

E-GOVERNANCE IN PUNJAB- A SWOT ANALYSIS

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Abstract:

The present study deals with impact, challenges, chances to grow and implementing precaution measures. Descriptive & inferential studies carried out with association of literature review. SWOT Analysis carried out based on the survey of 256 expert's opinion of various NIC/IT/department Heads as a pilot study. This study also reveals that what are the precaution measures which must be taken by the implementing agency while implementing new e-governance initiative. It may be observed review of literature that some pioneer work has been done by various researchers on ICT and good governance in developing countries including India. However, there is a need for comprehensive, integrated and holistic approach for achieving good governance using ICT as a tool.

Keywords: e-Governance, e-initiatives; impact analysis; SWOT Analysis, ICT.

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INTRODUCTION:

GOOD GOVERNANCE improves the process of decision making and the process by which decisions are implemented. Kaushik, P.P. and Nirvikar Singh (2004) explain Governance can be used in several contexts such as corporate governance, international governance, national governance and local governance. It encompasses the entire process of public administration, the process underlying the formulation of public policies, the Human Resource Development efforts required for re-engineering the government machinery, prioritization, and efficient management of public resources and above all redesigning the various instruments used to realize the concept of a welfare state.

The present investigation primarily aims to investigate the impact assessment of the Punjab state. It endeavors to evaluate impact of various e-Initiatives taken by the Government. The findings of this study are expected to be of paramount significance to a variety of groups such as: Government officials who are responsible for the e-Initiatives implementation in Punjab. The study as a whole is directed to meet the needs of this group by finding obstacles to adoption, proposing solutions and illustrating critical success factors. Officials and users from the public and private sector responsible for e-Initiatives like e-Governance and ecommerce. The key issue within the context of e-Initiatives is the delivery of e-Governance applications its citizen, which is the process of making available the use of e-Governance services for all types of users, in an efficient and convenient manner. The government can provide value by providing service delivery which consists of the location timing and manner by which it is distributed (Annamalai, Kuttayan and Sachin Rao, 2003).

Literature Review:

The potential of ICT in impacting the live of rural poor in a variety of ways is now being widely recognized. Recognition of the potential comes from a few successful tele-center pilots in some developed and developing countries. Ganes P. Sahu, Yogesh K. Dwivedi & Vishanth Weerakkody(2009) explains that e-government has become a global phenomenon through its use of Internet technologies as a platform for exchanging information, providing services, and transaction with citizens, businesses, and other arms of government. Jauhari, V. (2004) covers an

extensive range of critical areas that have one common them of questioning the accepted parameters of development from different angels influenced by multiple academic backgrounds. R P Sinha(2006) stressed that India in the last twenty years have seen dramatic increase in the development and the spread of information and communication technology along with the advent of the user friendly computing systems and networking. Vikram K. Chand(2006) focused on successful innovations in public service delivery in India and drawn lesions to initiate scaling up and replication. It documents and analyzes ten cases of innovation in service delivery across a range of sectors in India. Subhash C. Bhatnagar(2004) provides key insights and practical guidelines on: ways to successfully implement e-government projects; selecting application areas, project designs, strategies and their implementation; benefits and impact of e-government on public sector reform, poverty reduction and empowerment methodology for evaluating e-government projects; and overall strategy formulation. Akshay Joshi(2001) provides a holistic analysis of the impact of the information revolution on the three pillars of national power: political, economic and military power.

The central government has created full-fledged ministry called Ministry of Information and communication Technologies (MICT) (Pande, Amit S. (2003). The ministry is responsible for monitoring the development and use of IT in various facets of working and initiate steps to remove the bottlenecks, if any. To give further impetus to e-governance, a Center for Electronic Governance has been established in the MICT to coordinate the initiatives in e-Governance. According to National e-Governance Action Plan (2003-2007), government has approved a number of Mission Mode projects for implementation under the central government like income tax, passport, visa and immigration, insurance, National Citizen Database, central excise, pensions and banking. Under the State government mission mode list, which is to be finalized after consultations with States, the Action Plan envisages to take up land records, road transport, property registration, agriculture, treasuries, municipalities, gram panchayts, commercial taxes and police in union territories, initially for e-Governance activities.

E-Initiative's challenges:

There has been tremendous success of e-Initiatives in the country. In early 1990"s most of the states in India started implementing the e-Initiatives. Process SMART has been implemented in the Government of Andhra Pradesh in 1992. It focuses on Simple, Moral, Accountable, Reachable, and Transparent Principle for the successful implementation of e-strategies. Many states have successfully implemented e- Strategies there after. However, there are many implementing challenges in deploying the e-Initiatives. They are:

- Infrastructure capacity
- Compatibility with other IT systems/ databases/platforms
- Scalability of existing applications
- Information exchange mechanisms
- Geo referencing of assets
- Ability to carry out financial transactions
- The Span and reach of e-Initiatives may primarily focus on the following:
 - Various levels of administrative set-up from village/block to State/Central agencies
 - Non-governmental social agencies
 - Connecting citizens to the above agencies

The main purpose of developing e-Initiatives is to develop an effective, rapid, accountable and self-sustaining mechanism for the betterment of social service through multi-layered system. E-Initiatives are basically the concerns of governmental organizations which are to be utilized by the larger society for tackling major as well as day- to-day problems of ordinary citizens. The over all strategy for e-Initiatives is to develop methods to be used for the society using ICTs. The state of Punjab is engaged in this endeavor for the last about 15 years. It is high time for a proper investigation and the assessment of the impact of e-Initiatives of the state.

E-Initiatives in Punjab:

Punjab is a Agriculture based state & most of the population lived in villages, therefore by providing ease of use of the government services can help in improving their economic & social life. As per Dataquest-IDC DI e-Governance Satisfaction Study: Punjab ranked 16th on the basis of satisfaction level , However ranked 5th on the basis of e-readiness. Punjab government is implementing e-governance in a speedy manner. The main E-governance Programmes of Punjab State are as follows:

- **State Wide Area Network (SWAN)**
- **State Data Centre**
- **Common Service Centers**
- **Suwidha**
- **PRISM**
- **Vahan & Sarathi**
- **Agmarket**

Web Services: These informations/ services are being provided through websites

- a) Every District has its NIC Website containing all information about district.
- b) Official Website of Punjab Government
- c) Official E-Mail Server
- d) Interactive Passport Services
- e) National Informatics Centre ...etc

Objectives & Hypothesis:

- The present research work is to study the satisfaction assessment of various e-Initiatives of Punjab state with special focus on effectiveness and countable measures related to the

implementation. To address the objective, the following research questions have been undertaken:

- To describe and examine the attempts made by the State of Punjab with regard to e-Initiatives.
- To analyze and understand the perceptions of experts towards the effectiveness of e-Initiatives in Punjab.
- To know strengths/weaknesses and opportunities/threats among various e-initiatives in Punjab

H1: Expert usage of e-initiatives of Punjab govt. perceives that these services are highly effective.

H2: Punjab Govt. has enough strengths/opportunities for development of e-governance.

H3: Punjab Govt. has no threat/ weakness with respect to e-governance.

Research Methodology:

In order to attain the objectives of the study, the following research methodology has been followed. Preliminary investigation about the e-Initiatives of the state has been checked and the perceptions of the experts towards the effectiveness of e-Initiatives in Punjab have been analyzed through the following statistic techniques:

- Descriptive Statistics
- Inferential Statistics

Data Collection and Analysis:

Questionnaire on the e-Initiatives, Impact assessment of e-Initiatives in Punjab has been prepared. A scale named „Impact Assessment of e-governance in Punjab (IAP). IAP has been prepared for the study of e-Initiatives. The questionnaire contains the feedback of different e-Initiatives of the state covering IT awareness, infrastructure issues, effectiveness, and necessity of the programme to the grass root levels. It is a five point scale and contains 32 statements. Out of these 32

statements 16 statements are positive and 16 are negative statements. Scores on all the 32 items are added together and it fielded a score of the respondent in this scale. An individual score may be interpreted on the basis of IAP “The higher the score the more favorable is the perception of the respondent towards the effectiveness of e-Initiatives and the lower the score the less favorable is the perception of the respondent towards the effectiveness of e-Initiatives”.

Descriptive Statistics:

In order to understand the nature of the distribution of the scores of the IAP (scale) of the 256 sample respondents, the values of the relevant Descriptive statistics were prepared made known and these have been presented in table

S.No.	Statistics	Symbol	Value
1	Mean	M	62.25
2	Mode	Mo	59.56
3	Median	Mdn	60.47
4	Standard Deviation	SD	9.200
5	Standard Error of Mean	SEm	0.756
6	Standard Error of Median	SEmd	0.946
7	Standard Error of Standard Deviation	SEsd	0.536
8	Tenth percentile	P10	52.63
9	Twenty Fifth Percentile	P25	55.93
10	Seventy Fifth Percentile	P75	64.48
11	Ninetieth Percentile	P90	72.39
12	Skew ness	Sk	+0.633
13	Kurtosis	Ku	0.271

The values of Mean, Mode and Median are 62.25, 59.56 and 60.47 respectively. This shows that there is not a very large deviation in the values of these three central tendencies. The values of the Standard Errors of Mean, Median and Standard Deviation are 0.756, 0.946 and 0.536 respectively. These values are not very large and hence the values of the Mean, Mode and Median may be accepted as approximations of the values of the respective parameters. The distribution is slightly positively skewed as the value of Skewness is +0.633 in nature. The value of Kurtosis is 0.271. It means that the distribution is slightly leptokurtic in nature. On the basis of the above narration the nature of the distribution of IAP scale scores may be assumed to tend towards the shape of a Normal Probability Curve (NPC).

Inferential Statistics:

Values of t-ratios were computed to ascertain the significance of differences in the mean IAP scale scores of the following groups of the respondents:

- Educational qualification wise groups
- Gender wise groups
- Age wise groups

In addition to the above, percentage analysis was followed to find out the number and percentages of the respondents. The rejection /acceptance of a hypothesis is decided and determined on the basis of the significance/insignificance of the relevant statistics of 0.05 level of significance. The data is statistically analyzed using Statistical Package for Social Sciences (SPSS).

SWOT Analysis:

Based on various statistical tests applied on the collected data of pilot study, literature review and observations, expert's opinion analytical results related to strengths, weaknesses, opportunities and threats are as given below :

Strengths

- Higher per capita income
- Well built infrastructure
- People eager to learn Internet
- People eager to learn IT skills
- Internet will work as pull factor
- Literacy rate is consistently increasing
- Modern image
- e-Governance argument for external funding
- Transparency for businesses (procurement)
- e-Governance argument for external funding
- Combination with democratization
- Good Telecom and Mobile users
- Political reforms
- Computer education at school level

Internet as pull factor

Weaknesses

- Low IT literacy
- Language Barrier
- Lack of Budget
- Lack of cyber laws
- Slow decision making process
- Hierarchical structures
- Short term approach
- Public acceptance of self service
- Lack of Investors
- Shortage IT skills
- High cost of internet
- Heterogeneous data
- Lack of IT standards
- Software licenses
- Integration and reform

Models

Opportunities

- Increase in employment
- Education system will improve
- Open market for IT companies
- 2nd Hand Hardware available

- People get structural job
- Promotion of internet
- Higher cost efficiency
- PPP mode for technology outsourcing
- New business

Threats

- Influence of other culture
- Resistance of people
- Corruption
- Brain drain of IT skilled people
- Digital divide
- Privacy
- Dependency of technology

Conclusion & findings:

Based on research it is clear that the Punjab State has rich infrastructure, per capita income, healthy environment for growth of any business. These are the essential points for fast improvement of any new public policy/project. The economy of Punjab is a fast growing economy & its schools are already providing computer education in all government schools which will increase IT Literacy. There are some negative points in the progressive way of e-governance are digital divide, privacy, brain drain which are decrease the speed of implementing e-governance projects.

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