

An Analysis of Key Service Quality Determinants and Efficiency of Government-to-Citizen (G2C) Portals in Himachal Pradesh

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ABSTRACT

The study focuses on identifying key service quality elements influencing the efficiency of Government to Citizen (G2C) portals and satisfaction levels among citizens of Himachal Pradesh. For a state like Himachal Pradesh which is primarily hilly, G2C portals enable citizens to avail themselves of governmental services virtually and minimize office visits. Primary data were gathered from 400 respondents spread out in ten districts through the use of structured questionnaires and five-point Likert scales. Statistical methods like Cronbach's Alpha, One-Sample t-test, Kaiser-Meyer-Olkin, Bartlett's Test, and PCA were utilized. Six factors that emerged from the study as having significant effect on service quality were: Reliability, Accessibility, Ease of Use, Responsiveness, Security & Privacy, and Efficiency. This was corroborated by high values for KMO (0.913) and Cronbach's alpha (0.948). It was found out that ease of use, reliability, and accessibility were critical factors for satisfaction among users. The findings conclude that efforts should be made to improve responsiveness and security and upgrade digital infrastructure to increase the efficiency of G2C portals in Himachal Pradesh.

Keywords: Government-to-Citizen (G2C) Portals, Service Quality, User Satisfaction, e-Governance, Digital Governance, Reliability, Accessibility, Ease of Use, Himachal Pradesh

Introduction

With ICT becoming a reality, the citizen-government relationship has seen a drastic change. The development of G2C portals in India has provided an opportunity for citizens to access various services from the government via the internet without physically going to the concerned department. In Himachal Pradesh, the importance of digital governance is further amplified because of its mountainous terrain and harsh climatic conditions. Digitalization can overcome many hurdles that exist with physical governance by reaching citizens

through smartphones and internet connectivity. Nevertheless, while digitalization plays an essential role, it is crucial to ensure good quality of services. Factors like ease of use, reliability, timely responses, data security, and accessibility are necessary for user satisfaction and continuity of use.

Although Himachal Pradesh has progressed with the help of initiatives like Lokmitra Kendras in providing digitalized services to citizens, certain limitations like a predominantly rural population and different education levels continue to pose obstacles in effective usage of portals. The research is

about assessing the effectiveness and efficiency of the G2C portal services in Himachal Pradesh from the users' point of view. Through the analysis of 400 respondents in ten districts of the state, the study intends to find out some significant service quality dimensions, determine the extent of customer satisfaction, and analyze the inhibitors for adopting digital governance.

Review of Literature

Some of the key variables that are discussed in the existing literature about e-governance and digital service quality include, for instance, such factors as trust in a G2C portal among other factors. In particular, as noted by Rana, Dwivedi and Williams (2013), it was observed that the level of trust was among the major drivers for using digital services since it ensures the confidentiality of data used. Furthermore, as pointed out by Carter and Belanger (2005), trust and perceived innovativeness were among the variables that played a vital role in using e-government services. As stated by Moon (2002), the issues that local governments needed to face while implementing e-government included limited resources, difficulties with integration, and acceptance. From the point of view of implementation of e-governance

in India, such problems as poor infrastructure, lack of digital literacy among users, and the need for overcoming the problem of linguistic diversity were noted by Raju (2010). As suggested by Ahmed et al. (2018), services should be centric to users. Usability was identified as an important component of service quality by Goodwin & Horne (2015), whereas Weerakkody et al. (2011) related portal performance to overall public sector transformation. Papadopoulou & Andreou (2011) developed evaluation techniques which include considerations of usage, service quality, and sustainability. In conclusion, it can be stated that the most important factors affecting the effectiveness of G2C portals include trustworthiness, usability, security, accessibility, and a citizen-centered approach. Based on the above findings, this research paper aims to analyze the effectiveness and efficiency of G2C portals in the state of Himachal Pradesh.

While a number of studies have explored the issue of e-governance and service quality, few studies have been carried out about assessing the usage experiences and problems of G2C portals from a citizen-user perspective in Indian states, specifically in Himachal Pradesh. Most studies were

carried out on a national scale or with regards to citizens who had more digital literacy skills in urban settings. This paper tries to fill this gap in literature by collecting first-hand information from the users of G2C portals in Himachal Pradesh through ten of its districts. Rather than relying solely on official records or experts' views, this study emphasizes the practical experiences of citizens in terms of satisfaction levels and problems encountered in the use of these portals. This paper has become necessary as G2C portals have been evaluated by means of their mere availability. Given the hilly terrain, dispersed population and inadequate infrastructure in the state of Himachal Pradesh, citizens cannot access government services physically. Therefore, such portals are very crucial and their poor performance would actually widen the inequality gap. Against this background, the study pursues the objective to identify the significant service quality factors considered by users of G2C portals in Himachal Pradesh.

Research Methodology

This research is descriptive in type and intends to analyze the existing usage pattern, service quality, and satisfaction level of users of Government to Citizen (G2C) portal in the state of Himachal Pradesh. In this study, both primary and secondary data

sources have been utilized. While secondary data have been collected from various reports, journals, books, and literature, primary data have been collected from users of G2C portals through a questionnaire method. Multistage sampling technique has been employed for conducting this research. Out of the total twelve districts in the state, only ten districts have been selected as Lahaul & Spiti and Kinnaur were excluded because of non-accessibility reasons. In addition, two tehsils were chosen randomly from each district, followed by two Lokmitra Kendras from each tehsil. Ten users were selected randomly from each Lokmitra Kendra using snowball technique. Thus, the total number of responses obtained was 400. A five-point Likert scale including 'Strongly Disagree' (1), 'Disagree' (2), 'Neutral' (3), 'Agree' (4), and 'Strongly Agree' (5) was used for measuring respondents' opinions in various dimensions of the questionnaire such as demographic profile, awareness of and use of G2C portals, service quality, customer satisfaction, efficiency, and suggestions for improvement. Descriptive statistics including mean and standard deviation have been considered for analyzing the data. Reliability has been determined by Cronbach's Alpha. One sample t test has

been used to compare the responses with neutral position, while factor analysis (Principal component analysis), KMO, and Bartlett's test have been conducted for finding out important dimensions of service quality. The study is confined to ten districts of Himachal Pradesh for a certain period of time. Restrictions on time, money, and accessibility have resulted in a limited sample size. Self-reported data collection method has led to response bias, and the results will not be valid in future due to change in e-governance system.

Data Analysis and Interpretation

The demographic profile of 400 respondents shows that male users (59%) are higher than female users (41%), indicating moderate gender inclusion in G2C portal usage. The majority of respondents (56%) belong to the 21–30 age group, showing that younger people are the most active users of digital government services, while older age groups are less represented.

Table 1: Demographic Profile of Respondents

Variabl es	Category	Frequen cy	Percenta ge (%)
Gender	Male	236	59.0
	Female	164	41.0
Age Group	Below 20	43	10.8

	21–30	224	56.0
	31–40	74	18.5
	41–50	59	14.8
	Above 50	0	0.0
Educati on	Up to Class 12	67	16.8
	Graduate & Postgradu ate	252	63.0
	Others	81	20.2
Area of Residen ce	Rural	260	65.0
	Urban	140	35.0
Total		400	100.0

Source: Primary Data Collected through Questionnaire

In terms of education, most respondents are graduates and postgraduates (63%), suggesting that higher educational attainment supports better usage of online government platforms. Only a small proportion (16.8%) have education up to Class 12, which reflects the challenge of digital adoption among less educated citizens. Regarding residence, 65% of respondents belong to rural areas, while 35% are from urban areas. This indicates that G2C portals have reached rural populations, especially with the support of Lokmitra

Kendras. However, rural users may still face problems such as poor internet connectivity and limited digital awareness.

Identification of Service Quality Factors

Factors influencing service quality of G2C portals have been determined by using PCA among the 24 variables which were collected from 400 people. KMO and Bartlett Test have been conducted prior to conducting factor analysis to determine the fitness of the dataset for factor analysis.

Table 2: KMO and Bartlett’s Test

Test	Value
KMO Measure of Sampling Adequacy	0.913
Bartlett’s Test – Approx. Chi-Square	7264.553
df	276
Sig.	0.000

Source: Primary Data Collected through Questionnaire

The KMO statistic was determined to be 0.913, which is considerably greater than the accepted threshold of 0.60, implying very good sampling adequacy. The test of sphericity conducted by Bartlett was statistically significant ($p = 0.000$), suggesting that there were strong associations between variables.

Table 3: Total Variance Explained and Reliability

Particulars	Value
Number of Variables	24
Number of Factors Extracted	6
Cumulative Variance Explained (%)	76.805
Communality Range	0.645 – 0.864
Cronbach’s Alpha	0.948

Source: Primary Data Collected through Questionnaire

Communalities varied between 0.645 and 0.864, meaning all variables were highly contributing to factors extracted. The factors extracted using the criteria of an eigenvalue greater than one amounted to six factors that accounted for 76.805% of total variance in data collected, which is very high.

Table 4: Reliability Statistics

Cronbach’s Alpha	No. of Items
0.948	24

Source: Primary Data Collected through Questionnaire

The obtained value of Cronbach’s Alpha (0.948) clearly demonstrated high reliability of the service quality measure comprising 24 items. This means that the tool is reliable enough to identify significant service quality dimensions.

Table 5: Identified Service Quality Factors

Service Quality Factor	Importance
Reliability	Accurate and consistent services
Accessibility	Easy access across devices and locations
Ease of Use	Simple navigation and user-friendly design
Responsiveness	Quick service delivery and grievance handling
Security & Privacy	Safe transactions and data protection
Efficiency	Time-saving and reduced office visits

Source: *Primary Data Collected through Questionnaire*

The six significant service quality factors identified were Reliability, Accessibility, Ease of Use, Responsiveness, Security and Privacy, and Efficiency. These factors strongly influence user satisfaction and the effectiveness of G2C portals in Himachal Pradesh.

Service Quality Dimensions and User Satisfaction:

The analysis of service quality dimensions shows that users generally perceive G2C portals in Himachal Pradesh positively across all six major dimensions: Reliability,

Accessibility, Ease of Use, Responsiveness, Security & Privacy, and Efficiency.

Table 6: Summary of Service Quality Dimension Analysis

Dimension	Mean Range	t-value Range	Significant ?
Reliability	3.71 – 3.79	18.9 – 21.0	Yes (p=0.000)
Accessibility	3.73 – 3.78	19.2 – 20.9	Yes (p=0.000)
Ease of Use	3.70 – 3.81	19.4 – 23.5	Yes (p=0.000)
Responsiveness	3.69 – 3.84	18.6 – 21.5	Yes (p=0.000)
Security & Privacy	3.67 – 3.79	18.9 – 21.7	Yes (p=0.000)
Efficiency	3.70 – 3.76	18.9 – 20.2	Yes (p=0.000)

Source: *Primary Data Collected through Questionnaire*

All dimensions of service quality measure have mean values above the neutral point of 3, and their results obtained through one-sample t-test are significant at the 0.000 level. This implies that they exert a very strong influence on the users' satisfaction. Ease of use receives the highest score (3.81) implying that services are easy to navigate and complete by the users. Both reliability and accessibility receive positive ratings as

the users show confidence in getting accurate services through their mobile phones despite slow internet connectivity. Responsiveness gets high scores on grievance handling (3.84) but low ones on speed of response (3.69) suggesting that there is room for improvement in this dimension. Security and privacy receive positive feedback but with concerns on confidentiality in transactions. Efficiency dimension is also highly rated, particularly in terms of minimizing physical presence at the offices and saving time. High levels of user satisfaction are reported with the highest mean value being for overall performance satisfaction (3.80).

Table 7: User Satisfaction Statistics (Test Value = 3)

Statement	Mean	Std. Dev.	t-value	Sig.
Overall performance satisfaction	3.80	0.763	20.983	0.000
Portal meets expectations	3.76	0.763	19.980	0.000
Preference over traditional methods	3.73	0.742	19.801	0.000
Would recommend to others	3.75	0.713	21.030	0.000

Source: *Primary Data Collected through Questionnaire*

Conclusion and Suggestions

Conclusions of the study show that the G2C portals in Himachal Pradesh have led to better access, transparency, and efficiency of the government services, particularly for rural users by means of Lokmitra Kendras. The six major determinants of the service quality such as reliability, accessibility, ease of use, responsiveness, security and privacy, and efficiency have been found to play an important role in the user satisfaction and performance of the portals. Of these, reliability, accessibility, and ease of use emerge as the most important determinants, while responsiveness and security require further enhancement. Users express high satisfaction with the services offered via G2C portals and feel that these portals offer benefits such as saving time, reducing trips to the government offices, and improving service delivery. In order to enhance the level of quality of services provided through the portals, some recommendations such as simplification of portal design, reduction in service steps, improvement in server speed and mobile compatibility, enhancement in internet facilities in rural areas, and promotion of awareness and training sessions should be adopted. The Lokmitra

Kendras can be made more functional for the benefit of citizens. In addition, improvements in security systems and grievance handling system can be achieved.

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