

To Explore The Determinants Affecting The Adoption Of E- Governance Services Among Household Citizens

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Abstract:

The use of ICT (Information and Communication Technologies) is penetrating in every field. It is the ICT who has given a letter 'e' which means electronic. Today ICT has touched every federal, state, local, and nonprofit and private-sector organization with its broader objectives. ICT has the main objective to connect common people to the technology. The citizens are the main actors of any city which actually adopting ICT. ICT provides an opportunity to implement the theoretical concept into practicality. It is Municipal Corporation, which is purely dedicated for citizen of the city. Municipal Corporation is providing good governance to its citizen. e – governance being one of the important sources of information and communication technology to transform the competence, success, simplicity and answerability for the exchange of government, between government and various governmental agencies of National, State, Municipal and Local Levels, citizen and business to authorize citizen and also empowers citizens by giving right to access the information. This empirical paper presents citizens' behavior towards E-governance adaptation, scenario of e-governance in Municipal Corporation of city, various departments of Indore Municipal Corporation. This paper also critically evaluates key factors that influence e-governance service adoption; reviews the research methodologies.

Keyword: e-Governance, ICT, IMC, Internet, Citizen

Introduction

Governance means the process, rules and regulation which are used to organize the structure of city and their citizens. According to different researchers, books, magazines and web sites on governance, governance has different design and direction. Many articles shows that governance purpose and importance. The importance of understanding governance is highlighted by different reviewer is as follows:

Conceptually, governance (as opposed to “good” governance) can be defined as the rule of the rulers, typically within a given set of rules. One might conclude that governance is the **process** – by which authority is conferred on rulers, by which they make the rules, and by which those rules are enforced and modified. Thus, understanding governance requires an identification of the rulers and the rules, as well as the various processes by which they are selected, defined, and linked together and with the society generally ^[1].

The need for governance exists anytime a group of people come together to accomplish an end. Though the governance literature proposes several definitions, most rest on three dimensions: authority, decision-making and accountability. Governance determines who has power, which makes decisions, how other players make their voice heard and how account is rendered ^[2].

The use of ICT (Information and Communication Technologies) is penetrating in every field. It is the ICT who has given a letter ‘e’ which means electronic. ICT has the main objective to connect common people to the technology. The citizens are the main actors of any city which actually adopting ICT. ICT provides an opportunity to implement the theoretical concept into practicality. The Urban Local Government (ULG) body is also known as Municipal Corporation, which is purely for citizen of the city. Municipal Corporation is providing good governance to its citizen.

E-Governance' is a network of organizations to include government, non-profit, and private-sector entities. In E-Governance there are no distinct boundaries. The model for E-Governance is a one-stop portal, such as www.india.gov.in, where all Indian and NRI citizens have access to a variety of information and services. An ideal portal would be one for

employment where a citizen creates a profile and is presented with employment opportunities at the federal, state, local and non-profit organization level. E-Governance is not just about government web site and e-mail. It is not just about service delivery over the Internet. It is not just about digital access to government information or electronic payments. It will change how citizens relate to governments as much as it changes how citizens relate to each other.

Review of Literature

In this Literature review we focus on the effective reading and research by different researcher on e-governance. The concept of e-governance has its origins in India during the seventies. Many Business articles, popular, press, research paper by various vendors and consultants dominate the literature in this area. Many articles shows that e-governance importance and growth. Importance of understanding e-governance is highlighted by different reviewer is as follows:

Keohane, et. al. (2000), "Governance implies the processes and institutions, both formal and informal that guide and restrain the collective activities of a group. Government is the subset that acts with authority and creates formal obligations. Exclusively governments need not necessarily conduct governance. Private firms, associations of firms, nongovernmental organizations (NGOs), and associations of NGOs all engage in it, often in association with governmental bodies, to create governance; sometimes without governmental authority." It is clearly defined by above review E-Governance is going further to its boundary directly and indirectly in semi-government and private sector.

Michiel Backus (2001), E-Governance is more than just a government website on the Internet. He is defining E-Governance "The application of *electronic means* in:

- (a) The interaction between government and citizens and government and businesses, as well as in
- (b) Internal government operations to simplify and improve democratic,

government and business aspects of Governance.”

Malick and Murthy (2001), while agreeing with the World Bank perspective on e - government, observed that E-Governance is more than e-government – it is a precondition for good and transparent administration. It eventually implies provision of quality services to the citizens and stakeholders with diverse interests, administrative independence and managerial autonomy. It also requires reduction in controls, recognition for individual and organizational performance, ready and easy availability of all the resource through electronic media leading to open mindedness towards competition which would inculcate a sense of discipline among the public servants. It aims at making available and sharing information in a trusted environment of transparency in the conduct of business, translated into sharing of knowledge across the institutions, participating divisions, businesses, user groups and individuals.

Margetts and Dunleavy (2002), when governance becomes E-Governance, in other words, when the full range of government activities—internal processes, policy development and decision making, and services to citizens—are made available electronically, then the domains of control and the transaction zones may change dramatically. So it is quite clear that policies should be clear to public sector so that they could take more advantages from E-Governance.

Finger et. al. (2003) has suggested E-Governance is the combination of four aspects as levels, actors, functions and use of the NICTs. In other words, it is a dynamic concept, which implies the growing use of the new information and communication technologies for the three State's main functions (e.g. e-Government, e-regulation and e-democracy), increasingly involving non-state actors at levels other than the national one. So above researcher is giving new model to connect government with the business, city, private organization and citizens.

Objective

- To study the determinants affecting the e- Governance services among Households citizens.

Research Methodology

Sample

- In this study, a Random sampling technique will be used. Household's citizens of Indore City were taken for study to locate the determinants of E-Governance services offered on their website. A Sample size of 348 household's citizens was selected.

Data collection and Data Sources

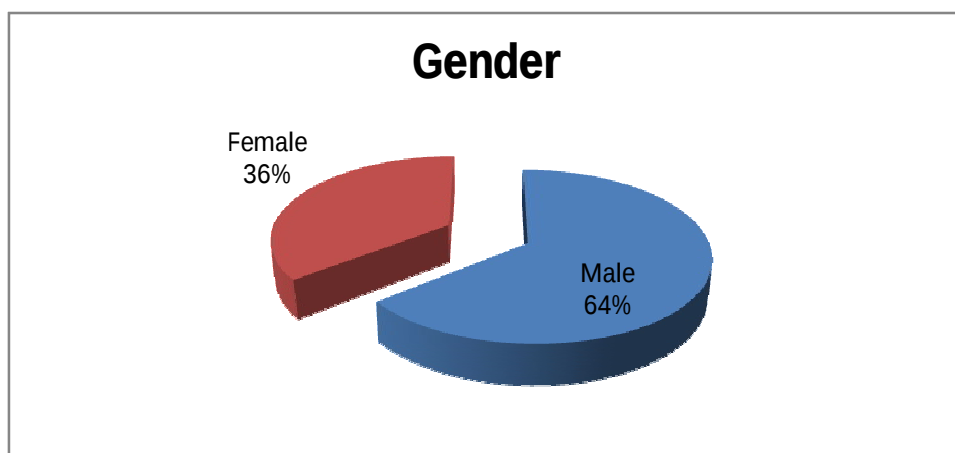
- Both primary and secondary data has been used to fulfil the above mentioned objectives. A structured questionnaire was circulated to the Households citizens of Indore city.
- **Primary data** collected through Structured questionnaire consisted of three sections:-
- **Section A** contains Demographic detail such as: City, Tenure of living in city, Gender, Age, Marital status, Profession, Educational Qualification.
- **Section B** contains 5 point Likert Scale (1 - Strongly Disagree (SD), 2 – Disagree (D), 3 – Neutral (N) 4 – Agree (A), 5 - Strongly Agree (SA)) contains 36 statements associated with E-Governance services of Municipal Corporation.
- **Secondary data** including work of earlier researchers, archival and online data sources.

Scale and Tools for Analysis

- Nominal Scale was being selected to be used in the study to import the collected responses in SPSS 20. Factor analysis tools used to explore the determinants affecting the adoption of e- Governance services among household citizens.

Details of Significant Results

Demographic variables	Category	No. of Respondents	Percentage
City	Indore	348	100.00%
Gender	Male	223	64%
	Female	125	36%
	Total	348	100%
Age	18-25	115	33%
	26-40	160	46%
	41-55	59	17%
	Above 55	14	4%
	Total	348	100%
Marital Status	Married	188	54%
	Unmarried	160	46%
	Total	348	100%
Profession	Business	108	31%
	Service	122	35%
	Self employed	66	19%
	Other	52	15%
	Total	348	100%
Education	H.Sc.	70	20%
	Graduate	115	33%
	Post Graduate	101	29%
	Other	62	18%
	Total	348	100%

Table 1: Demographic details**Interpretation:****Figure 1: Gender wise Distribution**

The classification based on Gender in the study comprises of 223 i.e. 64 % are of male category and 125 i.e. 36% under female category from the two cities under study.

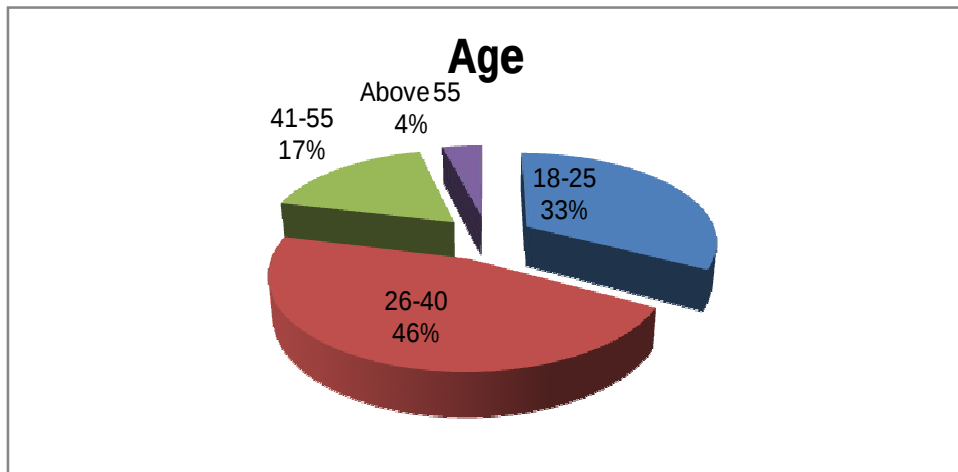


Figure 2: Age wise Distribution

The sample was a mixture of varied age group consisting of, 115 i.e. 33% of respondents in the category of 18-25, 160 i.e. 46% of respondents were in the category of 26-40, 59 i.e. 17% respondents were in the category of 41-55 and 14 i.e. 4% of respondents were in the category of above 55. The results indicate that the majority of the respondents were quite mature. 46% of respondents were under the age of 40. The largest group was made up of individuals between the ages of 18 and 40.

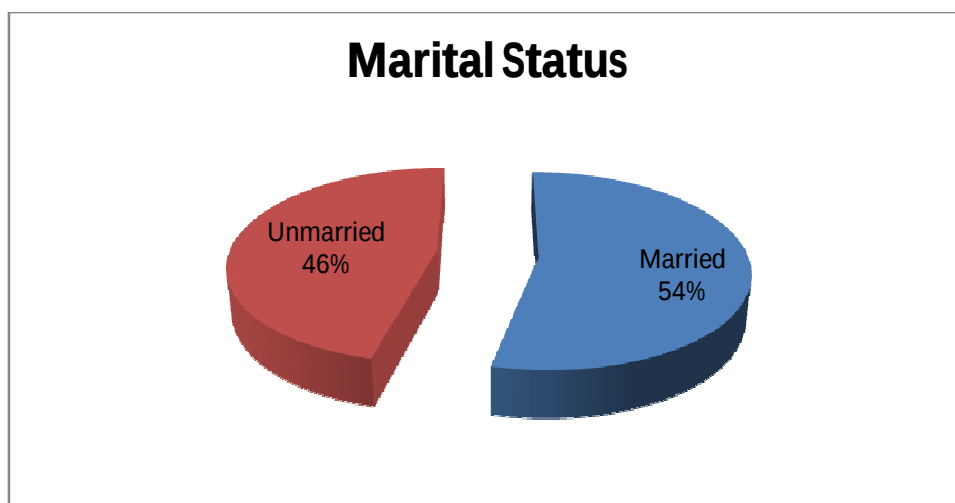


Figure 3: Marital Status wise Distribution

The classification based on Marital Status in the study comprises of 188 i.e. 54 % are married category and 160 i.e. 46% unmarried category from the two cities under study.

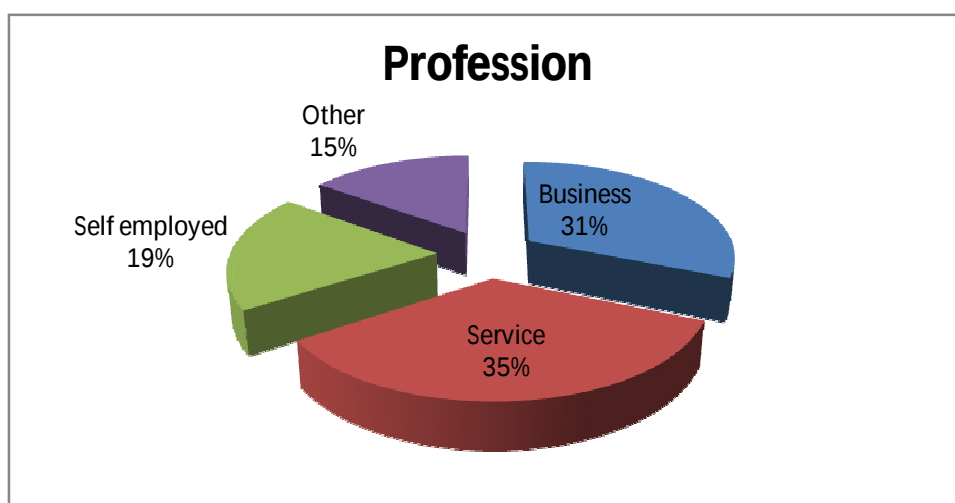


Figure 4: Profession wise Distribution

The sample was a mixture of varied Profession group consisting of, 108 i.e. 31% of respondents in the category of business, 122 i.e. 35% of respondents were in the category of service, 66 i.e. 19% respondents were in the category of self employed and 52 i.e. 15% of respondents were in the category of others. The results indicate that the majority of the respondents were in saturated job. The largest group was made up of individuals between the business and service.

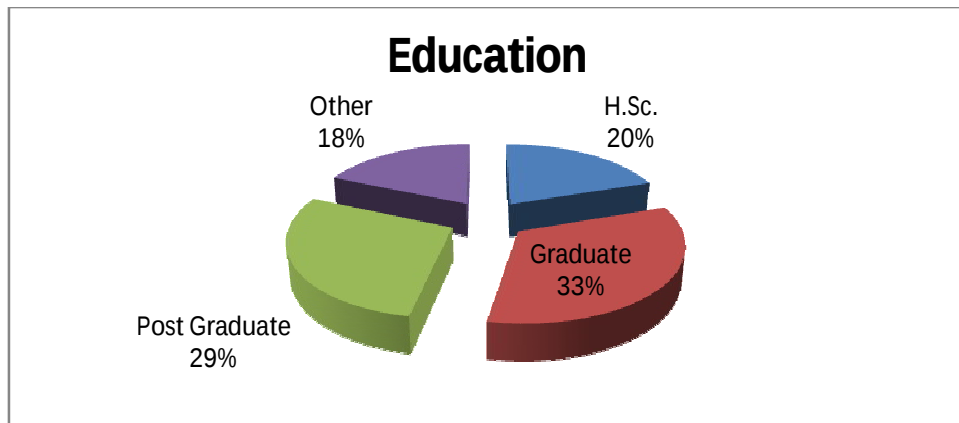


Figure 5: Education wise Distribution

The sample was a mixture of varied Education group consisting of, 70 i.e. 20% of respondents in the category of Higher secondary (H. Sc.), 115 i.e. 33% of respondents were in the category of Graduate, 101 i.e. 29% respondents were in the category of Post Graduate and 62 i.e. 18% of respondents were in the category of others. The results indicate that the majority of the respondents were in higher level education. The largest group was made up of individuals between the Graduate and Post Graduate.

Reliability test:

Cronbach's Alpha (α)	N of Items
0.886	36

Table 2: Reliability Statistic

The E-Governance scale was found to be a reliable for analysis with the present sample, as the value of coefficient of Cronbach alpha displayed was 0.886. Thus, the data is ready for factor analysis to explore the determinants affecting the adoption of e- Governance services among household citizens.

KMO measure of sampling adequacy & Bartlett's test of sphericity:

Table 3 displayed the KMO measure of 0.882 being above the threshold limit of 0.6. It also notifies that variables included in the study have a common variance; KMO value at higher side of this statistics i.e., within 0.5 to 1 indicates the data appropriateness for the factor

analysis. Barlett's test of Sphericity with sig. value of 0.0000 indicated that the sampling adequacy is significant at 1% significance level. The data was therefore considered suitable for a factor analysis.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.882
Bartlett's Test of Sphericity	Approx. Chi-Square	5949.723
	Df	630
	Sig.	0.000

Table 3: KMO and Bartlett's Test

Extraction Method, Principal factor axis:

All factors with eigen values below 1.0 were not reported in the results and can be seen as insignificant. Nine factors were found to have eigen values exceeding 1.0 and are extracted from Rotated component matrix. 9 factors explored from 36 variables, with individual and total load of each factor, and the percent of variance. All these extracted factors together account for 52.247 percent of cumulative variance.

FACTOR 1: Performance enhancement (3.913)

Performance enhancement was the first factor explored with combined load of 3.913. It includes transparency (0.658), quality of service (0.631), faster communication (0.610), empowerment (0.589), cheaper (0.535), re-designed (0.528) and decision making (0.361).

FACTOR 2: Amplify service quality (2.855)

Second factor was Amplify service quality with combined load of 2.855. It consists speed (0.600), quality (0.592), error free transaction (0.576), participation (0.558) and safely (0.529).

FACTOR 3: Effort less interface (2.379)

Third Factor predicted was Effort less interface with combine factor load of 2.379. It includes connect (0.749), easy to understand (0.661), save time (0.530), comfortable (0.439).

FACTOR 4: Standardization (2.807)

Standardized was revealed as fourth factor with combine factor load of 2.807. It merges five variables i.e. promptness (0.633), benefits (0.582), reliability (0.566), image (0.536) and response (0.490).

FACTOR 5: Assurance (1.719)

Fifth factor exposed was Assurance with combine factor load of 1.719. It includes three variable i.e. awareness (0.653), trust (0.593) and satisfaction (0.473).

FACTOR 6: Proficiency (1.26)

Sixth Factor came out as Proficiency with combine factor load of 1.26. It consists of two variables efficiency (0.704) and administrative burdens (0.556).

FACTOR 7: Relative Advantage (2.346)

Seventh factor revealed was Relative advantage with combine factor load of 2.346. It merges five variables i.e. user friendly (0.200), privacy (0.717), security (0.624), monetary costs (0.465) and corruption (0.340).

FACTOR 8: Competent (1.112)

Eight factor manifested was Competent with combine factor load of 1.112. It consists two variable easily available (.650) and accurate (0.462).

FACTOR 9: Perception (1.834)

Ninth factor marked as Perception with combine total factor load of 1.834. It contains three variables i.e. risky (0.743), social and personal contact (.625) and access (0.466).

Discussion**1. Performance enhancement**

Primary factor extorted as Performance enhancement with total factor load of 3.913, pressurized urban citizens to use E-Governance than traditional one. Literature also support the findings as E-Governance has a great potential to transform the citizen services' delivery, provide access to information to empower the citizens, enable their participation in government decision making/ monitoring process and enable inclusive access to economic and social opportunities **(Kalsi, N. S., & Kiran, R. (2013))**. For economically advantaged rural citizens, internet kiosks can also be a cheap alternative to migrating to towns or big cities for services that they can easily access online **(Kumbhar, M. A., 2012)**.

2. Amplify service quality

Amplify service quality was extracted as a second factor with total factor load of 2.855 influencing the Urban citizens for paradigm shift towards e- Governance from the traditional one. Urban citizens were staring towards Government websites that provide speed, quality and citizen's participation to developed good Governance. Furthermore, the website provides safely and error free transactions were the major concern in electronic services. The dawn of e- governance has offered new platforms and opportunities to enhance governance through improved efficiency, enhanced citizen participation, new services and strengthening of the global information infrastructure **(Bonham et. al., 2001)**.

3. Effort less interface

Effort less interface identified as a third factor with total factor load of 2.379, shifted urban citizens towards e- governance than traditional one. E-Governance is an evolutionary phenomenon, and requires a change in the mindset of one and all – citizen, executives or the government. With the support of the Internet, the government processes defined by specializations can be made efficient, effective, and citizen friendly **(Ranganath, 2013)**. E-government services offer people's transparency in the process of governance, such as time savings through efficient services; simplification of procedures; improved office management; and friendly attitudes of workforce **(Gauld et al., 2010)**.

4. Standardized

Standardized emerged as a fourth factor with total factor load of 2.807, swing urban citizens towards e- governance than traditional one. Online services of Municipal Corporation amplify Image, Promptness and Reliability on services delivered to the citizens. It also provides benefits and gives proper responses to citizens. E-Governance is the effective use of Information & Communication Technology to improve the system of governance that is in place, and thus provide better services to the citizens. Effective and prompt communication is necessary to make public awareness, knowledge, perceptions, and trust towards e- government services **(Teerling and Pieterse. 2009)**.

5. Assurance

Fifth factor recognized as Assurance with the total factor load of 1.719, moves urban citizens towards e- governance than traditional one. By Executing electronically the Services of Municipal Corporation; provides awareness of services to the citizens that surplus the trust of citizens and also increase their satisfaction level towards government services. E- government adoption can only take place, when people have a high level of trust both in government as well as in the Internet. Citizen's lack of awareness regarding benefits of e- government has contributed to the declining rate of e-government adoption **(Teo et. al. 2009)**. The E-Governance implication needs to make the trust of people. It needs to make sure that the data and transactions of the information are safe. Trust in cyberspace emerges as an important factor **(Sharma et.al, 2012)**.

6. Proficiency

Proficiency was considered as the sixth factor with the factor load of 1.26, directed urban citizens towards e- governance than traditional one. Implementing E-Governance concept increases efficiency in Municipal Corporation services and also reduces administrative burdens. The developed countries have immensely used information technology as a tool to achieve better governance that helped in reduction of costs and administrative burdens while increasing efficiency. It is changing the ways in which government does business with the public and, in the process, is creating demand for some form of participation from the citizen while reducing administrative burdens that can ensure good governance **(Ferdous,**

M.I. & Simu, T.H., 2012). The benefits of e-government, such as efficiency in delivering government services and information **(Phippen, and Lacrohé, 2006).**

7. Relative Advantage

Seventh factor measured as relative advantage with the total factor load of 2.346. Urban citizens were seen towards Government websites that endow with Security, Privacy, give user friendly environment and diminishes monetary costs and corruption that going on in Municipal Corporation. Literature findings also support that, security is an important issue for effective implementation and successful adoption of e-government system **(Nikkhahan et. al., 2009)**. Security as main concern for citizens and redefining rules and procedures, information transparency, access to right information etc are main concerns of government **(Shah, 2007)**. E-government services are believed to bring positive changes with businesses and public. As such, e-government services help to improve the competitiveness of business environment to create intelligent customers, helping businesses save time, enabling a good tool in dealing with corruption **(Gajendra et al., 2012)**.

8. Competent

Eighth factor Calculated as the Competent with total factor load of 1.112. Citizens are required that services given on Municipal corporation website are easily available and also their descriptions shown are accurate. A study conducted on website design revealed that accessibility is one of the elements required to design efficient and effective websites, beside other elements such as navigation, aesthetic and content. Accessibility influences the citizen's experience with websites and their satisfaction and adoption of new technology. Online service quality for e-Government could be measured in terms of quality of content provided on the website, the speed of the response to the citizens concerns with problem solving approach, and the availability of names **(Kumar et. al., 2007)**.

9. Perception

Perception is obtained as the ninth factor with the total factor load of 1.834. Municipal Corporation implemented their E-Governance along with new tools and technology but with some limiting factors. Execution and adoption of new thing always face resistance in any

System. As many urban citizens have perception that their personal information provide on the website is risky or they prefer to go in traditional way to office to make social and personal contact with employees or some would prefer to access website if more details are provide for any services. The successful implementation of e-government services is crucial for governments of developing countries (**Gupta et. al, 2008**). The success of e-government adoption depends on people (**Akman et al., 2005**). Some citizens may have a negative attitude towards electronic services and they would prefer to stay with traditional methods, which for most are the paper-based way (**Vassilakis, 2005**).

Conclusion

The advanced development in the ICT field has increased the interest in the citizen and their working style. The technology and digitized business communications have enhanced in the public life. More and more citizen and business has connected with Municipal Corporation for better life. They can know each available service in the municipal corporation without hesitation in online channel. Today online servicing is one of the most promising trends in the world and widely accepted by citizens of metropolitan city because online servicing enabling convenient, easy to get, transparent, time saving and 24*7 days on-demand fulfilling needs of common man. This freedom generates a term "Anywhere Anytime". These services are rapidly used by citizens. This requires minimal efforts to complete basic needs. Good governance is perhaps the single most important factor in eradicating poverty and promoting development. Therefore, governance is an exercise of power for steering social systems, as well as a process by which organizations are directed, controlled, and held to account to their society. It is a set of the systems and processes concerned with ensuring the overall direction, effectiveness, supervision and accountability of an organization. E-Governance involves new styles of leadership, new ways of debating and deciding policy and investment, new ways of accessing education, new ways of listening to citizens and new ways of organizing and delivering information and services.

E-Governance is the front line camera for public. This E-Governance proves about deduction and control on corruption in the country. By E-Governance Urban Local Bodies are becoming

more open with citizens and maintaining long term relationship with them. At certain level citizen need not to depend on any agent or intermediate person.

During the analysis of the study identified 09 array of factor of adopting e- Governance services; with the most pressing of them lying in strategy i.e. Performance enhancement, Amplify service quality, Effort less interface, Standardization ,Assurance Proficiency, Relative Advantage, Competent, Perception. In conclusion, the results of this study add to our knowledge about the multi-factorial nature of a relatively new field called E-Governance. Technological, organizational and human factors all appear to be equally important and to mutually influence each other during implementation. There are many aspects to use E-Governance services that it will assist complex technical functions, increase citizen's satisfaction, decrease process and administrative costs. Afar it can get various benefits such paperless and liberal applications. However, E-Governance is not subrogating traditional method but it will improve Government department activities.

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Website

[1] <http://web.worldbank.org>

[2] <http://iog.ca/defining-governance/>