

A Focus on Analysis of Working Knowledge of ICT Users in the E-Governance

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ABSTRACT

E-Governance is the top priority in Good Governance. E-Governance is the application of Information and Communication Technology (ICT) for delivering government services, exchange of information, communications, transactions, integration of various stand-alone systems and services. It is important in capacity building on ICT tools, so that the ICT users can address the public delivery system easily. A brief narration of this literature would like to discuss about the post implementation issues in E-Governance which focused on Working knowledge of ICT users in the E-Governance. It is compared between the Government and Quasi-Government, Officers and Staff, Male and Female and different age-group wise. This study of “Post implementation practical issues in working knowledge on ICT tools” of the employees of State Government of Tamil Nadu is discussed and evaluated on the basis of experience obtained from the ICT users which will be an useful background for stakeholders of E-Governance for State Government of Tamil Nadu.

Keywords: E-Governance, Working Knowledge, Word, Excel, Access, Writer, Calc, Internet Browsing, Government and Quasi Government.

1. INTRODUCTION

1.1 E-Governance

E-Governance is the challenge for under developing countries like India. The most important factor is computer literacy. E-Governance has been implemented in many of the states in the country but is it fully successful? The success rate is not satisfactory, since it has got so many issues. These issues to be addressed only then it can be successful. Tamil Nadu is one of the State of India. The common literacy rate is 74% and computer literacy is less than that. In general there is less awareness on E-Governance. As the E-Governance has been newly implemented, the ICT users are facing so many issues while operating the ICT tools. It is because of lesser working knowledge on ICT tools.

E-Governance is the top priority of Governments and societies worldwide; Kiran Bedi/Parminder Jeet Singh/Sandeep Srivastava (2001) Government @ net [6]. Through E-Governance, the government services will be made available to the citizens 24x7, in a transparent and speedy manner. In E-Governance there are no distinct boundaries. The E-Governance projects have gained appreciations and awards by different organizations and agencies. In practice, there are some issues that still exist, these are identified and listed: Lack of E-Governance

awareness, Capacity building, Mindset & Adoption of Technological changes, Lack of Standardisation, Reliability, Accountability, Local language support, Technological issues, Funding issues, Security issues, etc. Gonçalves, N. P. & Sapateiro, C. M. (2008). “Aspects for Information Systems. Implementation: challenges and impacts [8]

Every state Government has taken the initiative to form an IT task force to outline IT policy document for the state and the citizen charters have started appearing on govt. websites. Although, lots of efforts have been performed in the creation of infrastructure and internal information handling by govt. departments as well as public services, the diffusion of technologies in moving towards E-Governance have been rather slow. The following reasons have been identified:

- *Lack of awareness regarding benefits of E-Governance*
- *Lack of working knowledge on ICT tools*
- *Underutilization of existing ICT infrastructure*
- *Attitude of Government employees*

2. SCOPE OF THE STUDY

The study is conducted for the Government of Tamil Nadu which is one among the southern States of India. The Tamil Nadu state has 32 districts. Though there are several E-Governance projects that are implemented in Government of Tamil Nadu, the departments like Revenue, Police, Agriculture, Medical, Education, etc, are still have some practical issues which affects the E-Governance processes. This study has been focused to provide the solutions to address the issues. In fact, the officials of the Government are new to the Computer they are yet to use it comfortably with the adequate computer working knowledge. The main objective is to provide solutions for the above areas. This can be achieved by means of a proper and systematic training on the ICT tools to the Govt. Employees to improve E-Governance processes in Govt. offices, so that public delivery system will be improved in a speedy manner in online.

2.1 Objectives

- To assess the awareness and knowledge that will carry forward E-Governance for development.
- To assess the level of Working knowledge on ICT tools including Open Office software by employees of Government
- To find out the Gender difference, Age difference and Government & Quasi-Government difference in the level of Working knowledge on ICT tools.

3. METHODOLOGY

This study covers the Working knowledge on ICT software including Open Source software by employees of Government in E-Governance. A Questionnaire was designed after conducting pilot study. The questionnaire was canvassed among the samples. The Purposive sampling technique is used. The collected data were analysed by classifying and tabulating on the basis of the sub-categories of the samples, viz., Type of organization, Gender, Designation and Age. Since the study focuses the practical issues, the samples are formed from the Employees of serving in Government and Quasi Government offices. There are plenty numbers of samples have been collected out of which only 857 have been taken for analysis. The distributions of the sample based on sample sub-categories are given in the table under the sub-heading “Study”.

3.1 Related work

There are several research areas which give an important contribution for the basis of this study. Developed countries are studying Information System Implementation problems for a long time and now developing countries as well. Few of the related researches are listed below:

1. S.R.Das and R.Chandrashekar (2008) [1] were discussed that diversity in local laws, rules for transacting government business, implementation approach and responsibilities. Hence while designing the NeGP, GoI recognized the importance of building human capacities in terms of necessary knowledge and skills to conceptualize, initiate, implement and sustain E-Governance initiatives. It is equally important to foster an attitude and mindset that is receptive to ICT based administration and ICT based delivery of services. The Government recognizes that mere development of E-Governance strategies and induction of technology will not help deliver the quality of services envisaged unless human resources are aligned to provide the right services to the right customers from the right sources with the right tools at the right time. To achieve this, what is required is comprehensive capacity building across key areas relating to Policy Making, Institutional arrangements, Access to Professional expertise, Outcome monitoring. The Capacity Building amongst citizens could be done through mobilization of all relevant tools like Internet, cable TV, community/FM radio and the vernacular press. Combined with appropriate content, connectivity and Capacity Building measures the media can help in usher in higher awareness. Since India has opted for a model of assisted access, particularly in rural areas, building capacity amongst the service centre operators is a key area of attention. Educating citizens about their powers under the Right to Information Act is another dimension. It is now recognized that E-Governance has the potential to catapult India on the development path and to facilitate better quality public services in areas such as health, education, environment, provision of business services providing market prices and other information, e-trade opportunities, entertainment, e-banking, e-learning, digital photos, e-booking of tickets, internet linked services, etc.

2. Basu, S. (2004) [4] has elaborately discussed that the strategic objective of E-Governance is to support and simplify governance for all parties; government, citizens and businesses. The use of ICTs can connect all three parties, support processes and activities. In other words, in E-Governance, “electronic” means support and stimulate good governance. Therefore, the objectives of E-Governance are similar to the objectives of good governance. However, as regards to the objective of e-government a distinction should be made between the objectives for internally focused processes (operations) and objectives for externally focused services. The external objective of e-government is to fulfil the public’s needs and expectations satisfactory on the front-office side, by simplifying the interaction with various online services. E-Governance should be more than just a government website on the Internet.

3.2 Proposed work:

The proposed study mainly focuses on Working knowledge on ICT tools including Open Source software of employees of Government. As the India is a growing country and the public servants are new the Computers they are unaware of using the ICT tools and even Internet and email facilities. It shows that inadequate knowledge in ICT and in turn it affects the Public delivery system via ICT tools. Hence, to find out the issues and to provide the best solution, this study is proposed. Further, a Questionnaire was designed to collect data from Government employees. The coverage of the study is from Government and Quasi Government sectors. The sampling technique used is Purposive sampling. Since the study focuses the practical issues the samples are formed from the Employees of Government. There are plenty numbers of samples have been collected out of which only 857 have been taken for analysis. The distribution of the sample based on sample sub-categories like Type of Organisation, Designation, Gender and Age.

Architecture of the study carried out viz. E-Governance: Working knowledge on ICT users in the E-Governance

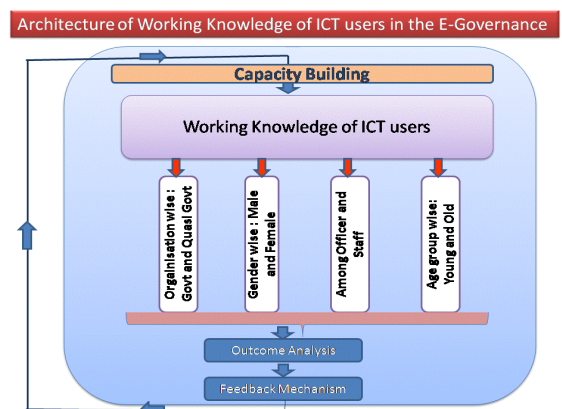


Figure-1

Figure-1 represents the analysis of Working knowledge on ICT tools including Open Office software by the employees of Government. Though the E Governance is implemented in many of the Government Departments, some practical issues still exists. Those issues have been analysed based on Working Knowledge and sub-categories like Type of Organisation, Gender, Designation and Age-wise.

Functional components are described below:

Working Knowledge of ICT Tools: This experiment is mainly to assess the Government Employees working knowledge on ICT tools. At the outset the Office tools like MS-Office and Internet, Email are very much important for intra and inter activities and ultimately for best public delivery system. Hence, to assess the working knowledge of Government Employees on ICT tools this analysis is carried out, so that the outcome can be addressed properly.

The Outcome Analysis will be fed into the **Feedback Mechanism** which can help us to address these issues with more precisely.

Feedback Mechanism is steering to implement the process of Reengineering. Systematic starting over and reinventing the way to address the practical issues and gets its work done. Michael Hammer and James Champy (in their 1993 book 'Reengineering The Corporation') is defined as "Fundamental rethinking and radical redesign of business process to achieve dramatic improvements in critical measures of performance such as cost, service, and speed." According to this theory the reengineering can be done in the appropriate time, so that our goal of the study will be achieved as targeted.

4. BRIEF ABOUT EXPERIMENTS

Though there are several analyses have been done on different perspectives, here we have presented only few selective analyses on the the working knowledge of MS-Office and Open Office, Internet browsing and emailing among the the Govt. sector and Quasi-Government sector; Male and Female; Officer and Staff; and Age wise were analysed.

4.1 STUDY: Analysis of working knowledge of ICT Users in the E-Governance

This study focus on Analysis of working knowledge of ICT Users in the E-Governance is conducted. The data are analysed on the variable like Working knowledge under the sub-categories Government and Quasi Government, Officer and Staff, Male and Female and Age-group-wise. Hypotheses are formed and various tests are administered. It is discussed in the following Table and Graph:

The working knowledge on Software packages like MSOffice, Open Office, Internet browsing and E-mailing of the samples has been graded 'Excellent', 'Good', 'Satisfactory' and 'Limited' with corresponding scores as 4,3,2 and 1.

The mean score secured by the samples are analysed in different dimensions.

In general there is a feeling that Quasi Government sector staff and officers have strong working knowledge on application software since their number is less compared to Government sector and their financial freedom to upgrade and train their staff and officers.

Table 4.1

Working Knowledge on MS Word by Type of Organisation					
Working knowledge mean score on MS Word					
Type of organization	Number of persons	Mean score	SD	t' value	p value
Government	542	2.62	1.07	1.11	0.27
Quasi_Government	44	2.43	1.02		

The difference in mean score is 0.19. Following hypothesis is framed to test the significance of the difference in mean score.

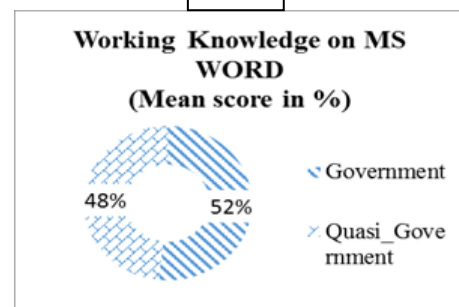
H_0 : There is no significant difference in Working knowledge on MS Word among persons from different type of organization.

Hence, 't' test administered to test the null hypothesis.

The calculated 't' value is 1.11. The corresponding 'p' value is 0.27. Since the p value is greater than 0.05, the null hypothesis is accepted at 5% level of significance. The difference in mean is not statistically significant.

Table 1 reveals that 68% of the sample is using MS-Word. Out of this 67% are from government sector while 86% are from quasi government sector.

Fig.4.1



It is inferred that working knowledge on MS Word is equal in Government and Quasi Government.

Table 4.2

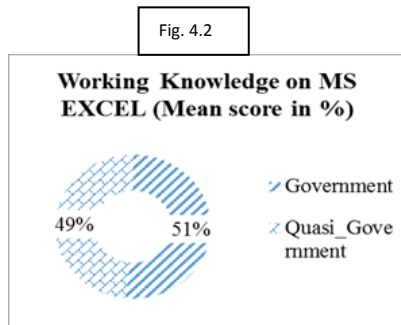
Working Knowledge on MS Excel by Type of Organisation					
Working knowledge mean score on MS Excel					
Type of organization	Number of persons	Mean score	SD	t' value	p value
Government	490	2.54	1.07	0.78	0.43
Quasi_Government	42	2.40	1.01		

The difference in mean score is 0.14. Following hypothesis is framed to test the significance of the difference in mean score.

H_0 : There is no significant difference in Working knowledge on MS Excel among persons from different type of organisation

t' test administered to test the null hypothesis

The calculated 't' value is 0.78. The corresponding 'p' value is 0.43. Since the p value is greater than 0.05, the null hypothesis is accepted at 5% level of significance. The difference in mean is not statistically significant.



MS-Excel is being used by 62% of the sample. The percentage share of government and quasi government sector is in the order of 61% and 82%.

It is inferred that working knowledge on MS Excel is equal in Government and Quasi Government.

Table 4.3

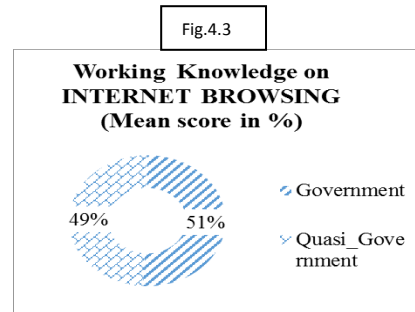
Working Knowledge on Internet Browsing by Type of Organisation					
Working knowledge mean score on IB					
Type of organization	Number of persons	Mean score	SD	t' value	p value
Government	463	2.46	1.06	0.49	0.62
Quasi_Government	35	2.37	1.03		

The difference in mean score is 0.09. Following hypothesis is framed to test the significance of the difference in mean score.

H_0 : There is no significant difference in Working knowledge on Internet Browsing among persons from different type of organization.

t' test administered to test the null hypothesis

The calculated 't' value is 0.49. The corresponding 'p' value is 0.62. Since the p value is greater than 0.05, the null hypothesis is accepted at 5% level of significance. The difference in mean is not statistically significant.



58% of the sample are having working knowledge of how to browse Internet. Out of this 57% are from government sector whereas 69% are from quasi government sector.

It is inferred that working knowledge on Internet Browsing is equal in Government and Quasi Government.

Table 4.4

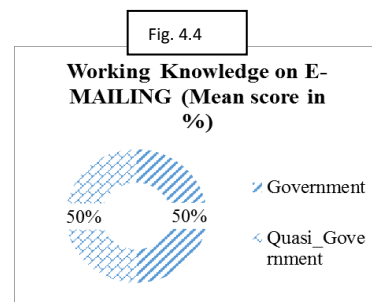
Working Knowledge on Emailing by Type of Organisation					
Working knowledge mean score on E_mail					
Type of organization	Number of persons	Mean score	SD	t' value	p value
Government	458	2.50	1.09	-0.06	0.96
Quasi_Government	33	2.52	1.03		

The difference in mean score is 0.02. Following hypothesis is framed to test the significance of the difference in mean score.

H_0 : There is no significant difference in Working knowledge on email among persons from different type of organisation

t' test administered to test the null hypothesis

The calculated 't' value is -0.06. The corresponding 'p' value is 0.96. Since the p value is greater than 0.05, the null hypothesis is accepted at 5% level of significance. The difference in mean is not statistically significant.



E-mail is being used by 57% of the sample. The percentage share of government and quasi government sector is in the order of 57% and 65%.

It is inferred that working knowledge on E Mailing is equal in Government and Quasi Government.

Table 4.5

Working Knowledge on Open Office Writer by Type of Organisation					
Working knowledge mean score on Writer					
Type of organization	Number of persons	Mean score	SD	t' value	p value
Government	144	1.90	1.05	-0.34	0.74
Quasi_Government	15	2.00	1.2		

The difference in mean score is 0.10. Following hypothesis is framed to test the significance of the difference in mean score.

H_0 : There is no significant difference in Working knowledge on OO Writer among persons from different type of organization.

t' test administered to test the null hypothesis

The calculated 't' value is -0.34. The corresponding 'p' value is 0.74. Since the p value is greater than 0.05, the null hypothesis is accepted at 5% level of significance. The difference in mean is not statistically significant.

It is inferred that working knowledge on Open Office Writer is equal in Government and Quasi Government.

Table 4.6

Working Knowledge on Open office Calc by Type of Organisation					
Working knowledge mean score on Calc					
Type of organization	Number of persons	Mean score	SD	t' value	p value
Government	142	1.89	1.03	-0.63	0.53
Quasi_Government	16	2.06	1.18		

The difference in mean score is 0.17. Following hypothesis is framed to test the significance of the difference in mean score.

H_0 : There is no significant difference in Working knowledge on Open Office Calc among persons from different type of organization.

t' test administered to test the null hypothesis

The calculated 't' value is -0.63. The corresponding 'p' value is 0.53. Since the p value is greater than 0.05, the null hypothesis is accepted at 5% level of significance. The difference in mean is not statistically significant.

It is inferred that working knowledge on Open Office Calc is equal in Government and Quasi Government.

It is presumed that Staff have more working knowledge on MSOffice, IB and E-mailing compared to Officers. Hence, the Tables generated to analyse the working knowledge of the Staff and Officers. Mean score on the working knowledge along with Standard Deviation calculated and presented in the tables.

t' test administered to test the Hypothesis framed.

Table 4.7

Working Knowledge on MS Word by Designation					
Working knowledge mean score on MSWord					
Designation	Number of persons	Mean score	SD	t' value	p value
Staff	510	2.60	1.07	-0.01	0.99
Officer	76	2.61	1.06		

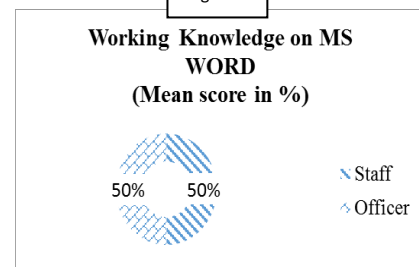
The difference in mean score is 0.01. Following hypothesis is framed to test the significance of the difference in mean score.

H_0 : There is no significant difference in Working knowledge on MS Word among persons from different type of designation.

t' test administered to test the null hypothesis

The calculated 't' value is -0.01. The corresponding 'p' value is 0.99. Since the p value is greater than 0.05, the null hypothesis is accepted at 5% level of significance. The difference in mean is not statistically significant.

Fig. 4.5



It is inferred that working knowledge on MS Word is equal among Staff and Officer

Table 4.8

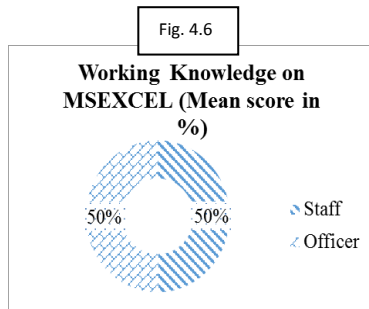
Working Knowledge on MS Excel by Designation					
Working knowledge mean score on MSExcel					
Designation	Number of persons	Mean score	SD	t' value	p value
Staff	466	2.53	1.08	-0.14	0.89
Officer	66	2.55	0.98		

The difference in mean score is 0.02. Following hypothesis is framed to test the significance of the difference in mean score

H_0 : There is no significant difference in Working knowledge on MS Excel among persons from different type of designation.

t' test administered to test the null hypothesis.

The calculated 't' value is -0.14. The corresponding 'p' value is 0.89. Since the p value is greater than 0.05, the null hypothesis is accepted at 5% level of significance. The difference in mean is not statistically significant.



It is inferred that working knowledge on MS Excel is equal among Staff and Officer.

Table 4.9

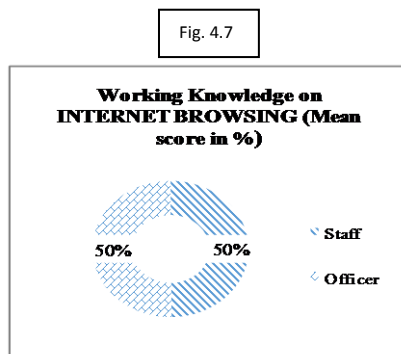
Working Knowledge on Internet Browsing by Designation					
Working knowledge mean score on Internet Browsing					
Designation	Number of persons	Mean score	SD	t' value	p value
Staff	434	2.45	1.07	-0.11	0.92
Officer	64	2.47	0.96		

The difference in mean score is 0.02. Following hypothesis is framed to test the significance of the difference in mean score.

H_0 : There is no significant difference in Working knowledge on Internet Browsing among persons from different type of designation.

t' test administered to test the null hypothesis

The calculated 't' value is -0.11. The corresponding 'p' value is 0.92. Since the p value is greater than 0.05, the null hypothesis is accepted at 5% level of significance. The difference in mean is not statistically significant.



It is inferred that working knowledge on Internet Browsing is equal among Staff and Officer.

Table 4.10

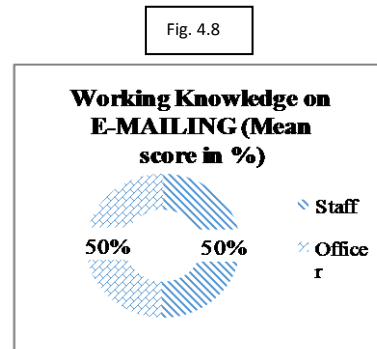
Working Knowledge on E mailing by Designation					
Working knowledge mean score on E-Mailing					
Designation	Number of persons	Mean score	SD	t' value	p value
Staff	429	2.51	1.11	0.29	0.77
Officer	62	2.47	0.95		

The difference in mean score is 0.04. Following hypothesis is framed to test the significance of the difference in mean score.

H_0 : There is no significant difference in Working knowledge on E Mail among persons from different type of designation.

t' test administered to test the null hypothesis

The calculated 't' value is 0.29. The corresponding 'p' value is 0.77. Since the p value is greater than 0.05, the null hypothesis is accepted at 5% level of significance. The difference in mean is not statistically significant.



It is inferred that working knowledge on E Mail is equal among Staff and Officer

Table 4.11

Working Knowledge on Open Office Writer by Designation					
Working knowledge mean score on Writer					
Designation	Number of persons	Mean score	SD	t' value	p value
Staff	134	1.91	1.06	-0.04	0.97
Officer	25	1.92	1.08		

The difference in mean score is 0.01. Following hypothesis is framed to test the significance of the difference in mean score.

H_0 : There is no significant difference in Working knowledge on OO Writer among persons from different type of designation

t' test administered to test the null hypothesis

The calculated 't' value is -0.04. The corresponding 'p' value is 0.97. Since the p value is greater than 0.05, the null hypothesis is accepted at 5% level of significance. The difference in mean is not statistically significant.

It is inferred that working knowledge on OO Writer is equal among Staff and Officer

Table 4.12

Working Knowledge on Open Office Calc by Designation					
Working knowledge mean score on Calc					
Designation	Number of persons	Mean score	SD	t' value	p value
Staff	132	1.89	1.04	-0.3	0.76
Officer	26	1.96	1.08		

The difference in mean score is 0.07. Following hypothesis is framed to test the significance of the difference in mean score.

H₀ : There is no significant difference in Working knowledge on OO Calc among persons from different type of designation.

t' test administered to test the null hypothesis.

The calculated 't' value is -0.3. The corresponding 'p' value is 0.76. Since the p value is greater than 0.05, the null hypothesis is accepted at 5% level of significance. The difference in mean is not statistically significant.

It is inferred that working knowledge on OO Calc is equal among Staff and Officer

Table 4.13

Working Knowledge on MS Word by Gender					
Working knowledge mean score on MSWord					
Gender	Number of persons	Mean score	SD	t' value	p value
Male	343	2.56	1.06	-1.11	0.27
Female	243	2.66	1.08		

The difference in mean score is 0.10. Following hypothesis is framed to test the significance of the difference in mean score

H₀ :There is no significant difference in Working knowledge on MS Word among Male and Female

t' test administered to test the null hypothesis

INTERPRETATION

The calculated 't' value is -1.11. The corresponding 'p' value is 0.27.

Since the p value is greater than 0.05, the null hypothesis is accepted at 5% level of significance

The difference in mean is not statistically significant

It is inferred that working knowledge on MS Word is equal among Male and Female

Table 4.14

Working Knowledge on MSExcel by Gender					
Working knowledge mean score on MSExcel					
Gender	Number of persons	Mean score	SD	t' value	p value
Male	312	2.49	1.05	-1.06	0.29
Female	220	2.59	1.08		

The difference in mean score is 0.10. Following hypothesis is framed to test the significance of the difference in mean score

H₀ :There is no significant difference in Working knowledge on MS Excel among Male and Female

t' test administered to test the null hypothesis

INTERPRETATION

The calculated 't' value is -1.06. The corresponding 'p' value is 0.29.

Since the p value is greater than 0.05, the null hypothesis is accepted at 5% level of significance

The difference in mean is not statistically significant

It is inferred that working knowledge on MS Excel is equal among Male and Female

Table 4.15

Working Knowledge on Internet Browsing by Gender					
Working knowledge mean score on IB					
Gender	Number of persons	Mean score	SD	t' value	p value
Male	295	2.47	1.05	0.31	0.76
Female	203	2.44	1.06		

The difference in mean score is 0.03. Following hypothesis is framed to test the significance of the difference in mean score

H₀ :There is no significant difference in Working knowledge on Internet Browsing among Male and Female

t' test administered to test the null hypothesis

INTERPRETATION

The calculated 't' value is 0.31. The corresponding 'p' value is 0.76.

Since the p value is greater than 0.05, the null hypothesis is accepted at 5% level of significance

The difference in mean is not statistically significant

It is inferred that working knowledge on Internet Browsing is equal among Male and Female

Table 4.16

Working Knowledge on E-mailing by Gender					
Working knowledge mean score on E-Mail					
Gender	Number of persons	Mean score	SD	t' value	p value
Male	294	2.47	1.10	-0.89	0.37
Female	197	2.56	1.07		

The difference in mean score is 0.09. Following hypothesis is framed to test the significance of the difference in mean score

H₀ :There is no significant difference in Working knowledge on E-mailing among Male and Female

t' test administered to test the null hypothesis

INTERPRETATION

The calculated 't' value is -0.89. The corresponding 'p' value is 0.37.

Since the p value is greater than 0.05, the null hypothesis is accepted at 5% level of significance

The difference in mean is not statistically significant

It is inferred that working knowledge on E-mailing is equal among Male and Female

Table 4.17

Working Knowledge on Open Office Writer by Gender					
Working knowledge mean score on OOWriter					
Gender	Number of persons	Mean score	SD	t' value	p value
Male	109	1.89	1.04	-0.39	0.70
Female	50	1.96	1.11		

The difference in mean score is 0.07. Following hypothesis is framed to test the significance of the difference in mean score

H0 :There is no significant difference in Working knowledge on Open Office Writer among Male and Female

t' test administered to test the null hypothesis

INTERPRETATION

The calculated 't' value is -0.39. The corresponding 'p' value is 0.70.

Since the p value is greater than 0.05, the null hypothesis is accepted at 5% level of significance

The difference in mean is not statistically significant

It is inferred that working knowledge on Open Office Writer is equal among Male and Female

Table 4.18

Working Knowledge on Open Office Calc by Gender					
Working knowledge mean score on OOCalc					
Gender	Number of persons	Mean score	SD	t' value	p value
Male	110	1.90	1.03	-0.09	0.93
Female	48	1.92	1.09		

The difference in mean score is 0.02. Following hypothesis is framed to test the significance of the difference in mean score

H0 :There is no significant difference in Working knowledge on Open Office Calc among Male and Female

t' test administered to test the null hypothesis

INTERPRETATION

The calculated 't' value is -0.09. The corresponding 'p' value is 0.93.

Since the p value is greater than 0.05, the null hypothesis is accepted at 5% level of significance

The difference in mean is not statistically significant

It is inferred that working knowledge on Open Office Calc is equal among Male and Female

Table 4.19

Working Knowledge on MSWord by Age					
Working knowledge mean score on MSWord					
Age	Number of persons	Mean score	SD	t' value	p value
Young	236	2.81	1.01	3.77	0.00
Old	350	2.47	1.09		

The difference in mean score is 0.34. Following hypothesis is framed to test the significance of the difference in mean score.

H0 : There is no significant difference in Working knowledge on MS Word among the age group of Young and Old.

't' test administered to test the null hypothesis

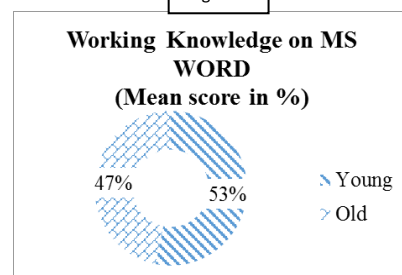
INTERPRETATION

The calculated 't' value is 3.77. The corresponding 'p' value is 0.00.

Since the p value is lesser than 0.05, the null hypothesis is rejected at 5% level of significance

The difference in mean is not statistically significant

Fig. 4.9



68% of the sample is using MS-Word. Out of this 80% are young employees while 64% belong to old age category.

It is inferred that working knowledge on MS Word is more in Younger age group than Older age group

Table 4.20

Working Knowledge on MSExcel by Age					
Working knowledge mean score on MSExcel					
Age	Number of persons	Mean score	SD	t' value	p value
Young	219	2.76	1.00	4.31	0.00
Old	313	2.36	1.08		

The difference in mean score is 0.40. Following hypothesis is framed to test the significance of the difference in mean score

H0 : There is no significant difference in Working knowledge on MS Excel among the age group of Young and Old.

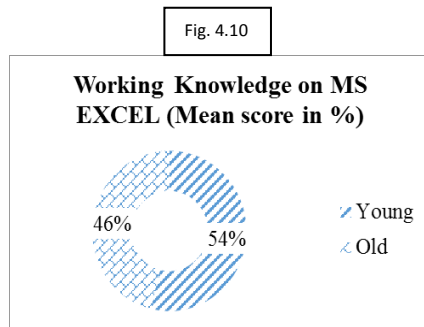
t' test administered to test the null hypothesis

INTERPRETATION:

The calculated 't' value is 4.31. The corresponding 'p' value is 0.00.

Since the p value is lesser than 0.05, the null hypothesis is rejected at 5% level of significance

The difference in mean is not statistically significant



MS-Excel is being used by 62% of the sample. The percentage share of young and old employees in government and quasi government sector put together is in the order of 74% and 56%.

It is inferred that working knowledge on MS Excel is more in Younger age group than Older age group

Table 4.21

Working Knowledge on MSPPT by Age					
Working knowledge mean score on MSPowerPoint					
Age	Number of persons	Mean score	SD	t' value	p value
Young	199	2.58	1.09	2.96	0.00
Old	248	2.28	1.08		

The difference in mean score is 0.30. Following hypothesis is framed to test the significance of the difference in mean score

H0 : There is no significant difference in Working knowledge on MS Powerpoint among the age group of Young and Old

t' test administered to test the null hypothesis

INTERPRETATION:

The calculated 't' value is 2.96. The corresponding 'p' value is 0.00.

Since the p value is lesser than 0.05, the null hypothesis is rejected at 5% level of significance

The difference in mean is not statistically significant

It is inferred that working knowledge on MS Powerpoint is more in Younger age group than Older age group

Table 4.22

Working Knowledge on MS Access by Age					
Working knowledge mean score on MSAccess					
Age	Number of persons	Mean score	SD	t' value	p value
Young	133	2.19	1.02	0.96	0.34
Old	197	2.08	1.04		

The difference in mean score is 0.11. Following hypothesis is framed to test the significance of the difference in mean score.

H0 : There is no significant difference in Working knowledge on MS Access among the age group of Young and Old

t' test administered to test the null hypothesis.

INTERPRETATION:

The calculated 't' value is 0.96. The corresponding 'p' value is 0.34.

Since the p value is greater than 0.05, the null hypothesis is accepted at 5% level of significance

The difference in mean is not statistically significant

It is inferred that working knowledge on MS Access is equal among the age group of Young and Old

Table 4.23

Working Knowledge on Internet Browsing by Age					
Working knowledge mean score on Internet Browsing					
Age	Number of persons	Mean score	SD	t' value	p value
Young	214	2.74	1.02	5.43	0.00
Old	284	2.24	1.03		

The difference in mean score is 0.50. Following hypothesis is framed to test the significance of the difference in mean score.

H0 : There is no significant difference in Working knowledge on Internet Browsing among the age group of Young and Old.

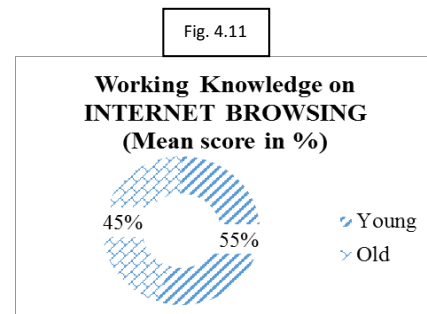
t' test administered to test the null hypothesis

INTERPRETATION:

The calculated 't' value is 5.43. The corresponding 'p' value is 0.00.

Since the p value is lesser than 0.05, the null hypothesis is rejected at 5% level of significance

The difference in mean is not statistically significant



58% of the sample are having working knowledge of how to browse internet.73% of young employees and 50% of old employees are browsing internet..

It is inferred that working knowledge on Internet Browsing is more in Younger age group than Older age group

Table 4.24

Working Knowledge on E-Mailing by Age					
Working knowledge mean score on E-mailing					
Age	Number of persons	Mean score	SD	t' value	p value
Young	212	2.79	1.04	5.24	0.00
Old	279	2.29	1.07		

The difference in mean score is 0.51. Following hypothesis is framed to test the significance of the difference in mean score.

H₀ : There is no significant difference in Working knowledge on E Mailing among the age group of Young and Old.

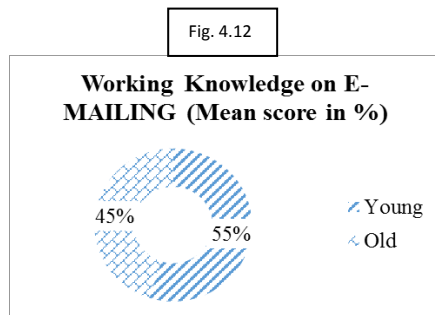
t' test administered to test the null hypothesis

INTERPRETATION:

The calculated 't' value is 5.24. The corresponding 'p' value is 0.00.

Since the p value is lesser than 0.05, the null hypothesis is rejected at 5% level of significance

The difference in mean is not statistically significant



E-mail is being used by 57% of the sample. The percentage share of young and old are in the order of 72% and 50% respectively.

It is inferred that working knowledge on E Mailing is more in Younger age group than Older age group

Table 4.25

Working Knowledge on Open office Writer by Age					
Working knowledge mean score on Writer					
Age	Number of persons	Mean score	SD	t' value	p value
Young	64	2.05	1.15	1.32	0.19
Old	95	1.82	0.99		

The difference in mean score is 0.23. Following hypothesis is framed to test the significance of the difference in mean score.

H₀ : There is no significant difference in Working knowledge on Open Office Writer among the age group of Young and Old.

t' test administered to test the null hypothesis

INTERPRETATION:

The calculated 't' value is 1.32. The corresponding 'p' value is 0.19.

Since the p value is greater than 0.05, the null hypothesis is accepted at 5% level of significance. The difference in mean is not statistically significant

It is inferred that working knowledge on Open Officer Writer is equal among the age group of Young and Old

Table 4.26

Working Knowledge on Open office Calc by Age					
Working knowledge mean score on Calc					
Age	Number of persons	Mean score	SD	t' value	p value
Young	62	2.02	1.12	1.07	0.28
Old	96	1.83	0.99		

The difference in mean score is 0.18. Following hypothesis is framed to test the significance of the difference in mean score.

H₀ : There is no significant difference in Working knowledge on Open Office Calc among the age group of Young and Old.

t' test administered to test the null hypothesis

INTERPRETATION:

The calculated 't' value is 1.07. The corresponding 'p' value is 0.28.

Since the p value is greater than 0.05, the null hypothesis is accepted at 5% level of significance

The difference in mean is not statistically significant

It is inferred that working knowledge on Open Officer Calc is equal among the age group of Young and Old.

Table 4.27

Working Knowledge on Open office Impress by Age					
Working knowledge mean score on Impress					
Age	Number of persons	Mean score	SD	t' value	p value
Young	63	2.08	1.15	1.48	0.14
Old	91	1.82	0.97		

The difference in mean score is 0.26. Following hypothesis is framed to test the significance of the difference in mean score.

H₀ : There is no significant difference in Working knowledge on Open Office Impress among the age group of Young and Old.

t' test administered to test the null hypothesis.

INTERPRETATION:

The calculated 't' value is 1.48. The corresponding 'p' value is 0.14.

Since the p value is greater than 0.05, the null hypothesis is accepted at 5% level of significance.

The difference in mean is not statistically significant.

It is inferred that working knowledge on Open Office Impress is equal among the age group of Young and Old

A consolidated study of Working knowledge are discussed below:

5. DISCUSSIONS

1. The samples were analysed based on the Age Group wise. The age groups were classified in to two groups, Upto 40 and above 40 viz. Young and Old. There is a phenomenal difference found among Young and Old. It is inferred that working knowledge on MS-Office software is greater in Younger age group than older age group.
2. In general, it is inferred that the Gender wise working knowledge on Office application software like MS-Word, MS-Excel, MS-Powerpoint, Internet Browsing and Emailing are equal among Male and Female.
3. It is inferred that the working knowledge of Office application software, Internet browsing and emailing among the Govt. and Quasi Govt. sector are equal.
4. It is inferred that the working knowledge of Office application software, Internet browsing and emailing among the Officer and Staff are equal.
5. The Government sector staff should be given more computer awareness by giving more training to them on various ICT applications.
6. It has been found that the Male staff are having greater knowledge of Computer than Female staff. Hence Female staff should be given enough training on IT and Office applications.
7. It has been found that Staff are using Computers more than Officers. Hence, the officers should be provided enough IT infrastructures and Capacity building is required.
8. It has been found that Older age group ie above 40 is having lesser ICT knowledge than Younger age group (≤ 40). The older age group is having sound knowledge of their routine works, only there is lack of ICT knowledge. Hence, it has to be addressed for the older age group by the way of Capacity Building on ICT, so that the productivity will be boosted.
9. Further the working knowledge of Open Office software among the Government and Quasi Government sector are equal and it has been found that it is not widely used.

6. SUMMARY OF FINDINGS AND SOLUTIONS

The overall issues of post implementation of E Governance are:

1. Working Knowledge of ICT tools between Younger and Older age group
2. Working Knowledge of ICT tools between Male and Female
3. Working knowledge of ICT tools between Officer and Staff
4. Lack of working knowledge on Open Office software.

In the study some of the key issues which are mentioned above are to be addressed with the following solutions.

1. In the study, the Younger age group is having more knowledge than Older age group in both Government

and Quasi Government sectors. It may be due the younger group are entering the job with the computer knowledge. Hence, to balance this issue the older age group should be given the periodic training on computer.

2. In the study, it has been found that Male is having more computer knowledge than Female. Hence, the Female should be given enough training to operate computers to execute the E Governance processes.
3. In the study, it has been found that Staff are using more Computer than Officer. The Officer should be encouraged to start using computers individually and their confidence level to be increased for which the officers should be given enough training on computer. Also the officers are the mentors for their organization, they must be given training on overall ICT which will help them to involve in E-Governance processes including purchase of software/hardware and Maintenance.
4. There is a lack of awareness of Open Office applications and it is not being used much in Government departments.

7. CONCLUSION

As noted elsewhere, too many current ICT projects seem to take an 'anywhere but government' approach. They focus on telecentres, telemedicine, schools, and e-commerce but not on the core activities of government. Yet government remains at the heart of the development process. Unless it can be reformed – and E-Governance has much to offer – then progress will be limited. Therefore use of ICTs to support government reform can be seen as a priority for E-Governance.

In general terms, priority human capacities for E-Governance are 'hybrids': those who understand the technology *and* the business of governance *and* the role of information in governance. Key implementation capacities to be developed for pilot projects would be likely to include:

- Capacity Building should be the high priority for attitudinal change since a key stumbling block to E-Governance is the lack of motivation amongst those involved. Such training should aim to speak to both 'hearts and minds'.
- Capacity to operate and maintain including Design/development/update information systems.
- Capacity Building on Open Office applications, so that the cost will be minimized.
- Secretaries of ministries must identify persons with an aptitude for computers and an ability to perform the role of leaders and mentors in spreading the ICT culture not only in the ministry but also in subordinate organization.
- School of E-Governance or its equivalent, would be likely to play a lead role in the training to develop human capacities.
- Marketing and publicity are integral parts of successful electronic government initiatives. Marketing and Publicity efforts should focus on creating brand awareness of the online presence.

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