if the use of computer and the Internet increase the awareness. The other objective of this work is to understand the impact of human factors and use of the internet in willingness to use and adopt e-governance.

### ***1.1.The Definition and Benefits of e-governance Services:***

E-governance is a way of making government smarter, improving the delivery system of services and giving citizens new tools to interact with governments, therefore, citizens can expect better, cheaper, faster and more accessible services. The European Information Society has defined e-governance as “e-governance is the use of information and communication technology in public administrations combined with organizational change and new skills in order to improve public services, democratic processes and strengthen the support to the public policies”[5]

***National e-governance Plan (NeGP) in India:*** The Government of India has formulated a national program – the National e-governance Plan (NeGP). This plan attempts to cover all the important areas relating to e-Governance including Policy, Infrastructure, Finances, Project Management, Government Process Re-engineering, Capacity Building, Training, Assessment

and Awareness etc., across the Central, State and local Governments. The national e-governance program is effectively being implemented in the e-governance in India. One of the components of this program is Awareness and communication where the success of e-governance plan highly depends on the awareness about the program[14]. Therefore the Government of India disseminates the information about the e-governance plans, for that we will try to measure the level of awareness and willingness to implement e-governance in local government in India.

This paper begins with a brief overview of the e-governance and NeGP in Section 1. Section 2 provides some related works that have been reported in this field. Section 3 provides a brief discussion of our research methodology. The findings and discussions are presented in Section 4. Finally, we conclude this research work in Section 5.

## **2. Related work**

3. Some e-governance initiatives aim to build services focused on citizens' needs [10, 3, 15]. However, e-governance is more than the governments are providing its services to the citizens using the latest information communication technology (ICT). It involves new forms of delivering and tailoring information and services, linking communities and businesses locally and globally and streamlining us towards digital democracy [4, 16, 8].

Dubai government has created and raised the public awareness of eServices by several ways. It conducted several community outreach activities to raise the awareness and adoption of eServices such as road shows, competitions, promotions, online marketing, marketing with government departments, market awareness surveys and rewarding the users of eServices[13]. Creating awareness about government e-services was not enough; the next task was to improve the computer literacy rates. Dubai e-governance's community outreach program called e4all initiative comprised of several awareness initiatives including e-Citizen, e-Employee, e-Learn, and e-Manager[17]. E-Citizen was established by Dubai government in association with seven local training centres to provide 16 hours of classroom training to citizens and residents of Dubai. Citizens receive training on basic computer and Internet skills along with training on both individual and business oriented government services provided by various government departments. Upon successful completion of training, citizens receive an eCitizen certificate from Dubai e-governance. Today, most of the studies and research published in the developed countries may not be directly applicable to the developing countries[2]. Thus, it is very important to conduct studies on e-governance in a way that will be suitable to fit the environment, features and culture of India which distinguishes it from other countries. Therefore, bearing the above reasons in mind the aim of this research was to survey the state of awareness and adoption of

introducing e-governance initiatives in India, as India is one of the countries that try to execute the project of e- governance.

#### 4. Methodology

We selected Mysore city as our study area to collect the required data. A questionnaire was designed to measure the perception and awareness among the citizens residing in and around Mysore. The questionnaire was divided into few parts such as respondents’ profile, their experience in using computer and internet, the extent of awareness of e-governance services, and their perception regarding the online services and these were done by using close-ended multiple-choice questions in the questionnaire in order to obtain a high response rate. This was intended that the respondents preferred to answer close-ended questions within the non-interactive, self-administered questionnaires [6]. Prior to distribution of the final questionnaire, a pilot study was conducted in order to: determine the response rate and to understand any discrepancies in the questions, which was intended to determine whether the format of the questionnaire and questions were appropriate. Minor changes based upon the responses were incorporated to the final design of the questionnaire and a final questionnaire was developed. Responses received from the pilot study were also included in the final analysis [6].The random sampling method was adopted to collect the samples from shopping malls, restaurants, railway station, institutions, and residents during August and September 2009. Two hundred fifty five completed questionnaires were used for the purpose of the data analysis. The collected data were analyzed by using SPSS version 16.0.

#### 5. Findings and Discussions

##### 4.1. Demography Data analysis

Table 2 Profile of survey participants

Factors	Variables	Frequency	Percent *
Gender	Male	146	57
	Female	109	43
Age	18-24 Years	105	41
	25-30 Years	53	21
	31-40 Years	33	13
	41-50 Years	30	12
	Older than 50 Years	33	13
Marital Status	Not Married	101	40
	Married	152	59
Education Level	Some college but not graduate	49	18
	Graduate	108	42
	Post Graduate	102	40
Occupation	Employee	118	46
	Unemployed	25	10
	Student	106	41.5
	Retiree	5	2
Income	<2000	34	13.3

	2001-5000	24	9.4
	5001-10000	28	11.0
	10001-20000	43	16.9
	20001-30000	35	13.7
	>30000	57	22.4
	No response	34	13.3

#### 4.2. Awareness of E-governance

The study shows that 24 percent of the respondents are not only aware but also use at least one of the facilities offered by e-governance. Table 3 shows that Thirty nine percent of the respondents are aware and do not use any e-governance services, thirty seven percent of the respondents are not aware.

Table 3 Awareness of E-governance

Are you aware of E-governance?	Freq.	Percent *
Yes I use it	61	24
Yes I don't use it	100	39
Not aware	94	37
Total	255	100

Source: Field Survey September 2009

\* All Percentage calculated for 255 responses

Table 4 shows that the awareness among males is more than females (68.5 percent and 56 percent, respectively). Only 29.5 percent of males use e-governance compared to 16.5 percent of females. Thirty nine percent of males' respondents are aware but do not use any e-governance services compared to females with 39.4 percent.

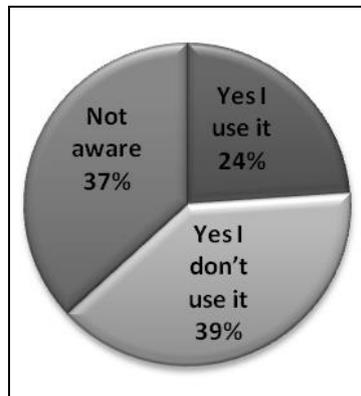


Fig (1) Awareness of E-governance

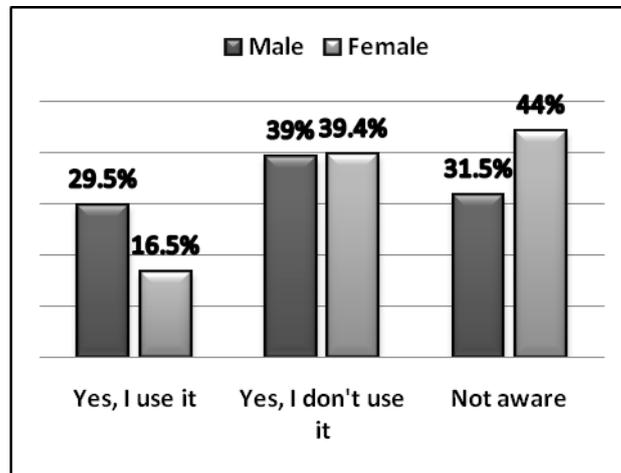
Table 4 Awareness of e-governance by Gender

Gender	Yes, I use it		Yes, I don't use it		Not aware		Total	
	Freq	Percent	Freq	Percent	Freq	Percent	Freq	Percent*
Male	43	29.5	57	39	46	31.5	146	57.3
Female	18	16.5	43	39.4	48	44	109	42.7
Total	61	23.9	100	39.2	94	36.9	255	100

Source: Field Survey September 2009

\*All Percentage calculated for 255 responses

There is a lack of awareness and usage of e-governance among females, may be due to the female like the risk-free work rather than working in the internet where the risk is high for financial transactions due to low security. Forty four percent of females are not aware compared to 31.5 percent of males.



Fig(2) Awareness of e-governance by Gender

From the results presented in Table 5, the awareness among the age group of 41-50 years is the highest (76 percent), followed by 63 percent for those who are more than 50 years.

Table 5 Age groups and awareness of e-governance

Age group	Yes, I use it		Yes, I don't use it		Not aware		Total	
	Freq	Percent	Freq	Percent	Freq	Percent	Freq	Percent*
18-24	12	11.5	40	38.5	52	50	104	40.8
25-30	19	35.8	19	35.8	15	28.3	53	20
31-40	12	35.3	11	32.4	11	32.4	34	13.3
41-50	7	23.3	16	53.3	7	23.3	30	11.8
>50	11	18	13	39.4	9	27.3	33	12.9
Total	61	23.9	100	39.2	94	36.9	255	100.0

Source: Field Survey September 2009

\* All Percentage calculated for 255 responses

The awareness is less (50 percent) among young people between the age group of 18-24 years and 62 percent in age group of 25-30 years followed by 66 for the age group of 31-40 years. This means that the government should take efforts to make the youth full aware of e-governance by introducing mandatory subject of using ICT and e-governance in their field of study.

With regard to the source of awareness, 63 percent of the respondents who are aware of e-governance said that the sources of their awareness are 44 percent newspapers, 33 percent television or radio, 10 percent department pay counter, 8 percent neighbours, 18 percent colleagues at office or training program, and 7 percent others like internet. Also it should be important to guide and educate citizens how to use e-governance through holding of seminars and the use of television to make the citizen aware, not only through announcements about the services available, but how to use them on the best possible way and also through the publication

of awareness-raising brochures and conducting courses to explain how the use of e-governance can achieve the desired goals.

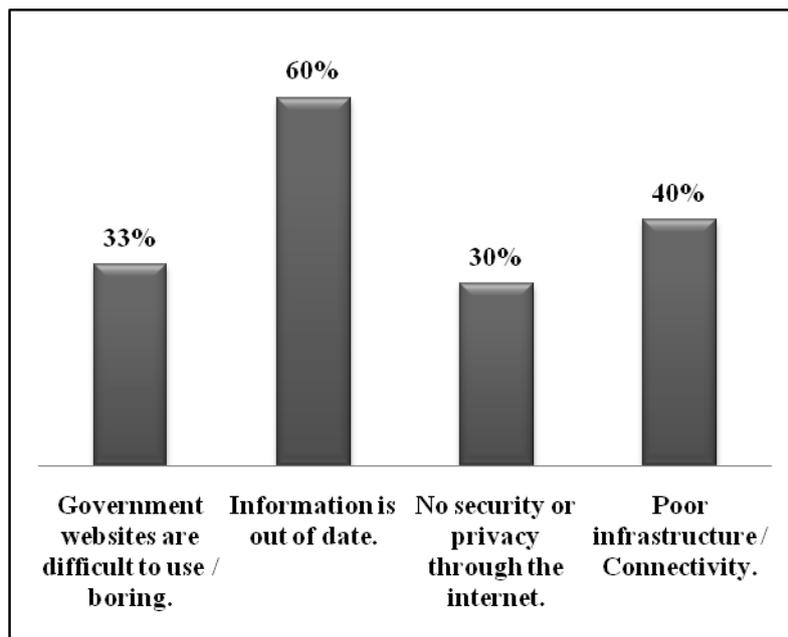
#### 4.3. Overall Importance rating of e-governance online services

In terms of visiting the e-governance websites before the result in Figure 3 shows that 104 out of (161 who are aware of e-governance) have visited but may be they did not get what they want, these amounts to 41 percent. Other 59 percent of respondents say that they have not visited before.



**Fig (3)** Accessing the government websites

Figure 4 shows four reasons for non-use of e-governance websites. First reason, the information are out-dated and no accuracy in this information, 60percent of respondents said that. Second reason, the poor connectivity and infrastructure represented by40 percent. Third reason the difficulties of using the government websites and their boring nature 33 percent. Finally, 30 percent said no security or privacy through internet.



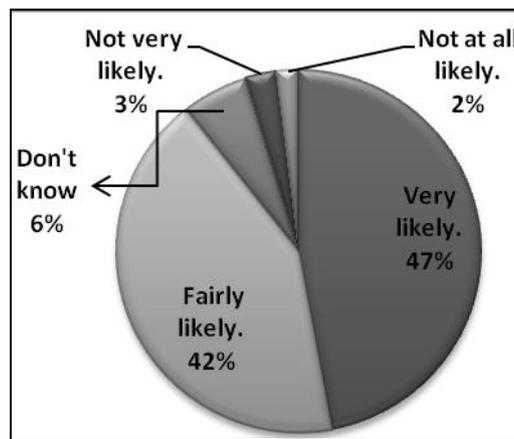
**Fig (4)** the reasons for non use of e-governance websites

More than half of the respondents like to use internet to deal with public sector if the government’s websites are easy to use, up-to date with good connectivity and fast responses. But one quarter of the respondents likes to deal face to face with the public sector. This amounts to 61 respondents or 24 percent. Around 43 respondents used telephone as their means of dealing with the public sector accounting to 17 percent. One person did not mention his way of dealing with public sector.

#### *4.4. The willingness to use and adopt e-governance online services*

As to the question if the e-governance will help citizens save time and money, 219 of the respondents believe yes it will help them. Some 11 percent of respondents said they are not sure and 21 of respondents or 8 percent said it will not help them. Those who say it will help them which account to 86percent while those who are not sure are represented with 4 percent of the respondents.

The researchers built one important question to capture the overall perception of the respondents and if e-governance is important for them. The question is: “if the government introduces a good website that contains information and links to the local council and all government departments all in one place, how likely would he/she to use the government website as starting point to deal with government? We found that the most of the respondents (89 percent) said it was important in different levels of importance. Around 119 respondents (47 percent) said that they are very likely to use. Around 107 respondents (42 percent) said that they will fairly use the website. Only 12 respondents (4.7 percent) said that it is not important for them to deal with government through websites. Fifteen respondents did not even respond to this question. This whole scenario is reflected in the Figure 5.



**Fig (5)** Willingness to use E-governance

#### 4.5. Online Services Residents Most Likely to Use

The research findings showed that people access the internet usually in order to look form on government information 35 percent, send e- mail or chat 65 percent, to look for government information 35percentandgeneralresearchinareasofpersonalinterest like learning 62 percent, Finally to shop online 18 percent .But in case of government wants to make the services accessible online, which one will be most likely to be used by citizens?

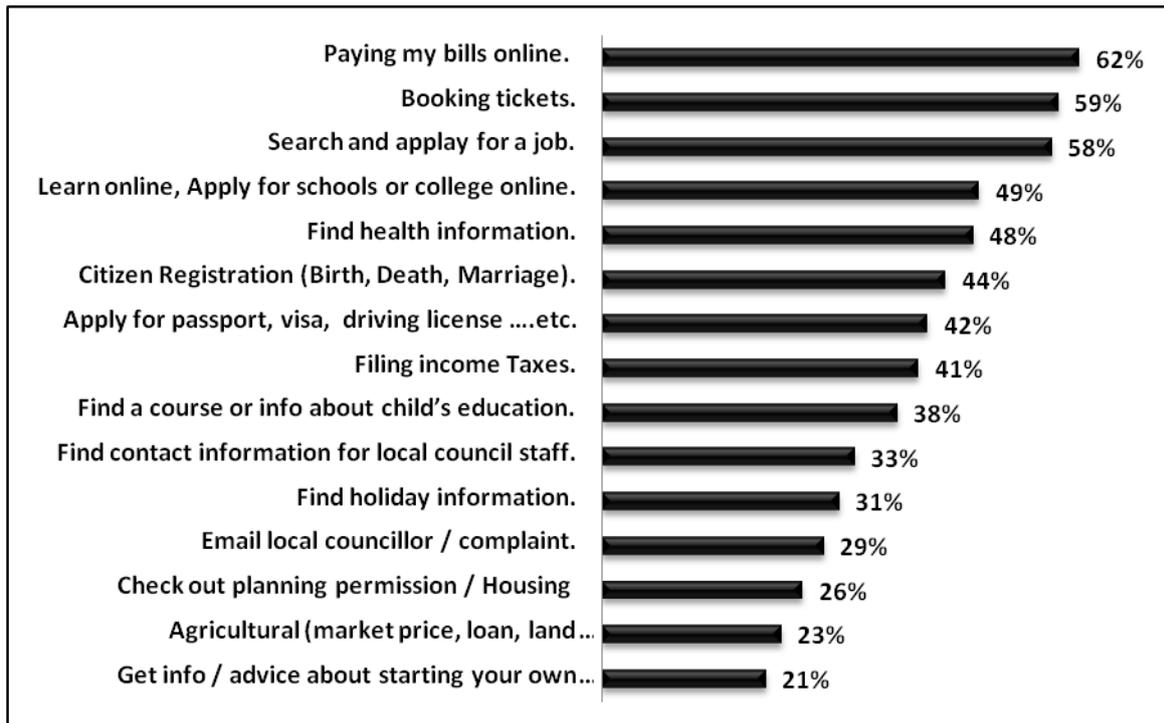
The answer in Figure6, residents are most likely to use the internet to search for information and transaction based exercises. Also residents said they are most likely to conduct online transactions including: paying the bills online (most preferred),followed by booking tickets (61percent and59 percent respectively),searching for a job online and applying to schools or colleges(58 percent and49 percent respectively).Around half would also use the internet to find health information(48 percent),Citizen Registration (Birth, Death, Marriage, name change) and finding contact details for local council staff(44 percent and 35 percent respectively).

While the least required to use are agricultural information, information about starting own business and check out planning permission. Conversely,3 percent of residents said they would not use the internet for any of the services listed in Figure 6.

The citizen is the key element in making any technological tool successful. So, the citizen plays a major role to make any technology tool useful or not through fully utilizing this technology. Since e-governance is one of the most important information technology tools available in our day to day life, it is essential that the citizen should possess a full knowledge about it. Any technological tool will be useful only when it is known how to use it, in terms of goals achieved and how they are utilized. To make the citizen aware of e-governance applications and how to

use and get the maximum benefit provided by these applications, the following points are very important:

1. The familiarity with technology used with the e-governance, like computer and internet.
2. Development of skills required to deal with e-governance.
3. Understanding and full awareness of how and when to use e-governance in solving the problem or create a chance.
4. Read the instructions of the applications of e-governance provided by the government.



**Fig(6)** Online Services which Residents Most Likely to Use

#### 4.6. *Opportunities for engaging with e-governance*

Some of the citizen could see the benefits of being able to access e-governance services. In a small number of cases citizens are already looking at the ways of actively promoting and increasing the usage of such services. The government agencies would provide support and guide people in finding information they need, encouraging them to do this on-line rather than having to access the services of various departments face-to-face or over the phone.

We suggest that awareness amongst internet users need to be raised and that e-governance could be promoted through posters in different places, TV campaigns and newspapers etc. However, the promotional tools need to be clear about what type of services might be available. We also suggest that the available services need to be very relevant to large groups of users if we are trying to encourage use of e-governance services, e.g. how to find information on childcare or registering your child at school. There also needs to be a reason for users to access

services on-line, e.g. it is quicker than contacting each service in person or by phone, or they might be able to access help with accessing these services in a less daunting environment. However, most citizens thought that users would still want a choice of ways to interact with public services, e.g. telephone and in person, and not just be limited to internet interaction.

The majority agreed that even if awareness was raised and training was provided there would be still a need for support to help people to navigate their way through information and use websites effectively, particularly where there are forms to be filled in. We suggest to have advice sessions on particular days where there would be a member of staff to sign post users in finding and using e-governance sites. This could be done on a generic basis or by theme in some centres that access e-governance services and training could be a practical link with these types of advice.

## **6. Conclusions**

This research study offers essential contribution to different stakeholders including the government agencies who would require adopting e-Governance to improve the relationship with its citizens. From the results of this research the government agencies could better understand in a simpler and detailed manner, the problems of low adoption. This could allow the formulation of a strategy that promotes awareness and diffusion. From the results of our study, it is clear that there is a demand to use the government services online. We identified a number of other key problems faced by citizens with regard to e-governance adoption and use. These can be grouped into two categories: technology related and awareness related. In terms of technology, the most important concern was a fear of technology. Citizens frequently encountered operational problems with their ICT, especially when they deal with financial issues like money transactions. So, they depend on others to do the job to avoid the risk. This dependency on consultants and professionals was often cited as a major problem. Turning to awareness issues, our study suggested that most of the citizens (internet users) not aware of the e-governance services and also sometimes they get these services somehow through counters, but without knowing that they may be available online and they can do it themselves. Here the government can play a major role to disseminate the information about such services and how it can be used. In summary, the study findings suggest that government need to think more strategically in relation to the use of ICT among the citizens to achieve the best results in an attempt to eliminate the aspects of digital divide. Agencies should increase the capabilities of their delivery mechanisms to address the ICT capability and information gaps identified in this age. To encourage the citizen to adopt and use the government services online, government should increase the level of awareness and usage of ICT among citizens. It also suggests that the awareness amongst internet users need to be

raised and that the e-governance could be promoted through posters in different places, TV campaigns and newspapers etc. However, the promotional tools need to be clear about what type of services might be available.

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