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Assessing Efficacy of E-governance Services in improving Public Service Delivery: A Case Study of Punjab

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Abstract

India, being the world‟s largest democracy, has much to achieve from E-Governance, especially when citizen involvement in governance is concerned. Information and Communication Technology (ICT) is the backbone of E-governance. Its emergence has affected the functioning of government both at central & state levels. That‟s why it is important to understand the full potential of deploying ICT to improve the delivery of services. Information and communication technology in public sector can offer vital benefits such as better planning and monitoring of government procedures, improved effectiveness and efficiency in delivering public services, timely dissemination of information to the public.

This paper tries to examine the efficacy in terms of effectiveness, efficiency and equity and identifying the factors in connection to strengths, weaknesses, opportunities and threats of e-governance services. For this, 452 respondents from three major districts of Punjab i.e. Amritsar, Jalandhar and Ludhiana are considered for the analysis. Author concluded that respondents moderately agreed with different aspects of efficacy and there is lack of awareness of e-gov services among the respondents. Further author concludes that lack of funds and insufficiency of hardware and software are the major weaknesses while infrastructural incapability and insufficient power supply are the major threats of e-governance

Keywords: E-governance, ICT, Effectiveness, Efficiency, Equity, SWOT.

1. Introduction

E-Governance is the use of Information and Communication Technology (ICT) like the Internet, local area networks and mobiles by the government to improve effectiveness and efficiency in delivering services, guarantee quick dissemination of information. It helps in improved interaction between Government and citizens, government and businesses and government and other governments. The main objective of e-governance is to provide a friendly, efficient and affordable interface between Government and its people resulting in cost-effective and high-quality public service delivery.

Earlier people perceive the public services as cumbersome and time consuming. The first thought that comes in anybody‟s mind thinking about government services was long queues; lengthy processes and procedures. But now–a-days with the introduction of IT government services has developed and transformed into an e-enabled and simple, moral, accountable, quick, responsive and transparent services. Today e-Governance is not an option, but an important tool which enables citizen‟s participation in decision making and brings transparency by eliminating middlemen or agents between government and citizens. The use of technology has brought a revolution in the working style of the government.

2. Literature Review

Effectiveness of something is measured by the degree to which something is successful in producing a desired result. ICT means information and communication technology which aims at improving the connectivity through networks and disseminating information at a faster rate. Thus effectiveness of ICT is measured by improved connectivity between government and citizens successfully reaching the needy anytime anywhere.

Asgarkhani (2005) in his paper entitled “The Effectiveness of e-Service in Local Government: A Case Study” discussed about e-Technology that it has become a catalyst for enabling more effective government through better access to services. In this paper, he also discussed about some of the key aspects of electronic government and e-Service which examines the value and the effectiveness of e-Services within the public sector with a focus on four specific facets of effectiveness: the view of management and ICT strategists; social, cultural and ethical implications; the implications of lack of access to ICT; and the customers‟/citizens‟ view of the usefulness and success of e-Service initiatives. He concluded that technical innovation on its own is not enough to drive the development of effective e-Service.

Chee-Wee, Tan et al. (2008) tries to examine in their paper “Building Citizen Trust towards e-Government Services: Do High Quality Websites Matter?” the role of e-government service quality as a salient driver of citizens‟ trustworthiness beliefs towards e-government websites, which in turn promotes the corresponding adoption of public e-services. The data was collected from a sample of 647 e-government service participants and results thereby suggested that high quality e-government websites do matter in building citizen trust towards public e-services. This study accomplishes

several theoretical objectives and concluded that e-government websites should not only be designed as pure technological artifacts with functional properties but they must also incorporate sociological elements that cater to customers‟ social needs.

Rafia N., (2009) in her research titled, "E-Governance for Improved Public Service Delivery in Fiji" investigates the role of e-governance in improving service delivery by altering the principal-agent relationship. It further seeks to explain the quality aspects of public service. Author conducted a pilot study with sample size of 50 respondents from the most problematic city in terms of governance, i.e. Fiji. In Fiji, Viti Levu was selected as the main area of study. Research concluded a huge variance in the perception and expectation of normal citizens in the country regarding service delivery, quality of services that has negatively affected customer satisfaction over the number of years. Thus author suggested that there is an urgent need of strong leadership to implement e-governance in all public agencies in Fiji which further fade up the prevailing negative impact of principal-agent problem.

Ramessur (2009) in her Article on "E-Governance and Online Public Service: The Case of a Cyber Island" attempted to understand the effect of e-governance of a specific e-service (online application for learner‟s license) on service delivery in the Mauritian Public Sector. Author indicated that e-governance has improved the service delivery in terms of clearer information, speedy or fast process, improved and better quality, modernized service in terms of responsiveness and reliability. Still it has certain weaknesses in terms of dual processes physical as well as online, miscommunication and lack of options for feedback.

Malhotra, Chariar, Das (2011) in paper titled "Citizen-centricity for e-Governance initiatives in Rural Areas" focuses and discusses that E-Governance is expected to maximize citizen satisfaction by not just improving responsiveness of public service delivery mechanisms but also by increasing citizens‟ participation in governance mechanisms. There is a need for a design approach that is broader in perspective and not merely based on understanding of technological diffusion or acceptance parameters. It should explore the social, technical, administrative factors influencing an e-governance implementation with an objective of e- governance approach suitable to the rural citizens.

Basit, Suresh (2012) in the paper "Experimental Evaluation of Effectiveness of E-Government" analyzed the effectiveness of e-governance website through usability test on live website of Mysore district. Fourteen participants completed the test, where five tasks were given to each participant. The result was 33% for all tasks. It ultimately concluded that usability of the e-government website is a crucial factor that should be considered for improving effectiveness, efficiency and satisfaction in services to citizens and there is an urgent need to improve the interface design, search and navigation of e-government website to be more effective and usable for the citizens.

Bhatnagar, S. (2014) in his paper titled, "Public Service Delivery: Role of Information and Communication Technology in Improving Governance and Development Impact" analyzed some effective case studies from developing countries to identify the critical success factors for wide-scale deployment of ICT for improving governance. The author concluded that ICT increase the efficiency, speed, and transparency in delivery of services and assists in dissemination of information and both these aspects need to be exploited for the benefit of the poor.

Suri P.K (2016) in his Book entitled, "Strategic Planning and Implementation of E-Governance" states that the e-governance projects are not proving that too successful as it is hoped for. Author in his book discussed the importance of creating measures for analyzing expected results of various e-governance projects from governance perspective. Author identified the important variables for effectiveness of e-governance services viz. „Efficiency", „Transparency", „Interactivity" and „low transaction costs".

3. Research Methodology

The researcher has used the exploratory approach to explore the effectiveness, efficiency & equity of e-governance services.

3.1 Objectives of the Study

1. To examine the awareness level of state e-governance services of Punjab.
2. To evaluate efficacy of e-governance services in improving public service delivery in major three districts (i.e. Amritsar, Jalandhar and Ludhiana) of Punjab.
3. To assess various factors acting as strengths weakness opportunities and threats for e-governance services.

3.2 Sampling Design

The target population for the study was any individual of age 18 years and above. The sample was chosen from major three districts viz Amritsar, Jalandhar and Ludhiana from three regions of Punjab viz. Majha, Doaba Malwa respectively. These were selected on the criteria of largest populated district in their respective regions of Punjab. Sample size was taken with 95% confidence level. This research adopted stratified random sampling for the study.

Region of Punjab	**S. No.**	**Districts**	**Total population (as on census 2011)**	**Distributed Sample**	**Collected sample**
Malwa	1	Ludhiana	3498739	213	200
Majha	2	Amritsar	2490656	152	140
Doaba	3	Jalandhar	2193590	135	112
TOTAL			8182985	500	452

3.3 Data Collection

To achieve the research objectives the data was collected mainly through primary sources. The literature review provided the basis for developing a questionnaire. A self-designed questionnaire based on three and five point Likert scale were distributed to 500 individuals, of which, 452 were retained which were complete in every sense. 48 respondents turned to be incomplete and so the number was deleted from the survey.

3.4 Research Tools

Using Descriptive Statistics i.e. mean, standard deviation, skewness kurtosis, chi-square results researcher tries to examine the awareness level of e-governance services among the citizens of the state and conclude the efficacy of the services in question. Correlation among effectiveness, efficiency and equity is measured using SPSS software. Reliability analysis is applied to test the scale consistency of factors considered as SWOT of the concerned research study.

3.5 Hypothesis

H1: The respondents are aware bout the e-governance services of the state.

H2: The effectiveness of e-governance services of Punjab is not significant.

H3: The efficiency of e-governance services of Punjab is not significant.

H4: The equity of e-government Services of Punjab is not significant.

4. Findings & Discussion

4.1 Demographic Profile

The analysis reveals that majority of respondents belongs 18- 30 years of age group, followed by the age group of 31-50 (33%) and 51 and above (3.3%). The female composition (57%) of respondents is more than the males (42%).The researcher also attempted to examine the literacy by determining the qualification possessed by the respondents. It revealed that 14% of the respondents possessed Secondary certificate, while, 44% were undergraduate and 41% were post graduate. Similarly, the monthly income was expedited, which showed 53% of respondents fall in the category of Up to Rs. 25,000, 30% fall in the range of Rs. 25,000- Rs. 75,000 and 16% belong to the category of Rs. 75,000 and above. This depicts that majority of literate section of society is age group 18- 30 years, having moderate income are more inclined towards the e-governance practices. Details of the respondents profile are provided in table 4.1.1 below:

Table 4.1.1

Demographic characteristics		**Frequency**	**%age**
Gender	Male	192	42.5
	Female	260	57.5
Age (in years)	18- 30	285	63.1
	31-50	152	33.6
	51 & above	15	3.3
Level of Education	up to Secondary (+2)	67	14.8
	Up to Graduation	199	44
	Post Grad. & Above	186	41.2
Occupation	Student /Not Working	187	41.4
	Serviceman	95	21
	Professional	136	30.1
	Businessman	34	7.5
Monthly Income (Rs.)	Up to Rs. 25,000	242	53.5
	Rs. 25,000 - Rs. 75,000	137	30.3
	Rs. 75, 000 and Above	73	16.2

4.2 Awareness Level of e-services

A total of 13 different state e-governance services provided by Government of Punjab have been examined as depicted in table below. It has been tried to explore the awareness level of the respondents about these e-governance services provided by the state government. It has been found that the majority of respondents are aware about services like SUWIDHA, UID/Adhaar, School Education, Technical Education, Election, Police dial-100 etc. The mean in almost all of the services is less than 1 which signifies that the respondents are unaware about the services. However, there are certain services for which the awareness level is very low like National annual disease Reporting System, NPR (National Population Register) and Social Security etc. as depicted in table 4.2.1.

Table 4.2.1: Awareness Level of e-services

Services Availed	N		Mean	Std. Dev.	Frequency			
	Valid	Missing			Yes	%age	No	%age
SUWIDHA	452	0	0.84	0.36	381	84.3	71	15.7
UID (Unique Identity)/Adhaar	452	0	0.86	0.33	393	86.9	59	13.1
NPR (National Population Register)	452	0	0.31	0.46	144	31.9	308	68.1
School Education	452	0	0.68	0.46	309	68.4	143	31.6
Registration of property Document	452	0	0.43	0.49	198	43.8	254	56.2
Minority Welfare Scholarship	452	0	0.52	0.49	237	52.4	215	47.6
Social Security	452	0	0.35	0.47	160	35.4	292	64.6
Higher education	452	0	0.60	0.48	274	60.6	178	39.4
Technical education	452	0	0.60	0.48	274	60.6	178	39.4
Election	452	0	0.66	0.47	299	66.2	153	33.8
Police Dial-100	452	0	0.72	0.44	328	72.6	124	27.4
Medical Education	452	0	0.49	0.50	223	49.3	229	50.7
National annual disease Reporting System	452	0	0.16	0.40	70	15.5	382	84.5

Source: Data Complied through Questionnaire

4.3 Efficacy of E-governance in Punjab

The researcher aims to analyze the efficacy of e-governance services in chosen districts of Punjab i.e. Amritsar, Ludhiana & Jalandhar. For better understanding efficacy is sub categorized into three parameters: effectiveness, efficiency & equity. The analysis is detailed below:

Table 4.3.1 depicts that the mean, std. deviation, skewness, kurtosis and chi square values of all the parameters is above 2 except third party/agent involvement. Its mean is less than the standard mean score of 2 which implies that respondents feel that third party/agent involvement in the e-governance services has not much reduced as expected.

Table 4.3.1 Effectiveness in Services

	N	Mean	Std. dv	Skewness		Kurtosis		Chi Sqaure	Sig.
					Std. Error		Std. Error		
Accuracy	452	2.44	0.671	-0.81	0.115	-0.484	0.229	134.76	.000
Info. related to service given on time	452	2.41	0.620	-0.557	0.115	-0.605	0.229	141.04	.000
timely response to customer feedback	452	2.31	0.669	-0.474	0.115	-0.765	0.229	97.133	.000
citizen participation	452	2.25	0.708	-0.413	0.115	-0.946	0.229	65.115	.000
reliability in services	452	2.27	0.741	-0.488	0.115	-1.046	0.229	54.748	.000
Assurance	452	2.39	0.675	-0.664	0.115	-0.655	0.229	110.87	.000
Third party/agent involvement	452	1.97	0.724	0.044	0.115	-1.088	0.229	41.765	.000
transparency in complaint handling	452	2.27	0.693	-0.435	0.115	-0.874	0.229	76.916	.000

Table 4.3.2, 4.3.4, 4.3.6 discusses the relationship amongst different factors affecting the efficacy(effectiveness, efficiency and equity respectively) of e-governance services. Efficacy is the ability to produce the intended results. Therefore, assessing efficacy in the e-governance services will help to identify whether it‟s on the intended track or unable to fulfill its objectives.

For this, Zero order correlation has been applied to analyze the correlation amongst the different parameters of effectiveness. When ascertained the relationship amongst the said factors, the table revealed that the correlation among the factors are significant but not highly significant. It is due to unawareness among the respondents as depicted in table 4.2.1.

Table 4.3.2 Correlation (Effectiveness)

		Accuracy	Info. related to service is Given on time	Timely response to customer feedback	Citizen participation	Reliability in services	Assurance	Third party/agent involvement	Transparency in complaint Handling
Accuracy	Pearson Correlation	1							
	Sig. (2-tailed)								
	N	452							
Info. related to service is given on time	Pearson Correlation	.241**	1						
	Sig. (2-tailed)	.000							
	N	452	452						
timely response to the customer feedback	Pearson Correlation	-.020	.212**	1					
	Sig. (2-tailed)	.673	.000						
	N	452	452	452					
citizen participation	Pearson Correlation	.240**	.223**	.038	1				
	Sig. (2-tailed)	.000	.000	.425					
	N	452	452	452	452				
reliability in services	Pearson Correlation	.306**	.231**	.226**	.267**	1			
	Sig. (2-tailed)	.000	.000	.000	.000				
	N	452	452	452	452	452			
Assurance	Pearson Correlation	.226**	.456**	.135**	.197**	.290**	1		
	Sig. (2-tailed)	.000	.000	.004	.000	.000			
	N	452	452	452	452	452	452		
third party/agent involvement	Pearson Correlation	.104*	.041	.138**	.127**	-.035	-.045	1	
	Sig. (2-tailed)	.027	.382	.003	.007	.460	.341		
	N	452	452	452	452	452	452	452	
transparency in complaint handling	Pearson Correlation	.314**	.264**	.238**	.296**	.381**	.401**	-.050	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.287	
	N	452	452	452	452	452	452	452	452

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 4.3.3 depicts the mean, std. deviation, skewness, kurtosis and chi square values of all the parameters under efficiency. The mean of all parameters under efficiency is above standard mean score of 2 except waiting time. Respondents feel that they have to stand in long queues often. Waiting time in e-service centers has not improved to the desired extent.

Table: 4.3.3 Efficiency in Services

	N	Mean	Std. dv	Skewness		Kurtosis		Chi Sqaure	Sig.
					Std. Error		Std. Error		
Transaction cost	452	2.13	0.863	-0.259	0.115	-1.611	0.229	30.071	.000
waiting time/Long queues	452	1.79	0.842	0.409	0.115	-1.473	0.229	44.208	.000
clarity & simplicity of policies & procedures	452	2.47	0.643	-0.829	0.115	-0.372	0.229	153.748	.000
quickness in service delivery	452	2.38	0.660	-0.598	0.115	-0.661	0.229	113.580	.000

Similarly, when the relationship of factors of efficiency was examined, table 4.3.4 revealed that efficiency shows a significant correlation with reduction of transaction cost of services, clarity and simplicity of policies and procedures of the services and improvement in quickness of service delivery. But correlation is not highly significant as respondent feel that they have to still wait in long queue despite of services being online.

Table 4.3.4 Correlation (Efficiency)

		Transaction cost	Waiting time/Long queues	Clarity & simplicity of policies & procedures	Quickness in service delivery
Transaction cost	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	452			
waiting time/Long queues	Pearson Correlation	.370**	1		
	Sig. (2-tailed)	.000			
	N	452	452		
clarity & simplicity of policies & procedures	Pearson Correlation	-.105*	-.117*	1	
	Sig. (2-tailed)	.025	.013		
	N	452	452	452	
quickness in service delivery	Pearson Correlation	-.007	-.196**	.238**	1
	Sig. (2-tailed)	.880	.000	.000	
	N	452	452	452	452

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 4.3.5 depicts the mean, std. deviation, skewness, kurtosis and chi square values of all the parameters under equity. The mean of all parameters is above standard mean score of 2 except biased attitude. Respondents feel that employees discriminate on the basis of caste, creed, religion, color and gender in dealing with customers at e-service centers.

Table 4.3.5 Equity in Services

	N	Mean	Std. dv	Skewness		Kurtosis		Chi Sqaure	Sig.
					Std. Error		Std. Error		
Affordability of e-services	452	2.1372	.78157	-.245	.115	-1.325	.229	15.748	.000
Accessibility of e-services	452	2.4558	.66944	-.840	.115	-.437	.229	141.11	.000
biased attitude of the service provider	452	1.7854	.77400	.391	.115	-1.234	.229	32.288	.000

Similarly in table 4.3.6 when correlation of these factors under equity is studied, it revealed low significance only because the discrimination among the customers is still not reduced.

Table 4.3.6 Correlation (Equity)

		Affordability of e-services	Accessibility of e-services	Biased attitude of the service provider
Affordability of e-services	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	452		
Accessibility of e-services	Pearson Correlation	.334**	1	
	Sig. (2-tailed)	.000		
	N	452	452	
biased attitude of the service provider	Pearson Correlation	.023	-.003	1
	Sig. (2-tailed)	.624	.943	
	N	452	452	452

**. Correlation is significant at the 0.01 level (2-tailed).

4.4 Reliability Analysis

Table 4.4.1 Reliability Statistics

Cronbach's Alpha	No. of Items
.900	28

As depicted in table 4.4.1 the value of Cronbach alpha is more than 0.68 for all 28 statements, which suggest all items, are internally reliable.

4.5 SWOT

SWOT analysis helps an organization to identify its Strengths, Weaknesses, Opportunities & Threats. Analysis & awareness of these factors helps in strategic planning and decision-making of the organization.

Table 4.5.1 Strengths

	N	Mean	Std. dv	Skewness		Kurtosis		Chi Sqaure	Sig.
					Std. Error		Std. Error		
Getting quick and error free service	452	3.01	.720	-.270	.115	1.05	.229	550.83	.000
Customers get anywhere anytime services	452	3.15	.940	-.226	.115	-.411	.229	213.996	.000
Avoidance of discrimination among people	452	3.31	.862	-.180	.115	.047	.229	297.270	.000
Confidentiality of processed information of the customer	452	3.39	.880	-.147	.115	-.549	.229	254.018	.000
Low cost services with regional language support system	452	3.30	.872	-.040	.115	-.207	.229	274.416	.000
Receiving a fair and friendly treatment from employees	452	2.97	.893	-.211	.115	.256	.229	335.456	.000
Punjab ranks highest e-literacy	452	2.95	.968	-.205	.115	-.640	.229	186.496	.000

Table 4.5.1 shows the mean values of selected strength factors. In the respondents‟ opinion, e-governance system has provided confidentiality of their processed information and provided low cost services with regional language support system as the mean values for both the factors is highest than the standard mean score. On the other hand, respondents feel that they do not receive fair & friendly treatment from the employees as the mean score is comparatively less.

Table: 4.5.2 Weaknesses

	N	Mean	Std. dv	Skewness		Kurtosis		Chi Sqaure	Sig.
					Std. Error		Std. Error		
No clarity regarding the delegation of power	452	2.89	.829	-.272	.115	.410	.229	402.336	.000
Improper training to the employees	452	2.97	.884	-.030	.115	-.056	.229	281.451	.000
Lack of awareness	452	3.04	1.03	.216	.115	-.465	.229	167.381	.000
Lack of funds	452	3.20	.984	-.090	.115	-.645	.229	173.863	.000
Improper monitoring & maintenance	452	3.08	.942	-.225	.115	-.093	.229	242.292	.000
Insufficiency of hardware in e-service centers	452	3.17	.973	-.182	.115	-.298	.229	197.757	.000
Delay in software installation	452	3.15	1.01	-.095	.115	-.141	.229	221.606	.000

Table 4.5.2 shows the status of various weak factors. In the respondents‟ opinion, lack of funds with the govt. and insufficiency of hardware, delay in software installation are major weaknesses of the state as the mean values for these factors is highest than the standard mean score. Low clarity regarding delegation of power is not considered a major weakness in Punjab.

Table 4.5.3 Opportunities

	N	Mean	Std. Deviation	Skewness		Kurtosis		Chi Sqaure	Sig.
					Std. Error		Std. Error		
Growing e-literacy levels	452	3.13	.852	.001	.115	-.009	.229	309.305	.000
Computer knowledge and skills of employees	452	3.42	.893	-.249	.115	-.174	.229	256.650	.000
Training of Employees	452	3.43	.928	-.053	.115	-.157	.229	258.465	.000
Development of e-commerce, e-courier	452	3.40	.889	-.286	.115	.148	.229	280.920	.000
Creation of employment	452	3.25	1.050	-.166	.115	-.630	.229	133.155	.000
e-services under one roof	452	3.25	1.077	-.227	.115	-.598	.229	121.960	.000
Coordination among local, state and national bodies	452	3.21	.879	.113	.115	.229	.229	348.796	.000

Table 4.5.3 summarizes the opportunities factors of e-governance. Respondents consider training of employees and better computer skills are vital factors for growth in the state.

Table 4.5.4 Threats

	N	Mean	Std. dv	Skewness		Kurtosis		Chi Sqaure	Sig.
					Std. Error		Std. Error		
Infrastructural incapability	452	3.06	.945	.116	.115	-.526	.229	200.920	.000
Insufficient power supply	452	3.19	1.095	-.275	.115	-.426	.229	136.695	.000
Confidentiality issues	452	3.52	.961	-.037	.115	-.693	.229	190.677	.000
Inefficiency of technical staff	452	3.35	1.019	-.180	.115	-.248	.229	191.650	.000
Inflexible rules & regulations	452	3.31	1.037	-.185	.115	-.345	.229	166.385	.000
Financial issues of govt.	452	3.28	1.001	-.295	.115	-.406	.229	177.425	.000
Illiteracy level	452	3.45	1.181	-.381	.115	-.602	.229	93.708	.000

Table 4.5.4 summarizes major threats of Punjab state. But confidentiality issues and illiteracy level is a major concern in the growth of E-governance in the state.

5. Conclusion

The outcome of this study reveals that respondents were aware about few services like SUWIDHA, UID/Adhaar, Police dial-100 etc while awareness level was very low for majority of the services provided by the government viz. Medical education, Higher and technical Education, Election, National annual disease Reporting System, NPR (National Population Register) and Social Security etc. Therefore, rejecting the null hypothesis stating respondents are aware about the e-governance services.

E-governance aims at reducing the third party/agent involvement in the service delivery, while respondents feel that there is less change in this system. Majority of respondents agreed that they still have to wait for their turn in long queues at the e-service centers and service provider show biased attitude towards the customers. However, a few of them remained neutral in their responses. Respondents moderately agreed with different aspects of efficacy, it can be said that effectiveness of e-services was not negative, though not strongly positive also. Thus rejecting the H2, H3, and H4 null hypothesis stating the effectiveness, efficiency and equity of Punjab is not significant.

Futher, in the analysis it was concluded that the better and quicker service delivery, fair and friendly treatment from employees and working to improve e-literacy rate of the state can strengthen the E-governance movement at the state level. Lack of funds with the govt. and insufficiency of hardware, delay in software installation is few weaknesses of the state. Among the various opportunities improved computer knowledge and skills, employees training is must. Threats

like the infrastructural incapability, insufficient power supply are critical aspects government should look into.

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