CHAPTER- 8

SUMMARY, CONCLUSION AND POLICY PRESCRIPTIONS

The main aim of this chapter is to summarize the major findings of the study and also set forth recommendations for improving the administration of e-governance in Chandigarh.

The chapter has been organized into four parts. Part I summarizes the rationale of the study. The review of literature; research gaps; scope of the study; objectives; hypotheses and research methodology have been dealt with in part II of the chapter. The part III covers the gist of the major findings. The last part of the chapter offers a set of policy prescriptions.

I

RATIONALE OF THE STUDY

In India, E-governance initiatives are playing a vital role in the fields of delivery of quality services to the citizens and administrative improvement. The expectations of the citizens, administration, business and the NGOs from the e-governance initiative are rising. E-Governance is also gearing up to meet the expectations of the different sectors. It is therefore, necessary to make an assessment regarding the e-readiness, impact of e-governance on the services as well as to find out the citizens perceptions about the quality of the services provided to them. It is in this backdrop that the present study has been undertaken.

II

REVIEW OF LITERATURE

With a view to comprehend various facets of the research problem and identify the limitations of the earlier studies, a review of several research
papers (67), and books (11) was undertaken. Major inferences from the review of literature are as under:

a) E-Governance has improved the quality of delivery of public services to the citizens and consequently has direct impact on the perception of the citizens towards the government system.

b) Most of the studies actually looked at the ways to study the quality of services.

c) Most of them confined themselves to some of the by-products of introduction of E-Governance in the Administration, such as navigability of a website, transparency, reduction in corruption, quick services, low cost, single window and quality of public services, etc.

d) E-Governance has put special emphasis on improvement of Citizen’s participation in government. It offers opportunities to the people for directly participating in political government discussions; further, citizens can contribute their own ideas and share their knowledge and information.

Hence, the perusal of literature has highlighted the role of E-government in the fields of services provision, improvement of administration and improving citizen satisfaction. Studies suggested that there is need for better implementation of e-governance initiatives in administrative processes in India.

**RESEARCH GAPS AND APPROACH FOR OVERCOMING THE RESEARCH GAPS**

The review of literature reveals that most of the earlier studies have focused on limited aspects regarding the e-governance such as e-governance policy and implementation, opportunities and challenges, corruption and citizen participation etc. but none of the earlier works has attempted to study the impact of e-governance on overall performance of the administration by focusing on the delivery of quality services, transparency, Corruption, accountability and citizen satisfaction. Further, the previous studies have not made an attempt to assess the e-readiness of the selected departments of the administration.
Keeping all these issues in view, the present study aims to study the e-governance policy of Chandigarh administration, e-readiness of the selected departments of the Chandigarh and related issues such as transparency, accountability, quality of services, time and cost saving, etc. In addition to these areas, this study also covered the citizen satisfaction level regarding the e-governance initiatives adopted by the Chandigarh Administration.

SCOPE OF THE STUDY

The period of the study covered the years between 2005 and 2010. The IT policy of the Chandigarh Administration was announced in April 2000 and it postulated that its objectives will be achieved by 2010. And the major e-governance project named e-sampark centres of the Chandigarh administration has also been started from September 2004.

OBJECTIVES OF THE STUDY

The study aims to examine

1. The E-Governance Policy of Chandigarh Administration.
2. The e-readiness of selected government departments in Union Territory, Chandigarh.
3. The level of satisfaction of citizens towards e-governance initiatives in Chandigarh Administration.
4. The impact of e-governance initiatives adopted by Chandigarh Administration on the quality of public services; and
5. Suggest suitable policy recommendations in the field of e-governance.

HYPOTHESES OF THE STUDY

The main hypotheses of the study are:-

1. The level of e-readiness is very low in the selected departments of Chandigarh Administration in comparison to the benchmarks.
2. E-governance has helped institutionalizing effective performance evaluation system.
3. E-governance has enhanced the revenues to the Chandigarh Administration.

4. With the introduction of e-governance initiatives, the provisions and quality of public services to its citizens has improved.

5. E-governance has led to simplification of rules and rationalization of procedure of the Chandigarh Administration.

6. The E-governance has brought transparency in the system, which has helped in checking the corruption.

7. E-Governance has made the system more accountable.

8. E- Governance initiatives have increased the level of citizen satisfaction regarding the provision of services in Chandigarh Administration.

**RESEARCH METHODOLOGY**

The study reviewed the Policy and Administration of E- Governance, and the citizen satisfaction regarding the e- governance implementation in Union Territory, Chandigarh. For this purpose, the major e- governance initiatives adopted by Chandigarh Administration are studied.

**Nature and Sources of Data:** Both primary and secondary data have been collected. The total sample size was 200. The primary data was collected by employing following data collection methods.

**Questionnaire:** Comprehensive structured questionnaires were administered to gauge the citizens opinions with respect to the services provided by the Sampark Centers of the Chandigarh Administration. The questionnaires were administered to selected respondents visiting the sampark centres, based on random sampling, in the sample, 25 users of services from each Sampark centers i.e. (Sector-15, 18, Manimajra, Industrial area Phase –1) Jan Sampark Centres (Sector 20) and Gram Jan Sampark Centres (Dhanas, Mauli Jagran, Kaimbala),

**Interview and informal Discussion:** Interview schedules were prepared for the officials of the selected Departments i.e. Department of Information
technology, Estate Office, Excise and Taxation and Chandigarh Housing Board in order to examine the level of e-readiness of their respective Departments. The five employees from each Department have been interviewed which included Departmental Heads, Programmers, Operators and Designers, for filling the interview schedule. The total 16 employees were interviewed from the selected departments. The interview schedule in case of e-readiness consists of four parts, namely IT policy, Department Computerization, human resource training and Government Process Reengineering. For the first part, Head of the Department was interviewed, computer operator was interviewed for second part, an officer detained by NIC was interviewed and computer programmer was interviewed of the fourth part. Informal discussions were also held with other employees and specially programmers, who designed and programmed the services.

**Observation Method:** Observation was employed to supplement the information collected in the field surveys. Strategic issues, such as delivery of services, timing of working hours at Sampark Centers, behavior of the dealing persons with citizens at Sampark centers, timing for providing services, availability of dealing persons, competence of dealing persons in terms of job handling were also observed.

**Secondary data:** Secondary data was collected from various sources, published and unpublished documents, articles records and annual reports of Department of Information Technology, Estate Office, Excise and Taxation and Chandigarh Housing Board. In addition, websites as a source of information were increasingly relied upon. Various plans documents were also used. Libraries and other relevant institutions were also visited to obtain necessary information pertaining to E-Governance.

**Data Processing and analysis:** Further, a coding sheet was prepared on the Statistical Product for Service Solutions (SPSS) package (Version 16.0) on the basis of the information collected through questionnaire. The collected data was coded on the master sheet. Frequencies and percentages were calculated from the grouped data and then cross tables were prepared and average weightage score test was used. For preparing the cross tables, the
data was classified into six categories, namely age, sex, education, occupation, income and area. Further, each of these categories were divided into different sub-categories. Age was categorized into four sub-categories: 16-30 years; 31 – 45 years; 46- 60 years and 60 years and above. On the basis of sex, the respondents were divided into two sub-categories: Male and Female. On the basis of education, the respondents were categorized into five sub-categories: illiterates; below matriculation; matriculation; higher secondary and graduates and above. On the basis of occupation, the respondents have been divided into four sub-categories: Government service; private service; student and any other (like Business men, Shopkeepers, Mechanics and Carpenters etc.). The parameter of income was categorized into four sub-categories: without income; below Rs. 5,000 per month; between Rs. 5,000 & Rs.10,000 per month and above Rs. 10,000 per month. For the purpose of study, the respondents of both the Urban and Rural area were studied.

**Scoring:** The satisfaction of people was measured on the basis of Likert’s 5-point scale i.e. Highly Satisfied, Satisfied, Neutral, Dissatisfied and Highly Dissatisfied.

III

MAJOR FINDINGS

Findings of the study are presented chapter-wise as under:-

CHAPTER- 2. E-GOVERNANCE IN INDIA

The chapter dealt with the theoretical aspects of e-governance. It discussed e-governance policies and initiatives taken by the Government of India. The chapter started with the background of the E-Governance in India and important recommendations of the Five Years Plans regarding E-Governance. The Tenth Five Year Plan recommended establishing E-Governance in a well-articulated manner to enhance efficiency in service delivery and functioning. Further, the Eleventh Five Year Plan focused on e-
transactions through the e- governance initiatives. The features and 31 Mission Mode Projects of National E- Governance Plan (NeGP) have also been discussed. The NeGP also covered, the State Wide Area Networking (SWAN) and The National/State e-Governance Service Delivery Gateway (NSDG/SSDG). Under the SWAN all the State Headquarters (SHQ), Block Headquarters (BHQ) and District Headquarters (DHQ) has also been connected with each other. For this, two SWAN implementation model has been adopted by the states/UTs, these are Public Private Partnership (PPP) and National informatics Centres (NIC). The National/State e-Governance Service Delivery Gateway (NSDG/SSDG) aimed to achieve a high order of interoperability among autonomous and heterogeneous entities of the Government (in the Centre, States or Local bodies), based on a framework of e-Governance standards.

Further, various E- Governance developments of the different States and Union Territories of India have also been studied.

CHAPTER-3. E- GOVERNANCE POLICY OF CHANDIGARH ADMINISTRATION

In this chapter, the profile of Chandigarh i.e. location, demographic pattern and administrative set- up etc. have been described. After the brief introduction of the profile of the Chandigarh, the Information Technology (IT) Policy has been discussed.

The IT policy has four main components (a) Information Technology Infrastructure (b) Development of IT Industries and Business (c) E- governance Policy, and (d) Human Resource Development (Training). Each component, further contains various sub- components. The Chapter analyzes the e- governance policy of Chandigarh Administration and found that the Administration has successfully accomplished the major objectives of its e- governance policy. The brief description of the e- governance policy is given in table 8.1.
Table 8.1

ANALYSIS OF E- GOVERNANCE POLICY OF CHANDIGARH ADMINISTRATION

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Indicators</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>E-Governance Committee</td>
<td>E- Governance Committee and E- Governance Task Force have been set up by Chandigarh Administration for successful e-governance implementation. The committee’s composition is available on the website. (<a href="http://chdit.gov.in/">http://chdit.gov.in/</a>), Chandigarh Administration has provided 22 G2C and 5 B2C services through 12 E-Sampark Centres. The centres not only provides the Online Transaction Processing through its centres and web-enabled portal but also is a major source of information dissemination. (see in detail in Chapter- 5) Another e-governance initiative is departmental single window system. This initiative helps the people in getting all the departmental information from a single window.</td>
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<tr>
<td>2</td>
<td>Departmental Plans:</td>
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<td></td>
<td>1. Excise and Taxation Department</td>
<td>1. Excise and Taxations, the department provides computerized and online tax collections. There is also online up to date information and Management Information System (MIS) availability to the department. The department has also prepared the computerized database of the dealers and issuance of licenses.</td>
</tr>
<tr>
<td></td>
<td>2. Education Department</td>
<td>2. Education Department: the department has computerised most of the education processes i.e. online admission forms, entrance test information, online results, online library access, and Ratio Frequency Identification (RFID) etc. Most of the Government advertisement and notifications have been published online.</td>
</tr>
<tr>
<td><strong>4. Estate Office</strong></td>
<td>4. Estate Office: various forms and related terms and conditions of the estate office are available online to the general public.</td>
<td></td>
</tr>
<tr>
<td><strong>5. Treasury</strong></td>
<td>5. Treasury: in the case of the most of the files have been computerized and most of the revenue has been collected through sampark centres.</td>
<td></td>
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<tr>
<td><strong>6. Police</strong></td>
<td>6. Police: the Department provides an application at Sampark centres through which the citizens can register tenants, servants online as well as in person. Sticker and poster challan payment have been done through the departmental single window. The Chandigarh Police has also implemented another e-governance initiatives i.e. CCTV, CCIS, Video conferences and MVCS etc. See for detail on the website:- <a href="http://chandigarh.gov.in/egov_dsc.htm">http://chandigarh.gov.in/egov_dsc.htm</a>.</td>
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</tbody>
</table>

| **3 Web site** | The Chandigarh Administration has its own web site (http://chandigarh.nic.in). Comprehensive information about Chandigarh including the IT policy of Union Territory Chandigarh, Profile of Chandigarh, Administration, map of Chandigarh have been made available on the web site. Interactive web sites have also been developed by all the departments of the Administration. The Department of Information Technology has also developed its own website (http://chdit.gov.in/), and the other department like CTU, Municipal Coroporation, District Court, State Consumer Disputes Redressal Commission, has also developed thier websites. |

| **4 Driving Licences and Registration** | A smart card based solution has been operational since 2000 for both Registration and Licencing. Subsequently SARATHI was implemented in July 2007 and VAHAN is shortly going to be implemented. (Source: http://www.nic.in/statepage?stid=20) |

| **5 Budget** | The budget for all these projects is to be drawn from the funds available with the Departments themselves. As per Government of India guidelines, 1 to 3 per cent of each Department’s Budget is to be allocated for e-governance. (Source: http://chdit.gov.in/sampark.htm) |
|   | **Accessibility** | The portal harnesses content from across the various departments of Chandigarh Administration and provides a common information platform. Although, the primary driver for the development of this solution is the need to have a single point of access for various applications of Chandigarh Administration, this portal has now become the face of the Chandigarh Administration. Some of the applications accessible through the portal are:
1. File Monitoring System
2. Court cases monitoring system
3. Meeting Manager
4. Rent Controller - Licence Fee Monitoring System
5. Integrated Schemes & Budget Monitoring System
6. Visitor Information System
7. Budget Monitoring System
8. Tenders and Quotations
9. The portal also provides access to
10. Press Releases
11. Telephone Directory
12. G2E Services
13. Calendar Service Important Links
14. Acts and Notifications
15. NIC-e Mail
(Source: http://www.nic.in/statepage?stid=20) |
<table>
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<tbody>
<tr>
<td></td>
<td><strong>LAN/WAN</strong></td>
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<td></td>
<td><strong>Government Notifications</strong></td>
</tr>
</tbody>
</table>
File Management

The e-file management has been established in Chandigarh. The services are classified into three categories:
1. Common services
2. Department specific
3. Important link
(Source: http://admser.chd.nic.in/portal/)

Awards

1. Winner of National Golden Icon Award for e-Sampark.
2. Winner of National Silver Icon Award for Best Government Website http://chandigarh.gov.in
3. Winner of the CSI-Nihilent Best E-Governed State/UT Award.
(Source: http://www.nic.in/statepage?stid=20)

Other Applications

And other application like Birth and Death certificates, Payment of electricity, water bills, and telephone bills etc. are provided through E-Sampark centres
(Source: http://chdit.gov.in/sampark1.htm)

The Table 8.1 shows that some of the departmental e-governance plans have been completed and some has been in process by Chandigarh Administration till 2012 i.e. websites of each departments, grievances redressal machinery of all the department, Departmental IT policy etc. The prize list also shows that Chandigarh administration has gained success in the implementation e-governance policy.

CHAPTER- 4. READINESS TOWARDS E- GOVERNANCE IN SELECTED DEPARTMENTS OF CHANDIGARH ADMINISTRATION

The chapter discussed the concept of ‘E-Readiness’. Firstly, the global and the Indian readiness ranking are discussed. At the global level, the United Nations E-Government Survey 2010 presented a comparative assessment of
the 192 United Nations Member States’. The main objectives of the survey are to

1. Assess the ability of the Member States’ to transform their governments functioning by using information and communication technologies;
2. Deliver online services and products to their citizens; and
3. Develop the benchmarks to monitor the advancement of governments in implementing e-government services.

In this survey, high-income countries enjoy the top rankings in the e-government development index. Among the top five countries in the 2010 United Nations E-Government Survey, the Republic of Korea received the highest score (0.8785), followed by the United States (0.8510), Canada (0.8448), the United Kingdom (0.8147) and the Netherlands (0.8097). India (0.3567) ranked very low i.e. 119.

In 2010 survey, in the South Asia, Maldives (0.4392) continues to lead this region, followed by Iran (0.4234), Sri Lanka (0.3995), and India (0.3567).

The Government of India has published its latest e-government readiness report in year 2008. The report aimed to quantify the levels of achievement of each state in terms of e-readiness.

The Government of India also developed a P3 I3 Model (Policy, People, Process, Infrastructure, IT preparedness and IT Benefits) for the assessment of E-Governance readiness of Central government departments/ministries.

On the basis of these indicators, the readiness assessment has been conducted. And it has been found in the study that India should focus more on formulating IT Policies and imbibing the right virtues in the people and employees to move ahead in e-governance.
Chandigarh has joined the league of leader states like Andhra Pradesh, Tamil Nadu, Karnataka, Kerala and Maharashtra in the ‘INDIA: E-Readiness Assessment Report 2008 For States/Union Territories’.

The study, also developed a framework to evaluate the readiness of the selected departments of Chandigarh Administration i.e. Department of Information Technology (DIT), Estate Office (EO); Chandigarh Housing Board (CHB) and Excise and Taxation (E&T) of Union Territory, Chandigarh. The following indicators have been developed to study the e-readiness:

**IT Policy Readiness:** The comparative analysis of the data reveals that Department of Information Technology (DIT), Estate Office (EO), Chandigarh Housing Board (CHB), scored full points i.e. 25 points with respect to implementation of IT policy, whereas, Excise and Taxation (E&T) department got 12.5 points. All the four departments have implemented the IT policy and have provided all the information in the public domain, however, Excise and Taxation (E&T) department failed to provide the clear information to people.

**Department Computerization Readiness:** With respect to departmental computerization, Department of Information Technology (DIT) scored 22.7 points, Estate Office (EO) 19.3 points, Chandigarh Housing Board (CHB) 14.8 points and Excise and Taxation (E&T) department 16.1 points. In departmental computerization indicator, Excise and Taxation (E&T) department secured third place, and Chandigarh Housing Board (CHB) secured fourth place. It was also found that website was not available in the local language and except Department of Information Technology (DIT), The official records are partially computerized. Further, most of the departments do not provide the required information on the websites.

**Human Resource Readiness:** In terms of human resources, Department of Information Technology (DIT); Estate Office (EO) and Chandigarh Housing Board (CHB) got equal 18.75 points, whereas, Department of Excise and Taxation (E&T) scored 6.25 points. This could be attributed to non-provision of any kind of training or development programmes to the employees working in
the department. It was found that regular training was not provided to the employees by the departments.

**Government Process Reengineering:** In this context, all the four selected departments, Department of Information Technology (DIT), Estate Office (EO), Chandigarh Housing Board (CHB) and Department of Excise and Taxation (E&T) secured full points. It means that all the departments are serious in implementing all the relevant changes in the department processes, necessary for the implementation of e-governance initiatives.

**STATUS OF HYPOTHESES**

The analysis of primary and secondary data reveals that the selected departments of the Chandigarh Administration have successfully prepared themselves for implementing and adopting the various e-governance initiatives. Out of the four selected departments, Department of Information and Technology (91.45 percent) succeeded in fulfilling the basic criteria of e-readiness. This implies formulation of requisite IT policy, department computerization, training and development of human resource and government process reengineering for adopting e-governance initiatives. While Excise and Taxation department (59.85 percent) was found deficient in formulating an IT policy and in developing adequate human resources. Table 8.2.

**Table 8.2**

**Level of E-Governance Readiness of the Selected Departments**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Name of the department</th>
<th>Points</th>
<th>Total points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Department of Information Technology</td>
<td>91.45</td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>Estate Office</td>
<td>87.05</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Chandigarh Housing Board</td>
<td>83.55</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Excise and Taxation Department</td>
<td>59.85</td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary Data
Thus, it could be concluded that the level of e-readiness of the selected department was quite high. Consequently the hypothesis 1, “The level of e-readiness is very low in the selected departments of Chandigarh Administration” is rejected.

The ‘India: Readiness Assessment Report 2008’ shows that Chandigarh comes in the category of Leader, which means Chandigarh is adequately prepared for the e-governance.

The major findings of the analysis have been summarized in the Table 8.3.

**TABLE 8.3**

**SUMMING UP THE TESTING OF HYPOTHESIS**

<table>
<thead>
<tr>
<th>S. No</th>
<th>SUB- HYPOTHESES</th>
<th>Source of Data</th>
<th>Points</th>
<th>Total Points</th>
<th>Analysis</th>
<th>Hypothesis Valid</th>
<th>Invalid</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The level of IT Policy Readiness is low in</td>
<td>Primary Data</td>
<td>25</td>
<td>25</td>
<td>100%</td>
<td>✓</td>
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<td></td>
<td>1. Department of IT</td>
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<td></td>
<td>2. Estate Office</td>
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<td>3. Chandigarh Housing Board</td>
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<td>4. Excise and Taxation</td>
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<td>2</td>
<td>The level of Department Computerization Readiness is low in</td>
<td>Primary Data</td>
<td>22.7</td>
<td>25</td>
<td>9 0.8%</td>
<td>✓</td>
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<td></td>
<td>1. Department of IT</td>
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<td>2. Estate Office</td>
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<td>3. Chandigarh Housing Board</td>
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<td>4. Excise and Taxation</td>
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<tr>
<td>3</td>
<td>The level of Human Resource Readiness is low in</td>
<td>Primary Data</td>
<td>18.75</td>
<td>25</td>
<td>75.0%</td>
<td>✓</td>
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<td></td>
<td>1. Department of IT</td>
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<td></td>
<td>2. Estate Office</td>
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<td>3. Chandigarh Housing Board</td>
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<td></td>
<td>4. Excise and Taxation</td>
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<tr>
<td>4</td>
<td>The level of Government Process Reengineering is low in</td>
<td>Primary Data</td>
<td>25</td>
<td>25</td>
<td>100%</td>
<td>✓</td>
<td></td>
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<tr>
<td></td>
<td>1. Department of IT</td>
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</table>
From the above analysis, it can be concluded that the first three departments, i.e. Department of Information Technology (DIT), Estate Office (EO) and Chandigarh Housing Board (CHB) attained high level of e-readiness by scoring more than 80.00 percent. However, Excise and Taxation (E&T) department got less than 59.85 percent in the assessment. It means that the level of e-readiness in selected departments in Chandigarh is quite high except Excise and Taxation department.

**CHAPTER- 5. PROVISION OF SERVICES THROUGH SAMPARK CENTRES**

Chandigarh is among the first cities in the country to have optic fibre connectivity (OFC) with Delhi, through the network of Power Grid India Limited. Every point in the city is within 1 km of the OFC Network, thereby enabling companies to provide internet services to consumers through a high-speed broadband network.

State-Wide Area Network Project (SWAN) has also been implemented with the support of the Department of IT (DIT), Government of India, and NIC. This project provides broadband connectivity to all the government buildings of the Chandigarh administration spread across the city, which also include all the e-governance projects in the city, i.e., e-Sampark, e-Jan Sampark and the e-Gram Sampark centres.

Chandigarh Administration is the sole and final authority with respect to qualifying a bidder and is awarded the contract to the successful bidder for a period 5 years and 3 months. The period of 63 months (5 year + 3 months) start from date of signing of the agreement.
E-Samprak Centres in different locations of Chandigarh provide hassle free services to the citizens under one roof. Presently, the e-Sampark centres have been serving on an average 10,000 citizens each month.

The project has been implemented with government’s interdepartmental direct participation and collaboration. However, the location, setup and infrastructures of the centers have been developed with public private partnership. Present partners of the government have been UTI Bank and SQL STAR International Limited.

Project Sampark is a Department of IT (DIT) initiative for the development, integration and maintenance of web-portal for various departments of the Chandigarh Administration for providing 'One-stop-shop' for 22 G2C and 5 B2C services through 10 e-Sampark Centre. It not only provides the Online Transaction Processing through its centres and web-enabled portal but also is a major source of information dissemination.

The Project aims to:

1. provide hassle free one-stop solution to the citizen,
2. minimize multiple interaction points for the citizen,
3. reduce the wastage of valuable time,
4. provide the cost and time effectiveness services

After the implementation of the e-governance initiatives, it became easy to evaluate the performance of all the departments since a MoU has been signed between all the stakeholders.

Following are the Key Stakeholders of the Sampark Project:

1. Department of IT, Chandigarh
2. National Informatics Centre (NIC)
3. Participating Departments/Private Entities
4. System Integrator (SI)
5. Bank
6. Department of Treasury, Chandigarh
Each party has its own separate roles and responsibilities, which has been defined in detailed in **Annexure X**.

There are different methods for evaluating the performance of the various departments and Sampark centres. These are

1. Service Legal Agreement
2. Citizen survey conducted by DIT
3. Resident Welfare Associations
4. Grievance Redressal Mechanism; and
5. Right to Information

**Service Level Agreements:** Service level agreements have been signed between Department of Information Technology, Chandigarh and the respective department for defining the roles and responsibilities of each party, standards and penalties related to service delivery. A service level agreement has also been signed between Department of Information Technology, Chandigarh and the BOT operators. A set of SLAs have been identified as key to ensuring the desired performance level from the Sampark Project. The performance of the system has been measured and applicable penalties have been calculated and imposed on the System Integrator, in case the performance is below the defined thresholds. (See details in Annexure IX). Other checks on the performance of the departments are Grievance Redressal Mechanism and Right to Information

Citizen survey conducted by DIT, Chandigarh: The Chandigarh Administration conducted a citizen survey to know about the perception of citizens regarding the working of sampark centres and the resident welfare associations of each sector have also been keeping a close watch on the working of the Sampark centres.

**Status of Hypothesis**

The analysis of secondary data and the interview method were used to check the status of hypothesis. 2: “E-governance has helped in institutionalizing effective performance evaluation system”. the hypothesis further has been divided into sub-hypotheses- (1) Services delivery has improved through e-governance model vis-à-vis traditional model of
administration (See Table 8.4); and (2) Performance of Chandigarh Administration has improved during e-governance period. Performance of e-sampark centres from 1 January 2010 to 31 December 2012 and Various techniques used for the performance evaluation by the Chandigarh administration The finding thus, has been shown in Table. 8.5

Table. 8.4
Comparison of Traditional Administration and E-governance

<table>
<thead>
<tr>
<th>Old Typical Citizen Interface</th>
<th>Citizen Interface through E-Governance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>For the Citizen of Chandigarh</strong></td>
<td><strong>For the Citizen of Chandigarh</strong></td>
</tr>
<tr>
<td>1. Visit these departments physically scattered across the city</td>
<td>1. All services of all departments are under single window system.</td>
</tr>
<tr>
<td>2. Stand in long queues</td>
<td>2. Time saving</td>
</tr>
<tr>
<td>3. Make multiple visits for completing a single transaction</td>
<td>3. 8 am to 8 pm</td>
</tr>
<tr>
<td>4. Wait for few days to few weeks according to the services</td>
<td>4. Increase Transparency</td>
</tr>
<tr>
<td>5. At times, face harassment due to lack of transparency</td>
<td>5. Reduce Corruption</td>
</tr>
<tr>
<td></td>
<td>6. Speedy Transaction</td>
</tr>
<tr>
<td></td>
<td>7. Hassle free services</td>
</tr>
<tr>
<td><strong>For Administration</strong></td>
<td><strong>For Administration</strong></td>
</tr>
<tr>
<td>1. Overworked staff</td>
<td>1. Reduced workload</td>
</tr>
<tr>
<td>2. A poor Image of the department in the eyes of the Citizen</td>
<td>2. Improved the Image of the departments</td>
</tr>
<tr>
<td>3. Delay in providing the information.</td>
<td>3. Provide services on time</td>
</tr>
<tr>
<td>4. Insufficient MIS resulting in lack of control i.e. tracking of outstanding bills</td>
<td>4. Revenue generated</td>
</tr>
<tr>
<td></td>
<td>5. Reduced paper work</td>
</tr>
<tr>
<td></td>
<td>6. Online Interaction</td>
</tr>
<tr>
<td></td>
<td>7. Online Transaction</td>
</tr>
<tr>
<td></td>
<td>8. Sufficient Management Information System for controlling administrative system</td>
</tr>
</tbody>
</table>
Table. 8.5
SUMMING UP THE TESTING OF HYPOTHESIS

<table>
<thead>
<tr>
<th>S.No</th>
<th>Sub-hypothesis</th>
<th>Analysis</th>
<th>Type of Data</th>
<th>Status of Sub-Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Services delivery has improved through e-governance model vis-à-vis traditional model of administration</td>
<td>Comparison of Traditional Administration and e-governance (see Detail in Table 8.4 and See Figure.8.1 and 8.2)</td>
<td>Secondary data</td>
<td>✓</td>
</tr>
</tbody>
</table>
| 2    | Performance of Chandigarh Administration has improved during e-governance period. | 1. E-governance has established effective performance system in Chandigarh for public service delivery through Sampark centres under a Single Window System. Since its launch in September 2004, Chandigarh Administration has made 1.90 Lakh transactions till March 2005; and last year from April 2011 to March 2012, it increased to 24.03 Lakh transactions every year.  
2. CSI Nihilent Award (2004),                                                                                     | Secondary Data     | ✓                        |
Figure 8.1

Old Typical Citizen Interface

Source: CSI Nihilent Award (2004),

Figure 8.2

E-Sampark Citizen Interface

Source: CSI Nihilent Award (2004),
Based on the comparison between Tradition Administration and E-Governance Model (See Table 5.9 and 5.10) and (Figure 5.4 & 5.5), it inferred that Hypothesis 2 “E-governance has helped in institutionalizing effective performance evaluation system”, is validate by proof.

Status of Hypothesis

The analysis of both primary and secondary data suggested that Hypothesis 3. “E-governance has enhanced the revenues to the Chandigarh Administration” has been accepted. Since the launch of the project in September 2004 till March 2012 commutated revenue earned workout to be 5895 crore. See in Table 8.6

Table 8.6

Annually Revenue Collection by E- Sampark Centres

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume</th>
<th>Amount (Rupees)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr.2005-Mar 2006</td>
<td>11.10 Lakh</td>
<td>239 crores</td>
</tr>
<tr>
<td>Apr 2006-Mar 2007</td>
<td>14.86 Lakh</td>
<td>354 crores</td>
</tr>
<tr>
<td>Apr 2007-Mar 2008</td>
<td>16.64 Lakh</td>
<td>403 crores</td>
</tr>
<tr>
<td>Apr 2008-Mar 2009</td>
<td>21.07 Lakh</td>
<td>765 crores</td>
</tr>
<tr>
<td>Apr 2009-Mar 2010</td>
<td>24.59 Lakh</td>
<td>991 crores</td>
</tr>
<tr>
<td>Apr 2010-Mar 2011</td>
<td>23.76 Lakh</td>
<td>1188 crores</td>
</tr>
<tr>
<td>Apr 2011-Mar 2012</td>
<td>24.03 Lakh</td>
<td>1322 crores</td>
</tr>
<tr>
<td>Apr 2012-Aug 2012</td>
<td>10.00 Lakh</td>
<td>608 crores</td>
</tr>
<tr>
<td>Total Revenue</td>
<td></td>
<td>5895 crores</td>
</tr>
</tbody>
</table>

Hence, the Hypothesis 3. “E-governance has enhanced the revenues to the treasury.” is found valid and accepted.
CHAPTER- 6. IMPACT OF E- GOVERNANCE ON DELIVERY OF SERVICES, QUALITY OF SERVICES, EFFICIENCY, TRANSPARENCY, ACCOUNTABILITY AND CORRUPTION IN CHANDIGARH ADMINISTRATION

The objective of the chapter is “to examine the impact of e-governance initiatives adopted by Chandigarh Administration”. Specifically stating

a. With the introduction of E-Governance initiatives, the quality of public services to its citizens has improved.

b. E-Governance has led to simplification of rules and rationalization of procedure thereby leading to efficiency in Chandigarh Administration.

c. The E-Governance has brought transparency in the system, which has helped in checking the corruption.

d. E-Governance has made the system more accountable.

The Committee of Public Accounts (2006), Delivering high quality public services for all, has identified few steps for a successful and high quality of services:

1. **Understand the needs of the customers** – identify all types of customer and find out what they want and need, and recognizes why some don’t make the most of public services.

2. **Designing the services in the light of customer’s needs** – create or reform services to suit the customers and deliver, within reasonable time.

3. **Regular Consultation with users** – for gathering information on user expectations so that services can respond to changing requirements and circumstances.

4. **Introduction of well developed arrangements for delivering services** – for designing and introducing ways of delivering services which are suited to user needs, simple to understand, cost-effective, and – if they fail – can be easily repaired.

5. **Recruitment and motivation of capable staff, especially on the frontline** – for recognizing the value of its staff at all levels, appreciates the
impact of a motivated frontline on customer satisfaction, and employ well trained staff who can empathise with customers.

6. **Monitors service performance and learns lessons for innovation** – for establishing suitable and credible performance measurement mechanisms, monitors the performance regularly and carrying out effective analysis, applying lessons learned to make service improvements.

7. **Grievance redress mechanism** – for recognizing that things will sometimes go wrong, appreciates citizens’ right to redress, and to establish complaint and compensation channels that are accessible to all and efficient to administer.

8. **Publicity of services and performance levels to all users** – for giving wide publicity to communicate information on services and performance to all the service users.

Patterned on these steps, the Chandigarh Administration has also tried to provide quality services to its citizen. The situational analysis before the establishment of e-Sampark centers highlights that the citizens had to run from pillar to post to get the necessary services. Citizens even did not know where to go and whom to contact for services. They had to spend a lot of time, money and energy to avail the services. There were no defined timelines by which one could get a specific service from a service provider. There were no easily accessible ways to ventilate grievances and get those grievances readdressed. Resultantly, citizens were frequently exploited by the touts. E-Sampark project has been started with the objectives of reducing the undue harassments faced by the citizens and ensuring transparency in service delivery system.

Thus, to accomplish the above mentioned objectives, e-Samaprak centres in different locations of Chandigarh provide 24 services to the citizens under one roof. All these services which have been strictly in public domain are provided across 12 e-Samapark centres, serving on an average 10,000 citizens each month.
Hypothesis 4, “With the introduction of e-governance initiatives, the provisions and quality of public services to its citizens has improved”.

Testing of Hypothesis

The analysis of both primary and secondary data has validated the hypothesis 4, “With the introduction of e-governance initiatives, the provisions and quality of public services to its citizens has improved”. The hypothesis has, further, been split into the sub-hypothesis covering areas such as the administration has become more efficient, with the introduction of e-governance; the administration has designed the services according to the need of the citizens; E-Governance provides the scope for the citizens to express their grievances; the dealing personnel behave politely with the service users in sampark centres; The provision of services through e-Sampark Centres has become more easy as compared to the work being done manually and E-governance has increase the accuracy in administration etc.

The major findings relating to the major and sub-hypotheses have been summarized in the Table 8.7.

Table 8.7.
Summing up the Testing of Hypothesis 4
With the introduction of E-Governance initiatives, the quality of public services to its citizens has improved.

<table>
<thead>
<tr>
<th>S. No</th>
<th>Sub-hypothesis</th>
<th>Source of data</th>
<th>Analysis</th>
<th>Status of Sub-Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The administration has become more efficient, with the introduction of e-</td>
<td>Primary Data</td>
<td>About 97.00 percent respondents said ‘Yes’ and</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>governance</td>
<td></td>
<td>3.0 percent</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Data Type</td>
<td>Primary Data</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>-------------</td>
<td>-----------</td>
<td>--------------</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>The administration has designed the services according to the need of the citizens.</td>
<td>Primary Data</td>
<td>88.50 percent respondents said ‘Yes’, 7.00 percent said ‘No’ and 3.0 percent did not respond</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>E- Governance provide the scope for the citizens to express their grievances.</td>
<td>Primary Data</td>
<td>About 32.50 percent respondents said ‘Yes’ and 2.50 percent said ‘No’ and 65.00 percent ‘Don’t known’</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>The dealing personnel behave politely with the service users in sampark centres.</td>
<td>Primary Data</td>
<td>All the 100 percent respondents said ‘Yes’</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>The provision of services through e- Sampark Centres has become more easy as compared to the work being done manually.</td>
<td>Primary Data</td>
<td>About 86.00 percent respondents said ‘Yes’ and 14.00 percent said ‘No’</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>E- governance has increase the accuracy in transactions of the administration.</td>
<td>Primary Data</td>
<td>All 97.00 percent respondents said ‘Yes’ and 3.00 percent said ‘No’</td>
<td></td>
</tr>
</tbody>
</table>
Thus, it was found that the majority of citizens agreed that quality of services with respect to efficiency, time management, accuracy and timeless, easy to use and dealing personnel’s behaviour has improved with the introduction of e-governance Initiatives. However, awareness of citizens regarding the grievances machinery was the grey area.

Thus, on the basis of both secondary and primary data, the Hypothesis 4 “With the introduction of E-Governance initiatives, the quality of public services to its citizens has improved” has been found valid and accepted

Hypothesis 5. - E-Governance has lead to simplification of rules and rationalization of procedure of the Chandigarh Administration.

Testing of Hypothesis

The analysis of both primary and secondary data reveals that “e-governance has led to simplification of rules and rationalization of procedures in the system”. The hypothesis has been grouped into the sub hypotheses which include:

i. e-governance has simplified the rules and rationalization of procedure in the system;
ii. The provision of services through e- Sampark Centres has resulted in time saving as compared to the work being done manually;
iii. the speed of delivery of public services has increased with the e-governance;
iv. the administration has become more efficient, with the introduction of e-governance;
v. the administration has designed the services according to the need of the citizens;
vi. e-Governance has decreased the paper work in the administrative processes and
vii. the provision of services has become easier with the introduction of e-governance.
Majority of the respondents have favoured most of the sub-hypotheses. The major findings have been summarized in the Table. 8.8.

Table. 8.8.

Summing up the Testing of Hypothesis 5

E-Governance has lead to simplification of rules and rationalization of procedure of the Chandigarh Administration.

<table>
<thead>
<tr>
<th>S. No</th>
<th>Sub-hypothesis</th>
<th>Source of data</th>
<th>Analysis</th>
<th>Status of Sub-Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>E-Governance has simplified the Rules and Rationalization of Procedure of the system.</td>
<td>Primary Data</td>
<td>85.00 percent respondents said ‘Yes’ and 15.00 percent said ‘No’</td>
<td>✔</td>
</tr>
<tr>
<td>2.</td>
<td>The provision of services through e-Sampark Centres has resulted in time saving as compared to the work being done manually.</td>
<td>Primary Data</td>
<td>85.00 percent respondents said ‘Yes’, 11.00 percent said ‘No’ and 4.00 percent expressed ‘No response’</td>
<td>✔</td>
</tr>
<tr>
<td>3.</td>
<td>The Speed of delivery of public services has increased with the e-governance.</td>
<td>Primary Data</td>
<td>All 100% respondents said ‘Yes’</td>
<td>✔</td>
</tr>
</tbody>
</table>
4. The administration has become more efficient, with the introduction of e-governance.

Primary Data
About 97.00 percent respondents said ‘Yes’ and 3.0 percent said ‘No’ (see table 6.1)

5. The administration has designed the services according to the need of the citizens.

Primary Data
88.50 percent respondents said ‘Yes’, 7.00 percent said ‘No’ and 3.0 percent expressed ‘No response’.

6. E-Governance has decreased the paper work in the administrative processes.

Primary Data
All 100% respondents said ‘Yes’.

7. The provision of services has become easier with the introduction of e-governance.

Primary Data
87.00 percent respondents said ‘Yes’ and 13.00 percent said ‘No’

On the basis of both secondary and primary data, the Hypothesis 5 “E-Governance has lead to simplification of rules and rationalization of procedure thereby leading to efficiency in Chandigarh Administration” is validated.

Majority of citizens agreed that E-governance has led to simplification of rules and rationalization of procedure thereby leading to efficiency in Administration, Simplification of Rules and Rationalization of Procedure, saving of time as compare to work done manually and public services were delivered at greater speed.
Hypothesis 6: The E-governance has brought transparency in the system, which has helped in checking the corruption.

Testing of Hypothesis

The analysis of primary and secondary data revealed the hypothesis that the e-governance has brought transparency in the system, which has helped in checking the corruption has been accepted. Further the hypothesis has been divided into sub-hypotheses, like the provision of services through e-Sampark Centres has brought transparency in the system; the introduction of e-governance has led to reduction in corruption and the introduction of e-governance has led to openness in the public dealing.

It has been observed that there is openness in the service delivery and in most of the centres, services rules are clearly mentioned in the centres. Services are also provided on the basis of ‘First come First serve’ basis. The service users directly interact with the dealing person. There is no middle man in the transaction. The major findings of the sub-hypotheses have been summarized in the Table. 8.9.

Table. 8.9.

**Summing up the Testing of Hypothesis 6**

The E-governance has brought transparency in the system, which has helped in checking the corruption.

<table>
<thead>
<tr>
<th>S. No</th>
<th>Sub- hypothesis</th>
<th>Source of data</th>
<th>Analysis</th>
<th>Status of Sub-Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The provision of services through e-Sampark Centres has</td>
<td>Primary Data</td>
<td>About 88.50 percent respondents said ‘Yes’, 8.00</td>
<td>✔</td>
</tr>
</tbody>
</table>
brought transparency in the system.

| 2 | The introduction of e-governance has led to reduction in corruption | Primary Data | About 84.50 percent respondents said ‘Yes’, 12.00 percent said ‘No’ and 3.50 percents did not respond | ✓ |
| 3 | The introduction of e-governance has led to openness in the public dealing | Primary Data | About 89.50 percent respondents said ‘Yes’, 7.50 percent said ‘No’ and 3.00 percents expressed ‘No’ response | ✓ |

Thus, it can be inferred that e-governance has brought transparency in the system. In most of the centres, service rules were clearly mentioned. Services were provided on the basis of ‘First come first serve’. The service users directly interact with the dealing persons and there is no middle man in the transaction. This, therefore, resulted in reduction in corruption and greater openness in the public dealing.

On the basis of both secondary and primary data, the Hypothesis 6 “The E-governance has brought transparency in the system, which has helped in checking the corruption” is found valid.

**Hypothesis 7: E-Governance has made the system more accountable.**

**Testing of Hypothesis**

The analysis based on both primary and secondary data leads empirical supports to the Hypothesis 7, “E-Governance has made the system
*more accountable* Further the hypothesis has been divided into sub-hypotheses, like the dealing personnel are available on their seats in sampark centres and the system has become more accountable after the introduction of e- governance.

During field visits it has been observed that all the dealing persons were on their seats. The centres were never closed for a minute during working hours; break was by rotations. The citizen charters have also been found in most of the service centres. A signed return slip has also been given to the service users for their transaction by the dealing person. The major findings related to the sub-hypotheses have been summarized in the Table. 8.10.

Table 8.10.  
**Summing up the Testing of Hypothesis 7**  
**E-Governance has made the system more accountable.**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Sub-hypothesis</th>
<th>Source of data</th>
<th>Analysis</th>
<th>Status of Sub-Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The dealing personnel are available on their seats in sampark centres</td>
<td>Primary Data</td>
<td>About 95.00 per cent respondents said ‘Yes’ and 5.00 per cent ‘No’.</td>
<td>Valid ✓</td>
</tr>
<tr>
<td>2.</td>
<td>The system has become more accountable after the introduction of e- governance.</td>
<td>Primary Data</td>
<td>About 84.00 per cent respondents said ‘Yes’ and 16.00 per cent ‘No’.</td>
<td>Valid ✓</td>
</tr>
</tbody>
</table>

On the basis of both secondary and primary data, the Hypothesis 7 “**E-Governance has made the system more accountable**”. is found valid and accepted.
CHAPTER- 7. CITIZEN SATISFACTION

Hypothesis- The introduction of e-governance initiatives has improved the quality of public services delivery to its citizens.

This part of the chapter deals with the level of satisfaction of the citizens regarding the quality of public services provided by the Union Territory Chandigarh through e-governance initiatives.

A report titled “Study on User Satisfaction and Impact in EU27” Draft Final Report (version 2.1), commissioned by the European Commission and Directorate-General, Information Society and Media has given the following standards of the citizen satisfaction.

1. **Access**
   a) Easy-to-access
   b) Multi-channel access
   c) Accessibility (for disabled persons)
   d) Authentication

2. **Usability / user friendliness**
   a) Easy-to-find (location, navigation)
   b) Easy-to-use (interface, functionalities)
   c) Easy-to-understand (comprehensibility)
   d) Pro-activity

3. **Quality of information / content**
   a) Usefulness / utility (relevance and correspondence to user needs)
   b) Complete (comprehensive)
   c) Accurate (credible, reliable)
   d) Up-to-date

4. **Appearance (attractive, appealing)**

5. **Quality of interaction / assistance (responsive, helpful)**

6. **Timeliness – reasonable time**

7. **Cost – reasonable cost**
8. Privacy
9. Security

On the basis of these standards further, citizen satisfaction has been divided into 4Ps. These are: Policy, Processes, People and Physical infrastructure. Here, an attempt has been made to analyze the citizen satisfaction regarding these four 4Ps: 1) Citizen satisfaction regarding the Policy, 2) Citizen satisfaction regarding Process reengineering, 3) Citizen satisfaction regarding the People, i.e. Employees and 4) Citizen satisfaction regarding Physical infrastructure

Hypothesis 8. “E-Governance initiatives have increased the level of citizen satisfaction regarding the provision of services in Chandigarh Administration.”

Testing of Hypotheses

Analysis of both primary and secondary data reveals that E-Governance initiatives have increased the level of citizen satisfaction regarding the provision of services in Chandigarh Administration. The hypothesis was split into the four sub hypotheses i.e. 4Ps:- 1) Citizen satisfaction regarding the Policy, 2) Citizen satisfaction regarding Process reengineering, 3) Citizen satisfaction regarding the People, i.e. Employees and 4) Citizen satisfaction regarding Physical infrastructure. These four sub-hypothesis cover the following aspects i.e. Timing for availing services at Sampark Centre counters, time saving as compared to the work done manually, speed of delivery, transparency in system and work, simplification of procedures of work done and availability, behaviors of dealing personnel, their competence in term of job handling, public amenities and location.

It has been found that a majority of the citizens are satisfied regarding the most of the facets of all the four ‘Ps’.

The major findings have been summarized in the Table 8.11 that illustrates the status of the defined hypothesis.
Table. 8.11
SUMMING UP THE TESTING OF HYPOTHESIS 8
E- Governance initiatives have increased the level of citizen satisfaction regarding the provision of services in Chandigarh Administration.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Sub- Hypothesis</th>
<th>Source of Data</th>
<th>ANALYSIS</th>
<th>STATUS OF SUB-HYPOTHESIS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CITIZEN SATISFACTION REGARDING ADMINISTRATIVE POLICY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Citizens are satisfied with the timing for Availing Services through Sampark centre</td>
<td>Primary Data</td>
<td>All the respondents are satisfied with the timing for availing services</td>
<td>✓</td>
</tr>
<tr>
<td>2</td>
<td>Citizens are satisfied with the Transparency in the System through e-sampark centres</td>
<td>Primary Data</td>
<td>88.50 per cent respondents are satisfied, 3.00 per cent are neutral and 8.00 per cent are dissatisfied.</td>
<td>✓</td>
</tr>
<tr>
<td>3</td>
<td>Citizens are satisfied with the Reduction in Corruption by the introduction of e-governance.</td>
<td>Primary Data</td>
<td>84.50 per cent respondents are satisfied, 4.00 per cent are neutral and 11.50 per cent are dissatisfied.</td>
<td>✓</td>
</tr>
<tr>
<td>4</td>
<td>Citizens are satisfied with the System, which has become more accountable by the introduction of e-governance.</td>
<td>Primary Data</td>
<td>84.00 per cent respondents are satisfied and 16.00 per cent are dissatisfied</td>
<td>✓</td>
</tr>
<tr>
<td>5</td>
<td>Citizens are satisfied with the e-governance as it provides the Scope for the Citizens to Express their Grievances</td>
<td>Primary Data</td>
<td>65.00 per cent are found to be Neutral while 32.50 per cent are satisfied and 2.50 per cent are found dissatisfied.</td>
<td>✗</td>
</tr>
<tr>
<td></td>
<td>Citizens are satisfied with the timing of Working Hours of E-Sampark Centres</td>
<td>Primary Data</td>
<td>All the respondents are satisfied with the timing of Working Hours of E-Sampark Centres</td>
<td></td>
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<td>---</td>
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</tr>
<tr>
<td>7</td>
<td>Citizens are satisfied with the Services Provided by the Administration through e-governance.</td>
<td>Primary Data</td>
<td>All the respondents are satisfied with the Services Provided by the Administration.</td>
<td></td>
</tr>
</tbody>
</table>

**CITIZEN SATISFACTION REGARDING GOVERNMENT PROCESS REENGINEERING**

<table>
<thead>
<tr>
<th></th>
<th>Citizens are satisfied with the Simplification of the Procedures by the introduction of e-governance.</th>
<th>Primary Data</th>
<th>85.00 per cent respondents are satisfied, and 15.00 per cent are dissatisfied.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Citizens are satisfied with the Less Paper Work for performing the works through e-governance.</td>
<td>Primary Data</td>
<td>All the respondents are satisfied with the Less Paper Work</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Citizens are satisfied with the provisions of Services has become more easy as compared to work done manually through e-governance</td>
<td>Primary Data</td>
<td>All the respondents are satisfied with provisions of Services has Become More Easy as Compared to Work Done manually</td>
<td></td>
</tr>
</tbody>
</table>

**CITIZEN SATISFACTION REGARDING HUMAN RESOURCES (EMPLOYEES)**

<table>
<thead>
<tr>
<th></th>
<th>Citizens are satisfied with the number of Working Staff of e-sampark centres</th>
<th>Primary Data</th>
<th>90.00 per cent respondents are satisfied, and 10.00 per cent are dissatisfied.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Citizens are satisfied with the availability of Dealing Persons in e-sampark centres</td>
<td>Primary Data</td>
<td>95.00 per cent are satisfied and 5.00 per cent are dissatisfied.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Data Type</td>
<td>Details</td>
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<tr>
<td>---</td>
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<td></td>
</tr>
<tr>
<td>13</td>
<td>Citizens are satisfied with the behaviour of the Dealing Personnel in e-sampark centres</td>
<td>Primary Data</td>
<td>All the respondents are satisfied with the behaviour of the Dealing Personnel in the e-sampark centres.</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Citizens are satisfied with the Competence of Dealing Personnel in Term of Job Handling in e-sampark centres</td>
<td>Primary Data</td>
<td>95.00 per cent respondents are satisfied and 5.00 per cent are dissatisfied.</td>
<td></td>
</tr>
</tbody>
</table>

**CITIZEN SATISFACTION REGARDING PHYSICAL INFRASTRUCTURE**

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Data Type</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Extent of Citizen Satisfaction with the number of Counters and Services Windows in e-sampark centres</td>
<td>Primary Data</td>
<td>80.00 per cent respondents are satisfied, and 20.00 per cent are dissatisfied.</td>
</tr>
<tr>
<td>16</td>
<td>Citizens are satisfied with the Location of the Sampark Centres</td>
<td>Primary Data</td>
<td>80.00 per cent respondents are satisfied, and 20.00 per cent are dissatisfied.</td>
</tr>
<tr>
<td>17</td>
<td>Citizens are satisfied with the Basic Public Amenities in the Sampark Centres.</td>
<td>Primary Data</td>
<td>87.00 per cent respondents are satisfied and 13.00 per cent are dissatisfied.</td>
</tr>
</tbody>
</table>

Thus, it is found that the majority of the citizens validate the hypotheses that the E-Governance initiatives increased the level of citizen satisfaction regarding the provision of services in Chandigarh Administration with respect to the quality of public services delivery to its citizens, timing for availing services at Sampark Centre counters, time saving as compared to the work done manually, speed of delivery, transparency in system and work, simplification of procedures of work done and availability, behaviors of dealing personnel, their competence in term of job handling Public amenities and location.

On the basis of primary data, the Hypothesis 8 “**E-Governance initiatives have increased the level of citizen satisfaction regarding the provision of services in Chandigarh Administration**” is found valid.
IV

POLICY PRESCRIPTIONS

In order to further strengthen the impressive policy initiatives of the Chandigarh administration for promoting e-governance, the following policy prescriptions have been suggested:

1. Each department should create their e-governance policy within the framework of e-governance policy of Chandigarh Administration.
2. Education and outreach programs should be formulated for greater knowledge of common masses.
3. It is essential to identify the role of the public and private sectors in e-governance initiatives. This would avoid overlapping of jurisdiction.
4. Well-trained and motivated human resources are critical to E-government success. Thus, the human resource, should have clear vision with respect to e-governance objectives.
5. The employees should be trained to make optimum utilization of the IT for this purpose regular and relevant training should be imparted by the respective departments.
6. The e-governance initiatives should be cost effective. Hence, government should seek to invest in sustainable programs that could produced saving.
7. The regular evaluation of the progress and effectiveness of E-government investments should be undertaken. This would enable to determine the gap between stated and attained objectives.
8. All the departments of Chandigarh Administration should create their individual website. This would facilitate timely updation of data and easy accessibility.
9. To increase simplification of existing procedures. It has been suggested that the ongoing government process should be reengineered.
10. Internet will be one of the most useful mediums for managing and disseminating government information and consequently exclusive training will be necessary for setting up and maintaining websites.
11. It is necessary to have staff with domain knowledge who can help architect systems that are practical and effective in delivery of services to citizens.

12. Government-wide electronic information infrastructure should be created to simplify service delivery, reduce duplication, and improve the level and speed of service to the public. This would provide the public (business and individuals) with the opportunity to send and receive, over electronic terminals, the information that currently passes between them and the government on paper.

13. There is need of greater participation of common citizens in the decision making process in-order to ensure more transparency and efficiency for effective development of e-Governance projects.

14. In-order to make the project more understandable and effective the availability of services in the local language should be emphasized.

15. There is a need to change the mindset of the government employees who are accustomed to working only in the manual mode. This is a big task and needs patience and careful planning. Workshops, seminars, and training programmes are required to be organized to spread awareness among the employees at all levels.

16. for formulating the cyber laws available to the public as early as possible so that the IT systems and information documents stored in the systems has the same legal validity as the documents stored today on paper;

17. It will be better if more accountability and time of processing features be added while developing e-Governance projects.

18. It is recommended that the e-Sampark Centres should include additional services in the list of services already offered by them. The suggested additions are the issue of driving licenses, issue of voter cards, acceptance of school fees and payment of all telephone bills.

19. It is recommended that more sitting arrangements, provision of more counters at these centres and the facility of ATMs within their premises be made available to the customers.

20. The e-Sampark Centres have been set up by converting the existing premises of electricity departments. A few of them are away from the
main roads, markets and bus stops. It is thus suggested that their locations be improved keeping in view the public convenience.

21. More awareness and better advertisements need to be brought about the e-Sampark Centres, with respect to their location, services offered by them and the timings.

22. It is recommended that the parking facilities at e-Sampark Centres be improved.

23. It is suggested that these Centres be made gender sensitive so that females also use their services in greater numbers. Appointment of female staff, provision of ladies’ toilets, their location close to market place and separate counters for them can be some steps in this direction.

24. The e-Sampark Centres in line with the government’s policy should pay special attention to the needs of elderly and physically challenged. Easy and wide approach, proper ventilation, availability of drinking water, provision for toilets, approachability and proximity to bus stops, in addition to the provision of separate counters for them can be some steps towards this objective.

25. Each sector and village in Chandigarh should have one e-Sampark Centre to cater to the increasing demands of the citizens within the area.

26. There is a need to have an alarm system in place at each e-Sampark Centre to ward off possible burglary attempt.

27. It is recommended that the salary structure of the employer should commensurate with their workload. The employees of the E-Sampark Centres are overworked and the salary given to them is miniscule.

28. A systematic exercise should be carried out by government departments for identifying the tasks, which are related to public dealing and could be effectively done through Internet or online services. An option can then be given to employees to accomplish their work through computers.