CHAPTER NUMBER SIX

FINDINGS OF THE RESEARCH STUDY

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6.1 FINDINGS OF THE RESEARCH STUDY:

The researcher has applied Chi-square test, ANOVA and factor analysis to test various hypothesis formulated based on the primary data which were collected from the selected patients' of the Government Hospitals (GHs), Trust Hospitals (THs), and Private hospitals (PHs) from the city of Baroda of the Gujarat State.

6.2 CHI SQUARE

The results of the testing hypothesis are put forward as follows.

In order to apply the Chi- Square the responses given by patients, on five rating scales, were combined into two groups as Important – Unimportant (Q No. 07); Agree – Disagree (Q No. 08, Q No.12 and Q No.13); and Satisfied – Dissatisfied (Q No. 09).

The results of Chi\square test is put forward as follows.

(Abbreviations used in following tables are GHs = Government Hospitals; THs = Trust Hospitals; PHs = Private Hospitals; S = Significant; NS = Not Significant)

Hypothesis: 1

The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the selection of a given type of hospital (GHs; THs; and PHs), is equal. **(Q. No.07)**

Table Number 6.1: Selected Patients' Reasons for Selection of Hospitals

Sr. No.	Selected Criteria	Computed Value of X^2
01	Own Decision	S (52.24)
02	Relatives Suggested	S (24.83)
03	Friends Suggested	S (29.44)
04	Suggested by Family Doctor	S (21.89)
05	Past performance of Hospital / Doctor	**NS (3.88)**
06	Only in this Hospital such kind of facility is available	S (52.26)
07	Overall Reputation of Hospital	**NS (4.00)**
08	Hospital Located Nearby	S (79.92)
09	Hospital is economical	S (201.39)
10	Accessibility of Medicine & Test Facilities	S (10.59)
11	Sanitation in the Hospital	**NS (0.32)**

TV= 0.05=5.99 (DF=2)

The average opinion of selected patients' on various reasons for selection of type of hospitals was found to be uniform in some of the selected criteria viz., past performance of hospital / doctor; overall reputation of hospital; sanitation in the hospital, wherein average opinion of selected patients was different with regard to other selected items.

Hypothesis: 2

The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the various medical services provided to him/her by doctors' of the given type of hospital (GHs; THs; and PH)s, is equal. **(Q. No. 08-01 to 08-17)**

Table Number 6.2: Selected Patients' Responses for Medical Services Provided in the Hospitals

Sr. No.	Selected Criteria	Computed Value of X^2
01	Doctors' Knowledge & Efficiency	**NS (0.74)**
02	Doctors' Cooperation to patients	**NS (3.79)**
03	Doctors' were polite with patients	**NS (5.59)**
04	Impartial Attitude of Doctors	S (6.68)
05	Patients' Felt Comfortable During Doctors Examination	**NS (1.87)**
06	Doctors' Experience in Curing Patients	**NS (1.87)**
07	Thorough Checkup by Doctors	**NS (0.99)**
08	Doctors' Work according to Patients Expectations	S (37.67)
09	Doctors' Gave Individual Consideration & Confidentiality	S (27.63)
10	Doctors' Showed Respect & Support patients	S (192.75)
11	Doctors' Makes Good Diagnosis	**NS (4.21)**
12	Doctors' Prescribed Good Drugs	**NS (0.45)**
13	Doctor' ask for patients Permission for performing Test	S (41.27)
14	Patients' Felt Comfortable asking Questions to Doctors	**NS (3.03)**
15	Doctors' Honesty in Dealing with patients	S (9.80)
16	Sufficient number of Doctors Remained Present	**NS (0.87)**
17	Doctors' Availability in Emergency	**NS (0.47)**

TV= 0.05=5.99 (DF=2)

The average opinion of selected patients on various medical services being provided by doctors to them, was found to be different in some of the selected criteria viz., impartial attitude of doctors; doctors' work according to patient expectations; doctors' gave individual considerations and maintain confidentiality; doctors' showed respect and support to patients; doctor's ask for patients' permission for performing tests and doctors' honesty in dealing with patients, wherein average opinion of selected patients' was uniform with regard to other selected items.

Hypothesis: 3

The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the various services provided to him/her by paramedical staff of the given type of hospital (GHs; THs; and PHs), is equal. **(Q. No.08-18 to 08-33)**

Table Number 6.3: Selected Patients' Responses for Services of Paramedical Staff

Sr. No.	Selected Criteria	Computed Value of X^2
01	Nurses' Knowledge & Efficiency	**NS (1.87)**
02	Nurses' Cooperation to Patients	S (36.64)
03	Nurses' Showed Politeness with Patients	S (10.09)
04	Impartial Attitude of Nurses	S (7.38)
05	Nurses' Maintain Proper records of Patients	**NS (1.69)**
06	Nurses' Handled Patients Query Properly	S (31.91)
07	Nurses' Experience in Curing Patients	S (6.47)
08	Good Experience of Those who Perform Test on Patients	**NS (0.80)**
09	Nurses' Gave Personal Attention to Patients	S (47.38)
10	Nurses' Provided Prompt Service	S (64.90)
11	Nurses' & Staff Remained Present in Emergency	S (39.07)
12	Nurses' Explain Procedures and take Patient Permission before Test	S (31.23)
13	Nurses' Explain Rules Regulation in ward	**NS (4.64)**
14	Nurses' are Kind, Gentle & Sympathetic	**NS (1.06)**
15	Information Provided to patients for Managing Side Effects	S (53.17)
16	Prompt Service Provided by Sanitation Staff	S (20.06)

TV= 0.05=5.99 (DF=2)

The average opinion of selected patients' on various services being provided to them by paramedical staff, was found to be different in some of the selected criteria viz., nurses' knowledge & efficiency; nurses' maintain proper records of patients; good experience of those who perform test on patients; nurses' explain rules regulation in ward; nurses' were kind, gentle & sympathetic; wherein, average opinion of selected patients' was uniform with regard to other selected items.

Hypothesis: 4

The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the various services provided to him/her by administrative staff of the given type of hospital (GHs; THs; and PHs), is equal.

(Q. No.08-34 to 08-46)

Table Number 6.4: Selected Patients' Responses for Services of Administrative Staff

Sr. No.	Selected Criteria	Computed Value of X^2
01	Less Waiting Time For Consultation & Treatment	S (46.05)
02	Less Waiting Time for Test	S (97.14)
03	Simple Checking Procedure	S (17.11)
04	Speed, Ease of Admission & Discharge form Hospital	**NS (2.77)**
05	Convenient Office Hours	**NS (2.82)**
06	Staff Gives Prompt Services	S (111.16)
07	No Overcrowding in Hospital	S (51.36)
08	Good Grievance handling System	S (148.77)
09	Adm. Staff Welcome & Implement Suggestion	S (89.13)
10	Adm. Gives Personal Attention To Patient	S (109.94)
11	Patients' Were Treated With Dignity & Privacy	S (10.26)
12	Good Concern for Patients' Family & Visitor	S (7.23)
13	Simple Billing Procedures	**NS (2.67)**

TV= 0.05=5.99 (DF=2)

The average opinion of selected patients' on various services being provided to them by administrative staff was found to be uniform in some of the selected criteria viz., speed, ease of admission & discharge form hospital; convenient office hours; simple billing procedures, wherein, average opinion of selected patients' was different with regard to other selected items.

Hypothesis: 5

The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the environment (physical facilities) of the given type of hospital (GHs; THs; and PHs), is equal. **(Q. No.08-47 to 08-64)**

Table Number 6.5: Selected Patients' Responses to Environment (Physical Facilities) of Hospitals

Sr. No.	Selected Criteria	Computed Value of X^2
01	Well Equipped Units	**NS (2.72)**
02	Proper Sitting & Bedding Arrangements	**NS (1.03)**
03	Comfort in Examination & waiting Room	S (6.64)
04	Natural Light or Illumination in Hospital	S (17.40)
05	Sufficient Number of Dust Bins & Spittoons	**NS (5.15)**
06	No Flies & Mosquitoes in Hospital	S (8.97)
07	Adequate parking Arrangements	S (58.35)
08	Clean Surroundings of Hospitals	S (9.20)
09	Pleasing & Appealing Room of Hospital	S (7.89)
10	Good Food Served by Hospital *	S (18.48)
11	Staff Neat in Appearance	**NS (5.79)**
12	Inside & Out side Noise kept Minimum	**NS (1.61)**
13	Wards Well Decorated & Ventilated	S (28.26)
14	Music Facilities should be provided	S (6.70)
15	Quick Payment Arrangements	S (21.53)
16	Costs were Adequate or Affordable	S (226.23)
17	Drugs Easily Obtained in Hospital	S (14.65)
18	Distance to Healthcare is Adequate	S (72.37)

TV= 0.05=5.99 (DF=2)

The average opinion of selected patients' on environment (physical facilities) of the hospitals was found to be similar in some of the selected criteria viz., well equipped units; proper sitting & bedding arrangements; sufficient number of dust bins & spittoons; staff neat in appearance; inside & out side noise kept minimum; wherein, average opinion of selected patients' was different with regard to other selected items.

Hypothesis: 6

The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the tangible facilities of the given type of hospital (GHs; THs; and PHs), is equal. **(Q. No. 08 -16, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, and 60)**

Table Number 6.6: Selected Patients' Responses on Tangibles Criterion of the Hospital Services

Sr. No.	Selected Criteria	Computed Value of X^2
01	Sufficient Doctor's Remained Present	**NS (0.87)**
02	Well Equipped Units	**NS (2.72)**
03	Proper Sitting & Bedding Arrangements	**NS (1.03)**
04	Comfort in Examination & waiting Room	S (6.64)
05	Natural Light or Illumination in Hospital	S (17.40)
06	Sufficient Number of Dust Bins & Spittoons	**NS (5.15)**
07	No Flies & Mosquitoes in Hospital	S (8.97)
08	Adequate parking Arrangements	S (58.35)
09	Clean Surroundings of Hospitals	S (9.20)
10	Pleasing & Appealing Room of Hospital	S (7.89)
11	Good Food Served by Hospital *	S (18.48)
12	Staff Neat in Appearance	**NS (5.79)**
13	Inside & Out side Noise kept Minimum	**NS (1.61)**
14	Wards Well Decorated & Ventilated	S (28.26)
15	Music Facilities should be provided	S (6.70)

TV= 0.05=5.99 (DF=2)

The average opinion of selected patients' on tangible facilities of the hospitals was found to be identical. in some of the selected criteria viz., sufficient doctors' remained present; well equipped units; proper sitting & bedding arrangements; sufficient number of dust bins & spittoons; staff neat in appearance; inside & out side noise kept minimum; wherein, average opinion of selected patients' was different with regard to other selected items.

Hypothesis: 7

The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the reliability of service provided in the given type hospital (GHs; THs; and PHs), is equal. **(Q. No. 08 -04, 11, 12, 21, and 22)**

Table Number 6.7: Selected Patients' Responses on Reliability Criterion of the Hospital Services

Sr. No.	Selected Criteria	Computed Value of X^2
01	Impartial Attitude of Doctors	S (6.68)
02	Doctors' Makes Good Diagnosis	**NS (4.21)**
03	Doctors' Prescribed Good Drugs	**NS (0.45)**
04	Impartial Attitude of Nurses	S (7.38)
05	Nurses' Maintain Proper records of Patients	**NS (1.69)**

TV= 0.05=5.99 (DF=2)

The average opinion of selected patients' on the reliability of the services of the hospitals provided to them, was found to be different in some of the selected criteria viz., impartial attitude of doctors and impartial attitude of nurses wherein, average opinion of selected patients' was uniform with regard to other selected items.

Hypothesis: 8

The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the responsiveness of services providers of the given type of hospital (GHs; THs; and PHs), is equal. **(Q. No. 08 -02, 14, 19, 27, 28, 32, 33, 34, 35, 37, 38, 39, 40, and 41)**

Table Number 6.8: Selected Patients' Responses on Responsiveness Criterion of the Hospital Services

Sr. No.	Selected Criteria	Computed Value of X^2
01	Doctor's Cooperation to patients	**NS (3.79)**
02	Patients' Felt Comfortable asking Questions to Doctors	**NS (3.03)**
03	Nurses' Cooperation to Patients	S (36.64)
04	Nurses" Provided Prompt Service	S (64.90)
05	Nurses' & Staff Remained Present in Emergency	S (39.07)
06	Information Provided to patients for Managing Side Effects	S (53.17)
07	Prompt Service Provided by Sanitation Staff	S (20.06)
08	Less Waiting Time For Consultation & Treatment	S (46.05)
09	Less Waiting Time for Test	S (7.14)
10	Speed, Ease of Admission & Discharge form Hospital	**NS (2.77)**
11	Convenient Office Hours	**NS (2.82)**
12	Adm. Staff Gives Prompt Services	S (111.16)
13	No Overcrowding in Hospital	S (51.36)
14	Good Grievance handling System	S (148.77)

TV= 0.05=5.99 (DF=2)

The average opinion of selected patients' on various criteria related with responsiveness of the hospitals, was found to be uniform in some of the selected criteria viz., doctors' cooperation to patients; patients' felt comfortable asking questions to doctors; speed, ease of admission & discharge form hospital; convenient office hours; wherein, average opinion of selected patients' was different with regard to other selected items.

Hypothesis: 9

The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the assurance from the hospital services of the given type of hospital (GHs; THs; and PHs), is equal. **(Q. No.08 -01, 06, 07, 18, 23, 24, and 25)**

Table Number 6.9: Selected Patients' Responses on Assurance Criterion of the Hospital Services

Sr. No.	Selected Criteria	Computed Value of X^2
01	Doctors' Knowledge & Efficiency	**NS (0.74)**
02	Doctors' Experience in Curing Patients	**NS (1.87)**
03	Thorough Checkup by Doctors	**NS (0.99)**
04	Nurses' Knowledge & Efficiency	**NS (1.87)**
05	Nurses' Handled Patients Query Properly	S (31.91)
06	Nurses' Experience in Curing Patients	S (6.47)
07	Good Experience of Those who Perform Test on Patients	**NS (0.80)**

TV= 0.05=5.99 (DF=2)

The average opinion of selected patients' on various criteria related with assurance from the hospital services, was found to be different in terms of two criteria viz., nurses' handled patients' query and nurses' experience in curing patients; wherein, average opinion of selected patients' was uniform with regard to other selected items.

Hypothesis: 10

The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the empathy experienced from the hospital services of the given type of hospital (GHs; THs; and PHs), is equal. **(Q. No. 08 -03, 05, 08, 09, 10, 15, 20, 36, 45, and 46)**

Table Number 6.10: Selected Patients' Responses on Empathy Criterion of the Hospital Services

Sr. No.	Selected Criteria	Computed Value of X^2
01	Doctors' were polite with patients	**NS (5.59)**
02	Patients' Felt Comfortable During Doctors Examination	**NS (1.87)**
03	Doctors' Work According to Patients Expectations	S (37.67)
04	Doctors' Gave Individual Consideration & Confidentiality	S (27.63)
05	Doctors' Showed Respect & Support patients	S (192.75)
06	Doctors' Honesty in Dealing with patients	S (9.80)
07	Nurses' Showed Politeness with Patients	S (10.09)
08	Simple Checking Procedure	S (17.11)
09	Good Concern for Patients' Family & Visitor	S (7.23)
10	Simple Billing Procedures	**NS (2.67)**

TV= 0.05=5.99 (DF=2)

The average opinion of selected patients' on various criteria related with empathy experienced by patients from the hospital services, was found to be uniform in some of the criteria viz., doctors' were polite with patients; patients' felt comfortable during doctors' examination; simple billing procedures; wherein, average opinion of selected patients' was different with regard to other selected items.

Hypothesis: 11

The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the dignity maintained by the services providers of the given type of hospital (GHs; THs; and PHs), is equal. **(Q. No. 08 -13, 26, 29, 30, 31, 42, 43, and 44)**

Table Number 6.11: Selected Patients' Responses on Dignity Criterion of the Hospital Services

Sr. No.	Selected Criteria	Computed Value of X^2
01	Doctors' ask for patients Permission for performing Test	S (41.27)
02	Nurses' Gave Personal Attention to Patients	S (47.38)
03	Nurses' Explain Procedures and take Patient Permission before Test	S (31.23)
04	Nurses' Explain Rules Regulation in ward	**NS (4.64)**
05	Nurses' were Kind, Gentle & Sympathetic	**NS (1.06)**
06	Adm. Staff Welcome & Implement Suggestion	S (89.13)
07	Adm. Gives Personal Attention To Patient	S (109.94)
08	Patients' Were Treated With Dignity & Privacy	S (10.26)

TV= 0.05=5.99 (DF=2)

The average opinion of selected patients' on various criteria related with dignity maintained by the hospital service providers was found to be uniform in some of the criteria viz., nurses' explain rules regulation in ward; nurses' were kind, gentle & sympathetic; wherein, average opinion of selected patients' was different with regard to other selected items.

Hypothesis: 12

The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the accessibility / affordability of the hospital services of the given type of hospital (GHs; THs; and PHs), is equal. (**Q. No. 08 -17, 61, 62, 63, and 64)**

Table Number 6.12: Selected Patients' Response against Accessibility / Affordability Criterion of the Hospital Services

Sr. No.	Selected Criteria	Value of X^2
01	Doctors' Availability in Emergency	**NS (0.47)**
02	Quick Payment Arrangements	S (21.53)
03	Costs were Adequate or Affordable	S (226.23)
04	Drugs Easily Obtained in Hospital	S (14.65)
05	Distance to Healthcare is Adequate	S (72.37)

TV= 0.05=5.99 (DF=2)

The average opinion of selected patients' on various criteria related with accessibility and affordability of the hospital services was found to be uniform in some of the criteria viz., 'doctors' availability in emergency'; wherein, average opinion of selected patients' was different with regard to other selected items.

Hypothesis: 13

The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the overall satisfaction with selected criteria of the given type of hospital (GHs; THs; and PHs), is equal. **(Q. No. 09)**

Table Number 6.13: Selected Patients' Overall Satisfaction on the Hospital services

Sr. No.	Selected Criteria	Computed Value of X^2
01	Overall Satisfaction with Medical treatment	**NS (5.40)**
02	Overall Satisfaction with Nursing Staff services	**NS (1.73)**
03	Overall Satisfaction with Administrative Staff	S (36.82)
04	Overall Satisfaction with Environment	S (9.87)

TV= 0.05=5.99 (DF=2)

The average opinion of selected patients' on various criteria with regard to overall response against selected criteria was found as different in terms of two criteria viz., overall satisfaction with administrative staff and with environment of the hospital; wherein, average opinion of selected patients' was uniform with regard to other selected items.

Hypothesis: 14

The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for the overall satisfaction with the given type of hospital (GHs; THs; and PHs), is equal. **(Q. No.-10)**

Table Number 6.14: Selected Patients' Overall Satisfaction on Hospital Services

Sr. No.	Selected Criteria	Computed Value of X^2
01	Highly Satisfied	Significant (17.11)
02	Satisfied	
03	Somewhat satisfied /Undecided	
04	Dissatisfied	
05	Highly Dissatisfied	

TV= 0.05=15.5 (DF=8)

The average opinion of selected patients' on overall satisfaction experienced from hospital services was found to be different, which implies significant results.

Hypothesis: 15

The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' post-purchase behaviour vis-a vis the given type of hospital (GHs; THs; and PHs), is equal. **(Q. No.-11)**

Table Number 6.15: Selected Patients' Post-Purchase Behaviour

Sr. No.	Selected Criteria	Computed Value of X^2
01	Definitely Yes	**Not Significant (6.70)**
02	Probably Yes	
03	Undecided	
04	Probably No	
05	Definitely No	
	Total	

TV= 0.05=15.5 (DF=8)

The average opinion of selected patients' was found to be equal with regard to post-purchase behaviour for hospitals.

Hypothesis: 16

The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses medical services (best services) of the given type of hospital (GHs; THs; and PHs), is equal. **(Q. No.-12)**

Table Number 6.16: Selected Patients' Positive Experiences on Best Medical Services

Sr. No.	Selected Criteria	Computed Value of X^2
01	Best Service is Medical Treatment in Hospital	S (16.26)
02	Best Service is Nursing Staff Services in Hospital	**NS (1.12)**
03	Best Service is Administrative Staff Services in Hospital	S (33.90)
04	Best Service is Environment in Hospital	S (8.13)

TV= 0.05=5.99 (DF=2)

The average opinion of selected patients' on various criteria about best service of the hospital was found to be equal in one criterion namely; best service is nursing staff service in the hospital; wherein average opinion of selected patients' was different with regard to other selected items.

Hypothesis: 17

The average opinion of selected patients' in the selected type of hospitals (GHs; THs; and PHs), on selected criteria used to measure selected patients' responses for medical service (worst services) of the given type of hospital (GHs; THs; and PHs), is equal. **(Q. No. 13)**

Table Number 6.17: Selected Patients' Experiences on Worst Medical Services

Sr. No.	Selected Criteria	Computed Value of X^2
01	Worst Service is Medical Treatment in Hospital	**NS (0.87)**
02	Worst Service is Nursing Staff Services in Hospital	**NS (5.21)**
03	Worst Service is Administrative Staff Services in Hospital	**NS (0.84)**
04	Worst Service is Environment in Hospital	**NS (1.07)**

TV= 0.05=5.99 (DF=2)

The average opinion of selected patients' on various criteria about medical services (worst) of the hospital was found to be uniform on selected criteria.

6.2.1 IMPLICATIONS OF THE RESEARCH STUDY BASED ON THE CHI-SQUARE:

The research study provided an understanding, based on confirmatory evidence, to the hospitals that past performance of the hospitals and doctors; overall reputation of hospitals, and sanitation in the hospitals were the major reasons for choosing particular hospital, so due consideration to these criteria will help the hospitals in attracting the patients to hospitals. It has an important implication in determining future potential of hospital business. Past performance of hospitals and doctors have an impact on quality of service and will be an important criteria for potential research for searching innovative ways of delivering services. The overall reputation has economic implications on business which includes survival; profit; growth, and future plan.

In terms of medical services of the hospitals, the research study provided confirmatory evidence which provided an understanding to the hospitals in determining implications of medical services on business. Impartial attitude of doctors will have an impact on reputation or goodwill of business through maintaining transparency by doctors while dealing with patients. If doctors' work according to patients' expectations it will have an adverse impact on quality of services provided to patients or on health of a patient, so the doctors should consider the expectations of patients but not at the cost of quality of treatment or services. Giving individual considerations and maintaining confidentiality, and showing respect and support to patients by doctors will have an impact on psychological satisfaction of patients and it creates an environment of ethical behaviour in the hospitals. Further, doctors' can develop a rapport with the patients and improve their patients' satisfaction.

If the doctors' does not ask for patients' permission for performing test on them and if doctors' does not show honesty in dealing with patients, doctors' may invite legal complications for hospitals and will also have an impact on reputation of the hospitals.

In terms of paramedical services of the hospitals, the research study provided confirmatory evidence, which provides an understanding to the hospitals in determining implications of paramedical services on business. Knowledge and efficiency of nursing staff, and the habit of maintaining good records of patients by nurses and other paramedical staff will help the hospitals in improving patients' satisfaction and reputation of hospitals. If nurses of the hospitals take due care in explaining rules, regulations in the wards and remained kind, gentle and sympathetic with the patients, the patients' will carry the good impression of hospital in society and will have a positive word of mouth for the hospital.

In terms of administrative services of the hospital, the research study provided confirmatory evidence, which provides an understanding to the hospitals in determining implications of administrative services on business. The speed, ease of admission and discharge from hospital; convenient office hours, and simple billing procedures will provide the comfort to the patients during their hospitalization. So, due recognition to these administrative procedures will help the hospital in creating a comfortable environment for patients and in providing mental peace to patients.

In terms of environment (physical facilities) and tangible criteria of the hospitals, the research study provided confirmatory evidence, which provides an understanding to the hospitals in determining implications of environment and tangible facilities on business. The criteria, viz., well equipped units; proper sitting and bedding arrangement; sufficient number of dust bins and spittoons; staff neat in appearance, and inside out side noise in the hospital kept minimum, will add to the comfort of patients and affect positively the patients' intention to visit the hospital in future.

In terms of reliability of the hospitals, the research study provided confirmatory evidence, which provides an understanding to the hospitals in determining implications of important reliability criteria on business. As per the findings of the research study the reliability of hospital services depends on impartial attitudes of doctors and nurses and will have an impact on the patients' loyalty towards hospital, so due recognition to it will definitely affect the future profit and growth of the business.

In terms of responsiveness of the service providers of the hospitals, the research study provided confirmatory evidence, which provides an understanding to the hospitals in determining implications of important responsiveness criteria on business. The responsiveness of doctors' in terms of extending cooperation to patients and making patient feel comfortable in asking questions to doctors, will have an impact on satisfaction of patients.

The responsiveness of administrative staff in terms of sped, ease of admission and discharge from hospital, and convenient office hours will have an impact on mental peace of patients, which ultimately leads to patient satisfaction.

In terms of assurance from the hospital services, the research study provided confirmatory evidence, which provides an understanding to the hospitals in determining implications of important assurance criteria on business. The proper handling of patients quarry by nurses and nurses' experience in curing patients, will help the hospitals in creating a trust and confidence in patients about hospital services, which have an impact on patients intention to visit hospital again in future and also affect survival of the hospital.

In terms of empathy experienced by patients' from hospital services, the research study provided confirmatory evidence, which provides an understanding to the hospitals in determining implications of empathy criteria on business. The politeness of doctors with patients and making patients felt comfortable during doctors' examination will help the hospitals in improving the patient satisfaction and in influencing patients to have positive word of mouth in favour of hospitals.

In terms of dignity maintained by the service providers of the hospitals, the research study provided confirmatory evidence, which provides an understanding to the hospitals in determining implications of dignity criteria on business. If the nursing staff explain the rules and regulation in the wards and are kind, gentle and sympathetic with the patients, it will provide psychological satisfaction to patients and create an environment in which people follow the ethical behaviour.

In terms of accessibility and affordability of the hospital services, the research study provided confirmatory evidence, which provides an understanding to the hospitals in determining implications of accessibility and affordability criteria on business. The accessibility of services in terms of availability of doctors in emergency will have an impact not only on satisfaction of patients but, also affect intention of patients to visit hospital in future illness. The due recognition by the hospital in making doctors' availability in emergency will help the hospital in attracting the patients in case of his/her illness in future.

In case of overall response of all the patients, against selected criteria, the due recognition of the hospitals in terms of satisfactory services of administrative staff and the environment of hospital will have an impact in creating better satisfaction of patients from the hospital services and the positive post purchase behaviour from patients.

All type of hospitals understand that developing different medical practices and strategies will have an impact on satisfaction of patients from overall services of hospital as the patients' covered under research study responded differently for expressing their overall satisfaction with all kinds of hospitals services.

The research study has provided confirmatory evidence that all patients have reported uniformly for expressing their intention to recommend the hospital to others in future, and therefore, it becomes clear that satisfying patients is imperative as the patients will recommend the hospital to others only when they are satisfied with hospital services.

In case of patients' views about best service of the hospital, the research study provided confirmatory evidence that all patients have reported uniformly for one criterion that is, best service is provided by the nursing staff of the hospital. In implies that nursing staff services will have an impact on level of patients' satisfaction and due recognition to it will help the hospitals in providing better satisfaction to their patients.

In case of patients' views about worst service of the hospital, the research study provided confirmatory evidence that all patients have reported uniformly for all criteria, and therefore, it implies that due recognition to all kinds of hospitals services will help the hospitals in avoiding the dissatisfaction of patients.

6.3 ONE WAYANNOVA AND FACTOR ANALYSIS FOR SELECTED PATIENTS' REASONS FOR SELECTION OF TYPE OF THE HOSPITALS:

6.3.1 ONE WAY ANNOVA FOR PATIENTS' REASONS FOR SELECTION OF HOSPITAL:

(Abbreviations used in following tables are, GHs = Government Hospitals; THs = Trust Hospitals; PHs = Private Hospitals; SD = Standard Deviation; SE = Standard Error)

Hypothesis: 37

Mean of patients' view about selected type of hospital is equal in terms of decision regarding selection of hospital and an alternative hypothesis is at least one mean is different from other.

Table Number 6.18: Descriptive Statistics of Patients' Reasons in Selection of the Type of Hospitals

Type of Hospitals	N	Mean	SD	SE
GHs	200	42.85	3.698091	0.261495
THs	200	40.81	5.309885	0.375466
PHs	100	37.76	5.142652	0.514265
Total	500	41.016	5.043274	0.225542

The above table indicates the descriptive statistics of type of hospitals. The Government hospital has highest mean value of 42.85. The second highest mean value is 40.81 of trust-hospital, and private hospital having lower mean value of 37.76.

Table Number 6.19: Test of Homogeneity of Variances for Patients' Reasons on Selection of the Type of Hospitals

Levene's Statistic	df1	df2	Sig.
12.47583	2	497	0.00

The above table indicates the Levene's test of homogeneity of variance through which verification can be done about the equality of variance of all group of hospital. Results of Levene's test showed that the significant value (0.00) which is less then 0.05. It means that our null hypothesis has been rejected as significant value does not exceed 0.05. It means variance of all groups is not equal.

Analysis of Variance:

Table Number 6.20: ANOVA TABLE for Patients' Reasons for Selection of the Type of Hospitals

Particulars	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1741.352	2	870.676	39.51648	0.00
Within Groups	10950.52	497	22.03324		
Total	12691.87	499			

The variation between the groups of all hospitals is 1741 and within group the variation is 10950. The variation within groups was higher then variation between groups of type of hospitals.

According to null hypothesis variance of all groups was equal and our alternative hypotheses states that at least one variance is different from other. As null hypotheses is rejected because of significance value (0.00) is < 0.05 that means at least one type of hospitals is different from the other type of hospitals.

Post Hoc Test (Tamhane):

Table Number 6.21: Multiple Comparisons of Patients' Reasons for Selection of the Type of Hospital Through Tamhane Test

Type of Hospitals		Mean Difference	SE	Sig.
GHs	GHs			
	THs	2.04	0.457552	0.00
	PHs	5.09	0.57693	0.00
THs	GHs	-2.04	0.457552	0.00
	THs			
	PHs	3.05	0.636744	0.00
PHs	GHs	-5.09	0.57693	0.00
	THs	-3.05	0.636744	0.00
	PHs			

Based on test of homogeneity of variance, it becomes clear that variance of three type of hospitals is not equal. It means that at least one variance is different from other. ANOVA table also indicated that mean of three type of hospitals is not equal, therefore, the Post – Hog test is applied by assuming unequal variance. Government Hospitals are different from Trust Hospital and Private Hospital. Trust hospitals are different from Government and Private Hospital. Private hospitals are also different from Government and Trust Hospitals because of significant value, of all type of hospital, is < 0.05 with their other type of hospitals.

Post Hoc Test (Tukey HSD)

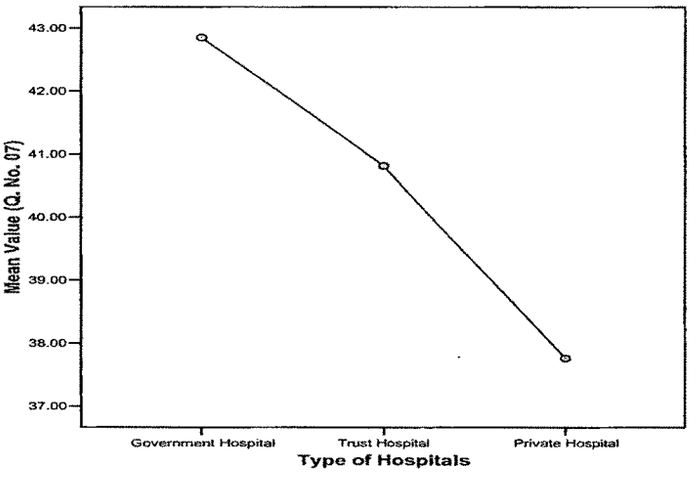
Table Number 6.22: Multiple Comparisons of Patients' Reasons for Selection of the Type of Hospitals Through Tukey HSD Test

Type of Hospitals	N	Subset for alpha = .05		
		1	2	3
Private Hospital	100	37.76		
Trust Hospital	200		40.81	
Government Hospital	200			42.85
Sig.		1	1	1

From the above table it becomes clear that all three type of hospitals were different. Private hospital was different then trust and Government hospitals, trust hospitals were different then private and Government hospitals and Government hospitals were also different then private and trust hospitals.

Following graph also shows through Means Plot how three types of hospitals are different.

Graph Number 6.1: Means Plots of Type of Hospitals for Decision Regarding Selection of Hospital for All the Three Type of Hospitals



Above graph indicates different Type of Hospitals with their mean value. The Government hospital had large mean value of 42.85. Trust hospital had second highest mean value of 40.80 and private hospital had lowest mean value of 37.76. So based on Means plot it becomes clear that all three type of hospitals are different.

Note:

To measure the suitability of the data for factor analysis the adequacy of the data is evaluated on the basis of the results of Kaiser – Meyaer – Oklin (KMO) measures of sampling adequacy and Bartiet's test of spehericity (homogeneity of variance). This exercise is done for all the group of data in which factor analysis is applied.

6.3.2 FACTOR ANALYSIS OF PATIENTS' REASONS FOR SELECTION OF THE TYPE OF HOSPITALS:

Factor Analysis: Decision Regarding Selection of the Type of Hospitals.

Table Number 6.23: Patients' Reasons for Selection of the Type of Hospitals Through KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.606223
Bartlett's Test of Sphericity	Approx. Chi-Square	1005.048
	df	55
	Sig.	0.00

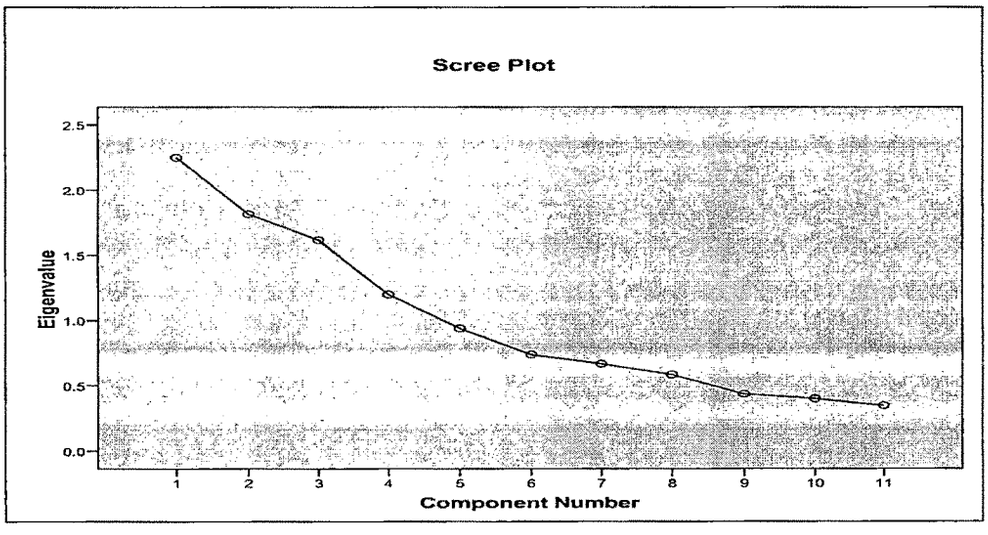
In case of reasons for the selection of type of hospitals the results showed that the KMO measure of sampling adequacy was 0.60, which indicated that the present data were suitable for Factor Analysis. Similarly, Bartlett's Test of sphericity (0.00) was significant ($p<.005$), indicating sufficient correlation exist between the criteria to proceed with the Factor Analysis.

Table Number 6.24: Total Variance on Patients' Responses for Selection of the Type of Hospitals

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	2.2499	20.45	20.453	2.2499	20.4534	20.453	2.091	19.01	19.01
02	1.8166	16.51	36.968	1.8166	16.5148	36.968	1.723	15.66	34.675
03	1.6177	14.71	51.674	1.6177	14.706	51.674	1.721	15.64	50.319
04	1.1998	10.91	62.581	1.1998	10.9073	62.581	1.349	12.26	62.581

The first four components (factors) in the initial solution have an Eigenvalues over 1 and it accountede for about 62 per cent of the observed variations in the decision regarding selection of hospital in Baroda city. According to Kaiser Criterion, only the first four factors should be used because subsequent Eigenvalues are all less then 1. The following Graph Number 6.2 is also useful tool to decide about the number factors. If one has draw parallel line to horizontal (dotted line) at Eigenvalues to 1 in Scree plot, it will tell us how many factors are going to be extracted. In our analysis Scree plot showed that four factors are going to be extracted.

Graph Number 6.2: Component-wise Scree Plot of Eigenvalues for Decision Regarding Selection of Hospitals for All The Three Type of Hospitals



The above scree plot shows the graphical presentation of four components which can be extracted for further analysis.

Table Number 6.25: Communalities and Rotated Component Matrix of Patients' Reasons for Selection of the Type of Hospitals

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component			
			1	2	3	4
01	Own Decision	0.464487	**0.620307**	0.214553	-0.14497	-0.11251
02	Relatives Suggested	0.771968	0.020699	-0.06035	**0.876146**	-0.01631
03	Friends Suggested	0.763095	0.095356	0.034191	**0.864116**	0.078336
04	Suggested by Family Doctor	0.360135	-0.18015	-0.19825	0.221452	0.489222
05	Past performance of Hospital / Doctor	0.734961	0.055234	**0.851889**	-0.0132	-0.0776
06	Only in this Hospital such kind of facility is available	0.553727	-0.32065	0.367515	0.279908	0.487333
07	Overall Reputation of Hospital	0.772639	0.13817	**0.865542**	-0.03085	0.058585
08	Hospital Located Nearby	0.672733	**0.815313**	-0.06517	0.061193	-0.00245
09	Hospital is economical	0.672765	**0.797741**	0.063362	0.179528	-0.01135
10	Accessibility of Medicine and Test Facilities	0.540125	0.48697	0.121505	0.035889	0.535662
11	Sanitation in the Hospital	0.577329	0.033209	0.001832	-0.14076	**0.745929**

All the extracted communalities are acceptable and all criteria are fit for the factor solution as their extraction values are large enough.

Factor loadings were used to measure correlation between criteria and the factors. A factor loading close to 1 indicates a strong correlation between a criteria and factor, while a loading closer to zero indicated weak correlation. The factors are rotated with the used of Varimax with Kaiser Normalization rotation method. Principle Component Analysis (PCA) method is used for factor extraction and consider only those factors for interpretation purpose whose values are greater then 0.5.

From the above table it becomes clear that how much different criteria were correlated with four components. The criteria 1 (Own decision), criteria 8 (Hospital located nearby) and criteria 9 (Hospital is economically) were more correlated with component 1. Criteria 5 (Past performance of Hospital / Doctor) and criteria 7 (Overall Reputation of Hospital) was more correlated with component 2. Criteria 2 (Relatives Suggested) and criteria 3 (Friends Suggested) was more correlated with component 3. And criteria 11 (Sanitation in the Hospital) was more correlated with component 4.

Table Number 6.26: Component-wise Mean Value for Patients' Reasons for Selection of the Type of Hospitals

Component	Mean Value	Selected Criteria	Selected Factors
01	11.38	Own Decision	Affordable
		Hospital Located Nearby	
		Hospital is economical	
02	8.42	Past performance of Hospital / Doctor	Performance
		Overall Reputation of Hospital	
03	6.48	Relatives Suggested	Reference / Suggestion
		Friends Suggested	
04	4.36	Sanitation in the Hospital	Sanitation

The above table indicates component wise mean value. The component 1 have higher mean value of 11.38 and which found to be more correlated with three criteria (Own decision, hospital is located nearby and hospital is economical).

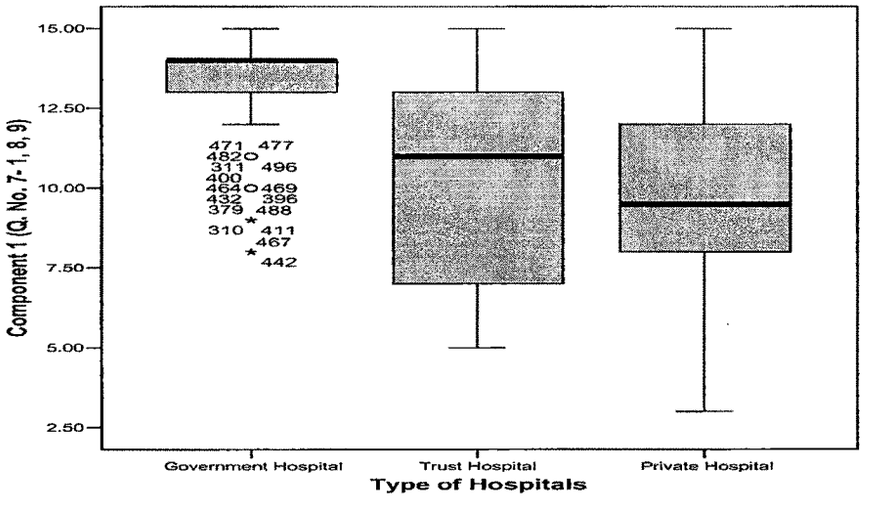
The component 1 make one group as affordability and it explained 19 per cent variation from data that means these three criteria were important for different type of hospitals.

Component 2 have second highest mean value of 8.42 and it makes one group as performance because it is more correlated with (past performance of hospital / doctor and overall reputation of hospital) and it also explains 16 per cent variation from data. Component 3 having 6.48 mean values and it make one group related with suggestion because of it is more correlated with (relative suggestion and friends' suggestion) and it explain 16 per cent variation from data. And component 4 have lowest mean value of 4.36 and have only one criteria namely, sanitation of hospital and make one group as (sanitation). It explains 12 per cent variation from data.

Importance of Components for Selected Type of Hospitals:

The importance of each component to different type of hospitals can be understood with the help of below given box plots. The following box plot explain the total score of component 1 (Affordability) for three type of Hospitals.

Graph Number 6.3: Hospitals-wise Box Plot for Component 1 for Patients' Reasons for Selection of the Type of Hospitals

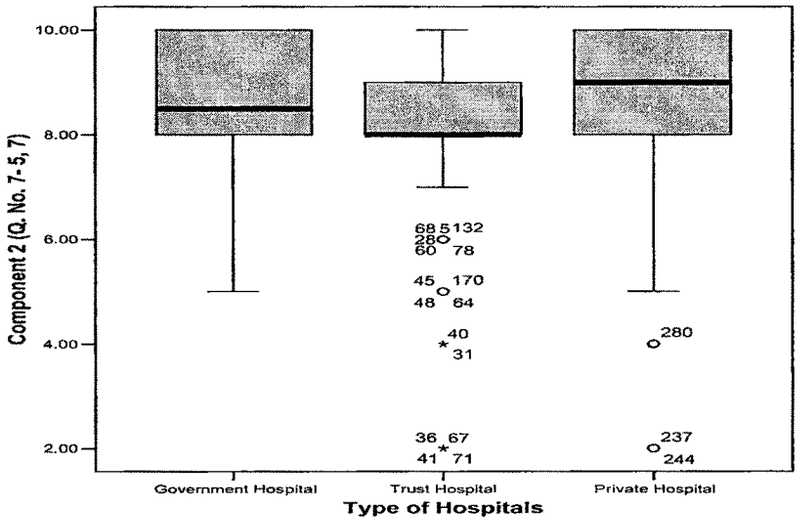


From the above box plot interpretation can be made that Government hospitals have higher median value and has many of the extreme point and outliers but it have less variation then trust and private hospitals. Trust hospital has second highest median value but it has more variation then Government and private hospitals, and a private hospital has lower median value and second highest variation.

So finally it can be concluded that component 1 (Affordability) was important for Government hospitals. That means three criteria, i.e. patients' own decision, hospital located nearby and hospital is economical are important for patients to make a choice of Government hospitals.

Following Box plot explain type of hospitals and total score of component 2 (Performance) as a criteria.

Graph Number 6.4: Hospitals-wise Box Plot for Component 2 for Selected Patients' Reasons for Selection of the Type of Hospitals

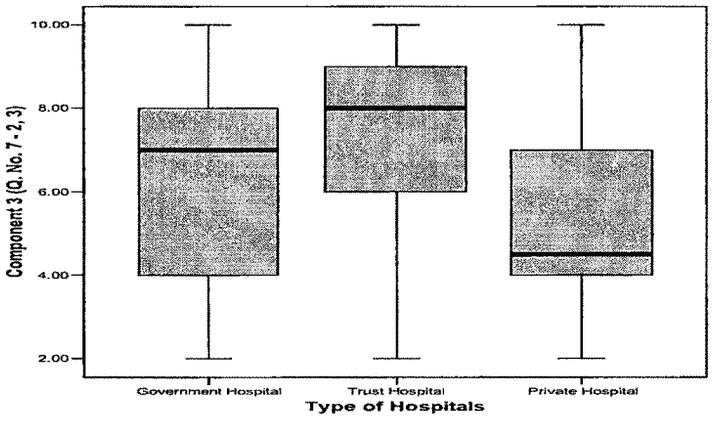


From the above box plot one can be observed that private hospitals have higher median value nd have few outliers and less variation then Government hospitals. The Government hospitals have second highest median value but it has large variation. And trust hospitals have lower median value and it also have many of the outliers and extreme points.

So finally it can be concluded that component 2 (Performance) was important for private hospital. That means two criteria i.e., past performance of hospital / doctor and overall reputation of hospital were important for private hospital.

Graph number 6.5 explain type of hospitals total score of component 3 (Suggestion) as a factor.

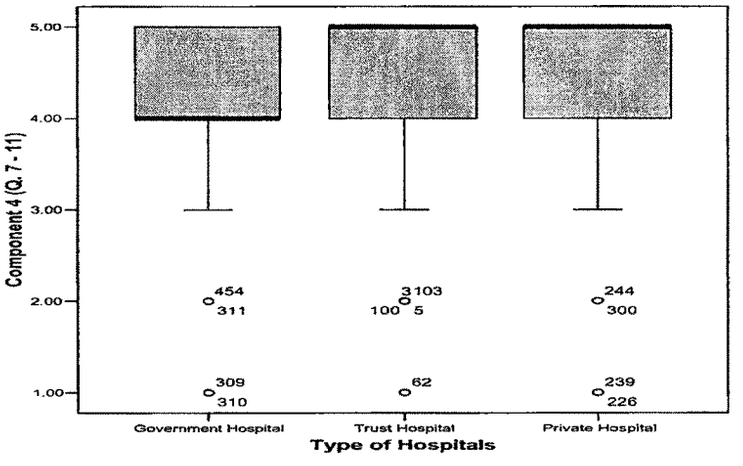
Graph Number 6.5: Hospitals-wise Box Plot for Component 3 for Selected Patients' Reasons for Selection of the Type of Hospitals



From the above box plot it becomes clear that component 3 (Suggestion) was important for Trust hospitals as it has large median value and lower variation then Government and private hospitals. So patients' prefer trust hospitals on the basis of recommendation made by their relatives and friends.

Following Box plot explain Type of Hospitals and total score of component 4 (Sanitation) as a criteria.

Graph Number 6.6: Hospitals-Wise Box Plot for Component 4 for Selected Patients' Reasons for Selection of the Type of Hospitals



The above box plot indicated that component 4 (sanitation) was more important for Trust and Private hospitals because of they have large median value. The Government hospitals have lower median value then trust and private hospitals. It means patient choose trust and private hospital because of good sanitation in the hospital compared to Government hospitals.

As the mean score of private hospital was lower (37.76) factor analysis was made to find out the reasons for lower mean value of private hospital.

6.3.2.1 Factor Analysis for Private Hospital for Patients' Reasons for Selection of Private Hospitals:

In case of reasons for selection of private hospitals the results showed that the KMO measure of sampling adequacy was 0.588622, which indicated that the present data were suitable for factor analysis. Similarly, Bartlett's test of sphericity (0.00) was significant (p<.005), indicating sufficient correlation exist between the criteria to proceed with the analysis.

Table Number 6.27: Total Variance Explained for Selected Patients' Responses for Selection of Private Hospitals

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	2.52089	22.917	22.9172	2.520892	22.9172	22.9172	2.326036	21.14578	21.14578
02	1.65781	15.071	37.9882	1.657807	15.07097	37.98817	1.545084	14.04622	35.192
03	1.35914	12.356	50.344	1.359143	12.35584	50.34401	1.480005	13.45459	48.64659
04	1.25874	11.443	61.7871	1.258736	11.44306	61.78707	1.445452	13.14048	61.78707

From the above table it becomes clear that total four number of component can be extracted as they have Initial Eigenvalues more than 1 and it explain 61per cent variation from data.

Table Number 6.28: Communalities and Rotated Component Matrix for Selected Patients' Reasons for Selection of Private Hospitals

Sr. No.	Selected Criteria	Communalities	Rotated Component			
			1	2	3	4
01	Own Decision	0.711268	0.16124	-0.059	**0.82561**	-0.01097
02	Relatives Suggested	0.736019	-0.2517	**0.7105**	-0.0788	0.402085
03	Friends Suggested	0.635299	0.09312	**0.7891**	-0.0375	-0.05072
04	Suggested by Family Doctor	0.706506	0.10405	0.016	-0.8258	-0.1161
05	Past performance of Hospital / Doctor	0.720398	**0.79095**	-0.186	0.05049	0.240479
06	Only in this Hospital such kind of facility is available	0.506907	**0.53309**	0.3819	-0.0802	-0.26542
07	Overall Reputation of Hospital	0.718039	**0.83015**	-0.075	0.12222	0.090913
08	Hospital Located Nearby	0.47978	0.13937	-0.06	0.15826	**0.657046**
09	Hospital is economical	0.573662	0.27732	0.2146	-0.0105	**0.671253**
10	Accessibility of Medicine and Test Facilities	0.521571	**0.61915**	0.2184	-0.0702	0.292549
11	Sanitation in the Hospital	0.487129	0.37227	0.3613	0.23409	-0.40397

All the extracted communalities were acceptable and all criteria were fit for the factor solution as their extraction values were large enough.

The above table indicated that component 1 is highly correlated with criteria 5, 6, 7 and 10 (Past performance of Hospital / Doctor, Only in this Hospital such kind of facility is available, Overall Reputation of Hospital, Accessibility of Medicine and Test Facilities).

Component 2 was highly correlated with criteria 2 and 3 (Relatives Suggested, Friends Suggested). Component 3 was highly correlated with only criteria 1 (Own Decision). And component 4 was highly correlated with criteria 8 and 9 (Hospital Located Nearby, Hospital is economical).

Table Number 6.29: Component-wise Mean Value for Selected Patients' Reasons for Selection of Private Hospitals

Component	Mean Value	Selected Factors	Selected Criteria
01	16.052	Performance	Past performance of Hospital / Doctor
			Only in this Hospital such kind of facility is available
			Overall Reputation of Hospital
			Accessibility of Medicine and Test Facilities
02	6.476	Suggestion	Relatives Suggested
			Friends Suggested
03	4.046		Own Decision
04	7.338	Affordability	Hospital Located Nearby
			Hospital is economical

From the above table it becomes clear that component 1(performance) has high mean value of 16.05. Other components 4, 2, and 3 have lower mean values i.e., 7.34, 6.48, and 4.05 respectively. It means that component 1 (Past performance of Hospital / Doctor, Only in this Hospital such kind of facility is available, Overall Reputation of Hospital, and Accessibility of Medicine and Test Facilities) was the important reason for selection of private hospitals but component 4 (Hospital Located Nearby, Hospital is economical), component 2 (Relatives Suggested, Friends Suggested), and component 3 (Own Decision) has lower mean value and these factors were responsible for lower mean value of private hospitals.

6.4 ONE WAY ANNOVA AND FACTOR ANALYSIS FOR MEDICAL, PARAMEDICAL, AND ADMINISTRATIVE STAFF SERVICES AS WELL AS ENVIRONMENT (PHYSICAL FACILITIES) OF THE HOSPITALS:

One way ANNOVA and Factor analysis were applied for analyzing Medical, Paramedical, Administrative Staff, and Environment (Physical facilities) of the Hospitals.

6.4.1 ONE WAYANNOVA FOR MEDICAL SERVICES CRITERIA:

Hypothesis: 38

Mean of patients' view about selected type of hospitals is equal in terms of medical services and an alternative hypothesis is at least one mean is different from other.

Table Number 6.30: Descriptive Statistics for Medical Services Criteria for All the Three Type of Hospitals

Type of Hospitals	N	Mean	SD	SE
GHS	200	70.58	5.962496	0.421612
THs	200	75.03	6.989518	0.494234
PHs	100	74.92	7.835016	0.783502
Total	500	73.228	7.108099	0.317884

The above table indicated that highest mean value of 75.03 belongs to Trust hospital. The Private hospital has second highest mean value of 74.92, and Government hospital has lower mean value of 70.58.

Test of Homogeneity of Variances:

Table Number 6.31: Test of Homogeneity of Variances for Medical Services Criteria for All The Three Type of Hospitals

Levene's Statistic	df1	df2	Sig.
1.541867	2	497	0.215003

The above table indicated that Levene's P value exceed 0.05 (P – value > 0.05) that means variance of all type of hospitals are equal.

Table Number 6.32: ANOVA for Medical Services for All the Three Type of Hospitals

Particulars	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	2338.108	2	1169.054	25.401	0.00
Within Groups	22873.900	497	46.02394		
Total	25212.01	499			

From the above table it becomes clear that difference within the group found to be higher than difference between the groups. Further, P value is < 0.05 that means it has significant value. So, at least one Type of Hospitals was different from other.

Post Hoc test (Tamhane):

Table Number 6.33: Multiple Comparisons for Medical Services for All the Three Type of Hospitals Through Tamhane Test

Type of Hospitals		Mean Difference	SE	Sig.
GHs	GHs			
	THs	-4.45	0.678409	0.00
	PHs	-4.34	0.830879	0.00
THs	GHs	4.45	0.68	0.00
	THs			
	PHs	0.11	0.83	0.99
PHs	GHs	4.34	0.83	0.00
	THs	-0.11	0.83	0.99
	PHs			

Levene's P value indicated that variances of all type of Hospitals are equal therefore Post Hoc Test was applied. Based on above table one can say that Government hospitals were different from trust and private hospitals and trust and private hospitals were not different from each other.

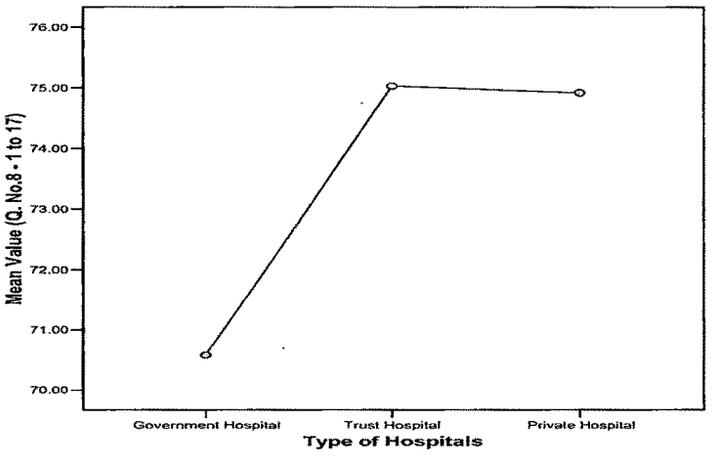
Post Hoc test (Tukey HSD):

Table Number 6.34: Multiple Comparisons for Medical Services for All the Three Type of Hospitals Through Tukey HSD Test

Type of Hospitals		Subset for alpha = .05	
	N	1	2
GHs	200	70.58	
PHS	100		74.92
THs	200		75.03
Sig.		1	0.989188

Private hospitals and trust hospitals make one group and Government hospitals makes one separate group as it was found to be different from private and trust hospitals.

Graph Number 6.7: Means Plots of Type of Hospitals for Medical Services for All the Three Type of Hospitals



The above means plot indicated that Government hospitals have lower mean value. Trust hospitals have highest mean value and Private hospitals have second highest mean value.

6.4.2 FACTOR ANALYSIS: MEDICAL SERVICES FOR ALL THE THREE TYPE OF HOSPITALS:

In case of medical services the results showed the KMO measure of sampling adequacy (0.879182) and Bartlett's test of sphericity (0.00) indicated that data were appropriate for Factor Analysis.

Table Number 6.35: Total Variance Explained for Medical services for All the Three Type of Hospitals

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	5.767	33.923	33.923	5.767	33.923	33.923	2.998	17.636	17.636
02	1.631	9.594	43.516	1.631	9.594	43.516	2.589	15.231	32.867
03	1.138	6.697	50.213	1.138	6.697	50.213	2.139	12.584	45.451
04	1.023	6.020	56.233	1.023	6.020	56.233	1.833	10.782	56.233

Extraction Method: Principal Component Analysis

From the above table one can say that there were four components can be extracted and it extracts 56 per cent variance from data.

Table Number 6.36: Communalities and Rotated Component Matrix for Medical Services for All the Three Type of Hospitals

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component			
			1	2	3	4
01	Doctors' Knowledge & Efficiency	0.450273	**0.5942**	0.153	0.2302	0.1438
02	Doctors' Cooperation to patients	0.634781	**0.7498**	0.198	0.0965	0.155
03	Doctors' were polite with patients	0.663086	**0.7726**	0.188	0.017	0.1746
04	Impartial Attitude of Doctors	0.490109	**0.6729**	0.191	0.0152	0.0281
05	Patients' Felt Comfortable During Doctors Examination	0.549712	**0.6225**	0.274	0.2917	0.0454
06	Doctors' Experience in Curing Patients	0.560605	0.3679	**0.641**	0.1171	-0.0316
07	Thorough Checkup by Doctors	0.54321	0.191	**0.689**	0.1153	0.1391
08	Doctors' Work according to Patients Expectations	0.6928	0.0795	0.14	**0.812**	0.0862
09	Doctors' Gave Individual Consideration & Confidentiality	0.680895	0.1602	0.292	**0.7531**	0.0555
10	Doctors' Showed Respect & Support patients	0.477673	0.3288	0.448	0.3963	0.1085
11	Doctors' Makes Good Diagnosis	0.655668	0.1577	**0.749**	0.1634	0.2064
12	Doctors' Prescribed Good Drugs	0.556846	0.2465	**0.664**	0.0904	0.2175
13	Doctor' ask for patients Permission for performing Test	0.611574	0.0987	-0.004	**0.6638**	0.4015
14	Patients' Felt Comfortable asking Questions to Doctors	0.486176	**0.0854**	0.308	0.1697	0.596
15	Doctors' Honesty in Dealing with patients	0.453895	0.4045	0.25	-0.0826	0.4699
16	Sufficient number of Doctors Remained Present	0.595415	0.2593	0.173	0.0342	**0.7052**
17	Doctors' Availability in Emergency	0.456923	-0.013	-0.02	0.2618	**0.6227**

All the extracted communalities were acceptable and all criteria were fit for the factor solution as their extraction values found to be large.

From the above table it becomes clear that how much different criteria were correlated with four components. The criteria 1 (Doctors' Knowledge and Efficiency), criteria 2 (Doctors' Cooperation to patients), criteria 3 (Doctors' were polite with patients), criteria 4 (Impartial Attitude of Doctors), criteria 5 (Patients' Felt Comfortable during Doctors' Examination) and criteria 14 (Doctors' Prescribed Good Drugs) are more correlated with component 1.

The criteria 6 (Doctors' Experience in Curing Patients), criteria 7 (Thorough Checkup by Doctors), criteria 11 (Doctors' Makes Good Diagnosis), and criteria 12 (Doctors' Prescribed Good Drugs) are more correlated with component 2.

The criteria 8 (Doctors' Work According to Patients Expectations), criteria 9 (Doctors' Give Individual Consideration and Confidentiality) and criteria 13 (Doctors' ask for patients Permission for performing Test) were correlated with component 3. The criteria 16 (Sufficient number of Doctors Remain Present), and criteria 17 (Doctors' Easily Available in Emergency) were more correlated with component 4.

Table Number 6.37: Component-wise Mean Value for Medical Services' Criteria for All The Three Type of Hospitals

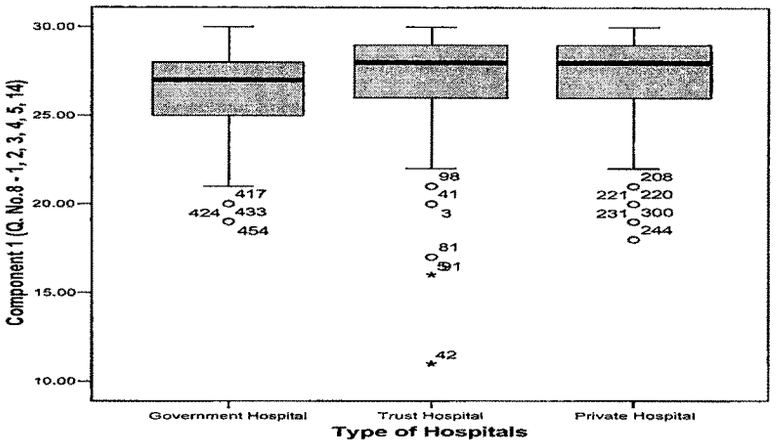
Component	Mean Value	Selected Criteria	Selected Factors
01	26.776	Doctors' Knowledge and Efficiency	Assurance
		Doctors' Cooperation to patients	Responsiveness
		Doctors' were polite with patients	Empathy
		Impartial Attitude of Doctors	Reliability
		Patients' Felt Comfortable During Doctors Examination	Empathy
		Patients' Felt Comfortable asking Questions to Doctors	Responsiveness
02	17.944	Doctors' Experience in Curing Patients	Assurance
		Thorough Checkup by Doctors	Assurance
		Doctors' Makes Good Diagnosis	Reliability
		Doctors' Prescribe Good Drugs	Reliability
03	11.106	Doctors' Work According to Patients Expectations	Empathy
		Doctors' Gave Individual Consideration and Confidentiality,	Empathy
		Doctors' ask for patients Permission for performing Test	Dignity
04	8.52	Sufficient Doctors' Remain Present	Tangibles
		Doctors' Availability in Emergency	Accessibility /Affordability

The above table represents the mean value of each component. The component 1 having large mean value of 26.77 and it was more correlated with six criteria (Doctors' Knowledge and Efficiency, Doctors' Cooperation to patients, Doctors' were polite with patients, Impartial Attitude of Doctors, Patients' Felt Comfortable During Doctors Examination, Doctors' Prescribed Good Drugs). Component 2 have 17.94 mean values and it was more correlated with four criteria (Doctors' Experience in Curing Patients, Thorough Checkup by Doctors, Doctors' Made Good Diagnosis, Doctors' Prescribed Good Drugs). Component 3 have 11.10 mean value and it was more correlated with three criteria (Doctors' Work according to Patients Expectations, Doctors' ask for patients Permission for performing Test). Component 4 have low mean value of 8.52 and it was more correlated with two criteria (Sufficient Doctors Remain Present, Doctors' Availability in Emergency).

Importance of Components for Selected Type of Hospitals:

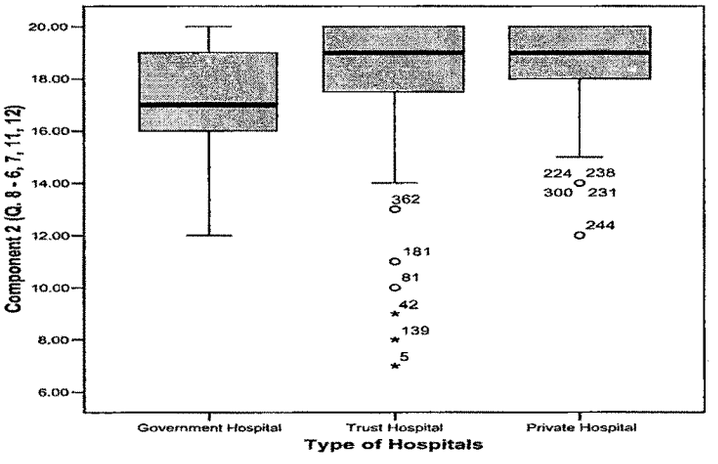
The importance of each component to different type of hospitals can be understood with the help of below given box plots. The following box plot explains three type of hospitals' total score of component 1 criteria.

Graph Number 6.8: Hospitals-wise Box Plot for Component 1 for Medical Services of the Three Type of Hospitals



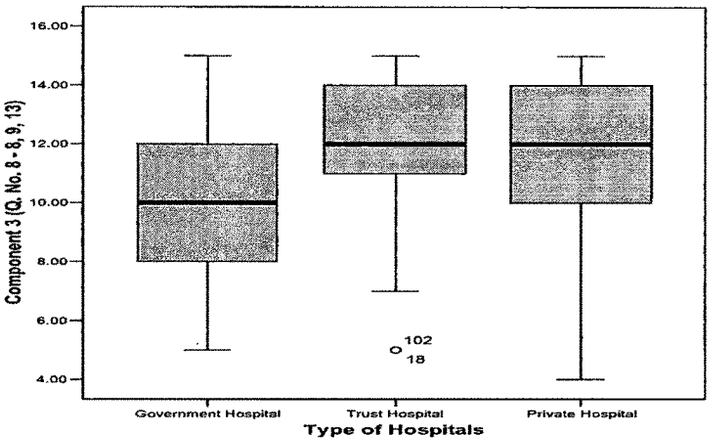
The above box plot indicated that component 1 criteria (Doctor Knowledge and Efficiency, Doctors' Cooperation to patients, Doctors' were polite with patients, Impartial Attitude of Doctors, Patients' Felt Comfortable During Doctors' Examination, Doctors' Prescribed Good Drugs) were more important for private hospital because of large median value and low variation compared to trust and private hospital.

Graph Number 6.9: Hospitals-wise Box Plot for Component 2 for Medical Services of the Three Type of Hospitals



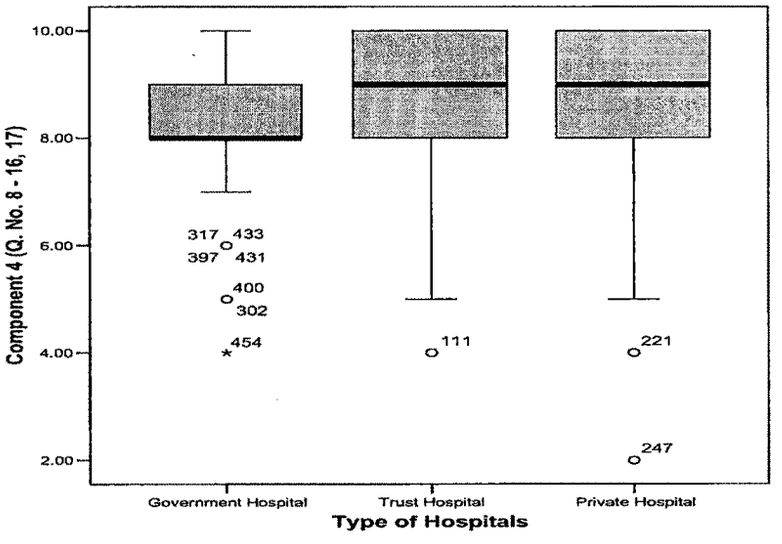
The above box plot represent that the component 2 criteria (Doctors' Experience in Curing Patients, Thorough Checkup by Doctors, Doctors' Made Good Diagnosis, Doctors' Prescribe Good Drugs) were also important for private hospitals because it has large median value, low variation and less outliers compared to trust and Government hospitals.

Graph Number 6.10: Hospitals-wise Box Plot for Component 3 for Medical Services of the Three Type of Hospitals



From the above box plot it becomes clear that component 3 criteria (Doctors' Work According to Patients Expectations, Doctors' ask for patients Permission for performing Test) were important for trust hospitals as it has large median value and low variation then other.

Graph Number 6.11: Hospitals-wise Box Plot for Component 4 for Medical Services of the Three Type of Hospitals



From the above box plot it becomes clear that component 4 criteria (Sufficient Doctors Remained Present, Doctors' Availability in Emergency) were important for trust hospitals because of high median value and less outlier.

6.4.2.1 Factor Analysis for Government Hospitals for Medical Services' Criteria:

In case of Government hospitals medical services criteria the results showed that the KMO measure of sampling adequacy (0.7755) and Bartlett's test of sphericity (0.00) indicated that data were appropriate for Factor Analysis.

Table Number 6.38: Total Variance Explained for Government Hospitals for Medical Services

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	4.559	26.820	26.820	4.559	26.820	26.820	2.667	15.688	15.688
02	1.755	10.326	37.146	1.755	10.326	37.146	2.127	12.510	28.198
03	1.440	8.471	45.617	1.440	8.471	45.617	2.112	12.425	40.623
04	1.315	7.734	53.351	1.315	7.734	53.351	1.719	10.113	50.737
05	1.116	6.563	59.914	1.116	6.563	59.914	1.560	9.177	59.914

Extraction Method: Principal Component Analysis.
a Only cases for which Q 2 Type of Hospitals = Government Hospital are used in the analysis phase.

From the above table it becomes clear that total five number of components extracted and it explain 59.91per cent variation from data.

Table Number 6.39: Communalities and Rotated Component Matrix for Government Hospitals for Medical Services

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component				
			1	2	3	4	5
01	Doctors' Knowledge & Efficiency	0.5995	0.35688	0.1197	0.33038	-0.45916	0.371271
02	Doctors' Cooperation to patients	0.6517	**0.77883**	0.1552	0.11238	0.023411	0.088716
03	Doctors' were polite with patients	0.7207	**0.82627**	0.0043	0.18265	0.051078	-0.04428
04	Impartial Attitude of Doctors	0.6932	**0.77240**	0.1368	-0.0295	0.206526	-0.18531
05	Patients' Felt Comfortable During Doctors Examination	0.4688	0.4262	0.3116	0.36315	0.122339	0.207966
06	Doctors' Experience in Curing Patients	0.563	0.18203	0.191	**0.70214**	0.009296	-0.01583
07	Thorough Checkup by Doctors	0.6344	0.04794	-0.014	**0.78449**	0.123101	0.036265
08	Doctors' Work according to Patients Expectations	0.6696	0.04398	**0.7827**	0.07109	-0.05174	0.217576
09	Doctors' Gave Individual Consideration & Confidentiality	0.7013	0.13615	**0.7623**	0.28267	0.140323	0.044626
10	Doctors' Showed Respect & Support patients	0.6383	0.27446	**0.6311**	0.10389	0.265807	-0.28863
11	Doctors' Makes Good Diagnosis	0.5783	-0.0004	0.2554	**0.58621**	0.401366	-0.09152
12	Doctors' Prescribed Good Drugs	0.5049	0.20855	0.2434	0.41059	0.478847	-0.06512
13	Doctor' ask for patients Permission for performing Test	0.6757	-0.1138	0.4322	-0.1032	0.087265	**0.676504**
14	Patients' Felt Comfortable asking Questions to Doctors	0.4707	0.0324	0.1619	0.16079	**0.624437**	0.166339
15	Doctors' Honesty in Dealing with patients	0.4741	0.29698	-0.003	0.26575	0.48503	0.282787
16	Sufficient number of Doctors Remained Present	0.5329	0.44136	-0.024	0.0233	**0.52948**	0.238006
17	Doctors' Availability in Emergency	0.6084	0.01724	-0.076	0.01655	0.189374	**0.752427**

It becomes clear from above table that all the extracted communalities were acceptable and all criteria were fit for the factor solution as their extraction values were found to be large large.

From the above table it becomes clear that component 1 was (Doctors' Cooperation to patients, Doctors' were polite with patients, Impartial Attitude of Doctors) highly correlated with criteria 2, 3 and 4.

Component 2 (Doctors' Work According to Patients Expectations, Doctors' Gave Individual Consideration and Confidentiality, Doctors' Showed Respect and Support patients) was highly correlated with criteria 8, 9 and 10. Component 3 (Doctors' Experience in Curing Patients, Thorough Checkup by Doctors, Doctors' Made Good Diagnosis) was highly correlated with criteria 6, 7 and 11.

Component 4 (Patients' Felt Comfortable asking Questions to Doctors, Sufficient Doctors' Remain Present) is highly correlated with criteria 14 and 16. And component 5 (Doctors' ask for patients Permission for performing Test, Doctors' Availability in Emergency)wa is highly correlated with criteria13 and 17.

Table Number 6.40: Component-wise Mean value for Government Hospitals for Medical Services

Component	Mean Value	Selected Criteria	Selected Factors
01	13.61	Doctors' Cooperation to patients	Responsiveness
		Doctors' were polite with patients	Empathy
		Impartial Attitude of Doctors	Reliability
02	11.816	Doctors' Work According to Patients Expectations	Empathy
		Doctors' Gave Individual Consideration and Confidentiality	Empathy
		Doctors' Showed Respect and Support patients	Empathy
03	13.416	Doctors' Experience in Curing Patients	Assurance
		Thorough Checkup by Doctors	Assurance
		Doctors' Made Good Diagnosis	Reliability
04	8.534	Patients' Felt Comfortable asking Questions to Doctors	Responsiveness
		Sufficient Doctors Remain Present	Tangibles
05	7.846	Doctors' ask for patients Permission for performing Test	Dignity
		Doctors' Availability in Emergency	Accessibility / Affordability

From the above table it becomes clear that component 1 (Doctors' Cooperation to patients, Doctors' were polite with patients, Impartial Attitude of Doctors) have highest mean value of 13.61. On the other hand component 5 has lowest mean value of 7.85. Government hospitals were weak in criteria related with component 5 (Doctors' ask for patients Permission for performing Test, Doctors' Availability in Emergency) therefore Government hospital needs to put efforts to improve in providing these kind of services.

6.4.3 ONE WAYANNOVA FOR PARAMEDICAL SERVICES:

Hypothesis: 39

Mean of patients' view about selected type of hospitals is equal in terms of paramedical staff services and an alternative hypothesis is at least one mean is different from other.

Table Number 6.41: Descriptive Statistics for Paramedical Services for All the Three Type of Hospitals

Type of Hospitals	N	Mean	SD	SE
GHs	200	60.45	5.256965	0.371724
THs	200	67.35	7.318834	0.51752
PHs	100	66.87	8.000827	0.800083
Total	500	64.494	7.485856	0.334778

The above table indicated that trust hospitals has highest mean value of 67.35, Private hospital has 66.87 mean value and Government hospitals has lower mean value of 60.45.

Test of Homogeneity of Variances:

Table Number 6.42: Test of Homogeneity of Variances for Paramedical Services for All the Three Type of Hospitals

Levene's Statistic	df1	df2	Sig.
8.76185	2	497	0.000182

The P – value 0.000182 of leven's test was less then 0.05 indicated that variance of type of hospitals was not equal at least one variance of type of hospitals was different from other type of hospitals.

Analysis of Variance:

Table Number 6.43: ANOVA for Paramedical Services for All the Three Type of Hospitals

Particulars	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5466.672	2	2733.336	60.38626	0.00
Within Groups	22496.31	497	45.26421		
Total	27962.98	499			

The P – value 0.00 (P – value > 0.05) indicated that mean of three type of hospitals was not equal at least one mean of type of hospitals was different from other type of hospitals.

Post Hoc Test (Tamhane):

Table Number 6.44: Multiple Comparisons for Paramedical Services for All the Three Type of Hospitals Through Tamhane Test

Type of Hospitals		Mean Difference	SE	Sig.
GHs	GHs			
	THs	-6.9	0.637185	0.00
	PHs	-6.42	0.882219	0.00
THs	GHs	6.9	0.637185	0.00
	THs			
	PHs	0.48	0.952869	0.942955
PHs	GHs	6.42	0.882219	0.00
	THs	-0.48	0.952869	0.942955
	PHs			

The above table indicated that mean of Government hospitals was different from trust and private hospitals, and mean of trust and private hospitals also different from each other.

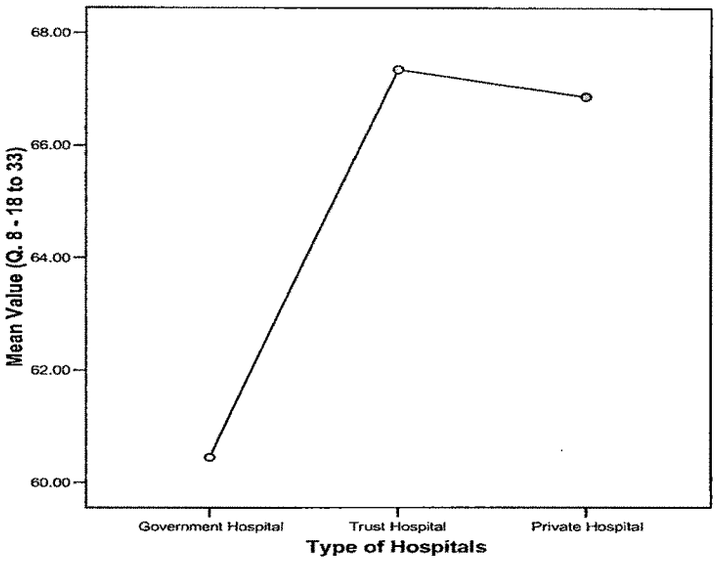
Post Hoc Test (Tukey HSD):

Table Number 6.45: Multiple Comparisons for Paramedical Services for All the Three Type of Hospitals Through Tukey HSD Test

Type of Hospitals		Subset for alpha = .05	
	N	1	2
GHs	200	60.45	
PHs	100		66.87
THs	200		67.35
Sig.		1	0.810409

From the above table it becomes clear that Government hospitals make one separate group, and trust and private hospitals make another group.

Graph Number 6.12: Means Plots for Paramedical Services for All the Three Type of Hospitals



The above means plot indicated that trust hospital have highest mean value, Private hospitals have second highest mean value and Government hospitals have low mean value.

6.4.4 FACTOR ANALYSIS FOR PARAMEDICAL SERVICES:

Factor Analysis for Paramedical Services Criteria for All the Three Type of Hospitals is given as below.

In case of paramedical services criteria the results showed that the KMO measure of sampling adequacy (0.906975) and Bartlett's test of sphericity (0.0) which indicated that factor analysis was appropriate.

Table Number 6.46: Total Variance for Paramedical Services for All the Three Type of Hospitals

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	5.9917	37.45	37.448	5.9917	37.4481	37.448	4.108	25.68	25.677
02	1.4956	9.347	46.796	1.4956	9.34744	46.796	3.379	21.12	46.796

From the above table it becomes clear that there were two components extracted and they extract 46.79 per cent variation from data.

Table Number 6.47: Communalities and Rotated Component Matrix of Paramedical Services for All the Three Type of Hospitals

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component	
			1	2
01	Nurses' Knowledge and Efficiency	0.421065	**0.6159**	0.204
02	Nurses' Cooperation to Patients	0.553957	**0.7348**	0.118
03	Nurses' Showed Politeness with Patients	0.642338	**0.7944**	0.106
04	Impartial Attitude of Nurses	0.41145	**0.6063**	0.209
05	Nurses' Maintain Proper records of Patients	0.436413	0.5163	0.412
06	Nurses' Handled Patients Query Properly	0.557716	0.3132	**0.678**
07	Nurses' Experience in Curing Patients	0.480191	**0.5809**	0.378
08	Good Experience of Those who Perform Test on Patients	0.285717	0.4232	0.326
09	Nurses' Gave Personal Attention to Patients	0.544134	0.319	**0.665**
10	Nurses' Provided Prompt Service	0.465889	0.0548	**0.68**
11	Nurses and Staff Remains Present in Emergency	0.425702	0.3243	**0.566**
12	Nurses' Explain Procedures and take Patient Permission before Test	0.51003	0.1909	**0.688**
13	Nurses' Explain Rules Regulation in ward	0.317557	0.4814	0.293
14	Nurses' were Kind, Gentle and Sympathetic	0.442409	**0.6582**	0.096
15	Information Provided to patients for Managing Side Effects	0.546172	0.12	**0.729**
16	Prompt Service Provided by Sanitation Staff	0.446547	**0.619**	0.252

As given in the above table all the extracted communalities were acceptable and all criteria were fit for the factor solution as their extraction values were large.

The component 1 (Nurses' Knowledge and Efficiency, Nurses' Cooperation to Patients, Nurses' Showed Politeness with Patients, Impartial Attitude of Nurses, Nurses' Experience in Curing Patients, Nurses' were Kind, Gentle and Sympathetic, Prompt Service Provided by Sanitation Staff) was highly correlated with criteria number 1,2,3,4,7,14, and 16. The component 2 (Nurses' Handled Patients Query Properly, Nurses' Gave Personal Attention to Patients, Nurses' Provided Prompt Service, Nurses' and Staff Remained Present in Emergency, Nurses' Explain Procedures and take Patient Permission before Test, Information Provided to patients for Managing Side Effects) was highly correlated with criteria number 6,9,10,11,12, and 15.

Table Number 6.48: Component-wise Mean Value for Paramedical Services for All the Three Type of Hospitals

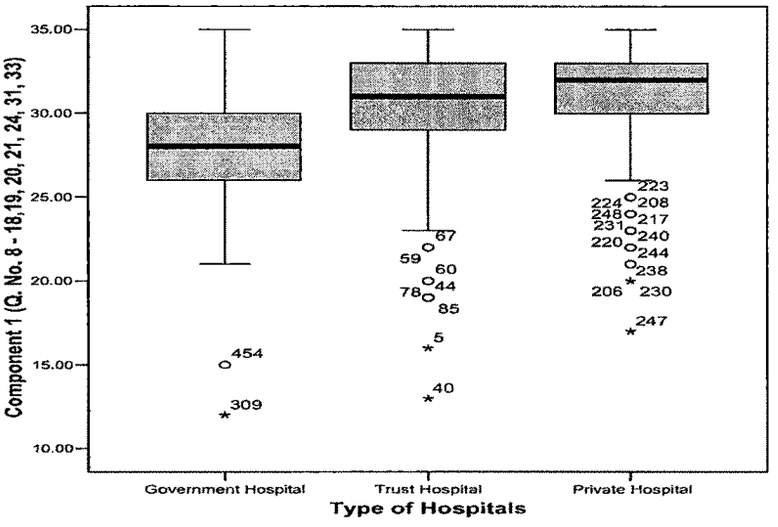
Component	Mean Value	Selected Criteria	Selected Factors
01	29.482	Nurses' Knowledge and Efficiency	Assurance
		Nurses' Cooperation to Patients	Responsiveness
		Nurses' Showed Politeness with Patients	Empathy
		Impartial Attitude of Nurses	Reliability
		Nurses' Experience in Curing Patients	Assurance
		Nurses' are Kind, Gentle and Sympathetic	Dignity
		Prompt Service Provided by Sanitation Staff	Responsiveness
02	22.48	Nurses' Handled Patients Query Properly	Assurance
		Nurses' Gave Personal Attention to Patients	Dignity
		Nurses' Provided Prompt Service	Responsiveness
		Nurses' and Staff Remains Present in Emergency	Responsiveness
		Nurses' Explain Procedures and take Patient Permission before Test	Dignity
		Information Provided to patients for Managing Side Effects	Responsiveness

The component 1 (Nurses' Knowledge and Efficiency, Nurses' Cooperation to Patients, Nurses' Showed Politeness with Patients, Impartial Attitude of Nurses, Nurses' Experience in Curing Patients, Nurses' were Kind, Gentle and Sympathetic, Prompt Service Provided by Sanitation Staff) have highest mean value of 29.48. The component 2 (Nurses' Handled Patients Query Properly, Nurses' Gave Personal Attention to Patients, Nurses' Provided Prompt Service, Nurses' and Staff Remained Present in Emergency, Nurses' Explain Procedures and take Patient Permission before Test, Information Provided to patients for Managing Side Effects) has 22.48 mean value.

Importance of Components for Selected Type of Hospitals:

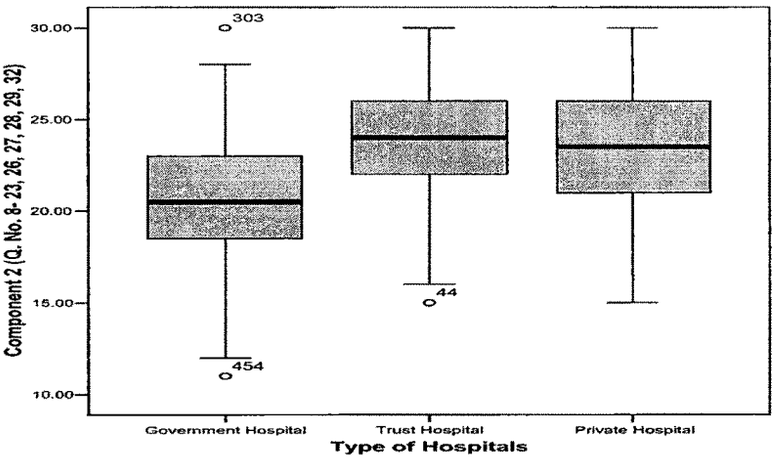
The importance of each component to different type of hospitals can be understood with the help of below given box plots, which explain the three type of hospitals total score of component 1 criteria.

Graph Number 6.13: Hospitals-wise Box Plot for Component 1 for Paramedical Services of the Three Type of Hospitals



From the above box plot it becomes clear that component 1 (Nurses' Knowledge and Efficiency, Nurses' Cooperation to Patients, Nurses Showed Politeness with Patients, Impartial Attitude of Nurses, Nurses' Experience in Curing Patients, Nurses' were Kind, Gentle and Sympathetic, Prompt Service Provided by Sanitation Staff) [wa]s important for private hospitals because of large median value and low variation then other hospitals.

Graph Number 6.14: Hospitals-Wise Box Plot for Component 2 for Paramedical Services of the Three Type of Hospitals



From the above box plot it becomes clear that component 2 (Nurses' Handled Patients Query Properly, Nurses' Gave Personal Attention to Patients, Nurses' Provided Prompt Service, Nurses' and Staff Remained Present in Emergency, Nurses' Explain Procedures and take Patient Permission before Test, Information Provided to patients for Managing Side Effects) was important for trust hospitals because of it has large median value and low variation then other hospitals.

As the mean score of Government hospitals was lower (60.45) factor analysis was made to know the reasons for such lower mean value for private hospitals.

6.4.4.1 Factor Analysis for Government Hospitals for Paramedical Services is given as below.

In case of Government hospitals paramedical services, the results showed that the KMO measure of sampling adequacy (0.7189) and Bartlett's test of sphericity (0.00) which indicated that factor analysis was appropriate.

Table Number 6.49: Total Variance of Government Hospitals for Paramedical Services

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	3.444	21.522	21.522	3.444	21.522	21.522	2.581	16.130	16.130
02	2.460	15.373	36.895	2.460	15.373	36.895	2.490	15.561	31.691
03	1.458	9.113	46.008	1.458	9.113	46.008	1.810	11.310	43.002
04	1.394	8.711	54.719	1.394	8.711	54.719	1.478	9.235	52.237
05	1.044	6.528	61.247	1.044	6.528	61.247	1.442	9.010	61.247

Extraction Method: Principal Component Analysis.
a Only cases for which Q 2 Type of Hospitals = Government Hospital are used in the analysis phase.

From the above table it becomes clear that total five numbers of components were extracted and it explains 61 per cent variation from data.

Table Number 6.50: Communalities and Rotated Component Matrix of Government Hospitals for Paramedical Services

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component				
			1	2	3	4	5
01	Nurses' Knowledge and Efficiency	0.5264	0.0854	**0.6884**	0.0179	0.20529	-0.052
02	Nurses' Cooperation to Patients'	0.6472	-0.009	**0.7696**	0.125	-0.1874	0.064
03	Nurses' Showed Politeness with Patients	0.5899	-0.04	**0.7151**	0.2756	-0.0307	0.00273
04	Impartial Attitude of Nurses	0.5718	0.0723	**0.7391**	0.0652	0.07677	0.10092
05	Nurses' Maintain Proper records of Patients	0.4474	0.3183	0.3647	0.3623	0.21282	-0.1912
06	Nurses' Handled Patients Query Properly	0.5587	**0.7182**	0.1175	-0.0579	0.11742	0.10897
07	Nurses' Experience in Curing Patients	0.7075	0.2278	0.3107	**0.588**	-0.4435	-0.1287
08	Good Experience of Those who Perform Test on Patients	0.6393	0.1372	0.0635	-0.006	**0.77264**	-0.1394
09	Nurses' Gave Personal Attention to Patients	0.6558	**0.7983**	0.1159	0.0309	-0.056	0.03154
10	Nurses' Provided Prompt Service	0.6668	0.4626	0.1323	-0.2307	-0.2391	**0.56996**
11	Nurses' and Staff Remains Present in Emergency	0.7336	0.1862	-0.042	0.2502	-0.0437	**0.79538**
12	Nurses' Explain Procedures and take Patient Permission before Test	0.5002	**0.6212**	-0.067	-0.0219	0.32971	0.02293
13	Nurses' Explain Rules Regulation in ward	0.6899	0.0402	0.1819	0.1916	**0.56143**	0.55072
14	Nurses' are Kind, Gentle and Sympathetic	0.7106	-0.136	0.0616	**0.7873**	0.20793	0.1593
15	Information Provided to patients for Managing Side Effects	0.6381	**0.766**	-0.065	0.074	-0.0772	0.18904
16	Prompt Service Provided by Sanitation Staff	0.5164	0.0002	0.2009	**0.6737**	-0.0735	0.12954

All the extracted communalities as given in the above table were acceptable and all criteria were fit for the factor solution as their extraction values were large.

From the above table it becomes clear that component 1 (Nurses' Handled Patients Query Properly, Nurses' Gave Personal Attention to Patients, Nurses' Explain Procedures and take Patient Permission before Test, Information Provided to patients for Managing Side Effects,) was highly correlated with criteria number 6,9,12, and 15. Component 2 (Nurses' Knowledge and Efficiency, Nurses' Cooperation to Patients, Nurses' Showed Politeness with Patients, Impartial Attitude of Nurses) was highly correlated with criteria 1, 2, 3 and 4. Component 3 (Nurses' Experience in Curing Patients, Nurses' were Kind, Gentle and Sympathetic, Prompt Service Provided by Sanitation Staff) was highly correlated with criteria 7, 14, and 16.

Component 4 (Good Experience of Those who Perform Test on Patients, Nurses' Explain Rules Regulation in ward) is highly correlated with criteria number 8 and 13. Component 5 (Nurses' Provided Prompt Service, Nurses' and Staff Remained Present in Emergency) was highly correlated with criteria 10 and 11.

Table Number 6.51: Component wise Mean value for Government Hospitals for Paramedical Services

Component	Mean Value	Selected Criteria	Selected Factors
01	15.112	Nurses' Handled Patients Query Properly	Assurance
		Nurses' Gave Personal Attention to Patients	Dignity
		Nurses' Explain Procedures and take Patient Permission before Test	Dignity
		Information Provided to patients for Managing Side Effects	Responsiveness
02	16.954	Nurses' Knowledge and Efficiency	Assurance
		Nurses' Cooperation to Patients	Responsiveness
		Nurses' Showed Politeness with Patients	Empathy
		Impartial Attitude of Nurses	Reliability
03	12.528	Nurses' Experience in Curing Patients	Assurance
		Nurses' were Kind, Gentle and Sympathetic	Dignity
		Prompt Service Provided by Sanitation Staff	Responsiveness
04	4.194	Good Experience of Those who Perform Test on Patients	Assurance
05	7.368	Nurses' Provide Prompt Service	Responsiveness
		Nurses' and Staff Remains Present in Emergency	Responsiveness

From the above table it becomes clear that component 2 (Nurses' Knowledge and Efficiency, Nurses' Cooperation to Patients, Nurses' Showed Politeness with Patients, Impartial Attitude of Nurses) have highest mean value of 16.95. Component 4 (Good Experience of Those who Perform Test on Patients) have lowest mean value it 4.19, and Component 5 (Nurses' Provided Prompt Service, Nurses' and Staff Remained Present in Emergency) have second lowest mean value. Government hospitals were weak in component 4 and component 5 and therefore, Government hospitals should improve its service in terms of criteria namely, 'Nurses Provide Prompt Service' and 'Nurses and Staff Remains Present in Emergency'.

6.4.5 ONE WAY ANNOVA FOR ADMINISTRATIVE SERVICES:

Analysis of Variance: Selected Patients' Responses for Administrative Services:

Hypothesis: 40

Mean of patients' response about selected type of hospital is equal in terms of Administrative services of hospital and an alternative hypothesis is at least one mean is different from other.

Table Number 6.52: Descriptive Statistics for Administrative Services for All the Three Type of Hospitals

Type of Hospitals	N	Mean	SD	SE
GHs	200	45.62	5.00709	0.354055
THs	200	53.67	7.220233	0.510548
PHs	100	52.03	7.707343	0.770734
Total	500	50.122	7.514789	0.336072

The above table indicated that trust hospitals have large mean value of 53.67. Private hospitals have second highest mean value of 52.03, and Government hospitals have lowest mean value of 45.62.

Test of Homogeneity of Variances:

Table Number 6.53: Test of Homogeneity of Variances for Administrative Services for All the Three Type of Hospitals

Levene's Statistic	df1	df2	Sig.
16.05063	2	497	0.00

P – Value of levene's test statistics was less then 0.05 (0.00 < 0.05) which indicated that variance of type of Hospitals was not equal at least variance of one type of hospitals was different from other type of hospitals.

Analysis of Variance:

Table Number 6.54: ANOVA for Administrative Services for All the Three Type of Hospitals

Particulars	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6935.308	2	3467.654	81.12426	0.00
Within Groups	21244.25	497	42.74497		
Total	28179.56	499			

P – Value (0.00 < 0.05) of ANOVA table also indicated that mean values of Type of Hospitals was not equal at least mean of one type of hospitals was different from other type of hospitals.

Post Hoc Test (Tamhane):

Table Number 6.55: Multiple Comparisons for Administrative Services for All the Three Type of Hospitals Through Tamhane Test

Type of Hospitals		Mean Difference	SE	Sig.
GHs	GHs			
	THs	-8.05	0.6213	0
	PHs	-6.41	0.848166	0.00
THs	GHs	8.05	0.6213	0
	THs			
	PHs	1.64	0.924495	0.215457
PHs	GHs	6.41	0.848166	0.00
	THs	-1.64	0.924495	0.215457
	PHs			

The above table indicated that mean of Government hospitals was different from trust and private hospitals. Trust hospitals and private hospitals make one group and Government hospitals make another group.

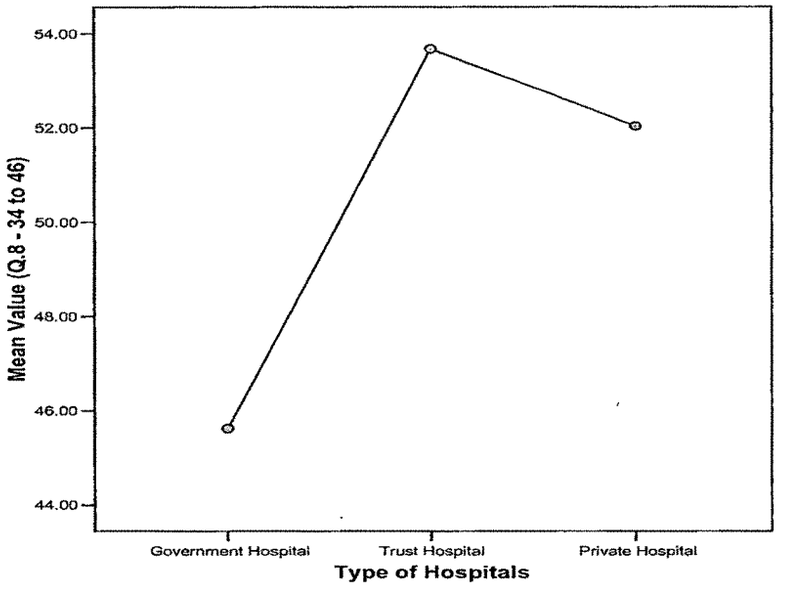
Post Hoc Test (Tukey HSD):

Table Number 6.56: Multiple Comparisons for Administrative Services for All the Three Type of Hospitals Through Tukey HSD Test

Type of Hospitals		Subset for alpha = .05	
	N	1	2
GHs	200	45.62	
PHs	100		52.03
THs	200		53.67
Sig.		1	0.076974

From the above table it becomes clear that Government hospitals make one separate group and private and trust hospitals makes one group.

Graph Number 6.15: Means Plots of Administrative Services for All the Three Type of Hospitals



The above means plot indicated that Government hospitals have lowest mean value. Trust hospitals have highest mean value and private hospitals have second highest mean value.

6.4.6 FACTOR ANALYSIS FOR ADMINISTRATIVE SERVICES:

Factor Analysis for Administrative Services for All the Three Type of Hospitals is given as below.

In case administrative services, the behaviour of the staff showed the result that the KMO measure of sampling adequacy (0.906028) and Bartlett's test of sphericity (0.0) indicated that factor analysis was appropriate.

Table Number 6.57: Total Variance for Administrative Services for All the Three Type of Hospitals

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	5.8798	45.23	45.229	5.8798	45.2293	45.229	3.974	30.57	30.571
02	1.4301	11	56.23	1.4301	11.001	56.23	3.336	25.66	56.23

The above table indicates that there were two components extracted and it extracts 56.23 per cent variation from data.

Table Number 6.58: Communalities and Rotated Component Matrix for Administrative Services for All the Three Type of Hospitals

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component	
			1	2
01	Less Waiting Time For Consultation and Treatment	0.399701	**0.564**	0.286
02	Less Waiting Time for Test	0.416938	**0.5809**	0.282
03	Simple Checking Procedure	0.623508	**0.7639**	0.2
04	Speed, Ease of Admission and Discharge form Hospital	0.561188	**0.7347**	0.146
05	Convenient Office Hours	0.514329	**0.6848**	0.213
06	Adm. Staff Gives Prompt Services	0.5843	0.3237	**0.692**
07	No Overcrowding in Hospital	0.427925	0.4342	0.489
08	Good Grievance handling System	0.770759	0.2323	**0.847**
09	Adm. Staff Welcome and Implement Suggestion	0.783967	0.2137	**0.859**
10	Adm. Gives Personal Attention To Patient	0.708765	0.1988	**0.818**
11	Patients' were Treated With Dignity and Privacy	0.461669	**0.5729**	0.365
12	Good Concern for Patients' Family and Visitor	0.507402	**0.6620**	0.263
13	Simple Billing Procedures	0.549492	**0.72610**	0.149

All the extracted communalities were acceptable and all criteria were fit for the factor solution as their extraction values were large.

The above table indicated that component 1 (Less Waiting Time For Consultation and Treatment, Less Waiting Time for Test, Simple Checking Procedure, Speed, Ease of Admission and Discharge form Hospital, Convenient Office Hours, Patients' were Treated With Dignity and Privacy, Good Concern for Patients' Family and Visitor) was highly correlated with criteria number 1 to 5, 11 and 12. Component 2 (Adm. Staff Gives Prompt Services, Good Grievance handling System, Adm. Staff Welcome and Implement Suggestion, Adm. Staff Welcome and Implement Suggestion, Adm. Gives Personal Attention To Patient) is highly correlated with criteria number 6, 8, 9 and 10.

Table Number 6.59: Component wise Mean Value for Administrative Services for All the Three Type of Hospitals

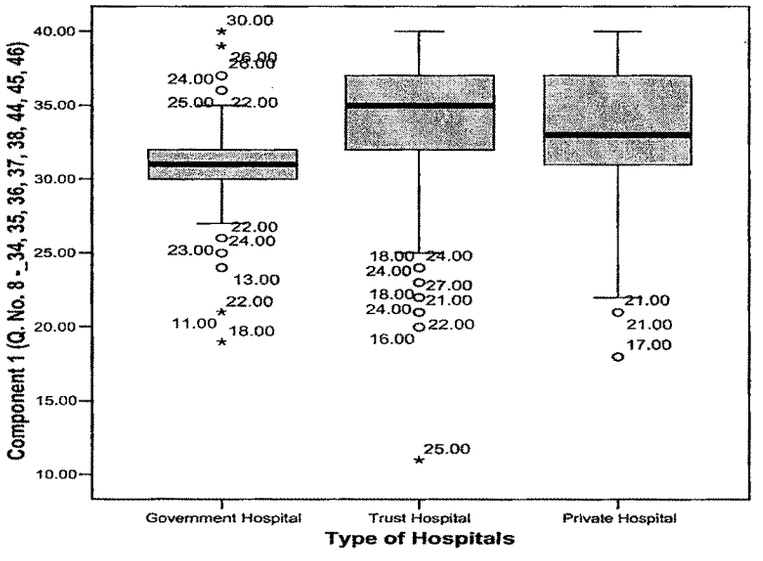
Component	Mean Value	Selected Criteria	Selected Factors
01	32.448	Less Waiting Time For Consultation and Treatment	Responsiveness
		Less Waiting Time for Test	Responsiveness
		Simple Checking Procedure	Empathy
		Speed, Ease of Admission and Discharge form Hospital	Responsiveness
		Convenient Office Hours	Responsiveness
		Patients' were Treated With Dignity and Privacy	Dignity
		Good Concern for Patients' Family and Visitor	Empathy
		Simple Billing Procedures	Empathy
02	13.712	Adm. Staff Gives Prompt Services	Responsiveness
		Good Grievance handling System	Responsiveness
		Adm. Staff Welcome and Implement Suggestion	Dignity
		Adm. Gives Personal Attention To Patient	Dignity

From the above table it becomes clear that, component 1 (Less Waiting Time For Consultation and Treatment, Less Waiting Time for Test, Simple Checking Procedure, Speed, Ease of Admission and Discharge form Hospital, Convenient Office Hours, Patients' were Treated With Dignity and Privacy, Good Concern for Patients' Family and Visitor) have high mean value of 32.44 and component 2 (Adm. Staff Gives Prompt Services, Good Grievance handling System, Adm. Staff Welcome and Implement Suggestion, Adm. Staff Welcome and Implement Suggestion, Adm. Gives Personal Attention To Patient) have lowest mean value of 13.71.

Importance of Components for Selected Type of Hospitals:

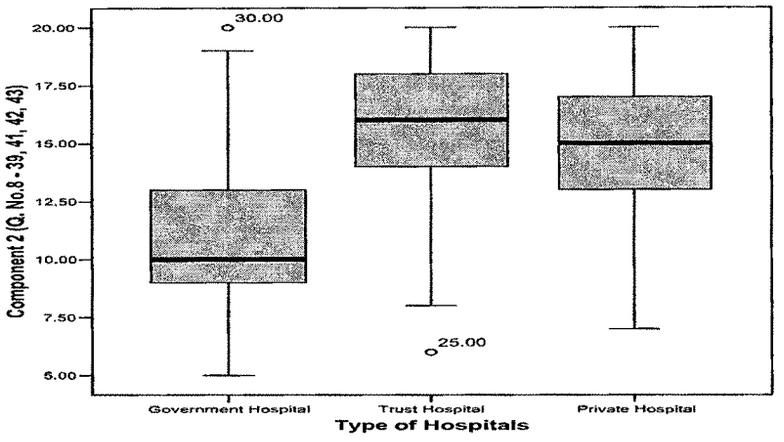
The importance of each component to different type of hospitals can be understood with the help of below given box plots. The following box plot explains three type of hospitals total score of component 1 criteria.

Graph Number 6.16: Hospitals-wise Box Plot for Component 1 for Administrative Services of the Three Type of Hospitals



From the above box plot it becomes clear that component 1 (Less Waiting Time For Consultation and Treatment, Less Waiting Time for Test, Simple Checking Procedure, Speed, Ease of Admission and Discharge form Hospital, Convenient Office Hours, Patient Treated With Dignity and Privacy, Good Concern for Patient Family and Visitor) was important for trust hospitals because of large median value and low variation then private hospitals.

Graph Number 6.17: Hospitals-wise Box Plot for Component 2 for Administrative Services



The above box plot indicated that component 2 was important for trust hospitals because of high median value.

As the mean score of Government hospitals was lower (45.62) factor analysis was made to find out the reasons for such lower mean value for Government hospitals.

6.4.6.1 Factor Analysis for Government Hospitals for Administrative Services is given as below.

In case of Government hospitals administrative services the results showed the KMO measure of sampling adequacy (0.7603) and Bartlett's test of sphericity (0.0) which indicated that factor analysis was appropriate.

Table Number 6.60: Total Variance for Government Hospitals for Administrative Services

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	3.4924	26.865	26.865	3.49239	26.8645	26.86452	2.733735	21.02873	21.02873
02	1.9244	14.803	41.668	1.9244	14.8031	41.66763	2.446305	18.81773	39.84646
03	1.4936	11.489	53.157	1.49359	11.4891	53.15678	1.730341	13.31032	53.15678

From the above table it becomes clear that total 3 components can be extracted and it explains 53 per cent variation from data.

Table Number 6.61: Communalities and Rotated Component Matrix for Selected Government Hospitals for Administrative Services

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component		
			1	2	3
01	Less Waiting Time For Consultation and Treatment	0.4186	0.1972	**0.6152**	-0.0346
02	Waiting Time for Test	0.5583	0.0304	**0.7453**	0.0440
03	Simple Checking Procedure	0.5615	-0.0670	**0.7308**	0.15140
04	Speed, Ease of Admission and Discharge form Hospital	0.4894	0.1213	**0.6602**	0.1970
05	Convenient Office Hours	0.3736	0.3180	**0.5135**	0.0940
06	Adm. Staff Gives Prompt Services,	0.4986	**0.6752**	0.1894	-0.0830
07	No Overcrowding in Hospital	0.3559	**0.4039**	0.291	-0.3289
08	Good Grievance handling System	0.6456	**0.7885**	0.1542	0.0029
09	Adm. Staff Welcome and Implement Suggestion	0.7219	**0.8383**	0.0122	0.1376
10	Gives Personal Attention To Patient	0.6893	**0.7736**	-0.005	0.3015
11	Patients' were Treated With Dignity and Privacy,	0.5672	0.1763	-0.064	**0.7295**
12	Good Concern for Patients' Family and Visitor	0.5627	0.0231	0.2078	**0.7204**
13	Simple Billing Procedures	0.4676	-0.0030	0.2949	**0.6169**

All the extracted communalities given in above table were acceptable and all criteria were fit for the factor analysis as their extraction values were large.

From the above table it becomes clear that component 1 (Adm. Staff Gives Prompt Services, No Overcrowding in Hospital, Good Grievance handling System, Adm. Staff Welcome and Implement Suggestion, Adm. Gives Personal Attention To Patients) was highly correlated with criteria 6 to 10. Component 2 (Less Waiting Time For Consultation and Treatment, Less Waiting Time for Test, Simple Checking Procedure, Speed, Ease of Admission and Discharge form Hospital, Convenient Office Hours) was highly correlated with criteria 1 to 5, and component 3 (Patients' were Treated With Dignity and Privacy, Good Concern for Patient Family and Visitor, Simple Billing Procedures) was highly correlated with criteria 11 to 13.

Table Number 6.62: Component wise Mean value for Selected Government Hospitals for Administrative Services

Component	Mean Value	Selected Criteria	Selected Factors
01	17.674	Adm. Staff Gives Prompt Services	Responsiveness
		No Overcrowding in Hospital	Responsiveness
		Good Grievance handling System	Responsiveness
		Adm. Staff Welcome and Implement Suggestion	Dignity
		Adm. Gives Personal Attention To Patient	Dignity
02	20.038	Less Waiting Time For Consultation and Treatment	Responsiveness
		Less Waiting Time for Test	Responsiveness
		Simple Checking Procedure	Empathy
		Speed, Ease of Admission and Discharge form Hospital	Responsiveness
		Convenient Office Hours	Responsiveness
03	12.41	Patients' were Treated With Dignity and Privacy	Dignity
		Good Concern for Patients' Family and Visitor	Empathy
		Simple Billing Procedures	Empathy

The above table indicated that component 2 (Less Waiting Time For Consultation and Treatment, Less Waiting Time for Test, Simple Checking Procedure, Speed, Ease of Admission and Discharge form Hospital, Convenient Office Hours) have highest mean value of 20.04. Component 3 (Patient Treated with Dignity and Privacy, Good Concern for Patients' Family and Visitor, Simple Billing Procedures) have lowest mean value of 12.41. That means Government hospitals service was weaker for component 3 criteria. So, Government hospitals should improve its service in terms of criteria namely, 'Patients' were Treated with Dignity and Privacy', 'Good Concern for Patient Family and Visitor' and 'Simple Billing Procedures'.

6.4.7 ONE WAY ANNOVA FOR ENVIRONMENT (PHYSICAL FACILITIES) OF SELECTED TYPE OF HOSPITALS:

Analysis of Variance: Selected Patients' Responses for Environment (Physical facilities) of the Three Type of Hospitals.

Hypothesis: 41

Mean of patients' responses about selected type of hospital is equal in terms of Environment (Physical facilities) related criterion of the hospitals and an alternative hypothesis is at least one mean is different from other.

Table Number 6.63: Descriptive Statistics for Environment (Physical facilities) for All the Three Type of Hospitals

Type of Hospitals	N	Mean	SD	SE
GHs	200	75.855	3.666222	0.259241
THs	200	77.825	6.037103	0.426888
PHs	100	71.20	8.168676	0.816868
Total	500	75.712	6.245885	0.279324

From the above table it becomes clear that trust hospitals have highest mean value of 77.82. Government hospitals have second highest mean value of 75.85 and private hospitals have lowest mean value of 71.20.

Test of Homogeneity of Variances:

Table Number 6.64: Test of Homogeneity of Variances for Environment (Physical facilities) for All the Three Type of Hospitals

Levene's Statistic	df1	df2	Sig.
27.04804	2	497	0.00

P – Value of levene's test statistics as given in the above table was less then 0.05 (0.00 < 0.05) which represent that variance of type of hospitals was not equal at least variance of one type of hospitals was different from other type of hospitals.

Analysis of Variance:

Table Number 6.65: ANOVA for Environment (Physical facilities) for All the Three Type of Hospitals

Particulars	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2932.858	2	1466.429	44.08067	0.00
Within Groups	16533.67	497	33.26694		
Total	19466.53	499			

The P – Value (0.00 < 0.05) of ANOVA given in above table indicated that mean of Type of Hospitals was not equal at least mean of one Type of Hospitals was different from other type of hospitals.

Post Hoc Test (Tamhane):

Table Number 6.66: Multiple Comparisons for Environment (Physical facilities) for All the Three Type of Hospitals Through Tamhane Test

Type of Hospitals		Mean Difference	SE	Sig.
GHs	GHs			
	THs	-1.97	0.499439	0.000293
	PHs	4.655	0.857017	0.00
THs	GHs	1.97	0.499439	0.000293
	THs			
	PHs	6.625	0.921686	0.00
PHs	GHs	-4.655	0.857017	0.00
	THs	-6.625	0.921686	0.00
	PHs			

From the above table it becomes clear that Government hospitals were different from trust and private hospitals. Trust hospitals were different from Government and private hospitals and private hospitals were different from Government and trust hospitals.

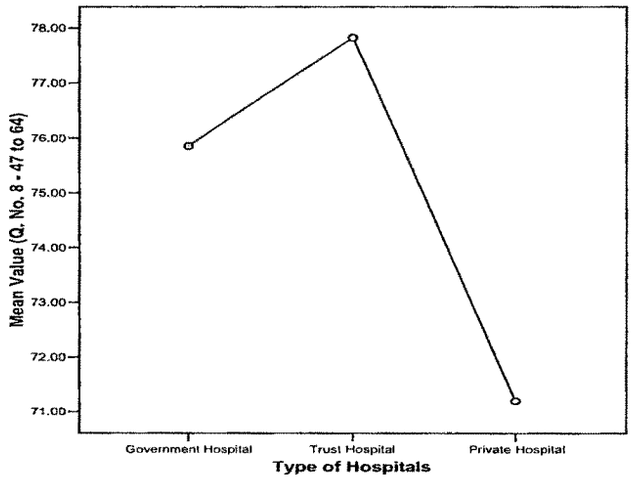
Post Hoc Test (Tukey HSD):

Table Number 6.67: Multiple Comparisons for Environment (Physical Facilities) for All the Three Type of Hospitals Through Tukey HSD Test

Type of Hospitals	N	Subset for alpha = .05		
		1	2	3
PHs	100	71.2		
GHs	200		75.855	
THs	200			77.825
Sig.		1	1	1

From the above table it becomes clear that private hospitals make one group, Government hospitals make another group and trust hospitals make one more group.

Graph Number 6.18: Means Plots Environment (Physical facilities) for All the Three Type of Hospitals



Above means plot indicated that trust hospitals have high mean value. Government hospitals have second highest mean value and private hospitals have lowest mean value and each make different group.

6.4.8 FACTOR ANALYSIS FOR ENVIRONMENT (PHYSICAL FACILITIES):

Factor Analysis for Environment (Physical facilities) for all Three Type of Hospitals.

In case of responses of patients for environment (physical facilities) the results showed the value for KMO measure of sampling adequacy (0.850) and Bartlett's test of sphericity (0.0) which indicated that factor analysis was appropriate.

Table Number 6.68: Total Variance for Environment (Physical facilities) for All the Three Type of Hospitals

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	5.318	29.544	29.544	5.318	29.544	29.544	3.265	18.136	18.136
02	2.452	13.625	43.169	2.452	13.625	43.169	3.118	17.324	35.460
03	1.299	7.218	50.387	1.299	7.218	50.387	2.359	13.103	48.564
04	1.200	6.669	57.056	1.200	6.669	57.056	1.529	8.492	57.056

From the above table it becomes clear that four components can be extracted and they extract 57.056 per cent variation from data.

Table Number 6.69: Communalities and Rotated Component Matrix for Environment (Physical facilities) for All the Three Type of Hospitals

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component			
			1	2	3	4
01	Well Equipped Units	0.466	0.233	**0.621**	-0.126	0.098
02	Proper Sitting & Bedding Arrangements	0.513	0.384	**0.519**	-0.199	0.237
03	Comfort in Examination & waiting Room	0.595	**0.625**	0.384	-0.112	0.213
04	Natural Light or Illumination in Hospital	0.514	**0.691**	0.171	-0.003	0.088
05	Sufficient Number of Dust Bins & Spittoons	0.533	**0.714**	0.154	0.003	0.007
06	No Flies & Mosquitoes in Hospital	0.558	**0.676**	-0.124	-0.096	-0.276
07	Adequate parking Arrangements	0.603	0.219	0.434	0.202	**0.571**
08	Clean Surroundings of Hospitals	0.588	0.483	0.405	-0.139	0.413
09	Pleasing & Appealing Room of Hospital	0.571	**0.564**	0.477	-0.067	0.146
10	Good Food Served by Hospital	0.665	0.010	-0.103	-0.248	**0.770**
11	Staff Neat in Appearance	0.493	**0.633**	0.249	0.052	0.165
12	Inside & Out side Noise kept Minimum	0.448	0.196	**0.619**	-0.156	0.042
13	Wards Well Decorated & Ventilated	0.430	0.399	**0.512**	-0.050	-0.074
14	Music Facilities should be provided	0.503	0.010	**0.698**	0.123	0.028
15	Quick Payment Arrangements	0.627	0.120	**0.590**	0.374	-0.352
16	Costs were Adequate or Affordable	0.808	-0.080	-0.137	**0.880**	0.093
17	Drugs Easily Obtained in Hospital	0.628	0.024	0.221	**0.731**	-0.211
18	Distance to Healthcare is Adequate	0.729	-0.096	-0.216	**0.814**	-0.100

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 7 iterations.

All the extracted communalities given in the above table were acceptable and all criteria were fit for the factor solution as their extraction values were large.

The above table indicated the correlation between component and criteria. Component 1 (Comfort in Examination & waiting Room, Natural Light or Illumination in Hospital, Sufficient Number of Dust Bins & Spittoons, No Flies & Mosquitoes in Hospital, Pleasing & Appealing Room of Hospital, Staff Neat in Appearance) was highly correlated with criteria 3, 4, 5, 6, 9, and 11.

Component 2 (Well Equipped Units, Proper Sitting & Bedding Arrangements, Inside & Out side Noise kept Minimum, Wards Well Decorated & Ventilated, Music Facilities should be provided, Quick Payment Arrangements) was highly correlated with criteria 1, 2, and 12 to 15. Component 3 (Costs were Adequate or Affordable, Drugs Easily Obtained in Hospital, Distance to Healthcare is Adequate) was highly correlated with criteria 16, 17, and 18, and component 4 (Adequate parking Arrangements, Good Food Served by Hospital) was highly correlated with criteria 7 and 10.

Table Number 6.70: Component Wise Mean Value for Environment (Physical facilities) for All the Three Type of Hospitals

Component	Mean Value	Selected Criteria	Selected Factors
01	29.12	Comfort in Examination and waiting Room	Tangibles
		Natural Light or Illumination in Hospital	Tangibles
		Sufficient Number of Dust Bins and Spittoons	Tangibles
		Pleasing and Appealing Room of Hospital	Tangibles
		Good Food Served by Hospital	Tangibles
		Staff Neat in Appearance	Tangibles
02	12.788	Well Equipped Units	Tangibles
		Proper Sitting & Bedding Arrangements	Tangibles
		Inside & Out side Noise kept Minimum	Tangibles
		Wards Well Decorated & Ventilated	Tangibles
		Music Facilities should be provided	Tangibles
		Quick Payment Arrangements	Accessibility / Affordability
03	12.166	Costs were Adequate or Affordable	Accessibility / Affordability
		Drugs Easily Obtained in Hospital	Accessibility / Affordability
		Distance to Healthcare is Adequate	Accessibility / Affordability
04	4.422	Adequate parking Arrangements	Tangibles
		Good Food Served by Hospital	Tangibles

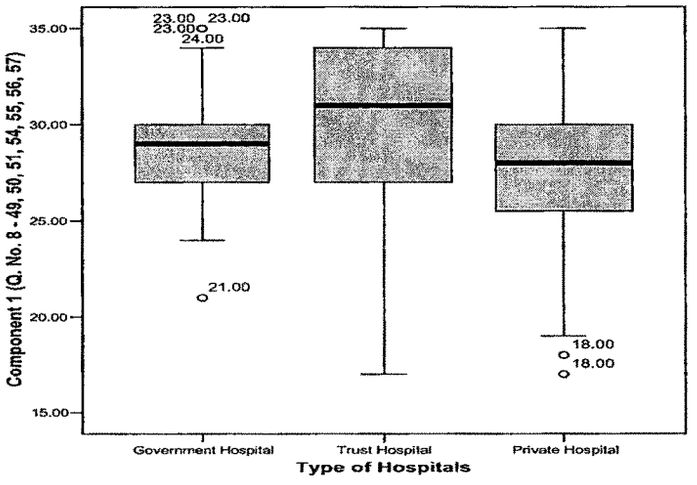
From the above table it becomes clear that component 1 (Comfort in Examination & waiting Room, Natural Light or Illumination in Hospital, Sufficient Number of Dust Bins & Spittoons, No Flies & Mosquitoes in Hospital, Pleasing & Appealing Room of Hospital, Staff Neat in Appearance) has highest mean value of 29.12 and it extract total 6 criteria. Component 2 (Well Equipped Units, Proper Sitting & Bedding Arrangements, Inside & Out side Noise kept Minimum, Wards Well Decorated & Ventilated, Music Facilities should be provided, Quick Payment Arrangements) has second highest mean value of 12.78.

Component 3 (Costs were Adequate or Affordable, Drugs Easily Obtained in Hospital, Distance to Healthcare is Adequate) has 12.16 mean value and component 4 (Adequate parking Arrangements, Good Food Served by Hospital) has lowest mean value of 4.42.

Importance of Components for Selected Type of Hospitals:

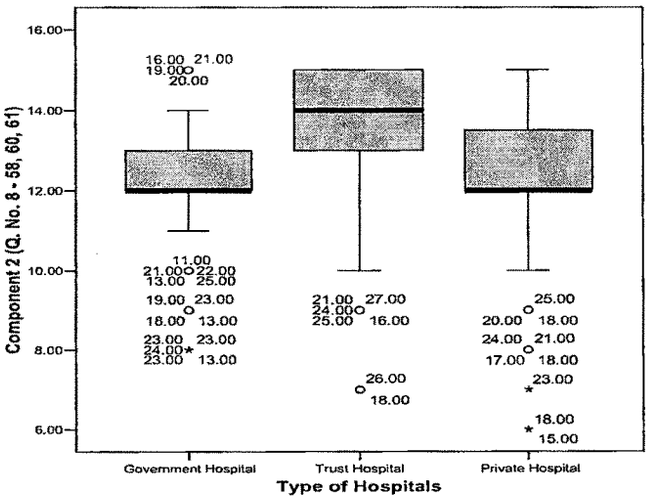
The importance of each component to different Type of Hospitals can be understood with the help of below given box plots. The following box plot explains Type of Hospitals total score of component 1 criteria.

Graph Number 6.19: Hospitals-wise Box Plot for Component 1 for Environment (Physical facilities) of the Three Type of Hospitals



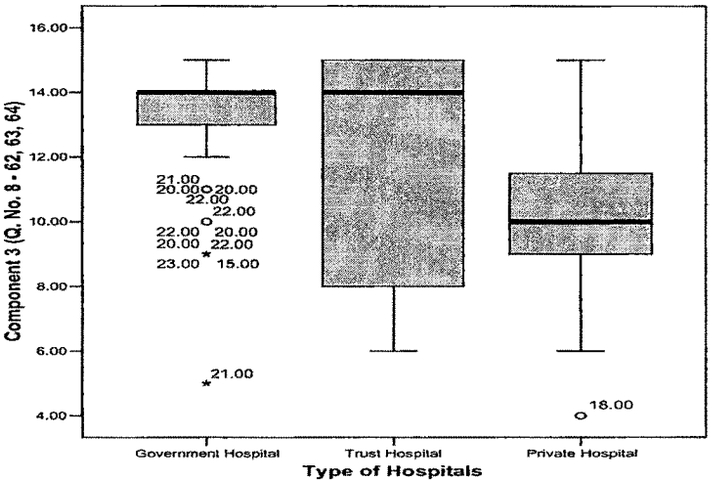
The above box plot indicated that component 1 was important for Trust hospital because of it has highest median value. Though Government hospitals have second highest mean value with less variation but it has many outliers.

Graph Number 6.20: Hospitals-wise Box Plot for Component 2 for Environment (Physical facilities) of the Three Type of Hospitals



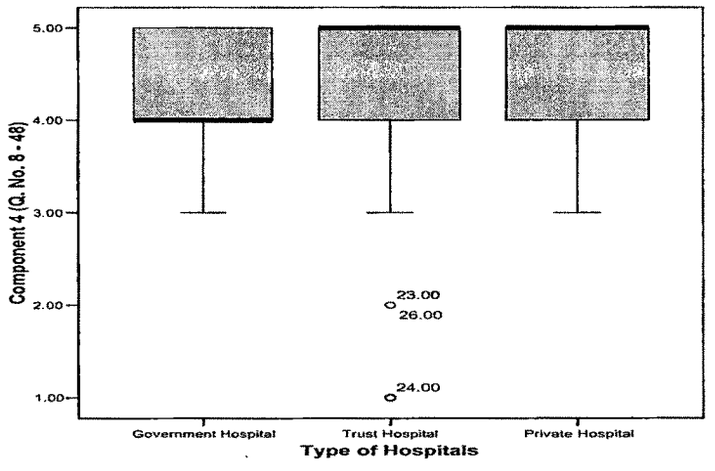
From the above box plot it becomes clear that component 2 was important for trust hospitals because of large mean value and less outlier.

Graph Number 6.21: Hospitals-wise Box Plot for Component 3 for Environment (Physical facilities) of the Three Type of Hospitals



The above box plot indicated that component 3 was important for Government hospitals because of large median value and very low variation.

Graph Number 6.22: Hospitals wise Box Plot for Component 4 for Environment (Physical facilities) of the Three Type of Hospitals



From the above box plot one can interpret that component 4 was important for trust and private hospitals because of high median value. As the mean score of private hospitals were lower (71.20) factor analysis was made to find out the reasons for lower mean value for private hospitals.

6.4.8.1 Factor Analysis for Selected Type of Private Hospitals for Environment (Physical facilities) is given below.

In case responses of patients of private hospitals for environment (physical facilities) the results showed the value for KMO measure of sampling adequacy (0.8063) and Bartlett's test of sphericity (0.0) which indicated that factor analysis was appropriate.

Table Number 6.71: Total Variance of Selected Private Hospitals for Environment (Physical facilities)

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	6.3171	35.095	35.095	6.31708	35.0949	35.0949	3.694617	20.52565	20.52565
02	1.6391	9.1063	44.201	1.63913	9.10629	44.20118	2.676086	14.86715	35.3928
03	1.478	8.2112	52.412	1.47802	8.21123	52.41241	2.628004	14.60002	49.99282
04	1.3233	7.3517	59.764	1.32331	7.35174	59.76415	1.516347	8.42415	58.41697
05	1.1602	6.4453	66.209	1.16015	6.44528	66.20942	1.402642	7.792457	66.20942

The above table indicated that there were 5 components extracted and it explains 66per cent variation from data.

Table Number 6.72: Communalities and Rotated Component Matrix for Selected Private Hospitals for Environment (Physical facilities)

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component				
			1	2	3	4	5
01	Well Equipped Units	0.6585	0.0662	**0.6094**	0.3952	-0.3317	0.12889
02	Proper Sitting and Bedding Arrangements	0.7114	0.3122	0.2024	**0.6754**	0.00142	0.34173
03	Comfort in Examination and waiting Room	0.6562	0.5010	0.1888	0.5245	-0.0726	0.2986
04	Natural Light or Illumination in Hospital	0.622	0.4251	0.1427	**0.644**	-0.0771	-0.0156
05	Sufficient Number of Dust Bins and Spittoons	0.7591	**0.7975**	0.2004	-0.0304	-0.2857	0.01895
06	No Flies and Mosquitoes in Hospital	0.5896	**0.707**	-0.112	0.1653	0.21056	-0.0741
07	Adequate parking Arrangements	0.7454	**0.611**	0.4821	-0.1462	0.00094	0.34402
08	Clean Surroundings of Hospitals	0.6265	**0.6458**	0.3119	0.3308	0.00278	-0.0515
09	Pleasing and Appealing Room of Hospital	0.552	**0.5336**	0.361	0.2856	0.07979	0.22168
10	Good Food Served by Hospital	0.7432	0.0726	0.0453	-0.0501	0.01407	-0.8562
11	Staff Neat in Appearance	0.6544	**0.6193**	0.2365	0.3553	0.23418	-0.1839
12	Inside and Out side Noise kept Minimum	0.5397	**0.6013**	0.0385	0.4035	0.09167	0.07387
13	Wards Well Decorated and Ventilated	0.6259	0.3273	**0.5703**	0.1585	0.04872	0.40743
14	Music Facilities should be provided	0.6135	0.0459	**0.7602**	0.1687	0.03308	-0.0629
15	Quick Payment Arrangements	0.8078	0.2306	**0.816**	0.1499	0.23263	-0.1106
16	Costs were Adequate or Affordable	0.6195	-0.0790	0.0360	0.3517	**0.68165**	-0.1535
17	Drugs Easily Obtained in Hospital	0.6605	0.0708	0.2390	**0.7511**	0.1595	-0.0938
18	Distance to Healthcare is Adequate	0.7326	0.1612	0.0912	-0.1725	**0.80725**	0.12999

All the extracted communalities were acceptable and all criteria were fit for the factor solution as their extraction values are large.

From the above table it becomes clear that component 1 (Sufficient Number of Dust Bins and Spittoons, No Flies and Mosquitoes in Hospital, Adequate parking Arrangements, Clean Surroundings of Hospitals, Pleasing and Appealing Room of Hospital, Staff Neat in Appearance, Inside and Out side Noise kept Minimum) was highly correlated with criteria number 5 to 9, 11 and 12. Component 2 (Well Equipped Units, Wards Well Decorated and Ventilated, Music Facilities should be provided, Quick Payment Arrangements) was highly correlated with criteria number 1, 13, 14, and 15.

Component 3 (Proper Sitting and Bedding Arrangements, Natural Light or Illumination in Hospital, Drugs Easily Obtained in Hospital) was highly correlated with criteria number 2, 4, and 17. Component 4 (Costs were Adequate or Affordable, Distance to Healthcare is Adequate) was highly correlated with criteria number 16 and 18.

Table Number 6.73: Component wise Mean value for Selected Private Hospitals for Environment (Physical facilities)

Component	Mean Value	Selected Criteria	Selected Factors
01	30.032	Sufficient Number of Dust Bins and Spittoons	Tangibles
		No Flies and Mosquitoes in Hospital	Tangibles
		Adequate parking Arrangements	Tangibles
		Clean Surroundings of Hospitals	Tangibles
		Pleasing and Appealing Room of Hospital	Tangibles
		Staff Neat in Appearance	Tangibles
		Inside and Out side Noise kept Minimum	Tangibles
02	17.366	Well Equipped Units	Tangibles
		Wards Well Decorated and Ventilated	Tangibles
		Music Facilities should be provided	Tangibles
		Quick Payment Arrangements	Accessibility / Affordability
03	13.212	Proper Sitting and Bedding Arrangements	Tangibles
		Wards Well Decorated and Ventilated	Tangibles
		Drugs Easily Obtained in Hospital	Accessibility / Affordability
04	7.778	Costs were Adequate or Affordable	Accessibility / Affordability
		Distance to Healthcare is Adequate	Accessibility / Affordability

From the above table it becomes clear that component 1 (Sufficient Number of Dust Bins and Spittoons, No Flies and Mosquitoes in Hospital, Adequate parking Arrangements, Clean Surroundings of Hospitals, Pleasing and Appealing Room of Hospital, Staff Neat in Appearance, Inside and Out side Noise kept Minimum) have highest mean value of 30.03. Component 4 (Costs were Adequate or Affordable, Distance to Healthcare is Adequate) have lowest mean value of 7.78. It means private hospitals were weak in component 4. So, there was a need for private hospitals to improve its service and make it affordable by charging adequate price and making arrangement for patients for accessibility of hospital services.

6.5 SUMMARY OF FACTOR LOADING SCORE FOR MEDICAL, PARAMEDICAL, AND ADMINISTRATIVE STAFF SERVICES AND ENVIRONMENT OF SELECTED TYPE OF HOSPITALS:

Summary of factor analysis for medical services, paramedical services, administrative services, and environment (physical facilities) of the hospital is summarized in the table number 6.74 to 6.77.

Table Number 6.74: Criteria and Factor-wise Factor Loading for Medical Services

Sr. No.	Selected Criteria	Selected Factors						
		Tangible	Reliability	Responsiveness	Assurance	Empathy	Dignity	Accessibility / Affordability
		Factor Loading Score						
01	Doctors' Knowledge & Efficiency	-	-	-	**0.5942**	-	-	-
02	Doctors' Cooperation to patients	-	-	**0.7498**	-	-	-	-
03	Doctors' were polite with patients	-	-	-	-	**0.7726**	-	-
04	Impartial Attitude of Doctors	-	**0.6729**	-	-	-	-	-
05	Patients' Felt Comfortable During Doctors Examination	-	-	-	-	**0.6225**	-	-
06	Doctors' Experience in Curing Patients	-	-	-	**0.641**	-	-	-
07	Thorough Checkup by Doctors	-	-	-	**0.689**	-	-	-
08	Doctors' Work according to Patients Expectations	-	-	-	-	**0.812**	-	-
09	Doctors' Gave Individual Consideration & Confidentiality	-	-	-	-	**0.7531**	-	-
10	Doctors' Showed Respect & Support patients	-	-	-	-	0.3963	-	-
11	Doctors' Makes Good Diagnosis	-	**0.749**	-	-	-	-	-
12	Doctors' Prescribed Good Drugs	-	**0.664**	-	-	-	-	-
13	Doctor' ask for patients Permission for performing Test	-	-	-	-	-	**0.6638**	-
14	Patients' Felt Comfortable asking Questions to Doctors	-	-	**0.0854**	-	-	-	-
15	Doctors' Honesty in Dealing with patients	-	-	-	-	0.4699	-	-
16	Sufficient number of Doctors Remained Present	**0.7052**	-	-	-	-	-	-
17	Doctors' Availability in Emergency	-	-	-	-	-	-	**0.6227**

Above table provides details about factor loading score for all 17 criteria related with medical services. Out of total 17 criteria 15 criteria can be considered as important as their score is more than 0.5.

Table Number 6.75: Criteria and Factor-wise Factor Loading for Paramedical Services

Sr. No.	Selected Criteria	Selected Factors						
		Tangible	Reliability	Responsiveness	Assurance	Empathy	Dignity	Accessibility / Affordability
		Factor Loading Score						
01	Nurses' Knowledge & Efficiency	-	-	-	**0.6159**	-	-	-
02	Nurses' Cooperation to Patients	-	-	**0.7348**	-	-	-	-
03	Nurses' Showed Politeness with Patients	-	-	-	-	**0.7944**	-	-
04	Impartial Attitude of Nurses	-	**0.6063**	-	-	-	-	-
05	Nurses' Maintain Proper records of Patients	-	0.5163	-	-	-	-	-
06	Nurses' Handled Patients Query Properly	-	-	-	**0.678**	-	-	-
07	Nurses' Experience in Curing Patients	-	-	-	**0.5809**	-	-	-
08	Good Experience of Those who Perform Test on Patients	-	-	-	0.4232	-	-	-
09	Nurses' Gave Personal Attention to Patients	-	-	-	-	-	**0.665**	-
10	Nurses' Provided Prompt Service	-	-	**0.680**	-	-	-	-
11	Nurses' & Staff Remained Present in Emergency	-	-	**0.566**	-	-	-	-
12	Nurses' Explain Procedures and take Patient Permission before Test	-	-	-	-	-	**0.688**	-
13	Nurses' Explain Rules Regulation in ward	-	-	-	-	-	0.4814	-
14	Nurses' were Kind, Gentle & Sympathetic	-	-	-	-	-	**0.6582**	-
15	Information Provided to patients for Managing Side Effects	-	-	**0.729**	-	-	-	-
16	Prompt Service Provided by Sanitation Staff	-	-	**0.619**	-	-	-	-

Above table provides details about factor loading score for all 16 criteria related with Paramedical services. Out of total 16 criteria 13 criteria can be considered as important as their score is more than 0.5.

Table Number 6.76: Criteria and Factor-wise Factor Loading for Administrative Services

Sr. No.	Selected Criteria	Selected Factors						
		Tangible	Reliability	Responsiveness	Assurance	Empathy	Dignity	Accessibility / Affordability
		Factor Loading Score						
01	Less Waiting Time For Consultation and Treatment	-	-	**0.564**	-	-	-	-
02	Less Waiting Time for Test	-	-	**0.5809**	-	-	-	-
03	Simple Checking Procedure	-	-	-	-	**0.7639**	-	-
04	Speed, Ease of Admission and Discharge form Hospital	-	-	**0.7347**	-	-	-	-
05	Convenient Office Hours	-	-	**0.6848**	-	-	-	-
06	Adm. Staff Gives Prompt Services	-	-	**0.692**	-	-	-	-
07	No Overcrowding in Hospital	-	-	0.489	-	-	-	-
08	Good Grievance handling System	-	-	**0.847**	-	-	-	-
09	Adm. Staff Welcome and Implement Suggestion	-	-	-	-	-	**0.859**	-
10	Adm. Gives Personal Attention To Patient	-	-	-	-	-	**0.818**	-
11	Patients' were Treated With Dignity and Privacy	-	-	-	-	-	**0.5729**	-
12	Good Concern for Patient Family and Visitor	-	-	-	-	**0.662**	-	-
13	Simple Billing Procedures	-	-	-	-	**0.7261**	-	-

Above table provides details about factor loading score for all 13 criteria related with Administrative services. Out of total 13 criteria 12 criteria can be considered as important as their score is more than 0.5.

Table Number 6.77: Criteria and Factor-wise Factor Loading for Environment (Physical Facilities)

Sr. No.	Selected Criteria	Selected Factors						
		Tangible	Reliability	Responsiveness	Assurance	Empathy	Dignity	Accessibility / Affordability
		Factor Loading score						
01	Well Equipped Units	**0.621**						
02	Proper Sitting & Bedding Arrangements	**0.519**	-	-	-	-	-	-
03	Comfort in Examination & waiting Room	**0.625**	-	-	-	-	-	-
04	Natural Light or Illumination in Hospital	**0.691**	-	-	-	-	-	-
05	Sufficient Number of Dust Bins & Spittoons	**0.714**	-	-	-	-	-	-
06	No Flies & Mosquitoes in Hospital	**0.676**	-	-	-	-	-	-
07	Adequate parking Arrangements	**0.571**	-	-	-	-	-	-
08	Clean Surroundings of Hospitals	0.483	-	-	-	-	-	-
09	Pleasing & Appealing Room of Hospital	**0.564**	-	-	-	-	-	-
10	Good Food Served by Hospital	**0.770**	-	-	-	-	-	-
11	Staff Neat in Appearance	**0.633**	-	-	-	-	-	-
12	Inside & Out side Noise kept Minimum	**0.619**	-	-	-	-	-	-
13	Wards Well Decorated & Ventilated	**0.512**	-	-	-	-	-	-
14	Music Facilities should be provided	**0.698**	-	-	-	-	-	-
15	Quick Payment Arrangements		-	-	-	-	-	**0.590**
16	Costs were Adequate or Affordable		-	-	-	-	-	**0.880**
17	Drugs Easily Obtained in Hospital		-	-	-	-	-	**0.731**
18	Distance to Healthcare is Adequate		-	-	-	-	-	**0.814**

Above table provides details about factor loading score for all 18 criteria related with Environment (physical Facilities) Performance. Out of total 18 criteria 17 criteria can be considered as important as their score is more than 0.5. So, total 57 criteria have factor loading score more than 0.5 out of total 64 criteria used to measure patient satisfaction.

6.6 ONE WAY ANNOVA AND FACTOR ANALYSIS FOR ANALYZING INTANGIBLE SERVICE CHARCTERISTICS:

6.6.1 ONE WAYANNOVA FOR TANGIBLE SERVICE CHARACTERISTICS:

Analysis of Variance: Selected Patients' Responses for Tangibles

Hypothesis: 42

Mean of patients' responses about selected type of hospitals is equal in terms of tangible facilities of hospitals and an alternative hypothesis is at least one mean is different from other.

Table Number 6.78: Descriptive Statistics for Tangibles for All the Three Type of Hospitals

Type of Hospitals	N	Mean	SD	SE
GHs	200	62.3700	3.16912	0.22409
THs	200	65.4150	7.57228	0.53544
PHs	100	61.3300	7.11245	0.71125
Total	500	63.3800	6.31025	0.28220

The above table indicated the descriptive statistics of Type of Hospitals. The Trust hospital has highest mean value 65.41. Second highest mean value is 62.37of Government hospitals, and private hospitals have lower mean value of 61.33.

Table Number 6.79: Test of Homogeneity of Variances for Tangible Facilities for All the Three Type of Hospitals

Levene's Statistic	df1	df2	Sig.
43.611	2	497	0.000

Levene's test of homogeneity of variance through which verification can be done about the equality of variance of all group of hospital. Results of Levene's test showed the significant value (0.00) which was less then 0.05. It means that our null hypothesis has been rejected as significant value does not exceed 0.05. It means variance of all groups is not equal.

Table Number 6.80: ANOVA for Tangible Facilities for All the Three Type of Hospitals

Selected Criteria	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1452.515	2	726.258	19.598	0.000
Within Groups	18417.285	497	37.057		
Total	19869.800	499			

The variation between the groups of all the type of hospitals was 1452 and within groups is 18417. The variation within groups was higher then variation between groups of type of hospitals. According to null hypotheses variance of all groups is equal and our alternative hypotheses states that at least one variance is differ from other. As null hypotheses is rejected because of our significance value (0.00) is < 0.05 that means at least one type of Hospitals is different from the other type of hospitals.

Post Hoc test (Tamhane):

Table Number 6.81: Multiple Comparisons for Tangible facilities for All the Three Type of Hospitals Through Tamhane Test

Type of Hospitals		Mean Difference	SE	Sig.
GHs	GHs			
	THs	-3.04500	0.58044	0.000
	PHs	1.04000	0.74571	0.419
THs	GHs	3.04500	0.58044	0.000
	THs			
	PHs	4.08500	0.89026	0.000
PHs	GHs	-1.04000	0.74571	0.419
	THs	-4.08500	0.89026	0.000
	PHs			

Based on the test of homogeneity of variance it becomes clear that variance of all three type of hospitals was not equal it means at least one variance was different from other. The ANOVA test also indicated that mean of three types of hospitals were not equal. Therefore, Post – Hog test was applied assuming unequal variance. The findings suggest that Government hospitals were different from trust hospitals; trust hospitals were different from Government and private hospitals. The private hospitals were also different from trust hospitals because of significant value of all type of hospitals was < 0.05.

The insignificant value 0.419 indicated that Government hospitals and private hospitals make one group and trust hospitals were making another group.

Post Hoc test (Tukey HSD):

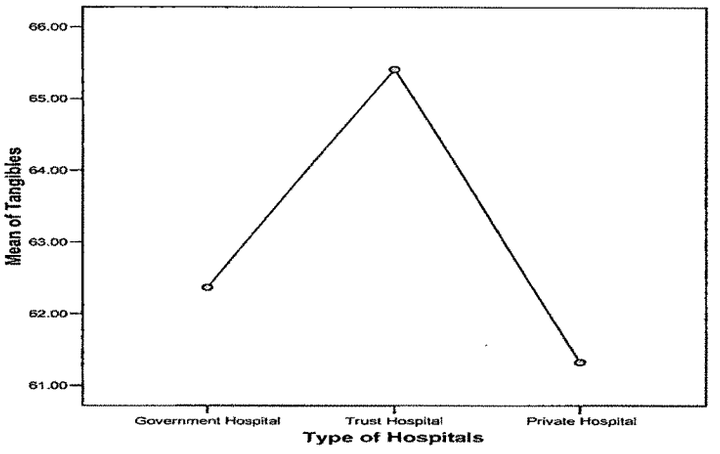
Table Number 6.82: Multiple Comparisons for Tangible facilities for All the Three Type of Hospitals Through Tukey HSD Test

Type of Hospitals	N	Subset for alpha =0.05	
	1	2	1
PHs	100	61.3300	
GHs	200	62.3700	
THs	200		65.4150
Sig.		0.302	1.000

(Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 150.000.
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed).

From the above table it becomes evident that private hospitals and Government hospitals makes one group and trust hospitals make another group. The same thing is graphically plotted in the following Means Plot graph which displays how the three types of hospitals differ.

Graph Number 6.23: Means Plots for Tangible facilities for All the Three Type of Hospitals



Above graph indicated different type of hospitals with their mean value. The trust hospitals have large mean value of 65.41, second largest value of 62.37 belongs to Government hospitals and private hospitals have lowest mean value of 61.33. Based on Means plot it becomes clear that at least one mean is different from three type of hospitals.

6.6.1.1 FACTOR ANALYSIS FOR TANGIBLE FACILITIES:

Factor Analysis for Tangible Facilities for All Three Type of Hospitals is given as below.

In case of responses of patients for tangible facilities the results showed the value for KMO measure of sampling adequacy was 0.89, which indicated that the present data were suitable for factor analysis. Similarly, Bartlett's test of sphericity was significant ($p<.005$), indicated sufficient correlation exist between the criteria to proceed with the analysis.

Table Number 6.83: Total Variance for Tangible Criteria for All the Three Type of Hospitals

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	5.137	34.249	34.249	5.137	34.249	34.249	3.269	21.792	21.792
02	1.298	8.651	42.899	1.298	8.651	42.899	2.897	19.311	41.103
03	1.152	7.682	50.581	1.152	7.682	50.581	1.422	9.479	50.581

Extraction Method: Principal Component Analysis.

As given in the above table the first three components in the initial solution have an Eigenvalues over 1 and they accounted for about 57 per cent of the observed variation for the tangible facilities. According to Kaiser Criterion, only the first three components should be used because subsequent Eigenvalues are all less then 1.

Table Number 6.84: Communalities and Rotated Component Matrix for Tangible Facilities for All the Three Type of Hospitals

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component		
			1	2	3
01	Sufficient number of Doctors Remained Present	0.252	0.062	0.468	-0.172
02	Well Equipped Units	0.434	0.258	**0.592**	0.131
03	Proper Sitting and Bedding Arrangements	0.506	0.392	**0.541**	0.244
04	Comfort in Examination and waiting Room	0.595	**0.627**	0.395	0.214
05	Natural Light or Illumination in Hospital	0.538	**0.709**	0.116	0.147
06	Sufficient Number of Dust Bins and Spittoons	0.531	**0.715**	0.141	-0.002
07	No Flies and Mosquitoes in Hospital	0.541	**0.657**	-0.062	-0.324
08	Adequate parking Arrangements	0.481	0.166	**0.513**	0.436
09	Clean Surroundings of Hospitals	0.587	0.478	0.433	0.414
10	Pleasing and Appealing Room of Hospital	0.574	**0.568**	0.482	0.139
11	Good Food Served by Hospital	0.746	0.027	-0.124	**0.854**
12	Staff Neat in Appearance	0.476	**0.623**	0.246	0.164
13	Inside and Out side Noise kept Minimum	0.431	0.215	**0.617**	0.062
14	Wards Well Decorated and Ventilated	0.387	0.437	0.442	-0.018
15	Music Facilities should be provided	0.509	0.001	**0.712**	-0.038

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 5 iterations.

All the extracted communalities shown in the above table were acceptable and all criteria were fit for the factor solution as their extraction values were large.

Factor loadings were used to measure correlation between various criteria and the factors. A factor loading close to 1 indicated a strong correlation between criteria and the factors, while a factor loading closer to zero indicates weak correlation. The factors were rotated with the use of Varimax with Kaiser Normalization rotation method. Principle Component Analysis (PCA) method was used for factor extraction and considered only those factors for interpretation purpose whose values are greater then 0.5.

From the above table it becomes clear that how the criteria were correlated with four components. The criteria 4 (Comfort in Examination and waiting Room), criteria 5 (Natural Light or Illumination in Hospital), criteria 6 (Sufficient Number of Dust Bins and Spittoons), criteria 7 (No Flies and Mosquitoes in Hospital), criteria 10 (Pleasing and Appealing Room of Hospital), and criteria 12 (Staff Neat in Appearance) were more correlated with component 1. The criteria 2 (Well Equipped Units), criteria 3 (Proper Sitting and Bedding Arrangements), criteria 8 (Adequate parking Arrangements), criteria 13 (Inside and Out side Noise kept Minimum), and criteria 15 (Music Facilities should be provided), were more correlated with component 2. The criteria 11 (Good Food Served by Hospital) was correlated with component 3.

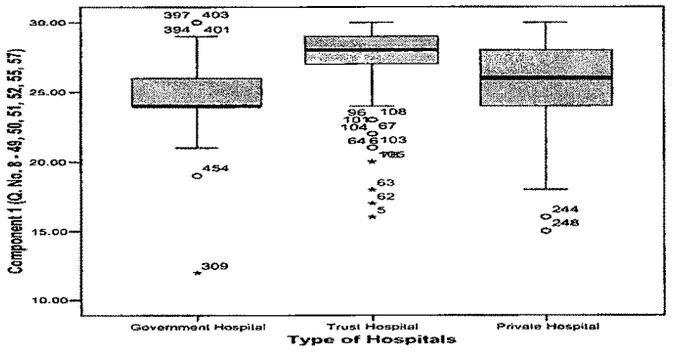
Table Number 6.85: Component wise Mean Value for Tangible Factor for All Type of Hospitals

Sr. No.	Component	Mean Value	Selected Criteria	Selected Factors
01	01	25.8680	Comfort in Examination and waiting Room	Environment (Physical Facilities)
02			Natural Light or Illumination in Hospital	"
03			Sufficient Number of Dust Bins and Spittoons	"
04			No Flies and Mosquitoes in Hospital	"
05			Pleasing and Appealing Room of Hospital	"
06			Staff Neat in Appearance	"
07	02	21.6020	Well Equipped Units	"
08			Proper Sitting and Bedding Arrangements	"
09			Adequate parking Arrangements	"
10			Inside and Out side Noise kept Minimum	"
11			Music Facilities should be provided	"
12	03	3.05	Good Food Served by Hospital	"

The above table indicated component wise mean value. The component 1 has higher mean value of 25.86 and it more correlated with six criteria (Comfort in Examination and waiting Room, Natural Light or Illumination in Hospital, Sufficient Number of Dust Bins and Spittoons, No Flies and Mosquitoes in Hospital, Pleasing and Appealing Room of Hospital, and Staff Neat in Appearance). Component 2 have second highest mean value of 21.60 and it more related with five criteria (Well Equipped Units, Proper Sitting and Bedding Arrangements, Adequate parking Arrangements, Inside and Out side Noise kept Minimum, Music Facilities should be provided). Component 3 has lowest mean value and it correlated with one criterion (Good Food Served by Hospital). So out of total 15 tangible criteria 12 criteria found more important for determining patients' satisfaction in the hospitals and all these criteria were groped as Environment (Physical Factors).

Following Box plot explains type of hospitals and total score of component 1 (Environment).

Graph Number 6.24: Hospitals-wise Box Plot for Component 1 for Tangible Facilities of the Three Type of Hospitals

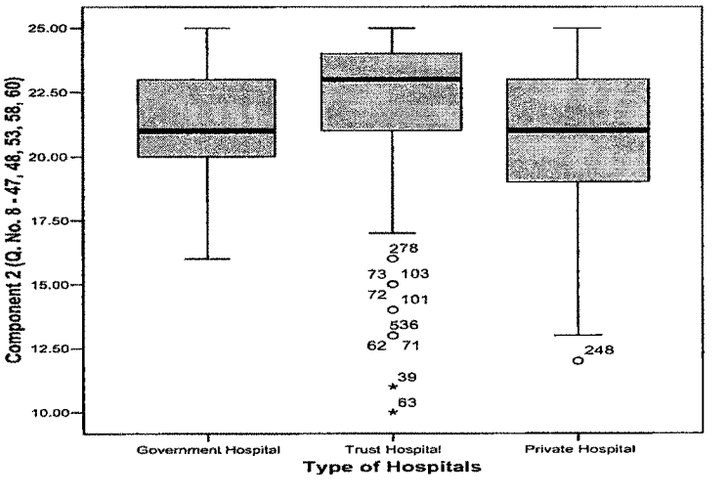


From the above box plot it becomes clear that group of criteria of component 1 (Environment) were important for trust hospitals because of large median value and lower variation compared to Government and private hospitals.

So patients prefer trust hospitals considering certain viz., Comfort in Examination and waiting Room; Natural Light or Illumination in Hospital; Sufficient Number of Dust Bins and Spittoons; No Flies and Mosquitoes in Hospital; Pleasing and Appealing Room of Hospital and Staff Neat in Appearance. The private hospitals have second highest median value for the same criteria but Government hospitals have lowest median value for these criteria.

Following Box plot explain three type of hospitals and total score of component 2 (Environment) as a criteria.

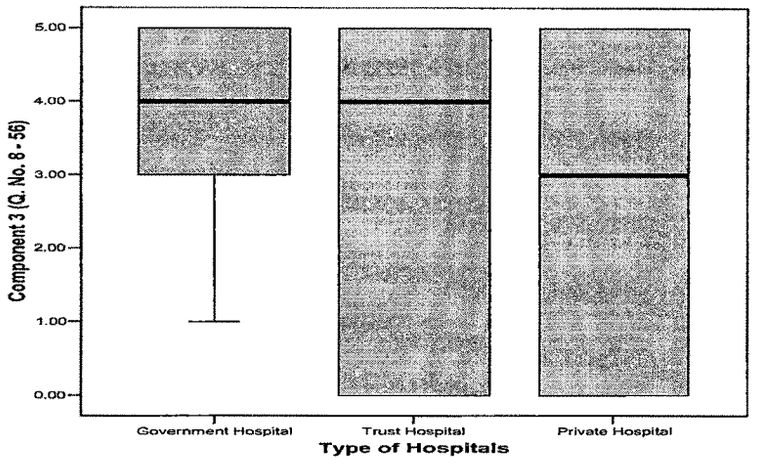
Graph Number 6.25: Hospitals-wise Box Plot for Component 2 for Tangible Facilities of the Three Type of Hospitals



From the above box plot it becomes clear that group of criteria of component 2 (Environment) were important for trust hospitals because of large median value and lower variation compared to Government and private hospitals. So patients preferred trust hospital considering certain criteria viz., Well Equipped Units; Proper Sitting and Bedding Arrangements; Adequate parking Arrangements; Inside and Out side Noise kept Minimum; and Music Facilities should be provided. The median value of private hospitals and Government hospitals were almost similar for these criteria.

Graph number 6.26 explains type of hospitals and total score of component 2 (Environment).

Graph Number 6.26: Hospitals-wise Box Plot for Component 3 for Tangible Facilities of the Three Type of Hospitals



From the above box plot it becomes clear that criteria (Good food served by hospital) of component 2 (Environment) were important for Government and trust hospitals because of large median value then private hospital. So far as variation between criteria was concerned Government hospitals have minimum variation than trust hospital because patients were getting food free of cost in Government hospitals.

The private hospital have lower median value for these criteria because people have higher expectation about quality of food from private hospital as they are paying more charges compared to Government and trust hospitals.

As the mean score of private hospitals were lower (61.33) factor analysis was made to find out reasons for the lower mean value for private hospitals.

6.6.2.1 Factor Analysis for Private Hospital for Tangible Facilities is given as below.

In case of responses of private hospitals patients for tangible facilities the results showed the value for KMO measure of sampling adequacy (0.838) and Bartlett's test of sphericity (0.00 – significant) which indicated that factor analysis was appropriate.

Table Number 6.86: Total Variance Explained for Private Hospitals for Tangible Facilities

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	5.823	38.822	38.822	5.823	38.822	38.822	4.170	27.803	27.803
02	1.427	9.514	48.336	1.427	9.514	48.336	2.269	15.128	42.931
03	1.281	8.537	56.874	1.281	8.537	56.874	2.091	13.942	56.874

Extraction Method: Principal Component Analysis.

a Only cases for which Q 2 Type of Hospitals = Private Hospital are used in the analysis phase.

From the above table it becomes clear that total 3 component can be extracted whose Eigenvalue is more than 1 and it explains 56.87 per cent variation from data.

Table Number 6.87: Communalities and Rotated Component Matrix for Selected Private Hospitals for Tangible Facilities

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component		
			1	2	3
01	Sufficient number of Doctors Remained Present	0.653	0.213	**0.752**	-0.204
02	Well Equipped Units	0.631	0.090	**0.663**	0.428
03	Proper Sitting and Bedding Arrangements	0.550	0.479	0.265	**0.500**
04	Comfort in Examination and waiting Room	0.602	**0.559**	0.315	0.435
05	Natural Light or Illumination in Hospital	0.470	**0.568**	0.330	0.195
06	Sufficient Number of Dust Bins and Spittoons	0.496	**0.664**	0.068	0.225
07	No Flies and Mosquitoes in Hospital	0.567	**0.746**	-0.066	-0.080
08	Adequate parking Arrangements	0.486	0.448	0.239	0.478
09	Clean Surroundings of Hospitals	0.636	**0.690**	0.383	0.114
10	Pleasing and Appealing Room of Hospital	0.551	**0.585**	0.267	0.372
11	Good Food Served by Hospital	0.549	0.136	0.180	-0.706
12	Staff Neat in Appearance	0.648	**0.756**	0.269	-0.062
13	Inside and Out side Noise kept Minimum	0.554	**0.729**	0.024	0.152
14	Wards Well Decorated and Ventilated	0.588	0.329	0.271	**0.637**
15	Music Facilities should be provided	0.550	0.085	**0.722**	0.145

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 6 iterations.
b Only cases for which Q 2 Type of Hospitals = Private Hospital are used in the analysis phase.

From above table it becomes clear that all the extracted communalities were acceptable and all criteria were fit for the factor solution as their extraction values were large.

The above table indicates that component 1wais highly correlated with criteria 4 (Comfort in Examination and waiting Room), criteria 5 (Natural Light or Illumination in Hospital), criteria 6 (Sufficient Number of Dust Bins and Spittoons), criteria 7 (No Flies and Mosquitoes in Hospital) criteria 9 (Clean Surroundings of Hospitals), criteria 10 (Pleasing and Appealing Room of Hospital), criteria 12 (Staff Neat in Appearance), and criteria 13 (Inside and Out side Noise kept Minimum). Component 2 was highly correlated with criteria 1 (Sufficient number of Doctors Remained Present), criteria 2 (Well Equipped Units), and criteria 15 (Music Facilities should be provided). Component 3 was highly correlated with only criteria 3 (Proper Sitting and Bedding Arrangements), and criteria 14 (Wards Well Decorated and Ventilated).

Table Number 6.88: Component wise Mean value for Selected Private Hospitals for Tangible Facilities

Sr. No.	Component	Mean Value	Selected Criteria	Selected Factors
01	01	34.3240	Comfort in Examination and waiting Room	Environment (physical facilities)
02			Natural Light or Illumination in Hospital	"
03			Sufficient Number of Dust Bins and Spittoons	"
04			No Flies and Mosquitoes in Hospital	"
05			Clean Surroundings of Hospitals	"
06			Pleasing and Appealing Room of Hospital	"
07			Staff Neat in Appearance	"
08			Inside and Out side Noise kept Minimum	"
09	02	12.8440	Sufficient Doctors Remain Present	Medical Services
10			Well Equipped Units	Environment (physical facilities)
11			Music Facilities should be provided	"
12	03	8.6980	Proper Sitting and Bedding Arrangements	"
			Wards Well Decorated and Ventilated	"

From the above table it becomes clear that component 1(Environment) have high mean value of 34.32. Components 2 have second highest mean value of 12.84. It means that component 1 (Comfort in Examination and waiting Room; Natural Light or Illumination in Hospital; Sufficient Number of Dust Bins and Spittoons; No Flies and Mosquitoes in Hospital; Clean Surroundings of Hospitals; Pleasing and Appealing Room of Hospital; Staff Neat in Appearance; Inside and Out side Noise kept Minimum) was important tangible criteria for evaluating private hospital services but, component 3 (Proper Sitting and Bedding Arrangements, Wards Well Decorated and Ventilated) have lower mean value and these factors were responsible for lower mean value of private hospital.

6.6.3 ONE WAYANNOVA FOR RELIABILITY CRITERION:

Analysis of Variance: Selected Patients' Responses for Reliability Criterion.

Hypothesis: 43

Mean of patients' responses about selected type of hospital is equal in terms of Reliability criterion of hospital and an alternative hypothesis is at least one mean is different from other.

Table Number 6.89: Descriptive Statistics for Reliability Criterion for All the Three Type of Hospitals

Type of Hospitals	N	Mean	SD	SE
GHs	200	21.3500	1.88288	0.13314
THs	200	22.7250	2.42047	0.17115
PHs	100	22.3700	2.80568	0.28057
Total	500	22.1040	2.38927	0.10685

From the above table it becomes clear that trust hospitals have highest mean value of 22.72. Private hospitals has second highest mean value of 22.37 and Government hospitals has lowest mean value of 21.35.

Test of Homogeneity of Variances:

Table Number 6.90: Test of Homogeneity of Variances for Reliability Criterion for All the Three Type of Hospitals

Levene Statistic	df1	df2	Sig.
7.456	2	497	0.001

P – Value of levene's test statistics as given in the above table found to be less then 0.05 (0.00 < 0.05) which represent that variance of type of hospitals was not equal at least variance of one type of hospitals was different from other type of hospitals.

Analysis of Variance:

Table Number 6.91: ANOVA for Reliability Criterion for All the Three Type of Hospitals

Particulars	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	197.907	2	98.953	18.554	0.000
Within Groups	2650.685	497	5.333		
Total	2848.592	499			

The P – Value (0.00 < 0.05) of ANOVA as given above table indicated that mean of type of hospitals was not equal at least mean of one type of hospitals was different from other type of hospitals.

Post Hoc test (Tamhane):

Table Number 6.92: Multiple Comparisons for Reliability Criterion for All the Three Type of Hospitals Through Tamhane Test

Type of Hospitals		Mean Difference	SE	Sig.
GHs	GHs			
	THs	-1.37500	.21684	0.000
	PHs	-1.02000	.31055	0.004
THs	GHs	1.37500	.21684	0.000
	THs			
	PHs	0.35500	.32865	0.629
PHs	GHs	1.02000	.31055	0.004
	THs	-.35500	.32865	0.629
	PHs			

Based on the test of homogeneity of variance it becomes clear that variance of all three type of hospitals was not equal that means at least one variance is different from other. The ANOVA test also indicated that mean of three types of hospitals was not equal and at least one mean was different from other. Therefore, Post – Hog test was applied assuming unequal variance, and findings suggested that Government hospitals were different from trust hospitals and private hospitals.

Trust hospitals were different from Government hospitals but, value 0.629 indicated that trust hospitals were not different than private hospitals. The private hospitals were different from Government hospitals because of significant value. The insignificant value of 0.629 indicated that private and trust hospitals makes one group and Government hospitals were making another group.

Post Hoc test (Tukey HSD):

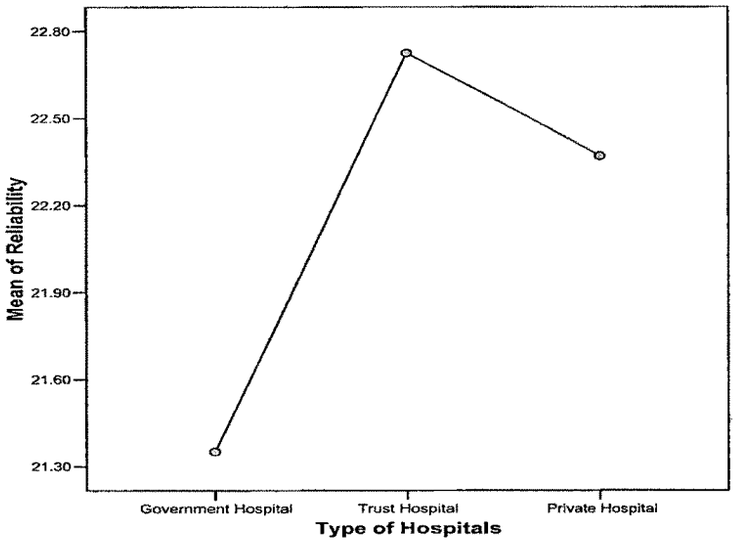
Table Number 6.93: Multiple Comparisons for Tangible Facilities for All the Three Type of Hospitals Through Tukey HSD Test

Type of Hospitals	N	Subset for alpha = .05	
		1	2
GHs	200	21.3500	
PHs	100		22.3700
THs	200		22.7250
Sig.		1.000	0.378

Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 150.000.
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

From the above table it becomes clear that private hospitals and trust hospitals makes one group and Government hospitals make another group. The same thing is graphically plotted in the following Means Plot graph.

Graph Number 6.27: Means Plots of the Three Type of Hospitals for Reliability Criterion



Above graph indicated different type of hospitals with their mean value. The trust hospital have large mean value of 22.72, second largest value of 22.37 belongs to private hospitals and Government hospitals have lowest mean value of 21.35. Based on Means plot it becomes clear that at least one mean (Government Hospitals) was different from three type of hospitals.

6.6.4 FACTOR ANALYSIS FOR RELIABILITY CRITERION:

Factor Analysis for Reliability Criterion for All the Three Type of hospital is given as below.

In case of responses of patients for reliability of the hospital services the results showed the value of KMO measure of sampling adequacy (0.678) and Bartlett's test of sphericity (0.0) which indicated that factor analysis was appropriate.

Table Number 6.94: Total Variance for Reliability Criterion for All the Three Type of Hospitals

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	2.349	46.981	46.981	2.349	46.981	46.981	1.728	34.553	34.553
02	1.001	20.017	66.998	1.001	20.017	66.998	1.622	32.445	66.998

Extraction Method: Principal Component Analysis.

From the above table it becomes clear that two components can be extracted and they extract 66.998 per cent variation from data.

Table Number 6.95: Communalities and Rotated Component Matrix for Reliability Criterion for All the Three Type of Hospitals

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component	
			1	2
01	Impartial Attitude of Doctors	0.538	**0.710**	0.183
02	Doctors' Made Good Diagnosis	0.807	0.131	**0.889**
03	Doctors' Prescribed Good Drugs	0.788	0.246	**0.853**
04	Impartial Attitude of Nurses	0.746	**0.862**	0.059
05	Nurses' Maintain Proper records of Patients	0.471	**0.635**	0.260

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 3 iterations.

All the extracted communalities given in the above table were acceptable and all criteria were fit for the factor solution as their extraction values were large.

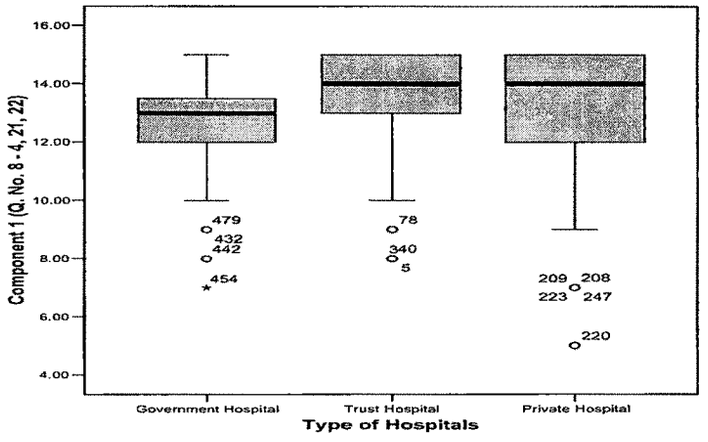
The above table indicated the correlation between Criteria and factors. Component 1 (Impartial Attitude of Doctors, Impartial Attitude of Nurses, Nurses' Maintain Proper records of Patients) was highly correlated with criteria number 1, 4, and. Component 2 (Doctors' Made Good Diagnosis, Doctors' Prescribed Good Drugs) was highly correlated with criteria 1, 2, and 12 to 15.

Table Number 6.96: Component wise Mean Value for Reliability Criterion for All the Three Type of Hospitals

Sr. No.	Component	Mean Value	Selected Criteria	Selected Factors
01	01	13.0460	Impartial Attitude of Doctors	Medical Services
02			Impartial Attitude of Nurses	Paramedical Services
03			Nurses' Maintain Proper records of Patients	Paramedical Services
04	02	9.0580	Doctors' Made Good Diagnosis	Medical Services
05			Doctors' Prescribed Good Drugs	Medical Services

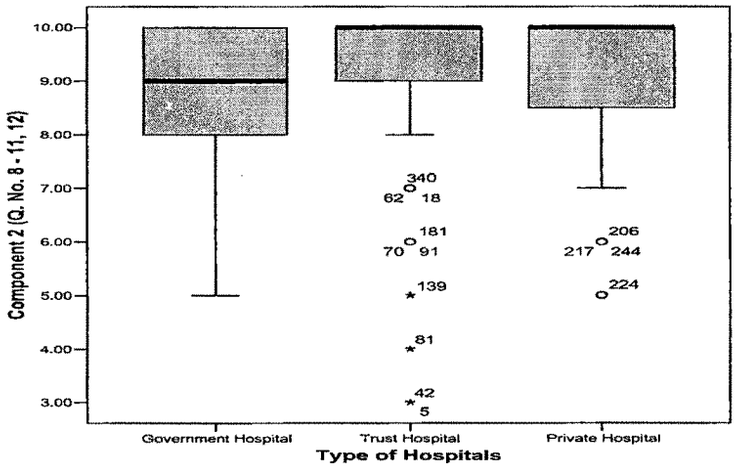
From the above table it becomes clear that component 1 (Impartial Attitude of Doctors, Impartial Attitude of Nurses, Nurses' Maintain Proper records of Patients) has highest mean value of 13.046 and it extract total 6 criteria. Component 2 (Doctors Makes Good Diagnosis, Doctors' Prescribed Good Drugs) has second highest mean value of 9.058, and has extracted two criteria.

Graph Number 6.28: Hospitals-wise Box Plot for Component 1 for Reliability Criterion of the Three Type of Hospitals



The above box plot indicated that component 1 was important for trust hospitals because of it have highest median value and lower variation compared to Government and private hospitals. The difference between mean value of trust and private hospitals was not much.

Graph Number 6.29: Hospitals-wise Box Plot for Component 2 for Reliability Criterion of the Three Type of Hospitals



From the above box plot it becomes clear that component 2 was important for trust as well as private hospitals because of both have large mean value and less outlier compared to Government hospitals. As the mean score of Government hospital was lower (21.35) factor analysis was made to find out reasons for lower mean value for private hospitals.

6.6.4.1 Factor Analysis for Government Hospitals for Reliability Criterion:

In case of responses of Government hospitals patients for reliability of the hospital services the results showed the value of KMO measure of sampling adequacy (0.533) and Bartlett's test of sphericity (0.0) indicated that factor analysis was appropriate.

Table Number 6.97: Total Variance for Selected Government Hospitals for Reliability Criterion

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	1.824	36.489	36.489	1.824	36.489	36.489	1.542	30.836	30.836
02	1.245	24.904	61.392	1.245	24.904	61.392	1.528	30.557	61.392

Extraction Method: Principal Component Analysis.
a Only cases for which Q 2 Type of Hospitals = Government Hospital are used in the analysis phase.

The above table indicated that there were 2 components extracted and it explains 66 per cent variation from data.

Table Number 6.98: Communalities and Rotated Component Matrix for Selected Government Hospital for Reliability Criterion

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component	
			1	2
01	Impartial Attitude of Doctors	0.458	0.239	**0.633**
02	Doctors' Made Good Diagnosis	0.725	**0.851**	-0.022
03	Doctors' Prescribed' Good Drugs	0.768	**0.851**	0.209
04	Impartial Attitude of Nurses	0.640	-0.138	**0.788**
05	Nurses' Maintain Proper records of Patients	0.479	0.130	**0.680**

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 3 iterations.
b Only cases for which Q 2 Type of Hospitals = Government Hospital are used in the analysis phase.

All the extracted communalities were acceptable and all criteria were fit for the factor solution as their extraction values were large.

From the above table it becomes clear that component 1 (Doctors' Made Good Diagnosis, Doctors' Prescribed Good Drugs) was highly correlated with criteria number 2, and 3. Component 2 (Impartial Attitude of Doctors, Impartial Attitude of Nurses, Nurses' Maintain Proper records of Patients) was highly correlated with criteria number 1, 4, and 5.

Table Number 6.99: Component wise Mean value for Selected Government Hospital for Reliability Criterion

Sr. No.	Component	Mean Value	Selected Criteria	Selected Factors
01	01	9.0580	Doctors' Made Good Diagnosis	Medical Services
02			Doctors' Prescribed Good Drugs	Medical Services
03	02	13.0460	Impartial Attitude of Doctors	Medical Services
04			Impartial Attitude of Nurses	Paramedical Services
05			Nurses' Maintain Proper records of Patients	Paramedical Services

From the above table it becomes clear that component 2 (Impartial Attitude of Doctors, Impartial Attitude of Nurses, Nurses' Maintain Proper records of Patients) have highest mean value of 13.046. Component 1 (Doctors Makes Good Diagnosis, Doctors' Prescribed Good Drugs) have lowest mean value of 7.78. It means Government hospitals were poor in performance in component 1 criteria. So, there was a need for Government hospitals to improve its service in terms of 'Doctors' makes Good diagnoses and 'Doctors' Prescribe Good Drugs'.

6.6.5 ONE WAYANNOVA FOR RESPONSIVENESS CRITERION:

Analysis of Variance: Selected Patients Responses for Responsiveness Criterion.

Hypothesis: 44

Mean of patients' responses about selected type of hospital is equal in terms of Responsiveness criterion of hospital and an alternative hypothesis is at least one mean is different from other.

Table Number 6.100: Descriptive Statistics for Responsiveness Criterion for All the Three Type of Hospitals

Type of Hospitals	N	Mean	SD	SE
GHs	200	50.8000	4.78797	0.33856
THs	200	57.7200	5.75825	0.40717
PHs	100	57.3300	6.61045	0.66105
Total	500	54.8740	6.49172	0.29032

From the above table it becomes clear that trust hospitals have highest mean value of 57.72. Private hospitals have second highest mean value of 57.33 and Government hospitals have lowest mean value of 50.80.

Test of Homogeneity of Variances:

Table Number 6.101: Test of Homogeneity of Variances for Responsiveness Criterion for All the Three Type of Hospitals

Levene Statistic	df1	df2	Sig.
5.701	2	497	0.004

P – Value of levene's test statistics as given in the above table was less then 0.05 ($0.004 < 0.05$) which represent that variance of type of hospitals was not equal at least variance of one type of hospitals was different from other type of hospitals.

Analysis of Variance:

Table Number 6.102: ANOVA for Responsiveness Criterion for All the Three Type of Hospitals

Particulars	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5542.632	2	2771.316	88.939	0.000
Within Groups	15486.430	497	31.160		
Total	21029.062	499			

The P – Value (0.00 < 0.05) of ANOVA as given above table indicated that mean value of type of hospitals was not equal, at least mean of one type of hospitals was different from other type of hospitals.

Post Hoc test (Tamhane):

Table Number 6.103: Multiple Comparisons for Responsiveness Criterion for All the Three Type of Hospitals Through Tamhane Test

Type of Hospitals		Mean	SE	Sig.
GHs	GHs			
	THs	-6.92000	.52954	.000
	PHs	-6.53000	.74270	.000
THs	GHs	6.92000	.52954	.000
	THs			
	PHs	.39000	.77638	.943
PHs	GHs	6.53000	.74270	.000
	THs	-.39000	.77638	.943
	PHs			

The above table indicated that mean of Government hospitals were different from trust and private hospitals, mean of trust hospitals was different than private hospitals and private hospitals mean was also different from trust hospitals. Thus, Government hospitals make one group and trust and private hospitals makes another group.

Post Hoc test (Tukey HSD):

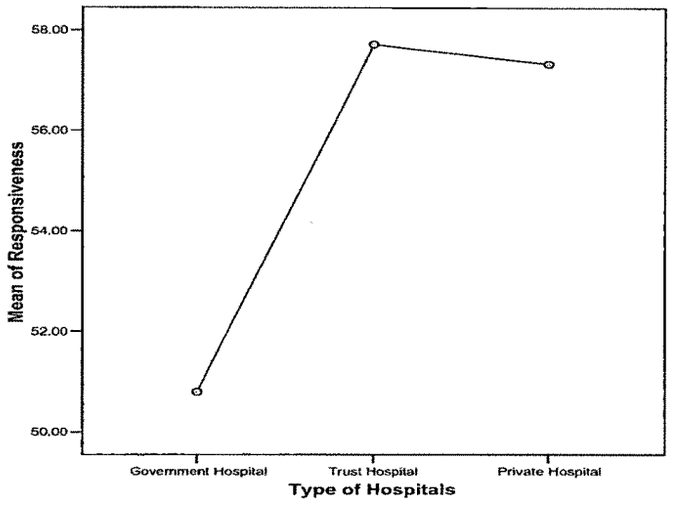
Table Number 6.104: Multiple Comparisons for Responsiveness Criterion for All the Three Type of Hospitals Through Tukey HSD Test

Type of Hospitals	N	Subset for alpha = .05	
		1	2
GHs	200	50.8000	
PHs	100		57.3300
THs	200		57.7200
Sig.		1.000	0.817

Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 150.000.
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

From the above table it becomes clear that private and trust hospitals make one group, Government hospitals make another group.

Graph Number 6.30: Means Plots of the Three Type of Hospitals for Responsiveness Criterion



Above means plot indicated that trust hospital have high mean value. Private hospitals have second highest mean value and Government hospitals have lowest mean value. Private hospitals and Trust hospitals make one group and Government hospitals make another group.

6.6.6 FACTOR ANALYSIS FOR RESPONSIVENESS CRITERION:

Factor analysis for Responsiveness Criterion for All the Three Type of Hospitals is given as below.

In case of responses of patients for responsiveness of hospital staff members, the results showed the value of KMO measure of sampling adequacy (0.856) and Bartlett's test of sphericity (0.0) which indicated that factor analysis was appropriate.

Table Number 6.105: Total Variance for Responsiveness Criterion for All the Three Type of Hospitals

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	4.645	33.182	33.182	4.645	33.182	33.182	2.888	20.626	20.626
02	1.374	9.812	42.994	1.374	9.812	42.994	2.384	17.028	37.653
03	1.199	8.567	51.560	1.199	8.567	51.560	1.758	12.560	50.214
04	1.018	7.272	58.833	1.018	7.272	58.833	1.207	8.619	58.833

Extraction Method: Principal Component Analysis.

From the above table it becomes clear that four components can be extracted and they extract 58.833 per cent variation from data.

Table Number 6.106: Communalities and Rotated Component Matrix for Responsiveness Criterion for All the Three Type of Hospitals

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component			
			1	2	3	4
01	Doctors' Cooperation to patients	0.640	0.178	-0.107	**0.621**	0.459
02	Patients' Felt Comfortable asking Questions to Doctors	0.782	0.065	0.153	0.028	**0.868**
03	Nurses' Cooperation to Patients	0.664	0.119	0.194	**0.777**	-0.087
04	Nurses Provide Prompt Service	0.605	0.124	**0.766**	0.053	-0.003
05	Nurses' and Staff Remains Present in Emergency	0.625	0.088	**0.668**	0.386	-0.151
06	Information Provided to patients for Managing Side Effects	0.442	0.178	**0.543**	0.183	0.288
07	Prompt Service Provided by Sanitation Staff	0.506	0.057	0.417	**0.568**	0.078
08	Less Waiting Time For Consultation and Treatment	0.519	**0.707**	0.125	0.054	0.027
09	Less Waiting Time for Test	0.517	**0.660**	0.129	0.255	-0.015
10	Speed, Ease of Admission and Discharge form Hospital	0.578	**0.612**	0.053	0.429	0.129
11	Convenient Office Hours	0.552	**0.732**	0.125	0.030	0.003
12	Adm. Staff Gives Prompt Services	0.605	0.489	**0.574**	0.073	0.177
13	No Overcrowding in Hospital	0.532	**0.678**	0.230	0.004	0.141
14	Good Grievance handling System	0.668	0.486	**0.614**	-0.038	0.232

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 9 iterations.

All the extracted communalities given in the above table were acceptable and all criteria were fit for the factor solution as their extraction values were large.

The above table indicated the correlation between criteria and factor. Component 1 (Less Waiting Time For Consultation and Treatment, Less Waiting Time for Test, Speed, Ease of Admission and Discharge form Hospital, Convenient Office Hours, No Overcrowding in Hospital) was highly correlated with criteria number 8 to 11, and 13. Component 2 (Nurses' Provided Prompt Service, Nurses' and Staff Remained Present in Emergency, Information Provided to patients for Managing Side Effects, Adm. Staff Gives Prompt Services, Good Grievance handling System) was highly correlated with criteria number 4, 5, 6, 12 and 14. Component 3 (Doctors' Cooperation to patients, Nurses' Cooperation to Patients, Prompt Service Provided by Sanitation Staff) was highly correlated with criteria number 1, 3, and 7, and component 4 (Patients' Felt Comfortable asking Questions to Doctors) was highly correlated with criteria number 2.

Table Number 6.107: Component wise Mean Value for Responsiveness Criterion for All the Three Type of Hospitals

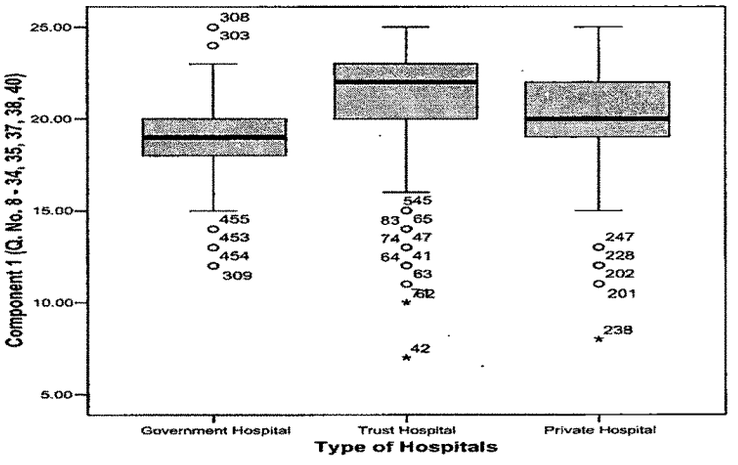
Sr. No.	Component	Mean Value	Selected Criteria	Selected Factors
01	01	19.9040	Less Waiting Time For Consultation and Treatment	Administration
02			Less Waiting Time for Test	Administration
03			Speed, Ease of Admission and Discharge form Hospital	Administration
04			Convenient Office Hours	Administration
05			No Overcrowding in Hospital	Administration
06	02	17.9060	Nurses' Provide Prompt Service	Paramedical
07			Nurses' and Staff Remains Present in Emergency	Paramedical
08			Information Provided to patients for Managing Side Effects	Paramedical
09			Adm. Staff Gives Prompt Services	Administration
10			Good Grievance handling System	Administration
11	003	12.8000	Doctors' Cooperation to patients	Medical
12			Nurses Cooperation to Patients	Paramedical
13			Prompt Service Provided by Sanitation Staff	Paramedical
14	4	4.2640	Felt Comfortable asking Questions to Doctors	Medical

From the above table it becomes clear that component 1 (Less Waiting Time For Consultation and Treatment; Less Waiting Time for Test; Speed, Ease of Admission and Discharge form Hospital; Convenient Office Hours; No Overcrowding in Hospital) has highest mean value of 19.9040 and it extracts total 5 criteria. Component 2 (Nurses Provide Prompt Service, Nurses' and Staff Remains Present in Emergency; Information Provided to patients for Managing Side Effects; Adm. Staff Gives Prompt Services, Good Grievance handling System) has second highest mean value of 17.9060. Component 3 (Doctors' Cooperation to patients; Nurses' Cooperation to Patients; Prompt Service Provided by Sanitation Staff) has mean value of 12.8000, and component 4 (Patients' Felt Comfortable asking Questions to Doctors) has lowest mean value it is 4.2640.

Importance of Components for Selected Type of Hospitals:

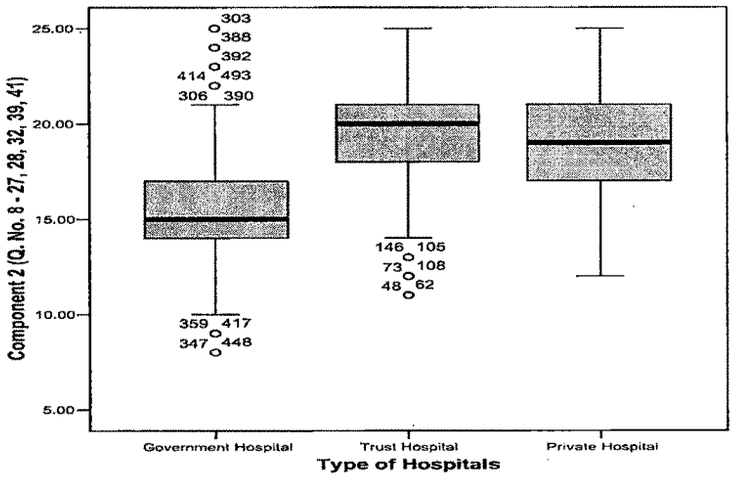
The importance of each component to different type of hospitals can be understood with the help of below given box plots. The following box plot explains three type of hospitals total score of component 1 criteria.

Graph Number 6.31: Hospitals-wise Box Plot for Component 1 for Responsiveness Criterion of the Three Type of Hospitals



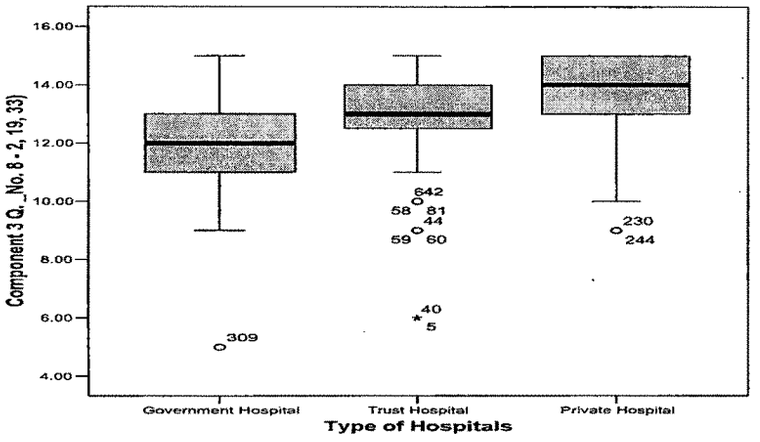
The above box plot indicated that component 1 was important for trust hospitals because of second highest median value and lower variation.

Graph Number 6.32: Hospitals-wise Box Plot for Component 2 for Responsiveness Criterion of the Three Type of Hospitals



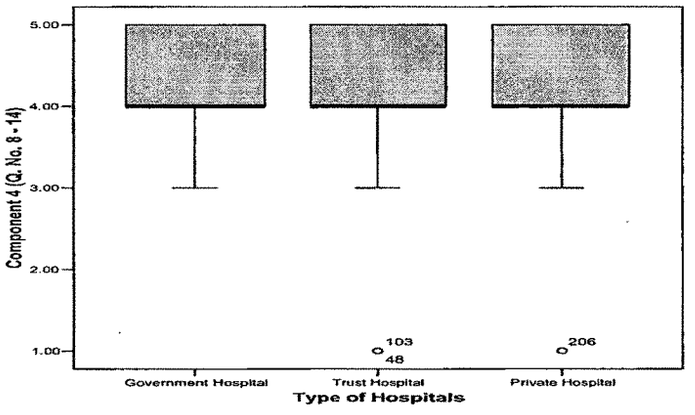
From the above box plot it becomes clear that component 2 was important for trust hospitals because of large median value and less outlier.

Graph Number 6.33: Hospitals-wise Box Plot for Component 3 for Responsiveness Criterion of the Three Type of Hospitals



The above box plot indicated that component 3 was important for private hospital because of large median value and very low variation.

Graph Number 6.34: Hospitals-wise Box Plot for Component 4 for Responsiveness Criterion of the Three Type of Hospitals



From the above box plot it becomes clear that component 4 was equally important for all three type of hospitals because all have almost similar median value.

As the mean score of Government hospitals was lower (50.80) factor analysis was made to find out the reasons foe lower mean value for private hospitals.

6.6.6.1 Factor Analysis for Selected Government Hospitals for Responsiveness Criterion.

In case of responses of Government hospitals patients for responsiveness of hospital staff members the results showed the value of KMO measure of sampling adequacy (0.705) and Bartlett's test of sphericity (0.0) which indicated that factor analysis was appropriate.

Table Number 6.108: Total Variance for Government Hospitals for Responsiveness Criterion

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	3.151	22.510	22.510	3.151	22.510	22.510	2.229	15.919	15.919
02	1.701	12.151	34.661	1.701	12.151	34.661	2.020	14.431	30.350
03	1.363	9.734	44.395	1.363	9.734	44.395	1.554	11.098	41.448
04	1.231	8.795	53.190	1.231	8.795	53.190	1.391	9.934	51.382
05	1.015	7.249	60.439	1.015	7.249	60.439	1.268	9.057	60.439

Extraction Method: Principal Component Analysis.
a Only cases for which Q 2 Type of Hospitals = Government Hospital are used in the analysis phase.

The above table indicated that there were 5 components extracted and it explains 60.439 per cent variation from data.

Table Number 6.109: Communalities and Rotated Component Matrix for Government Hospitals for Responsiveness Criterion

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component				
			1	2	3	4	5
01	Doctors' Cooperation to patients	0.693	0.076	0.054	0.471	-0.062	**0.678**
02	Patients' Felt Comfortable asking Questions to Doctors	0.671	-0.025	0.131	-0.345	0.109	**0.723**
03	Nurses' Cooperation to Patients	0.506	-0.036	0.222	**0.624**	0.257	-0.018
04	Nurses' Provided Prompt Service	0.485	**0.669**	0.064	0.035	0.172	0.039
05	Nurses' and Staff Remains Present in Emergency	0.675	**0.693**	0.095	0.180	-0.293	-0.260
06	Information Provided to patients for Managing Side Effects	0.598	**0.747**	0.027	0.039	0.070	0.182
07	Prompt Service Provided by Sanitation Staff	0.485	0.050	-0.033	**0.693**	-0.025	-0.033
08	Less Waiting Time For Consultation and Treatment	0.525	0.212	**0.649**	0.072	0.049	0.226
09	Less Waiting Time for Test	0.678	-0.091	**0.775**	0.168	0.114	0.164
10	Speed, Ease of Admission and Discharge form Hospital	0.508	0.218	**0.524**	0.427	-0.019	0.052
11	Convenient Office Hours	0.714	0.133	**0.755**	-0.185	0.089	-0.291
12	Adm. Staff Gives Prompt Services	0.571	**0.611**	0.202	-0.088	0.379	-0.075
13	No Overcrowding in Hospital	0.692	0.060	0.056	0.202	**0.798**	0.091
14	Good Grievance handling System	0.661	0.487	0.160	-0.098	**0.620**	-0.062

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 7 iterations.
b Only cases for which Q 2 Type of Hospitals = Government Hospital are used in the analysis phase.

All the extracted communalities were acceptable and all criteria were fit for the factor solution as their extraction values were large.

From the above table it becomes clear that component 1 (Nurses' Provided Prompt Service, Nurses' and Staff Remained Present in Emergency, Information Provided to patients for Managing Side Effects, Adm. Staff Gives Prompt Services) was highly correlated with criteria number 4, 5, 6, and 12.

Component 2 (Less Waiting Time For Consultation and Treatment, Less Waiting Time for Test, Speed, Ease of Admission and Discharge form Hospital, Convenient Office Hours) was highly correlated with criteria number 8 to 11. Component 3 (Nurses' Cooperation to Patients, Prompt Service Provided by Sanitation Staff) is highly correlated with criteria number 3, and 7. Component 4 (No Overcrowding in Hospital, Good Grievance handling System) was highly correlated with criteria number 13 and 14. Component 5 (Doctors Cooperation to patients, Felt Comfortable asking Questions to Doctors) was highly correlated with criteria number 1 and 2.

Table Number 6.110: Component-wise Mean value for Selected Government Hospitals for Responsiveness Criterion

Sr. No.	Component	Mean Value	Selected Criteria	Selected Factors
01	1	14.4940	Nurses' Provide Prompt Service	Paramedical
02			Nurses' and Staff Remains Present in Emergency	Paramedical
03			Information Provided to patients for Managing Side Effects	Paramedical
04			Adm. Staff Gives Prompt Services	Administration
05	2	15.9420	Less Waiting Time For Consultation and Treatment	Administration
06			Less Waiting Time for Test	Administration
07			Speed, Ease of Admission and Discharge form Hospital	Administration
08			Convenient Office Hours	Administration
09	3	8.2640	Nurses' Cooperation to Patients	Paramedical
10			Prompt Service Provided by Sanitation Staff	Paramedical;
11	4	7.3740	No Overcrowding in Hospital	Administration
12			Good Grievance handling System	Administration
13	5	8.8000	Doctors' Cooperation to patients	Medical
14			Patients' Felt Comfortable asking Questions to Doctors	Medical

From the above table it becomes clear that component 2 (Less Waiting Time For Consultation and Treatment, Less Waiting Time for Test, Speed, Ease of Admission and Discharge form Hospital, Convenient Office Hours) have highest mean value of 15.9420. Component 4 (No Overcrowding in Hospital, Good Grievance handling System) have lowest mean value of 7.3740. Component 3 (Nurses' Cooperation to Patients, Prompt Service Provided by Sanitation Staff) have mean value of 8.2640 and component 5 have (Doctors' Cooperation to patients, Patients' Felt Comfortable asking Questions to Doctors) have mean value of 8.800 and both the mean value can also be considered as low. It means Government hospitals are weak in component number 3, 4, and 5. So, there was a need for Government hospitals to improve its service by of ensuring that there should be no overcrowding in the hospital; the grievance and complaints of the patients should be handled properly; better cooperation and prompt services from nursing staff cooperation from doctors to patients; and environment in which patients feel comfortable to ask questions to doctors.

6.6.7 ONE WAYANNOVA FOR ASSURANCE CRITERION:

Analysis of variance: Selected Patients' Responses for Assurance Criterion.

Hypothesis: 45

Mean of patients' responses about selected type of hospital is equal in terms of Assurance criterion of hospitals and an alternative hypothesis is at least one mean is different from other.

Table Number 6.111: Descriptive Statistics for Assurance Criterion for All the Three Type of Hospitals

Type of Hospitals	N	Mean	SD	SE
GHs	200	28.7850	2.01721	0.14264
THs	200	30.4350	3.30612	0.23378
PHs	100	30.5500	3.10221	0.31022
Total	500	29.7980	2.92888	0.13098

From the above table it becomes clear that private hospital having highest mean value of 30.55. trust hospital has second highest mean value of 30.43 and Government hospitals has lowest mean value of 28.78.

Test of Homogeneity of Variances:

Table Number 6.112: Test of Homogeneity of Variances for Assurance Criterion for All the Three Type of Hospitals

Levene Statistic	df1	df2	Sig.
19.708	2	497	0.000

P – Value of levene's test statistics as given in the above table was found to be less then 0.05 (0.00 < 0.05) which wais different from other type of hospitals.

Analysis of Variance:

Table Number 6.113: ANOVA for Assurance Criterion for All the Three Type of Hospitals

Particulars	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	342.938	2	171.469	21.642	0.000
Within Groups	3937.660	497	7.923		
Total	4280.598	499			

The P – Value (0.00 < 0.05) of ANOVA as given above table indicated that mean of type of hospitals was not equal at least mean of one type of hospitals was different from other type of hospitals.

Post Hoc test (Tamhane):

Table Number 6.114: Multiple Comparisons for Assurance Criterion for All the Three Type of Hospitals Through Tamhane Test

Type of Hospitals		Mean Difference	SE	Sig.
GHs	GHs			
	THs	-1.65000	.27386	0.000
	PHs	-1.76500	.34144	0.000
THs	GHs	1.65000	.27386	0.000
	THs	-.11500	.38844	0.987
	PHs			
PHs	GHs	1.76500	.34144	0.000
	THs	.11500	.38844	0.987
	PHs			

From the above table it becomes clear that Government hospitals were different from trust and private hospitals. Trust hospitals were different from Government hospitals but insignificant value (0.987) indicated that trust hospitals were not different than private hospitals. Similarly, private hospitals were different from Government hospitals but do not different than trust hospitals.

Post Hoc test (Tukey HSD):

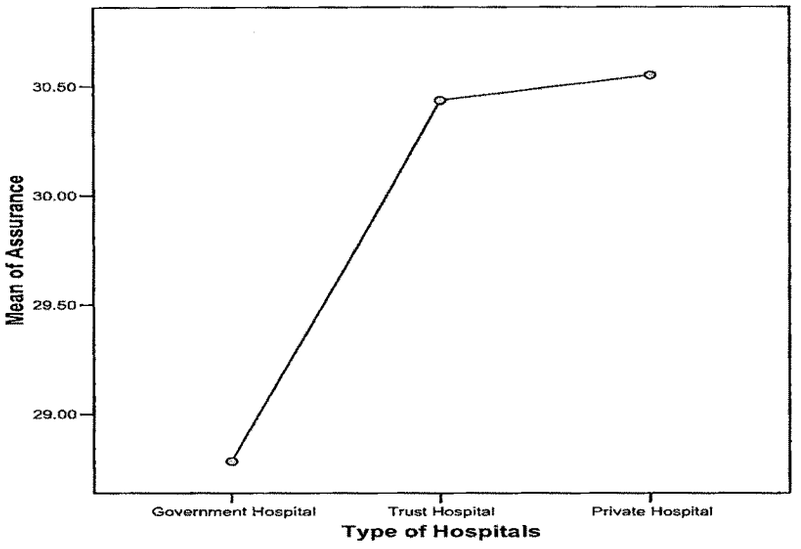
Table Number 6.115: Multiple Comparisons for Assurance Criterion for All the Three Type of Hospitals Through Tukey HSD Test

Type of Hospitals	N	Subset for alpha = .05	
		1	2
GHs	200	28.7850	
THs	200		30.4350
PHs	100		30.5500
Sig.		1.000	.933

Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 150.000.
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

From the above table it becomes clear that private hospitals and trust hospitals makes one group, Government hospitals make another group.

Graph Number 6.35: Means Plots of All the Three Type of Hospitals for Assurance Criterion



Above means plot indicated that private hospitals have high mean value. Trust hospital have second highest mean value and Government hospitals have lowest mean value and each make different group.

6.6.8 FACTOR ANALYSIS FOR ASSURANCE CRITERION:

Factor analysis for Assurance Criteria for All the Three Type Of Hospitals is given as below.

In case of responses of patients' for assurance of hospital services the results showed the value of KMO measure of sampling adequacy (0.746) and Bartlett's test of sphericity (0.0) which indicated that factor analysis was appropriate.

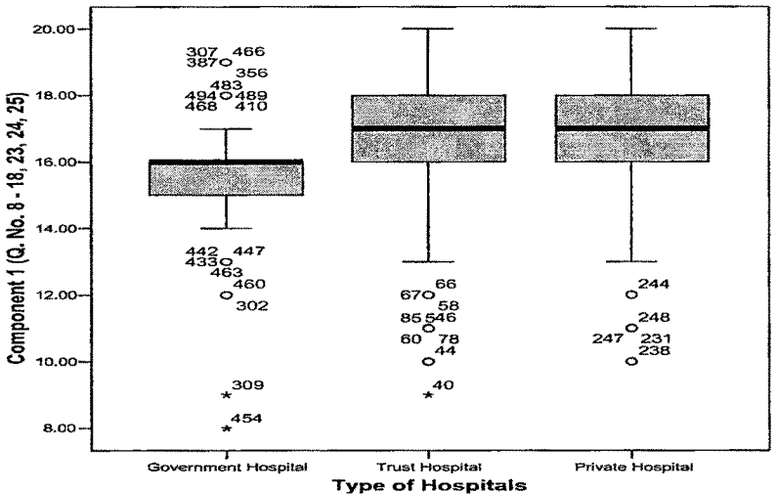
Table Number 6.116: Total Variance for Assurance Criterion for All the Three Type of Hospitals

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	2.623	37.466	37.466	2.623	37.466	37.466	2.101	30.007	30.007
02	1.348	19.253	56.720	1.348	19.253	56.720	1.870	26.712	56.720

Extraction Method: Principal Component Analysis.

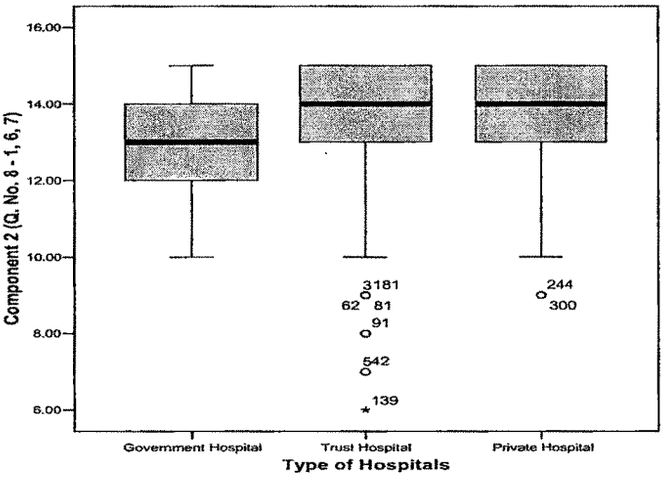
From the above table it becomes clear that two components can be extracted and they extract 56.720 per cent variation from data.

Graph Number 6.36: Hospitals-wise Box Plot for Component 1 for Assurance Criterion of the Three Type of Hospitals



The above box plot indicated that component 1 was important for private and trust hospitals because it has highest median value and lower variation.

Graph Number 6.37: Hospitals-wise Box Plot for Component 2 for Assurance Criterion of the Three Type of Hospitals



From the above box plot it becomes clear that component 2 was important for trust and private hospitals because it has large mean value and less outlier.

As the mean score of Government hospitals was found to be lower (28.78) factor analysis was made to find out the reasons for lower mean value of Government hospitals.

6.6.8.1 Factor Analysis for Government Hospitals for Assurance Criterion is given below.

In case of responses of Government hospitals patients' for assurance of hospital services, the results showed the value of KMO measure of sampling adequacy (0.512) and Bartlett's test of sphericity (0.0) indicated that factor analysis was appropriate.

Table Number 6.119: Total Variance for Government Hospitals for Assurance Criterion

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	1.596	22.806	22.806	1.596	22.806	22.806	1.490	21.290	21.290
02	1.352	19.316	42.122	1.352	19.316	42.122	1.261	18.019	39.309
03	1.105	15.790	57.912	1.105	15.790	57.912	1.198	17.115	56.425
04	1.001	14.299	72.211	1.001	14.299	72.211	1.105	15.786	72.211

Extraction Method: Principal Component Analysis.
a Only cases for which Q 2 Type of Hospitals = Government Hospital are used in the analysis phase.

The above table indicated that there were 4 components extracted and it explains 72 per cent variation from data.

Table Number 6.120: Communalities and Rotated Component Matrix for Selected Government Hospitals for Assurance Criterion

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component			
			1	2	3	4
01	Doctors' Knowledge and Efficiency	0.786	0.228	-0.092	-0.043	**0.851**
02	Doctors' Experience in Curing Patients	0.684	**0.801**	0.046	-0.084	0.181
03	Thorough Checkup by Doctors	0.706	**0.833**	0.069	0.076	-0.034
04	Nurses' Knowledge and Efficiency	0.643	0.055	0.423	**0.670**	-0.112
05	Nurses' Handled Patients Quarry Properly	0.697	-0.269	0.514	0.198	**0.567**
06	Nurses' Experience in Curing Patients	0.780	-0.045	-0.279	**0.829**	0.112
07	Good Experience of Those who Perform Test on Patients	0.758	0.158	**0.852**	-0.087	-0.024

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 7 iterations.
b Only cases for which Q 2 Type of Hospitals = Government Hospital are used in the analysis phase.

All the extracted communalities were acceptable and all criteria were fit for the factor solution as their extraction values were large.

From the above table it becomes clear that component 1 (Doctors' Experience in Curing Patients, Thorough Checkup by Doctors) was highly correlated with criteria number 2 and 3. Component 2 (Good Experience of Those who Perform Test on Patients) was highly correlated with criteria number 7. Component 3 (Nurses' Knowledge and Efficiency, Nurses' Experience in Curing Patients) was highly correlated with criteria number 4, and 6. Component 4 (Doctors' Knowledge and Efficiency, Nurses' Handled Patients Quarry Properly) was highly correlated with criteria number 1 and 5.

Table Number 6.121: Component wise Mean value for Selected Government Hospitals for Assurance Criterion

Sr. No.	Component	Mean Value	Selected Criteria	Factors
01	1	8.8860	Doctors' Experience in Curing Patients	Medical
02			Thorough Checkup by Doctors	Medical
03	2	4.1940	Good Experience of Those who Perform Test on Patients	Paramedical
04	3	8.1680	Nurses' Knowledge and Efficiency	Paramedical
05			Nurses' Experience in Curing Patients	Paramedical
06	4	8.5500	Doctor' Knowledge and Efficiency	Medical
07			Nurses' Handled Patients Quarry Properly	Paramedical

From the above table it becomes clear that component 1 (Doctors' Experience in Curing Patients, Thorough Checkup by Doctors) have highest mean value of 8.8860. Component 2 (Good Experience of Those who Perform Test on Patients) have lowest mean value of 4.1940. It means Government hospitals were found to be weak in component 2. So, Government hospitals need to improve its service in terms of providing better service by staff who perform various test on patients.

6.6.9 ONE WAYANNOVA FOR EMPATHY CRITERION:

Analysis of variance: Selected Patients' Responses for Empathy Criterion:

Hypothesis: 46

Mean of patients' responses about selected type of hospital is equal in terms of Empathy criteria of hospitals and an alternative hypothesis is at least one mean is different from other.

Table Number 6.122: Descriptive Statistics for Empathy Criterion for All the Three Type of Hospitals

Type of Hospitals	N	Mean	SD	SE
GHs	200	40.0400	3.55409	0.25131
THs	200	43.3350	3.99909	0.28278
PHs	100	43.2700	5.17542	0.51754
Total	500	42.0040	4.39393	0.19650

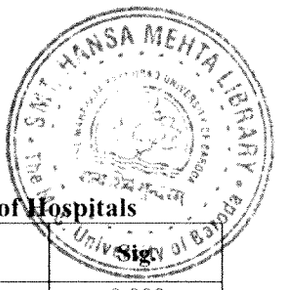
From the above table it becomes clear that trust hospitals have highest mean value of 33.3350. Private hospitals have second highest mean value of 43.27 and Government hospitals have lowest mean value of 40.04.

Test of Homogeneity of Variances:

Table Number 6.123: Test of Homogeneity of Variances for Empathy Criterion for All the Three Type of Hospitals

Levene Statistic	df1	df2	Sig.
5.451	2	497	0.005

P – Value of levene's test statistics as given in the above table was less then 0.05 (0.00 < 0.05) which indicate that variance of type of hospitals was not equal, at least variance of one type of hospitals was different from other type of hospitals.



Analysis of Variance:

Table Number 6.124: ANOVA for Empathy Criterion for All the Three Type of Hospitals

Selected Criteria	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1286.047	2	643.024	38.283	0.000
Within Groups	8347.945	497	16.797		
Total	9633.992	499			

The P – Value (0.00 < 0.05) of ANOVA as given in above table indicated that mean of type of hospitals was not equal, at least mean of one type of hospitals is different from other type of hospitals.

Post Hoc test (Tamhane):

Table Number 6.125: Multiple Comparisons for Empathy Criterion for All the Three Type of Hospitals Through Tamhane Test

Type of Hospitals		Mean Difference	SE	Sig.
GHs	GHs			
	THs	-3.29500	.37831	0.000
	PHs	-3.23000	.57533	0.000
THs	GHs	3.29500	.37831	0.000
	THs			
	PHs	.06500	.58976	0.999
PHs	GHs	3.23000	.57533	0.000
	THs	-.06500	.58976	0.999
	PHs			

From the above table it becomes clear that Government hospitals were different from trust and private hospitals. Trust hospitals were different from Government hospitals but the insignificant value (0.999) indicated that trust hospitals were not different than private hospitals. Similarly private hospitals were different from Government hospitals but do not different than trust hospitals.

Post Hoc test (Tukey HSD):

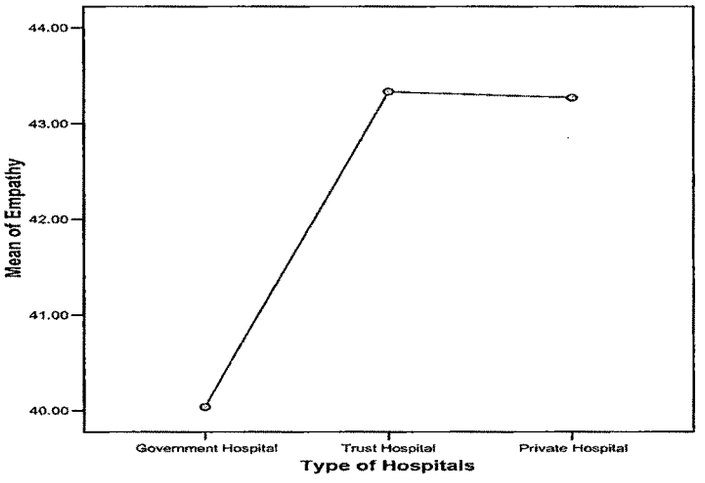
Table Number 6.126: Multiple Comparisons for Empathy Criterion for All the Three Type of Hospitals Through Tukey HSD Test

Type of Hospitals	N	Subset for alpha = .05	
		1	2
GHs	200	40.0400	
PHs	100		43.2700
THs	200		43.3350
Sig.		1.000	.990

Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 150.000.
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

From the above table it becomes clear that private hospitals and trust hospitals makes one group, and Government hospitals make another group.

Graph Number 6.38: Means Plots of Type of Hospitals for Empathy Criterion for All the Three Type of Hospitals



Above means plot indicated that trust hospitals having high mean value. Private hospitals have second highest mean value and Government hospitals have lowest mean value, and private and Trust hospitals makes one group and Government hospitals makes different group.

6.6.10 FACTOR ANALYSIS FOR EMPATHY CRITERION:

Factor Analysis for Empathy Criterion for All the Three Type of Selected Hospitals is given as below.

In case of responses of patients' for empathy experienced by them from hospital staff and the results showed the value of KMO measure of sampling adequacy (0.796) and Bartlett's test of sphericity (0.0) which indicated that factor analysis was appropriate.

Table Number 6.127: Total Variance Explained for Empathy Criterion for All the Three Type of Hospitals

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	3.499	34.985	34.985	3.499	34.985	34.985	2.194	21.939	21.939
02	1.420	14.199	49.184	1.420	14.199	49.184	1.953	19.529	41.469
03	1.114	11.137	60.322	1.114	11.137	60.322	1.885	18.853	60.322

Extraction Method: Principal Component Analysis.

From the above table it becomes clear that four components can be extracted and they extract 60.322 per cent variation from data.

Table Number 6.128: Communalities and Rotated Component Matrix for Empathy Criterion for All the Three Type of Hospitals

Sr. No.	Selected Criterion	Communalities Extraction	Rotated Component		
			1	2	3
01	Doctors' were polite with patients	0.663	0.141	0.104	**0.795**
02	Patients' Felt Comfortable During Doctors Examination	0.572	0.054	0.398	**0.641**
03	Doctors' Work According to Patients Expectations	0.717	0.066	**0.843**	-0.037
04	Doctors' Gave Individual Consideration and Confidentiality	0.741	0.099	**0.834**	0.188
05	Doctors' Showed Respect and Support patients	0.550	0.313	**0.563**	0.368
06	Doctors' Honesty in Dealing with patients	0.510	0.187	0.028	**0.689**
07	Nurses' Showed Politeness with Patients	0.352	0.453	-0.051	0.379
08	Simple Checking Procedure	0.634	**0.772**	0.131	0.147
09	Good Concern for Patient Family and Visitor	0.625	**0.769**	0.083	0.163
10	Simple Billing Procedures	0.667	**0.794**	0.182	0.051

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 5 iterations.

All the extracted communalities given in the above table were acceptable and all Criterion were fit for the factor solution as their extraction values were large.

The above table indicated the correlation between Criterion and factors. Component 1 (Simple Checking Procedure, Good Concern for Patient Family and Visitor, Simple Billing Procedures) was highly correlated with Criterion number 8, 9, and 10. Component 2 (Doctors' Work According to Patients Expectations, Doctors' Gave Individual Consideration and Confidentiality, Doctors' Showed Respect and Support patients) was highly correlated with Criterion number 3 to 5. Component 3 (Doctors' were polite with patients, Patients' Felt Comfortable during Doctors' Examination, Doctors' Honesty in Dealing with patients) was highly correlated with Criterion 1, 2, and 6.

Table Number 6.129: Component wise Mean Value for Empathy Criterion for All the Three Type of Hospitals

Sr. No.	Component	Mean Value	Selected Criteria	Selected Factors
01	01	12.3540	Simple Checking Procedure	Administration
02			Good Concern for Patient Family and Visitor	Administration
03			Simple Billing Procedures	Administration
04	02	11.8160	Doctors' Work According to Patients Expectations	Medical
05			Doctors' Gave Individual Consideration and Confidentiality	Medical
06			Doctors' Showed Respect and Support patients	Medical
07	03	13.5000	Doctors' were polite with patients	Medical
08			Patients' Felt Comfortable During Doctors Examination	Medical
09			Doctors' Honesty in Dealing with patients	Medical

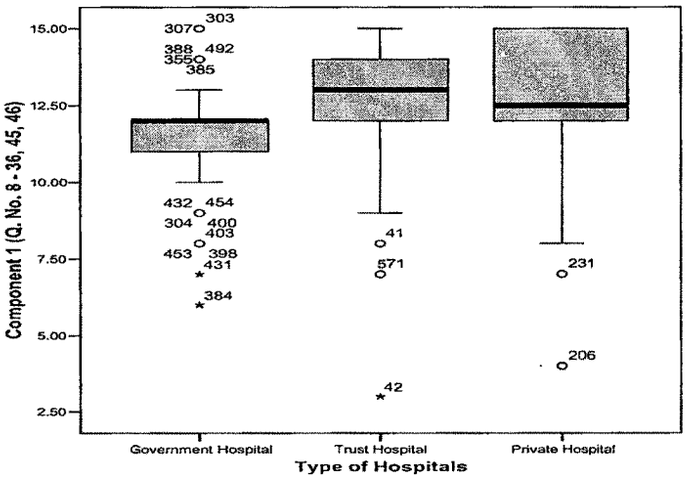
From the above table it becomes clear that component 3 (Doctors' were polite with patients, Patients' Felt Comfortable during Doctors' Examination, Doctors' Honesty in Dealing with patients) has highest mean value of 13.50 and it extracted total 3 Criterion.

Component 1 (Simple Checking Procedure, Good Concern for Patient Family and Visitor, Simple Billing Procedures) has second highest mean value of 12.35. Component 2 (Doctors' Work According to Patients' Expectations, Doctors' Gave Individual Consideration and Confidentiality, Doctors' Showed Respect and Support patients) has lowest mean value of 11.82.

Importance of Components for Selected Type of Hospitals:

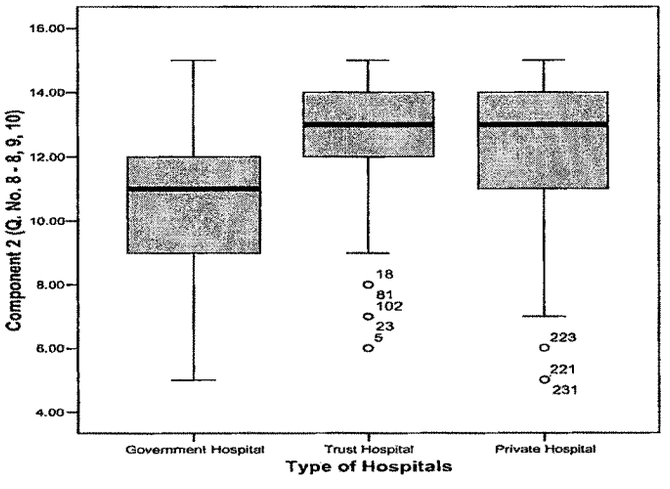
The importance of each component to different type of hospitals can be understood with the help of below given box plots. The following box plot explains the type of hospitals total score of component 1 (Administration).

Graph Number 6.39: Hospitals-wise Box Plot for Component 1 for Empathy Criterion of the Three Type of Hospitals



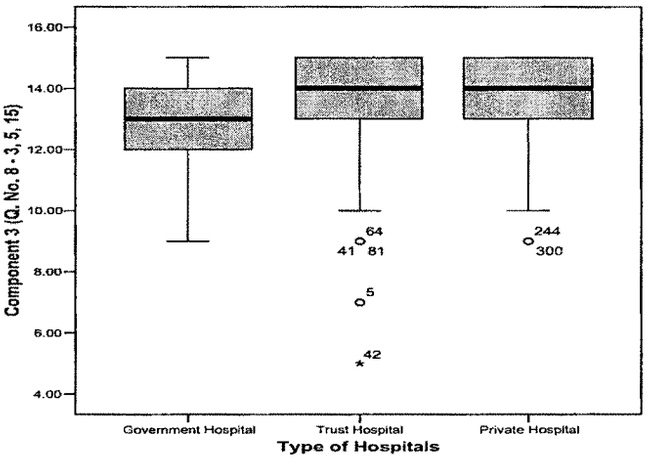
The above box plot indicated that component 1 was important for trust hospitals because of highest median value and lower variation.

Graph Number 6.40: Hospitals-wise Box Plot for Component 2 for Empathy Criterion of the Three Type of Hospitals



From the above box plot it becomes clear that component 2 was important for trust hospitals because of large mean value and less outlier.

Graph Number 6.41: Hospitals-wise Box Plot for Component 3 for Empathy Criterion of the Three Type of Hospitals



The above box plot indicated that component 3 was important for private hospital because of large median value and low variation and less outlier than trust hospitals.

As the mean score of Government hospitals was lower (40.04), the factor analysis was applied to find out the reasons for lower mean value for Government hospitals.

6.6.10.1 Factor Analysis for Selected Government Hospitals for Empathy Criterion is given as below.

In case of responses of Government hospitals patients' for empathy experienced by them from hospital staff the results showed the value of KMO measure of sampling adequacy (0.699) and Bartlett's test of sphericity (0.0) which indicated that factor analysis was appropriate.

Table Number 6.130: Total Variance for Selected Government Hospitals for Empathy Criterion

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	2.667	26.671	26.671	2.667	26.671	26.671	2.179	21.788	21.788
02	1.651	16.514	43.185	1.651	16.514	43.185	1.779	17.790	39.578
03	1.241	12.410	55.595	1.241	12.410	55.595	1.602	16.017	55.595

Extraction Method: Principal Component Analysis.

a Only cases for which Q 2 Type of Hospitals = Government Hospital are used in the analysis phase.

The above table indicated that there were 3 components extracted and it explains 55.59 per cent variation from data.

Table Number 6.131: Communalities and Rotated Component Matrix for Selected Government Hospitals for Empathy Criterion

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component		
			1	2	3
01	Doctors' were polite with patients	0.588	0.181	**0.732**	-0.139
02	Patients' Felt Comfortable During Doctors Examination	0.484	**0.586**	0.365	-0.084
03	Doctors' Work According to Patients Expectations	0.604	**0.761**	-0.155	-0.036
04	Doctors' Gave Individual Consideration and Confidentiality	0.723	**0.839**	0.110	0.080
05	Doctors' Showed Respect and Support patients	0.516	**0.647**	0.248	0.187
06	Doctors' Honesty in Dealing with patients	0.423	0.247	**0.602**	-0.018
07	Nurses' Showed Politeness with Patients	0.443	-0.082	**0.608**	0.258
08	Simple Checking Procedure	0.590	-0.051	0.530	**0.554**
09	Good Concern for Patient Family and Visitor	0.562	-0.026	0.001	**0.749**
10	Simple Billing Procedures	0.628	0.174	-0.016	**0.773**

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 5 iterations.
b Only cases for which Q 2 Type of Hospitals = Government Hospital are used in the analysis phase.

All the extracted communalities were acceptable and all Criterion were fit for the factor solution as their extraction values were large.

From the above table it becomes clear that component 1 (Patients' Felt Comfortable during Doctors' Examination, Doctors' Work according to Patients' Expectations, Doctors' Gave Individual Consideration and Confidentiality, Doctors' Showed Respect and Support patients) was highly correlated with Criterion number 2 to 5. Component 2 (Doctors' were polite with patients, Doctors' Honesty in Dealing with patients, Nurses' Showed Politeness with Patients) was highly correlated with Criterion number 1, 6, and 7. Component 3 (Simple Checking Procedure, Good Concern for Patients' Family and Visitor, Simple Billing Procedures) was highly correlated with Criterion number 8, 9, and 10.

Table Number 6.132: Component wise Mean value for Selected Government Hospitals for Empathy Criterion

Sr. No.	Component	Mean Value	Selected Criteria	Selected Factors
01	01	16.1620	Patients' Felt Comfortable During Doctors Examination	Medical
02			Doctors' Work According to Patients Expectations	Medical
03			Doctors' Gave Individual Consideration and Confidentiality	Medical
04			Doctors' Showed Respect and Support patients	Medical
05	02	13.4880	Doctors' were polite with patients	Medical
06			Doctors' Honesty in Dealing with patients	Medical
07			Nurses' Showed Politeness with Patients	Paramedical
08	03	12.3540	Simple Checking Procedure	Administration
09			Good Concern for Patients' Family and Visitor	Administration
10			Simple Billing Procedures	Administration

From the above table it becomes clear that component 1 (Patients' Felt Comfortable during Doctors' Examination, Doctors' Work According to Patients' Expectations, Doctors' Gave Individual Consideration and Confidentiality, Doctors' Showed Respect and Support patients) have highest mean value of 16.1620. Component 3 (Simple Checking Procedure, Good Concern for Patients' Family and Visitor, Simple Billing Procedures) have lowest mean value of 12.3540. It means Government hospitals were found to be weak in component 3. So, Government hospitals need to improve its service in terms of simple checking procedures, good concern for patients' family and visitor and simple billing procedures.

6.6.11 ONE WAYANNOVA FOR DIGNITY CRITERION:

Analysis of Variance: Selected Patients' Responses for Dignity Criterion.

Hypothesis: 47

Mean of patients' responses about selected type of hospital is equal in terms of dignity criterion of hospitals and an alternative hypothesis is at least one mean is different from other.

Table Number 6.133: Descriptive Statistics for Dignity Criterion for All the Three Type of Hospitals

Type of Hospitals	N	Mean	SD	SE
GHs	200	27.4100	3.87518	0.27402
THs	200	33.0550	3.73924	0.26440
PHs	100	31.7900	4.99959	0.49996
Total	500	30.5440	4.82687	0.21586

From the above table it becomes clear that trust hospitals have highest mean value of 33.05. Private hospitals have second highest mean value of 31.79 and Government hospitals have lowest mean value of 27.41.

Test of Homogeneity of Variances:

Table Number 6.134: Test of Homogeneity of Variances for Dignity Criterion for All the Three Type of Hospitals

Levene Statistic	df1	df2	Sig.
5.735	2	497	0.003

P – Value of levene's test statistics as given in the above table was found to be less then 0.05 (0.00 < 0.05) which indicate that variance of type of hospitals were not equal, at least variance of one type of hospitals is different from other type of hspitals.

Analysis of Variance:

Table Number 6.135: ANOVA for Dignity Criterion for All the Three Type of Hospitals

Particulars	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3380.667	2	1690.333	101.887	0.000
Within Groups	8245.365	497	16.590		
Total	11626.032	499			

The P – Value (0.00 < 0.05) of ANOVA table given above indicated that mean of type of hospitals was not equal at least mean of one type of hospitals was different from other type of hospitals.

Post Hoc test (Tamhane):

Table Number 6.136: Multiple Comparisons for Dignity Criterion for All the Three Type of Hospitals Through Tamhane Test

Type of Hospitals		Mean Difference	SE	Sig.
GHs	GHs			
	THs	-5.64500	0.38078	0.000
	PHs	-4.38000	0.57013	0.000
THs	GHs	5.64500	0.38078	0.000
	THs			
	PHs	1.26500	0.56557	0.078
PHs	GHs	4.38000	0.57013	0.000
	THs	-1.26500	0.56557	0.078
	PHs			

From the above table it becomes clear that Government hospitals were different from trust and private hospitals. Trust hospitals were different from Government and private hospitals and private hospitals were different from Government and trust hospitals.

Post Hoc test (Tukey HSD):

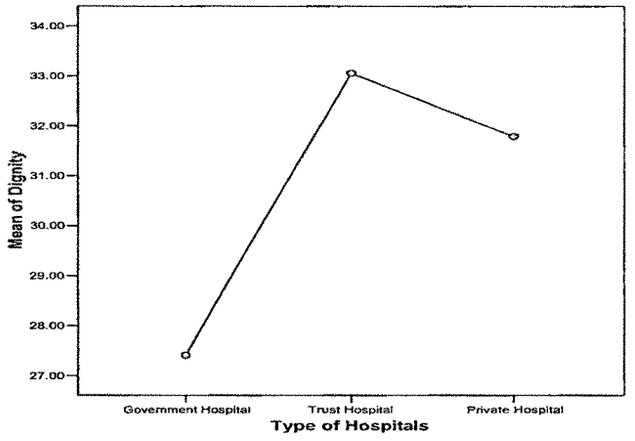
Table Number 6.137: Multiple Comparisons for Dignity Criterion for All the Three Type of Hospitals Through Tukey HSD Test

Type of Hospitals	N	Subset for alpha = .05		
		1	2	3
GHs	200	27.4100		
PHs	100		31.7900	
THs	200			33.0550
Sig.		1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 150.000.
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

From the above table it becomes clear that private hospitals make one group, Government hospitals make another group and trust hospitals make one more group.

Graph Number 6.42: Means Plots of Type of Hospitals for Dignity Criterion for All the Three Type of Hospitals



Above means plot indicated that trust hospitals have high mean value. Private hospitals have second highest mean value and Government hospitals have lowest mean value and each make different group.

6.6.12 FACTOR ANALYSIS FOR DIGNITY CRITERION:

Factor Analysis for Dignity Criterion for All the Three Type of Hospitals.

In case of responses of patients for dignity maintained by hospital staff, the results showed the value of KMO measure of sampling adequacy (0.785) and Bartlett's test of sphericity (0.0) which indicated that factor analysis was appropriate.

Table Number 6.138: Total Variance for Dignity Criterion for All the Three Type of Hospitals

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	3.348	41.846	41.846	3.348	41.846	41.846	2.738	34.223	34.223
02	1.308	16.344	58.190	1.308	16.344	58.190	1.917	23.967	58.190

Extraction Method: Principal Component Analysis.

From the above table it becomes clear that two components can be extracted and they extract 58.19 per cent variation from data.

Table Number 6.139: Communalities and Rotated Component Matrix for Dignity Criterion for All the Three Type of Hospitals

Sr. No.	Selected Criteria	Communalities Extraction	Rotated Component	
			1	2
01	Doctors' ask for patients Permission for performing Test	0.477	**0.687**	0.076
02	Nurses' Gave Personal Attention to Patients	0.451	**0.555**	0.379
03	Nurses' Explain Procedures and take Patient Permission before Test	0.499	**0.522**	0.476
04	Nurses' Explain Rules Regulation in ward	0.623	0.137	**0.778**
05	Nurses' were Kind, Gentle and Sympathetic	0.682	-0.027	**0.826**
06	Adm. Staff Welcome and Implement Suggestion	0.780	**0.883**	0.005
07	Adm. Gives Personal Attention To Patient	0.692	**0.821**	0.135
08	Patients' were Treated With Dignity and Privacy	0.451	0.462	0.487

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 3 iterations.

All the extracted communalities given in the above table were acceptable and all Criterion were fit for the factor solution as their extraction values were large.

The above table indicated the correlation between Criterion and factors. Component 1 (Doctors' ask for patients Permission for performing Test, Nurses' Gave Personal Attention to Patients, Nurses' Explain Procedures and take Patient Permission before Test, Adm. Staff Welcome and Implement Suggestion, Adm. Gives Personal Attention To Patient) was highly correlated with Criterion 1, 2, 3, 6, and 7. Component 2 (Nurses' Explain Rules Regulation in ward, Nurses' were Kind, Gentle and Sympathetic) was highly correlated with Criterion 4, 5.

Table Number 6.140: Component wise Mean Value for Dignity Criterion of All the Three Type of Hospitals

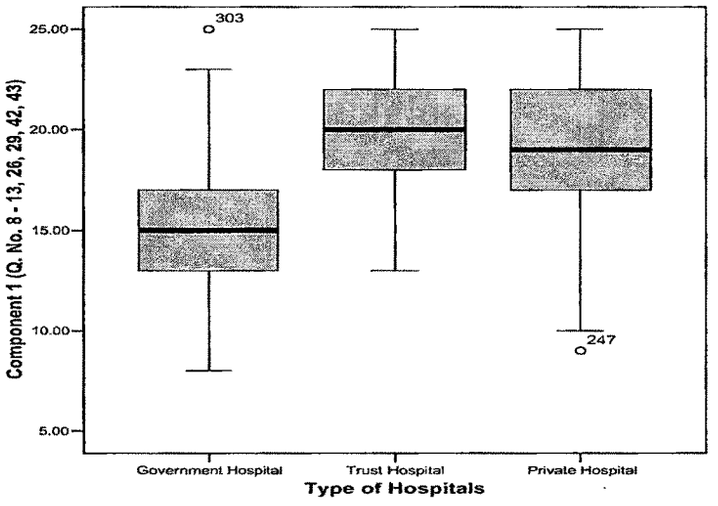
Sr. No.	Component	Mean Value	Selected Criterion	Selected Factors
01	01	17.8880	Doctors' ask for patients Permission for performing Test	Medical
02			Nurses' Gave Personal Attention to Patients	Paramedical
03			Nurses' Explain Procedures and take Patient Permission before Test	Paramedical
04			Adm. Staff Welcome and Implement Suggestion	Administration
05			Adm. Gives Personal Attention To Patient	Administration
06	02	8.5040	Nurses' Explain Rules Regulation in ward	Paramedical
07			Nurses' were Kind, Gentle and Sympathetic	Paramedical

From the above table it becomes clear that component 1 (Doctors' ask for patients' Permission for performing Test, Nurses' Gave Personal Attention to Patients, Nurses' Explain Procedures and take Patient Permission before Test, Adm. Staff Welcome and Implement Suggestion, Adm. Gives Personal Attention To Patient) has highest mean value of 17.888 and it extract total 5 Criterion. Component 2 (Nurses' Explain Rules Regulation in ward, Nurses' were Kind, Gentle and Sympathetic) has lowest mean value of 8.504.

Importance of Components for Selected Type of Hospitals:

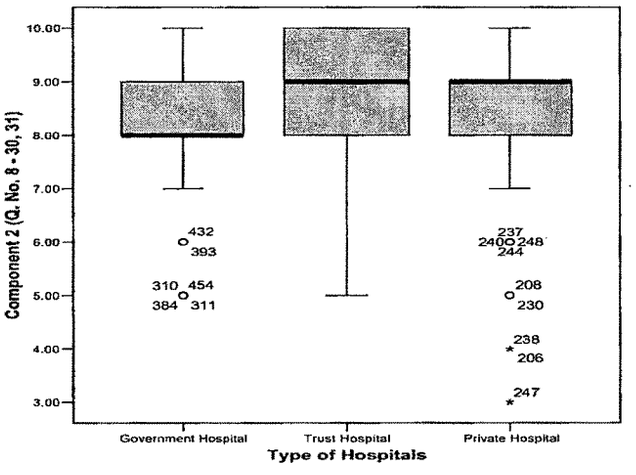
The importance of each component to different Type of Hospitals can be understood with the help of below given box plots. The following box plot explains type of hospitals total score of component 1 Criterion.

Graph Number 6.43: Hospitals-wise Box Plot for Component 1 for Dignity Criterion of the Three Type of Hospitals



The above box plot indicated that component 1 was important for Trust hospitals because of highest median value and lower variation.

Graph Number 6.44: Hospitals-wise Box Plot for Component 2 for Dignity Criterion of the Three Type of Hospitals



From the above box plot it becomes clear that component 2 was important for private hospital because of large mean value and less variation.

As the mean score of Government hospitals were lower (27.41), the factor analysis was applied to find out the reasons foe lower mean value for Government hospitals.

6.6.12.1 Factor Analysis for Selected Government Hospitals for Dignity Criterion is given as below.

In case of responses of Government hospitals patients for dignity maintained by hospital staff and the results showed the value of KMO measure of sampling adequacy (0.677) and Bartlett's test of sphericity (0.0) which indicated that factor analysis was appropriate.

Table Number 6.141: Total Variance for Selected Government Hospitals for Dignity Criterion

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	2.532	31.650	31.650	2.532	31.650	31.650	1.819	22.733	22.733
02	1.485	18.564	50.214	1.485	18.564	50.214	1.813	22.657	45.391
03	1.120	13.995	64.209	1.120	13.995	64.209	1.505	18.819	64.209

Extraction Method: Principal Component Analysis.
a Only cases for which Q 2 Type of Hospitals = Government Hospital are used in the analysis phase.

The above table indicated that there were 3 components extracted and it explains 64 per cent variation from data.

Table Number 6.142: Communalities and Rotated Component Matrix for Selected Government Hospitals for Dignity Criterion

Sr. No.	Selected Criterion	Communalities Extraction	Rotated Component		
			1	2	3
01	Doctors' ask for patients Permission for performing Test	0.537	**0.685**	0.261	-0.005
02	Nurses' Gave Personal Attention to Patients	0.560	**0.689**	0.291	-0.025
03	Nurses' Explain Procedures and take Patient Permission before Test	0.679	**0.815**	-0.037	0.113
04	Nurses' Explain Rules Regulation in ward	0.508	0.258	-0.004	**0.664**
05	Nurses' are Kind, Gentle and Sympathetic	0.660	-0.083	-0.137	**0.797**
06	Adm. Staff Welcome and Implement Suggestion	0.740	0.312	**0.799**	-0.063
07	Adm. Gives Personal Attention To Patient	0.794	0.159	**0.877**	0.028
08	Patients' were Treated With Dignity and Privacy	0.659	-0.122	0.482	**0.642**

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 5 iterations.
b Only cases for which Q 2 Type of Hospitals = Government Hospital are used in the analysis phase.

All the extracted communalities were acceptable and all Criterion were fit for the factor solution as their extraction values were large.

From the above table it becomes clear that component 1 (Doctors' ask for patients Permission for performing Test, Nurses' Gave Personal Attention to Patients, Nurses' Explain Procedures and take Patients' Permission before Test) was highly correlated with Criterion number 1 to 3.

Component 2 (Adm. Staff Welcome and Implement Suggestion, Adm. Gives Personal Attention to Patient) was highly correlated with Criterion number 6, 7. Component 3 (Nurses' Explain Rules Regulation in ward, Nurses' were Kind, Gentle and Sympathetic, Patients' were Treated with Dignity and Privacy) was highly correlated with Criterion number 4, 5, and 8.

Table Number 6.143: Component wise Mean value for Selected Government Hospitals for Dignity Criterion

Sr. No.	Component	Mean Value	Selected Criteria	Selected Factors
01	01	11.2140	Doctors' ask for patients Permission for performing Test	Medical
02			Nurses' Gave Personal Attention to Patients	Medical
03			Nurses' Explain Procedures and take Patient Permission before Test	Paramedical
04	02	6.6740	Adm. Staff Welcome and Implement Suggestion	Administration
05			Adm. Gives Personal Attention To Patient	Administration
06	03	12.6560	Nurses' Explain Rules Regulation in ward	Paramedical
07			Nurses' were Kind, Gentle and Sympathetic	Paramedical
08			Patients' were Treated With Dignity and Privacy	Administration

From the above table it becomes clear that component 3 (Nurses' Explain Rules Regulation in ward, Nurses' were Kind, Gentle and Sympathetic, Patients' were Treated with Dignity and Privacy) have highest mean value of 12.656. Component 2 (Administration Staff Welcome and Implement Suggestion, Administration Staff Gives Personal Attention to Patient) have lowest mean value of 6.674.

It means Government hospitals were found to be weak in component 2. So, Government hospitals need to improve its service with regard to the paramedical staff should Explain Rules Regulation in ward, they should be kind, gentle and sympathetic and should treat patient with dignity and privacy.

6.6.13 ONE WAYANNOVA FOR ACCESSIBILITY/AFFORDABILITY CRITERION:

Analysis of Variance: Selected Patients' Responses for Accessibility/Affordability Criterion.

Hypothesis: 48

Mean of patients' responses about selected type of hospital is equal in terms of Accessibility/Affordability Criterion of hospital and an alternative hypothesis is at least one mean is different from other.

Table Number 6.144: Descriptive Statistics for Accessibility/Affordability Criterion for All the Three Type of Hospitals

Type of Hospitals	N	Mean	SD	SE
GHs	200	21.7500	1.90938	0.13501
THs	200	21.1900	4.06776	0.28763
PHs	100	18.3800	2.93973	0.29397
Total	500	20.8520	3.37058	0.15074

From the above table it becomes clear that Government hospitals have highest mean value of 21.75. Trust hospitals have second highest mean value of 21.19 and private hospitals have lowest mean value of 18.38.

Test of Homogeneity of Variances:

Table Number 6.145: Test of Homogeneity of Variances for Accessibility/Affordability Criterion for All the Three Type of Hospitals

Levene Statistic	df1	df2	Sig.
176.001	2	497	0.000

P – Value of levene's test statistics as given in the above table was less then 0.05 type of hospitals is different from other type of hospitals.

Analysis of Variance:

Table Number 6.146: ANOVA for Accessibility/Affordability Criterion for All the Three Type of Hospitals

Particulars	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	795.208	2	397.604	40.545	0.000
Within Groups	4873.840	497	9.807		
Total	5669.048	499			

The P – Value (0.00 < 0.05) of ANOVA table given above indicated that mean of type of hospitals was not equal, at least mean of one type of hospitals was different from other type of hospitals.

Post Hoc test (Tamhane):

Table Number 6.147: Multiple Comparisons for Accessibility/Affordability Criterion for All the Three Type of Hospitals Through Tamhane Test

Type of Hospitals		Mean Difference	SE	Sig.
GHs	GHs			
	THs	0.56000	.31774	0.219
	PHs	3.37000	.32349	0.000
THs	GHs	-0.56000	.31774	0.219
	THs			
	PHs	2.81000	.41128	0.000
PHs	GHs	-3.37000	.32349	0.000
	THs	-2.81000	.41128	0.000
	PHs			

From the above table it becomes clear that Government hospitals were different from Private hospitals but the significant value (0.219) indicated that Government hospitals were not different than trust hospital. Similarly, trust hospitals were not different from Government hospitals but it was different than private hospitals. The private hospitals were different from Government and trust hospitals.

Post Hoc test (Tukey HSD):

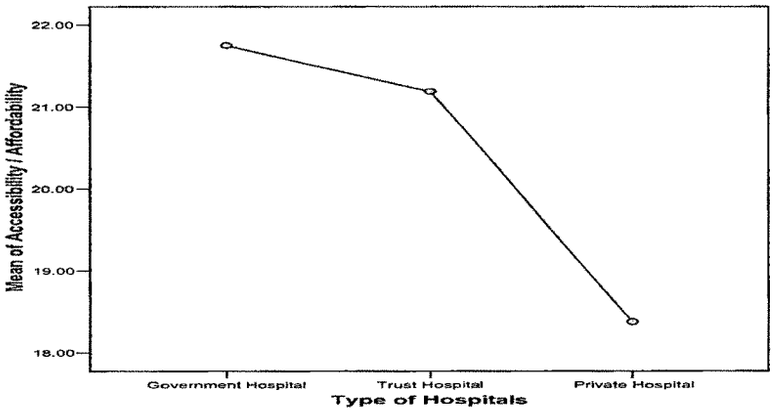
Table Number 6.148: Multiple Comparisons for Accessibility/Affordability Criterion for All the Three Type of Hospitals Through Tukey HSD Test

Type of Hospitals	N	Subset for alpha = .05	
		1	2
PHs	100	18.3800	
THs	200		21.1900
GHs	200		21.7500
Sig.		1.000	.269

Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 150.000.
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

From the above table it becomes clear that private hospitals make one group, Government hospitals and trust hospitals makes another group.

Graph Number 6.45: Means Plots of Type of Hospitals for Accessibility/Affordability Criterion for All the Three Type of Hospitals



Above means plot indicated that Government hospitals have high mean value. Trust hospital have second highest mean value and private hospitals have lowest mean value.

6.6.14 FACTOR ANALYSIS FOR ACCESSIBILITY/AFFORDABILITY CRITERION:

Factor Analysis for Accessibility/Affordability Criterion for All the Three Type of Hspitals is given as below.

In case of responses of patients for accessibility and affordability of hospital services the results showed the value of KMO measure of sampling adequacy (0.696) and Bartlett's test of sphericity (0.0) which indicated that factor analysis was appropriate.

Table Number 6.149: Total Variance for Accessibility/Affordability Criterion for All the Three Type of Hospitals

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	2.462	49.232	49.232	2.462	49.232	49.232	1.947	38.940	38.940
02	1.023	20.462	69.693	1.023	20.462	69.693	1.538	30.754	69.693

Extraction Method: Principal Component Analysis.

From the above table it becomes clear that two components can be extracted and they extract 69.693 per cent variation from data.

Table Number 6.150: Communalities and Rotated Component Matrix for Accessibility / Affordability Criterion for All the Three Type of Hospitals

Sr. No.	Selected Criterion	Communalities Extraction	Rotated Component	
			1	2
01	Doctors' Availability in Emergency	0.498	0.259	**0.657**
02	Quick Payment Arrangements	0.788	-0.006	**0.887**
03	Costs were Adequate or Affordable	0.806	**0.884**	0.158
04	Drugs Easily Obtained in Hospital	0.597	**0.560**	0.533
05	Distance to Healthcare is Adequate	0.795	**0.886**	0.099

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 3 iterations.

All the extracted communalities given in the above table were acceptable and all Criterion wee fit for the factor solution as their extraction values were large.

The above table indicated the correlation between component and Criterion. Component 1 (Costs were Adequate or Affordable, Drugs Easily Obtained in Hospital, Distance to Healthcare is Adequate) was highly correlated with Criterion number 3, 4, and 5. Component 2 (Doctors' Availability in Emergency, Quick Payment Arrangements) was highly correlated with Criterion number 1, 2.

Table Number 6.151: Component wise Mean Value for Accessibility / Affordability Criterion for All the Three Type of Hospitals

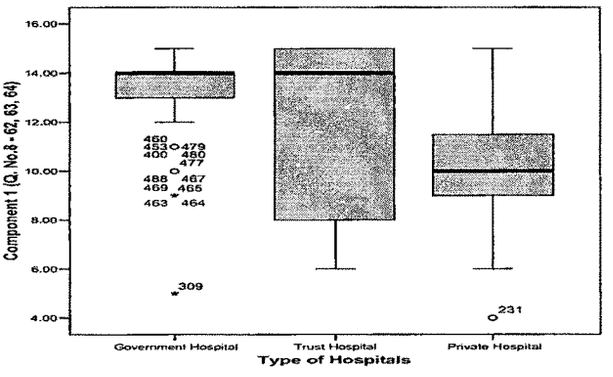
Sr. No.	Component	Mean Value	Selected Criterion	Selected Factors
01	01	12.1660	Costs were Adequate or Affordable	Environment
02			Drugs Easily Obtained in Hospital	Environment
03			Distance to Healthcare is Adequate	Environment
04	02	8.6860	Doctors' Availability in Emergency	Medical
05			Quick Payment Arrangements	Environment

From the above table it becomes clear that component 1 (Costs were Adequate or Affordable, Drugs Easily Obtained in Hospital, Distance to Healthcare is Adequate) has highest mean value of 12.166 and it extracted total 3 Criterion. Component 2 (Doctors' Availability in Emergency, Quick Payment Arrangements) has lowest mean value of 8.686.

Importance of Components for Selected Type of Hospitals:

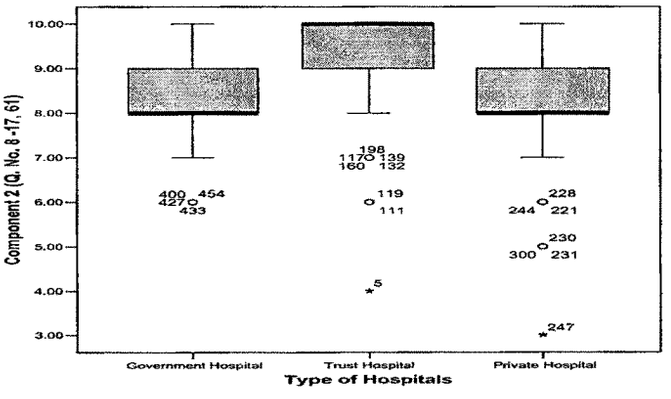
The importance of each component to different type of hospitals can be understood with the help of below given box plots. The following box plot explains type of hospitals total score of component 1 (Environment) Criterion.

Graph Number 6.46: Hospitals-wise Box Plot for Component 1 for Accessibility/ Affordability Criterion of the Three Type of Hospitals



The above box plot indicated that component 1 was important for Government hospitals because of highest median value and lower variation. Trust hospitals have similar median value but it has more variations.

Graph Number 6.47: Hospitals-Wise Box Plot for Component 2 for Accessibility/ Affordability Criterion of the Three Type of Hospitals



From the above box plot it becomes clear that component 2 was important for trust hospitals because of large mean value and less variation.

As the mean score of private hospitals were lower (18.38) factor analysis was made to find out the reasons for lower mean value for private hospitals.

6.6.14.1 Factor Analysis for Selected Private Hospitals for Accessibility / Affordability Criterion is given as below.

In case of responses of private hospitals patients for accessibility and affordability of hospital services the results showed the value of KMO measure of sampling adequacy (0.690) and Bartlett's test of sphericity (0.0) which indicated that factor analysis was appropriate.

Table Number 6.152: Total Variance for Selected Private Hospitals for Accessibility / Affordability Criterion

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	Percentages of Variance	Cumulative per cent	Total	Percentages of Variance	Cumulative per cent
01	2.066	41.313	41.313	2.066	41.313	41.313
02	1.004	20.078	61.391	1.004	20.078	61.391

Extraction Method: Principal Component Analysis.
a Only cases for which Q 2 Type of Hospitals = Private Hospital are used in the analysis phase.

The above table indicated that there were 2 components extracted and it explains 61.391 per cent variation from data.

Table Number 6.153: Communalities and Rotated Component Matrix for Selected Private Hospitals for Accessibility / Affordability Criterion

Sr. No.	Selected Criterion	Communalities Extraction	Rotated Component	
			1	2
01	Doctors' Availability in Emergency	0.560	**0.654**	0.363
02	Quick Payment Arrangements	0.614	**0.771**	0.143
03	Costs were Adequate or Affordable	0.619	0.263	**0.741**
04	Drugs Easily Obtained in Hospital	0.592	**0.769**	-0.032
05	Distance to Healthcare is Adequate	0.684	-0.010	**0.827**

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 3 iterations.
b Only cases for which Q 2 Type of Hospitals = Private Hospital are used in the analysis phase.

All the extracted communalities were acceptable and all Criterion were fit for the factor solution as their extraction values were large.

From the above table it becomes clear that component 1 (Doctors' Availability in Emergency, Quick Payment Arrangements, Drugs Easily Obtained in Hospital) was highly correlated with Criterion number 1, 2, and 4. Component 2 (Costs were Adequate or Affordable, Distance to Healthcare is Adequate) was highly correlated with Criterion number 3, and 5.

Table Number 6.154: Component-wise Mean Value for Selected Private Hospitals for Accessibility / Affordability Criterion

Sr. No.	Component	Mean Value	Selected Criteria	Selected Factors
01	01	12.1660	Costs were Adequate or Affordable	Environment
02			Drugs Easily Obtained in Hospital	Environment
03			Distance to Healthcare is Adequate	Environment
04	02	8.6860	Doctors' Availability in Emergency	Medical
05			Quick Payment Arrangements	Environment

From the above table it becomes clear that component 1 (Doctors' Availability in Emergency, Quick Payment Arrangements, Drugs Easily Obtained in Hospital) have highest mean value of 12.166. Component 2 (Costs were Adequate or Affordable, Distance to Healthcare is Adequate) have lowest mean value of 8.686. It means private hospitals are weak in component 2. So, private hospitals need to improve its service in terms of availability of doctors in emergency and speedy payment arrangement in the hospital.

6.7 SUMMARY OF FACTOR LOADING SCORE FOR INTANGIBLE SERVICES CHARACTERISTICS:

Summary of factor analysis for tangibles, reliability, responsiveness, assurance, empathy, dignity, and accessibility/affordability Criterion of the hospital is summarized in the table number 6.155 to 6.161.

Table Number 6.155: Criterion and Factor wise Factor Loading for Tangible Criterion

Sr. No.	Selected Criteria	Selected Factors			
		Medical Services	Paramedical Services	Administrative Services	Environment (Physical Facilities)
		Factor Loading score			
01	Sufficient Doctors Remain Present	0.468	-	-	-
02	Well Equipped Units	-	-	-	**0.592**
03	Proper Sitting and Bedding Arrangements	-	-	-	**0.541**
04	Comfort in Examination and waiting Room	-	-	-	**0.627**
05	Natural Light or Illumination in Hospital	-	-	-	**0.709**
06	Sufficient Number of Dust Bins and Spittoons	-	-	-	**0.715**
07	No Flies and Mosquitoes in Hospital	-	-	-	**0.657**
08	Adequate parking Arrangements	-	-	-	**0.513**
09	Clean Surroundings of Hospitals	-	-	-	0.478
10	Pleasing and Appealing Room of Hospital	-	-	-	**0.568**
11	Good Food Served by Hospital	-	-	-	**0.854**
12	Staff Neat in Appearance	-	-	-	**0.623**
13	Inside and Out side Noise kept Minimum	-	-	-	**0.617**
14	Wards Well Decorated and Ventilated	-	-	-	0.442
15	Music Facilities should be provided	-	-	-	**0.712**

Above table gives details about factor loading score for all 15 Criterion related with tangible Criterion of hospital. Out of total 15 Criterion 12 Criterion can be considered as important as their score is more than 0.5.

Table Number 6.156: Criterion and Factor wise Factor Loading for Reliability Criterion

Sr. No.	Selected Criteria	Selected Factors			
		Medical Services	Paramedical Services	Administrative Services	Environment (Physical Facilities)
		Factor Loading score			
01	Impartial Attitude of Doctors	**0.710**	-	-	-
02	Doctors' Makes Good Diagnosis	**0.889**	-	-	-
03	Doctors' Prescribed Good Drugs	**0.853**	-	-	-
04	Impartial Attitude of Nurses	-	**0.862**	-	-
05	Nurses' Maintain Proper records of Patients	-	**0.635**	-	-

Above table gives details about factor loading score for all 5 Criterion related with Reliability Criterion of hospital, and all Criterion can be considered as important as their score is more than 0.5.

Table Number 6.157: Criterion and Factor wise Factor Loading for Responsiveness Criterion

Sr. No.	Selected Criteria	Selected Factors			
		Medical Services	Paramedical Services	Administrative Services	Environment (Physical Facilities)
		Factor Loading score			
01	Doctors' Cooperation to patients	**0.621**	-	-	-
02	Patients' Felt Comfortable asking Questions to Doctors	**0.868**	-	-	-
03	Nurses' Cooperation to Patients	-	**0.777**	-	-
04	Nurses' Provide Prompt Service	-	**0.766**	-	-
05	Nurses' and Staff Remains Present in Emergency	-	**0.668**	-	-
06	Information Provided to patients for Managing Side Effects	-	**0.543**	-	-
07	Prompt Service Provided by Sanitation Staff	-	**0.568**	-	-
08	Less Waiting Time For Consultation and Treatment	-	-	**0.707**	-
09	Less Waiting Time for Test	-	-	**0.660**	-
10	Speed, Ease of Admission and Discharge form Hospital	-	-	**0.612**	-
11	Convenient Office Hours	-	-	**0.732**	-
12	Adm. Staff Gives Prompt Services	-	-	**0.574**	-
13	No Overcrowding in Hospital	-	-	**0.678**	-
14	Good Grievance handling System	-	-	**0.614**	-

Above table gives details about factor loading score for all 14 Criterion related with Responsiveness of hospital. All criteria can be considered as important as their score is more than 0.5.

Table Number 6.158: Criterion and Factor wise Factor Loading for Assurance Criterion

Sr. No.	Selected Criteria	Selected Factors			
		Medical Services	Paramedical Services	Administrative Services	Environment (Physical Facilities)
		Factor Loading score			
01	Doctors' Knowledge and Efficiency	**0.647**	-	-	-
02	Doctors' Experience in Curing Patients	**0.856**	-	-	-
03	Thorough Checkup by Doctors	**0.790**	-	-	-
04	Nurses' Knowledge and Efficiency	-	**0.720**	-	-
05	Nurses' Handled Patients Quarry Properly	-	**0.736**	-	-
06	Nurses' Experience in Curing Patients	-	**0.731**	-	-
07	Good Experience of Those who Perform Test on Patients	-	**0.661**	-	-

Above table gives details about factor loading score for all 7 Criterion related with Assurance Criterion of hospital. All Criterion can be considered as important as their score is more than 0.5.

Table Number 6.159: Criterion and Factor wise Factor Loading for Empathy Criterion

Sr. No.	Selected Criteria	Selected Factors			
		Medical Services	Paramedical Services	Administrative Services	Environment (Physical Facilities)
		Factor Loading score			
01	Doctors' were polite with patients	**0.795**	-	-	-
02	Patients' Felt Comfortable During Doctors Examination	**0.641**	-	-	-
03	Doctors' Work According to Patients Expectations	**0.843**	-	-	-
04	Doctors' Give Individual Consideration and Confidentiality	**0.834**	-	-	-
05	Doctors' Show Respect and Support patients	**0.563**	-	-	-
06	Doctors' Honesty in Dealing with patients	**0.689**	-	-	-
07	Nurses' Showed Politeness with Patients	-	0.453	-	-
08	Simple Checking Procedure	-	-	**0.772**	-
09	Good Concern for Patients' Family and Visitor	-	-	**0.769**	-
10	Simple Billing Procedures	-	-	**0.794**	-

Above table gives details about factor loading score for all 10 Criterion related with Empathy Criterion of hospital. Out of total 10 Criterion 9 Criterion can be considered as important as their score is more than 0.5.

Table Number 6.160: Criterion and Factor wise Factor Loading for Dignity Criterion

Sr. No.	Selected Criteria	Selected Factors			
		Medical Services	Paramedical Services	Administrative Services	Environment (Physical Facilities)
		Factor Loading score			
01	Doctors' ask for patients Permission for performing Test	**0.687**	-	-	-
02	Nurses' Gave Personal Attention to Patients	-	**0.555**	-	-
03	Nurses' Explain Procedures and take Patient Permission before Test	-	**0.522**	-	-
04	Nurses' Explain Rules Regulation in ward	-	**0.778**	-	-
05	Nurses' were Kind, Gentle and Sympathetic	-	**0.826**	-	-
06	Adm. Staff Welcome and Implement Suggestion	-	-	**0.883**	-
07	Adm. Gives Personal Attention To Patient	-	-	**0.821**	-
08	Patient Treated With Dignity and Privacy	-	-	0.487	-

Above table gives details about factor loading score for all 8 Criterion related with Dignity expressed by staff of hospital. Out of total 8 Criterion 7 Criterion can be considered as important as their score is more than 0.5.

Table Number 6.161: Criterion and Factor wise Factor Loading for Accessibility / Affordability Criterion

Sr. No.	Selected Criteria	Selected Factors			
		Medical Services	Paramedical Services	Administrative Services	Environment (Physical Facilities)
		Factor Loading score			
01	Doctors' Easily Available in Emergency	**0.657**	-	-	-
02	Quick Payment Arrangements	-	-	-	**0.887**
03	Costs were Adequate or Affordable	-	-	-	**0.884**
04	Drugs Easily Obtained in Hospital	-	-	-	**0.560**
05	Distance to Healthcare is Adequate	-	-	-	**0.886**

Above table gives details about factor loading score for all 5 Criterion related with Accessibility / Affordability Criterion of hospital. All criteria can be considered as important as their score is more than 0.5.

So, out of total 64 Criterion used to measure patient satisfaction, total 59 Criterion have factor loading score more than 0.5.