PERCEPTION STUDY OF E-GOVERNANCE IN THE CITIES OF THANE, MUMBAI AND NAVI MUMBAI IN MAHARASHTRA STATE (INDIA)

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Abstract: *The role of IT industry has gained substantial importance in every sector of the society. Similarly, the role of IT in Government is finally being acknowledged by all strata and segments of the society. E-Governance has assumed greater importance in terms of providing a result and delivery of services at the door-step. The importance is such that it helps in improving the overall quality of life of the population in that state. E-Governance has also brought in a lot of transparency and ease, streamlining the entire process through a single window. It has also reduced a lot of time and corruption as the applications are made digitally or online. There are many opportunities and challenges that a state can face while implementing and executing E-Governance. In this research paper, we intend to study the perception that people have about E-governance and about how effective its services are. Also, we intend to find the areas that the Government could work upon for increasing the awareness and usage of E-Governance services in the cities of Thane, Mumbai and Navi Mumbai.*

Key words: E-Governance, Digital India.

JEL Classification Codes: M30, O32.

1. INTRODUCTION

1.1 What is E-Governance

E-governance refers to the use of IT that have transformed relations with, businesses and other arms of government. These technologies have provided quality information in the most cost-effective manner.

E-governance has about 4 stages. In the first stage, e-governance means web presence of government services providing the public with relevant information similar to a brochure. The core benefit to the people is that the government is easily able to transfer the information through electronic media via internet and digital medium.

In the second stage, the interaction between government and the public, wherein public is able to access the system via internet and see all the necessary information. In fact, they're able to mail the system, access all the forms and get the necessary information. Similarly, government is also able to use the facilities of the intranet and transfer information at a faster rate.

In the third stage, with the increase in technological advancements, the value proposition to the customers and business is also high. The transactions can be done at the press of a button with services like filing income tax, filing property tax, extending/renewal of licenses, visa and passports and online voting. Third stage is complex due to security and personalization issues.

The fourth stage happens when all the other three stages work seamlessly and the information is disseminated to and fro between the government and customer. The complex aspect is making the people understand and getting them to use it while managing the apprehensions and their security concerns.

The public administration has drastically failed to respond to the changing requirements of the present times. The reason for this is the system that is rigid and it has laid too much emphasis on red-tapes and has shown zero creativity which stopped a lot of initiative. In addition to this, the focus has also been on following unnecessary rules and procedures while maintaining records through paper trails. Hence, the government moves at snail's pace at implementing the latest technology.

To be fair, India has introduced these measures or trends in 1990, but no sincere efforts have been taken by the Government to get the majority of population on board with the idea of E-Governance. There are a lot of challenges that E-Governance will have to overcome in India. Some of them are as listed below.

1.2. Challenges and difficulties in E-Governance

➢ Linguistic Diversity: India is an extremely diverse country and English is not the first language for majority of the population. Therefore, in spite of successful implementation of E Governance projects, not a lot of Respondents have been able to utilize the services. Also, because of cultural differences in different states, there are a lot of regional languages making it difficult to implement the project successfully in different languages.

➢ Low Awareness: Recognition of E-Governance projects is a major hurdle towards successful implementation because it is difficult to build trust amongst the citizens and encourage them to utilize E-Governance facilities.

➢ Ease of operation: Lower level of user-friendliness of a website discourages users from opting for such mediums, posing a critical challenge to successful implementation of E-Governance.

➢ Unavailability of the Internet: The success of E-Governance depends on its accessibility by anybody from anywhere and anytime. There are still parts of India that have limited access to the internet.

1.3 Opportunities of E-Governance

• Sports: The Department of Sports under Ministry of Youth Affairs and Sports seek to support development activities and programmers in the field of sports. Users can find a lot of information on the national policies and support organizations. Users can also find out a lot of training centers and places in the particular districts and states.

• Agriculture: E-Governance is extremely useful in the agricultural sector. It provides services to the entire community which is aimed at increasing crop productivity, reducing crop damage, improved livestock management and accessing government schemes. Currently, a lot of projects are based on agriculture like, Gyandoot, Bele, Agmarket, Seednet and Mustard Procurement Management System.

• Education: E-Governance can overall improve the efficiency and effectiveness of the overall Education system. It provides a lot of new ways of communicating with the students and innovative ways of imparting knowledge to them. Some of the current projects on education are Cascet, AISES, CAPnic and VHSE Examination Management System.

• Power and Energy: As of today, some 600 million Indians do not have access to electricity and some 700 million use biomass as their primary energy resource for cooking. Yet, a lot of governments have come up with projects where online payment can be done along with applying for a new connection.

1.4. Objectives of study

1. To understand the level of awareness of E-governance services
2. To understand the problems encountered by the users operating the E-governance websites
3. To know the perception of citizens of Thane, Mumbai and Navi Mumbai about the E-Governance portal

2. LITERATURE REVIEW

A review of literature is essential to have the view of the larger picture of the total research done in the similar area by other researchers. It helps to familiarize with the work that has been done in that area eliminates the possibility of unnecessary duplication of efforts and helps improvising valuable information on research techniques. The review has been divided under two categories for brief overview of the similar researches done in the past.

Some studies have been conducted in the past on E-Governance to understand the problems and issues on E-Governance. A brief review on some of the problems as well as the gaps has been presented below:

Kalsi, Kiran and Vaidya (2009) studied the effect of E-Governance and also highlighted the implementation of E-Governance projects in India in various other states. The research revolved around the factors that contribute to good governance through the use of Information Technology/E-Governance. The paper also showed a lot of initiatives taken by the Government of India in different states and how successful or moderately successful those initiatives have been. The research methodology included a questionnaire based on five – point Likert scale.

The paper outlines the three main contributors to good governance: improving government processes (e-Administration); connecting citizens (e-citizens and e-services); and building external interactions (e-society).

Bhiyana and Bharwal (2007) focused on the challenges on implementation of e-governance in India like Environmental, Economic and Technical. The conclusion was that the awareness among Respondents led to the failure of e-governance initiatives in various parts of India. The language barrier is the second reason why e-governance has not been able to do as well as it should have. Although, a lot of e-governance projects are now implemented in multiple languages for the ease of understanding of the users.

Mishra and Fatmi (2015) focused on India's e-readiness compared to different world leaders to find out areas of concerns and challenges and what are the initiatives taken by the government of India to overcome those issues. The research also talks about how developing a favorable environment and digitally skilled citizens pose a great challenge in achieving a fast and simple e governance in India.

Yadav and Singh (2012) have talked about the emergence of e governance in India giving the example of AKSHAYA initiative of Kerala government. The paper also talks about the countries other than India like USA, UK, New Zealand and their e governance initiative. The paper has also illustrated the major pillars and models of e governance. It also mentions about the sectors in which e governance has been implemented throughout the urban (transportation, bill payment, information services, municipal services, road and traffic management) and rural (agriculture, local information, disaster management, land record management) areas along with health and education sectors. The paper also proposes use of cloud computing and open sources as the future of e governance helping reduce the labor costs, thus providing organizational and technical benefits along with economic benefits.

3. RESEARCH METHODOLOGY

The study is based on Primary data as well as secondary data. The essential data required for the study was collected through survey method wherein respondents were asked a variety of questions regarding their awareness, usage and perception about the E-governance Services. These questions were asked through a structured questionnaire. We used Simple random sampling method and Sample size was 152. Scope of our study was limited to Mumbai, Navi Mumbai and Thane. The Likert scale method was the method used for scaling, along with various multiple choice questions.

The study was intended to gather information and interpret the results based on the variable like usage of internet and of E-Governance services, ease of payment options, improvement in transparency, reduction in corruption, and convenience in usage & level of promotion of G-governance services.

Analysis of secondary data helped us gain information on studies already conducted on E-governance. It also helped us to understand the E-governance services in India and abroad and also gave us a broad perspective in framing the questions to understand the perspective towards E-Governance services in Mumbai, Navi Mumbai and Thane.

4. DATA ANALYSIS

The data was analyzed to identify association between the variables using Chi-square tests. Different variables were checked for possible association with various demographic aspects such as the gender, age, occupation and education and also with other variables. If the significance value is lesser than 0.05, it indicates existence of a relationship between the variables that are being compared. Results of the tests conducted are as follows:

Table 1. Results of the tests

Variables Demography - Gender	(H0)Null Hypothesis	(H1)Alternate Hypothesis	Significance Value	Inference
Gender & Easy to make payments	Gender has no effect on perception of E-Governance providing easier payment options	Gender has effect on perception of E-Governance providing easier payment options	0.011	Gender has effect on perception of E-Governance providing easier payment options
Gender & E-Governance has improved transparency	Gender has no effect on perception of E-Governance having improved transparency	Gender has effect on perception of E-Governance having improved transparency	0.012	Gender has effect on perception of E-Governance having improved transparency
Demography - Age				
Age & Internet Usage	There is no significant relationship between age and internet usage	There is significant relationship between age and internet usage	0.001	There is significant relationship between age and internet usage
Age & E-Governance has improved transparency	Age has no effect on perception that E-Governance has improved transparency	Age has effect on perception that E-Governance has improved transparency	0.001	Age has effect on perception that E-Governance has improved transparency
Age & E-Governance is simple & convenient	Age has no effect on perception that E-Governance is simple & convenient	Age has effect on perception that E-Governance is simple & convenient	0.003	Age has effect on perception that E-Governance is simple & convenient
Demography - Occupation				
Occupation & Internet Usage	There is no significant relationship between	There is significant relationship between	0.003	There is significant relationship between

	occupation and internet usage	occupation and internet usage		occupation and internet usage
Occupation & Awareness E-Governance	There is no significant relationship between occupation and Awareness of E-Governance	There is significant relationship between occupation and Awareness of E-Governance	0.006	There is significant relationship between occupation and Awareness of E-Governance
Demography - Education				
Education & User-friendliness	Education has no effect on perception that E-Governance is User-friendly	Education has effect on perception that E-Governance is User-friendly	0.000	Education has effect on perception that E-Governance is User-friendly
Education & Easy to make payment	Education has no effect on perception that E-Governance is Easy to make payment	Education has effect on perception that E-Governance is Easy to make payment	0.000	Education has effect on perception that E-Governance is Easy to make payment
Education & E-Governance improves transparency	Education has no effect on perception that E-Governance improves transparency	Education has effect on perception that E-Governance improves transparency	0.001	Education has effect on perception that E-Governance improves transparency
Education & E-Governance is convenient	Education has no effect on perception that E-Governance is convenient	Education has effect on perception that E-Governance is convenient	0.000	Education has effect on perception that E-Governance is convenient
Awareness				
Awareness & Usage	Awareness about E-Governance has no impact on the Usage of E-Governance facilities	Awareness about E-Governance has an impact on the Usage of E-Governance facilities	0.000	Awareness about E-Governance has an impact on the Usage of E-Governance facilities
Awareness & Application forms are simple	Awareness about E-Governance has no impact on simplification of the application process	Awareness about E-Governance has an impact on simplification of the application process	0.000	Awareness about E-Governance has an impact on simplification of the application process
Awareness & Easy to make payments	Awareness about E-Governance has no impact on the perception of it offering convenient payment options	Awareness about E-Governance has an impact on the perception of it offering convenient payment options	0.001	Awareness about E-Governance has an impact on the perception of it offering convenient payment options
Awareness & E-Governance saves time	Awareness about E-Governance has no impact on the perception of E-Governance saving time	Awareness about E-Governance has an impact on the perception of E-Governance saving time	0.000	Awareness about E-Governance has an impact on the perception of E-Governance saving time
Awareness & E-Governance is convenient	Awareness about E-Governance has no impact on the perception of E-Governance being convenient	Awareness about E-Governance has an impact on the perception of E-Governance being convenient	0.000	Awareness about E-Governance has an impact on the perception of E-Governance being convenient
Internet Use				
Internet Use & Usage of E-	Internet usage has no impact on the Usage of E-	Internet usage has an impact on the Usage of	0.023	Internet usage has an impact on the Usage of

Governance	Governance facilities	E-Governance facilities		E-Governance facilities
Internet Use & Mode of E-Governance service	Internet usage has no impact on the mode used by people to avail the E-Governance services	Internet usage has an impact on the mode used by people to avail the E-Governance services	0.031	Internet usage has an impact on the mode used by people to avail the E-Governance services
Internet Use & User-friendliness	Internet usage has no impact on the perception of E-Governance being user-friendly	Internet usage has an impact on the perception of E-Governance website being user-friendly	0.018	Internet usage has an impact on the perception of E-Governance website being user-friendly
Usage of E-Governance				
Usage of E-Governance & Mode of E-Governance service	Usage of E-Governance has no impact on the mode used by people to avail the E-Governance services	Usage of E-Governance has an impact on the mode used by people to avail the E-Governance services	0.037	Usage of E-Governance has an impact on the mode used by people to avail the E-Governance services
Usage of E-Governance & Tracking status of application is helpful	Usage of E-Governance has no impact on the perception of the Tracking Application feature being helpful	Usage of E-Governance has an impact on the perception of the Tracking Application feature being helpful	0.000	Usage of E-Governance has an impact on the perception of the Tracking Application feature being helpful
Usage of E-Governance & E-Governance not sufficiently promoted	Usage of E-Governance has no impact on the perception of E-Governance not being sufficiently promoted	Usage of E-Governance has an impact on the perception of E-Governance not being sufficiently promoted	0.000	Usage of E-Governance has an impact on the perception of E-Governance not being sufficiently promoted
Mode of E-Governance				
Mode of E-Governance & Government has done a good job	Mode of E-Governance has no impact on the perception of Government having done a good job	Mode of E-Governance has an impact on the perception of Government having done a good job	0.000	Mode of E-Governance has an impact on the perception of Government having done a good job
Mode of E-Governance & Easy to make payments	Mode of E-Governance has no impact on the perception of E-Governance having simplified the payment procedure	Mode of E-Governance has an impact on the perception of E-Governance having simplified the payment procedure	0.026	Mode of E-Governance has an impact on the perception of E-Governance having simplified the payment procedure
Mode of E-Governance & E-Governance not sufficiently promoted	Mode of E-Governance has no impact on the perception of E-Governance not being sufficiently promoted	Mode of E-Governance has an impact on the perception of E-Governance not being sufficiently promoted	0.019	Mode of E-Governance has an impact on the perception of E-Governance not being sufficiently promoted
Mode of E-Governance & E-Governance is convenient	Mode of E-Governance has no impact on the perception of E-Governance being convenient	Mode of E-Governance has an impact on the perception of E-Governance being convenient	0.044	Mode of E-Governance has an impact on the perception of E-Governance being convenient

5. FINDINGS

1. The perception of E-governance being easy to make payments and improves transparency is more among the males (44%) & (43%) as compared to the females (32%) & (31%) respectively.
2. Age group of 18-30 (34%), has the maximum number of daily users of Internet and lowest being in the age group of '50 and above' at 18%. Internet is seen to decrease with age.
3. Usage of E-Governance services is highest among the age group 18-30 (30%
4. E-governance services are used more frequently by the people engaged in private services (34%), followed by students (19%), self-employed people(7%), people engaged in government services(5%) and lastly retirees(4%) in that order.
5. The level of awareness about E-governance is found maximum among people who are Graduates (46%), followed by Post Graduates (33%) and is found to be least among the people who have only passed Std.10th (0.5%).
6. The perception of E-governance being easy to make payments, helps improving transparency, not sufficiently promoted, and convenient is highest among graduates at 42%, 29%, 40% and 44% respectively.
7. Increase is the awareness of E-governance, improves the perception of its website being user-friendly.
8. The perception of E-governance website being helpful increases with increase in awareness about E-governance.
9. The perception of agents at E-Seva Kendras being reliable increases with increase in Awareness of E-governance.
10. Increase is the awareness of E-governance, improves the satisfaction of users with the content of the website.
11. Increase is the awareness of E-governance, improves the perception of the application process being simple and about ease of making payments.
12. As awareness increases, the perception about 'Track application status feature' being helpful, of E-governance not being sufficiently promoted, E-governance reducing corruption, saving time and being convenient also improves.
13. Increase in frequency of internet use increases the Usage of E-governance services.
14. People who use internet daily prefer availing the government services through the E-governance website followed by using Eseva Kendras.

6. CONCLUSION

It can be concluded that the people in the age groups of 18-30 are more aware about the E-Governance and benefits of its services, whereas the awareness in the other age groups is limited. Also, we can see that, more than three-fourth of the respondents have found the websites user-friendly and believe that E-governance services are extremely cost effective and can curb corruption bringing in transparency in the system and in the transactions.

Indian government has also made a lot of efforts to provide the services to its citizens through E-Governance. Although, the government has been spending a lot of money but not a lot of people are aware about the services provided. Local language of the people of a particular area and privacy for the personal data of people are the main challenges which can thwart successful implementation of E-governance in India.

Following are the recommendations which we like to suggest increasing the awareness and usage of E-Governance:

1. Promote the E-Governance services among females to improve its awareness among them. This can be done by asking the HRs of companies to undertake programs to educate the employees about the E-governance facilities available. Also, Government could come up with TVCs which could be broadcasted on entertainment and regional channels popular among women.

2. Improve computer literacy and internet usage in the age group of '50 and above' and the people who are illiterate or less educated.

3. Efforts must be made to shift to availing government services through the E-governance websites.

4. Higher use of Social Media and personalized Emails can be made for creating awareness about the E-governance services. Also, other mediums like newspapers should be utilized in a better manner to create awareness about E-governance services.

5. Efforts must be made to make the E-governance website more responsive for glitch free experience.

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ANNEX: QUESTIONNAIRE

1. My Gender is A. Male B. Female	2. I belong to age group A. 18 to 30 B. 31 to 50 C. 50 and above	3. Education A. 10th B. 12th C. Graduate D. Post-Graduate E. Doctorate
4. My Occupation is A. Student B. Private Service C. Government Service D. Self Employed E. Retired	5. I use Internet A. Daily B. Once a week C. Twice a week D. Once a month	6. I use internet for A. Social Media B. Emails C. Browsing D. Ecommerce
7. I am aware of E-governance Services (www.mahonline.gov.in) A. Yes B. No	8. I have used E-governance services A. Yes B. No	9. I prefer the following mode to avail government services A. Government Office B. E-Governance websites C. Through an agent (E Seva Kendra)
10. If services were availed through an agent (E-SEVA Kendra) ➢ The Government has done a good job A. Strongly Agree B. Agree C. Neither Agree nor disagree D. Disagree E. Strongly Disagree	➢ The agent was reliable A. Strongly Agree B. Agree C. Neither Agree nor disagree D. Disagree E. Strongly Disagree	➢ The agent provided all information A. Strongly Agree B. Agree C. Neither Agree nor disagree D. Disagree E. Strongly Disagree
➢ The agent was helpful A. Strongly Agree B. Agree C. Neither Agree nor disagree D. Disagree E. Strongly Disagree	11. I have used the following E-governance services (select all relevant options) A. Age, Nationality, Domicile Certificate B. Birth/Death Certificate C. Caste Certificate D. Non Creamy Layer Certificate E. Resident Certificate F. Change of Name G. Application for Driver's license and vehicle registration H. Application for Ration Card I. Registeration of Shop and Establishment	12. Perception about E-governance services ➢ I find the site user friendly A. Strongly Agree B. Agree C. Neither Agree nor disagree D. Disagree E. Strongly Disagree
➢ I feel the site contains all the necessary information A. Strongly Agree B. Agree C. Neither Agree nor disagree D. Disagree E. Strongly Disagree	➢ The application forms on the website are simple A. Strongly Agree B. Agree C. Neither Agree nor disagree D. Disagree E. Strongly Disagree	➢ It is easy to make payments A. Strongly Agree B. Agree C. Neither Agree nor disagree D. Disagree E. Strongly Disagree
➢ Being able to track status of application is helpful A. Strongly Agree B. Agree	➢ E governance is not sufficiently promoted A. Strongly Agree B. Agree	13. Perception about Effectiveness ➢ E-governance has reduced corruption

C. Neither Agree nor disagree D. Disagree E. Strongly Disagree	C. Neither Agree nor disagree D. Disagree E. Strongly Disagree	A. Strongly Agree B. Agree C. Neither Agree nor disagree D. Disagree E. Strongly Disagree
➤ E- governance has improved transparency A. Strongly Agree B. Agree C. Neither Agree nor disagree D. Disagree E. Strongly Disagree	➤ E-governance Websites are more cost effective A. Strongly Agree B. Agree C. Neither Agree nor disagree D. Disagree E. Strongly Disagree	➤ E-governance Websites are more cost effective A. Strongly Agree B. Agree C. Neither Agree nor disagree D. Disagree E. Strongly Disagree
➤ E-governance saves time A. Strongly Agree B. Agree C. Neither Agree nor disagree D. Disagree E. Strongly Disagree	➤ E-governance is simple and convenient A. Strongly Agree B. Agree C. Neither Agree nor disagree D. Disagree E. Strongly Disagree	

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