

# **CHAPTER:5: FINDINGS AND IMPLICATIONS OF THE RESEARCH STUDY**

**CHAPTER:5:**  
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## **CHAPTER:5**

### **FINDINGS AND IMPLICATIONS OF THE RESEARCH STUDY**

#### **EXECUTIVE SUMMARY OF CHAPTER NUMBER FIVE:**

In this chapter, the researcher made an effort to provide the research study's implications and conclusions based on the findings of in-depth empirical research that was based on gathering primary data using various statistical tools and techniques for testing hypotheses. The correlation test was used in order to determine the links between the criteria chosen for the research study and the satisfaction of PHC service users, as well as their subsequent desire to continue using the services and to promote them to others. The correlation test was also used to determine the connections between perceived usefulness and a few PHC selection criteria, leading to positive perceptions and attitudes that influence users' behavioural intentions. The connection between the chosen demographic variables and the chosen PHC factors was determined using the Chi-Square Test, and useful findings were generated to highlight the social and economic ramifications of this research study. This study has taken into account the opinions of a select group of PHC users as well as their actual experiences with a number of factors, including accessibility, affordability, availability, awareness, environment, work culture, community involvement, infrastructure, perception, and preferences. Based on the opinions of users of PHCs in the Vadodara District of Gujarat State, the Friedman Test was used to evaluate the relevance of several variables for the utilisation of PHC services. Also, the Factor Analysis was used to measure and analyse the viewpoint of certain PHC users as well as to provide underlying dimensions in comparison to particular elements pertaining to rural health and the medical services offered in rural areas. Moreover, PLS-SEM-based structural equation modelling (SEM) was built to forecast the correlations between the chosen components. At the conclusion of this chapter, the main conclusions and ramifications of the correlation, chi-square, rank test, and SEM model are outlined.

#### **5.0: INTRODUCTION:**

This study has made an attempt to investigate how certain variables may affect how often PHC services are used by rural residents. The researcher made an effort to comprehend, analyse, and evaluate the impacts of a number of rural health care-related factors, including accessibility, affordability, availability, service delivery, environment, work culture, community engagement, infrastructure, perception, and preferences on the services offered by PHCs. A combination of secondary and primary data is used to perform this research study. The main data were obtained from 650 users of PHCs situated in rural parts of the Vadodara District of Gujarat with a Non-Probability Sampling Technique.

In order to get significant results and consequences for this research study, structural equation modelling (SEM) was used.

The PHC users were chosen from a cross-section of strata representing various classes and groups, including farmers, students, housewives, labourers, and rural artisans, taking into account demographic profiles based on background variables such as age groups, gender, educational attainment, family monthly income, profession, and occupation of users who had used primary healthcare services, as well as residents of particular villages in particular districts. In order to give the results of data analysis and interpretation, as well as its major findings and consequences, the researcher also collected primary data using a pre-Tested, Structured, Non-Disguised Questionnaire. This questionnaire had been tested for reliability and validity. Using descriptive statistics, Chi-Square analysis, and correlation testing, the main data were tallied and examined.

### **5.1: FINDINGS OF CORRELATION:**

The Kendall's Tau Correlation was used to research and analyse the correlations among the chosen variables as the main data were obtained from the chosen villages in the Vadodara District of the Gujarat State and were not found to be normally distributed. At a 0.05 level, the correlation's significance was examined. When a correlation had a positive sign and a negative sign, the associations between the variables were stated to be positive and negative, respectively. Correlation is said to be high when  $r^2 > .50$  and low when  $r^2 < .50$ . The Kendall's Tau Correlation Test was applied to the selected factors of Accessibility, Affordability, Availability, Environment, Infrastructure Facilities, Work Culture, Service Delivery, Community Engagement, Perception for the use of PHC services, and preference for PHC on Intension to Continue to use PHCs, Recommendation to others, and Satisfaction from the use of PHCs.

#### **Hypotheses of the Research Study:**

- **H1:** Accessibility, Affordability, Availability, Environment, Infrastructure Facilities, Work Culture, Service Delivery, Community Engagement, Perception for the use of PHC services, and preference for PHC has a significant relationship with the intention of the users of PHCs to continue to use medical services offered by PHCs.
- **H2:** Accessibility, Affordability, Availability, Environment, Infrastructure Facilities, Work Culture, Service Delivery, Community Engagement, Perception for the use of PHC services, and preference for PHC has a significant relationship with the intention to recommend the use of PHCs healthcare services to others.
- **H3:** Accessibility, Affordability, Availability, Environment, Infrastructure Facilities, Work Culture, Service Delivery, Community Engagement, Perception for the use of PHC services, and preference for PHC have a significant relationship with overall satisfaction with PHC services.

### 5.1.1: Findings of Kendall's tau Correlations between Continue use, Recommendation, and Satisfaction from Selected Factors:

Table no. 5.1 shows Kendall's tau correlation coefficients between three factors viz., Continue to use, Recommendations, and Satisfaction, and selected ten factors under study. Kendall's tau is a non-parametric measure of correlation, which indicates the strength and direction of association between two variables. The table shows that all the correlations between the three factors and the selected ten factors are statistically significant at the 0.01 level, denoted by (\*\*) or at the 0.05 level, denoted by (\*).

**Table No. 5.1: Kendall's tau Correlations between Continue use, Recommendation, and Satisfaction with the Selected Factors**

Sr. No.	Selected Factors	Continue to use	Recommendations	Satisfaction
1	Accessibility	.094(**)	.098(**)	.111(**)
2	Affordability	.118(**)	.093(**)	.101(**)
3	Availability	.125(**)	.129(**)	.143(**)
4	Environment	.175(**)	.144(**)	.126(**)
5	Infrastructure (Physical facilities)	.157(**)	.135(**)	.152(**)
6	Work Culture	.157(**)	.158(**)	.143(**)
7	Service Delivery	.167(**)	.109(**)	.107(**)
8	Community Engagement	.119(**)	.155(**)	.172(**)
9	Perception	.144(**)	.087(*)	.105(**)
10	Preference	.074(*)	.152(**)	.154(**)

\*. Correlation is significant at the 0.05 level (2-tailed). Source: Field Work

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

In the above table, No. 5.1, the results of the relationship between Selected factors and three outcome factors are exhibited, and the significant findings are as follows.

#### Accessibility:

The correlation coefficients between accessibility and continuing to use, recommendations, and satisfaction are 0.094, 0.098, and 0.111, respectively, indicating a low positive correlation between accessibility and the three factors.

#### Affordability:

The correlation coefficients between affordability and continue-to-use, recommendations, and satisfaction are 0.118, 0.093, and 0.101, respectively, indicating a low positive correlation between affordability and the three factors under study.

#### Availability:

The correlation coefficients between availability and continue-to-use, recommendations, and satisfaction are 0.125, 0.129, and 0.143, respectively, indicating a low positive correlation between availability and the three factors.

**Environment:**

The correlation coefficients between environment and continue-to-use, recommendations, and satisfaction are 0.175, 0.144, and 0.126, respectively, indicating a low positive correlation between environment and continue-to-use recommendations and satisfaction.

**Infrastructure:**

The correlation coefficients between infrastructure and continue-to-use recommendations and satisfaction are 0.157, 0.135, and 0.152, respectively, indicating a low positive correlation between infrastructure and the three factors under study.

**Work Culture:**

The correlation coefficients between work culture and continue-to-use, recommendations, and satisfaction are 0.157, 0.158, and 0.143, respectively, indicating a low positive correlation between work culture and the three factors under study.

**Service Delivery:**

The correlation coefficients between service delivery and continue-to-use, recommendations, and satisfaction are 0.167, 0.109, and 0.107, respectively, indicating a moderate positive correlation between service delivery and continue-to-use and a weak positive correlation between recommendations and satisfaction.

**Community Engagement:**

The correlation coefficients between community engagement vis-à-vis continue-to-use, recommendations, and satisfaction are 0.119, 0.155, and 0.172, respectively, indicating a weak positive correlation between community Engagement and the three factors under study.

**Perception:**

The correlation coefficients between perception and continue-to-use, recommendations, and satisfaction are 0.144, 0.087, and 0.105, respectively, indicating a low positive correlation between perception and the selected three factors.

**Preference:**

The correlation coefficients between preference vis-à-vis continued to use, recommendations, and satisfaction is 0.074, 0.152, and 0.154, respectively, indicating a weak positive correlation between the preference and the three factors under study. Thus, from table number 5.1, it can be inferred that a low positive relationship exists between the ten selected factors vis-a-vis the three factors under investigation. Still, the strength of the connection varies across the factors.

For example, environment, infrastructure, work culture, service delivery, and community engagement were found low correlate positively with the three factors under study. In addition, relatively the relationship between accessibility, affordability, perception, and preference were having much lower positive correlation than the environment, infrastructure, work culture, service delivery, and community engagement factors.



## 5.2: FINDINGS OF APPLICATIONS OF CHI-SQUARE TEST:

The chi-square test was applied to test the association between Gender, Age, Education, Occupation, Monthly Income and Selected Factors under study.

### Hypotheses of the Research Study:

Ho: There is no significant relationship between Gender, Age, Education, Occupation, And Monthly Income Vis-À-Vis Selected Criteria of the Accessibility factor.

H1: There is a significant relationship between Gender, Age, Education, Occupation, And Monthly Income Vis-À-Vis Selected Criteria of the Accessibility factor.

**Table No. 5.2**

**Results of the Chi-square Test Between Gender, Age, Education, Occupation, Monthly Income and Selected Criteria of Accessibility Factor**

Sr. No	Statements of Accessibility Criteria	'P-Value of Chi-Square (Gender)	'P-Value of Chi-Square (Age)	'P-Value of Chi-Square (Education)	'P-Value of Chi-Square (Occupation)	'P-Value of Chi-Square (Monthly Income)
1	Easily visit of PHC	0.767 (NS)	<b>0.006(S)</b>	0.325 (NS)	0.335(NS)	<b>0.003(S)</b>
2	Convenient location of PHC	0.501(NS)	0.301 (NS)	0.602 (NS)	0.085(NS)	<b>0.013(S)</b>
3	Availability of medical services	0.370(NS)	0.375(NS)	<b>0.006(S)</b>	0.535(NS)	<b>0.000(S)</b>
4	Medical services to all income group	0.768(NS)	0.231(NS)	0.437(NS)	0.706(NS)	<b>0.002(S)</b>
5	Gender equality at PHC	0.655(NS)	0.298(NS)	0.443(NS)	0.089(NS)	0.091(NS)
6	Users of PHC Services easily approach doctors at PHC	0.504(NS)	0.455(NS)	0.079(NS)	0.221(NS)	<b>0.030(S)</b>
7	Users of PHC Services easily approach paramedical staff at PHC	0.756(NS)	0.082(NS)	0.071(NS)	0.793(NS)	0.506(NS)
<b>Note:</b> ** Association is significant at 0.01 level (2-tailed), * .The association is significant at 0.05 level (2-tailed)						

Source: Field Work

### 5.2.1: Findings of the Chi-square Test between Gender, Age, Education, Occupation, And Monthly Income with selected factor Accessibility:

The chi-square test was applied to test the association between Gender, Age, Education, Occupation, Monthly Income and Selected Criteria of Accessibility factor. As given in Table Number 5.2, No association was found between Gender and Occupation with the selected criteria of Accessibility. Age was found to be associated with Accessibility considering only 1 statement out of 7 statements at 0.05 level of significance. A significant association was found between Education with Accessibility in only 1 statement out of 7 statements at 0.05 level of significance. Finally, the Monthly Income was associated with Accessibility in 5 statements out of 7 statements at a 0.05 level of significance. Hence, it was found that out of a total of 35 relationships (7 criteria x 5 Demographic variables) between selected criteria and demographic variables, the association was significant in 7 criteria. Hence, hypothesis H1 is supported for all selected statements. However, the study failed to accept the Null hypothesis for the 28 criteria as no significant association was found between the demographic variables and the statements related to the 'Accessibility' factor.

### Hypotheses of the Research Study:

Ho: There is no significant relationship between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected Criteria of the Affordability factor.

H1: There is a significant relationship between gender, age, education, occupation, and monthly income vis-à-vis selected criteria of the Affordability factor.

**Table No. 5.3**

**Results of the Chi-square Test Between Gender, Age, Education, Occupation, Monthly Income and Selected Criteria of Affordability Factor:**

Sr. No	Statements of Affordability Criteria	'P-Value of Chi-Square (Gender)	'P-Value of Chi-Square (Age)	'P-Value of Chi-Square (Education)	'P-Value of Chi-Square (Occupation)	'P-Value of Chi-Square (Monthly Income)
01	PHC is inexpensive	0.068(NS)	0.228(NS)	0.763(NS)	0.183(NS)	0.838(NS)
02	Users of PHC Services do not have to spend for medical services at PHC	0.544(NS)	<b>0.003(S)</b>	0.070(NS)	0.368(NS)	<b>0.006(S)</b>
03	Charges as per rules at PHC	0.557(NS)	0.311(NS)	0.239(NS)	0.066(NS)	0.147(NS)
04	Users of PHC Services can spend money to reach PHC	<b>0.010(S)</b>	0.246(NS)	0.474(NS)	<b>0.028(S)</b>	0.452(NS)
05	Affordability of hospitalization at the PHC	0.394(NS)	0.058(NS)	0.477(NS)	0.462(NS)	<b>0.000(S)</b>

Source: Field Work

### **5.2.2: Findings of the Chi-square Test between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected Criteria Affordability:**

The chi-square test was applied to test the association between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected Factors under Affordability. As given in Table Number 5.3, no association was found between Education and the selected criteria of the Affordability factor. Age was associated with Affordability in only 1 out of 5 statements at 0.05 level of significance. The occupation was associated with Affordability in 1 out of 5 statements. Gender was also associated with Affordability in only 1 out of 5 statements at 0.05 level of significance. Finally, the Monthly Income was associated with Affordability in 2 out of 5 statements at a 0.05 level of significance. Hence, it was found that out of a total of 25 relationships (5 criteria x 5 Demographic variables) between selected criteria and demographic variables, the association was found significant in 5 criteria, and hypothesis H1 is supported for these cases. The study failed to accept the null hypothesis for the remaining 20 relationships as no significant association was found between the demographic variables and the statements related to the 'Affordability' factor.

### **Hypotheses of the Research Study:**

Ho: There is no significant relationship between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected Criteria of the Availability factor.

H1: There is a significant relationship between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected Criteria of the Availability factor.

**Table No. 5.4**  
**Results of the Chi-square Test Between Gender, Age, Education, Occupation, Monthly Income and Selected Criteria of Availability Factor:**

Sr. No	Statements of Availability Criteria	'P-Value of Chi-Square (Gender)	'P-Value of Chi-Square (Age)	'P-Value of Chi-Square (Education)	'P-Value of Chi-Square (Occupation)	'P-Value of Chi-Square (Monthly Income)
01	Doctors' Availability at PHC	0.973(NS)	0.349(NS)	<b>0.030(S)</b>	0.694(NS)	0.356(NS)
02	Medicines prescribed by doctors are available at the PHC	0.963(NS)	0.241(NS)	0.431(NS)	0.074(NS)	0.088(NS)
03	Users of PHC Services get all the medicines free of cost at the PHC	0.568(NS)	0.417(NS)	0.309(NS)	0.077(NS)	<b>0.025(S)</b>
04	PHC offers services of testing blood, urine, and sputum of users of PHC Services	<b>0.005(S)</b>	0.716(NS)	0.186(NS)	<b>0.011(S)</b>	0.340(NS)
05	Hospitalization is available at PHC	0.616(NS)	0.439(NS)	0.600(NS)	0.206(NS)	0.555(NS)
06	Minor surgeries are available at PHC	0.637(NS)	0.993(NS)	0.275(NS)	0.440(NS)	0.436(NS)
07	Ambulance service available at PHC	0.405(NS)	<b>0.050(S)</b>	<b>0.000(S)</b>	<b>0.006(S)</b>	<b>0.000(S)</b>
08	Laboratory technicians available at PHC	0.064(NS)	0.177(NS)	0.101(NS)	0.168(NS)	0.637(NS)
09	Pharmacists available at PHC	0.549(NS)	0.370(NS)	0.524(NS)	0.724(NS)	0.785(NS)

Source: Field Work

### 5.2.3: Findings of the Chi-square Test between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected Factor Availability:

The chi-square test was applied to test the association between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected factors under Availability. As given in Table Number 5.4, Gender was found to be associated with the Availability of 1 out of 9 statements. Age was related to the Availability of only 1 out of 9 statements at a 0.05 level of significance. The Education was associated with the Availability 2 out of 9 statements. The Occupation was also related to the Availability of only 2 out of 9 statements at 0.05 level of significance. Finally, the Monthly Income was associated with the Availability of 2 out of 9 statements at a 0.05 level of significance. Hence, it was found that the out of a total of 45 relationships (9 criteria x 5 Demographic variables) between selected criteria and demographic variables, the association was found significant in 8 points, and hypothesis H1 is supported for these cases. The study failed to accept the hypothesis for the remaining 37 relationships as no significant association was found between the demographic variables and the statements identifying the variable 'Availability' under the study.

### Hypotheses of the Research Study:

Ho: There is no significant relationship between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected criteria of Environment factor.

H1: There is a significant relationship between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected criteria of the Environment factor.

**Table No. 5.5****Results of the Chi-square Test Between Gender, Age, Education, Occupation, Monthly Income and Selected Criteria of Environment Factors:**

Sr. No	Statements of Environment Criteria	'P-Value of Chi-Square (Gender)	'P-Value of Chi-Square (Age)	'P-Value of Chi-Square (Education)	'P-Value of Chi-Square (Occupation)	'P-Value of Chi-Square (Monthly Income)
01	Water logging around PHC	0.914(NS)	<b>0.000(S)</b>	<b>0.000(S)</b>	0.229(NS)	<b>0.000(S)</b>
02	Clean PHC in village	0.169(NS)	0.905(NS)	<b>0.015(S)</b>	0.076(NS)	0.096(NS)
03	Garbage around PHC in the village	0.319(NS)	0.893(NS)	0.976(NS)	0.829(NS)	0.671(NS)
04	PHC has drainage facilities	0.929(NS)	0.775(NS)	<b>0.015(S)</b>	0.760(NS)	0.245(NS)
05	People in the village have jobs survival	0.515(NS)	<b>0.001(S)</b>	<b>0.018(S)</b>	0.247(NS)	<b>0.000(S)</b>
06	Availability of schools in the village	0.559(NS)	0.856(NS)	0.176(NS)	0.689(NS)	0.781(NS)
07	Natural Lights in PHC	0.059(NS)	0.251(NS)	<b>0.002(S)</b>	0.596(NS)	0.649(NS)
08	PHC noise pollution free in the village	0.363(NS)	0.532(NS)	0.199(NS)	0.779(NS)	0.529(NS)
09	PHC is infection-free in village	0.412(NS)	0.349(NS)	0.197(NS)	0.672(NS)	0.735(NS)

Source: Field Work

**5.2.4: Findings of the Chi-square Test between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected Factor Environment:**

The chi-square test was applied to test the association between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected criteria of Environment factors. As given in Table Number 5.5, Gender and occupation were found to be not associated with the environment. Age was associated with the environment factor in only 2 out of 9 statements at 0.05 level of significance. In 5 out of 9 statements, Education was found to be associated with the environment factor. Finally, the Monthly Income was associated with the environment factor in 2 out of 9 statements at a 0.05 level of significance. Hence, it was found that the out of a total of 45 relationships (9 criteria x 5 Demographic variables) between selected criteria and demographic variables, the association was found significant in 9 statements, and hypothesis H1 is supported for these cases. The study failed to accept the hypothesis for the remaining 36 cases as no significant association was found between the demographic variables and the statements related to the 'environment' factor.

**Hypotheses of the Research Study:**

Ho: There is no significant relationship between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected criteria of the Infrastructure (Physical Facilities) factor.

H1: There is a significant relationship between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected criteria of the Infrastructure (Physical Facilities) factor.

**Table No. 5.6**

**Results of the Chi-square Test Between Gender, Age, Education, Occupation, Monthly Income and Selected Criteria of Infrastructure Factor:**

Sr. No	Statements of Infrastructure Criteria	'P-Value of Chi-Square (Gender)	'P-Value of Chi-Square (Age)	'P-Value of Chi-Square (Education)	'P-Value of Chi-Square (Occupation)	'P-Value of Chi-Square (Monthly Income)
01	PHC is in good condition	0.624(NS)	0.628(NS)	0.054(NS)	0.913(NS)	0.552(NS)
02	PHC buildings are painted	0.054(NS)	0.821(NS)	0.117(NS)	0.365(NS)	0.562(NS)
03	The doors and windows of PHC are in good condition	0.958(NS)	0.213(NS)	<b>0.050(S)</b>	0.760(NS)	0.122(NS)
04	Water leakages in rooms of PHC	0.527(NS)	<b>0.036(S)</b>	0.115(NS)	0.350(NS)	<b>0.016(S)</b>
05	Electricity supply in PHC	0.444(NS)	0.536(NS)	0.217(NS)	0.213(NS)	0.313(NS)
06	Drinking water facilities at PHC	0.629(NS)	<b>0.021(S)</b>	<b>0.002(S)</b>	0.282(NS)	<b>0.000(S)</b>
07	Toilet facilities at PHC	0.671(NS)	<b>0.029(S)</b>	<b>0.001(S)</b>	<b>0.025(S)</b>	<b>0.000(S)</b>
08	Availability of beds for users of PHC Services at PHC	0.799(NS)	0.238(NS)	<b>0.031(S)</b>	0.440(NS)	0.550(NS)
09	Testing of blood, urine, sputum for users of PHC Services at PHC	0.539(NS)	0.388(NS)	0.555(NS)	0.918(NS)	0.220(NS)
10	Ambulance available at PHC	0.681(NS)	0.338(NS)	0.187(NS)	0.487(NS)	0.961(NS)
11	Medical equipment available at PHC	0.912(NS)	0.347(NS)	0.284(NS)	0.910(NS)	0.858(NS)

Source: Field Work

#### **5.2.5: Findings of the Chi-square Test between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected Factor Infrastructure:**

The chi-square test was applied to test the association between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected and selected criteria of the Infrastructure factor. As given in Table Number 5.6, no association was found between Gender and Infrastructure factor. Age was found to be associated with the infrastructure in 3 out of 11 statements at 0.05 level of significance. Education was found to be associated with the infrastructure in 4 out of 11 statements. The occupation was found to be associated with the infrastructure in only 1 out of 11 statements at a 0.05 level of significance. Finally, the Monthly Income was found to be associated with the infrastructure in 3 out of 11 statements at a 0.05 level of significance. Hence, it was found that out of a total of 55 relationships (11 criteria x 5 Demographic variables) between selected criteria and demographic variables, the association was found significant in 11 relationships, and hypothesis H1 is supported for these cases. The study failed to accept the hypothesis for the remaining 44 cases as no significant association was found between the demographic variables and the statements related to the 'Infrastructure' factor considered under study.

#### **Hypotheses of the Research Study:**

Ho: There is no significant relationship between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected criteria of the Work Culture factor.

H1: There is a significant relationship between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected criteria of the Work Culture factor.

**Table No. 5.7**

**Results of the Chi-square Test Between Gender, Age, Education, Occupation, Monthly Income and Selected Criteria of Work Culture Factor:**

Sr. No	Statements of Work Culture criteria	'P-Value of Chi-Square (Gender)	'P-Value of Chi-Square (Age)	'P-Value of Chi-Square (Education)	'P-Value of Chi-Square (Occupation)	'P-Value of Chi-Square (Monthly Income)
01	Doctors explain illness to users of PHC Services	0.229(NS)	0.381(NS)	0.058(NS)	0.619(NS)	0.718(NS)
02	Doctors support users of PHC Services while treatment	0.467(NS)	0.050(S)	0.014(S)	0.031(S)	0.000(S)
03	Doctors behave politely with users of PHC Services	0.836(NS)	0.002(S)	0.015(S)	0.424(NS)	0.004(S)
04	Doctors show a positive attitude towards users of PHC Services	0.809(NS)	0.577(NS)	0.455(NS)	0.357(NS)	0.223(NS)
05	Doctors take users of PHC Services into confidence while testing	0.757(NS)	0.523(NS)	0.115(NS)	0.499(NS)	0.105(NS)
06	Paramedical staff explains medical treatment	0.443(NS)	0.002(S)	0.002(S)	0.193(NS)	0.000(S)
07	Paramedical staff are polite	0.450(NS)	0.003(S)	0.022(S)	0.333(NS)	0.001(S)
08	Paramedical staff answers to queries of users of PHC Services	0.285(NS)	0.551(NS)	0.378(NS)	0.067(NS)	0.602(NS)
09	Paramedical staff listen to suggestions of users of PHC Services	0.237(NS)	0.592(NS)	0.206(NS)	0.578(NS)	0.780(NS)

Source: Field Work

#### **5.2.6: Findings of the Chi-square Test between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected Work Culture factor:**

The chi-square test was applied to test the association between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected and selected criteria of work culture factor. As given in Table Number 5.7, it was found that Gender has no association with the work culture factor. Age was found to be associated with the work culture in 4 out of 9 statements at 0.05 level of significance. Education was associated with the work culture in 4 out of 9 statements. The occupation was associated with the work culture factor in only 1 out of 9 statements at a 0.05 level of significance. Finally, the Monthly Income was associated with the work culture factor in 4 out of 9 statements at a 0.05 level of significance. Hence, it was found that out of a total of 45 relationships (9 criteria x 5 Demographic variables) between selected criteria and demographic variables, the association was found significant in 13 relationships, and hypothesis H1 is supported for these cases. The study failed to accept the hypothesis for the remaining 32 cases as no significant association was found between the demographic variables and the statements related to the 'work culture' factor.

#### **Hypotheses of the Research Study:**

Ho: There is no significant relationship between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected criteria of the Service Delivery factor.

H1: There is a significant relationship between gender, Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected criteria of the Service Delivery factor.

**Table No. 5.8****Results of the Chi-square Test Between Gender, Age, Education, Occupation, Monthly Income and Selected Criteria of Service Delivery Factor:**

Sr. No	Statements of Service Delivery Criteria	'P-Value of Chi-Square (Gender)	'P-Value of Chi-Square (Age)	'P-Value of Chi-Square (Education)	'P-Value of Chi-Square (Occupation)	'P-Value of Chi-Square (Monthly Income)
01	Users of PHC Services feel safe while availing medical treatment at PHC	0.260(NS)	0.070(NS)	0.366(NS)	0.322(NS)	0.169(NS)
02	Doctor, Nurse, or any other PHC worker does not ask for money other than for the case paper	0.761(NS)	0.195(NS)	0.116(NS)	0.118(NS)	0.816(NS)
03	The staff of PHC collects feedback from the users of PHC Services	0.599(NS)	0.033(S)	0.048(S)	0.047(S)	0.004(S)
04	Doctors refer to other doctors online for giving medical treatment	0.433(NS)	0.004(S)	0.021(S)	0.010(S)	0.000(S)
05	Rules and procedures are followed by PHC	0.030(S)	0.075(NS)	0.022(S)	0.157(NS)	0.088(NS)
06	Doctors ask users of PHC Services to visit their own or any other doctor's private clinic	0.612(NS)	0.002(S)	0.020(S)	0.060(NS)	0.000(S)
07	Doctors examine users of PHC Services using the stethoscope	0.791(NS)	0.468(NS)	0.807(NS)	0.217(NS)	0.655(NS)
08	the doctor explains about users of PHC Services' illness in his/her language	0.315(NS)	0.365(NS)	0.950(NS)	0.029(S)	0.524(NS)
09	the behaviour of the nurse, pharmacist, and lab technician is polite and courteous	0.486(NS)	0.992(NS)	0.897(NS)	0.213(NS)	0.870(NS)
10	PHC staff wears the hygienic gloves	0.074(NS)	0.725(NS)	0.926(NS)	0.007(S)	0.113(NS)
11	Post-medical treatment is explained by doctors to users of PHC Services	0.755(NS)	0.893(NS)	0.084(NS)	0.687(NS)	0.531(NS)

Source: Field Work

**5.2.7: Findings of the Chi-square Test between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected Service Delivery factor:**

The chi-square test was applied to test the association between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected criteria of service delivery factor. As given in Table 5.8, Gender was associated with the service delivery factor in 1 out of 11 statements, and Age was associated with 2 out of 11 statements at a 0.05 level of significance. Education was associated with service delivery factors in 4 out of 11 statements. The occupation was associated with the service delivery factor in only 4 out of 11 statements at a 0.05 level of significance. Finally, the Monthly Income was associated with the service delivery factor in 3 out of 11 statements at a 0.05 level of significance. Hence, it was found that out of a total of 55 relationships (11 criteria x 5 Demographic variables) between selected criteria and demographic variables, the association was found significant in 15 relationships, and hypothesis H1 is supported for these cases. The study failed to accept the hypothesis for the other 40 relationships as no significant association was found between the demographic variables and the statements related to the 'Service Delivery' factor under the study.

**Hypotheses of the Research Study:**

Ho: There is no significant relationship between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected criteria of the Community Engagement factor.

H1: There is a significant relationship between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected criteria of the Community Engagement factor.

**Table No. 5.9**  
**Results of the Chi-square Test Between Gender, Age, Education, Occupation, Monthly Income and Selected Criteria of Community Engagement Factor:**

Sr. No	Statements of Community Engagement Criteria	'P-Value of Chi-Square (Gender)	'P-Value of Chi-Square (Age)	'P-Value of Chi-Square (Education)	'P-Value of Chi-Square (Occupation)	'P-Value of Chi-Square (Monthly Income)
01	The staff of PHC organizes meeting with the sarpanch and community	0.589(NS)	0.350(NS)	0.204(NS)	0.894(NS)	0.120(NS)
02	The staff of PHC gives a presentation in the village about health/medical issues	0.836(NS)	0.197(NS)	0.543(NS)	0.523(NS)	0.785(NS)
03	The staff of PHC visits families in the village to advise about precautions for maintaining good health	0.280(NS)	0.804(NS)	0.418(NS)	0.704(NS)	0.037(NS)
04	The staff of PHC show posters to inform people of the village about good health	0.316(NS)	0.155(NS)	0.674(NS)	0.704(NS)	0.429(NS)
05	The staff of PHC train people of the village to develop awareness about medical issues	0.375(NS)	0.748(NS)	0.659(NS)	0.733(NS)	0.404(NS)
06	The staff of PHC gives health education to children in the school in the village	0.793(NS)	<b>0.003(S)</b>	<b>0.027(S)</b>	0.087(NS)	<b>0.000(S)</b>
07	The staff of PHC organizes health camps	0.637(NS)	0.064(NS)	0.731(NS)	0.125(NS)	0.276(NS)
08	The staff of PHC goes to gram panchayat meetings to make people aware of health issues	0.773(NS)	0.298(NS)	0.101(NS)	0.775(NS)	0.972(NS)
09	The staff of PHC collects feedback from people of the village on services provided by PHC	<b>0.046(S)</b>	0.932(NS)	0.492(NS)	0.369(NS)	0.375(NS)
10	The staff of PHC meets Mahila mandals to develop an awareness of health issues	0.446(NS)	0.401(NS)	0.217(NS)	0.420(NS)	0.863(NS)
11	The staff of PHC assesses the health need of the people of the village	0.524(NS)	0.149(NS)	0.589(NS)	0.724(NS)	0.845(NS)
12	The health care center organizes free medical check-ups in the village	0.875(NS)	<b>0.006(S)</b>	0.991(NS)	0.090(NS)	0.148(NS)

Source: Field Work

#### **5.2.8: Findings of the Chi-square Test between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected d factor Community Engagement:**

The chi-square test was applied to test the association between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected criteria of community engagement factor. As given in Table Number 5.9, Gender was found to be associated with the Community Engagement factor in 1 out of 12 statements, and age was found to be associated with 2 out of 12 statements at 0.05 level of significance. Education was associated with the community engagement factor in 1 out of 12 statements. The Occupation was found not associated with the Community Engagement factor. Finally, the monthly income was associated with the community engagement factor in 1 out of 12 statements at a 0.05 level of significance. Hence, it was found that out of a total of 60 relationships (12 criteria x 5 Demographic variables) between selected criteria and demographic variables, the association was found significant in 5 relationships, and hypothesis H1 is supported for these cases. The study failed to accept the hypothesis for the remaining 55 relationships as no significant association was found between the demographic variables and the statements related to the 'community engagement' factor.

#### **Hypotheses of the Research Study:**

Ho: There is no significant relationship between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected criteria of the 'Perception for using PHC Services' factor.

H1: There is a significant relationship between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected criteria of the 'Perception for using PHC Services' factor.



**Table No. 5.10**

**Results of the Chi-square Test Between Gender, Age, Education, Occupation, Monthly Income and Selected Criteria of 'Perception for the use of PHC Services' Factor:**

Sr. No	Statements of Perception for the use of PHC Service Criteria	'P-Value of Chi-Square (Gender)	'P-Value of Chi-Square (Age)	'P-Value of Chi-Square (Education)	'P-Value of Chi-Square (Occupation)	'P-Value of Chi-Square (Monthly Income)
01	People visit PHC when the first symptoms of diseases arise	0.257(NS)	<b>0.000(S)</b>	<b>0.023(S)</b>	0.120(NS)	<b>0.000(S)</b>
02	People visit PHC when diseases in its advanced stage	0.280(NS)	0.650(NS)	0.159(NS)	0.608(NS)	0.475(NS)
03	Medication should be continued as recommended by PHC	0.323(NS)	0.321(NS)	0.668(NS)	0.371(NS)	0.208(NS)
04	People follow the advice given by PHC	0.973(NS)	0.955(NS)	0.552(NS)	0.560(NS)	0.561(NS)
05	People accept the advice of the doctor at PHC on the prevention of medical illness	<b>0.032(S)</b>	0.175(NS)	0.475(NS)	0.710(NS)	0.117(NS)
06	People feel happy when doctors ask questions about my medical illness	0.294(NS)	0.576(NS)	0.081(NS)	0.354(NS)	0.069(NS)
07	People feel comfortable while sitting inside PHC	0.554(NS)	0.779(NS)	0.834(NS)	0.999(NS)	0.821(NS)
08	People find no overcrowding in PHC	0.563(NS)	<b>0.002(S)</b>	<b>0.011(S)</b>	0.160(NS)	<b>0.000(S)</b>
09	The attitude of PHC staff is positive	0.453(NS)	0.877(NS)	0.232(NS)	0.160(NS)	0.239(NS)
10	People are satisfied with the medical treatment provided by PHC	0.984(NS)	0.154(NS)	0.685(NS)	0.834(NS)	0.593(NS)
11	Hygiene and sanitary conditions of PHC are good	0.533(NS)	0.914(NS)	0.226(NS)	0.721(NS)	0.177(NS)
12	People visit PHC again if the medical services of PHC have improved my health	0.709(NS)	0.464(NS)	0.772(NS)	0.836(NS)	0.172(NS)
13	People would visit Higher-level health facilities if PHC's medication did not help them in becoming physically fit	0.159(NS)	0.310(NS)	0.656(NS)	0.467(NS)	0.549(NS)

Source: Field Work

### **5.2.9: Findings of the Chi-square Test between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected Factor Perception of Users for PHCs Services:**

The chi-square test was applied to test the association between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected criteria of the 'Perception for the use of PHC Services' factor. As given in Table Number 5.10, Gender was found to be associated with the 'Perception of the use of PHC Services' in 1 out of 13 statements, and Age was found to be associated with 2 out of 13 statements at 0.05 level of significance. Education was found to be associated with the 'Perception of the use of PHC Services' in 2 out of 13 statements. No association was found between the Occupation and Perception of PHC Services use. The monthly Income variable was associated with the Perception of the use of PHC Services in 02 out of 13 statements, at a 0.05 level of significance.

Hence, it was found that out of a total of 65 relationships (13 criteria x 5 Demographic variables) between selected criteria and demographic variables, the association was found significant in 7 points, and hypothesis H1 is supported for these relationships.

Based on the result, the null hypothesis is accepted for the remaining 58 relationships. No significant association was found between the demographic variables and the statements related to 'Perception for the use of PHC Services' under the study.

### **Hypotheses of the Research Study:**

Ho: There is no significant relationship between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected Preference criteria for the PHC factor.

H1: There is a significant relationship between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected Preference criteria for the PHC factor.

**Table No. 5.11**

**Results of the Chi-square Test Between Gender, Age, Education, Occupation, Monthly Income and Selected Criteria of Preference for PHC Factor:**

Sr. No	Statements of Preference for PHC Criteria	'P-Value of Chi-Square (Gender)	'P-Value of Chi-Square (Age)	'P-Value of Chi-Square (Education)	'P-Value of Chi-Square (Occupation)	'P-Value of Chi-Square (Monthly Income)
01	PHC charges are reasonable	0.829(NS)	0.713(NS)	0.674(NS)	0.587(NS)	<b>0.013(S)</b>
02	People prefer PHC as an acceptable quality service	0.132(NS)	0.827(NS)	0.779(NS)	0.175(NS)	0.607(NS)
03	Health personnel remain available at PHC	0.224(NS)	0.859(NS)	0.685(NS)	0.238(NS)	0.433(NS)
04	Availability of drugs at PHC	0.433(NS)	0.433(NS)	0.221(NS)	0.912(NS)	<b>0.025(S)</b>
05	Good behaviour of health staff at PHC	0.792(NS)	0.342(NS)	0.893(NS)	0.568(NS)	0.876(NS)
06	People have faith in doctors at PHC	0.899(NS)	0.090(NS)	0.748(NS)	0.832(NS)	<b>0.006(S)</b>
07	People get treatment at PHC as the response of staff positive	0.333(NS)	0.274(NS)	0.660(NS)	0.230(NS)	0.896(NS)
08	Not much waiting time at PHC	0.783(NS)	<b>0.009(S)</b>	0.534(NS)	0.535(NS)	0.271(NS)
09	People found hygiene at PHC	0.446(NS)	0.760(NS)	0.127(NS)	0.408(NS)	0.502(NS)
10	Provision for health information at PHC	0.896(NS)	0.747(NS)	0.442(NS)	0.222(NS)	0.791(NS)

Source: Field Work \*\*. The association is significant at the 0.01 level (2-tailed). \*. The association is significant at the 0.05 level.

**5.2.10: Findings of the Chi-square Test between gender, age, education, occupation, and monthly income with the selected factor Preference of users of PHCs:**

The chi-square test was applied to test the association between Gender, Age, Education, Occupation, and Monthly Income Vis-À-Vis Selected factors under Preference for PHC. As given in Table Number 5.11, Gender, Education, and Occupation was found not to be associated with the Preference for the PHC factor. Furthermore, age was associated with only 1 out of 10 statements at a 0.05 level of significance. On the other hand, the Monthly Income was found to be associated with the Preference for the PHC factor in 3 out of 10 statements at a 0.05 level of significance. Hence, it was found that the out of a total of 50 relationships (10 criteria x 5 Demographic variables) between selected criteria and demographic variables, the association was found significant in only four relationships, and hypothesis H1 is supported for these cases.

The study failed to accept the hypothesis for the other 46 relationships as no significant association was found between the demographic variables and the statements related to the 'Preference for PHC' factor.

### 5.3: RANKING OF THE SELECTED CRITERIA OF PHCs:

The Friedman Test was applied to compare the mean rank preference for the Selected Criteria of PHCs, and its result is shown in Table No. 5.12

**Table No. 5.12**  
**Ranking of The Selected Criteria of PHCs:**

Descriptive Statistics (N= 299)							Friedman	
Selected Criteria of PHCs	N	Percentiles			Mean Rank	Median Value	Test Score Value	Rank
		25th	50th (Median)	75th				
Accessibility	650	4.00	4.43	4.86	5.48	4.43	$\chi^2 = 166.396$ $df = 9$ $P\text{-Value} = 0.000$	6
Affordability	650	4.00	4.40	4.80	5.24	4.40		9
Availability	650	4.33	4.44	4.67	5.54	4.44		5
Environment	650	4.00	4.44	4.89	5.33	4.44		8
Infrastructure (Physical facilities)	650	4.00	4.45	5.00	5.39	4.45		7
Work Culture	650	4.00	4.44	5.00	5.08	4.44		10
Service Delivery	650	4.00	4.55	5.00	5.71	4.55		3
Community Engagement	650	4.17	4.50	5.00	5.62	4.50		4
Perception	650	4.15	4.54	4.85	5.85	4.54		1
Preference	650	4.40	4.50	5.00	5.77	4.50		2

Source: Field Work

#### 5.3.1 Findings of the Rank Test Applied on Selected Factors of PHCs:

Table 5.12 shows the result of a Friedman Test that was carried out to compare the mean rank preference for the Selected Criteria of PHCs from respondents of selected villages of Vadodara District. The result shows that Perception, Preference and Service Delivery were three critical factors preferred by selected users of PHCs, followed by all remaining factors. Furthermore, it was found that there is an overall statistically significant difference between the mean ranks of the related groups with an  $\chi^2$  value (DF 9) = 166.396,  $p < 0.00$ .

#### 5.4: FACTOR ANALYSIS OF SELECTED FACTORS RELATED TO PRIMARY HEALTH CARE CENTERS SERVICES:

To measure the suitability of the data for factor analysis, the adequacy of the data is evaluated based on the results of Kaiser-Meyer-Olkin (KMO) measures of sampling adequacy and Bartlett's Test of Sphericity (Homogeneity of Variance). These tests were applied for all the data groups in which factor analysis is preferred.

##### 5.4.1: Factor Analysis of Selected Criteria related to User's Overall Experience on 'Accessibility' of PHCs in the Selected villages of the Vadodara District of Gujarat State

**Table No: 5.13**

##### **Results of KMO and Bartlett's Test for the 'Accessibility' Factor of Selected PHCs**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.880
Bartlett's Test of Sphericity	Approx. Chi-Square	2420.541
	Df	21
	Sig.	000

Source: Field work

Regarding the Accessibility of the PHCs, the results showed that the KMO measure of sampling adequacy was 0.880, indicating that the present data were suitable for Factor Analysis. Similarly, Bartlett's Test of Sphericity (0.00) was significant ( $p < .05$ ), indicative of a sufficient correlation between the criteria to proceed with the factor analysis.

**Table No: 5.14**

##### **Total Variance on the 'Accessibility' Factor of Selected PHCs in the Selected Villages of the Vadodara District of the Gujarat State**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	4.318	61.685	61.685	4.318	61.685	61.685
02	0.723	10.322	72.007			
03	0.545	7.784	79.791			
04	0.463	6.620	86.411			
05	0.402	5.749	92.160			
06	0.305	4.361	96.522			
07	0.243	3.478	100.00			

Source: Field work

##### **Extraction Method: Principal Component Analysis**

As per table number 5.14, only the first component (factors) in the initial solution had an Eigenvalue over 1, which accounted for about 62 per cent of the observed variations regarding selected PHCs users' perception of accessibility in the selected villages of the Vadodara District of Gujarat State. Therefore, according to Kaiser Criterion, only the first factor should be used because subsequent Eigenvalues are all less than 1.

**Table No: 5.15**  
**Communalities and Rotated Component Matrix of Selected PHCs User's Perception on**  
**'Accessibility' in the Selected Villages of the Vadodara District of the Gujarat State**

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component
01	I can easily visit the PHC of the Village	0.582	0.763
02	The PHC is available at a convenient location in our Village	0.682	0.826
03	The medical services are available to all	0.692	0.832
04	Medical services are available to all, irrespective of the income of people	0.631	0.795
05	The medical services are available to all irrespective of Gender of Users of PHC Services	0.625	0.791
06	The users of PHC Services can easily meet/visit/approach the doctors at the PHC	0.561	0.749
07	The users of PHC Services can easily meet/visit/approach the other Paramedical Staff at the PHC	0.544	0.738

Source: Field work

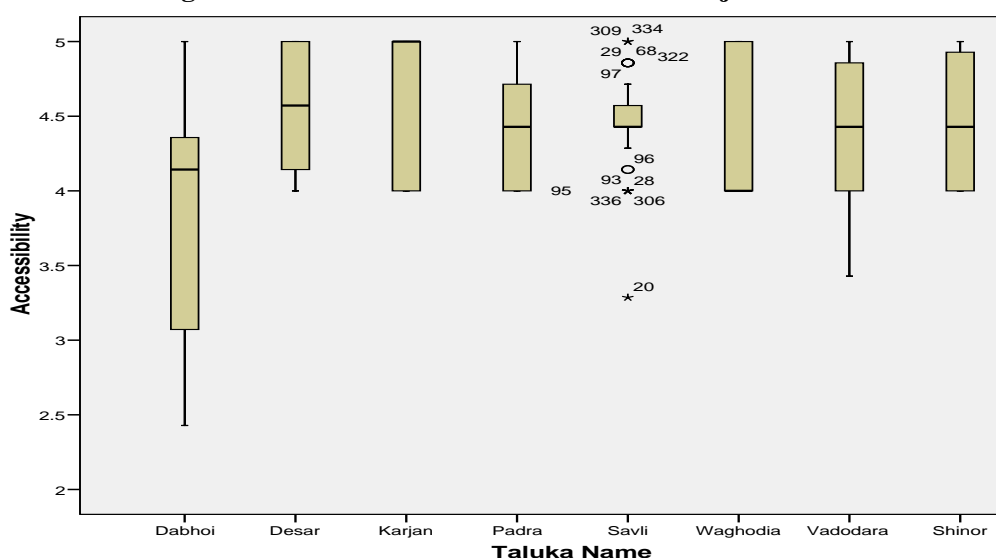
All the extracted communalities are acceptable, and all criteria are fit for the factor solution as their extraction values are large enough. Next, the factor loadings were used to measure the correlation between the criteria and the factors. A factor loading close to 1 indicates a strong correlation between criteria and factor, while a loading closer to zero indicates a weak correlation. Next, the elements are rotated using Varimax with Kaiser Normalization Rotation Method. The Principle Component Analysis (PCA) Method is used for factor extraction, and it considers only those factors for interpretation purposes whose values are more significant than 0.6.

The above table, number 5.15, indicates how much all criteria correlated with the component. For example, Criteria 01 (I can easily visit the PHC of the Village); Criteria 02 (The PHC is available at a convenient location in our Village); Criteria 03 (The medical services are open to all); Criteria 04 (The medical services are available to all irrespective of the income of people); Criteria 05 (The medical services are available to all irrespective of Gender of Users of PHC Services); Criteria 06 (The users of PHC Services can quickly meet/visit/approach the doctors at the PHC); and Criteria 07 (The users of PHC Services can promptly meet/visit/approach the other Paramedical Staff at the PHC) were found as more correlated with the component.

#### **Importance of Components for Selected Type of Talukas in Vadodara District of the Gujarat State:**

The importance of components to different types of talukas can be understood with the help of the below-given box plot presented in Graph number 5.1. For example, the following box plot explains eight talukas' total score of component criteria.

**Graph Number: 5.1**  
**Taluka-wise Box Plot for Component for Accessibility of the PHCs in Villages of different**  
**Eight Talukas of Vadodara District of the Gujarat State**



The above box plot indicates the component criteria (I can easily visit the PHC of Village, The PHC is available at a convenient location in our Village, The medical services are available to all, The medical services are available to all irrespective of the income of people, The medical services are open to all irrespective of Gender of Users of PHC Services, The users of PHC Services can quickly meet/visit/approach the doctors at the PHC, The users of PHC Services can promptly meet/visit/close the other Paramedical Staff at the PHC) were found to be more critical for Dabhoi, Desar, Karjan, Padra, Savli, Vadodar Rural and Shinor Taluka because of the large median value.

#### 5.4.2: Factor Analysis of Selected Criteria related to User's Overall Experience on 'Affordability' of PHCs in the Selected villages of the Vadodara District of Gujarat State

**Table No: 5.16**

**Results of KMO and Bartlett's Test for 'Affordability' Factor of Selected PHCs**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.810
Bartlett's Test of Sphericity	Approx. Chi-Square	977.611
	Df	10
	Sig.	0.000

Source: Field work

Regarding the Affordability of the PHCs, the results showed that the KMO measure of sampling adequacy was 0.810, indicating that the present data were suitable for Factor Analysis. Similarly, Bartlett's Test of Sphericity (0.00) was significant ( $p < .05$ ), indicative of a sufficient correlation between the criteria to proceed with the factor analysis.

<b>Table No: 5.17</b> <b>Total Variance on ‘Affordability’ Factor of Selected PHCs in the Selected Villages of the Vadodara District of the Gujarat State</b>						
<b>Component</b>	<b>Initial Eigenvalues</b>			<b>Extraction Sums of Squared Loadings</b>		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	2.825	56.502	56.502	2.825	56.502	56.502
02	0.746	14.913	71.414			
03	0.576	11.523	82.938			
04	0.445	8.894	91.832			
05	0.408	8.168	100.000			

Source: Field work

#### **Extraction Method: Principal Component Analysis**

As per table no. 5.17, the only first component (factors) in the initial solution was having an Eigenvalue over 1, which accounted for about 56 per cent of the observed variations regarding selected PHCs user’s experience on affordability in the selected villages of the Vadodara District of Gujarat State. Therefore, according to Kaiser Criterion, only the first factor should be used because subsequent Eigenvalues are all less than 1.

<b>Table No: 5.18</b> <b>Communalities and Rotated Component Matrix of Selected PHCs User’s Experience on ‘Affordability’ in the Selected Villages of the Vadodara District of the Gujarat State</b>			
<b>Sr. No.</b>	<b>Selected Criteria</b>	<b>Communalities Extraction</b>	<b>Rotated Component</b>
01	The medical services provided by PHC are Inexpensive	0.525	0.725
02	Users of PHC Services do not have to spend from their own pocket to avail of medical services at PHC	0.561	0.749
03	Charges for different medical services provided by PHC are as per rules that are conveyed to users of PHC Services	0.682	0.826
04	Users of PHC Services can easily afford to spend money to reach at the PHC	0.508	0.713
05	The users of PHC Services can afford to spend money on hospitalisation at the PHC	0.548	0.741

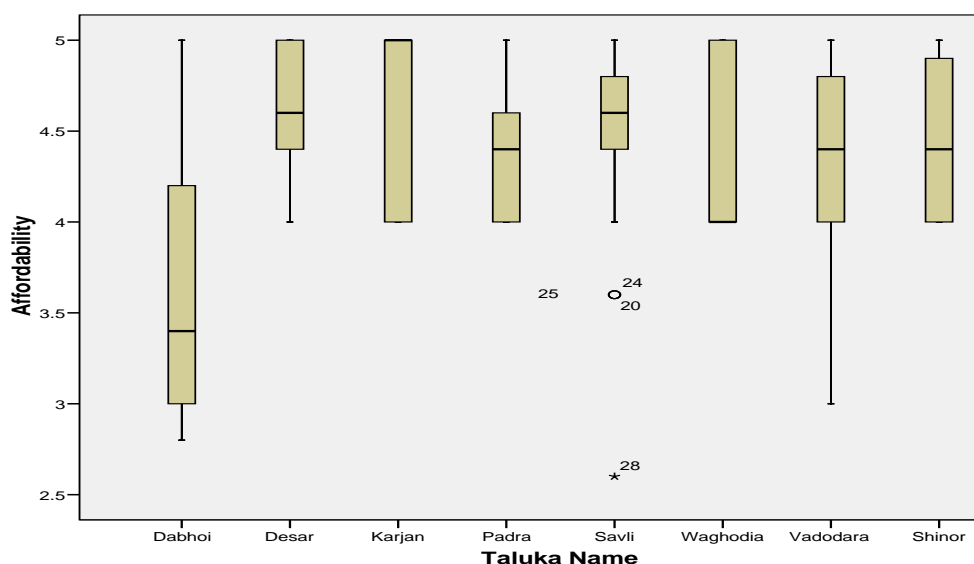
Source: Field work

The above table no. 5.18 indicates to what extent all different criteria correlated with the component. For example, Criteria 01 (The medical services provided by PHC are Inexpensive); criteria 02 (Users of PHC Services do not have to spend from their own pocket for availing medical services at PHC); criteria 03 (Charges for different medical services provided by PHC are as per rules that are conveyed to users of PHC Services); criteria 04 (Users of PHC Services can easily afford to spend money to reach at the PHC); and criteria 05 (The users of PHC Services can afford to pay cash for hospitalization at the PHC) were found as more correlated with the component.

### Importance of Components for Selected Type of Talukas in Vadodara District of the Gujarat State:

The importance of components to different types of talukas can be understood with the help of the below-given box plots. For example, the following box plot explains eight talukas' total score of component criteria.

**Graph Number: 5.2**  
**Taluka-wise Box Plot for Component for Affordability of the PHCs in Villages of different Eight Talukas of Vadodara District of the Gujarat State**



The above box plot indicated that component criteria (The medical services provided by PHC are Inexpensive, Users of PHC Services have not to spent from their own pocket for availing medical services at PHC, Charges for different medical services provided by PHC are as per rules that are conveyed to users of PHC Services, Users of PHC Services can easily afford to spend money to reach at the PHC, the users of PHC Services can afford to pay cash for hospitalization at the PHC) were found to be more important for Desar, Karjan and Savli Taluka because of the large median value.



#### 5.4.3: Factor Analysis of Selected Criteria related to User's Overall Experience on 'Availability' of PHCs in the Selected villages of the Vadodara District of Gujarat State

<b>Table No: 5.19</b>		
<b>Results of KMO and Bartlett's Test for the 'Availability' Factor of Selected PHCs</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.721
Bartlett's Test of Sphericity	Approx. Chi-Square	1940.476
	Df	36
	Sig.	0.000

Source: Field work

Regarding the availability of the PHCs, the results showed that the KMO measure of sampling adequacy was 0.721, indicating that the present data were suitable for Factor Analysis. Similarly, Bartlett's Test of Sphericity (0.00) was significant ( $p < .05$ ), indicative of a sufficient correlation between the criteria to proceed with the factor analysis.

<b>Table No: 5.20</b>						
<b>Total Variance on 'Availability' Factor of Selected PHCs in the Selected Villages of the Vadodara District of the Gujarat State</b>						
<b>Component</b>	<b>Initial Eigenvalues</b>			<b>Extraction Sums of Squared Loadings</b>		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	3.143	34.922	34.922	3.143	34.922	34.922
02	1.952	21.693	56.615	1.952	21.693	56.615
03	1.111	12.340	68.955	1.111	12.340	68.955
04	0.759	8.429	77.384			
05	0.592	6.577	83.961			
06	0.454	5.047	89.008			
07	0.363	4.032	93.040			
08	0.325	3.615	96.655			
09	0.301	3.345	100.00			

Source: Field work

#### Extraction Method: Principal Component Analysis

The first three components (factors) in the initial solution had an Eigenvalues over 1, accounting for about 67 per cent of the observed variations regarding selected PHCs user's experience on affordability in the selected villages of the Vadodara District of Gujarat State. Therefore, according to Kaiser Criterion, only the first three factors should be used because subsequent Eigenvalues are all less than 1.

**Table No: 5.21**  
**Communalities and Rotated Component Matrix of Selected PHCs User's Perception on**  
**'Availability' in the Selected Villages of the Vadodara District of the Gujarat State**

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component		
			1	2	3
01	The doctors are available at PHC as per the schedule	0.681	0.819	0.098	0.018
02	The medicines prescribed by doctors are available at PHC	0.746	0.848	-0.085	0.142
03	Users of PHC Services get all the medicines free of cost from the PHC	0.631	0.784	0.119	-0.031
04	The laboratory of PHC offers services of testing Blood, Urine, and Sputum of Users of PHC Services	0.538	0.708	0.190	-0.004
05	The services of hospitalisation are available at PHC	0.762	0.034	0.851	0.191
06	The services of minor surgeries are available at PHC	0.798	0.057	0.886	0.095
07	The Ambulance Service is available at PHC	0.475	0.393	0.533	0.190
08	The services of Laboratory Technicians are available at PHC as per the schedule	0.794	0.064	0.178	0.871
09	The services of Pharmacist are available at PHC as per the schedule	0.782	0.009	0.159	0.870

Source: Field work

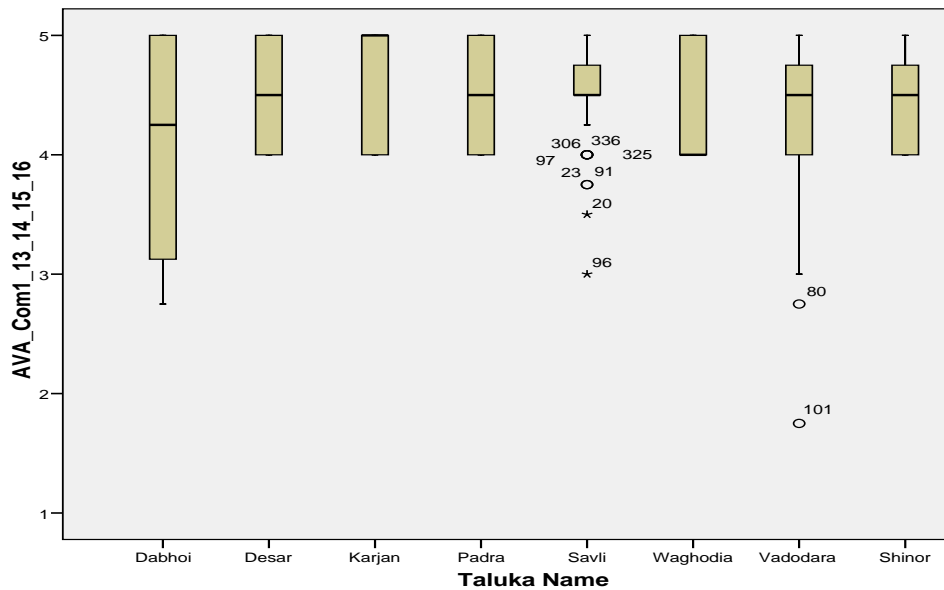
The above table clarifies how much all criteria correlated with the three components. Criteria 01 (The doctors are available at PHC as per schedule); Criteria 02 (The medicines prescribed by doctors are available at PHC); criteria 03 (Users of PHC Services get all the drugs free of cost from the PHC); criteria 04 (The laboratory of PHC offers services of testing Blood, Urine, and Sputum of Users of PHC Services) were found as more correlated with component 1. Criteria 05 (The services of hospitalization are available at PHC) and criteria 06 (The services of minor surgeries are available at PHC) were found to correlate more with Component 02. Criteria 08 (The services of Laboratory Technicians are available at PHC as per schedule) and Criteria 09 (The services of Pharmacist are general at PHC as per schedule) were found as more correlated with component 03.

#### **Importance of Components for Selected Type of Talukas in Vadodara District of the Gujarat State:**

The importance of components to different types of talukas can be understood with the help of the below-given box plots. For example, the following box plot explains eight talukas' total score of components 1 Criterion.

**Graph Number: 5.3**

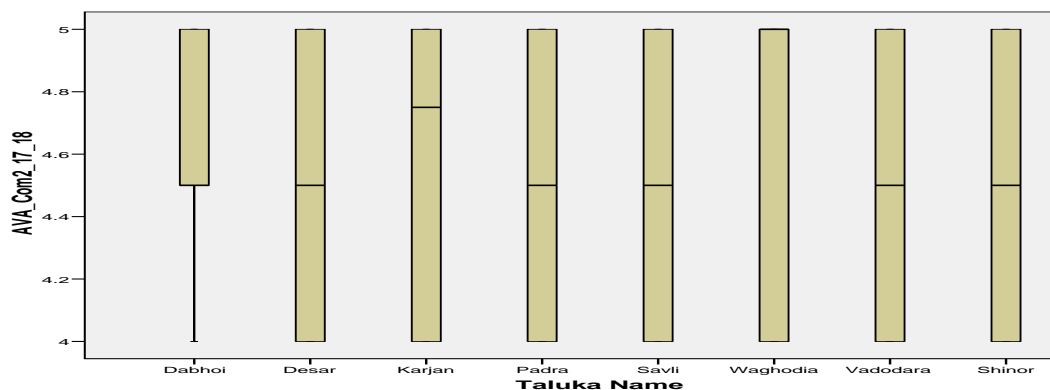
**Taluka-wise Box Plot for Component 1 for Availability of the PHCs in Villages of different Eight Talukas of Vadodara District of the Gujarat State**



The above box plot indicated that component 01 criteria (The doctors are available at PHC as per schedule, the medicines prescribed by doctors are available at PHC, Users of PHC Services get all the drugs free of cost from the PHC, and The laboratory of PHC offers services of testing Blood, Urine, and Sputum of Users of PHC Services) were found to be more critical for Dabhoi, Desar, Karjan, Padra, Savli, Vadodara Rural and Shinor Talukas because of the large median value.

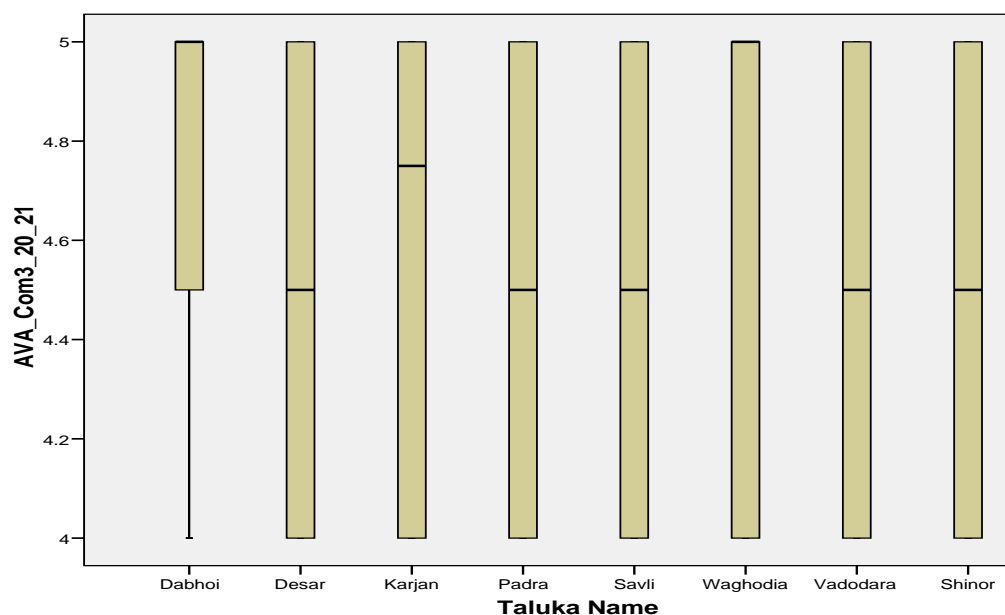
**Graph Number: 5.4**

**Taluka-wise Box Plot for Component 2 for Availability of the PHCs in Villages of different Eight Talukas of Vadodara District of the Gujarat State**



The above box plot indicated that component 2 criteria (The services of hospitalisation are available at PHC and The benefits of minor surgeries are available at PHC) were found to be more critical for Karjan and Waghodia because of large median value as compared to other talukas.

**Graph Number: 5.5**  
**Taluka-wise Box Plot for Component 3 for Availability of the PHCs in Villages of different**  
**Eight Talukas of Vadodara District of the Gujarat State**



The above box plot indicated that component 3 criteria (The services of Laboratory Technicians are available at PHC as per schedule, and The benefits of Pharmacists are available at PHC as per schedule) were found to be more important for Dabhoi, Karjan, and Waghodia Taluka because of the large median value.

#### 5.4.4: Factor Analysis of Selected Criteria related to User's Overall Experience with 'Environment' of PHCs in the Selected villages of the Vadodara District of Gujarat State

**Table No: 5.22**

**Results of KMO and Bartlett's Test for the 'Environment' Factor of Selected PHCs**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.748
Bartlett's Test of Sphericity	Approx. Chi-Square	2620.736
	Df	36
	Sig.	0.000

Source: Field work

In the case of the Environment of the PHCs, the results showed that the KMO measure of sampling adequacy was 0.748, indicating that the present data were suitable for Factor Analysis. Similarly, Bartlett's Test of Sphericity (0.00) was significant ( $p < .05$ ), indicative of a sufficient correlation between the criteria to proceed with the factor analysis.

<b>Table No: 5.23</b> <b>Total Variance on the ‘Environment’ Factor of Selected PHCs in the Selected Villages of the Vadodara District of the Gujarat State</b>						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	4.166	46.293	46.293	4.166	46.293	46.293
02	1.313	14.592	60.885	1.313	14.592	60.885
03	.917	10.191	71.076			
04	.714	7.937	79.014			
05	.550	6.112	85.125			
06	.476	5.284	90.409			
07	.403	4.480	94.889			
08	.316	3.509	98.399			
09	.144	1.601	100.000			

Source: Field work

#### Extraction Method: Principal Component Analysis:

The first two components (factors) in the initial solution had Eigenvalues over 1, accounting for about 60 per cent of the observed variations regarding selected PHCs user’s experience of the environment condition of PHCs in the selected villages of the Vadodara District of Gujarat State. Therefore, according to Kaiser Criterion, only the first three factors should be used because subsequent Eigenvalues are all less than 1.

<b>Table No: 5.24</b> <b>Communalities and Rotated Component Matrix of Selected PHCs User’s Experience on ‘Environment’ in the Selected Villages of the Vadodara District of the Gujarat State</b>				
Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component	
			1	2
01	We do not find Water logging around the PHC	0.906	0.129	0.943
02	We have clean PHC in our Village	0.560	0.667	0.340
03	We do not find heaps of Garbage around PHC in our Village	0.535	0.675	0.282
04	The PHC has Drainage facilities	0.509	0.710	0.068
05	The people in the village have jobs for their survival	0.799	0.222	0.866
06	The school is available in Village	0.517	0.702	0.158
07	PHC is Ventilated with natural lights	0.537	0.706	0.197
08	The location of the PHC Noise pollution-free	0.565	0.740	0.132
09	The Environment of PHC is infection free	0.551	0.740	0.058

Source: Field work

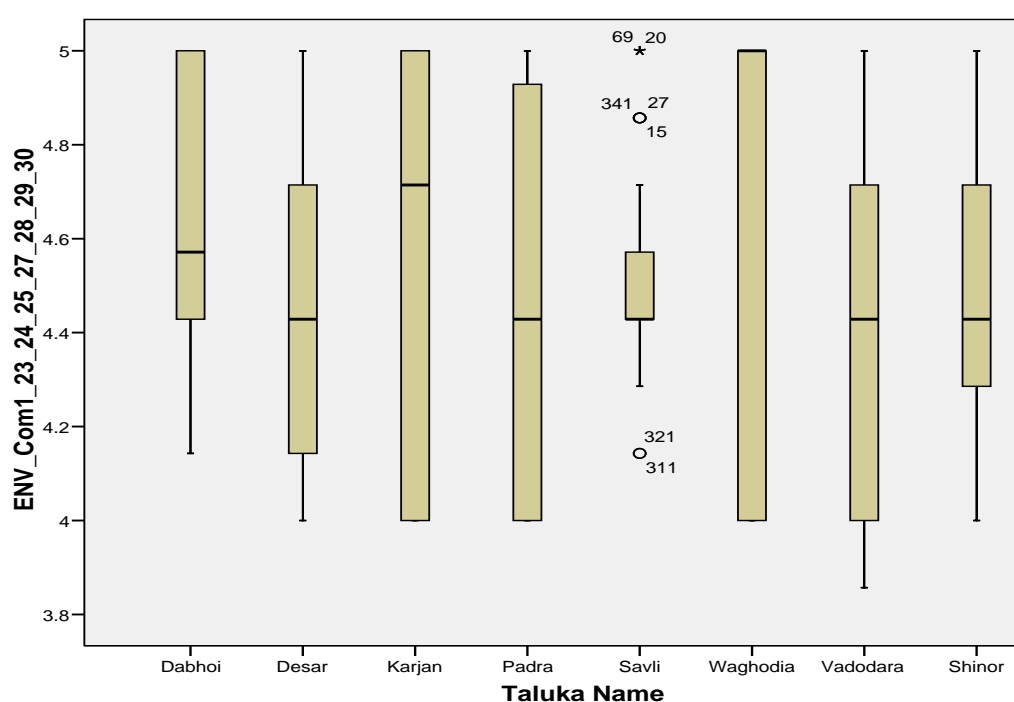
From the above table, no. 5.24, it becomes clear how much all criteria correlate with two different components. Criteria 02 (We have a clean PHC in our Village); Criteria 03 (We do not find heaps of Garbage around the PHC in our Village); criteria 04 (The PHC has Drainage facilities); criteria 06 (The school is available in Village); Criteria 07 (PHC is Ventilated with natural lights); Criteria 08 (The location of the PHC Noise pollution free); Criteria 09 (The Environment of PHC is infection free) were found as more correlated with component 1.

Criteria 01 (We do not find Water logging around the PHC) and criteria 05 (The people in the village have jobs for their survival) were found to be more correlated with Component 02.

### Importance of Components for Selected Type of Talukas in Vadodara District of the Gujarat State:

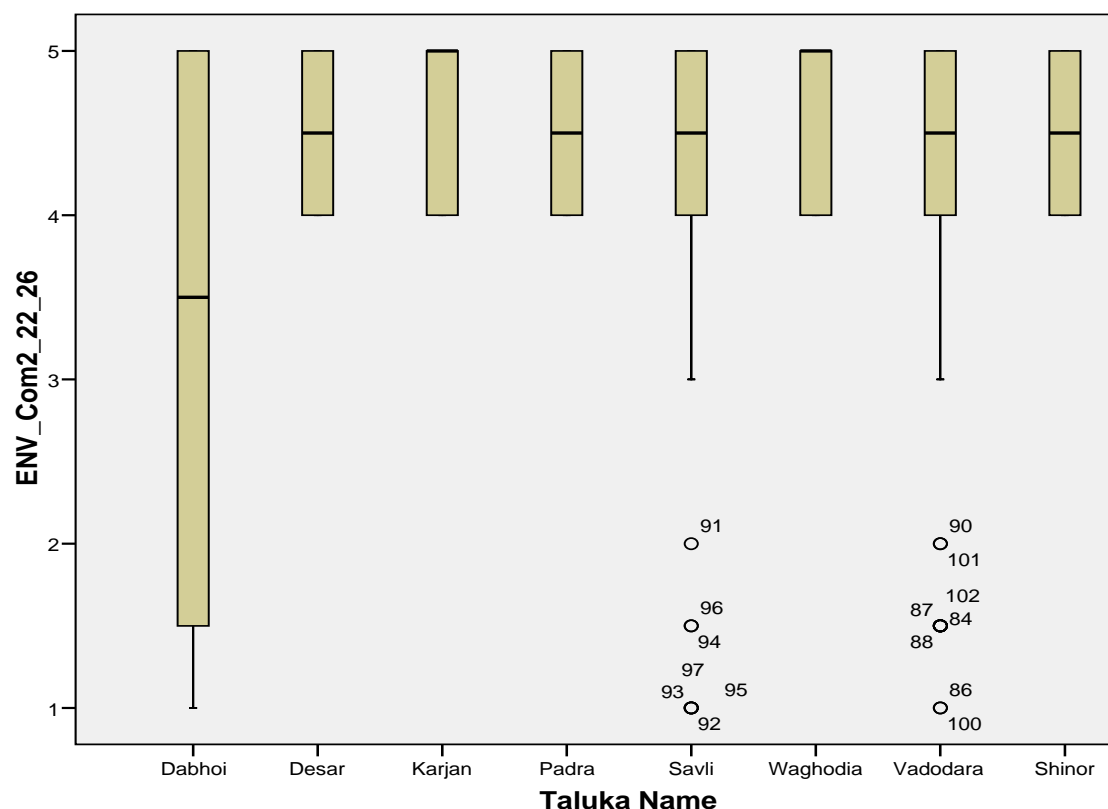
The importance of components to different types of talukas can be understood with the help of the below-given box plots. For example, the following box plot explains eight talukas' total score of component criteria.

**Graph Number: 5.6**  
**Taluka-wise Box Plot for Component 1 for Environment of the PHCs in Villages of different Eight Talukas of Vadodara District of the Gujarat State**



The above box plot indicated that component 01 Criteria We have a clean PHC in our Village, We do not find heaps of Garbage around PHC in our Village, The PHC has Drainage facilities, The school is available in Village, PHC is Ventilated with natural lights, The location of the PHC Noise pollution free, and The Environment of PHC is infection free were found to be more critical for Dabhoi, Karjan, and Waghodia Talukas because of the large median value.

**Graph Number: 5.7**  
**Taluka-wise Box Plot for Component 2 for Environment of the PHCs in Villages of different**  
**Eight Talukas of Vadodara District of the Gujarat State**



The above box plot indicated that component 2 criteria (We do not find Water logging around the PHC, and The people in the village have jobs for their survival) were found to be more critical for Desar, Karjan, Padra, Savli, Waghodia, Vadodara Rural and Shinor Taluka because of the large median value.

#### 5.4.5: Factor Analysis of Selected Criteria related to User's Overall Experience Considering the 'Infrastructure (Physical facilities)' of PHCs in the Selected villages of the Vadodara District of Gujarat State

**Table No: 5.25**

##### **Results of KMO and Bartlett's Test for 'Infrastructure (Physical facilities)' Factor of Selected PHCs**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.826
Bartlett's Test of Sphericity	Approx. Chi-Square	4104.685
	Df	55
	Sig.	0.000

Source: Field work

In the case of the Infrastructure of the PHCs, the results showed that the KMO measure of sampling adequacy was 0.826, indicating that the present data were suitable for Factor Analysis. Similarly, Bartlett's Test of Sphericity (0.00) was significant ( $p < .05$ ), indicative of a sufficient correlation between the criteria to proceed with the factor analysis.

<p align="center"><b>Table No: 5.26</b>  <b>Total Variance on ‘Infrastructure (Physical facilities)’ Factor of Selected PHCs</b>  <b>in the Selected Villages of the Vadodara District of the Gujarat State</b></p>						
<b>Component</b>	<b>Initial Eigenvalues</b>			<b>Extraction Sums of Squared Loadings</b>		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	5.224	47.493	47.493	5.224	47.493	47.493
02	1.562	14.204	61.697	1.562	14.204	61.697
03	1.069	9.722	71.419	1.069	9.722	71.419
04	0.659	5.989	77.408			
05	0.585	5.315	82.723			
06	0.513	4.662	87.385			
07	0.461	4.190	91.575			
08	0.367	3.333	94.907			
09	0.232	2.113	97.020			
10	0.203	1.847	98.867			
11	0.125	1.133	100.000			

Source: Field work

#### **Extraction Method: Principal Component Analysis**

The first three components (factors) in the initial solution had Eigenvalues over 1, accounting for about 71 per cent of the observed variations regarding selected PHCs user’s experience on Infrastructure at PHCs in the selected villages of the Vadodara District of Gujarat State. Therefore, according to Kaiser Criterion, only the first three components should be used because subsequent Eigenvalues are all less than 1.



**Table No: 5.27**  
**Communalities and Rotated Component Matrix of Selected PHCs User's Experience on**  
**'Infrastructure (Physical facilities)' in the Selected Villages of the**  
**Vadodara District of the Gujarat State**

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component		
			1	2	3
01	The building of the PHC is in good conditions	0.759	0.278	0.824	0.050
02	The walls of the PHC Building are painted	0.837	0.204	0.885	0.107
03	The doors and windows of the PHC are in good conditions	0.685	0.401	0.720	0.078
04	We do not find Water leakages in Rooms of PHC	0.609	0.641	0.386	0.223
05	We find continuous Electricity Supply in PHC	0.609	0.732	0.206	0.177
06	The drinking water facility for users of PHC Services is available at PHC	0.930	0.206	0.064	0.940
07	The toilet facility for users of PHC Services is available at PHC	0.929	0.095	0.176	0.943
08	The facility of beds for admitting users of PHC Services is available at PHC	0.525	0.244	0.666	0.149
09	Facility for testing of Blood, Urine, and Sputum of the Users of PHC Services is available at PHC	0.576	0.643	0.386	0.115
10	The Ambulance is available at PHC to handle the emergency	0.729	0.822	0.221	0.069
11	Necessary Medical equipment is available in working conditions at PHC	0.668	0.785	0.219	0.054

Source: Field work

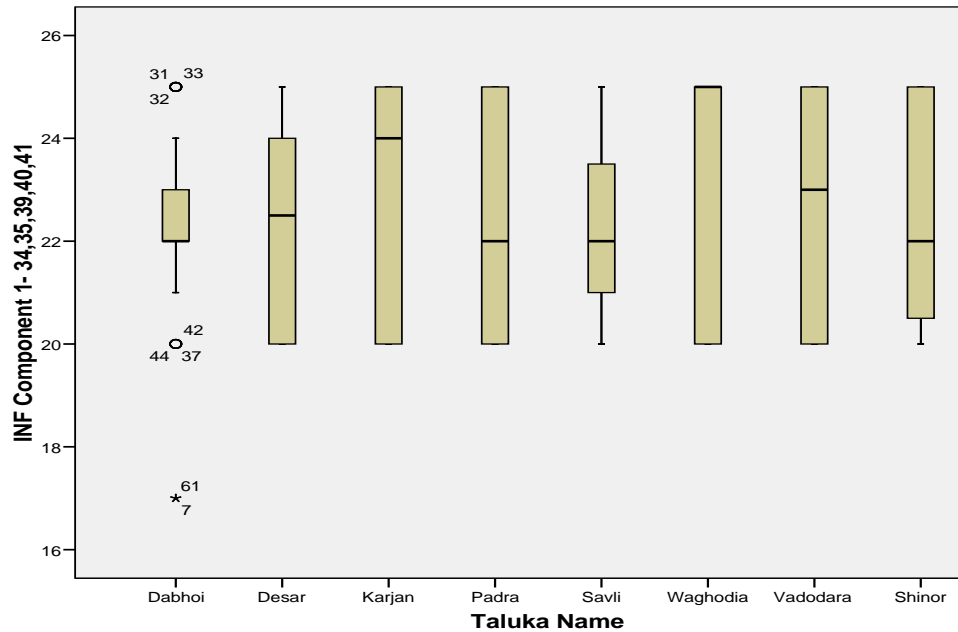
The above table, number 5.27, indicates to what extent all different criteria correlated with the component. Criteria 04 (We do not find Water leakages in Rooms of PHC); Criteria 05 (We find continuous Electricity Supply in PHC); criteria 09 (Facility for testing of Blood, Urine, and Sputum of the Users of PHC Services is available at PHC); criteria 10 (The Ambulance is available at PHC to handle the emergency); criteria 11 (Necessary Medical equipment are available in working conditions at PHC) were found as more correlated with component 01. Criteria 01 (The building of the PHC is in good condition); Criteria 02 (The walls of the PHC Building are painted); Criteria 03 (The doors and windows of the PHC are in good condition); and Criteria 08 (The facility of beds for admitting users of PHC Services is available at PHC) were found as more correlated with Component 02. Criteria 06 (The drinking water facility for users of PHC Services is available at PHC); and Criteria 07 (The toilet facility for users of PHC Services is available at PHC) were more correlated with Component 03.

#### **Importance of Components for Selected Type of Talukas in Vadodara District of the Gujarat State:**

The importance of components to different types of talukas can be understood with the help of the below-given box plots. For example, the following box plot explains eight talukas' total score of component criteria.

**Graph Number: 5.8**

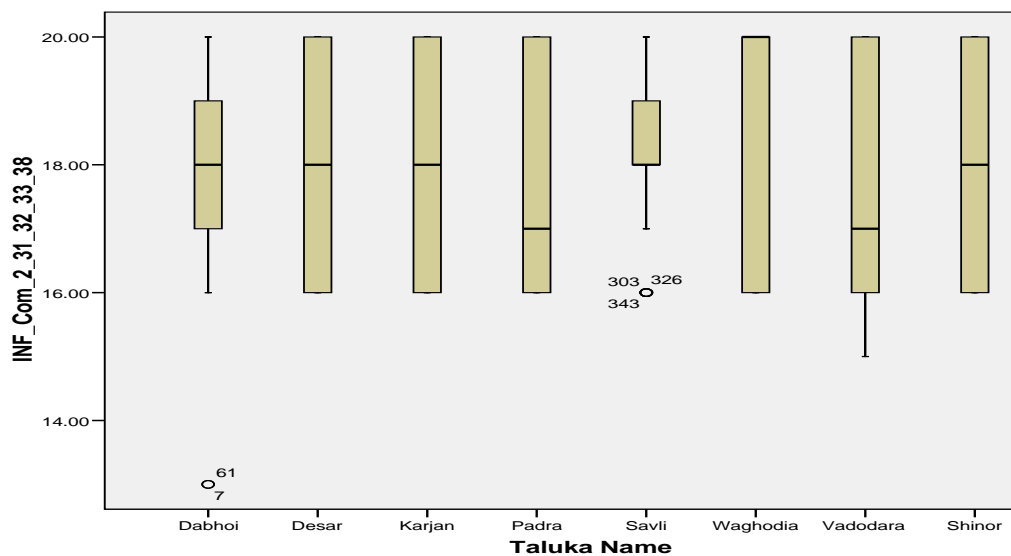
**Taluka-wise Box Plot for Component 1 for Infrastructure Facilities at the PHCs in selected Villages of Eight different Talukas of Vadodara District of the Gujarat State**



The above box plot indicated that component 1 Criteria (We do not find Water leakages in Rooms of PHC, We find continuous Electricity Supply in PHC, Facility for testing of Blood, Urine, and Sputum of the Users of PHC Services is available at PHC, The Ambulance is available at PHC to handle the emergency, Necessary Medical equipment are available in working conditions at PHC) were found to be more critical for Desar, Karjan, Waghodia and Vadodar Rural Talukas because of the sizeable median value.

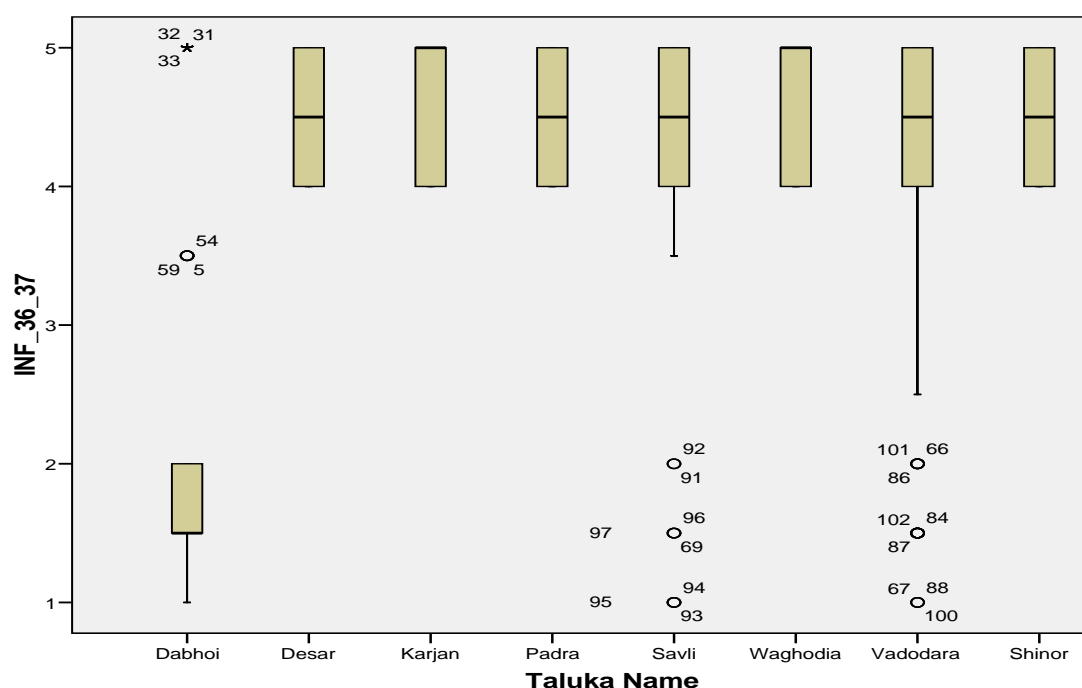
**Graph Number: 5.9**

**Taluka-wise Box Plot for Component 02 for Infrastructure Facilities at the PHCs in selected Villages of eight different Talukas of Vadodara District of the Gujarat State**



The above box plot indicated that component 02 criteria (The building of the PHC is in good condition, The walls of the PHC Building are painted, The doors and windows of the PHC are in good condition, The facility of beds for admitting users of PHC Services is available at PHC) were found to be more critical for Dabhoi, Desar, Karjan, Savli, Waghodia and Shinor Taluka, as they had a large median value.

**Graph Number: 5.10**  
**Taluka-wise Box Plot for Component 03 for Infrastructure Facilities at the PHCs in selected Villages of Eight different Talukas of Vadodara District of the Gujarat State**



The above box plot indicated that component 03 Criteria (The drinking water facility for users of PHC Services is available at PHC, and the toilet facility for users of PHC Services is general at PHC) were found to be more critical for Karjan, Waghodia, Desar, Padra, Savli, Vadodara Rural and Shinor Taluka because of the sizeable median value.

#### 5.4.6: Factor Analysis of Selected Criteria related to User's Overall Experience with 'Work Culture' of PHCs in the Selected villages of the Vadodara District of Gujarat State

**Table No: 5.28**

##### **Results of KMO and Bartlett's Test for 'Work Culture Factor of Selected PHCs**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.764
Bartlett's Test of Sphericity	Approx. Chi-Square	2528.211
	Df	36
	Sig.	.000

Source: Fieldwork

Source: Fieldwork

In the case of the Work Culture of the PHCs, the results showed that the KMO measure of sampling adequacy was 0.764, indicating that the present data were suitable for Factor Analysis. Similarly, Bartlett's Test of Sphericity (0.00) was significant ( $p < .05$ ), indicative of a sufficient correlation between the criteria to proceed with the factor analysis.

**Table No: 5.29**  
**Total Variance on the ‘Work Culture’ Factor of Selected PHCs in the Selected Villages of the**  
**Vadodara District of the Gujarat State**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	3.838	42.640	42.640	3.838	42.640	42.640
02	1.727	19.188	61.828	1.727	19.188	61.828
03	.826	9.177	71.005			
04	.716	7.959	78.964			
05	.575	6.387	85.352			
06	.497	5.519	90.871			
07	.391	4.339	95.211			
08	.247	2.749	97.960			
09	.184	2.040	100.000			

Source: Fieldwork

#### **Extraction Method: Principal Component Analysis**

The first two components (factors) in the initial solution had Eigenvalues over 1, which accounted for about 61 per cent of the observed variations regarding selected PHCs user’s experience of the work culture of the PHCs in the selected villages of the Vadodara District of Gujarat State. Therefore, according to Kaiser Criterion, only the first two factors should be used because subsequent Eigenvalues are all less than 1.

<b>Table No: 5.30</b>				
<b>Communalities and Rotated Component Matrix of Selected PHCs User's Experience on 'Work Culture' at PHCs in the Selected Villages of the Vadodara District of the Gujarat State</b>				
<b>Sr. No.</b>	<b>Selected Criteria</b>	<b>Communalities Extraction</b>	<b>Rotated Component</b>	
			<b>1</b>	<b>2</b>
01	The Doctors explain about the illness to users of PHC Services	0.528	0.710	0.156
02	The Doctors support users of PHC Services while giving medical treatment	0.795	0.194	0.870
03	The doctors behave politely and courteously with users of PHC Services	0.771	0.191	0.857
04	The Doctors show a positive attitude while providing medical services to users of PHC Services	0.514	0.689	0.197
05	The Doctors take users of PHC Services into confidence before testing of Blood, Urine, and Sputum of Users of PHC Services	0.485	0.666	0.204
06	The Paramedical staff explains to users of PHC Services about medical treatment	0.849	0.109	0.915
07	The Paramedical staff are polite and courteous	0.458	0.631	0.244
08	The Paramedical staff satisfactorily answers to queries of users of PHC Services	0.567	0.749	0.072
09	The Paramedical staff listen to users of PHC Services' suggestions	0.599	0.774	-0.007

Source: Fieldwork

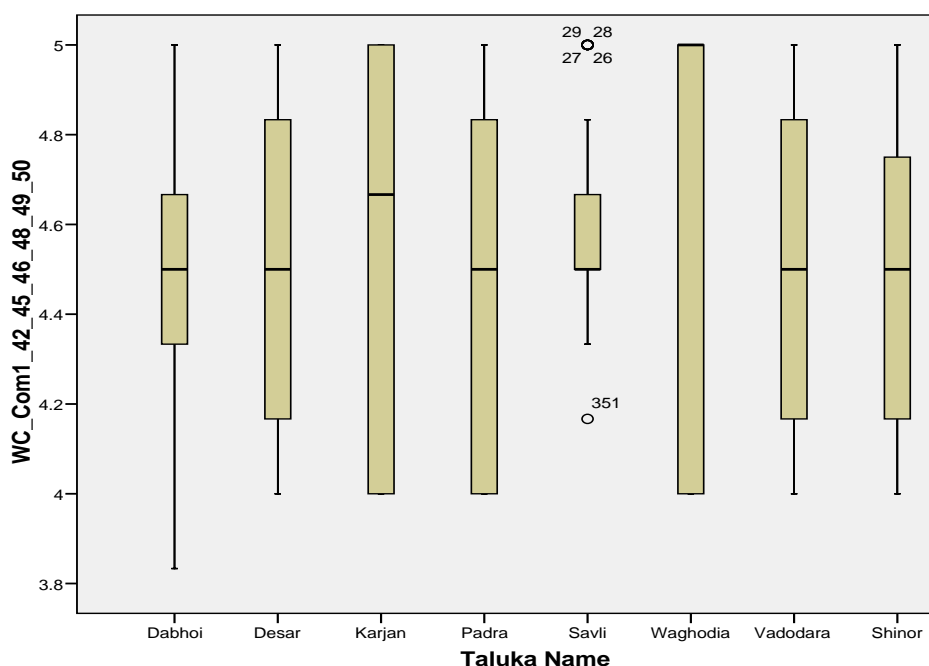
The above table, number 5.30, shows the extent of correlation between all different criteria with the component. Criteria 01 (The Doctors explain the illness to users of PHC Services); Criteria 04 (The Doctors show a positive attitude while providing medical services to users of PHC Services); criteria 05 (The Doctors take users of PHC Services into confidence before testing Blood, Urine, and Sputum of the Users of PHC Services); criteria 07 (The Paramedical staff are polite and courteous); criteria 08 (The Paramedical staff satisfactorily answers to queries of users of PHC Services); and criteria 09 (The Paramedical staff listen to users of PHC Services' suggestions); were found as more correlated with component 01. Criteria 02 (The Doctors support users of PHC Services while giving medical treatment), Criteria 03 (The doctors behave politely and courteously with users of PHC Services), and Criteria 06 (The Paramedical staff explains to users of PHC Services about medical treatment) were found to be more correlated with component 02.

### Importance of Components for Selected Type of Talukas in Vadodara District of the Gujarat State:

The importance of components to different types of talukas can be understood with the help of the below-given box plots. For example, the following box plot explains eight 'Talukas' total scores of component criteria.

**Graph Number: 5.11**

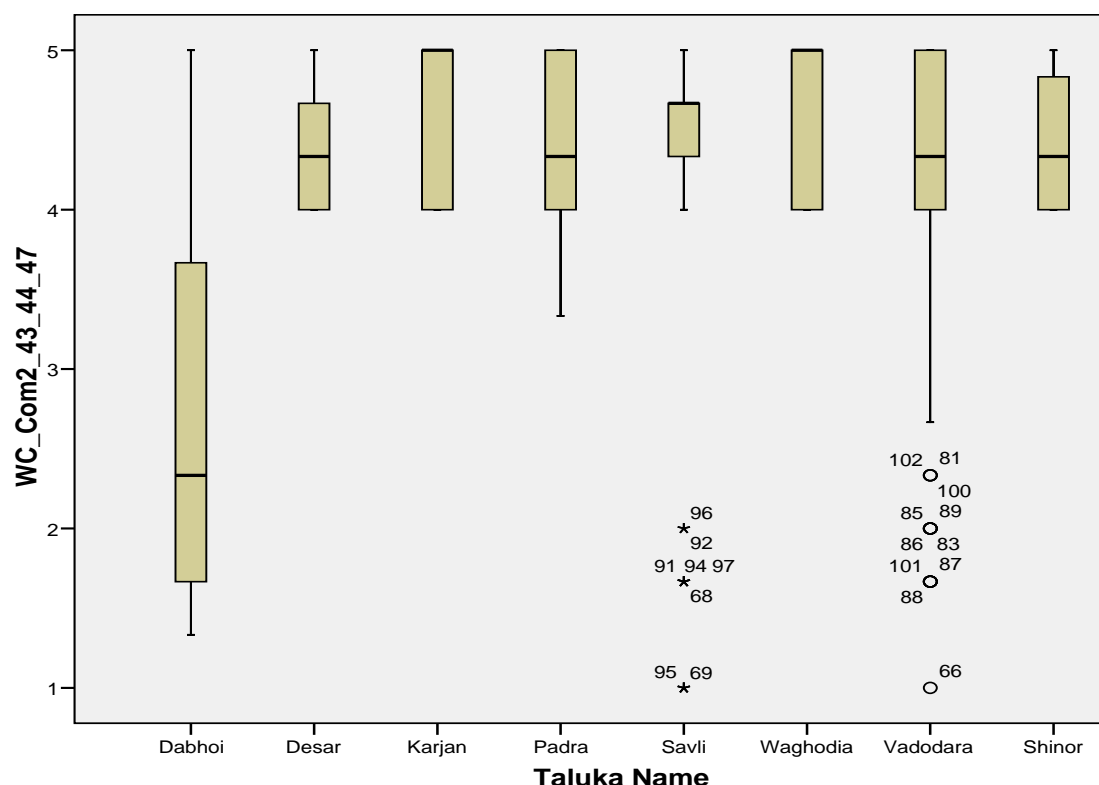
**Taluka-wise Box Plot for Component 01 for Work Culture at the PHCs in selected Villages of Eight different Talukas of Vadodara District of the Gujarat State**



The above box plot shown in Graph number 5.11 indicates that component 01 Criteria (The Doctors explain about the illness to users of PHC Services, The Doctors show positive attitude while providing medical services to users of PHC Services, The Doctors take users of PHC Services into confidence before testing Blood, Urine, and Sputum of the Users of PHC Services, The Paramedical staff are polite and courteous, The Paramedical staff satisfactorily answers to queries of users of PHC Services and The Paramedical staff listen to users of PHC Services' suggestions) were found to be more critical for Karjan and Waghodia Talukas because of the sizeable median value.

**Graph Number: 5.12**

**Taluka-wise Box Plot for Component 02 for Work Culture at the PHCs in selected Villages of Eight different Talukas of Vadodara District of the Gujarat State**



The above box plot, as presented in Graph number 5.12, indicates that component 02 Criteria (The Doctors support users of PHC Services while giving medical treatment, the doctors behave politely and courteously with users of PHC Services, and The Paramedical staff explains to users of PHC Services about medical treatment) were found to be more critical for Karjan, Savli, and Waghodia Talukas because of the sizeable median value.

#### **5.4.7: Factor Analysis of Selected Criteria related to User's Overall Experience with "Service Delivery" of PHCs in the Selected villages of the Vadodara District of Gujarat State**

**Table No: 5.31**

##### **Results of KMO and Bartlett's Test for the 'Service Delivery' Factor of Selected PHCs**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.807
Bartlett's Test of Sphericity	Approx. Chi-Square	4042.594
	Df	55
	Sig.	.000

Source: Fieldwork

In the case of Service Delivery of the PHCs, the results showed that the KMO measure of sampling adequacy was 0.807, indicating that the present data were suitable for Factor Analysis. Similarly, Bartlett's Test of Sphericity (0.00) was significant ( $p < .05$ ), indicative of a sufficient correlation between the criteria to proceed with the factor analysis.

**Table No: 5.32**  
**Total Variance on ‘Service Delivery’ Factor of Selected PHCs in the**  
**Selected Villages of the Vadodara District of the Gujarat State**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	5.108	46.434	46.434	5.108	46.434	46.434
02	1.622	14.745	61.179	1.622	14.745	61.179
03	1.125	10.225	71.404	1.125	10.225	71.404
04	.774	7.034	78.438			
05	.576	5.235	83.673			
06	.514	4.676	88.349			
07	.360	3.271	91.620			
08	.334	3.039	94.659			
09	.225	2.041	96.700			
10	.196	1.781	98.481			
11	.167	1.519	100.000			

Source: Fieldwork

#### **Extraction Method: Principal Component Analysis**

As given in table number 5.32, the only first three components (factors) in the initial solution having Eigenvalues over 1, accounting for about 71 per cent of the observed variations regarding selected PHCs user’s experience of service delivery at PHCs in the selected villages of Vadodara District of Gujarat State. Therefore, according to Kaiser Criterion, only the first factor should be used because subsequent Eigenvalues are all less than 1.



Table No: 5.33

**Communalities and Rotated Component Matrix of Selected PHCs User's Experience on 'Service Delivery' at PHCs in the Selected Villages of Vadodara District of the Gujarat State**

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component		
			1	2	3
01	The users of PHC Services feel safe while availing of medical treatment at PHC	0.642	0.612	0.266	0.443
02	The Doctor, Nurse or any other PHC worker does not ask for money other than for the Case Paper	0.628	0.688	0.132	0.369
03	The staff of PHC collect feedback from users of PHC Services	0.832	0.204	0.889	0.020
04	Doctors refer to other doctors online for giving medical treatment	0.851	0.023	0.882	0.269
05	The Rules and Procedures are followed by PHC	0.685	0.040	0.257	0.786
06	The Doctor asks users of PHC Services to visit his own or any other Doctor's Private Clinic	0.788	0.298	0.804	0.231
07	The Doctor examines users of PHC Services using a stethoscope	0.780	0.856	0.200	0.084
08	The doctors explain about users of PHC Services' illness in his/her language	0.796	0.873	0.122	0.139
09	the behaviour of the Nurse, Pharmacist and lab technician is polite and courteous	0.597	0.556	0.057	0.534
10	PHC staff wears the hygienic gloves	0.705	0.252	0.071	0.797
11	Post Medical Treatment is explained by Doctors to users of PHC Services	0.551	0.327	0.168	0.645

Source: Fieldwork

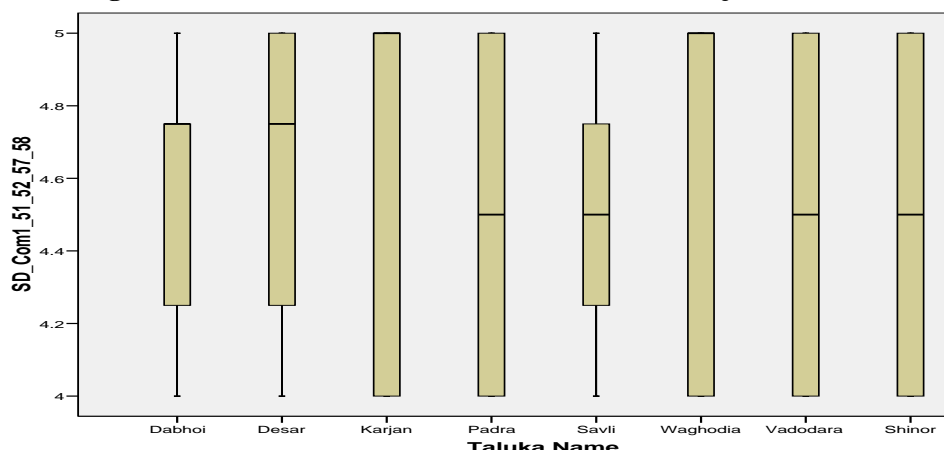
The above table, number 5.33, provides an idea about the extent of correlation between all different criteria and components. Criteria 01 (The users of PHC Services feel safe while availing medical treatment at PHC); Criteria 02 (The Doctor, Nurse or any other PHC worker does not ask for money other than for the Case Paper); criteria 07 (The Doctor examines users of PHC Services using a stethoscope); criteria 08 (The doctors explain about users of PHC Services' illness in his/her language) were found as more correlated with component 1. Criteria 03 (The staff of PHC collect feedback from users of PHC Services), criteria 04 (Doctors refer to other doctors online for giving medical treatment), and criteria 06 (The Doctor asks users of PHC Services to visit his own or any different Doctor's Private Clinic) were found as more correlated with component 02. Criteria 05 (PHC follows the Rules, Procedure); Criteria 10 (PHC staff wears clean gloves); and Criteria 11 (Doctors explain Post Medical Treatment to users of PHC Services) were found as more correlated with component 03.

#### **Importance of Components for Selected Type of Talukas in Vadodara District of the Gujarat State:**

The importance of components to different types of talukas can be understood with the help of the below-given box plots. For example, the following box plot explains eight talukas' total score of component criteria.

**Graph Number: 5.13**

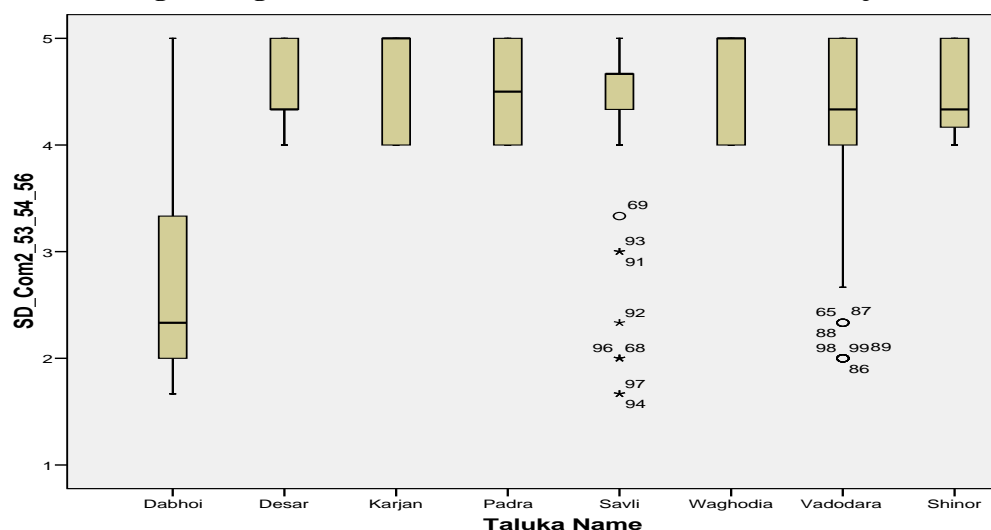
**Taluka-wise Box Plot for Component 01 for Service Delivery at the PHCs in selected Villages of Eight Different Talukas of Vadodara District of Gujarat State**



The above box plot, as presented in Graph number 5.13, indicates that component 01 criteria (The users of PHC Services feel safe while availing medical treatment at PHC, The Doctor, Nurse or any other PHC worker does not ask for money other than for the Case Paper, The Doctor examines users of PHC Services using a stethoscope, The doctors explain about users of PHC Services illness in his/her language) were found to be more critical for Dabhoi, Desar, Karjan, and Waghodia Taluka because of the sizeable median value.

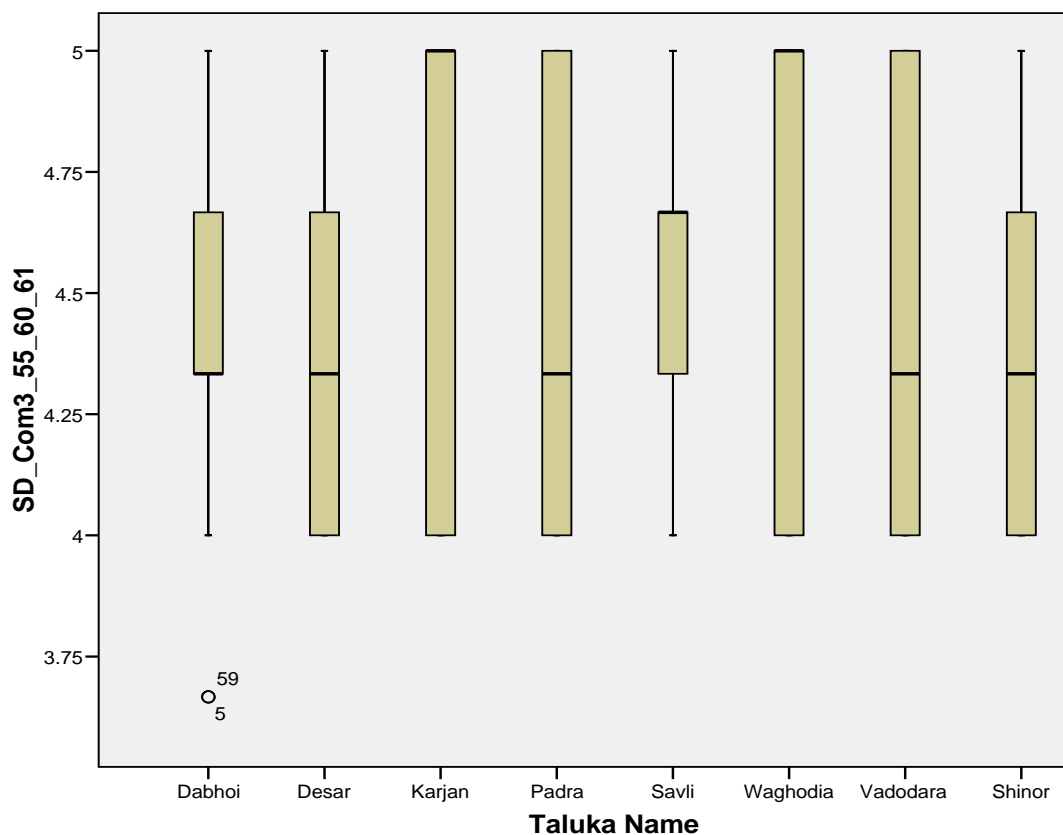
**Graph Number: 5.14**

**Taluka-wise Box Plot for Component 02 for Service Delivery at the PHCs in selected Villages of eight different Talukas of Vadodara District of Gujarat State**



The above box plot, as given in Graph number 5.14, indicates that component 02 criteria (The staff of PHC collect feedback from users of PHC Services, the Doctors refer to other doctors online for giving medical treatment, and The Doctors ask users of PHC Services to visit their own or any different Doctor's Private Clinic) were found to be more critical for Desar, Karjan, Padra, Savli, Waghodia, Vadodara Rural and Shinor Talukas because of the sizeable median value.

**Graph Number: 5.15**  
**Taluka-wise Box Plot for Component 03 for Service Delivery at the PHCs in**  
**selected Villages of Eight Different Talukas of Vadodara District of Gujarat State**



The above box plot, as given in Graph number 5.15, indicates that component 3 criteria (PHC follows the Rules, Procedure, PHC staff wears clean gloves, and Doctors explain Post Medical Treatment to users of PHC Services) were found to be more critical for Karjan, Savli and Waghodia Talukas because of the sizeable median value.

#### 5.4.8: Factor Analysis of Selected PHCs Users and Overall Experience on ‘Community Engagement’ at PHCs in the Selected villages of Vadodara District of Gujarat State

**Table No: 5.34**

##### **Results of KMO and Bartlett's Test for ‘Community Engagement’ Factor of Selected PHCs**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.862
Bartlett's Test of Sphericity	Approx. Chi-Square	3719.118
	Df	66
	Sig.	0.000

Source: Fieldwork

In the case of Community Engagement at PHCs, the results showed that the KMO measure of sampling adequacy was 0.862, indicating that the present data were suitable for Factor Analysis. Similarly, Bartlett’s Test of Sphericity (0.00) was significant ( $p < .05$ ), indicative of a sufficient correlation between the criteria to proceed with the factor analysis.

**Table No: 5.35**

##### **Total Variance on the ‘Community Engagement’ Factor of Selected PHCs in the Selected Villages of the Vadodara District of the Gujarat State**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	5.578	46.486	46.486	5.578	46.486	46.486
02	1.123	9.356	55.842	1.123	9.356	55.842
03	1.061	8.842	64.684	1.061	8.842	64.684
04	0.854	7.120	71.804			
05	0.740	6.165	77.969			
06	0.602	5.020	82.989			
07	0.514	4.280	87.269			
08	0.374	3.117	90.386			
09	0.369	3.074	93.460			
10	0.308	2.564	96.024			
11	0.262	2.185	98.209			
12	0.215	1.791	100.000			

Source: Fieldwork

#### **Extraction Method: Principal Component Analysis**

It becomes evident from table number 5.35 that only the first three components (factors) in the initial solution have Eigenvalues over 1, accounting for about 64 per cent of the observed variations regarding selected PHCs user’s experience of community engagement at PHCs in the selected villages of Vadodara District of Gujarat State. Therefore, according to Kaiser Criterion, only the first factor should be used because subsequent Eigenvalues are all less than 1.

**Table No: 5.36**  
**Communalities and Rotated Component Matrix of Selected PHCs User's Experience on**  
**'Community Engagement' at PHCs in the Selected Villages of the Vadodara District of Gujarat**  
**State**

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component		
			1	2	3
01	The Staff of PHC organises meeting with the Village Sarpanch and community	0.745	0.745	0.104	0.422
02	The Staff of PHC give presentations in the village about Health/Medical issues	0.610	0.692	0.305	0.192
03	The Staff of PHC visit families in the villages to advise about precautions for maintaining good health	0.694	0.267	0.768	0.183
04	The Staff of PHC show posters to inform the people of the Village about good health.	0.747	0.115	0.808	0.285
05	The Staff of PHC train people of the Village to develop awareness about medical issues	0.696	0.164	0.322	0.752
06	The Staff of PHC give health education to children in the school of Village	0.421	0.120	0.003	0.638
07	The Staff of PHC organises health camps	0.736	0.833	0.148	0.143
08	The Staff of PHC go to Gram Panchayat meetings to make people aware of health issues	0.696	0.580	0.600	-0.006
09	The Staff of PHC collect feedback from the people of the Village on services provided by PHC	0.647	0.270	0.723	0.226
10	The Staff of PHC meets Mahila Mandals to develop an awareness of health issues	0.646	0.176	0.403	0.673
11	The Staff of PHC assesses the health need of the people of the Village	0.604	0.352	0.227	0.655
12	Health care Centre organises free medical check-ups in Village	0.520	0.590	0.331	0.249

Source: Fieldwork

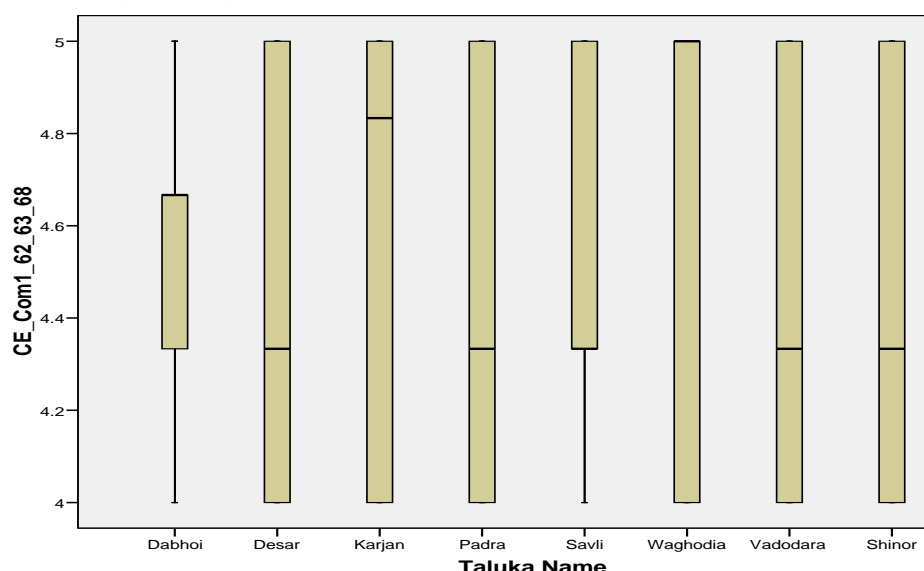
The above table, number 5.36, clarifies how much all different criteria correlated with the component. For example, Criteria 01 (The Staff of PHC organizes meeting with the Village Sarpanch community); measures 02 (The Staff of PHC give presentations in a village about Health/Medical issues); criteria 07 (The Staff of PHC organizes health camps) were found to more correlated with component 01. Criteria 03 (The Staff of PHC visit families in the villages to advise about precautions for maintaining good health); Criteria 04 (The Staff of PHC show a Poster to inform people of the Village about good health.); Criteria 08 (The Staff of PHC go to Gram Panchayat meetings to make people aware about health issues); Criteria 09 (The Staff of PHC collect feedback from people of Village on services provided by PHC) were found as more correlated with component 02.

Criteria 05 (The Staff of PHC train people of the Village to develop awareness about medical issues); Criteria 06 (The Staff of PHC give health education to children in the school of the Village); Criteria 10 (The Staff of PHC meets Mahila Mandals to develop awareness on health issues); and Criteria 11 (The Staff of PHC assesses the health need of the people of the Village) were found as more correlated with component 03.

### **Importance of Components for Selected Type of Talukas in Vadodara District of the Gujarat State:**

The importance of components to different types of talukas can be understood with the help of the below-given box plots. For example, the following box plot explains eight talukas' total score of component criteria.

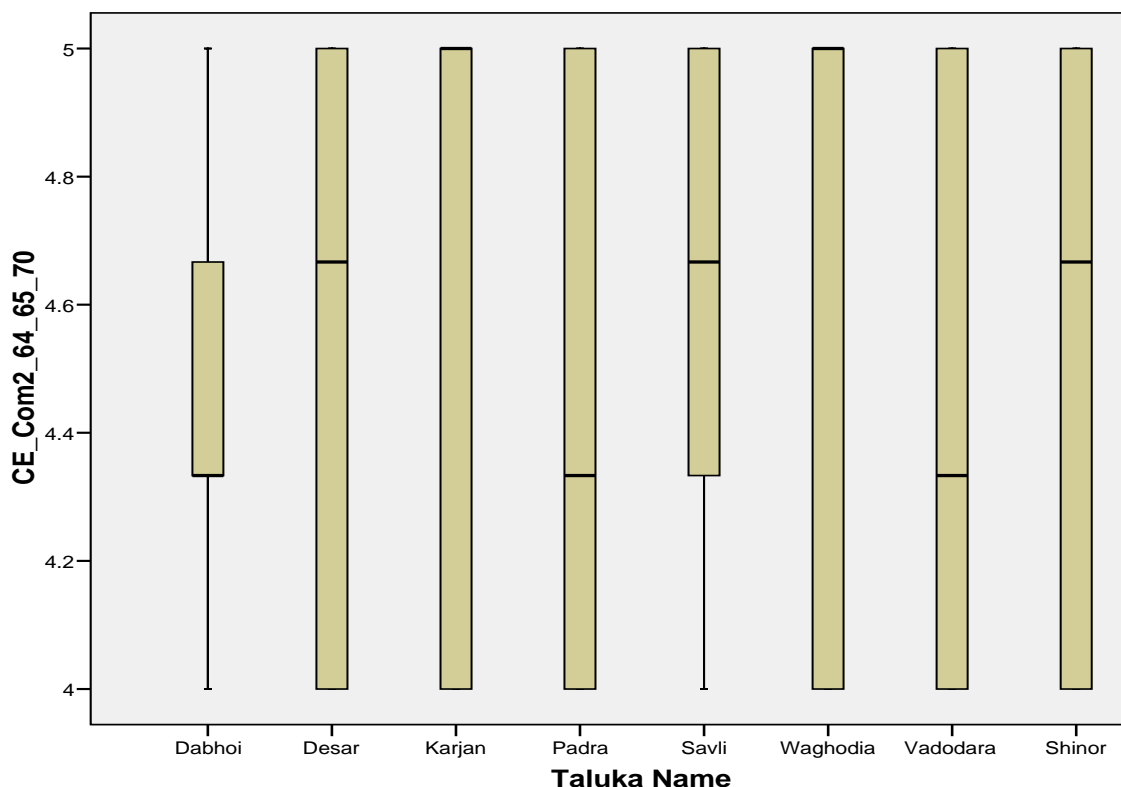
**Graph Number: 5.16**  
**Taluka-wise Box Plot for Component 01 for Community Engagement at the PHCs in selected Villages of Eight Different Talukas of Vadodara District of Gujarat State**



The above box plot, as given in Graph number 5.16, indicates that component 01 criteria (The Staff of PHC organises meeting with the Village Sarpanch and community, The Staff of PHC provide presentations in the village about Health/Medical issues, The Staff of PHC organises health camps) were found to be more critical for Dabhoi, Karjan and Waghodia Taluka because of the sizeable median value.

**Graph Number: 5.17**

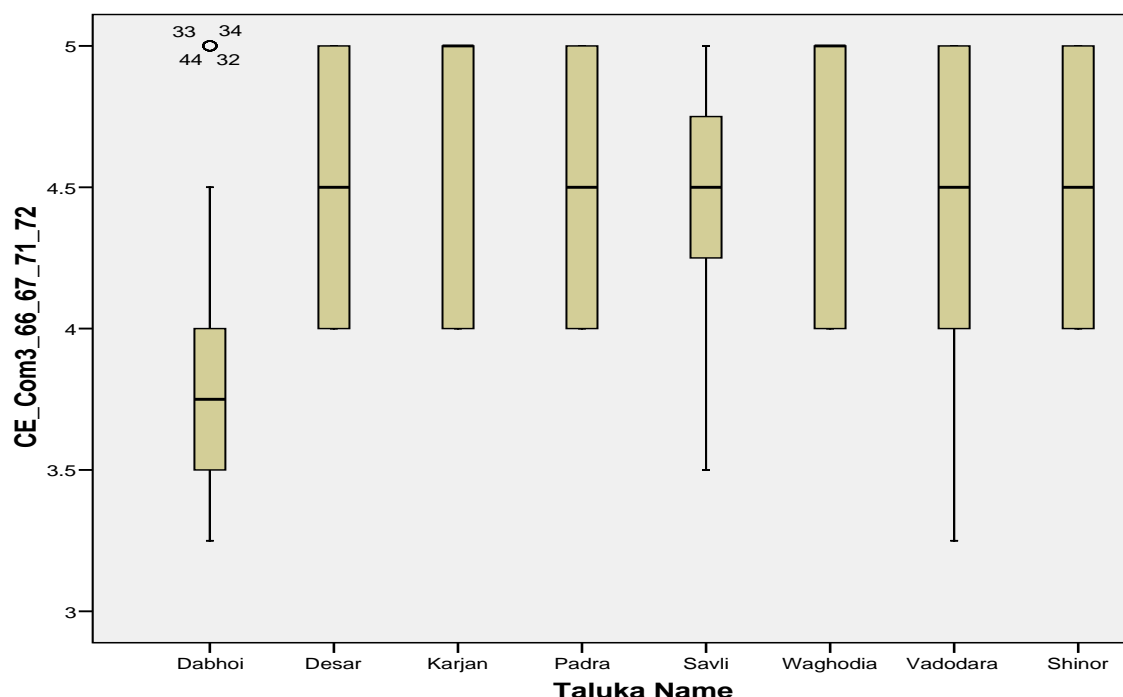
**Taluka-wise Box Plot for Component 02 for Community Engagement at the PHCs in selected Villages of Eight different Talukas of Vadodara District of Gujarat State**



The above box plot, as given in Graph number 5.17, indicates that component 02 Criteria (The Staff of PHC visit families in the villages to advise about precautions for maintaining good health, The Staff of PHC show Poster to inform people of the Village about good health, The Staff of PHC go to Gram Panchayat meetings to make people aware about health issues, The Staff of PHC collect feedback from people of Village on services provided by PHC) were found to be more critical for Desar, Karjan, Savli, Shinor and Waghodia Taluka because of the large median value.

**Graph Number: 5.18**

**Taluka-wise Box Plot for Component 03 for Community Engagement at the PHCs in selected Villages of Eight different Talukas of Vadodara District of Gujarat State**



The above box plot, as given in Graph number 5.18, indicates that component 03 Criteria (The Staff of PHC train people of the Village to develop awareness about medical issues, The Staff of PHC give health education to children in the school of Village, The Staff of PHC meets Mahila Mandals to build awareness on health issues, The Staff of PHC assesses the health need of the people of the Village) were found to be more critical for Desar, Dabhoi, Karjan, Shinor, Vadodara Rural and Waghodia Taluka because of the sizeable median value.

#### **5.4.9: Factor Analysis of Selected Criteria related to User's Overall 'Perception' for PHCs in the Selected villages of the Vadodara District of Gujarat State**

**Table No: 5.37**

**Results of KMO and Bartlett's Test for 'Perception for the use of PHCs Services' Factor of Selected PHCs**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.778
Bartlett's Test of Sphericity	Approx. Chi-Square	4288.784
	Df	78
	Sig.	0.000

Source: Fieldwork

In the case of Perception for using PHCs Services, the results showed that the KMO measure of sampling adequacy was 0.778, indicating that the present data were suitable for Factor Analysis. Similarly, Bartlett's Test of Sphericity (0.00) was significant ( $p < .05$ ), indicative of a sufficient correlation between the criteria to proceed with the factor analysis.



**Table No: 5.38**  
**Total Variance on ‘Perception of the use of PHC Services’ Factor of Selected PHCs in the**  
**Selected Villages of the Vadodara District of the Gujarat State**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	5.234	40.263	40.263	5.234	40.263	40.263
02	1.712	13.168	53.431	1.712	13.168	53.431
03	1.268	9.756	63.187	1.268	9.756	63.187
04	0.971	7.469	70.656			
05	0.886	6.817	77.472			
06	0.661	5.085	82.557			
07	0.569	4.379	86.936			
08	0.475	3.657	90.593			
09	0.320	2.465	93.058			
10	0.296	2.273	95.331			
11	0.266	2.047	97.378			
12	0.175	1.342	98.720			
13	0.166	1.280	100.000			

Source: Fieldwork

**Extraction Method: Principal Component Analysis**

From table number 5.38, it is evident that only the first three components (factors) in the initial solution having Eigenvalues over 1 accounted for about 63 per cent of the observed variations about selected PHCs user’s experience on Perception of the use of PHC Services in the selected villages of Vadodara District of Gujarat State. Therefore, according to Kaiser Criterion, only the first factor should be used because subsequent Eigenvalues are all less than 1.

**Table No: 5.39**  
**Communalities and Rotated Component Matrix of Selected PHCs User's Experience on**  
**'Perception for the use of PHC Services' in the Selected Villages of Vadodara District of the**  
**Gujarat State**

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component		
			1	2	3
01	People visit the PHC when the first symptoms of diseases arise	0.814	-0.046	0.075	0.898
02	People visit PHC when my disease is in its advanced stage	0.162	0.107	-0.003	0.388
03	People understand that medication should be continued as long as recommended by PHC	0.576	0.599	0.335	0.323
04	People follow the advice given by PHC Doctors and Paramedical staff	0.558	0.678	0.278	0.148
05	People accept the advice of the doctor at PHC on the prevention of medical illness	0.582	0.552	0.523	0.057
06	People feel happy when doctors ask questions about my medical illness	0.705	0.192	0.815	-0.059
07	People feel comfortable while sitting inside PHC	0.591	0.178	0.710	0.233
08	People find no overcrowding in PHC	0.802	0.107	0.266	0.849
09	The attitude of PHC staff is positive	0.689	0.815	0.119	0.109
10	People are satisfied with the medical treatment provided by PHC	0.777	0.876	0.093	0.040
11	Hygiene and sanitary conditions of PHC are good	0.641	0.689	0.400	-0.075
12	People visit PHC again if the medical services of PHC have improved my health	0.717	0.164	0.818	0.146
13	People visit higher-level health facilities if PHC's medication does not help them in becoming physically fit	0.600	0.332	0.687	0.131

Source: Fieldwork

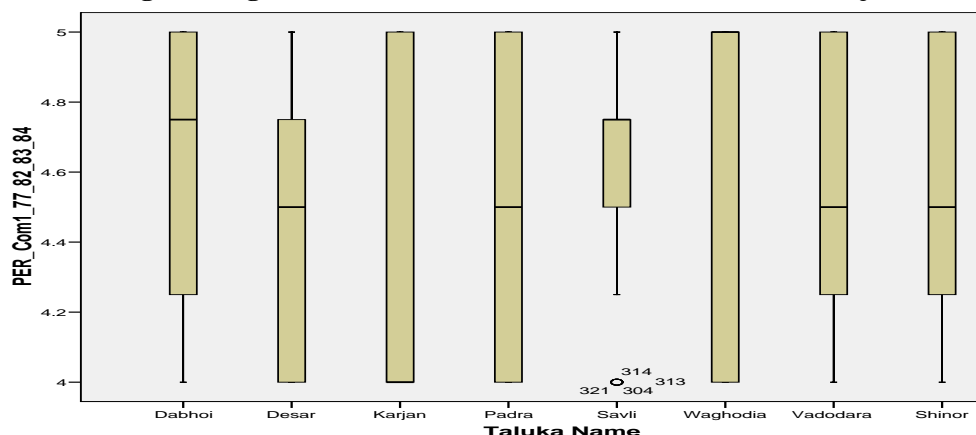
The above table, number 5.39, clarifies how much all criteria correlated with the component. Criteria 04 (People follow the advice given by PHC Doctors and Paramedical staff); Criteria 09 (Attitude of PHC staff is positive); criteria 10 (People are satisfied with medical treatment provided by PHC); criteria 11 (Hygiene and sanitary conditions of PHC are good) were found as more correlated with component 01. Criteria 06 (People feel happy when doctors ask questions about my medical illness); criteria 07 (People feel comfortable while sitting inside PHC); criteria 12 (People revisit PHC if medical services of PHC have improved my health). Criteria 13 (People visit higher-level health facilities if PHC's medication did not help them become physically fit) were found to correlate more with component 02. Criteria 01 (People visit the PHC when the first symptoms of the disease arise) and Criteria 08 (People find no overcrowding in PHC) were seen as more correlated with component 03.

#### **Importance of Components for Selected Type of Talukas in Vadodara District of the Gujarat State:**

The importance of components to different types of talukas can be understood with the help of the below-given box plots. For example, the following box plot explains eight talukas' total score of component criteria.

**Graph Number: 5.19**

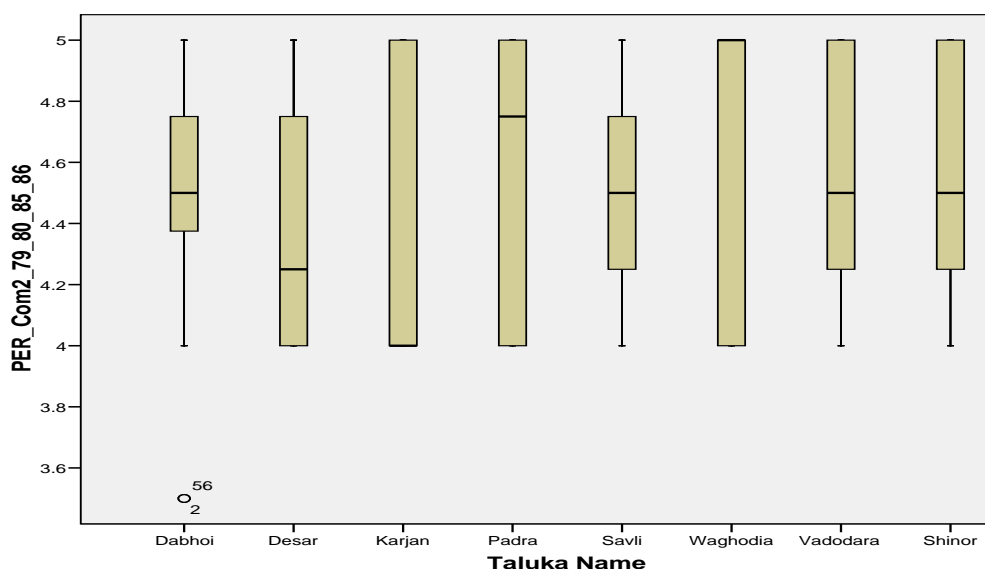
**Taluka-wise Box Plot for Component 01 for ‘Perception for the use of PHCs’ Services in selected Villages of Eight Different Talukas of Vadodara District of Gujarat State**



The above box plot, as given in Graph number 5.19, indicates that component 01 Criteria (People follow the advice given by PHC Doctors and Paramedical staff, Attitude of PHC staff is positive, Attitude of PHC staff is positive, People are satisfied with medical treatment provided by PHC, Hygiene and sanitary conditions of PHC are good) were found to be more critical for Dabhoi, Savli, and Waghodia Taluka because of the sizeable median value.

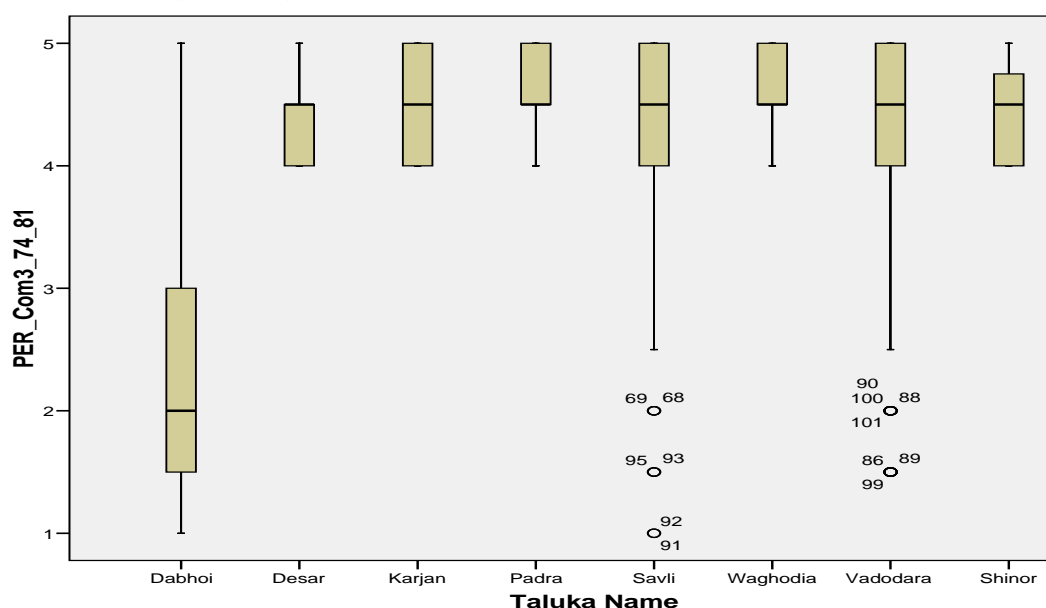
**Graph Number: 5.20**

**Taluka-wise Box Plot for Component 02 for ‘Perception for the use of PHCs’ Services in selected Villages of Eight Different Talukas of Vadodara District of Gujarat State**



The above box plot, as given in Graph number 5.20, indicates that component 02 Criteria (People feel happy when doctors ask questions about my medical illness, People feel comfortable while sitting inside PHC, People visit PHC again if medical services of PHC have improved my health, People visit higher-level health facility if PHC’s medication did not help them in becoming physically fit) were found to be more critical for Dabhoi, Padra, and Waghodia Talukas because of the sizeable median value.

**Graph Number: 5.21**  
**Taluka-wise Box Plot for Component 03 for ‘Perception for the use of PHCs’ Services in selected Villages of Eight Different Talukas of Vadodara District of Gujarat State**



The above box plot, as given in Graph number 5.21, indicates that component 03 Criteria (People visit the PHC when the first symptoms of diseases arise, and People find no overcrowding in PHC) were found to be more critical for Desar, Karjan, Padra, Savli, Waghodia, Vadodara Rural and Shinor Taluka because of the large median value.

#### **5.4.10: Factor Analysis of Selected Criteria related to User’s Preference for PHCs in the Selected villages of the Vadodara District of Gujarat State**

**Table No: 5.40**  
**Results of KMO and Bartlett's Test for ‘Preference for PHCs’ Factor of Selected PHCs**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.864
Bartlett's Test of Sphericity	Approx. Chi-Square	3131.867
	Df	45
	Sig.	0.000

Source: Fieldwork

In the case of Preference for PHCs, the results showed that the KMO measure of sampling adequacy was 0.864, indicating that the present data were suitable for Factor Analysis. Similarly, Bartlett’s Test of Sphericity (0.00) was significant ( $p < .05$ ), indicative of a sufficient correlation between the criteria to proceed with the factor analysis.

**Table No: 5.41**  
**Total Variance on ‘Preference for PHCs’ Factor of Selected PHCs in the**  
**Selected Villages of the Vadodara District of the Gujarat State**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	5.023	50.232	50.232	5.023	50.232	50.232
02	1.243	12.431	62.663	1.243	12.431	62.663
03	0.768	7.678	70.341			
04	0.636	6.356	76.697			
05	0.562	5.621	82.318			
06	0.477	4.765	87.083			
07	0.418	4.183	91.267			
08	0.389	3.888	95.155			
09	0.254	2.536	97.691			
10	0.231	2.309	100.000			

Source: Fieldwork

**Extraction Method: Principal Component Analysis**

As given in table number 5.41, it is observed that the first two components (factors) in the initial solution had Eigenvalues over 1, accounting for about 62 per cent of the observed variations regarding selected PHCs user’s experience on Preference for PHCs in the selected villages of the Vadodara District of Gujarat State. Therefore, according to Kaiser Criterion, only the first factor should be used because subsequent Eigenvalues are all less than 1.

**Table No: 5.42**  
**Communalities and Rotated Component Matrix of Selected PHCs User's Experience on**  
**'Preference for PHC' in the Selected Villages of the Vadodara District of Gujarat State**

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component	
			1	2
01	People visit PHC as the charges for medical services are reasonable	0.651	0.765	0.256
02	People prefer to get treatment from PHC as the quality of medical service is acceptable	0.651	0.787	0.177
03	People visit PHC as health personnel remain available to offer services to the community	0.527	0.577	0.441
04	The PHC is preferred due to the availability of medicine/drugs	0.743	0.219	0.834
05	People visit the PHC due to the good behaviour of health staff	0.818	0.155	0.891
06	People have faith in the doctors and health staff of the PHC	0.611	0.255	0.739
07	People prefer to get treatment from PHC as the response of doctors is positive	0.591	0.753	0.156
08	People prefer to visit PHC as there is not much waiting time	0.638	0.779	0.176
09	People found the hygiene of PHC to be acceptable	0.501	0.527	0.473
10	People visit PHC as there is a provision for health information	0.535	0.559	0.472

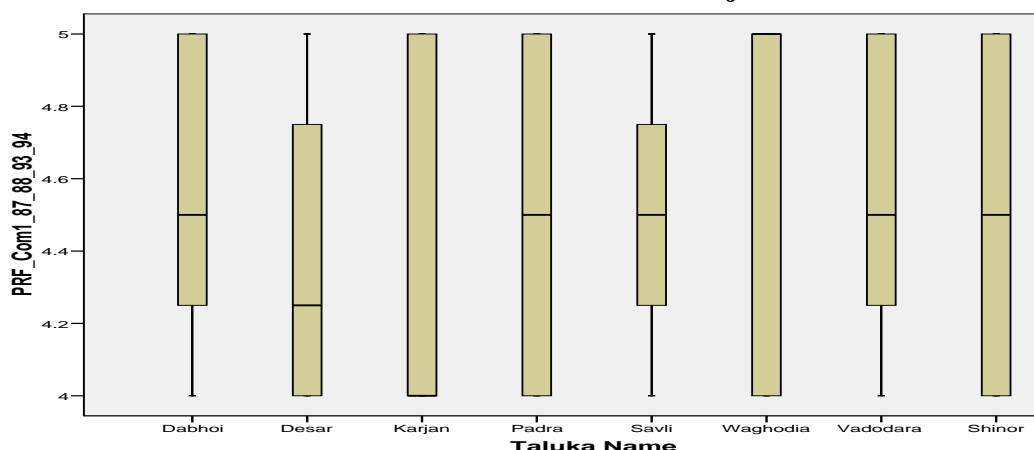
Source: Fieldwork

The above table, number 5.42, shows how much all criteria correlated with the component. Criteria 01 (People visit PHC as the charges of medical services are reasonable); Criteria 02 (People prefer to get treatment from PHC as the quality of medical service is acceptable); criteria 07 (People like to get treatment from PHC as the response of doctors is positive); criteria 08 (People prefer to visit PHC as there is not much waiting time) were found as more correlated with component 01. Criteria 04 (The PHC is preferred due to availability of medicine/drugs); Criteria 05 (People visit the PHC due to good behaviour of health staff); and Criteria 06 (People have faith in doctors and health staff of the PHC) were found as more correlated with component 02.

#### **Importance of Components for Selected Type of Talukas in Vadodara District of the Gujarat State:**

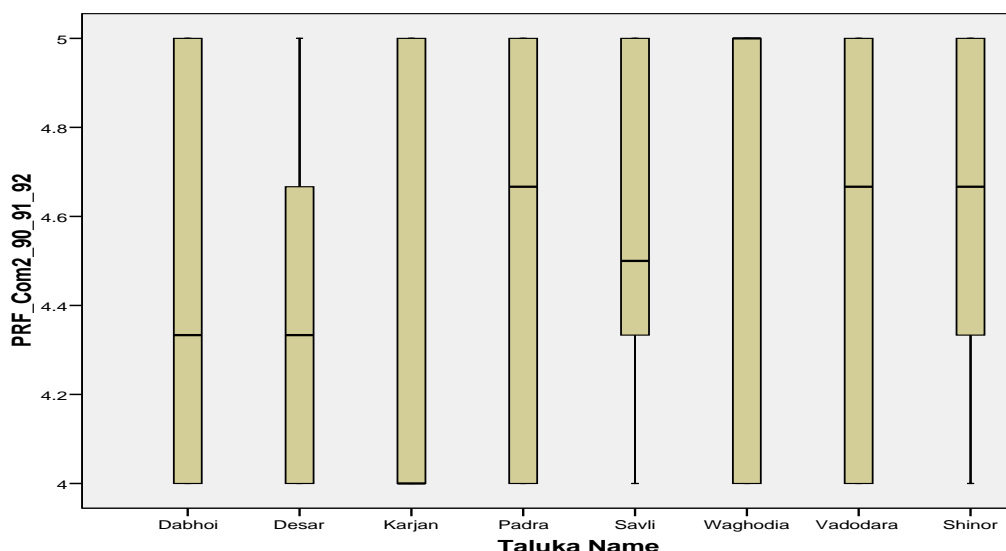
The importance of components to different types of talukas can be understood with the help of the below-given box plots. For example, the following box plot explains eight talukas' total score of component criteria.

**Graph Number: 5.22**  
**Taluka-wise Box Plot for Component 01 for ‘Preference for PHCs’ in selected Villages of Eight Different Talukas of Vadodara District of Gujarat State**



The above box plot, as given in Graph number 5.22, indicates that component 01 criteria (People visit PHC as the charges of medical services are reasonable, People prefer to get treatment from PHC as the quality of medical service is acceptable, People like to get treatment from PHC as the response of doctors is positive, People prefer to visit PHC as there is not much waiting time) were found to be more critical for Dabhoi, Padra, Savli, Vadodara Rural, Waghodia and Shinor Taluka because of the sizeable median value.

**Graph Number: 5.23**  
**Taluka-wise Box Plot for Component 02 for ‘Preference for PHCs’ in selected Villages of Eight different Talukas of Vadodara District of Gujarat State**



The above box plot, as given in Graph number 5.23, indicates that component 02 Criteria (The PHC is preferred due to availability of medicine/drugs, People visit the PHC due to good behaviour of health staff, People have faith in doctors and health staff of the PHC) were found to be more critical for Padra, Vadodara Rural, and Shinor Taluka because of the sizeable median value.

### **5.5: FINDINGS OF STRUCTURAL EQUATION MODEL [SEM] USING SMART PARTIAL LEAST SQUARE PATH MODELING [SMART PLS]:**

A Structure Equation Model has been developed by the researcher using a variety of constructs, including accessibility, affordability, availability, environment, infrastructure, work culture, service delivery, community engagement, perception of using PHC services, preference for PHCs, and behavioural intention. Following is the outcome of the measurement model and the creation of a structured equation model.

Smart "Partial Least Square" (PLS) software was used to create SEM. Results in PLS-SEM are assessed at two separate points. The "measuring model" is examined in the first phase. The researcher advances to the second step, which entails assessing the structural equation model, if the findings of the assessment of the measurement model are adequate. (Hair, Hult, Hult, Ringle & Sarstedt, 2014).

The second stage entails testing hypotheses and evaluating the importance and significance of the links between the construct. The factor loading, composite reliability, convergent validity, construct reliability, and discriminate reliability must all be examined for the SEM, in that order. The indication of the weight given to the assertions is factor loading (Questions asked to the respondents).

Loadings over 0.70 indicate a variation of the construct more than 50% (Sarstedt, Ringle, Smith, Reams & Hair, 2014). The "Composite Reliability" formula is used to calculate the "Internal Consistency Reliability" of Constructs once the "Factor Loading" has been verified (Jo'reskog 1971).

According to Hair et al. (2014), values of "Composite Reliability between 0.60 and 0.70 are considered to be 'Acceptable in Exploratory Research, whereas values between 0.70 and 0.95 are considered to be Satisfactory to Good. But, values higher than 0.95 are considered to be problematic as it indicates that the statements are redundant, leading to issues such as the undesirable pattern of responses (e.g., straight-lining), and inflated correlations among indicator error terms" (Drolet & Morrison, 2001).

The "convergent validity" of the constructs was assessed once the "composite reliability" was verified. By analysing the variance of statements, convergent validity assesses how much a concept converges in its indicators (Sarstedt, et al., 2014).

The "Average Variance Extracted" (AVE) was used to evaluate "convergent validity" for all assertions connected to each of the components. The mean of all squared loadings for all indicators connected to a build is what is referred to as the AVE value. An "appropriate AVE is 0.50 or higher, since it shows that on average, the concept explains over 50 per cent of the variance of its claims". (ibid).

The SEM will then be examined to gauge its "Construct Reliability" in the next stage. "Cronbach Alpha" is used to evaluate "construct reliability". "Cronbach's alpha",  $\alpha$  or "coefficient alpha", was created by Lee Cronbach in 1951.



It measures the “reliability or internal consistency of a set of scale or test statements. The reliability of any given measurement refers to the extent to which it is a consistent measure of a concept. Cronbach’s alpha is one way of measuring the strength of that consistency” (Gliem & Gliem, 2003).

“Cronbach’s alpha is computed by correlating the score for each scale item with the total score for each observation and then comparing that to the variance for all individual item scores”. “Cronbach’s alpha reliability coefficient normally ranges between 0 and 1. However, there is no lower limit to the coefficient. The closer the score of Cronbach’s alpha coefficient to 1.0 indicates higher internal consistency of the statements in the scale” (ibid). If the value of Cronbach's alpha is “more than 0.9, the scale is said to be Excellent; if it is between 0.9 to 0.8 scale is Good; between 0.8 to 0.7, the scale is Acceptable; between 0.7 to 0.6, the scale is Questionable; between 0.6 to 0.5, the scale is said as Poor, and if the alpha value is less than 0.5 scale is Unacceptable” (George & Mallery, 2003, p. 231).<sup>9</sup>

13 Statements of a questionnaire, 3.4, 3.5, 3.6, 3.8, 3.9, 4.2, 4.3, 4.4, 4.6, 4.7, 4.8, 4.9, 5.1, 5.2, 5.3, 5.4, 5.5, 5.8, 5.9, 5.10, 5.11, 6.1, 6.4, 6.5, 6.7,6.8, 6.9, 7.1, 7.2, 7.5, 7.7, 7.8, 7.9, 7.10, 7.11 8.6, 8.7,8.12, 9.1, 9.2, 9.4, 9.6, 9.7, 9.8, 9.9, 9.10, 9.11, 10.2, 10.6, 10.7,10.8, and 10.9 were eliminated from the model to make the model's constructions more predictable. A single construct, "Behavioural Intention," was created by combining analyses of overall opinions and behavioural intention. Table Number 5.43 displays the specifics of the statement codes.

<b>Table Number: 5.43:</b>		
<b>List of the Selected Statements for the Selected PHCs Users Attributes</b>		
<b>Sr. No.</b>	<b>Selected Statement's Code</b>	<b>Critical Statements of Attributes of Selected PHCs Users</b>
<b>Accessibility</b>		
01	ACC_1	I can easily visit the PHC of the Village
02	ACC_2	The PHC is available at a convenient location in our Village
03	ACC_3	The medical services are available to all
04	ACC_4	Medical services are available to all, irrespective of the income of people
05	ACC_5	The medical services are available to all irrespective of Gender of Users of PHC Services
06	ACC_6	The users of PHC Services can easily meet/visit/approach the doctors at the PHC
07	ACC_7	The users of PHC Services can easily meet/visit/approach the other Paramedical Staff at the PHC
<b>Affordability</b>		
08	AFF_1	The medical services provided by PHC are Inexpensive
09	AFF_2	Users of PHC Services do not have to spend from their own pocket to avail of medical services at PHC
10	AFF_3	Charges for different medical services provided by PHC are as per rules that are conveyed to users of PHC Services
11	AFF_4	Users of PHC Services can easily afford to spend money to reach at the PHC
12	AFF_5	The users of PHC Services can afford to spend money on hospitalisation at the PHC
<b>Availability</b>		
	AVA_1	The doctors are available at PHC as per the schedule
	AVA_2	The medicines prescribed by doctors are available at PHC
	AVA_3	Users of PHC Services get all the medicines free of cost from the PHC
	AVA_7	The Ambulance Service is available at PHC
<b>Community Engagement</b>		
	CE_1	The Staff of PHC organises meeting with the Village Sarpanch and community
	CE_10	The Staff of PHC meets Mahila Mandals to develop an awareness of health issues
	CE_11	The Staff of PHC assesses the health need of the people of the Village
	CE_2	The Staff of PHC give presentations in a village about Health/Medical issues

	CE_3	The Staff of PHC visit families in the villages to give advice about precautions for maintaining good health
	CE_4	The Staff of PHC show posters to inform the people of the Village about good health.
	CE_5	The Staff of PHC train people of the Village to develop awareness about medical issues
	CE_8	The Staff of PHC go to Gram Panchayat meetings to make people aware of health issues
	CE_9	The Staff of PHC collect feedback from the people of the Village on services provided by PHC
<b>Environment</b>		
	ENV_1	We do not find Water logging around the PHC
	ENV_5	The people in the village have jobs for their survival
<b>Infrastructure (Physical facilities)</b>		
	INF_6	The drinking water facility for users of PHC Services is available at PHC
	INF_7	The toilet facility for users of PHC Services is available at PHC
<b>Perception of the use of PHC Services</b>		
	PER_12	People visit PHC again if the medical services of PHC have improved my health
	PER_13	People would visit higher-level health facilities if PHC's medication did not help them in becoming physically fit
	PER_3	People understand that medication should be continued as long as recommended by PHC
	PER_5	People accept the advice of the doctor at PHC on the prevention of medical illness
<b>Preference for PHC</b>		
	PRE_1	People visit PHC as the charges for medical services are reasonable
	PRE_10	People visit PHC as there is a provision for health information
	PRE_3	People visit PHC as health personnel remain available to offer services to the community
	PRE_4	The PHC is preferred due to the availability of medicine/drugs
	PRE_5	People visit the PHC due to the good behaviour of the health staff
<b>Service Delivery</b>		
	SD_3	The staff of PHC collect feedback from users of PHC Services
	SD_4	Doctors refer to other doctors online for giving medical treatment
	SD_6	The Doctor asks users of PHC Services to visit his own, or any other Doctor's Private Clinic
<b>Work Culture</b>		
	WC_2	The Doctors support users of PHC Services while giving medical treatment
	WC_3	The doctors behave politely and courteously with users of PHC Services
	WC_6	The Paramedical staff explains to users of PHC Services about medical treatment
<b>Note:</b> Accessibility (ACC), Affordability (AFF), Availability (AVA), Environment (ENV), Infrastructure (INF), Work Culture (WC), Service Delivery (SD), Community Engagement (CE), Perception for the use of PHC Service (PER), and Preference for PHC (PRE).		

<b>Table Number: 5.44:</b>		
<b>List of the Selected Statements for Behavioural intention and to Recommend for the use of PHC Services</b>		
<b>Sr. No.</b>	<b>Selected Statement's Code</b>	<b>Key Statements of the Selected PHCs users Attributes</b>
<b>Overall Satisfaction/ Opinion</b>		
	OP_6	Work Culture of PHC
	OP_7	Delivery of Medical Services at PHC
	OP_8	Community Engagement by PHC
01	OP_9	Favourable Perception for PHC
<b>Recommendations and Suggestions</b>		
01	RS_10	Preference for availing medical services offered by PHC
02	RS_11	I will recommend others to use the Medical Services of PHC
<b>Note:</b> Overall Satisfaction/ Opinion (OP) and Recommendations and Suggestions (RS)		

### 5.5.1: Factor Loading, Convergent Validity, Composite Reliability and Cronbach Alpha of the Constructs:

Table 5.45 shows the constructs' factor loading, convergence validity, composite reliability, and Cronbach Alpha values after the chosen statements have been removed.

Table No: 5.45 Findings of Factor Loading, Convergent Validity, Composite Reliability and Cronbach Alpha of the Constructs					
Selected Constructs	Selected Statements	Factor Loading	AVE	Composite Reliability	Cronbach Alpha
Accessibility	ACC_1	0.782	0.614	0.917	0.896
	ACC_2	0.832			
	ACC_3	0.854			
	ACC_4	0.791			
	ACC_5	0.773			
	ACC_6	0.711			
	ACC_7	0.734			
Affordability	AFF_1	0.611	0.551	0.858	0.806
	AFF_2	0.703			
	AFF_3	0.858			
	AFF_4	0.721			
	AFF_5	0.794			
Availability	AVA_1	0.81	0.558	0.833	0.756
	AVA_2	0.779			
	AVA_3	0.626			
	AVA_7	0.76			
Community Engagement	CE_1	0.681	0.51	0.903	0.881
	CE_10	0.732			
	CE_11	0.667			
	CE_2	0.649			
	CE_3	0.769			
	CE_4	0.733			
	CE_5	0.73			
	CE_8	0.684			
	CE_9	0.771			
Environment	ENV_1	0.916	0.862	0.926	0.842
	ENV_5	0.941			
Infrastructure	INF_6	0.965	0.928	0.963	0.923
	INF_7	0.962			
Overall Satisfaction	OP_6	0.856	0.516	0.808	0.721
	OP_7	0.673			
	OP_8	0.667			
	OP_9	0.66			
Perception	PER_12	0.776	0.603	0.858	0.782
	PER_13	0.799			
	PER_3	0.775			
	PER_5	0.755			
Preferences	PRE_1	0.673	0.583	0.874	0.822
	PRE_10	0.721			
	PRE_3	0.777			
	PRE_4	0.833			
	PRE_5	0.804			
Recommendations and Suggestions	RS_10	0.903	0.823	0.903	0.785
	RS_11	0.912			
Service Delivery	SD_3	0.897	0.803	0.924	0.877
	SD_4	0.909			
	SD_6	0.882			
Work Culture	WC_2	0.893	0.808	0.926	0.881
	WC_3	0.883			
	WC_6	0.92			

According to Table 5.45, all of the statements of the various constructs have factor loading scores greater than 0.7, which explains around 50% of the observed variation.

The Average Variance Extracted (AVE) column shows if the construct is convergently valid. The constructs had AVEs greater than 0, which indicated that they explained more than 50% of the variation in each of the chosen statements.

Results indicated that the constructs had high internal consistency reliability (composite reliability between 0.70 and 0.95) after testing for this range. Also, the construct's Cronbach Alpha ranged from 0.72 to 0.89, indicating the scale's reliability and validity were adequate for the study's purposes. It is considered that discriminant validity has been assessed if the factor loading score for each of the constructs is more than 0.7 and the scores for convergent validity, composite reliability, and Cronbach's alpha are all satisfactory. To what degree a construct in the route model is empirically distinct from other constructs in terms of its connection with other constructs and how clearly the indicators indicate just this single construct is what discriminant validity establishes.

### 5.5.2: Discriminant Validity:

Fornell and Larcker's (1981) criterion is the most conservative criterion recommended to evaluate discriminant validity. "The method compares each construct's AVE Value with the Squared Inter-Construct Correlation, which measures the shared variance of that construct with all other constructs in the SEM. A construct should not exhibit shared variance with any other construct greater than its AVE value."

Table No: 5.46: Findings of AVE Values and Fornell-Larcker Test of Discriminant Validity												
Selected Constructs	ACC	AFF	AVA	CE	ENV	INF	OP	PER	PRE	RS	SD	WC
Accessibility	0.784											
Affordability	0.737	0.742										
Availability	0.599	0.584	0.747									
Community Engagement	0.116	0.1	0.122	0.714								
Environment	0.105	0.132	0.191	0.151	0.929							
Infrastructure	0.286	0.354	0.495	0.177	0.687	0.963						
Overall Satisfaction	0.187	0.252	0.321	0.251	0.44	0.608	0.718					
Perception	0.008	0.043	0.071	0.214	0.189	0.243	0.322	0.776				
Preferences	0.029	0.051	0.09	0.238	0.142	0.177	0.3	0.771	0.764			
Recommendations and Suggestions	0.064	0.246	0.225	0.17	0.435	0.577	0.713	0.242	0.136	0.907		
Service Delivery	0.297	0.377	0.468	0.518	0.502	0.759	0.628	0.245	0.23	0.528	0.896	
Work Culture	0.222	0.321	0.461	0.183	0.674	0.88	0.579	0.247	0.202	0.588	0.747	0.899
<b>Note:</b> Diagonals represent the square root of the AVE, while the off-diagonals represent the correlations. Accessibility (ACC), Affordability (AFF), Availability (AVA), Community Engagement (CE), Environment (ENV), Infrastructure (INF), Overall Satisfaction (OP), Perception (PER), Preferences (PRE), Recommendations and Suggestions (RS), Service Delivery (SD), Work Culture (WC).												

The discriminant validity of the constructs is shown in Table 5.46. The table indicates that the correlation between the construct and the other constructs was less than the square root of AVE of the construct. As a result, each research study construct was unique from the others.

Cross-loadings may help demonstrate the construct's discriminant validity. In the SEM, the chosen concept statements had greater weight than the other constructs (Hair et al., 2014). If the loadings of the indicators are consistently high on the construct with which they are connected, then the concept demonstrates discriminant validity.

Table No: 5.47: Findings of AVE Values and Heterotrait - Monotrait (HTMT) Ratio Test of Discriminant Validity												
Selected Constructs	ACC	AFF	AVA	CE	ENV	INF	OP	PER	PRE	RS	SD	WC
Accessibility												
Affordability	0.814											
Availability	0.802	0.807										
Community Engagement	0.137	0.125	0.168									
Environment	0.13	0.139	0.207	0.171								
Infrastructure	0.309	0.358	0.511	0.186	0.775							
Overall Satisfaction	0.198	0.22	0.297	0.31	0.416	0.55						
Perception	0.066	0.082	0.107	0.258	0.226	0.284	0.41					
Preferences	0.07	0.113	0.119	0.282	0.171	0.194	0.403	0.856				
Recommendations and Suggestions	0.091	0.256	0.25	0.194	0.535	0.676	0.841	0.307	0.167			
Service Delivery	0.327	0.396	0.513	0.58	0.579	0.844	0.614	0.291	0.269	0.633		
Work Culture	0.251	0.326	0.474	0.197	0.775	0.874	0.539	0.289	0.241	0.702	0.848	
<b>Note:</b> Diagonals represent the square root of the AVE, while the off-diagonals represent the correlations. Accessibility (ACC), Affordability (AFF), Availability (AVA), Community Engagement (CE), Environment (ENV), Infrastructure (INF), Overall Satisfaction (OP), Perception (PER), Preferences (PRE), Recommendations and Suggestions (RS), Service Delivery (SD), Work Culture (WC).												

According to recent studies, this measure of discriminant validity could not be accurate, particularly when there is only a tiny difference between the indicator loadings on a construct (Henseler et al., 2015). Results of the PLS-HTMT ratio assessment selected criteria related to measuring the relationship between selected criteria. The outcome of the study portrayed all HTMT ratios were less than the threshold value of 0.85 (Henseler et al., 2015; Ringle & Sarstedt, 2016), confirming the Discriminant Validity of Accessibility, Affordability, Availability, Community Engagement, Environment, Infrastructure, Overall Satisfaction, Perception, Preferences, Recommendations and Suggestions, Service Delivery, and Work Culture; the variables under study.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modelling. *Journal of the Academy of Marketing Science*, 43(1), 115–135.

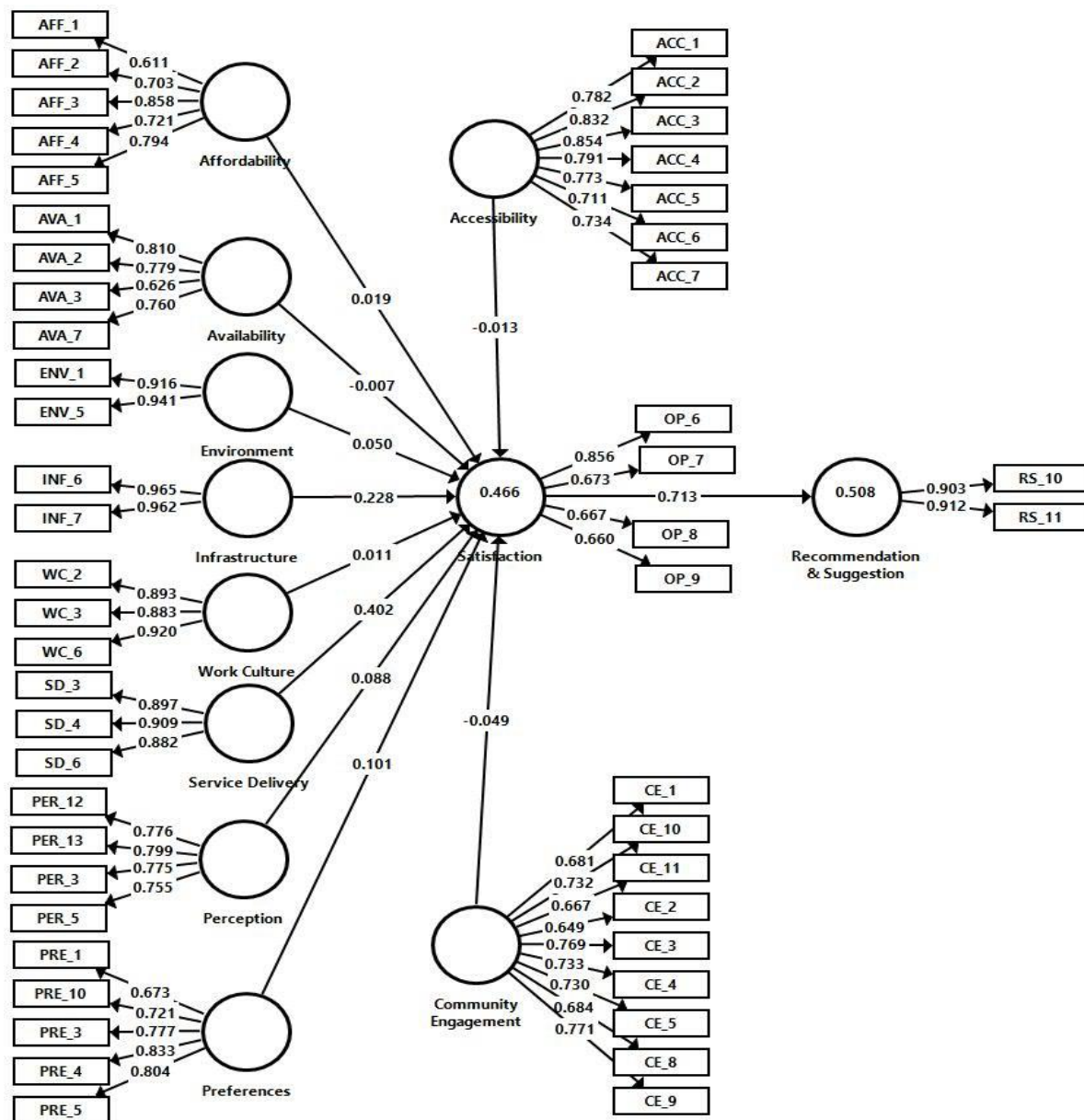
Ringle, C. M., & Sarstedt, M. (2016). Gain more insight from your PLS-SEM results: The importance-performance map analysis. *Industrial Management and Data Systems*, 116(9), 1865–1886.

### 5.5.3: Evaluation of Structured Equation Model:

The oval form represents 10 distinct research study components. The model's rectangular figures represent specific questions that were given to respondents in order to collect primary data. In Table Number 5.45, "Factor Loading, Convergent Validity, Composite Reliability, and Cronbach Alpha of the Constructs," loading data are also displayed. Table Number 5.46, "Discriminant Validity of the Constructs through Fornell-Larcker," and Table No. 5.47, "Heterotrait - Monotrait Ratio for Discriminant Validity," are other tables with loading data.

The links between the chosen statements and the construct and the construct are shown by arrows that go in both directions from and to the construct. The loading of each item for the construct is shown by arrows that point from the construct to the chosen statements and indicate the factor loading of those statements. A standardised beta coefficient (path coefficient), which establishes the amount of change in the outcome (dependent) variables for each unit of change in the predictor (independent) variables, may be seen as a one-sided arrow from one construct to another. Table 5.64 illustrates the relevance of the route coefficients. The values of the route coefficients are normalised from -1 to +1, with coefficients closer to +1 signifying strong positive associations and coefficients closer to -1 indicating strong negative relationships (Sarstedt et al., 2014).

**Figure No. 5.1: Evaluation of Structured Equation Model**



The percentage of the dependant variable's variation that can be predicted from the independent variable is represented by the coefficient of determination (R<sup>2</sup>). The R<sup>2</sup> score for Overall Satisfaction, for instance, is 0.466, and Recommendations and Suggestions, which shows the SEM's predictive accuracy, is 0.508. A higher level score indicates better prediction accuracy; the R<sup>2</sup> scales from 0 to 1. A considerable R<sup>2</sup> value is 0.75, a moderate R<sup>2</sup> value is 0.50, and a poor R<sup>2</sup> value is 0.25 for determining the SEM (Hair, Ringle & Sarstedt, 2011; Henseler Ringle & Sinkovics, 2009).

**Table Number 5.48 shows the results of Regression applied among the constructs:**

Table No: 5.48: Findings of Regression and Hypotheses Testing					
Hypotheses	Testing of Hypotheses	Standardized Beta	T Statistics	P-Value	Decision
H1	Accessibility -> Overall Satisfaction	-0.013	0.357	0.721	Support
H2	Affordability -> Overall Satisfaction	0.019	0.567	0.571	Support
H3	Availability -> Overall Satisfaction	-0.007	0.203	0.839	Support
H4	Community Engagement -> Overall Satisfaction	-0.049	1.221	0.222	Support
H5	Environment -> Overall Satisfaction	0.05	1.603	0.109	Support
H6	Infrastructure -> Overall Satisfaction	0.228	4.546	0.000	Support
H7	Overall Satisfaction -> Recommendations and Suggestions	0.713	35.802	0.000	Support
H8	Perception -> Overall Satisfaction	0.088	2.491	0.013	Support
H9	Preferences -> Overall Satisfaction	0.101	2.768	0.006	Support
H10	Service Delivery -> Overall Satisfaction	0.402	7.894	0.000	Support
H11	Work Culture -> Overall Satisfaction	0.011	0.234	0.815	Reject
Note.** 0.01 level of significance					

The SEM revealed a positive effect of the construct on others. The significant positive effect is observed at 0.01 level for all selected criteria, viz., Accessibility, Affordability, Availability, Work Culture, Environment, Service Delivery, Infrastructure, Perception of use of PHCs, Community Engagement and Preference for PHCs. The Service Delivery ( $\beta = 0.402$ ,  $t = 7.894$ ,  $p = 0.000$ ) influence more on the satisfaction of the users of PHCs followed by Preferences ( $\beta = 0.101$ ), Affordability ( $\beta = 0.019$ ,  $t = 0.567$ ,  $p = 0.571$ ) Infrastructure ( $\beta = 0.228$ ,  $t = 4.546$ ,  $p = 0.000$ ) Environment ( $\beta = 0.05$ ,  $t = 1.603$ ,  $p = 0.109$ ), Availability ( $\beta = -0.007$ ,  $t = 0.203$ ,  $p = 0.839$ ) Accessibility ( $\beta = -0.013$ ,  $t = 0.357$ ,  $p = 0.721$ ), and Community Engagement ( $\beta = -0.049$ ,  $t = 1.221$ ,  $p = 0.222$ ), but the effect of Work Culture ( $\beta = 0.011$ ,  $t = 0.234$ ,  $p = 0.815$ ) was found insignificant. Further, overall satisfaction significantly affected the recommendations and suggestions of the users of PHCs ( $\beta = 0.713$ ,  $t = 35.802$ ,  $p = 0.000$ ).

From the coefficient of determination, it is predicted that 46.6 per cent of overall satisfaction and 50.8 per cent of intention for recommendations and suggestions for using PHCs by the users of the services. Q<sup>2</sup> values larger than zero for a particular endogenous construct indicates that the path model's predictive accuracy is acceptable for that specific construct (Rigdon, 2014; Sarstedt, Ringle, Henseler & Hair, 2014). For example, the Q<sup>2</sup> value for the model predicting overall satisfaction (0.176) and recommendations and suggestions (0.415) for the use PHCs show the further predictive accuracy of the model under study.

## **5.6: KEY FINDINGS AND IMPLICATIONS OF THE RESEARCH STUDY:**

All ten factors showed a statistically significant positive correlation with the ideas of continuation to use, recommendations, and satisfaction, indicating that they are essential for users of Primary Health Centers (PHCs). The factors with the highest correlations with continued use, recommendations, and satisfaction were Environment, Infrastructure, Work Culture, and Service Delivery. These factors are most strongly linked to user behaviour and satisfaction and could be prioritized for improvement. The elements with the lowest correlations with continued to use, recommendations, and satisfaction were Accessibility and Preference. These factors may require more attention to identify why they are less critical to PHCs users and how they could be improved. The findings can inform decision-making for organizations or policymakers aiming to enhance user satisfaction and retention in the context of the studied factors. By prioritizing essential elements and addressing the less important factors, organizations and policymakers can improve the quality of PHC services and enhance user satisfaction and retention.

Demographic variables, such as Age, Education, Monthly Income, Gender, and Occupation, have different levels of association with PHC services, including Accessibility, Affordability, Availability, Infrastructure, Users of PHC Services, Satisfaction, and Community Engagement. For example, Monthly Income is an essential factor affecting the Accessibility and Affordability of PHC Services, while Education is vital for availability outcomes. Age significantly impacts users of PHC Services satisfaction and could be critical when designing Community Engagement initiatives. Infrastructure-Related Perceptions and Preferences may be relatively similar across different demographic groups, although certain infrastructure criteria may be more important to specific demographic groups.

Demographic variables may affect individuals' perceptions of PHC services, and healthcare providers and policymakers should consider these factors when designing and implementing healthcare programmes and policies. However, other factors such as Accessibility, Quality of Care, And Personal Experiences with healthcare may play a more significant role in shaping one's Preference for PHCs.

Doctors are more likely to explain the illness to users of PHC Services and show a positive attitude towards them. At the same time, the paramedical staff tends to be politer, listen to users of PHC Services' suggestions, and provide a higher level of service.

The variable "Perception for the use of PHCs services" is the topmost evaluated parameter, followed by "Preference for PHC" and "Service Delivery." The variables "Accessibility" and "Work Culture" were found to have a relatively lower impact on respondents' perception of PHCs. Quality of Service Delivery, Community Engagement, Availability of resources, and Infrastructure are the primary factors influencing respondents' perceptions of PHCs. Therefore, healthcare service providers and policymakers should focus on enhancing the Quality of Services, Community Engagement, and Availability of Resources to improve the perception of PHCs.



In addition, subsidies and grants should be allocated to promote Public-Private Partnerships with better infrastructure and an eco-friendly environment.

#### **5.6.1: Implications of the Correlation Test:**

All ten factors showed a statistically significant positive correlation with the ideas of continuation to use, recommendations and satisfaction, suggesting that these factors are essential for users of PHCs. The elements with the highest correlations with continued to operate, suggestions, and satisfaction were Environment, Infrastructure, Work Culture, and Service Delivery. The factors with the lowest correlations with continued to use, recommendations, and satisfaction were accessibility and preference. The elements with the highest correlations could be prioritized for improvement, as they are most strongly linked to user behaviour and satisfaction. The factors with the lowest correlations may require more attention to identify why they are less critical to PHCs users and how they could be improved. These findings can inform decision-making for organizations or policymakers aiming to enhance user satisfaction and retention in the context of the studied factors.

#### **5.6.2: Implications of the Chi-Square Test:**

The chi-square test of independence provides insights into the association between different demographic variables and factors related to the accessibility of PHCs services. The results suggest that some elements may be significantly associated with accessibility while others may not. These findings can inform policy decisions and interventions to improve accessibility to PHCs services. The study shows that Monthly Income is an essential factor affecting Accessibility. Policymakers and organizations should consider this while designing and implementing measures to improve Accessibility. Gender and Occupation were not significant factors concerning Accessibility, which may indicate that Accessibility issues are not specific to particular Gender or Occupational Groups. Age and Education were found to have limited associations with Accessibility, which may warrant further investigation to identify any potential patterns or issues.

The study suggests that Monthly Income is an essential factor affecting Affordability. Policymakers and organizations should consider this while designing and implementing measures to improve affordability. Education was not associated with Affordability, which may indicate that Affordability issues are not specific to certain educational levels. Age, occupation, and gender were not significant factors in Affordability, suggesting that Affordability issues are more evenly distributed across different demographic groups.

The study suggests that multiple demographic factors may influence Availability outcomes. Policymakers and organizations should consider these factors while designing and implementing measures to improve Availability. The fact that Gender, Age, Occupation, and Monthly Income were each associated with Availability indicates that Availability issues are not specific to particular demographic groups. In addition, the study highlights the importance of Education as a factor influencing Availability outcomes, suggesting that efforts to improve Availability should consider educational levels.

These findings imply that Education is essential in shaping attitudes and perceptions of the Environment. Therefore, educational programs should be implemented to increase awareness and promote environmental responsibility among the general population. In addition, Monthly Income is also associated with job opportunities in rural areas.

There are relatively few significant associations between Infrastructure criteria and demographic factors. This suggests that infrastructure-related perceptions and preferences may be similar across different demographic groups, at least in the study context. Some infrastructure criteria significantly associated with demographic factors include the Age factor, which provides for Water leakages in rooms of PHC, drinking water facilities at PHC, toilet facilities at PHC, and availability of beds for users of PHC Services at PHC. In Education variable includes the doors and windows of PHC are in good condition, drinking water facilities at PHC, toilet facilities at PHC, and availability of beds for users of PHC Services at PHC. The Monthly Income variable includes Drinking water at PHC toilet facilities at PHC. These results suggest that certain Infrastructure criteria may be more important to specific demographic groups and that addressing them may improve their satisfaction and perception of the PHCs. However, it is essential to note that the lack of significant associations between many Infrastructure criteria and demographic factors does not necessarily mean that these criteria are unimportant or not worth addressing. Other factors, such as overall satisfaction with the PHC, accessibility, and quality of care, may also shape perceptions and preferences.

Several implications can be drawn about the work culture of doctors and paramedical staff. The doctors are more likely to explain illness to users of PHC Services and show a positive attitude towards them. It also suggests that they tend to take their users of PHC Services into confidence while testing, which shows the importance of gaining trust in their work. On the other hand, it also reveals that the paramedical staff are more likely to be polite and answer the queries of users of PHC Services, indicating a higher level of service they provide. It also suggests they are more likely to listen to users of PHC Services' suggestions, highlighting their commitment to users of PHC Services' satisfaction. Overall, this table offers valuable insight into the work culture of doctors and paramedical staff, and the implications of this data can be used to improve their services further.

Age and Education seem to have a significant impact on users of PHC Services' satisfaction with PHC services, as these variables have the highest number of significant 'P' values across the criteria. Any Age with any Education can have the basic health facilities provided by the Primary Health Centers. Gender, Occupation, and Monthly Income have a relatively lower impact on users of PHC Services satisfaction, as indicated by the lower number of significant 'P' values for these variables across the criteria.

The demographic variable with the highest impact on Community Engagement was Age, with significant associations found. This suggests that period could be essential when designing Community Engagement initiatives.

These findings have important implications for healthcare providers and policymakers. Understanding the factors that influence individuals' perception of PHC services can help improve the delivery of these services and increase their utilization. For example, healthcare providers can use this information to develop targeted strategies to enhance the perception of PHC services among specific demographic groups. Moreover, these results can inform policy decisions related to healthcare financing and resource allocation. For instance, policymakers may consider targeting healthcare resources to improve PHC services in areas with significant associations.

Additionally, they may consider implementing policies to address the underlying social determinants of health that contribute to differences in perceptions of PHC services among different demographic groups. The findings suggest that demographic variables may affect individuals' perceptions of PHC services. Healthcare Therefore, health care and policy However, when it comes to the preference for PHC, demographic variables may not be essential in determining an individual's choice. Other factors, such as accessibility, quality of care, and personal experiences with healthcare, may play a more significant role in shaping one's preference for PHC.

#### **5.6.3: Implications of the Rank Test:**

The implications of the Friedman Rank Test for the current study suggest that one of the variables, Perception of the use of PHC services, stands out as the top most evaluated parameter. This position was followed by the criterion of Preference for PHC, which emphasizes more preferences were given to PHCs for healthcare facilities. Service Delivery follows the rank after Preference for PHCs, leading to the quality of services provided at PHCs. Availability and Infrastructure follow the position after Community Engagement. The Environment and Affordability follow the rank after the infrastructure variable, suggesting that subsidies and grants should be allocated to Public-Private Partnerships with better infrastructure and an eco-friendly environment. The other variables in the study have been found in the lower ranks of priority by the respondents. viz., Accessibility, Work Culture. Based on the findings, it can be inferred that the perception of the Quality of Service Delivery, Community Engagement, Availability of Resources, and Infrastructure primarily influences the respondents' perception of PHCs. The factors like Work Culture, Affordability, and Accessibility had a relatively lower impact on the respondents' perceptions. It indicates that healthcare service providers and policymakers should focus on enhancing the Quality of Services, Community Engagement, and Availability of Resources to improve the perception of PHCs.

#### **5.6.4: Implications of the Findings of the Structural Equation Modelling:**

From the SEM, it can be inferred that factors under the research study, viz., Accessibility, Affordability, Availability, Environment, Work Culture, Infrastructure, Preference for PHC and Community Engagement with perception for the use of PHC are the most important criteria for users. Furthermore, these factors were found to be most significant in the perception of users of PHCs. Thus, more availability of such factors makes the perception of PHC to be very positive amongst the users.

SEM provided guidance for health care service providers for development in health care which would help to increase the perception of users of PHC. Improvements in such factors would also assure the rural population's use of primary health centres. PHC users use different healthcare services for other purposes based on their perceptions and mind. SEM of the research study also helps analyse the different values that PHC services can create. This would give the healthcare providers an idea to provide the best medical services for the Rural population. Identifying the purpose of the PHC would enable the developers and service providers to include new and valuable features that would ultimately give more satisfaction to the PHC users. The SEM identified that various factors influenced the PHC users' behavioural intention under the study, viz., Accessibility, Affordability, Availability, Environment, Work Culture, Infrastructure, and Service Delivery, which leads to the solid recommendation of using PHC for other rural populations.

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