

Factors Influencing Buying Behaviors Towards Healthcare Services: A Study In Multispecialty Hospitals In Mumbai With Specific Reference To Cardiology Department (Services)

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BY

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THESIS COMPLETION CERTIFICATE

This is to certify that the thesis - **Factors influencing buying behaviors towards Healthcare Services: A study in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services)** by Gopal Shantaram Raorane in partial fulfillment of the requirements for the award of the Degree of Doctor of Philosophy is an original work carried out by him under our joint guidance. It is certified that the work has not been submitted anywhere else for the award of any other Degree or Diploma of this or any other University. We also certify that he complied with the Plagiarism Guidelines of the University.

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DECLARATION OF AUTHORSHIP

I declare that this research thesis titled **Factors influencing buying behaviors towards Healthcare Services: A study in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services)** submitted by me in partial fulfillment of the requirements for the award of the degree of Doctor of Philosophy in Management by the ICFAI University, Jharkhand is my own work. It contains no material previously published or written by another person nor material which has been accepted for the award of any other degree or diploma of the University or other institutes of higher learning, except where due acknowledgement has been made in the text. I further state that I complied with Plagiarism Guidelines of the University while preparing the thesis.

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EXECUTIVE SUMMARY

Patients Behavior is the area of patients, hospitals and the processes in hospital for the securing and disposing of services and products in order to fulfill the needs of patients. Factors namely Social, Personal, Psychological and Cultural are influencing the buying behavior of patients. Social factors have three types of factors Reference group, family and Role and status of the patients. Cultural factors consist of subculture, Social Class and Patient culture. Personal factors consist of occupation, age and lifestyle, Personality and Economic Situation. Psychological factors consist of learning, Motivation, perception, attitude and belief. To diagnose, to prevent, and to treat the disease, injury, and mental and physical disability in the human body is known as Healthcare Service. Cardiology is the branch of the medicine which provides the treatment for the heart disease. It's the most important department of the Hospital. In this study done more than 100 literature reviews. There is nothing found "factors influencing buying behaviors towards Healthcare Services- A the study in Multi-Specialty Hospitals in Mumbai with specific reference to Cardiology Department (Services). This study's objectives are 1) To study factors influencing buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. 2) To analyze Culture factors Vis-a-Vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. 3) To evaluate Social factors vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. 4) To identify Personal factors vis-à-vis is buying

behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. 5) To examine Psychological factors vis-à-vis is buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. 6) To survey Service Availability in the Cardiology Department in Multispecialty Hospitals in Mumbai. This Study is done in the following Multispecialty Hospitals in the Mumbai area. A) Dr. L. H. Hiranandani Hospital B) Fortis Hospital C) Kohinoor Hospital D) Cumballa Hill Hospital and Heart Institute. In this study sample size is 500 target respondents. It includes Patients, Patients attendance, Patients friends, Patients relatives, Pharmacist, Cath Lab Technicians, Public Relations officer or Marketing Executive, Doctors (Physician and Interventional Cardiologist), Nurses, Ward boy, Insurances companies. etc. In this study, Questionnaires are different for each Targeted community. Method of data collection is the simple random method. Therefore, the purpose of the study for the above multispecialty hospitals as per follows.

- 1) To improve quality of the cardiology services in the multispecialty hospitals.
- 2) To ensure cardio patients satisfaction in multispecialty Hospitals.
- 3) To create excellent branding for cardiology department in the Market.
- 4) To understand buying behaviors of the Cardiac Patients.

The hypotheses of this study are follows

H₀₁: The factors viz. Culture/Social/Personal/Psychological does not have any association vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

H_{a1}: The factors viz. Culture/Social/Personal/Psychological have association vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

H_{o2}: Culture Factors Viz. Nationality, Geographic Region and Wealth w.r.t proportions of people who are influential vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

H_{a2}: Culture Factors Viz. Nationality, Geographic Region and Wealth w.r.t proportions of people who are not influential vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

H_{o3}: Social Factors viz. role and status, reference group and family w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

H_{a3}: Social Factors viz. role and status, reference group and family w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to the cardiology Department.

H_{o4}: Personal Factors viz. age and lifestyle, economic situation, occupation and personality w.r.t proportions of people who are influential vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

H_{a4}: Personal Factors viz. age and lifestyle, economic situation, occupation and personality w.r.t proportions of people who are not influential vis-à-vis buying

behaviors in Multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

H_{o5}: Psychological factors viz. motivation, perception, belief and attitude w.r.t proportions of people who are influential vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

H_{a5}: Psychological factors viz. motivation, perception, belief and attitude w.r.t proportions of people who are not influential vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

H_{o6}: Service availability in Cardiology Department of Multispecialty Hospitals in Mumbai is Excellent.

H_{a6}: Service availability in Cardiology Department of Multispecialty Hospitals in Mumbai is not Excellent.

In this study, pilot survey is done in the Kohinoor Hospital and Fortis Hospital. The total number of 50 Respondents were there. In this Pilot survey, Paramedical staffs are more than other respondents. In the pilot survey, it can be emphatically noticed that Psychological and Social factors seem to be the most influential with respect to buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. Also, particularly the number of people who have chosen Social factors as most crucial is more than the number of people choosing other factors. Also, personal factors may not be very influential in affecting a choice of hospital. After Reliability test for the data validation, Data

analysis has been done in this study. Data Analysis has been done in the three categories 1) patient and patient's relatives 2) Paramedical Staffs and 3) Marketing Persons. Data Analysis has been done for the total 500 respondents. In this data analysis, many tests have been used as like Chi-squared test of independence, Two-sample proportion tests, Cochran-Mantel-Haenszel test, Chi-squared test for association, Friedman test etc. Personal factor is less influential than psychological factors. Culture factors are very less effective in Multi-Specialty Hospitals in Mumbai with specific reference to Cardiology Department. Main conclusion of this study is Social factors are the most influencing buying behaviors towards Cardiac Services in the Multispecialty Hospitals. Psychological factors are the second most influencing buying behaviors towards Cardiac Services in the multispecialty Hospitals. Personal factor is less influential than Psychological factors. Cultural factors are very less effective in Multi-Specialty Hospitals in Mumbai with specific reference to Cardiology Department

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CHAPTER 1
INTRODUCTION

Chapter 1

Introduction

1.1 Overview: This chapter gives information about the introduction of the study Factors influencing buying behaviors towards Healthcare services in the Multispecialty Hospital in Mumbai with specific reference to the Cardiology Department (Services). This chapter explains the factors influencing buying behaviors of Cardiac patients in the Multispecialty Hospitals. It also explains more details about the subtypes of influencing factors on buying behaviors. It gives information about the Healthcare Services. It also provides more details about the Cardiology Department in the Multispecialty Hospitals.

1.2 Background:

Patients Behavior is the area of patients, hospitals and the processes in hospital for the securing and disposing of services and products in order to fulfill the needs of patients. The various factors namely Social, Psychological, Personal and Cultural which impact the buying behaviors of patients.

1) Culture Factors: Cultural factors namely Subculture, Social class and Patient influence the patient behaviors.

i) Patient Culture: Basically, patient culture is important reason for the needs, wants and behaviors of the patients as well as share of every society. The impact of patient culture on buying behaviors differ from region to region, state to state and country

to country. Therefore, multispecialty hospital should be very cautious at the time of examining the culture of dissimilar region, groups or countries.

ii) Subculture: Each culture consists of various or dissimilar subcultures namely racial groups, nationalities, religions and geographic region etc. Hospitals can utilize these categories by dividing the market into different small parts. For example, the services per the needs of a geographic group can be designed by the hospital.

iii) Social Class: fewer form of social class is dominant to the Multispecialty Hospitals is created by each society. income of the people always does not determine the buying behaviors of patients for the Cardiac Services. Also, there are many factors namely wealth, education, occupation etc.

2) Social Factors: The behaviors of patients also influenced by the most significant social factors which are family, friends, Reference Group, role and status.

i) Reference group: Reference groups offer possibilities in making patient behavior and attitude. The effect of reference groups differs across brands or services. e.g. Friends, Healthcare Leaders include in this group

ii) Family: Member of the family strongly influence to the patient behavior. Therefore, Multispecialty Hospitals take efforts to search the roles and impact of the wife, husband, children and other relatives

iii) Role and Status: Various roles and status in community always depend upon the club, groups, organization and family are created by each patient. E.g. If Patient

itself or patient 's relatives are the manager then per the status of the patient, he will buy services from the hospitals

3) Personal Factors: The patient behaviors are also influenced by personal factors. There are many Personal factors as like occupation, age, Economic situation, personality and self-concept.

i) Age Life Style: Age and lifestyles both are very important factors in patient 's behavior. Patient purchase services from the hospitals as per age and lifestyle of the patients.

ii) Occupation: Occupation is also effecting on the patient behavior. E.g. General Manager will buy services as per their occupation levels but worker or labor will buy health care services as per her or his occupation level.

iii) Economic situation: If a patient has enough money or health insurance then a patient will take good Cardiac services from the multispecialty Hospitals.

iv) Personality: Personality make differences from the place to place, time to time, patients to patients. Personality is not what to wear, but it is characteristic like self-confidence, influential and aggressiveness which can be used to determine buying behaviors of Cardiology services.

4) Psychological Factors: Psychological factors namely motivation, perception, learning, beliefs and attitudes impact the patients' behaviors.

i) Motivation: Motivation is most important for the patients to buy the best and correct cardiology services. In the cardiology department, Interventional

Cardiologists, Physicians, Cath lab Technicians and PRO give motivation to the Patients.

ii) Perception: To select, to organize and to interpret information in the way to make the meaning experience through people of the world or organization is known as perception. Hospitals try to keep good perception from the patients. They make more marketing strategy for the perception of the patients.

iii) Belief and attitudes: Both make images or brand of the hospitals or healthcare organization.

Healthcare Service is the diagnostic, prevention, and treatment of disease, injury and mental and physical impairments in a human body is known as Healthcare services. There are three types of Healthcare Services 1) Primary Healthcare Services, 2) Secondary Healthcare Services, 3) Tertiary Healthcare Services.

1) Primary Healthcare Services: It is first contact point of patients and mostly services are provided by General Practitioners. Primary healthcare services are available at every place of our country. Government is also providing Primary health care centers to all ruler area of India. Now Pharmacist, Dentists, opticians have come into Primary Healthcare services. Primary Healthcare services are very price beneficial.

2) Secondary Healthcare services: It is the second contact point between patients. It is the center where physicians of primary healthcare refer patients for the higher treatment. Secondary Healthcare services are situated at District levels.

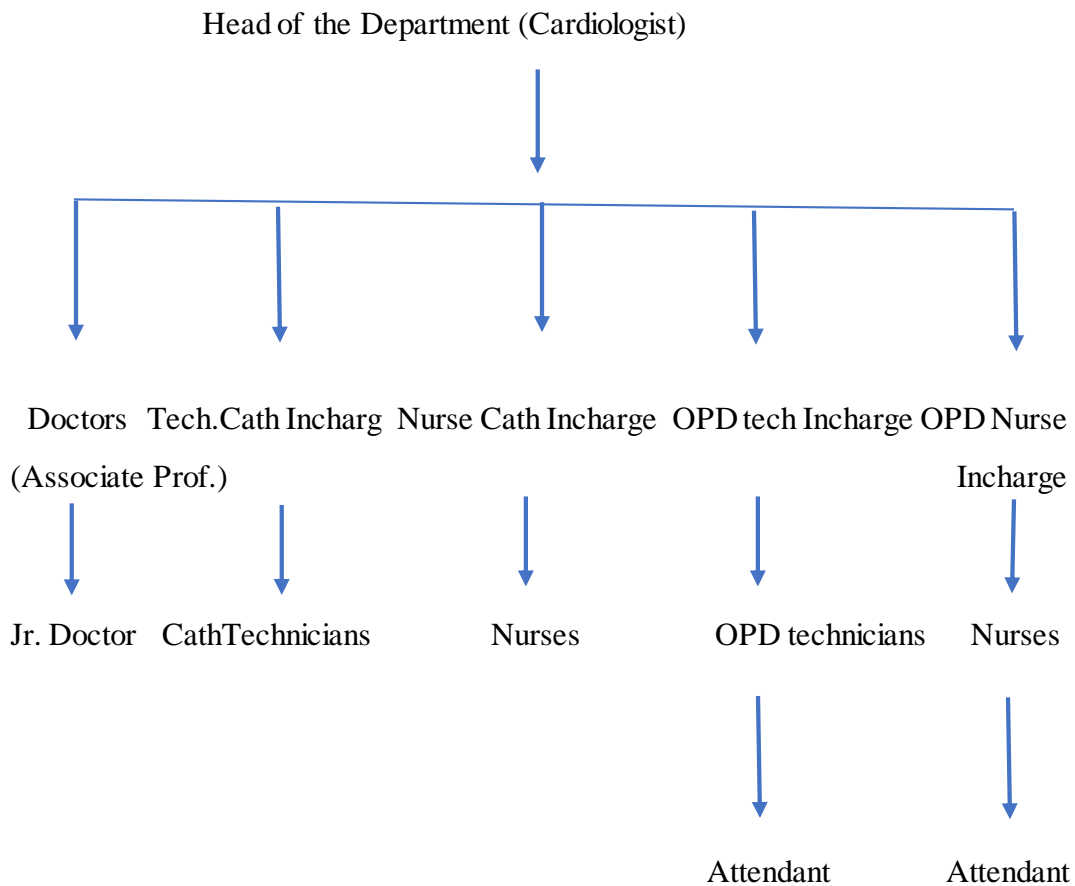
3) Tertiary Healthcare Services: It is third contact point of patients. Primary Healthcare center and Second Healthcare Services refer patients to Tertiary

Healthcare Services. Tertiary healthcare centers are Multispecialty Hospitals in the city area. Tertiary Healthcare provides all specialized consultants for the higher-level treatments. It provides separate Diagnostic services and specialized services for every disease. Also, provide intensive care for the patients' treatments.

Cardiology is the branch of the medicine which provides the treatment for the heart disease. It's the most important department of the Hospital. It divides into three parts 1) Cardiology OPD 2) Cath lab.

- 1) Cardiology OPD: Here all patients come to check cardiac disease on the OPD basis. Patients do not get admitted in the Cardiology department. Patients come to consultant Physicians.
- 2) Cath Lab: Cath lab is operational theater for the Cardiac Diseases in the Hospitals. Coronary artery bypass graft (CABG), Percutaneous Transluminal Coronary Angioplasty (PTCA), Coronary angiography (CAG), these all procedures are done in the Cath lab. After procedure, patients shift to intensive care of Cath lab.

Organogram of Cardiology Department:



Role and Responsibilities of staff of Cardiology Department:

- 1) Head of the Department: HOD always manage the cardiology department. He would be more concern about the revenue generation of the Cardiology Department. He takes interviews for the candidates of Cardiology Department. He makes strategy along with management of the Hospital. He treats patients at the time of Critical conditions of the patients. He guides all Doctors and staff of the Cardiology Department. He takes care of quality, service and patient satisfaction of the Cardiology Department. He also teaches Cardiology subject to Medical Students. He signs the reports of the cardiac patients.

- 2) Doctor and Associate professor: Doctors and associate professor do the angiography and angioplasty of the patients in the Cath lab. He always assists to HOD of the Cardiology Department. He always counsel to cardiac patients. He also signs reports of the cardiac patients. He also teaches cardiology subject to Medical college.
- 3) Technical Cath lab Incharge: He always handle the technical part of the Cath Lab. He manages all technical staff of the Cath Lab. He makes duty chart for the all technicians of the Cath Lab. He also takes care about the inventory of the Cath Lab. He helps to technicians at the time of trouble shootings. He guides all technicians about the machine.
- 4) Nursing Cath Incharge: she or he will be responsible for patients' care. He or she makes duty chart for the nursing staff in the Cath lab.
- 5) OPD technical in charge: he or she always takes care of the technical part of OPD. She or he always drive all machines of the OPD of the Cardiology Department. He or she makes duty chart of OPD technicians. He or she takes care of inventory of the OPD of the cardiology.
- 6) Jr. doctor: Jr. doctor always assists to Sr. cardiologist (associate professor). He or she always consult patients.
- 7) Cath Technician: he or she always drives the Cath lab machine at the time of angioplasty or Angiography.
- 8) OPD technicians: This technician always operates OPD machine e.g. Echo Machine, Stress machine etc.

- 9) Nurses: Nurses take care of patients and assist to the cardiologist at the time of Angioplasty and angiography.
- 10) Cath lab or OPD attendance: he or she always assist to Nurses at the time of patients care.

1.3 Scope and Purpose of the study:

1.3.1 Scope:

This Study is done in the following Multispecialty Hospitals in the Mumbai area. A) Fortis Hospital Mulund, Mumbai B) Kohinoor Hospital, kurla, Mumbai C) Dr. L. H. Hiranandani Hospital, Powai, Mumbai D) Cumballa Hill Hospital and Heart Institute, Mumbai. In this study sample size is 500 target respondents, it includes Patients, Patients attendance, Patients friends, Patient's relatives, Pharmacist, Cath Lab Technicians, Public Relations officer or Marketing executive, Doctors (Physician and Interventional Cardiologist, Nurses, Ward boy, Insurance companies. etc. In this study, Questionnaires are the different for each Targeted community. Method of data collection is the simple random method and period was 6 months.

1.3.2 Purpose of the study for the above multispecialty hospitals as per follows:

- 1) To improve quality of the cardiology services in the multispecialty hospitals.
- 2) To ensure cardiac patients satisfaction in Multispecialty Hospitals.
- 3) To create excellent branding for Cardiology Department in the Market.
- 4) To understand buying behaviors of the Cardiac Patients.

1.4 Motivation for the Study:

Cardiology is the most important department in the Multispecialty Hospitals. Cardiology Department which deals with treatment and prevention of Heart Diseases. The heart is the most delicate and active organ in the human body. Therefore, hospitals should provide excellent Cardiology Services to the patients. But some time patients don't get excellence or exact cardiology services from the Hospitals or Healthcare organization as they are not aware about services. The Patients do not get excellence services due to wrong behaviors of the patients at the time of buying Cardiology Services. E.g. Sometime because of wrong branding of hospital patients get wrong services from the hospitals. But the analysis of factors influencing buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department will increase the quality of the Cardiology Services in Multispecialty Hospitals. Also, patients can get excellence services from the Hospitals. Automatically, private multispecialty hospitals will enhance the Cardiac Services of the hospital. Therefore, this study would be multitasking.

1.5 Overview of Research Approach:

The literature reviews have been done in the three sectors like Healthcare Services, Banking Services, Telephonic services. Primary literature sources are previous thesis, previous report, previous research papers from the Healthcare Services, Banking Services, Telephone Service. Secondary Sources of literature survey are journals, books, internet, etc. The primary data are qualitative type. It is collected in the form of questionnaires and then tabulated and classified using

Excel. Data is collected in the three categories 1) Patients and patients' relatives and friends 2) Doctors and paramedical staffs 3) Marketing persons. Therefore, three different questionnaires were prepared. Data is collected within the Multispecialty Hospitals in Mumbai namely Fortis Hospital Mulund, Mumbai, Kohinoor Hospital, Kurla, Mumbai, Cumballa Hill Hospitals and Heart Institute, Grant Road, Mumbai and Dr. L. H. Hiranandani Hospital, Powai, Mumbai. Statistical techniques applied in the analysis are performed using three statistical packages- 1) R software 2) Microsoft Excel 3) SPSS. Frequency Tables, Bar column diagram, Pie charts, Descriptive statistics, and Cross-tabulations are used as statistical tools. Data analysis has been done by few tests as like Chi-squared test of independence, Two sample proportion tests, Cochran-Mantel-Haenszel test, Chi-squared test for association, Friedman test.

1.6 Contribution of Research:

This study helps to understand the Cardiac Services of Multispecialty Hospitals in Mumbai. Factors influencing buying behaviors help to understand the patients buying behaviors towards Cardiac Services. Multispecialty Hospitals can improve their Cardiac Services as per the patients' behaviors and due to these Cardiac patients can get more patient satisfaction for the Cardiac Services of the Multispecialty Hospitals in Mumbai. Due to this study, Multi-specialty Hospitals understand the effectiveness of their branding, quality of cardiac services in the Mumbai. Due to analysis of factors influencing buying behaviors in cardiac Services, Multispecialty Hospitals can enhance the Cardiac patient services in the Cardiology Department. This study concludes that the social factors (including

family and reference groups) are found to be the most important in influencing cardiology service buying behavior in four multispecialty hospitals in Mumbai. Due to this conclusion, hospital can take initiatives to communicate with family as well as friends of the Cardiac patients. Because of the communication with Family or Friends, Cardiac patient can get better service from the Multispecialty Hospitals.

1.7 Outline of chapters:

Chapter 1: Introduction:

This chapter explains information about the Background, Objectives, Scope and purpose of the study, overview or outline of Research Approach, motivation for the study, Contribution of Research.

Chapter 2: Literature Review:

This chapter includes different studies of factors influencing buying behaviors in Healthcare sectors, Banking sectors and Telecom sectors. This chapter also gives information about the Research Gap.

Chapter 3: Factors influencing buying behaviors towards Healthcare Services- Conceptual Framework.

This Chapter includes introduction, objectives with respect to factors influencing buying behaviors towards healthcare services, factors influencing buying behaviors towards Healthcare Services, parameters of Buying behaviors of Cardiac Patients, application of buying behaviors in Healthcare Services, Model of Buying Behaviors of Cardiac patients towards Healthcare Services

Chapter 4: Research Design:

This Chapter includes Research Methodology, Data collection, Sampling methods, Sample size, Different techniques for the Analysis.

Chapter 5: Pilot Study:

This chapter describes the Pilot study for the research. This is small study before the main research analysis to check reliability and validity of the questionnaires of the main study.

Chapter 6: Data Analysis and Interpretations:

This chapter gives more information in details about the analysis of data which was collected by three different questionnaires. It shows that analysis is done by using appropriate and reliable Techniques for this research. It also compiles in appropriate ways. It includes appropriate findings and interpretations of the research.

Chapter 7: Result and Discussion:

This chapter gives information about the result and discussion in the categories namely 1) Patients, Patient's Relative and friends 2) Doctor and Paramedical staff 3) Marketing Persons 4) Overall Analysis.

Chapter 8: Conclusions and Summary:

This chapter includes appropriate conclusions and recommendations for the research.

1.8 Summary:

In this Introduction chapter, “factors influencing buying behaviors to healthcare services, A study in Multispecialty Hospitals in Mumbai with specific

reference to Cardiology Department” this research covers Background of the study, Objectives, Scope and Purpose of the study, Overview or Outline of Research Approach, Motivation for the study, Contribution of research and Outline of chapters.

CHAPTER-2

LITERATURE REVIEW

Chapter-2

Literature Review

2.1 Overview:

This chapter shortly gives information about the review of literature for the study of “factors influencing buying behaviors towards healthcare services, A study in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services).” Also, it helps to understand the Research Gap for this study. This chapter mentions Review of Literature in the all sectors like Healthcare, Telephonic and Banking etc.

2.2 Healthcare Sector Scenario: Literature review is done on Healthcare industry, Banking industry as well as Telecom industry. **Avedis Donabedian et al. (1961)** done analyzation of some Factors Influencing Prenatal Care. In this study, Various social and cultural attributes of individuals may help indicate whether physician and patients come together for medical supervision. **John G. Bruhn et al. (1977)** proved that Everyone’s education, religious beliefs and socioeconomic status influences everyone's attitude towards illness and health. A part in the way the Mexican American recognizes and deals with illness is played by Many facets of his life. An important role in influencing Mexican-American health practices is played by Beliefs and Customs. **War let et al. (1978)** did analysis present studies on patient satisfaction to withdraw indirectly a meaning of patient satisfaction. In their analysis, the characteristics of the service provider and medical services

affects patient satisfaction and distinct behavior towards each of those characteristics is demonstrated by patients. **Oliver (1980)** said that a mental state of emotions caused by a customers' actual experience is known as customer satisfaction and behavior. **Shostac (1984)** stated that a process that made up of actual steps to satisfy customer requirements can regards to customer service. For studying customer assumptions and designing customer service process model is needed. A better service design gives the better solution to market favorable outcome and growth. **Hanan Al-Ahmadi (1988)** analyzed that factors affecting performance of hospital nurses in Riyadh city which is capital of Saudi Arabia and he examined that organizational commitment, job satisfaction and personal and professional variables positively correlate the job performance. Both job satisfaction and organizational commitment strongly predict performance of the nurses. Some personal factors, including years of experience, nationality, gender, and marital status positively relate to the job performance. The job performance of nurses negatively relates level of education. **Uplekar et al. (1993)** stated that despite many studies on healthcare systems in India, the public and private sector practitioners which are lacking always offer direct systematic comparisons of the nature of clinical care. Such proof is badly needed to notify policies that seek and recognize ways in which both sectors might accompaniment each other. **Yesudian et al. (1994)** stated that specially in the treatment of tuberculosis and malaria, bad quality and lack of public health care are observed and noted. **A.M. Hoos et al. (1995)** stated that in summary background variables appear to influence the communicative behaviors. Therefore, these all behaviors in their turn influence

patient outcomes. In fact, every variable in summary background relates to all variables. All variables should be analyzed empirically. the development of interventions which improve communication in the medical setting, the Doctor – Patients’ Relationship and Patient outcomes could be resulted by a theory relating these different variables. **Eric C. Schneider et al. (1996)** interpreted that the Customer direct to Coronary Artery Bypass Graft Surgery has limited credibility among cardiovascular doctors. Referral recommendations influence to them and a barrier to care for severely ill patients may be introduced. If the choice of providers without impeding access to medical care intend to the publicly released performance reports for the guidance, the credibility and usefulness of the reports are may be enhanced by the collaborative process involving physicians. **N McDowell et al. (1997)** analyzed factors which influence practice nurses to promote physical activity. This study has concluded that the important differences in patient and practice factors for physical activity promotion associate to the two stage measures (activity promotion and personal behavior) of the health care professional. Before planning strategies to develop physical activity in the general practice require further investigations into the content and quality of delivery. **Nish Chaturvedi et al. (1997)** stated that Hindus and Sikhs described a greater likelihood of seeking immediate care for angina symptoms than Europeans; this information indicates that difficulties in interpretations of symptoms or willingness to seek care unrelate to the barriers to Cardiology Services for South Asians. Improvement of consciousness of heart disease may not decrease delays in getting care. General practitioners' difficulties in arriving at a diagnosis or differences in

management because of ethnic origin must explore to the service related explanations. **Brown et al. (1998)** stated that the concept of quality notes different meanings to different stakeholders as like government, service provider, hospital administration and patients. Managing service processes has a very special importance in service industry because it offers a process for delivery of the services. Unique customer experiences which would make the consumers use the services are created by efficient service offering. **Ostwald et al. (1998)** analyzed that the quality measures to gauge the quality of hospital services and influence customer satisfaction were related to the patients usually use associated facilities and human factors. four variables namely physician service performance, nursing service performance, operational quality and overall service quality are mentioned in this study to supplement the patient loyalty measure to have good perceptions into the process. **Lovelock et al. (1999)** stated that customers always trust in moment of truth, this is a point in service delivery where consumer come and do interaction with the employees of the hospital and the outcome of this interaction may affect the perceptions of quality of the service. Hence, the front end and back end processes are aligned in a manner that must be insured by the hospital. They illustrate a better moment of truth for the consumers. **Paul Williams et al. (1999)** stated that of the characteristics of patients in British special hospitals. Authors analyzed characteristics of patients to provide findings on prevalence, demographic characteristic, legal categories, psychiatric diagnoses, offences, histories, behavior within the special Hospitals, security needs and discharge records. **Julie Ashford et al. (1999)** analyzed that improvement of health care services via professional

behavior change as well as introducing a framework for recognizing behavior change strategies. In this study factors include namely the context of change, the relevant theoretical and empirical literature and the implementation and maintenance of change. As per the practical application in mind, the framework is intended as the change process in a structured manner and develop potential strategies are analyzed by tool to assist healthcare professionals for the achieving desirable behavior changes within their own and others' practice. **Peter F. Sharkey et al. (1999)** analyzed that factors influencing choice of Implants in Total Hip Arthroplasty and Total Knee Arthroplasty. In this study, Authors said that the most significant factors influencing choice of Implant is cost of implant. **Kamlesh Khunti (1999)** studied Use of many methods to decide factors affecting quality of care of patients with diabetes disease. **David Henry et al. (2001)** analyzed that factors influencing the uptake of technologies to minimize perioperative allogeneic blood transfusion for the national and institutional stakeholders. In this study, the influences on uptake of transfusion technologies which perceived by national and institutional stakeholders were described by the authors. **Karin Newman et al. (2002)** analyzed the findings of a qualitative study which was based on interviews with over 130 nurses and midwives in four London Trust hospitals. This study was on the main factors influencing nurse satisfaction and retention the patients, the inherent characteristics of nursing and the nursing team were the three main factors influencing job satisfaction; staff shortages and poor management were two main sources and increased pay was less important than improving working condition amongst nurse retention strategies. Pre-requisites for meeting the challenging target

of an additional 20,000 nurses on the wards by 2004 were for the recruitment as well as retention, improving the image and reputation of nursing along with improvements in work-life balance. **Nancy T. Artinian et al. (2002)** stated that one way to prevent frequent hospitalizations and promote positive health outcomes among the patients with heart failure (HF) are outcome by one way to prevent frequent hospitalization and promote positive health is to make certain that the amount and quality of self-care used is reliable to the patient's situation. **Alexander M. Clark et al. (2002)** did that a qualitative evaluation of cardiac rehabilitation in the region of Scotland. This study showed issues of more general relevance the cardiac rehabilitation Program development and intersectional working as like communications and role opinions in multi-professional working and the requirement to modify services to local socio-economic conditions. **Carol Propper et. al (2002)** stated that one of the main factors influencing family doctors. patient waiting time was choice of the Hospital. However, hospitals would get no direct reward without cash inducements from giving shorter waiting times to a subset of patients. Using a unique dataset, Authors finds whether shorter waiting times for their patients could be secured by GP holders, whether they could do so in cases where they had no financial points to offer hospitals, and whether shorter waiting time for all patients was spilled over by the impact of fundholding. **Albert J. Bellg (2003)** did analyzed of Maintenance of Health Behavior Change in Preventive Cardiology. In this case, he said that to describe motivational factors associated with internalization processes and hypothesizes proposes health behavior internalization that integrated internalization may be associated with long-term

health behavior maintenance. The HBIM recognize four self-needs are ownership, self-determination, security, and support and four behavior-related needs are preference, context, competence, and coping as motivating health behavior internalization. Self-determination theory, motivational interviewing and trans theoretical model interventions identify to the behavior change strategies promoting integrated internalization. In to relation, internalization processes, and potential limits of the model review to the other health behavior change constructs.

James L. Wofford et al. (2004) said that the developing curricula related to professionalism, communication skills and practice-based learning should be useful by seven compliant categories of physician behaviors. **Boons hoof et al. (2004)** said that the studies on the relationships between service quality, customer satisfaction and buying intentions had been conducted by them in the Private Hospital Industry. The objective of the research was to find out if higher-ranking service quality and higher-ranking transaction specific customer satisfaction will increase loyalty among patients in the private health care industry. The study attempts to judge what dimensions of both customer satisfaction and service quality drive Overall Satisfaction and Loyalty in the Private Hospital industry of South Africa. The results show that the service quality dimensions, empathy of nursing staff and assurance give impact positively on both loyalty and accumulative satisfaction in the private healthcare industry. **Carol S. Kleinman (2004)** said that recruit and retain staff nurses challenge to Nursing administrators during increasing job vacancies and staff nurse turnover rates averaging of 21 per cent. The introductory content shortly review the prevailing issues related to staff nurse

recruitment and retention in the current healthcare environment. The article outlines the case from nursing administration literature that staff nurse retention is enhanced by effective leadership styles of nurse managers and nurse administrator. the address leader preparation and organizational leadership structure including advanced education, leadership training, and shared leadership models discuss that nurse administrators persist to struggle with staff nurse recruitment and retention.

Anna Stromberg (2005) analyzed that Patient-related factors of compliance in heart failure at some new insights into an old problem. Its concluded that multitude of factors affect the compliance. The patient's aspect and the factors which influence the patient are of great importance. To prescribe treatment per guidelines and to set aside time and effort to help patients adhere are the responsibilities of the healthcare professionals. **Shoshanna Softer et al. (2005)** done a study on patient perceptions of the quality of health Services in Network. **Sally Venn et al. (2005)** analyzed that the influence of socio-demographic factors and health status on expression of satisfaction with GP services. In this study, assessing the relative performance may not be valid at the time comparing measures of satisfaction among organizations unless differences in socio-demographic composition are considered. **Fred David et al. (2006)** said that perceived physician 's competence, care and concern towards patients, cost of treatment and communication between physician and patient include variables. the patient 's perception on patient 's run clinical expectations of service quality place many studies show that lower priority. **Gilmore Audrey et al. (2006)** said that because of the inability of patients to analyze and judge the technical competence of medical practitioners with accuracy,

a few professionals contend that patients or consumers' perception of quality service in healthcare is not accurate. Our medical courses focus on imparting technical knowledge to the students further observe to them and therefore doctors do not accept any soft skill training which will authorize them to get closer to their patients. **Sun Ko et al. (2006)** done study on quality of life and health promotion behaviors among community-dwelling elderly in Korea country. This study was cross-sectional survey. The study was a descriptive-correlational study to explain information about the relationship between Quality of life and health promotion behaviors among the community-dwelling elderly in Korea country. **Lesley Baillie (2007)** said about the impact of staff behavior on patients' dignity in acute Hospitals. When staffs provide privacy and use interaction that helps patients feel comfortable, that time patient dignity is promoted. The individual staff behavior has a main affect on whether injuries to patient dignity head to its loss. **Jenny Ploeg et al. (2007)** analyzed that factors which influence towards Best-Practice Guideline Implementation. Lessons were learned from Administrators, Nursing Staff, and Project Leaders. They said that barriers and complications related to the individual practitioner, social context, and organizational and environmental context should be addressed by the Best practice guideline implementation and should be tailored to different groups of stakeholders e.g. Project leaders Nursing staff and Administrators. Health care administrators need to find out the "real" costs and complexity associated with successful execution of guidelines and the require to ensure corporate fulfillment at the onset. **Lesley Baillie (2007)** stated that when staff provides privacy and use interactions that help patients feel comfortable that

time patient dignity is promoted. The individual staff behavior has a main impact on whether threats to patient dignity direct to its loss. **Barbara A. et al. (2007)** discussed that enhanced safety climate is contributed by positive work engagement and work conditions. It can reduce nurse injuries. A theoretical model was examined by them that concluded the impact of nurse injuries (back injuries and needle sticks) of critical structural variables (work engagement, staffing adequacy and work conditions) and further tested whether safety climate moderated these impacts. **Liao H. L. et al. (2008)** stated that factors influencing the purchasing behavior of TCM out patients in Taiwan. Under the current NHI system, the major purchasers of Traditional Chinese Medicine are the patients with multiple chronic diseases. NHI did not cover products, therefore, the hospitals in developing TCM services under the current NHI system will be helped by increasing the usable resources of TCM products for the patients with chronic diseases. Per the **American Marketing Association (AMA)**, the degree to which the customer 's expectations are fulfilled by a product or service is known as customer satisfaction. **Fezvi Akini et al. (2008)** stated that the factors affecting hospital choice decisions of 869 patients in three public and one private hospital polyclinics in Ankara city, Turkey and attempts to decide their importance levels. The concentrated management efforts on these key areas and in formulated effective marketing strategies to retain and expanded hospital patient bases in the future are important to identify these factors and to determine their effect levels. The importance of accessibility of hospital services to consumers in hospital choice as well as the role of hospital's image, its physical appearance, and technological capabilities in

informing such choices are highlighted by their findings. These findings can be used by American health care managers to further understand how patients make choices related to health care facilities and to develop marketing strategies that may more effectively market their facilities. **Aditi Naidu (2008)** analyzed factors affecting patient satisfaction and healthcare quality. She stated that a multi-dimensional healthcare construct affected by many variables is known as patient satisfaction. Patient satisfactions which in turn influences positive patient behaviors such as loyalty are affected by healthcare quality. Patient satisfaction and healthcare service quality are difficult to measure and can be operationalized using a multi-disciplinary approach that combines patient inputs as well as specialist judgment. **Lawton R. Burns et al. (2009)** stated that Surgeons have good relationships with implant vendors, but only a small proportion receive financial payments. The vendor's sales representative and least closely with the hospital's purchasing manager are most closely aligned by Surgeons. Paradoxically, hospital efforts to limit the number of vendors are supported by the surgeons but report that their own choice of vendor is not constrained. Their tenure with and receipt of financial payments from the vendor are major drivers of surgeons' alignment and stance toward cost containment. **Las Vegas (2010)** analyzed that hospital administrations could use cost behavior to improve hospital management, if cost behavior is found to relate hospital to hospital quality of care. Cost behavior might be used by hospital boards as an indicator the hospital is edging towards financial difficulty. Hospitals Bridge the gap between the two seemingly diverse measures may be helped by the further research in to the relationship between cost behavior and quality care.

Longo J (2010) said troublesome behaviors that are acted out by any healthcare professionals can be dangerous to both the patient and healthcare workforce. It's not any more acceptable to tolerate troublesome behaviors. Adopting a zero-tolerance stance towards ending these behaviors however, improving general communication skills, increasing the desire to communicate effectively introducing policies regarding troublesome behaviors and interacting rightly with other healthcare professionals are also important. All team members of healthcare team have the accountability to act in a professional manner and have the right to expect fair and equal treatment from the colleagues. A protected and healthy work environment depends on it. **Fariba Zarani et al. (2010)** tested that the efficacy of the Information, motivation-behavioral (IMB) skills model-based intervention to promote quality of adhering among patients undergoing Coronary Artery Bypass Grafting surgery and investigated the relationship of psychological variables with quality of adhering. An intervention group or standard care control group randomly assign total number of 152 CABG patients. Pretest measures were completed by participant and were reassessed one and three months later. Results showed that the intervention group was importantly more adherent, which revealed support for the effectiveness of the IMB-based intervention. Furthermore, an important role was played by psychological factors in patient adherence. **Dr. Ranajit Chakraborty et al. (2011)** said that in the era of globalization, competition has become a key issue in all sorts of industry as well as services sectors. Whereas some other researchers pointed out its drawbacks, there different literature established the SERVQUAL is demanded model for measuring service quality. Although many different researcher

have identified limitation of SERVQUAL approach, the same is applied indifferent healthcare organization for analyzing services quality and patient satisfaction. Therefore, it is needed to go deeper in to the subject matter of the applicability of SERVQUAL model in context. **Shabani Omari (2011)** is done study of Knowledge, attitudes, practice and behaviors of nurses caring for HIV/AIDS patients at public hospitals in the Tshwane city area. Nurses have adequate and extensive knowledge of HIV/AIDS at the targeted hospitals. Nurses have positive attitudes resulting in more willing to care and treat the HIV/AIDS patient at public hospitals. This contrasts with those without knowledge or information of HIV/AIDS, whose attitudes and behavior are negative and who are dissatisfied with unsatisfied in their job. **Wilson et al. (2011)** discussed that the deaths of patients give influence on the nursing staff whom have been caring for them further research in to some of the areas mentioned above could provide useful information or knowledge regarding how to support nursing staff in these conditions or circumstances. This could include research in to how compassion, differing hospital settings and cultural environments can diminish or prevent fatigue. **Higgins O. et al. (2011)** said that an overview of research studies published from 2006 to 2010 in the English language on line health information is provided by literature review on health information Seeking behavior on the Web, seeking behavior by adults from the perspectives of both the health costumers and the health professionals. **Upali Nanda (2011)** said that the study establishes, through systematic behavioral observation, that patient experience can be impacted by providing an evidence based positive distraction by reducing, reducing people watching (which has

implications for privacy) and increasing socialization (which could improve social support). To bring down the noise level and improve patients and staff satisfactions can also be helped by using positive distraction nature based video and still art, instead of loud TVs. therefore, concluded that the patient waiting experience in ED can be improved by a simple visual intervention, like still and video art. **Calvin K. L. et al. (2011)** stated that the study demonstrates that most of the variance in patients' acceptance and self-reported use of the web-based self-management technology are together predicted by perceived usefulness, perceived ease of use, subjective norm, and healthcare knowledge. **Anita Huis (2012)** said that by focusing on determinants of behavior change, hidden and valuable components in Hand hygiene improvement strategies were found by them. Determinates are knowledge, awareness, action control and facilitation. Therefore, addressing only determinates is not enough to HH behavior. Addressing combination of different determinants give better results. This shows that they should be more impactful in the application of alternative activities addressing determinants such as social influence, attitude, and intention. **American Hospital Association (2012)** stated that providers should not overlook the patients 'behavioral healthcare needs, behavioral health diseases are prevalent among U.S. adults. Providers take on shared accountability for healthcare across the continuum. Consequences of not addressing these conditions in a coordinated fashion are poorer physical and mental health outcomes and higher healthcare costs. A care across treatment settings can be integrated by healthcare organizations and providers as well as between the behavioral and physical healthcare system should perceive gains in quality and

results also decreased treatment cost. **Heng Wei Lee et al. (2012)** analyzed the external factors in Hospital Information System and Adoption Model in Malaysia. The factors related to ICT integration in healthcare through HIS was analyzed by this study for the investigation on the secondary data. A direction for future research to study the correlation of factors affecting HIS adoption is provided by this paper. Finally, a research model is suggested using latest adoption theories and external factors from people, technology, and organization aspects. **Roy Shephard (2012)** did analysis of factors influencing exercise behavior of patients. In this analysis, he stated that the doctors of sports face important practical issues in encouraging the activity of sedentary patients and certaining their subsequent adherence to a prescribed exercise regimen. Both the individual and society bear some accountability for poor exercise compliance. Personality characteristics of the adherent depend is offered on the type of program and the degree of social support is provided; extraversion, a high self-esteem and self-motivation is common results. Beliefs and their evaluation seem more influential than subjective norms, although the experience of physical activity also heavily influence the exercise behavior. The internal rewards of a more active lifestyle are discovered by the patient. **Muslim Amin et al. (2013)** stated that the hospital services quality and its effect on patient satisfaction and behavioral intention are investigated by the study. **Aryan Seraji et al. (2013)** analyzed that awareness and their practice improved by increasing their knowledge influenced self-care behaviors in patients with heart failure. Therefore, it was suggested to give an educational and informational pamphlet video to patients with heart failure. **David Challis et al. (2013)** investigated the factors

associated with the delayed discharge of elder people from hospitals and their length of stay (LOS). In this survey, they said that the likelihood of delayed discharge and LOS relates to the Patient characteristics and especially the organization of care in hospital and the provision of services on discharge. Improved services and structures to systematically use and treat patient requirements in hospital, together with the timely provision of services giving post-discharge services tailored to everyone circumstances are required. **David et al. (2013)** analyzed that factors which influence provider selection for Elective Total Joint Arthroplasty. Author suggested that physician manner and surgical results are the most significant considerations for the patients when deciding a provider for selective TJA. Cost sharing is the least significant criterion patients considered. Patients communicated high motivation to search out provider quality information but showed accessible and actionable sources of information and knowledge are lacking. Future endeavors should be guided at developing clinically relevant, easily interpretable, objective, risk-adjusted measures of physician and quality of Hospital. **Stella Artuso et al. (2013)** stated that important barriers to HCU are faced by Aboriginal cardiac patients, resulting in sub-optimal quality of care, keeping them at risk for following cardiovascular events and negative health results. To facilitate HCU amongst Aboriginal people, strategies must be implemented to improve communication on all levels and reduce systemic barriers operating within the health system must implement to facilitate HCU amongst Aboriginal people, strategies. **Webair H. H. et al. (2013)** said that the preventable childhood illnesses with presenting interventions, reliable HSB prevalence is low. Symptom type,

caretakers' education and perception of illness severity are known as the predictors of HSB. Educational development of the mothers, initiation of community based integrated management of childhood illness and in-depth research are reliable to develop mothers' HSB. **Arjun Murti et al. (2014)** analyzed the study of the appropriateness of quality service to develop consumer satisfaction and in the process positively influencing behavioral intentions in healthcare services. **Ali Mohammad Mosadeghrad (2014)** stated that a production of cooperation between the patient and the healthcare provider in a supportive environment is known as Quality in Healthcare. The health care service quality is affected by personal factors of the provider and the patient, factors about the healthcare organization, healthcare system and the broader environment. The supportive visionary leadership, proper planning, education and training, availability of resources, effective management of resources, employees, and processes, and collaboration and cooperation among providers can improve Healthcare quality. **A.H. Hemanth Kumar et al. (2014)** said that the different groups prefer or opinion differs on consumer buying behavior are implied by the small differences exist in the income. It created curiosity for researcher to search which group differing of the opinions. With the help of Post hoc, researcher analyzed that the dependent differs the thinking among other class. It may be because of the decisions are taken by youngsters. Multiple roles in their daily life, professional role and social role are played by every person. Each of these roles has a certain effect on costumer buying behavior. Consumer behavior considerably depended on the status factor and every role has status in society. The marketers easily understand the factors that mainly influence in buying decision the

sales can be increased a lot when the marketers easily understand the factors that significantly influence in buying decision. The study give an evaluation of the symbolic devices that celebrity and peers embrace to persuade the audience. The visual expression model is supported in that the study guides why advertisers take celebrities of different gender and age groups and expertise areas in commercials for definite products and cultural values. **CPT Dionisio Ortiz III et al. (2014)** studied patients' perceptions of surgeon–industry relations in a military setting. The authors concluded that most patients in the military setting had a positive view of the relationship that their surgeons had with industry, which is reflective of the data obtained in the civilian literature. **Ehsan Zarei et al. (2014)** stated that in the increasing competitive market of private hospital industry, creating a strong relationship with the customers and increasing competitive market of private hospital industry that shapes patients' loyalty has been considered a key factor in obtaining market share. The objective of this study is to test a model of customer loyalty among patients of private hospitals in Iran. **Yong Kang Cheah (2014)** showed that drawing on a nationally representative data set of Malaysia; the present study has found that the use of health-promoting goods and services can be affected by age, income, gender, ethnicity, education, marital status, the location of residence, job characteristics and being diagnosed with hypercholesterolemia. Therefore, policymakers should take these factors into account when making population-based intervention measures. The concentrated interventions which direct benefits, motivators, and self-efficacy may enhance participation in hospital based programs and increase healthy lifestyles for hospital based clinical nurses.

Aziz Kassani et al. (2015) stated the patient's absconding behavior in a General hospital in the Southern Iran. A patient more likely abscond from the hospitals is made by the characteristics such as middle age, male gender, no insurance coverage, inability to afford hospital expenditures and admission in emergency department. Therefore, it may be needed to concentrate efforts on high-risk groups and expand insurance coverage in the country to stop absconding from a hospital.

Mr. Madhusoodan et al. (2015) studied that effectual use of nursing process aid in providing quality of patient care to cardiac patients, that could be aided for other diseases also in a hospital as well as community setting. **Mohd. Farid Shamsudin et al. (2015)** said that a key element of an effective and prosperous organization is known as customer loyalty. Patients are converting to be more involved in their healthcare and are being motivated to do it. A customer continuing to believe that product or service offer of organization is their best option is known as loyalty. It best achieves their valuable plans whatever that may be and they adopt that offer whenever faced with that purchasing conclusion. It aids service providers to increase customer loyalty by improving and delivering a good service quality and good image. **V. Kamra et al. (2016)** analyzed that ten factors affecting hospital choice decisions of patient are basic amenities, reputation, and quality, building and infrastructure, ease and affordability, personal substances (experiences), responsiveness of services, recommendations and suggestions, clinical support, privacy and information. **Ashley C. Doddet et al. (2016)** stated that geographic differences or variations in Medicare spending for DRG 536 of hip and pelvis fracture. Authors identified 22,728 patients for the hip and pelvis fracture. This

study recorded the median number of charges, discharges and payments. In this study hospitals were aggregated into core based statistical areas and the coefficient of variation was calculated for every area. On average, hospitals taken money 3.75 times more than they were reimbursed. Variability within each area was demonstrated by medicare charges and reimbursements. Geographic differences in Medicare spending for the hip fractures is presently unexplained. It is reliable for orthopedists to interpret drivers behind such high variability in hospital bills for the management of hip and pelvis fractures. **Stuart Waters et al. (2016)** analyzed the themes were clinic waiting time, clinical contact time, empathy, communication, expectation, and relatedness. These seven themes were influencing patient satisfaction with orthopedic clinic assessment. **Ngoc Khuong et al. (2016)** stated that more of men skin care products would likely be purchased by higher levels of skin's health attention, body attraction, age and aging process and cognition of using men skin care products. In addition, four personal factors of self-image, skin's health attention, body attraction, and age and aging process were indicated by empirical results. These personal factors had significant effects on male consumer purchase decision. **Jekaterina Kuzmina (2017)** studied that measuring patients' satisfaction for the profit Orthopedic Hospital. The author said that the developed tool could be a valid instrument for deciding the patient's satisfaction, permitting to improve the current process within the organization as well as benchmarking dissimilar groups in the Hospital as far as possible and growing best-practice approaches. **Haresh Raulgaonkar et al. (2017)** stated that the study was conducted to interpret the perceptions of orthopedic surgeons towards seven leading implant

brands in India. Authors studied the significance of different factors considered by orthopedic surgeons for the deciding an orthopedic implant. **Anna R Gagliardi et al. (2017)** analyzed factors influencing the reporting of adverse medical device events. This study done by qualitative interviews with doctors about the more risk implantable devices. **A G Slogan et al. (2017)** stated that healthcare hospitals encouraged by patient engagement by sharing information to the patients, extending support to the patients, building trust for the patients and creating a culture where patient participation and treatment deliberation was valued. **Soo-Jeong Lee et.al (2017)** said that while performing patient handling task safe work practices are significant to minimize risk of injury. **Zabolypour S. et al. (2017)** analyzed that the quality or standard of caring behaviors of nurses and patient satisfaction. They found good standard of caring behaviors, patient satisfaction in technical skills & intense standard of other areas of nursing. **Doug Finefrock et al. (2018)** stated that top most patient satisfaction scores correlate the patient centered communication behaviors. **Silvia De Simone et.al (2018)** said that the turnover intention positively or negatively correlate the job satisfaction, work engagement, self-efficacy, agentic capacities. **Chunru Wang et al. (2019)** studied on the Relationship among Psychological Stress and Doctor and Patient Relationship of Cancer Patients and Their Families. He concluded that post-traumatic stress disorder, anxiety, depression and doctor-patient relationship were all improved after the psychological intervention of cancer patients.

2.3 Telecom Sector Research Scenario:

Md. Ashaduzzaman et al. (2011) stated that customer express different behavior before the purchase, during the purchase and after the purchase is known as Consumer behavior and that is significant to aware to make policy. Telecommunication operators' market gives a more potentiality as mobile phone in Bangladesh has become as part of the country's culture from top class people to lower class people at the time of connecting and making communication with the nearest ones or the associates through mobiles. Today, customers are more educated, demanding and well knowledgeable than previous. Now, the consumers watch the various types of cable channels and read the newspapers which are used to educate, to convince and to remind the consumers. Family members, friends, colleagues, relatives and by groups influence to consumers. In the Bangladesh, mobile phone has been launched in a year 1993. Now, mobile phone has become a very popular communication medium in Bangladesh. Everyone as like business people, professional persons, school students, college student uses these mobile phones with extreme concentration for their personal and occupational works. **Mesay Sata (2013)** stated that the research was to investigate the factors that determining the decision to purchase mobile phone devices. This study shows that most of consumers have Nokia mobile phones. Moreover, majority of Nokia mobile phone operators or users have a plan to move to other brands as like Samsung, Apple and Blackberry. **Hassan Jawad Soomro et al. (2013)** analyzed that the purchase the mobile phone handset with value added facilities like camera, large screen, familiar brand and low price are preferred by many respondents. The

respondents or consumers also concentrated those service provider companies which give the services such as SIM at low price, free minutes, low call rates and call clarity. **Inderjeet Sethi et al. (2014)** analyzed that the Social, Cultural and Marketing factors influencing on the buying behavior of the mobile users of rural, semi urban and urban area. The development in the technology has become less the difference between the recognition and consumption of mobile services in different areas. Rural, Semi Urban and urban area give the same market. The competition tough in the market have been made by the entries of the service providers. Therefore, the marketers must be aware of the factors that influence the buying behavior of the mobile phone users. They reside in Society. Therefore, the social factors influence their decisions. Social factors include family, friends, Relatives, seniors, Colleagues, role and status in the community. While choosing the services of a service provider, cultural factors and marketing factors are also considered.

2.4 Banking Sectors Research Scenario:

Fulbag Singh et al. (2011) said that banking services are regarded as one of the significant services. Banks give financial services to the consumers. The banking industry has become the buyer's market because of the rising competition and liberalization. Banks require to create and develop the services which can give satisfaction to the consumer needs. Customer satisfaction is a very important construct in today's market is customer satisfaction. As per the earlier studies, service quality influence to customer satisfaction. Therefore, the current research study has been done to analyze the consumer perception of service quality in rural and urban bank branches and its influences on customer satisfaction. The study

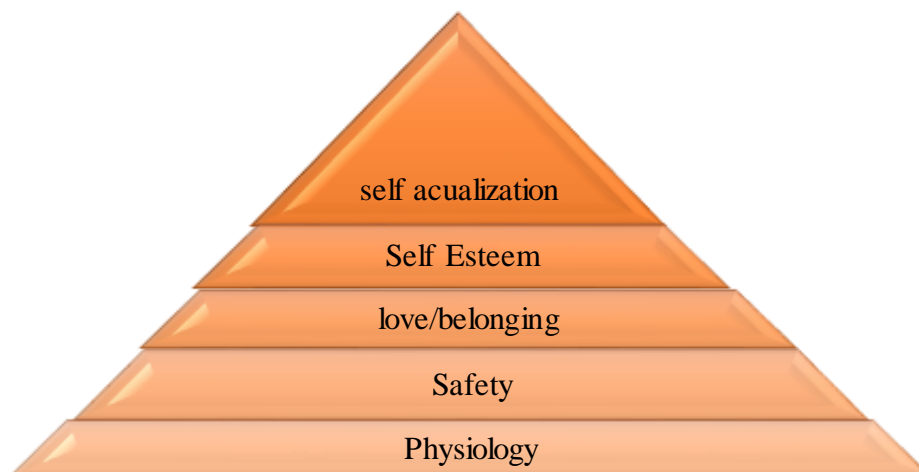
identifies Six service quality factors which influence customer satisfaction regarding banking services are identified by the study and it is showed by the analysis that satisfaction level of rural consumer is higher as compared to urban consumers. **Dr. Morshed Hasan Khan (2013)** said that the consumers' attitudes and purchasing intentions are influenced by the dimensions of a financial service quality. This paper primarily review the financial service quality factors in relate to the relationship between the quality of services offered and consumers buying behavior. **Dr. Filzah Isa et al. (2013)** stated that cultural belief is a serious and critical point in the Yemeni banking system and it could be one of the important hurdles of customers to use the banking services. Therefore, results of this study may support monetary officials to start an advertising campaign to try and change cultural beliefs of people in a positive way and inform them about the advantages of financial services. **Swati S Godbole et al. (2014)** stated that the help of questionnaire carried out the perception of the retail investors towards gold buying. The results of the study given idea that indeed the ease at the time of purchase and high liquidity has resulted into gold being a top most favored investment avenue as against the others people. Instrumental in gold being sought after asset has instrument against inflation, high return and tax benefits. **Utkarsh Gupta et al. (2015)** stated that due to the requirements of residential accommodation, the demand for home loans has been increasing in India. A large amount of Indian population is availing the home loan facility. The public as well as the private sector banks offer home loan facility. It is significant for the banks offering the home loans to consider and keep a record of the factors influencing the decision of the buyers

to benefit the home loan. Home loans offers advantages to the buyer not only terms of getting an asset but also in terms of a good instrument of saving and for employed ones it turns out to be initiators of tax advantages also.

2.5 Consumer Behaviors Models:

Abrahm Maslow (1943) stated psychological model, it divides the needs. Psychological model includes psychological needs, safety and security needs, social needs, self-actualization need and ego need. He created the Hierarchy of needs.

Fig No. 2.1 Psychological Model:



Shostac (1984) stated that service of the customer can be related as a process that consists of real steps to satisfy customer needs. Customer service process model is required for the analyzing customer expectations and designing. A solution to market success and growth is provided by better service design.

Nicosia model (1976) stated that the relationship between the firm and its potential consumers are focused by Nicosia model. The firm send messages to consumers through its advertising and the consumers react or feedback to these messages by

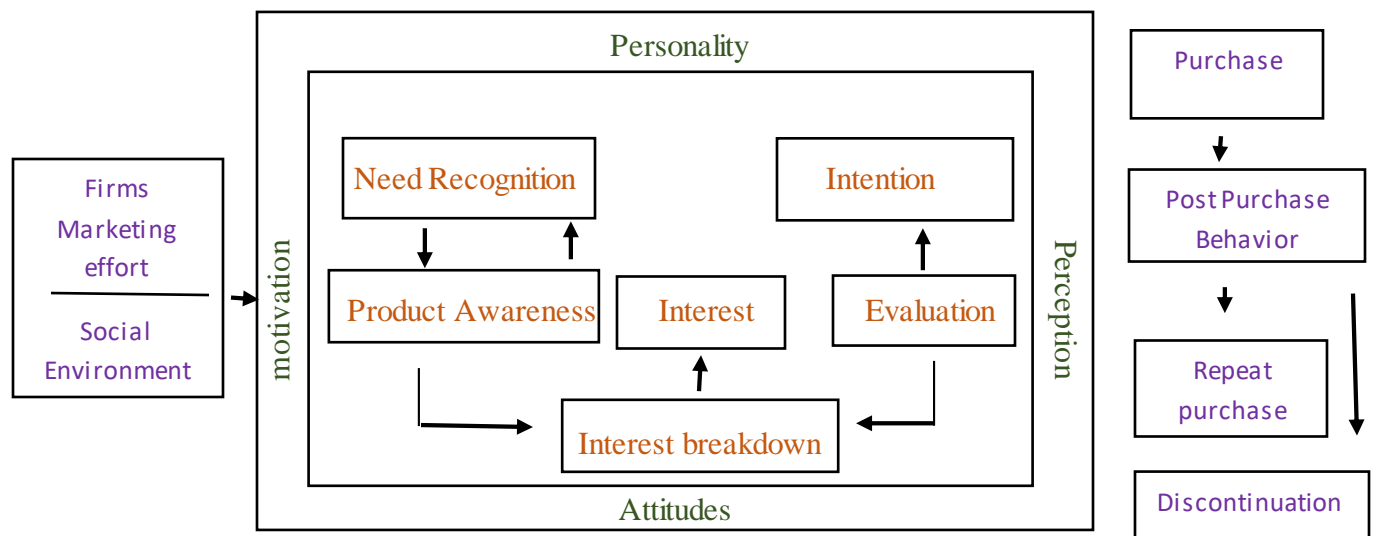
purchasing response. Because of the model researchers will find that the firm or company and the consumer keep relation to each other, the firm always tries to impact the customer and the customer is influencing the firm by his perceptions.

Howard-sheth model (1969) offered that levels of decision making A) the first level describes the substantial issue solving. At this level, the customer does not have any basic knowledge or education about the brand and he does not have any references for any product or service. In this situation, the customer will find information about all the various brands in the market before purchasing the products or services. B) The second level is limited issue solving. This situation supports for customers who have less information about the market, or less knowledge about what they want to purchase. To come at a brand references some measured brand information is sought. C) The third level includes habitual response behavior of customer. This level shows that the costumers have information very well about the various brands and they can identify differences between the various characteristics of every product or services and because of these customers decides to purchase products. **Bettman's Information Processing Model of Consumer Choice (1979)** described that the customers as possessing a restricted volume for processing information. Author shows that the customer rarely survey the complex options in decision making and give simple strategy. **Sheth-Newman Gross Model of Consumption Values (1991)** stated that there are five consumption values which are functional, social, conditional, emotional, and epistemic values influencing consumer choice behavior. Any or all the five consumption values may impact the decision of customers. Various disciplines such like sociology,

economics, marketing and consumer behavior, several branches of psychology have given contributions in theories and research results relevant to these values.

Model of Consumer Decision-Making Framework described that **Gilbert (1991)** suggested a model for consumer decision-making. Two levels of factors that influence the consumer are suggested by this model. Close to the person and includes psychological influence such as perception and learning is the first level of influence. Those which have been developed during the socialization process and include reference groups and family influences is the second level of influences. **Stimulus-Response Model of Buyer Behavior Middleton (1994)** presented the stimulus response model of buyer behavior which was indicated by adapted model of consumer behavior tourism. Basically, this model shows the four interactive components with the central component recognized as buyer characteristics and decision process. The **Black box model** described that the interaction of stimuli, characteristics of customers, decision process of customers and customer responses. It can be differentiated between interpersonal stimuli among people or intrapersonal stimuli among people. **Input, process and output model** stated that the input for the consumer is the marketing effort of firm and social environment. The marketing effort consist of the price, product, promotion and place. The social environment inclusion of the reference group, family, social class, culture etc. which influences the decision-making process of the consumers.

Fig. No.2.2: Input, process and output model:



2.6 Research Gap:

As per above literature reviews (research) and discussions, this Ph.D. study is unique. Still, research has not been done on "factors influencing buying behaviors towards Healthcare Services, A study in Multispecialty Hospitals in Mumbai with specific reference to the Cardiology Department (Services)." However, studies have been done on patient satisfaction on department or quality of the services of the Department. This study will very useful to determine factors influencing buying towards Cardiology Department of Multispecialty Hospitals in Mumbai. Due to this study, Cardiology Department of Multispecialty Hospitals can improve the quality of the cardiology services in Mumbai. Because of this study, cardiology department can understand influencing customers and customers' needs for the patients' satisfaction.

This study analyzes most important factors influencing buying behaviors in the Mumbai area. So, all Hospitals should focus on most important factors to improve the quality of the Cardiology Department. This study analyzes 1) Social factors includes Family, Friends and Reference group 2) Personal factors includes economic situation, lifestyle, age, occupation, personality and Self-concept. 3) Psychological factors consist of motivation, perception, learning, beliefs and attitudes. 4) Cultural factors consist of subculture, patient culture and Social class. Therefore, if all Multispecialty Hospitals do focus on the most important influencing factor's requirements or needs then the Patient satisfaction of the multispecialty hospital will increase. Because of this study, Cardiology Department can provide better services to the patients in Mumbai Area.

But this study is only for the Mumbai area. If same study is done in the pan India then definitely will get help to improve Cardiology Department of Multispecialty Hospitals in Pan India.

2.7 Summary:

This chapter explains information about the literature reviews for this study. It presents that literature survey has been done on the three sectors namely 1) Healthcare sector 2) Banking Sector 3) Telecom sector. Literature survey shows the study has not been done on this topic up to date. This chapter also give information about the Research Gap for the study. This chapter also indicates the tabular format of the Literature Reviews in Table No. 2.7.1

Table No. 2.7.1: Tabular format of Literature Reviews

Sr. No.	Literature Reviewed (Title of the paper, article, etc. along with the source, i.e., the name of the Journal, Magazine, Book, etc.)	Literature Type (Research Paper, Review Paper, Chapter of a Book, etc.)	Author/s	Publishing Year	Gist of Points gained	Gap	Linkage to own research
1)	A Study on factors influencing consumer buying behavior in cosmetic Products.	Research paper	A. H. Hemanth Kumar, S. Franklin John and S. Senith	2014	Buying behaviors in Cosmetics Product	Research not done in the Cardiac Services	Research objectives
2)	Factors affecting patient satisfaction and healthcare quality	Research Paper	Aditi Naidu	2008	Quality and Patient satisfaction	Research not done on Buying Behaviors	Parameters of buying Behaviors
3)	Patient engagement: Qualitative narratives illustrate patient engagement behaviors	Research paper	A.G. Slogan et al.	2017	Patient Behaviors	Research not done in Cardiac Services	Research objective

4)	Maintenance of Health Behavior Change in Preventive Cardiology	Research paper	Albert J. Bellg	2003	Health Behavior Change in Preventive Cardiology	Rsearch not done on Influencing Factors	Behaviors change in Cardiology
5)	Preparing for change in the secondary prevention of coronary heart disease: a qualitative evaluation of cardiac rehabilitation within a region of Scotland	Research paper	Alexander M. Clark et al.	2002	Prevention of Heart disease	Research not done on Buying Behaviors	Cardiac Services
6)	Factors influencing healthcare service quality	Research paper	Ali Mohammad Mosadeghrad	2014	Healthcare service quality	Research not done in Cardiac Services	Research objectives
7)	A systematic review of hand hygiene improvement Strategies: a behavioral approach	Research paper	Ania Hui	2012	Behavioral approach	Research not done in Cardiac Services	Patient's Behaviors
8)	Factors influencing the reporting of adverse medical device events: Qualitative interviews with physicians about higher risk implantable devices	Research paper	Anna R Gagliardi et.al	2017	Factors influencing on medical device events	Research not done on Patients Behaviors in Cardiac services	Factors influencing towards Healthcare Services.
9)	Patient-related factors of compliance in heart	Research paper	Anna Stromberg	2005	Patient-related factors	Research not done on Buying Behaviors	Cardiac Services

	failure: some new insights into an old problem						
10)	Service quality, Customer satisfaction and Behavioral intention in Healthcare services	Research paper	Arjun Murti et.al	2014	Behavioral intention	Research not done on Influencing factors	Parameters for buying behaviors for Cardiac Services
11)	Geographic variations in orthopedic trauma billing and reimbursements for hip and pelvis fractures in the Medicare population	Research Paper	Ashley C. Dodd et.al	2016	Geographic variations	Research not done in Cardiac Department	Research objectives
12)	Some factors influencing prenatal care	Research Paper	Avedis Donabedian et al.	1961	Influencing factors prenatal care	Research not done in Cardiology Department	Research objectives.
13)	Study of Patients absconding behavior in a General hospital at southern region of Iran	Research Paper	Aziz kassani et.al	2015	Patients absconding behaviors	Research not done in Cardiology Department.	Patients behaviors in the hospital
14)	Impact of nurse injuries (back injuries and needle sticks) of critical structural variables (staffing adequacy, work engagement, and work conditions) and further	Research Paper	Barbara A. Mark et al.	2007	Impact of nurse injuries of critical structural variables.	Research was not for Buying behaviors	Perception of Patients

	tested whether safety climate						
15)	Implant vendors and hospitals: Competing influences over product choice by orthopedic surgeons	Research Paper	Burns et al.	2009	Competing influences over product choice	Research not done in Cardiology Department.	Perceptions of Doctors
16)	Factors affecting home care patients' acceptance of a web-based interactive self-management technology	Research paper	Calvin K L et al.	2011	Web-based interactive self-management technology	Research was not for Cardiology	Perception of Patients
17)	Waiting times for hospital admissions: the impact of GP fundholding.	Research paper	Carol Propper et al.	2002	Waiting time	Research was not for Buying Behaviors	Impact of Doctors for Hospital Services.
18)	A Key Strategy in Staff Nurse Retention.	Research Paper	Carol S Kleinman	2004	Staff nurse retention	Research not done on Buying Behaviors	Perception about the Paramedical staff
19)	Measuring consumer satisfaction in healthcare Sector The applicability of SERVQUAL	Research Paper	Chakraborty and Anirban Majumdar	2011	Consumer satisfaction	Research not done on Influencing factors	Patients satisfaction
20)	Study on relationship between Psychological stress and doctor-patient	Research Paper	Chunru Wang	2019	Doctor-Patient relationship	Research not done in Cardiology Services	Influencing factors (Social &

	relationship of cancer patients and their families						Psychological)
21)	Patient Perceptions of Surgeon–Industry Relations in a Military Setting	Research Paper	CPT Dionisio Ortiz III	2014	Patient Perceptions of Surgeon	Research not done in Cardiology Services	Patient perception on Doctors.
22)	An examination of factors influencing delayed discharge of older people from hospital	Research Paper	David Challis et al.	2013	Influencing factors on delayed discharge of older people	Research not done on Buying behaviors	Perception of patients
23)	Factors influencing the uptake of technologies to minimize perioperative allogeneic blood transfusion: an interview study of national and institutional stakeholders	Research Paper	David Henry et al.	2001	Influencing factors the uptake technologies	Research not done on Buying behaviors	Factors influencing the technologies.
24)	Patient-Centered Communication Behaviors That Correlate with Higher Patient Satisfaction Scores	Research Paper	Doug finefrock	2018	Patient-Centered Communication Behaviors	Research not done in Cardiology Department	Patients behaviors
25)	Understanding patients behavioral Intention	Research Paper	Ehsan Zarei et al.	2014	Patients behavioral intention	Research not done on Buying behaviors	Patients behaviors

26)	Influence of Cardiac-Surgery Performance Reports on Referral Practices and Access to Care — A Survey of Cardiovascular Specialists, the New England	Research paper	Eric C. Schneider et al.	1996	Influence of Cardiac-Surgery Performance	Research not done on Buying behaviors	Performance of Doctors
27)	The Effectiveness of the Information-Motivation-Behavioral Skills Model in Promoting Adherence in CABG Patients	Research Paper	Fariba Zarani et al.	2010	Information-Motivation-Behavioral Skills	Research was not for Factors influencing towards cardiac services	Effectiveness of motivation behavioral skill.
28)	Hospital choice factors	Research Paper	Fezvi Akini et al.	2008	Factors for hospital choice	Research not done in Cardiology Department	Parameters of Buying behaviors
29)	Factors affecting performance of hospital nurses in Riyadh Region, Saudi Arabia	Research Paper	Hanan Al-Ahmadi	1988	Factors affecting performance of hospital nurses	Research not done in Buying Behaviors	Performance of paramedical staff
30)	Study of the factors affecting the selection of orthopedic implant brands and their perceptual mapping in Mumbai city.	Research Paper	Haresh Raulgaonkar	2017	Influencing factors	Research not done on Buying behaviors for the cardiac services	Patients perceptions about the implants

31)	External Factors in Hospital Information System (HIS), Adoption Model: A Case on Malaysia	Research Paper	Heng Wei Lee	2012	Hospital Information System.	Research not done on Buying Behaviors	Perception of patients regarding HIS Technology.
32)	Healthcare of female outpatients in south-central India: Comparing public and private sector provision.	Research Paper	Jagdish Bhatia et al.	2004	Healthcare service of female out patients	Research not done on Buying Behaviors	Perception of female out patients.
33)	Measuring patient's satisfaction in For-profit Orthopedic Hospital	Research Paper	Jekaterina Kuzmina	2017	Patient Satisfaction	Research not done in Cardiac services	Patient satisfaction
34)	Factors Influencing Best-Practice Guideline Implementation: Lessons Learned from Administrators, Nursing Staff, and Project Leaders.	Research Paper	Jenny Poleg et al.	2007	Guideline implementation strategies	Research not done in Cardiac Services	Perception of the staff of the Hospitals
35)	Cultural Factors Affecting Utilization of Services by Mexican Americans	Research Paper	John G Bruhn et al.	1977	Cultural factors.	Research was not for Cardiology Department	Culture factors affecting health practice
36)	Improving health care through professional behavior change: introducing a framework	Research paper	Julie Ashford	1999	Behavior change	Research not done on Influencing factors	Research objectives

	for identifying behavior change strategies						
37)	The nurse satisfaction, service quality and nurse retention chain: Implications for management of recruitment and retention	Research Paper	Karin Newman	2002	Nurse satisfaction, service quality and nurse retention	Research not done in Buying Behaviors	Perception of Paramedical staff (nurse)
38)	Use of multiple methods to determine factors affecting quality of care of patients with diabetes	Research Paper	Kamlesh Khunti	1999	Factors affecting quality of care of patients	Research not done on Buying Behaviors	Quality of care of patients
39)	Factors that Influence provider selection for Elective Total Joint Arthroplasty	Research Paper	Kevin J. Bozic	2013	Influencing factors for Anthroplasty	Research not done in Cardiology Department	Research Objectives.
40)	Marketing for the healthcare organization.	Book	Kotler P et al.	1992	Healthcare organization	Research not done on Buying behaviors on cardiology Services	Research Objectives
41)	Cost Behaviors a Significant factor in predicting the quality and success of hospitals	Research Paper	Las Vegas	2010	Cost behaviors	Research not done in Cardiology Services	Research Objectives
42)	Implant vendors and hospitals: Competing influences over product	Research Paper	Lawton R. Burns et al.	2009	Product choice	Research not done in	Research objectives.

	choice by orthopedic surgeons					Cardiology Department	
43)	The impact of staff behavior on patient dignity in acute hospitals	Research paper	Lesley Baillie	2007	Staff behavior on patient dignity	Research not done in Cardiology Department	Paramedical staff behaviors
44)	Factors influencing the purchasing behavior of the TCM outpatients in Taiwan.	Research Paper	Liao HL et al.	2008	Factors influencing the purchasing behavior	Research was not for Cardiology Department in Mumbai area.	Research objectives
45)	Doctor-Patients Communications: Review of the literature.	Review paper	LML (ONG) et al.	1995	Doctor patient communication	Research not done on Buying behaviors	Impact of doctors & paramedical staff
46)	Effective of Nursing process in Providing quality care to Cardiac Patients	Research paper	Madhusoodan et al.	2015	Effective of Nursing process	Research not done on Influencing factors	Parameters for the buying behaviors of cardiac patients.
47)	Consumer choice behavior towards mobile phone operators in Bangladesh	Research Paper	Md.Ashaduzzaman et al.	2011	Consumer choice behavior	Research not done on Buying behaviors towards healthcare	Research Objectives
48)	Personal Factors Affecting Consumer Purchase Decision towards Men	Research Paper	Mai Ngoc Khuong et al.	2016	Personal factors	Research not done in Cardiac services	Research Objective

	Skin Care Products, A Study in Ho Chi Minh City, Vietnam						
49)	Patients Complaints about physician Behaviors Qualitative Study	Research paper	Marcia M Wofford et al.	2004	Physician behaviors	Research not done in Cardiac services	Perception of patient.
50)	The effect of Educating self-care behaviors to patients with heart failure in hospitals of Zahedan	Research Paper	Maryam Seraji et al.	2013	The effect of Educating self-care behaviors to patients with heart failure	Research not done on Patients behaviors of cardiac patients in Mumbai area	Research Objectives
51)	Factors Influencing Customer Loyalty in Private Healthcare Services	Research Paper	Mohd Farid Shamsudin et al.	2015	Influencing factors on customer loyalty	Research not done in Cardiac services	Research Objectives
52)	Hospital Services Quality and Its effects on patients 'satisfaction and behavioral intention	Research Paper	Muslim Amn et al.	2013	Patient Satisfaction	Research not done in Cardiac services	Perception of patients
53)	Factors Related to Healthy Diet and Physical Activity in Hospital-Based Clinical Nurses.	Research Paper	Nancy M. Albert et al.	2014	Related factors	Research not done in Cardiac services	Research objectives
54)	Self-care behaviors among patients with heart failure	Research Paper	Nancy T. Artinian et al.	2002	Heart failure patient's behaviors	Research not done on Factors influencing buying behaviors	Patients behaviors and Perceptions

55)	Factors that influence practice nurses to promote physical activity	Research Paper	N McDowell et al.	1997	Influencing factors on practice nurse	Research not done on Factors influencing to Buying Behaviors	Research Objectives
56)	Lay diagnosis and health-care-seeking behavior for chest pain in south Asians and Europeans	Research Paper	Nish Chaturvedi et al.	1997	Healthcare seeking behavior	Research was not for Factors influencing buying behaviors in Mumbai area	Research Objectives
57)	Combating disruptive behaviors	Research Paper	Longo J	2010	Disruptive behaviors	Research not done in Cardiac Services	Patients Behaviors.
58)	A review of recent academic literature on the characteristics of patients in British special hospitals	Review Paper	Paul Williams	1999	Characteristic of patient	Research not done on Factors influencing buying behaviors	Perception & Attitude of patients
59)	Factors Influencing Choice of Implants in Total Hip Arthroplasty and Total Knee Arthroplasty	Research Paper	Peter F. Sharkey et al.	1999	Factors Influencing Choice of Implants	Research not done on Cardiac Services	Research objectives
60)	13th Edition chapter 5 th and chapter 6 th .”	Book	Philip Kotler et al.	2009	Marketing Management	Research not done on Factors influencing towards	Research objectives

						Healthcare services	
61)	Major disconnect between patient expectations and Physician.	Research Article	Catalyst Healthcare Research	2012	Patient experience	Influencing factors	Patient's perception
62)	Impact of hospital services on outpatient satisfaction	Research Paper	R Gopal et al.	2014	Out patient satisfaction	Influencing factors on buying behaviors	Impact of Hospital Services.
63)	Measuring Customer Satisfaction artifact	Research Paper	Robert A et al.	1992	Customer satisfaction	Influencing factors	Patient satisfaction
64)	Factors Influencing the Exercise Behavior of Patients	Research Paper	Roy J. Shephard	2012	Behavior of Patients	Research not done in Cardiology Department	Research Objective
65)	Assessing the influence of socio-demographic factors and health status on expression of satisfaction with GP services	Research Paper	Sally Venn et al.	2005	Influence of socio-demographic factors	Research not done in Cardiology Department	Research Objectives
66)	The role of job satisfaction, work engagement, self-efficacy and agentic capacities on nurses' turnover intention and patient satisfaction	Research Paper	Silvia De Simone et.al.	2018	nurses' turnover intention and patient satisfaction	Research not done on Buying Behaviors	Patient perception on Paramedical staff (Nurses).
67)	Knowledge, attitude, Practice and behavior of nurses caring for	Research Paper	Shabani Omari	2011	“Knowledge, attitude, Practice and behavior of	Research not done in	Research Objectives

	HIV/AIDS patients at public hospital				nurses caring for the patients	Cardiology Department	
68)	Patient perceptions of the quality of health services	Research Paper	Shoshanna Sofaer et al.	2005	Patient's perception	Research not done in Cardiology Department	Research objectives
69)	Factors influencing health care utilization among Aboriginal cardiac patients in central Australia: a qualitative study	Research Paper	Stella Artuso et al.	2013	Influencing factors healthcare utilization in Cardiac patient.	Research not done in Mumbai area	Research objectives.
70)	Safe Patient Handling Behaviors and Lift Use among Hospital Nurses: A Cross-Sectional Study	Research Paper	Soo-jeong lee et al.	2017	Behaviors of nurses	Research not done on Influencing factors	Behaviors of Paramedical staff for patient care.
71)	Identification of factors influencing patient satisfaction with orthopedic outpatient clinic consultation: A qualitative study	Research Paper	Stuart Waters et al.	2016	Factors influencing patient Satisfaction	Research not done in Cardiology Department	Research Objectives.
72)	Health promotion behaviors and quality of life among community-dwelling elderly in Korea: A cross-sectional survey	Research Paper	Sun Ko et al.	2006	Health Promotion behaviors	Research not done for cardiology department	Parameters of Patient's Buying behaviors.

73)	Literature review on Health Information Seeking behavior on the web: a health consumer and health professional perspective	Review paper	Stockholm	2011	Health consumer and Health professional perspective	Literature was not for Cardiology DEpartment	Patients behaviors
74)	Private practitioners communication with patients around HIV testing Pune, India	Research Paper	Vinita Datye	2006	Communication of private practitioner and patients	Research not done on Influencing factors on buying behaviors of cardiac patient	Perception and Attitude of patients
75)	Factors Affecting Hospital Choice Decisions: an exploratory study of healthcare consumers in Northern India Asia Pacific	Research Paper	V Kamra, H Singh and K K De	2016	Factors Affecting Hospital Choice Decisions	Research not done in Cardiology Department for Mumbai area	Research Objectives
76)	Factors affecting health seeking behavior for common childhood illnesses in Yemen	Research Paper	Webair H. H. et al.	2013	Factors affecting health seeking behavior for common childhood illnesses	Research not done in Cardiology Department	Research objectives
77)	Effects of patients death on nursing staff	Research Paper	Wilson	2011	Effect of patient's death on behaviors of nursing staff	Research not done for Buying behaviors	Research Objectives.

78)	“Factors Influencing Consumer Purchase Decisions for Health-Promoting Goods and Services in Malaysia	Research Paper	Yong kang Cheah	2014	Factors influencing consumer Purchase Decisions.	Research was not for Cardiology Services.	Research Objectives.
79)	“Investigating the quality of Caring Behaviors of Nurses and patient satisfaction shahid Beheshti Hospital of Yasuj	Research Paper	Zabolypour S et.al	2017	quality of Caring Behaviors of Nurses and patient satisfaction	Cardiology services	Parameters of buying behaviors of patients.

CHAPTER-3

FACTORS INFLUENCING BUYING BEHAVIORS TOWARDS

HEALTHCARE SERVICES: CONCEPTUAL FRAMEWO

Chapter-3

Factors influencing buying behaviors towards Healthcare Services: Conceptual Framework

3.1 Introduction:

Patients Behavior is the area of patients, hospitals and the processes in hospital for the securing and disposing of services and products in order to fulfill the needs of patients.

Factors namely Social, Personal, Psychological and Cultural are influencing the buying behavior of patients. Social factors have three types of factors namely Reference group, family and Role and status of the patients. Cultural factors contain patient culture, subculture and Social Class. Personal factors consist of occupation, age and lifestyle, Personality and Economic Situation. Psychological factors consist of learning, Motivation, perception, attitude and belief. Healthcare service is the diagnostic, prevention, and treatment of disease, injury, and mental and physical impairments in the human body is known as Healthcare service. Cardiology is the branch of the medicine which provides the treatment for the heart disease. It's the most important department of the Hospital. This study shows factors influencing buying behaviors of patients towards Cardiac Services in the Cardiology Department of multispecialty Hospitals in Mumbai.

Cardiology is the branch of the medicine which provides the treatment for the heart disease. It's the most important department of the Hospital. It divides into two parts

1) Cardiology OPD 2) Cath lab. Basically, Patients and Patients relatives or friends, Doctors and paramedical staff and Marketing Persons decides the buying behaviors of Cardiac patients in the Multispecialty Hospitals in Mumbai. So through specific factors patients and Patients relatives and Friend, Doctors and Paramedical staff and marketing persons influence on buying behaviors of Cardiac Patients. Analysis and measurement done on the these influencing factors on patients buying behaviors towards Cardiac Services in the Multispecialty Hospitals in Mumbai. Patients and patients' relatives or friends, Doctors and Paramedical staff as well as marketing persons are involved for the data collections. The study is qualitative type. The objectives are made w.r.t factors influencing buying behaviors towards healthcare Services. This study shows few parameters of buying behaviors towards healthcare services. Brands, Quality, Services, Place, Patient satisfaction are the parameters of buying behaviors towards Healthcare Services. After collecting the data, it was ordered in statically and textual information. After Analyzing the data, the study shows the buying behaviors of patients in four hospitals in Mumbai namely Fortis Hospital, Mulund, Mumbai, Kohinoor Hospital, Kurla, Mumbai, Dr. L. H. Hiranandani Hospital, Powai, Mumbai and Cumballa Hill Hospital and Heart Institute, Kemps corner, Mumbai. Analysis of factors influencing buying behavior in multispecialty hospitals in Mumbai with specific reference to cardiology department will improve the quality of the cardiology services in multispecialty hospital. This study helps to understand the cardiac services of multispecialty Hospitals in Mumbai.

3.2 Factors influencing buying behaviors towards Healthcare Services:

The various factors namely Social, Psychological, Personal and Cultural which impact the buying behaviors of patients.

1) Culture Factors: Cultural factors namely Subculture, Social class and Patient influence the patient behaviors.

i) Patient Culture: Basically, patient culture is important reason of patients' needs, wants, behaviors and share of every society. The impact of patient culture on buying behaviors differ from region to region, state to state and country to country. Therefore, multispecialty hospital should be very cautious at the time of examining the culture of dissimilar region, groups or countries.

ii) Subculture: Each culture consists of various or dissimilar subcultures namely racial groups, nationalities, religions and geographic region etc. Hospitals can utilize these categories by dividing the market into different small parts. For example, the services per the needs of a geographic group can be designed by the hospital.

iii) Social Class: fewer form of social class is dominant to the Multispecialty Hospitals is created by each society. income of the people always does not determine the buying behaviors of patients for the Cardiac Services. Also, there are many factors namely wealth, education, occupation etc.

2) Social Factors: The behaviors of patients also influenced by the most significant social factors which are family, friends, Reference Group, role and status.

i) Reference group: Reference groups offer possibilities in making patient behavior and attitude. The affect of reference groups differs across brands or services. e.g. Friends, Healthcare Leaders include in this group

ii) Family: Member of the family strongly influence to the patient behavior. Therefore, Multispecialty Hospitals take efforts to search the roles and impact of the wife, husband, children and other relatives

iii) Role and Status: Various roles and status in community always depend upon the club, groups, organization and family are created by each patient. E.g. If Patient himself or patient 's relatives are the manager then per the status of the patient, he will buy services from the hospitals.

3) Personal Factors: The patient behaviors are also influenced by personal factors. There are many Personal factors as like occupation, age, Economic situation, personality and self-concept.

i) Age and Life Style: Age and lifestyles both are very important factors in patient 's behavior. Patient purchase services from the hospitals as per age and lifestyle of the patients.

ii) Occupation: Occupation is also effecting on the patient behavior. E.g. General Manager will buy services as per their occupation level but worker or labor will buy health care services as per her or his occupation level.

iii) Economic situation: If a patient has more saving or good insurance than a patient will take good services.

iv) Personality: Personality make differences from the place to place, time to time, patients to patients. Personality is not what to wear but it is characteristic like self-confidence, influential and aggressiveness which can be used to determine buying behaviors of Cardiology services.

4) Psychological Factors: Psychological factors namely motivation, perception, learning, beliefs and attitudes impact the patients' behaviors.

i) Motivation: Motivation is most important for the patients to buy the best and correct cardiology services. In the cardiology department, Interventional Cardiologists, Physicians, Cath lab Technicians and PRO give motivation to the Patients.

ii) Perception: To select, to organize and to interpret information in the way to make the meaning experience through people of the world or organization is known as perception. Hospitals try to keep good perception from the patients. They make more marketing strategy for the perception of the patients.

iii) Belief and attitudes: Both make images or brand of the hospitals or healthcare organization.

3.3 Parameters of Buying behaviors of Cardiac Patients:

3.3.1 Branding of the Hospitals: Buying behaviors of Cardiac patients depend up on Branding of the Hospitals. Branding is the major parameter for the buying behaviors of the Cardiac patients. Branding makes an important role at the time of Decision making procedure. Basically, every hospital's brand is built on the delivery of the Knowledge, culture of the entire Hospital and treatment experience of the patients in the Cardiology Department of the of the Multispecialty Hospitals

in the Mumbai. One main thing is that patients of the Mumbai area is very educated. He can get every information from the Websites of the Hospital and Website is most important tool for the Branding. Good Brand attracts the more cardiac patients in the Multispecialty Hospitals in Mumbai.

3.3.2 Service of the Cardiology Department: Cardiac Service is the action of helping or doing treatment for the Cardiac patients in Cardiology Department of the Multispecialty Hospitals in Mumbai area. At the time of buying cardiac patients think about the service of the Hospitals. Family or friends of the patients also interfere for the service of the Hospitals. If patients or relatives feels the service which is offered from the Cardiology Department of the Hospital is not good, they reject the Hospital to buy cardiac service from the Hospital. The Service gives more patient satisfaction.

3.3.3 Quality of the Cardiac Services: Quality is a standard or grade of the cardiac services in the multispecialty Hospitals. Patients perception of the cardiac services decides the buying behaviors of the patients. Patients always check the Certifications of Quality of the Hospitals in Mumbai. NABH is the most popular certification for the quality of the Hospitals.

3.3.4 Waiting time for the Cardiac Services. Waiting time is the time a patient remains in the queue for the Cardiac treatment is known as Waiting time for the Cardiac Services. All patients attitude is not the same. A patient act as per his or her attitude at the time of buying the cardiac Services. So, waiting time also effect on the buying behaviors of the Cardiac patients in Multispecialty Hospitals in Mumbai.

3.3.5 Essential elements of Patient Satisfaction of the Cardiac Patients: Patients satisfaction is highly desirable outcome of cardiac care in the multispecialty Hospitals. Patient Satisfaction of cardiac patient is judgement on the quality of the cardiac services in multispecialty Hospitals in Mumbai. Quality is dependent on the cardiac services of the multispecialty hospitals in Mumbai. Therefore, patient satisfaction, quality and Services are co-relating to each other. Essential elements of cardiac patient Satisfaction are communication with cardiac nurses, Communication with Cardiac Physicians, communication with Doctors and cardiac nurses about the medicines, responsiveness of cardiac staff of the hospitals, cleanliness of the cardiac department, Discharge instructions for the admitted cardiac patients, and rating of the Hospitals for the Cardiac Services.

3.4 Application of buying behaviors in Healthcare Services:

3.4.1 Fortis Hospital: Cardiac Patients buy cardiac services in this Hospital as Fortis is the biggest brand in the Mumbai area. Therefore, branding is the most useful parameter for the Fortis Hospital Mulund, Mumbai. Fortis Hospital has NABH and JCI accreditation. Therefore, it is well-known Hospital for the quality of the cardiac Services. They have new technology for the cardiac treatments. Therefore because of the new technologies patients attitude and perception will be different for the cardiac services. Fortis Hospital has type with many insurance company for the insurance patients. They have Good doctors and paramedical staffs. All types of categories patients come for the cardiac treatment. Therefore, Fortis Hospital is the reliable Hospital for the analyzing of factors influencing buying behaviors towards Healthcare services in Mumbai area. This study makes

three questionnaires for the three categories 1) Patients and patients relatives or Friends 2) Doctors Paramedical staffs 3) Marketing persons. These three categories influence on the buying behaviors of the cardiac patients. To determine factors influencing buying behaviors towards healthcare services study shows objectives type of questionnaires for the three categories. This study does the frequencies tables and Graphical study for the measuring the parameters and influencing factors towards cardiac services in the Hospital.

3.4.2 Dr. L H Hiranandani Hospital: This is also good hospital for the cardiac treatment. This is big brand for the cardiac services in the Mumbai. This is the main reason that cardiac patients refer this Hospital for the treatment. In this Hospital, Doctors, paramedical staffs and Marketing persons are the respondents for the study. The Researcher has not given questionnaire to the patients and patients relatives or friends. The reason was behind this Hospital's ethical committee do not give permission to collect data from the patients. The study shows that analyzing of factors influencing buying behaviors towards healthcare services only depend on the questionnaires of Doctors and paramedical staffs. This is also NABH accredited Hospital. Hospital has good technologies. Therefore, this is good hospital to analyze factors influencing towards healthcare services. Many frequencies tables and Graphical presentation show the factors influencing buying behaviors towards healthcare services.

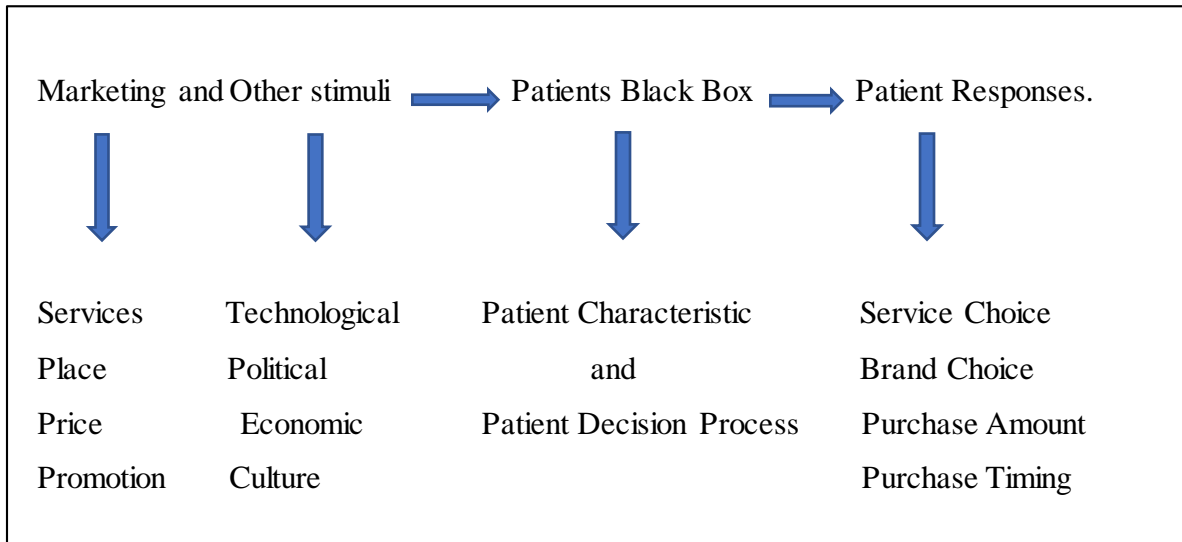
3.4.3 Kohinoor Hospital: This Hospital is Excellent for the cardiac services. All categories patients come in this Hospital. Therefore, it is very useful Hospital to analyze factors influencing buying behaviors towards Healthcare Services. Patients

and patient's relatives, Doctors and Paramedical staffs as well as marketing persons are involved at the time of data collection. Influencing factors would be measured by the objectives types questionnaires. Kohinoor Hospital provides health care services at patient's door step. This Hospital provides Nursing Services, Medical Services and laboratory services at patients' door steps. Therefore, patients' perception and attitude about this Hospital is Excellent. Patients save travelling cost when contact to Kohinoor Hospital for the Cardiac Treatment. If the patient is serious then they call to the Hospital, after Family as well as Friends also influence to the patients to buy healthcare services at Kohinoor Hospital.

3.4.4 Cumballa Hill Hospital and Heart Institute: This Hospital very popular Hospital in the south Mumbai. This Hospital has top most physicians for the Cardiac treatments and due to this reasons patients comes for the cardiac treatment. Most of the Top-class patients comes in this Hospital. Cumballa Hospital is a big brand in the South Mumbai. Cardiac patients receive excellent cardiac services in this Hospital. It is quite expensive Hospital as compared to other Hospitals in Mumbai. Therefore, This Hospital is famous for the High categories people. This is very old Hospitals in South Mumbai; Therefore, Social factors and Psychological factors would be more influencing factors in this Hospital.

3.5 Model of Buying Behaviors of Cardiac patients towards Healthcare Services:

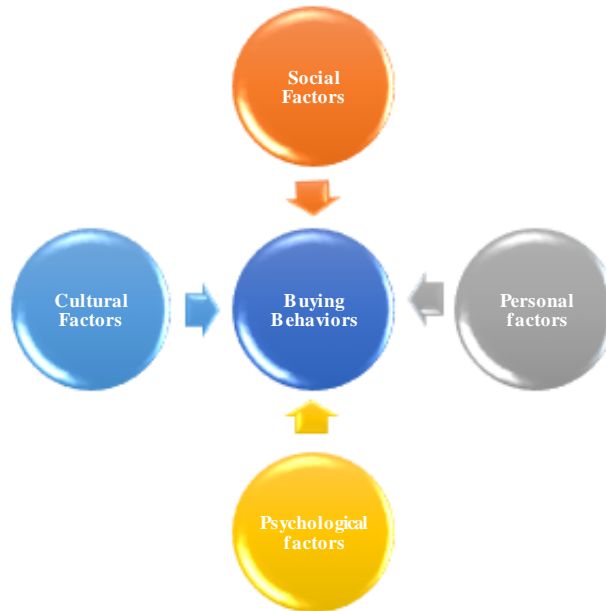
Fig No. 3.1 Model of Buying Behaviors :



This model shows Marketing stimuli consist of Cardiac services, Place of the Hospitals, Price of the cardiac services, Promotions of the Hospitals. Other stimuli are consisting of technology, political Economic and culture. These all stimuli effects on cardiac patients' decision process to buy cardiac services. After decision making process, Cardiac Patients responses would be Choice of the Hospitals for the cardiac services, choice of the brand for the cardiac Services, cardiac Treatment price (amount) and Service availability of the Hospitals (time).

3.6 Hypothesized Model:

Fig No.3.2: Hypothesized Model of the influencing factors on Buying Behaviors.



This study also does the hypothetical analysis for the factors which influence on the buying behaviors towards Cardiac services in Multispecialty Hospitals in Mumbai area. Social, Psychological, Personal and Cultural factors influence on the buying behaviors of the Cardiac patients. Hypothetical study determines the most influential factors on buying behaviors of Cardiac Patients in Multispecialty Hospitals.

3.7 Summary:

This chapter gives more information about the conceptual framework. It includes introduction, objectives with respect to factors influencing buying behaviors towards healthcare, Factors influencing buying behaviors towards healthcare services, parameters of buying behaviors of cardiac patients,

Applications of buying behaviors in Healthcare Services and Model of buying behaviors of Cardiac Patients towards Healthcare Services.

CHAPTER-4

RESEARCH DESIGN AND METHODOLOGY

Chapter-4

Research Design and Methodology

4.1 Overview:

This chapter gives information about the relevance of the topic means why this analysis has been studied. Objectives and Hypotheses have been mentioned in this chapter. This chapter also gives information about the methodology of the research. Scope and Limitations have been included in this chapter.

4.2 Research Questions:

In this study the questionnaires have been constructed in the three categories namely, 1) Patient and Patients Relatives and Friends 2) Doctors and Paramedical Staff 3) Marketing Person. Questionnaires have been constructed for three categories as these three types of population involves in the buying behaviors towards Cardiology Department (Services.) all questions are framed by identifying the main question and sub questions. Details of the all questionnaires are attached in the annexures.

Main Question: What are the factors which influence buying behaviors in multi-specialty hospitals in Mumbai with specific reference to Cardiology Department?

Sub Questions:

- 1) What are the cultural factors vis-a-vis buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department?

- 2) What are the social factors vis-à-vis buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department?
- 3) What are the personal factors vis-à-vis buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department?
- 4) What are the psychological factors vis-à-vis buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department?
- 5) How is the service availability in the Cardiology Department in Multispecialty Hospitals in Mumbai?

4.3 Research Objectives:

- 1) To study factors influencing buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.
- 2) To analyze cultural factors Vis-a-Vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.
- 3) To evaluate Social factors vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.
- 4) To identify Personal factors vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.
- 5) To examine Psychological factors vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.
- 6) To survey Service Availability in the Cardiology Department in Multispecialty Hospitals in Mumbai.

4.4 Data Collection Method:

This study was descriptive. The Area of the study was Mumbai. The sample size was 500 respondents and it was obtained from sample formula. The Respondents were in three different categories 1) Patient and Patients' relative and Friend 2) Doctors and Paramedical Staffs 3) Marketing persons. Four Multispecialty Hospitals were selected for the data collection in Mumbai. Name of the Hospitals are 1) Cumballa Hill Hospital and Heart Institute, South Mumbai, 2) Kohinoor Hospital, Kurla, Mumbai 3) Fortis Hospital Mulund, Mumbai, 4) Dr. L.H. Hiranandani Hospital, Powai, Mumbai. These four Multispecialty Hospitals are located in South, Central, West and North area of Mumbai. Because of this data was collected from all over Mumbai. The Primary data were obtained via questionnaires. Three different questionnaires were designed for the 1) patients, patients relative and Friends 2) Doctors and Paramedical Staffs 3) marketing Persons. The secondary data were obtained from websites, Research Journals, Books, etc.

4.5 Questionnaire Design:

The total respondents were 500 in four multispecialty Hospitals in Mumbai. The questionnaires were prepared in the three categories 1) Patients and patients relatives and friends 2) Doctors and Paramedical staff 3) Marketing person. As per reference to the Main question and sub questions, three questionnaires were made for the three categories. Pilot study shows that all three questionnaires are reliable for Data collection for the study. After questionnaire designing, reliability and

Validity test done in this study. It shows that Prepared questionnaires are reliable and Valid for the study. Max 16 to 19 questions are included in each questionnaire.

Set of questionnaires are covered following aspect

- 1) Factors influencing buying behaviors towards Healthcare Services (Cardiac Services).
- 2) Sub influencing factors
- 3) Services available in the Cardiology Department.
- 4) Parameter of the Patients Behaviors.

4.6 Administering the questionnaire:

The same questionnaire was prepared for the all four Hospitals namely Fortis Hospital, Mulund, Mumbai, Kohinoor Hospital, Kurla, Mumbai, Dr. L. H. Hiranandani Hospital, Powai, Mumbai and Cumballa Hill Hospital and Heart Institute, Mumbai. After seeking permission of the management of all four Hospitals, prepared questionnaires were given to the respondents for the appropriate data filing. Because of the managerial instructions of all hospitals, Doctors and paramedical staff read the questions carefully and marked suitable options in the questionnaires. But sometimes questionnaires, forms are rejected by patients. Sometimes receptionist and Paramedical staff helped to collect data from the OPD patients and IPD patients. Some questionnaire is filled up by face to face interview of the cardiac patients.

4.7 Sample Frame:

This study covered the IPD as well as OPD patients as a respondent. But data covered in the Dr. L. H. Hiranandani Hospitals which from the Doctors and

Paramedical staff. Data of Patients and their relatives and Friends was covered in the Kohinoor Hospital, Mumbai, Fortis Hospital, Mumbai. Cumballa Hill Hospital and Heart Institute, Mumbai. Such type total 500 Respondents data were covered in this study.

4.8 Sample Size :

The sample size is a presentation of a population of patients, doctors, paramedics and marketing persons. The sample size for patients depends on the number of patients admitted to the hospitals per day. And the length of time required for collection of data was about 6 months. Study has the following data representing the same.

Table. No.4.8.1 Sample Size Representation of Patients and patient's relative or friends :

Hospital	No. of patients per day	No. of patients per 6 months
1) Kohinoor Hospital	45	8100
2) Cumballa Hill Hospital and Heart Institute	35	6300
3) Dr. L.H. Hiranandani 4) Hospital	45	8100
5) Fortis Hospital	75	13500
Total	200	36000

The formula for the sample size, $n = N / (1 + N e^2)$ where $N = \text{population} = 36000$,
 $e = 0.05$ (at 95% confidence level)

Substituting the values, study get a sample size of 396.

The 'n' comes out to be 396. However, due to several practical issues like time constraints or unwillingness of some patients to respond, data could be collected only from 350 respondents.

Similarly, Population data for Paramedical staff and Paramedical staff.

Total No. 4.8.2: Sample Size Representation of Paramedical staff and Doctors:

Hospital	No. of doctors and Paramedical Staff	Percentage
1) Kohinoor Hospital	45	21%
2) Cumballa Hill Hospital and Heart Institute	50	23%
3) Dr. L.H. Hiranandani Hospital	50	23%
4) Fortis Hospital	70	33%
Total	215	100%

Again, using the same formula study get the sample size of 138. But study has been able to obtain a sample size of 150 (which includes 142 doctors/paramedics and 8 marketing persons). This is like our required sample size and is hence justifiable.

4.9 Sampling Method:

The sample of the study is represented by the patients and Patients Relative and friends, Doctors and Paramedical staff and Marketing persons in the Multi-Specialty Hospitals in Mumbai. Simple Random Sample Method is used for this study as there was Population of patients, patients' relatives and Friends, Doctors and Paramedical Staffs, Marketing Persons. Therefore, everyone will have same probability of being selected for the sample. Simple random technique is an unbiased technique. It helps to reduce any bias as compared to any other sampling method. Samples are collected randomly.

4.10 Sample Location:

Sampling data are collected in the four Multispecialty Hospitals in Mumbai. Namely Fortis Hospital Mulund, Kohinoor Hospital, Kurla, Dr. L. H. Hiranandani Hospital, Powai, and Cumballa Hill Hospital and Heart Institute, Mumbai.

4.11 Analysis Technique:

Data is the quantitative type, hence statically tools are used. It was collected in the form of questionnaires and then tabulated and classified using Excel. Statistical techniques applied in the analysis are performed using three statistical packages- 1) R software 2) Microsoft Excel 3) SPSS.

The statistical tools were used include frequency tables, bar and column diagrams, pie charts, descriptive statistics, and cross-tabulations. Before proceeding with the primary analysis, exploratory (graphical) analysis and reliability tests (such as Cronbach's alpha value and correlation) have been performed. Hypothesis testing covers tests such as: -

- 1) Chi-squared test of independence
- 2) Two sample proportion tests
- 3) Cochran-Mantel-Haenszel test
- 4) Chi-squared tests for association
- 5) Friedman test

Statistical analysis was with the very basic exploratory data analysis to visualize patterns and understand the main characteristics of our data in an easy manner. The first and foremost aspect of the statistical analysis performed was that all the statistical hypothesis tests used are non-parametric statistical tests because our entire data set was qualitative data obtained from the questionnaires.

The following points have presented with the reasons of the performed tests.

1) Cronbach's Alpha and inter-item correlation matrix:

Justification: Before beginning the main statistical analysis, it is necessary that need to check whether data is consistent and reliable.

Assumptions: A fundamental assumption of Cronbach's alpha that presume the questions are only measuring one latent variable or dimension is known as unidimensional. This assumption is verified as the comparison and uses only similar questions that are based on a single variable.

A basis for the conclusion: The data to be consistent and reliable for further analysis when Cronbach's alpha value is greater than 0.6

2) Friedman test:

Justification – It is used to detect differences in ranking of factors that are most influential on buying behavior in multispecialty hospitals in Mumbai in the study context.

Assumptions: It is a non-parametric test and does not assume the normal distribution. The Friedman's test works for normal distribution as well. So, that need not verify this assumption.

A basis for the conclusion: The factor with the lowest rank is the most influential factor.

3) Chi-square tests (Likelihood ratio, Pearson's Chi-square, Linear by linear association):

Justification: It is used to discover association between two categorical variables. As all data is categorical and may apply this test.

Assumptions: The two variables in the context should be studied on an ordinal or nominal scale. The variables had been measured on the ordinal scale (Excellent, good, poor or High, medium, low). Thus, this assumption is verified. The two variables must consist of two or more independent groups. In the context, there are three groups for each underlying variable (Excellent, good, poor or High, medium, low) hence this assumption also holds true.

The basis for the conclusion – If the asymptotic significance is less than alpha (the level of significance typically 1% or 5%) then reject the null hypothesis.

4) Two-sample test for equality of proportion:

Justification: Here data is qualitative data. Therefore t-test or Z-test can't be used for difference of means. Therefore to compare two samples, proportion

tests will be used. Another reason is that median tests may not help us with the research objectives.

Assumption: The two samples must be unpaired and unrelated. This assumption holds true in this case because all questions were multiple choice and thus unrelated and independent.

The basis for the conclusion: If the study gets p-value is less than alpha (the level of significance typically 1% or 5%) then Null Hypothesis is rejected.

5) Cochran-Mantel Haenszel Test:

Justification: It is a test which is used for the association between the two variables of the 2×2 test of independence, while the third variable that recognizes the repeats (as like different times, different places, or different studies.)

Assumptions: Effect of the third variable is same in all strata. This can be thought of as valid in the application as a third variable, i.e., hospital will have the same effect on the other two variables since all hospitals studied were multispecialty hospitals and are all located in Mumbai.

The basis for the conclusion: if the study gets p-value is less than alpha (the level of significance typically 1% or 5%) then Null hypothesis is rejected.

4.12 Study of Hypotheses:

1) To study factors influencing buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

Under this objective study has two main hypotheses which help to first check if at all there is an association between each of the factors

(Culture/Social/Personal/Psychological) and buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiac Services. The second main hypothesis helps identify which of the above-stated factors is most influential. H_{01} : The factors viz. Culture/Social/Personal/Psychological does not have any association Vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

H_{a1} : The factors viz. Culture/Social/Personal/Psychological have association Vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

2) To analyze cultural factors Vis-a-Vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

To understand this objective a study performs several proportion tests and compare the proportions of various factors under cultural factors.

H_{02} : Culture Factors Viz. Nationality, Geographic Region and Wealth w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

H_{a2} : Culture Factors Viz. Nationality, Geographic Region and Wealth w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

3) To evaluate social factors Vis-a-Vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

To understand this objective study performs several proportion tests and compare the proportion of various factors under Social factors.

H_{o3}: Social Factors viz. role and status, reference group and family w.r.t proportions of people who are influential vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

H_{a3}: Social Factors viz. role and status, reference group and family w.r.t proportions of people who are not influential vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

4) To identify personal factors Vis-a-Vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

To understand this objective study performs several proportion tests and compare the proportion of various factors under personal factors.

H_{o4}: Personal Factors viz. age and lifestyle, economic situation, occupation, and personality w.r.t proportions of people who are influential vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

H_{a4}: Personal Factors viz. age and lifestyle, economic situation, occupation, and personality w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

5) To examine psychological factors Vis-a-Vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

To understand this objective a study performs several proportion tests and compare the proportions of various factors under psychological factors.

H₀₅: Psychological factors viz. motivation, perception, belief, and attitude w.r.t proportions of people who are influential vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

H_{a5}: Psychological factors viz. motivation, perception, belief, and attitude w.r.t proportions of people who are not influential vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

6) To survey Service Availability in the Cardiology Department in Multispecialty Hospitals in Mumbai.

Under this objective study focus on the service availability that is ranking given by respondents with regards to services in the hospitals as excellent, good or poor.

H₀₆: Service availability in Cardiology Department of Multispecialty Hospitals in Mumbai is Excellent.

H_{a6}: Service availability in Cardiology Department of Multispecialty Hospitals in Mumbai is not Excellent.

4.13 Summary:

This chapter gives information about the research questions, research objectives, data collection method, questionnaire design, administering the questionnaire, sample frame, sample size, sampling method, sample locations, Analysis technique and study of hypotheses.

CHAPTER-5
PILOT SURVEY

Chapter-5

Pilot Survey

5.1 Purpose of the study:

This chapter gives information about the Pilot survey. The pilot survey was conducted to standardize questionnaire before starting the main study. Pilot Survey was done in the two Multispecialty Hospitals Kohinoor Hospital and Fortis Hospital respectively. Reliability test also was done in this Pilot Survey to start the main thesis. Results show that questionnaires are reliable for data collection of the main thesis. Total 50 Respondents were targeted for the pilot survey. The details of the pilot survey give more reliable information for the main thesis.

5.2 Methodology:

This is a pilot survey was descriptive. The sample size was taken 50 respondents. Data was collected in the Fortis Hospital, Mulund, Mumbai and Kohinoor Hospital, Kurla, Mumbai. This primary data was collected or gathered from the questionnaire. Questionnaires were constructed in the three categories 1) patients and Patients relatives and Friends 2) Doctors and paramedical staffs 3) Marketing Persons. Secondary data was composed or collected from Journals, Websites, Books etc. Graphical analysis is used to do Pilot survey. Respondents were patients or patients relative or friends in the Cardiology Department, Doctors and Paramedical staff of the Hospital, Marketing persons of the Multi-Specialty Hospitals.

5.3 Data collection Process:

Data collection process was through questionnaires. Constructed questionnaires were in the three categories namely, 1) Patients and patients' relatives, Friends 2) Doctors and paramedical staff 3) Marketing Department. Directly data were collected in the one part for main study along with respondents' details. Data collection was random

5.3.1 Administering the Questionnaire:

In this study, constructed questionnaires were given to Cardiac Patients, Paramedical Staff & Marketing Persons to fill up the appropriate information. Sometimes appropriate information was collected through the interviews of Cardiac Patients and Patients' Relatives or Friends. When some patients were admitted in ward, that time there was compulsion to take the interviews of the patients to fill up the questionnaires. If patients were serious that time questionnaires were handed over to patient relatives or friends. As per the managerial instructions, questionnaires were handed over to paramedical staff and Doctors as well as Marketing Persons. Sometime questionnaires were handed over to the receptionist of the cardiology Department to collect data from the patients.

5.3.2 Sampling Method:

Sampling method was Simple Random Sampling as this method is unbiased the method. sample size was 50 respondents. This Method is a fair method. It helps to reduce any bias involved as compared to any other method. It is always easy to smaller sample size from the existing larger population.

Sample locations:

- 1) Fortis Hospital, Mound, Mumbai
- 2) Kohinoor Hospital, Kurla, Mumbai.

5.4 Data Analysis:

Demographic analysis:

Table 5.4.1 Demographic Respondents:

Respondents	Number of respondents	Percentage
Patients, and patient's relatives	15	26%
Doctors and paramedical staff	27	57%
Marketing persons	8	17%
Total number of respondents in the pilot survey	50	100%

Under the category of patients and their relatives, the following figures indicate the number of patients and number of Patients' relatives in the pilot survey.

Table 5.4.2 Category of Patients and their relatives:

Category	Frequency	Percentage
Patients	9	60%
Patient's relative	6	40%
Total	15	100%

Under the category of doctors and paramedics, figures as per follow:

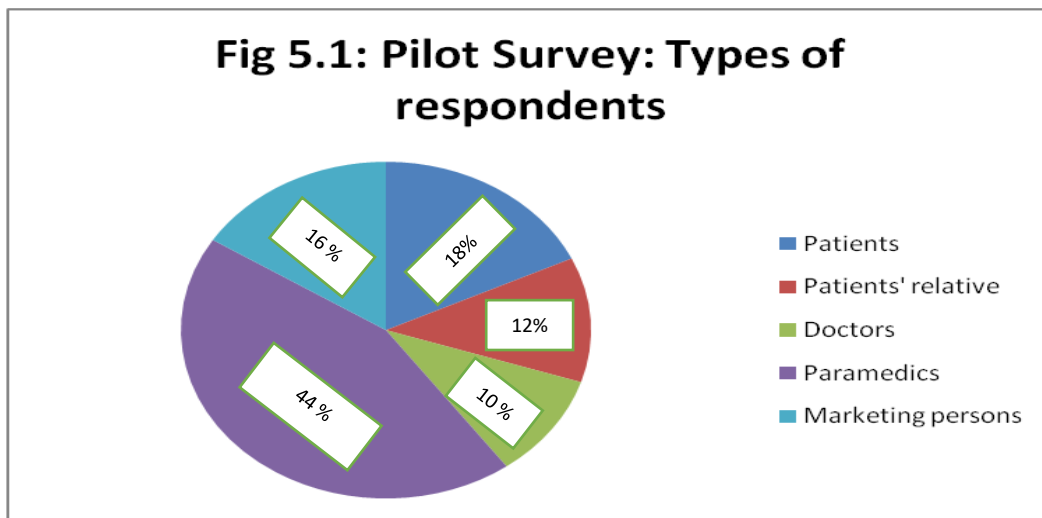
Table 5.4.3: Category of doctors and paramedics

Category	Frequency	Percentage
Doctors	5	19%
Paramedics	22	81%
Total	27	100%

There are no subcategories under marketing persons. AS shown in the first table the, the number of marketing persons considered in the pilot Survey is 8.

The following pie chart shows the subcategories of the pilot survey.

Figure 5.1 Pilot Survey: Types of Respondents



There are five types of respondents, and the largest share of the pie (44 per cent) is contributed to by the paramedical staff sub-category. It may be because the number of respondents belonging to the doctors and paramedics category (27) is much more than other categories (Patients and their relatives -15, Marketing

persons -8). Further, three separate questionnaires were framed for the three categories. Also, the perceptions of the persons belonging to a category (say patients and their relatives) may be different even for the same question. The point that wants to stress here is that there is huge scope to analyze the data collected by considering the type of respondent under each category as an important variable.

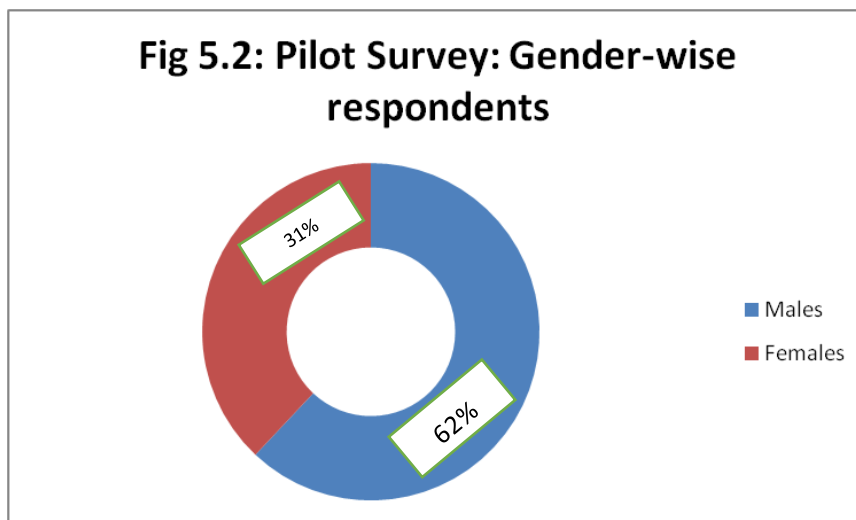
An overview of the pilot study with context to gender-wise respondents as follows

Table 5.4.4: Gender-Wise respondents:

Gender	Frequency	Percentage
Males	31	62%
Females	19	38%
Total	50	100%

The following graph can be constructed using the above table.

Figure 5.2 Pilot Survey: Gender wise respondents:



The above pie chart shows that 31 per cent for female and 62 per cent for male. The above figure associated with gender to check if there is a dependence between gender and the buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

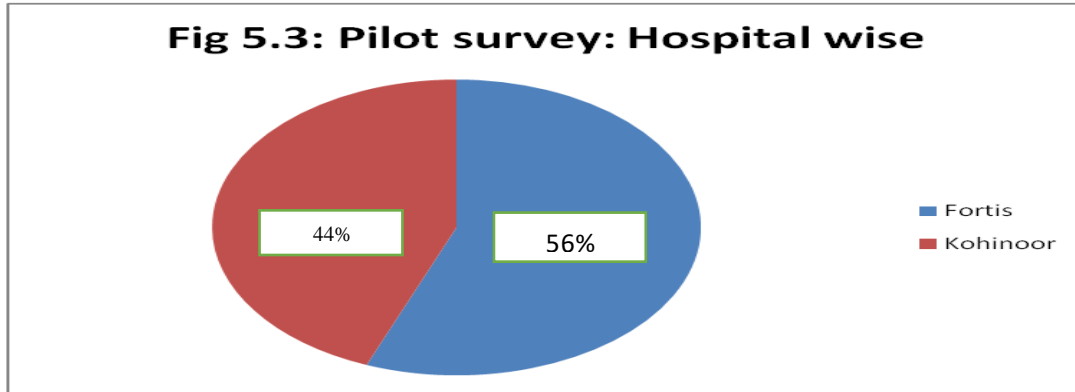
One more way in which the respondents from the pilot survey can be grouped is hospital-wise and here are the associated figures. In the pilot survey individuals from only two hospitals are taken into consideration.

Table 5.4.5: Hospital wise Respondents:

Hospital	Number of respondents	Percentage
Fortis	28	56%
Kohinoor	22	44%
Total	50	100%

The following graph can be constructed using the above table.

Figure 5.3: Pilot Survey: Hospital-Wise:



The above figure shows that 44 per cent of respondents were for Kohinoor Hospital and 56 per cent of respondents were for Fortis Hospital. Now, above sections were made by considering which hospital the subject (who answered the questionnaire) was associated with. This can also be used as an essential variable in impact analysis to see various comparisons between hospitals taken into consideration.

In the following Analysis, look at the pilot data presented above and try to get a rough idea about respondents which are responsible for the factors influencing buying behavior in Multispecialty Hospitals in Mumbai with specific reference to cardiology Department. The pilot survey analysis considers only the most specific and the most important questions from the three questionnaires which were separately framed for patients (and their relatives), doctors and paramedics, and marketing persons. Exploratory data analysis and descriptive measures have been used in the following section to reflect a picture of the Pilot survey.

The questions from similar questionnaires have been included for easy reference.

Questionnaire: Patients and their relatives

Question 1: Why have you chosen this hospital for Cardiac Treatment or Cardiac surgery?

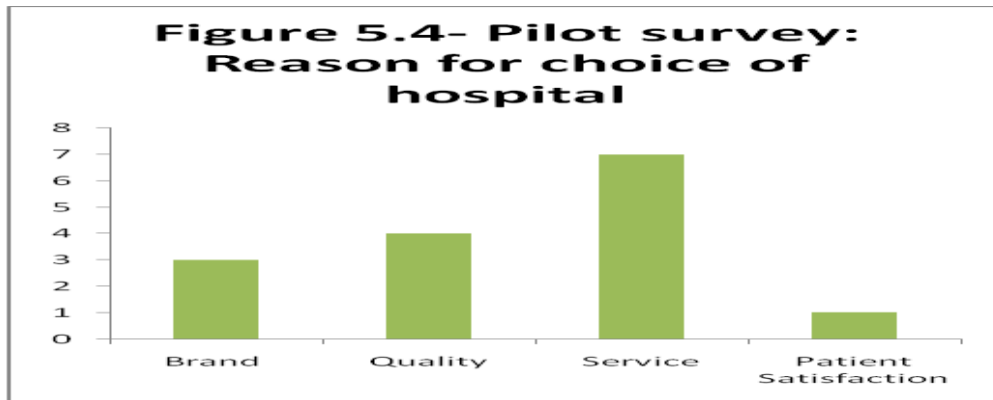
- A) Brand
- B) Quality
- C) Service
- D) Patient Satisfaction

Table 5.4.6: Reasons for the chosen Hospitals :

Reason	Total Respondents	Percentage
Brand	3	20%
Quality	4	27%
Service	7	47%
Patient Satisfaction	1	7%
Total	15	100%

The following graph can be constructed using the above table

Figure 5.4 Pilot Survey: Reason for choice of the Hospital:



The above bar diagram clearly shows that Service is the most important factor which people believe to be influencing their choice of a hospital. The same question was asked in the questionnaires framed for doctors and marketing persons in a different manner, but this study wants to show the buying behaviors, therefore study analyzed this question from the point of view of patients and patient's relatives.

Now, this study shows which individuals or factors are the motivation for patients behind their choice of a hospital.

Questionnaire: Patients and their relatives

Question 11: Who motivates you for cardiac Service of this Hospital at the time consultation?

A) Doctors

B) Technologists

C)Marketing Person

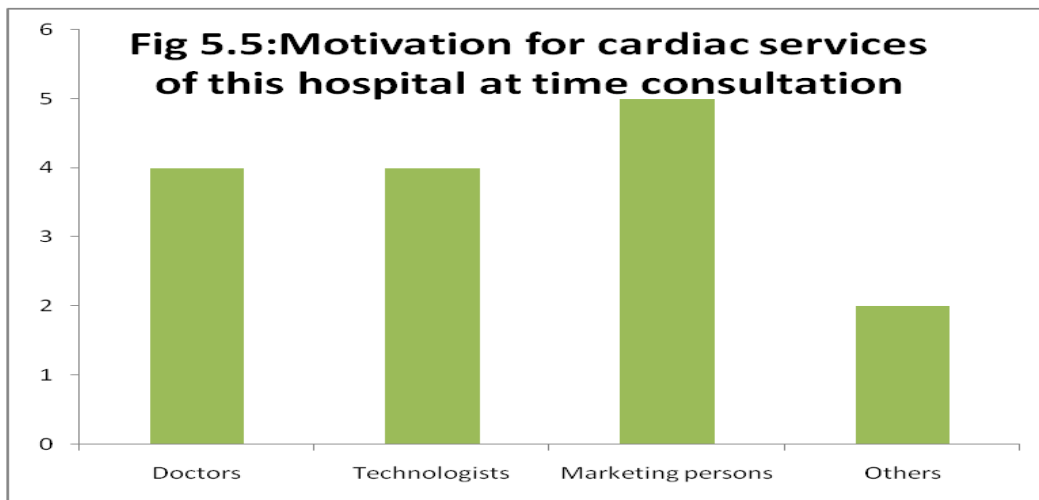
D) Others.

Table 5.4.7: Pilot Survey: Motivation for cardiac services of Hospital at the time of consultation:

Category	Frequency	Percentage
Doctors	4	27%
Technologists	4	27%
Marketing persons	5	33%
Others	2	13%
Total	15	100%

The following graph can be constructed using the above table.

Figure 5.5 Pilot Survey: Motivation for cardiac Services of Hospital at time of consultation:



In the above graph that the influence of doctors, technologists as well as marketing persons is almost the same in motivating the patients for cardiac services of the hospital at the time of consultation. Also, it seems that the marketing persons play a slightly higher role than doctors and technologists in motivating patients.

Next, if consider the most important question associated with our research objectives.

Questionnaire: Patients and their relatives

Question 14: What are the following factors influencing to you towards Cardiac services of this Hospitals?

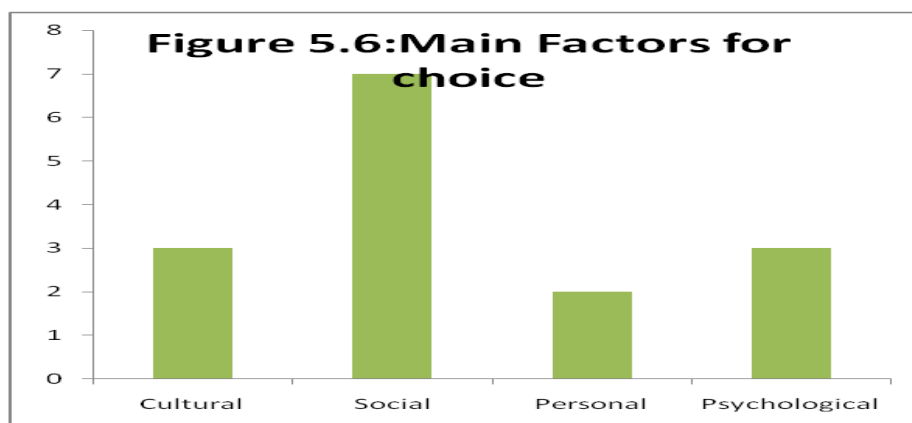
- A) Culture factors (Region, Nationality, Wealth and Education)
- B) Social factors (Family, Friends, Role and Status)
- C) Personal factors (Age and Lifestyle, Economic Situation, Personality)
- D) Psychological Factors (Perception, Motivation, Learning, beliefs)

Table 5.4.8: Pilot Survey: Main factors influencing the choice of Hospital:

Factor	Freuency	Percentage
Culture Factors	3	21%
Social Factors	6	43%
Personal Factors	2	14%
Psychological Factors	3	21%
Total	15	100%

The following graph can be constructed using the above table

Figure 5.6: Pilot Survey: Main Factors influencing the choice of Hospital



In the above figure Social and Psychological Factors are the ones most influential on the buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. These results will be checked for in the Effective Data analysis as well.

As this study stated earlier, the data for the pilot survey was taken only from 2 hospitals- Fortis hospital and Kohinoor hospital, This Study makes a short

comparison between the two concerning the Cardiac Services in the respective hospitals.

Questionnaire: Patients and their Relatives:

Question 19: How are the cardiac services in this Hospital?

A) Excellent

B) Good

C) Poor

Figure 5.7: Pilot Survey: Fortis Hospital:

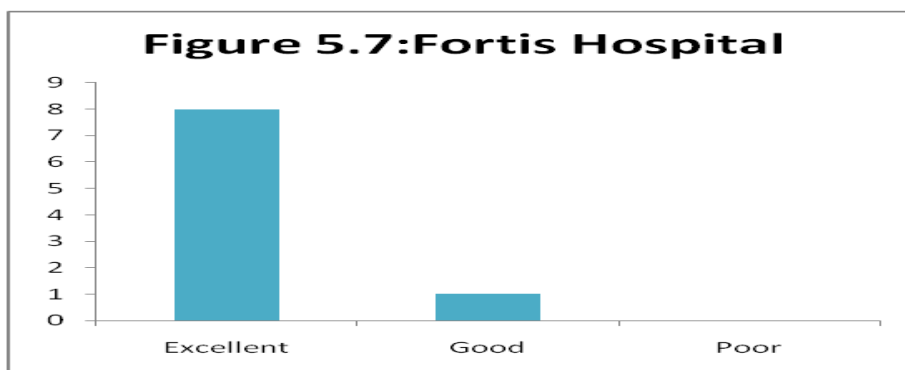
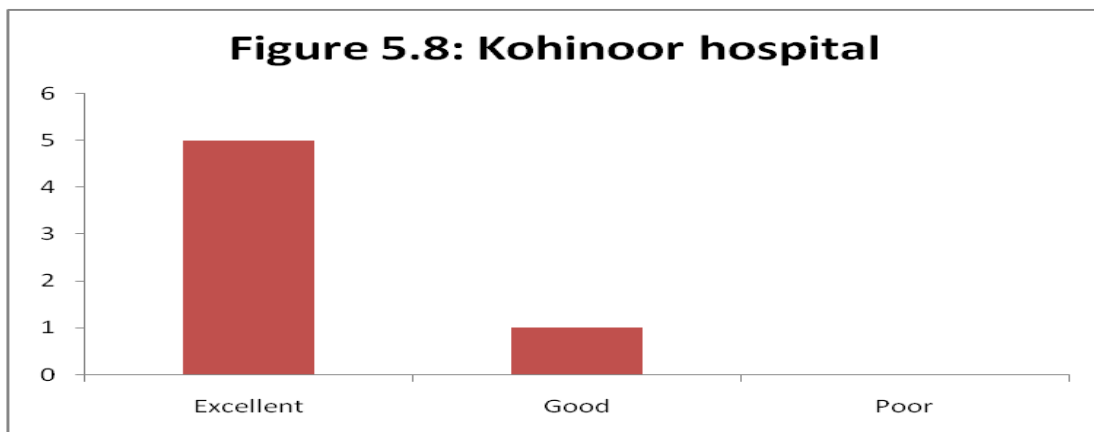


Figure: 5.8 Pilot Survey: Kohinoor Hospital:



In above figures, Fortis hospital, as well as Kohinoor hospital, have been

ranked as excellent by most of the people with respect to cardiac services. Also, Study shows that no person has ranked any of the two hospitals as poor in the Cardiac Services

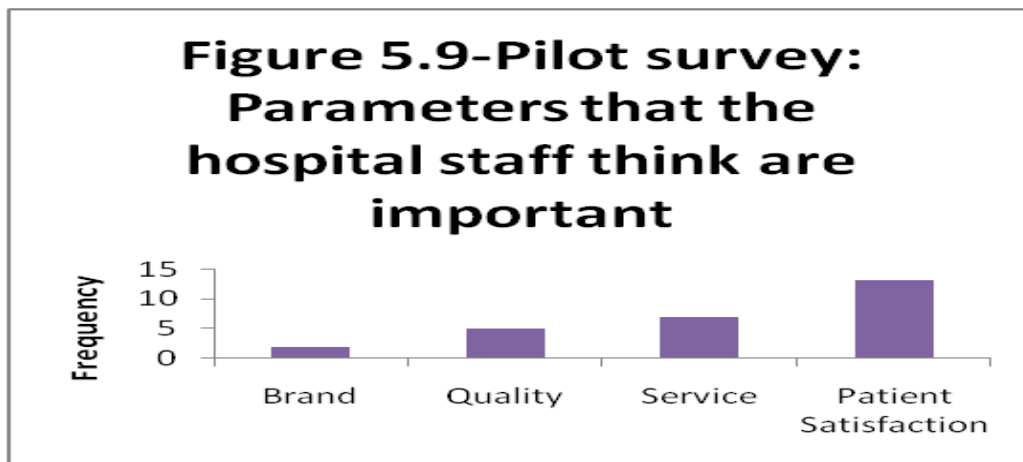
This was just an overview of the pattern of buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department the context of questionnaire framed for patients and patient's relatives. Further, this study shows some aspects in the context of our questionnaire for doctors and paramedics. A Study already visualized patterns of choice of hospitals from the point of view of patients and their relatives. Now we visualize the buying behavior from the point of hospital staff that is people who provide the cardiac services.

Questionnaire: Doctors and paramedical staff.

Question 1: What are the important parameters to attract Cardiac patients in your Hospitals?

- A) Brand
- B) Quality
- C) Service
- D) Patient Satisfaction

Figure : 5.9 Pilot Survey: Parameters that the hospital's staff think are important



As per the doctors and paramedical staff consider patient satisfaction to be the most important parameter in attracting the cardiac patients, and thereby the hospital staff strives to keep up

The treatment of their patient at best possible level. Comparing this with fig 5.4 which shows that the patients' reasons for the choice of the Hospital are service. In this survey this a logical relationship, whereby the patients expect the best service and the hospital staff expect to bring about the patients' satisfaction.

Now this study shows the importance of the medical staff that is the doctors and paramedics in influencing buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

Questionnaire: Doctors and Paramedical Staff.

Question 3: How does the Marketing Person influence patients to engage cardiac services?

A) Via Doctor

B) Via Paramedical staffs

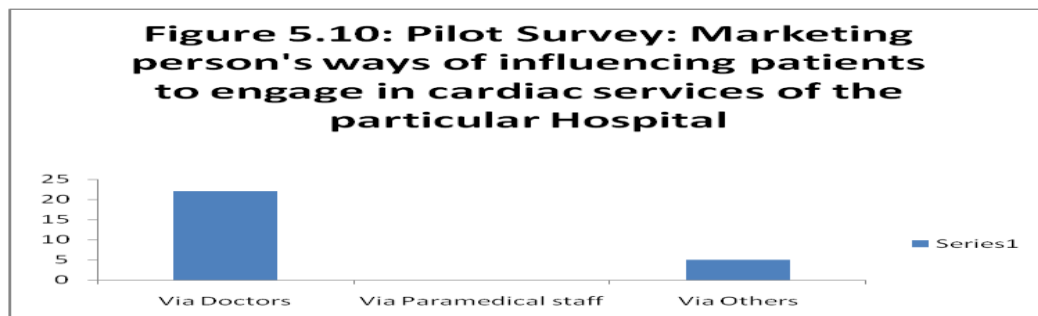
C) Via Other

Table: 5.4.9: Pilot Survey: Marketing person's ways of influencing patients to engage in cardiac services of the Hospital:

Category	Frequency	Percentage
Via Doctors	22	81%
Via Paramedical staff	0	0%
Via Others	5	19%
Total	27	100%

The following graph can be constructed using the above table.

Figure 5.10: Pilot Survey: Marketing person's ways of influencing patients to engage in cardiac services of the Hospital



The above diagram shows that doctors play a vital role in marketing to influence patients to engage in cardiac services of a hospital. Surprisingly the paramedical staff makes no contribution for the same. But this unusual and a bit illogical result may be simply a sampling error since the data are taken from a small sample, being only the initial pilot survey. This data will be carefully analyzed in

the main data analysis where a larger sample will be able to give better and clearer conclusions.

Moving on to the third category of marketing persons, study will analyze the extent up to which marketing is involved in influencing buying behavior in Multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

First, this study shows that the tools used by the marketing persons to attract patients to engage in cardiac services of a Hospital.

Questionnaire: Marketing Persons

Question 2: What are the tools you use to attract Cardiac Patients in Your Hospital?

A) Promotion

B) Consultation and counseling of Doctors

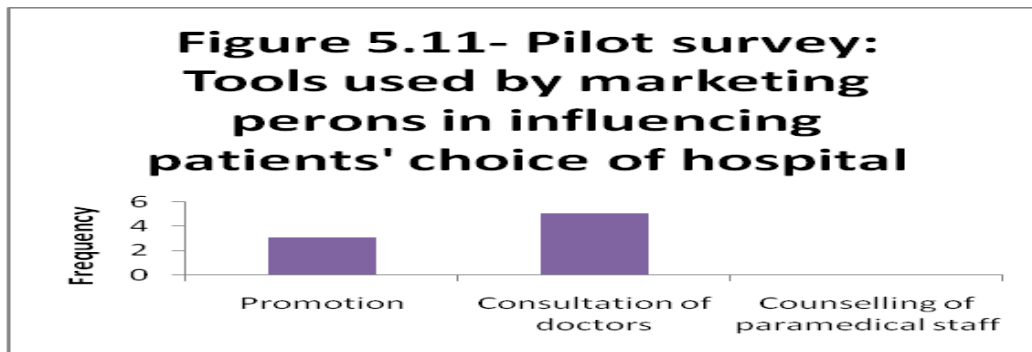
C) Counseling of Paramedical staff

Table 5.4.10: Pilot Survey: Tools used by marketing persons in influencing patients' choice of Hospital:

Category	Frequency	Percentage
Promotion	3	37%
Consultation with doctors	5	63%
Counseling of Paramedical staff	0	0%
Total	8	100%

The following graph can be constructed using the above table.

figure 5.11 Pilot Survey: Tools used by Marketing persons in Influencing patients' choice of Hospital



The consultation of doctors is much more important than other ways of promoting and influencing patients' buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. This also matches with Fig-5.10, where the doctors think their consultation is a significant factor in influencing the patients' choice of a hospital. It also matches the unusual result from Fig-5.10 that paramedical staff is not a part of a marketing promotion of the hospital.

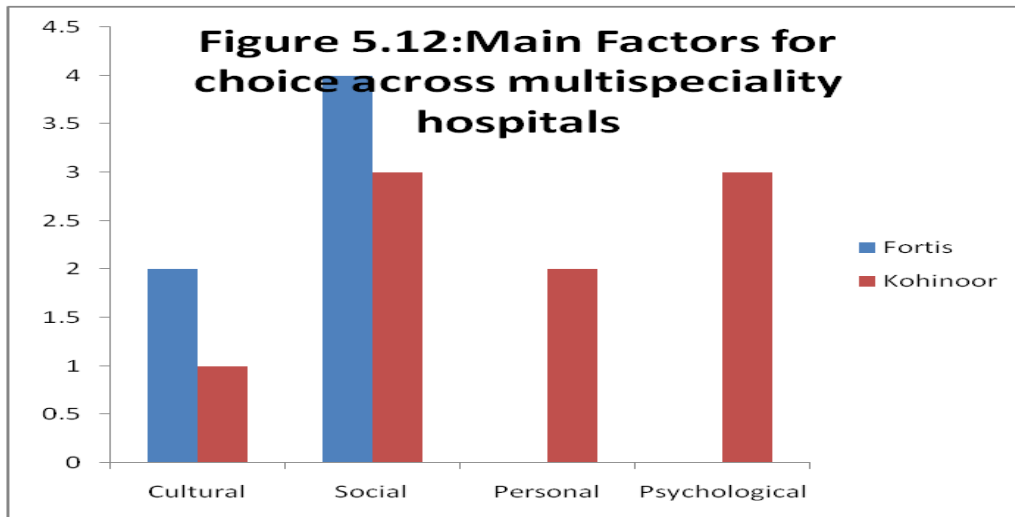
Let's look at a few comparison tables to see if there are significant differences between the main factors that study is showing under analysis. From question 14th from patient's questionnaire, contingency table is as follows

Table: 5.4.11: Pilot Survey: Main factors influencing buying behavior of patients in cardiac services across the Multispecialty Hospitals under study

Influencing Factors	Fortis		Kohinoor		Total	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Cultural	2	13.34%	1	6.66%	3	20%
Social	4	26.66%	3	20%	7	46.67%
Personal	0	0%	2	13.34%	2	13.33%
Psychological	0	0%	3	20%	3	20%

The following graph can be constructed using the above table.

Figure No. 5.12: Main Factors for choice across multispecialty Hospitals.



The graph depicts clearly that most of respondent patients perceive social factors to be the most important factors that influence buying behavior of people in multi-specialty hospitals in Mumbai. Another pattern seen in the above graph is

that in case of Kohinoor hospital, the respondents do not perceive personal or psychological factors to be important at all. This may call for a suspicion but as it is a pilot survey, this study finds results to vary when the study increase the sample size.

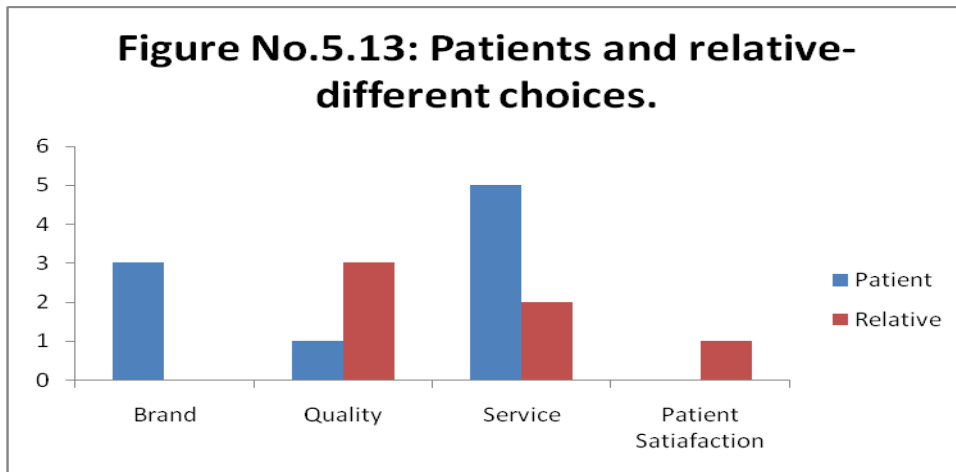
Another interesting insight from the pilot survey is that the study of whether there are huge differences between perceptions of patients and their relatives with respect to the hospitals. The following data is obtained from patient's questionnaire for the pilot survey. It gives a rough idea and throws light on the fact that there exist sufficient differences between patient's perception about the hospital and their family members.

Table: 5.4.12: Pilot Survey: Differences between factors (parameters) influencing buying behavior from point of view of patients and relatives in cardiac services across the Multispecialty Hospitals under study

Parameters	Patient	Percentage	Relative	Percentage	Total	Percentage
Brand	3	20%	0	0%	3	20%
Quality	1	6.66%	3	20%	4	26.66%
Service	5	33.33%	2	13.33%	7	46.67%
Patient Satisfaction	0	0%	1	6.67%	1	6.67%

The following graph can be constructed using the above table.

Figure No.5.13: Patients and relative-different choices.



The above bar diagram along with the table shows that patients perceive brand and services of the hospital to be more important features influencing buying behavior whereas the relatives have chosen quality and services to be more influential factors.

Now, the study considers the most important of question and objective of analyzing, what are the main factors which influence buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. Unlike taking the context of the patient and patient's relative and friends questionnaire (question 14), Now consider the entire sample size of 50 inclusive of patients, doctors and marketing persons.

Being one of the most important aspects of our research objectives, the question relating to the same was placed in all three questionnaires. And hence it would be most appropriated to analyze the data for this question for the entire sample size of 50.

Questionnaires: 1. Patients and patient's relatives (Q. 14)

2. Doctors and paramedical staff (Q. 9)

3. Marketing persons (Q. 9)

Question: Which of the following factors influence Buying Behavior towards Cardiac services of your Hospital?

A) Culture factors (Region, Nationality, Wealth, and Education).

B) Social factors (Family, Friends, Role and Status)

C) Personal Factors (Age and Lifestyle, Economic Situation, Personality)

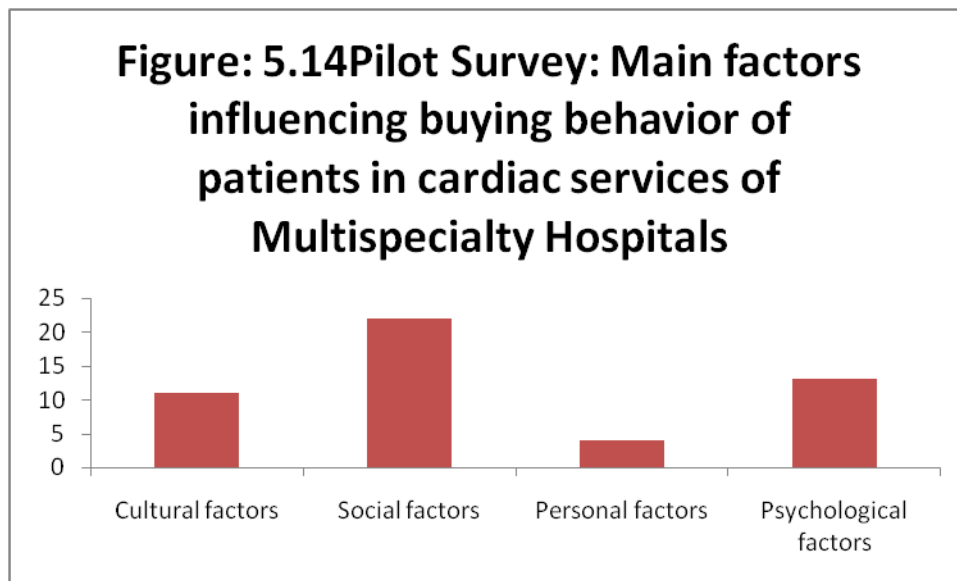
D) Psychological factors (Perception, Motivation, Learning, beliefs)

Table: 5.4.13 Pilot Survey: Main factors influencing buying behavior of patients in cardiac services of Multispecialty Hospitals

Factor	Frequency	Percentage
Cultural factors	11	22%
Social factors	22	44%
Personal factors	4	8%
Psychological factors	13	26%
Total	50	100%

The following graph can be constructed using the above table.

Figure: 5.14 Pilot Survey: Main factors influencing buying behavior of patients in cardiac services of multispecialty Hospitals.



It can be distinctly seen that Social and Psychological factors seem to be the most influential with respect to buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. Also, particularly the number of people who have chosen Social factors as most crucial is more than number of people choosing other factors. Also, personal factors may not be very influential in affecting choice of Hospital.

5.5 Reliability Analysis:

Now, this study move on to other statistical procedures. this study checks the reliability of the pilot data using Cronbach's Alpha value and correlations between related questions. To assess the internal consistency of the data set, the study mainly focus on three questions which were present in all our questionnaires

that is the three questionnaires framed for patients and their relatives, doctors and paramedical staff, and marketing persons.

The question that was taken under consideration for reliability analysis and correlations was broadly aimed at studying people's perception behind choice of hospital based on Brand, Quality, Service and Patient Satisfaction. The analysis was performed using SPSS. The output for the same is as follows -

Table No. 5.5.1: Case Processing Summary:

		N	%
Cases	Valid	50	100.0
	Excluded ^a	0	.0
	Total	50	100.0
a. List wise deletion based on all variables in the procedure.			

The above table tells that none of pilot data points were excluded. This implies that no data was missing/invalid or no question was left unanswered by persons who responded to the questionnaires.

Table No. 5.5.2: Reliability Statistics:

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	Number of Items
0.617	0.614	3

Reliability statistics show a Cronbach's Alpha value of 0.617. Typically, a value of Cronbach's Alpha of more than 0.6 is considered to represent good reliability. Hence, the study conclude that the collected pilot data is internally consistent.

Table No. 5.5.3: Inter-Item Correlation Matrix:

	Reason for choice of Hospital	Motivation or Perception behind choice	Beliefs and Attitudes or Main factors
Reason for choice of Hospital	1.000	0.151	0.594
Motivation or Perception behind choice	0.151	1.000	0.294
Beliefs and Attitudes or Main factors	0.594	0.294	1.000

This study shows that magnitude of correlation coefficients is high in most cases as seen in above table. The above Correlation matrix clearly reinforces or extends support to reliability analysis of this study. This means the data is consistent and reliable and can be therefore used for further statistical testing.

5.6 Summary of pilot survey findings:

In the pilot survey, total Respondents were 50. After demographic analysis, number of patients and patients 'relative's category Respondents, Doctors and Paramedical staff's category respondents and marketing person category

respondents were 15, 27 and 8 respectively. In the category of patients and Patients relatives, Number of patients and patients' relatives were 9 and 6 respectively. In the category of Doctorand Paramedical staffs, Number of Doctorand paramedical staff were 5 and 22 respectively. After hospital, wise analysis, Number of total respondents in the Fortis Hospital and Kohinoor Hospital were 28 and 22 respectively. Services is the most important reason to choose the Hospitals. the influence of doctors, technologists as well as marketing persons is almost the same in motivating the patients for cardiac services of the hospital at the time of consultation. But as per the graphical analysis, it seems that the marketing persons play a slightly higher role than doctors and technologists in motivating patients. Social and Psychological Factors are the ones most influential on the buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. These results will be checked for in the Effective data analysis. The Fortis hospital, as well as Kohinoor hospital has been ranked as excellent by most of the people with respect to Cardiac Services. Also, this study see that no person has ranked any of two hospitals as poor in the Cardiac Services. As per the Doctors and paramedical staff, patient satisfaction is to be most important parameter to attract the patients. Doctors play a vital role in marketing to influence patients to engage in cardiac services of a hospital. This data will be carefully analyzed in the effective analysis where a larger sample will be able to give us better and clearer conclusions. As per the marketing persons, the consultation of doctors is much more important than other ways of promoting and

influencing patients' buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

In the study of analysis of main factors influencing buying behavior of patients in cardiac services across the Multispecialty Hospitals, most of respondent patients perceive social factors to be the most important factors that influence buying behavior of Patients in Multispecialty Hospitals in Mumbai. After Analysis of the total 50 respondents, Social and Psychological factors seem to be the most influential with respect to buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. After this result as well as reliability test, the study shows that these questionnaires are reliable for the effective data analysis.

CHAPTER 6

DATA ANALYSIS AND INTERPRETATIONS

Chapter 6

Data Analysis and Interpretations

6.1 Analysis Techniques:

This chapter includes all details of the Data Analysis for the study. In this chapter, Effective data analysis was done in three in three categories 1) Patient and Patients' relatives 2) Doctors and Paramedical Staffs 3) Marketing persons and overall Analysis. The primary data were qualitative type. It was collected in the form of questionnaires and then tabulated and classified using Excel. Statistical techniques applied in the analysis are performed using three statistical packages- 1. R software 2. Microsoft Excel 3. SPSS. The statistical tools were used with including frequency tables, bar and column diagrams, pie charts, descriptive statistics, and cross-tabulations. Before proceeding with the main analysis, exploratory (graphical) analysis and reliability tests (such as Cronbach's alpha value and correlation) have been performed. Hypothesis testing covers tests such as -1) Chi-squared test of independence 2) Two sample proportion tests 3) Cochran-Mantel-Haenszel test 4) Chi-squared tests for association 5) Friedman test. The statistical analysis is also done with the very basic exploratory data analysis to visualize patterns and understand the main characteristics of data in an easy manner.

6.2 Categories in the Data Analysis (Demographic Analysis):

This study consists of a sample size of 500 respondents which are categorized broadly into 3 main categories as shown in the table below. Since,

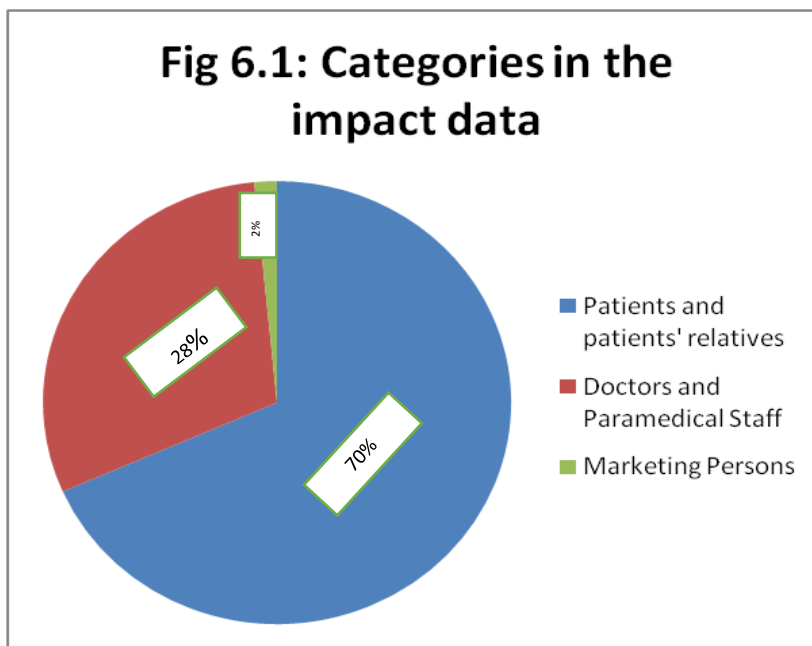
research objectives revolve around buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department, the two main categories (patients and doctors) are viewed as consumer side and services side respectively.

Table No. 6.2.1 Categories in the Data Analysis:

Category	Frequency	Percentage
Patients and patients' relatives	350	70%
Doctors and Paramedical Staff	142	28%
Marketing Persons	8	2%
Total	500	100%

The following graph can be constructed using the above table

Figure: 6.1 Categories in the Data Analysis (Impact Data)



Being a consumer-oriented service, 70 per cent of the respondents are patients and patients' relatives and Friends, about 28 per cent of the respondents are doctors and paramedics, and very few are marketing persons i.e. only 2 per cent.

6.3 Data Analysis- Patients and Patients relative and Friends:

In the following sections, the first focus is done on the data obtained from questionnaires for patients, patients' relatives and friends. The upcoming graphs give an overview of the distribution of the data.

First, the consistency of the data has been checked. For this purpose, the data were used for questions 1, 10 and 12 of the questionnaire for patients and their relatives and friend. These are similar questions, and we find out the Cronbach's Alpha and study the correlations between the data sets of these questions to check the consistency. The following tables are obtained using SPSS.

Questionnaire: Patients and their relatives.

Question: Why have you chosen this hospital for cardiac treatment or Cardiac Surgery?

- A) Brand
- B) Quality
- C) Service
- D) Patient Satisfaction

Table No. 6.3.1 Case Processing Summary

Case Processing Summary			
		N	%
Cases	Valid	350	100.0
	Excluded ^a	0	.0
	Total	350	100.0
a. List wise deletion based on all variables in the procedure.			

Above table suggests that there were no questions left unanswered by any of the respondents and that entire data was used for the reliability study.

Table No 6.3.2 Reliability Statics:

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.913	0.913	3

A value of 0.6 for the Cronbach's Alpha is considered as a good reliability level. The value of this data is 0.913 which is considerably high.

The following matrix helps to explain that the data is consistent with the help of correlation analysis. The logic is that study expects the respondents to give the same answer for same questions, even if the questions are framed differently. This would mean that the answers to similar questions should show a positive correlation for the data to be consistent.

Table No. 6.3.3 Inter-Item Correlation Matrix:

Inter-Item Correlation Matrix			
	Reason for choice of hospital	Motivation for Choice of hospital	Beliefs and Attitude
Reason for choice of hospital	1.000	0.754	0.755
Motivation for Choice of hospital	0.754	1.000	0.825
Beliefs and Attitude	0.755	0.825	1.000

The inter-item correlations above re-emphasize that data is consistent as all the values for correlation coefficients are positive and high in most cases as seen in above table. This suggests that data is reliable.

From the similar data, two other questions are checked for reliability. The questions were from Questionnaire: Patients, patients relative and Friends.

Question 11: Who motivates you for cardiac Services of this Hospital at the time consultation?

- A) Doctors
- B) Technologist
- C) Marketing Person
- D) Others

Question 13: What is the perception towards Cardiac Services in this Hospital?

- A) Good Doctors
- B) New Technologies
- C) Good Paramedical Staff
- D) Patient Services.

Table No 6.3.4 Case Processing Summary:

Case Processing Summary			
		N	%
Cases	Valid	350	100.0
	Excluded ^a	0	.0
	Total	350	100.0
a. List wise deletion based on all variables in the procedure.			

Table No. 6.3.5 Reliability Statistics:

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.708	0.708	2

Table No. 6.3.6 Inter-Item Correlation Matrix:

Inter-Item Correlation Matrix		
	Who motivates at time consultation	Perception towards hospital
Who motivates at time consultation	1.000	0.548
Perception towards hospital	0.548	1.000

Cronbach's Alpha value of 0.708 indicates good reliability. Also, the high positive correlation coefficients imply a good level of data consistency. Therefore, the Conclusion is that the data is consistent and reliable for further statistical use.

6.3.1 Exploratory Data Analysis:

The first question of the questionnaire for patients and their relatives tries to identify the most important reason for engaging cardiac services of a multispecialty hospital. The following table shows frequencies attributed to the reasons.

Questionnaire: Patients, Patients' relatives and Friends.

Question 1) Why have you chosen this hospital for Cardiac treatment or Cardiac Surgery?

A) Brand

B) Quality

C) Services

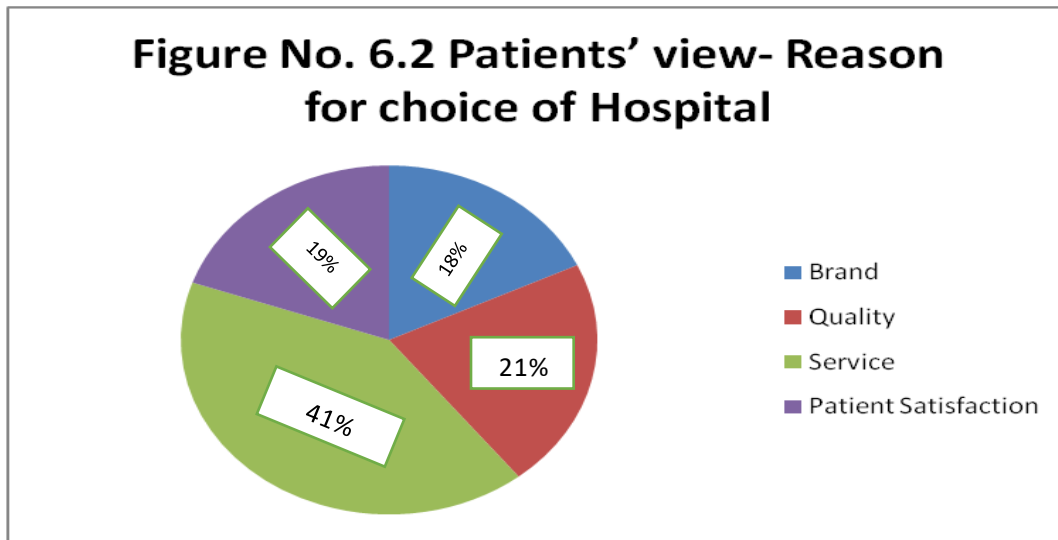
D) Patient Satisfaction.

Table No 6.3.7: Patient View Reason for choice of Hospital:

Category	Frequency	Percentage
Brand	63	18%
Quality	75	21%
Service	144	41%
Patient Satisfaction	68	19%
Total	350	100%

The following graph can be constructed using the above table.

Figure No. 6.2 patients' view- Reason for choice of Hospital:



Above pie chart shows that 41 per cent for service, 21 per cent for quality 18 percent for brand and 19 per cent for patient satisfaction. Therefore, above pie chart depicts that from patients' view point Hospital services are the most important reason for their choice of Hospital.

Question 3: What are the Social factors which influence you towards this hospital's Cardiac services?

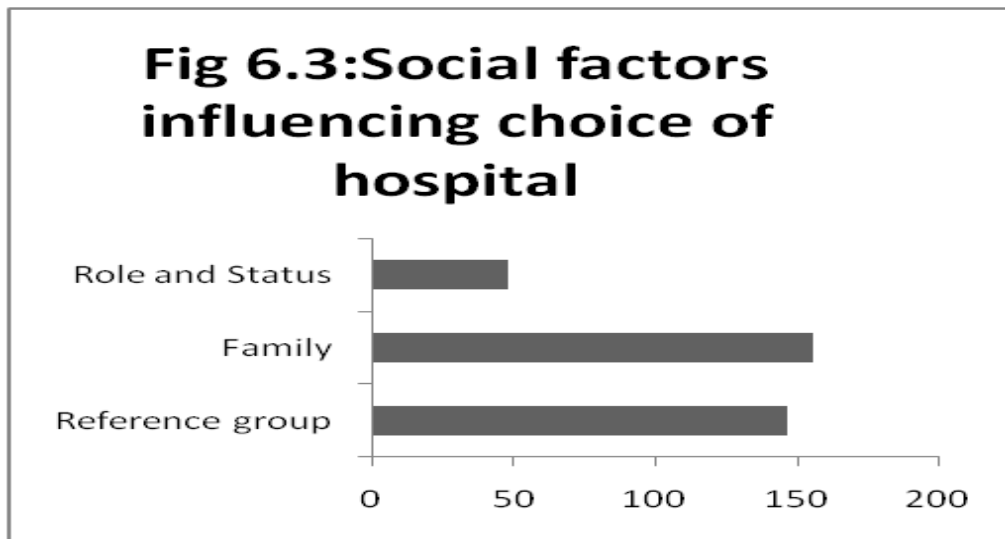
- A) Reference Group
- B) Family
- C) Role and Status

Table No. 6.3.8: Social factors influencing choice of factors

Category	Frequency	Percentage
Reference group	147	42%
Family	155	44%
Role and Status	48	14%
Total	350	100%

The following graph can be constructed using the above table.

Figure No. 6.3 Social factors influencing choice of Hospital:



The bar diagram shows that Family and Reference Group (friends and colleagues) seem to be the most influential social factors. Role and Status is not considered very important by most of the respondents.

Question 4: What are the factors which influence you towards this hospital's Cardiac services?

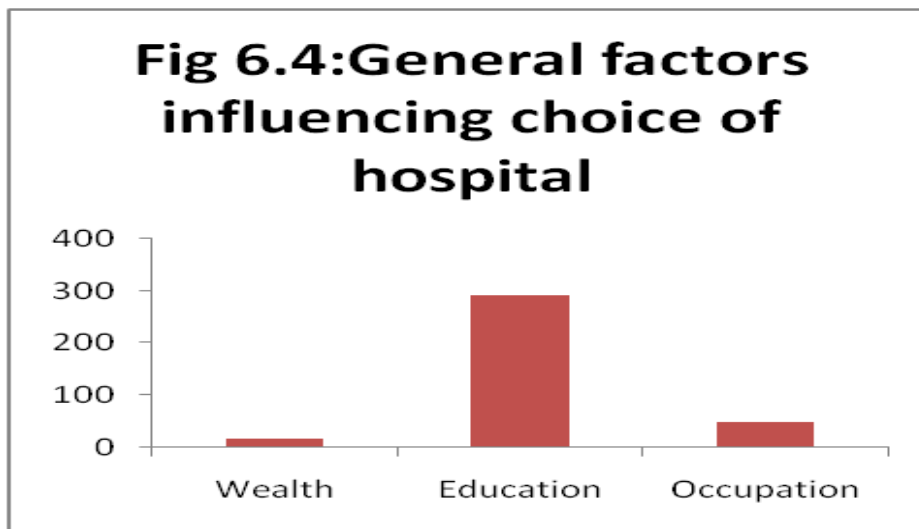
- A) Wealth
- B) Education
- C) Occupation

Table No 6.3.9 General Factors influencing choice of Hospital:

Category	Frequency	Percentage
Wealth	14	4%
Education	290	83%
Occupation	46	13%
Total	350	100%

The following graph can be constructed using the above table

Figure No: 6.4 General factors influencing choice of Hospital:



Above graph shows that a few people believe education to be more influential on the choice of Hospital than wealth and occupation.

Question 8: Which of the following culture factors influence you towards this hospital's Cardiac services?

- A) Nationality
- B) Wealth
- C) Geographic Region

Table No. 6.3.10 Culture factors towards the Hospitals Cardiac Services:

Category	Frequency	Percentage
Nationality	6	2%
Wealth	12	3%
Geographic Region	332	95%
Total	350	100%

The following graph can be constructed using the above table

Figure No 6.5 Culture factors towards hospitals Cardiac services:



Above graph shows that buying behavior in Multispecialty Hospitals with specific reference to cardiac services is influenced mainly by the culture factor namely Geographic Region

Question 7: Which of the following personal factors influence you towards this hospital's Cardiac services?

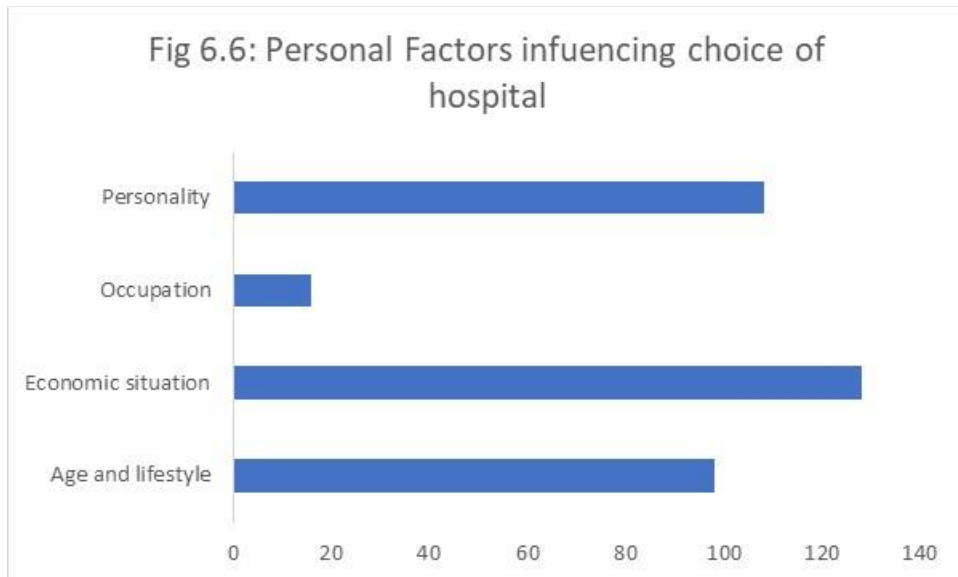
- A) Age and Life Style
- B) Economic Situation
- C) Occupation
- D) Personality

Table 6.3.11 Personal factors influencing choice of Hospital:

Category	Frequency	Percentage
Age and Lifestyle	98	28%
Economic Situation	128	37%
Occupation	16	5%
Personality	108	31%
Total	350	100%

The following graph can be constructed using the above table.

Figure No.6.6: Personal factors influencing choice of Hospital:



In the above Graph, economic situation is the most important personal factor influencing choice of hospital while the next most important factors are personality and age and lifestyle. Economic situation as a basis for choice of hospital seems to be a logical factor.

Question 9: Which of the following psychological factors influence you towards this hospital's Cardiac services?

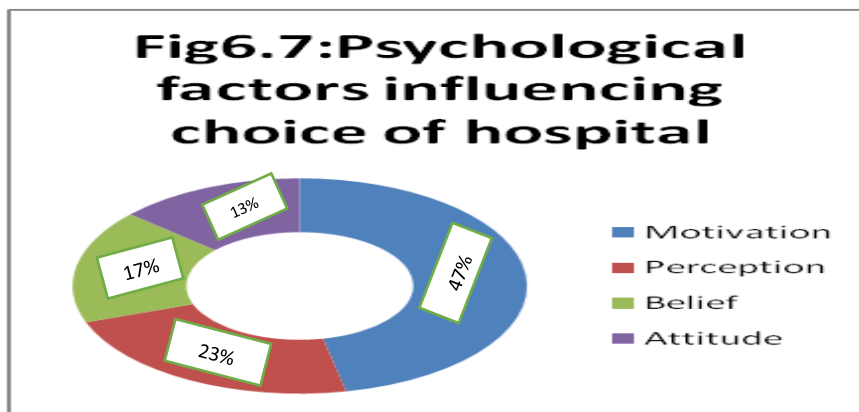
- A) Motivation
- B) Perception
- C) Belief
- D) Attitude

Table No. 6.3.12 Psychological factors influencing choice of Hospital:

Category	Frequency	Percentage
Motivation	164	47%
Perception	80	23%
Belief	60	17%
Attitude	46	13%
Total	350	100%

The following graph can be constructed using the above table.

Figure: 6.7 Psychological factors influencing choice of Hospital:



From the above pie chart, 47 per cent for motivation, 23 per cent for perception, 17 per cent for belief and 13 per cent for attitude. Therefore, motivation is the important psychological factor influencing buying behavior in multispecialty hospital with specific reference to cardiac services. In the statistical tests following our exploratory data analysis, this aspect will be covered in more detail, and its

connection with frequency of persons motivating the people for choice of hospital will also be analyzed.

Question 11: Who motivates you for the cardiac Service of this Hospital at the time consultation?

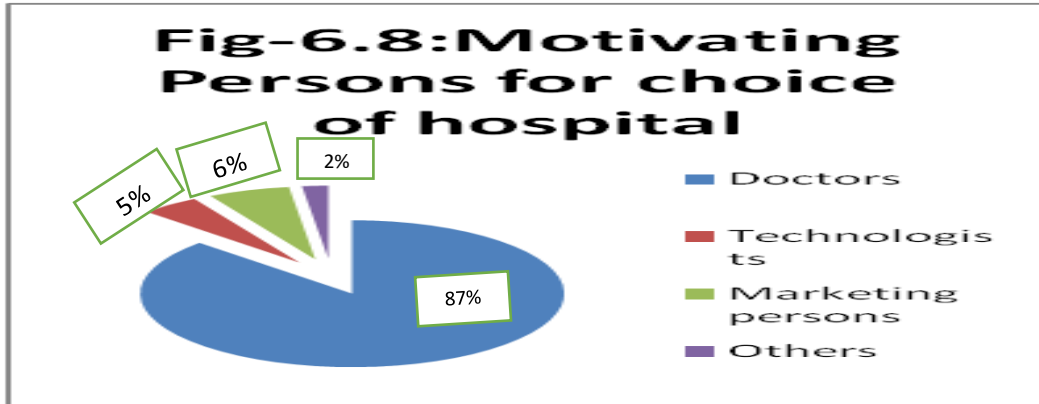
- A) Doctors
- B) Technologist
- C) Marketing Persons
- D) Others.

Table No. 6.3.13 Motivating Persons for choice of Hospital:

Category	Frequency	Percentage
Doctors	305	87%
Technologists	16	5%
Marketing persons	22	6%
Others	7	2%
Total	350	100%

The following graph can be constructed using the above table.

Figure 6.8 Motivating Persons for choice of Hospital:



The above pie chart shows that 87 per cent for Doctors, 6 per cent for Marketing persons, 5 per cent for Technologists and 2 per cent for others. Therefore, most respondents have chosen doctors as the persons motivating them to engage in cardiac services of the hospital. This makes good sense on logical grounds that patients spend the most time with their doctors when engaging the services of hospital. This characteristic must be studied in link with the question of whether doctors are more influential or paramedical staff is more influential on buying behavior.

Question13: What are the perceptions towards Cardiac Services of this Hospital?

- A) Good Doctors
- B) New Technologies
- C) Good Paramedical Staff
- D) Patient Services

Table No.6.3.14 Perceptions of People influencing their choice of Hospital:

Category	Frequency	Percentage
Good Doctors	298	85%
New technologies	24	7%
Good Paramedical staff	18	5%
Patient Services	10	3%
Total	350	100%

The following graph can be constructed using the above table

Figure No.6.9 Perception of People influencing their choice of Hospital:



The above column diagram shows that although new technologies are an important aspect of hospital services, especially in relation to cardiac services, the choice of hospital for most people is influenced by their perceptions of having good doctors rather than new technology. But this aspect may well depend on whether

the person responding to this question was a patient himself/herself or was the patients relative.

Now consider the most important question of the questionnaire for patients, patients' relatives and Friends. This is the crucial question because it is related to the most significant of our research objectives.

Question 14: What are the following factors influencing to you towards Cardiac services of this Hospitals?

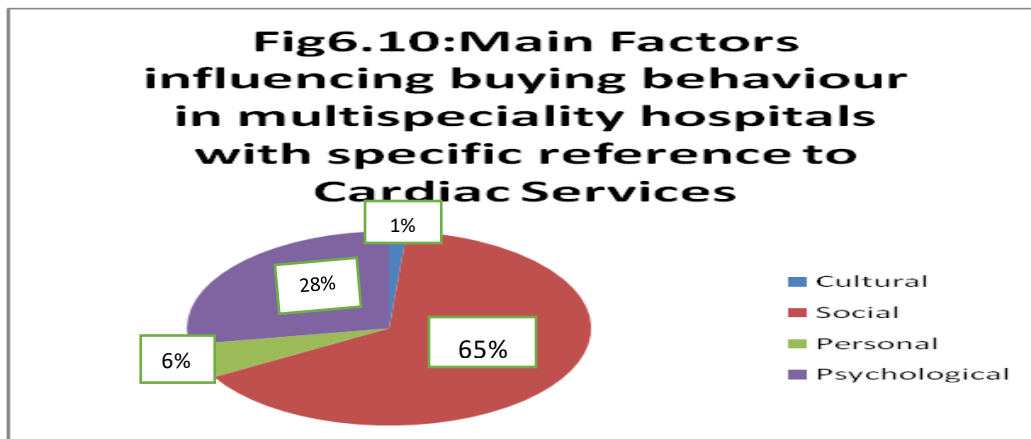
- A) Culture factors (Region, Nationality, Wealth, and Education).
- B) Social factors (Family, Friends, Role and Status)
- C) Personal Factors (Age and Lifestyle, Economic Situation, Personality)
- D) Psychological Factors (Perception, Motivation, learning, beliefs)

Table No. 6.3.15 Main factors influencing buying behavior in multispecialty Hospitals with specific Reference to Cardiac services of Cardiology Department:

Factor	Frequency	Percentage
Cultural factors	5	1%
Social factors	228	65%
Personal factors	20	6%
Psychological factors	97	28%
Total	350	100%

The following graph can be constructed using the above table

Figure No. 6.10: Main factors influencing buying behavior in multispecialty Hospitals with specific Reference to Cardiac services of Cardiology Department:



Above figure shows that 65 per cent for Social factors, 28 per cent for Psychological factors, 6 per cent for personal and 1 per cent for Cultural factors. Therefore, social factors turn out to be more important than other factors in influencing buying behavior in multispecialty hospitals with specific reference to cardiac services. Following social factors, the next important factors are psychological factors while cultural factors are not that significant.

In this study first objective is to study factors influencing buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. The following 4 broad categories of factors are taken into consideration.

- 1) Culture Factors (Region, Nationality, Wealth and Education)
- 2) Social Factors (Family, Friends, Role and Status)

- 3) Personal factors (Age and Lifestyle, Economic Situation, Personality)
- 4) Psychological Factors (Age and Lifestyle, Economic Situation, Personality)

To identify which of the above factors are most influential on the buying behavior in Multi-Specialty Hospitals in Mumbai with specific reference to Cardiac Services, Friedman test has been done using SPSS. The results of the same are as follows-

Background for Friedman's test:

The Friedman test is the significance test for more than two dependent samples and is also known as the Friedman two-way analysis of variance (non-parametric alternative). It is used to test that there is no significant difference between the size of 'k' dependent samples and the population from which these have been drawn. The Friedman test statistic is distributed approximately as chi-square, with (k - 1) degrees of freedom. Random sampling is assumed in Friedman test for more than two dependent samples. This assumption holds as collected samples have been collected in that manner. Also, here ranks were assigned hence the samples are dependent. A dependent variable should be measured on ordinal scale which holds true here. Friedman test statistic for more than two dependent samples is given by the formula.

$$\text{Chi-square}_{\text{Friedman}} = ([12/nk(k + 1)] * [\text{SUM}(T_i^2)] - 3n(k + 1))$$

Assumptions:

It is a non-parametric test and does not assume normal distribution. The Friedman's test works for normal distribution as well. So, this assumption is not need to verify.

This test of significance tests for more than two dependent samples and allows multiple dependent samples.

Table No. 6.3.16 Sample Size

k (number of dependent samples) i.e., 4 main factors influencing buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiac Services (cultural, social, personal, psychological)	4
n (sample size)	350

As all the assumptions underlying Friedman test have been checked and validated, study can proceed with the test.

H_{o1} : There are no differences in ranking of the four main factors influencing buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiac services (cultural, social, personal, Psychological)

H_{a1} : There are differences in ranking of the four main factors influencing buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiac Services (cultural, social, personal, psychological).

Table No. 6.3.17:

Statistic Test:

Test Statistics	
N	350
Chi-Square	463.111
Degrees of Freedom	3
Asymp. Sig.	.000
a. Friedman Test	

The above Chi-square test tells that p-value is very small ($p\text{-value} < 0.0001$), This study reject the null hypothesis which means study may conclude that there are differences in ranking of 4 dependent samples.

Table No 6.3.18 Ranks of the influencing factors:

Ranks	
	Mean Rank
Rank by cultural aspects	3.51
Rank by social aspects	1.80
Rank by personal aspects	2.56
Rank by psychological aspects	2.12

Now the table for the mean ranks helps to identify the factor which is consistently ranked better or higher (1 as High in our Likert scale) than the other factors. The factor with the lowest score is considered most impactful. So, in the above, Social factor is perceived as most important and Psychological factor is considered as second most important at 1% level of significance. Also, the factor with the highest score is Cultural factor. This implies that cultural factors are not very influential on buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiac Services. So, conclusion is the Social and Psychological factors are construed to be the most important.

6.3.2 Analysis of Cultural Factors:

In this study by focusing on the 2nd research objectives that is analyzing culture factors Vis-a-Vis buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. Initially will check if there is an association between cultural factors and buying behavior and then proceed to analyze culture factors in details.

H_{01} : There does not have any association between Culture Factors Vis-à-vis buying behaviors in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department (Services).

H_{a1} : There has association between Culture Factors Vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

Using SPSS following results are there.

Table No. 6.3.19: Rank by cultural aspect and Overall Rank Cross tabulation:

Rank by cultural aspects * Overall Rank Crosstabulation						
			Overall Rank			
			Excellent	Good	Poor	Total
Rank by cultural aspects	High	Count	11	4	0	15
		% within Rank by cultural aspects	73.3%	26.7%	.0%	100.0%
		% within Overall Rank	5.0%	3.1%	.0%	4.3%
		% of Total	3.1%	1.1%	.0%	4.3%
	Medium	Count	105	65	1	171
		% within Rank by cultural aspects	61.4%	38.0%	.6%	100.0%
		% within Overall Rank	47.3%	50.8%	100.0%	48.7%
		% of Total	29.9%	18.5%	.3%	48.7%
	Low	Count	105	59	0	164
		% within Rank by cultural aspects	64.2%	35.8%	.0%	100.0%
		% within Overall Rank	47.7%	46.1%	.0%	47.0%
		% of Total	30.2%	16.8%	.0%	47.0%
Total		Count	221	128	1	350
		% within Rank by cultural aspects	63.2%	36.5%	.3%	100.0%
		% within Overall Rank	100.0%	100.0%	100.0%	100.0%
		% of Total	63.2%	36.5%	.3%	100.0%

In the cross-tabulation study try to compare how each hospital is ranked in overall term and how each hospital is ranked across cultural category. From the above table, it is seen that 73.3 per cent of the total number of patients, patients' relative and friends are given rank to the hospital to be excellent in term of overall and high in term of Cultural aspect. 26.7 per cent of the total number of patients, patients' relative and friends are given rank to be good in term of overall and high in term of Cultural aspect. 61.4 per cent of the total number of patients, patients'

relative and friends are given rank to be excellent in term of overall and medium in term of Cultural aspect. 38 per cent of the total number of patients, patients' relative and friends are given rank to be good in term of overall and medium in term of Cultural aspect. 0.6 per cent of the total number of patients, patients' relative and friends are given rank to be poor in term of overall and medium in term of Cultural aspect. 64.2 per cent of the total number of patients, patients' relative and friends are given rank to be excellent in term of overall and low in term of Cultural aspect. 35.8 per cent of the total number of patients, patients' relative and friends are given rank to be poor in term of overall and low in term of Cultural aspect. Out of all the patient, 4.3 per cent of patients, patients' relative and friends gave a high rank, 48.7 per cent of patients, patients' relative and friends gave a medium rank and 47 per cent of patients, patients' relative and friends gave a low rank in term of cultural aspect. Then out of all the patients, patients' relative and friends, 63.2 per cent of patients, patients' relative and friends gave an excellent rank, 35.8 per cent of patients, patients' relative and friends gave good rank and 3 per cent of patients, patients' relative and friends gave a poor rank in term of overall aspect.

Figure No 6.11: Rank by cultural aspects

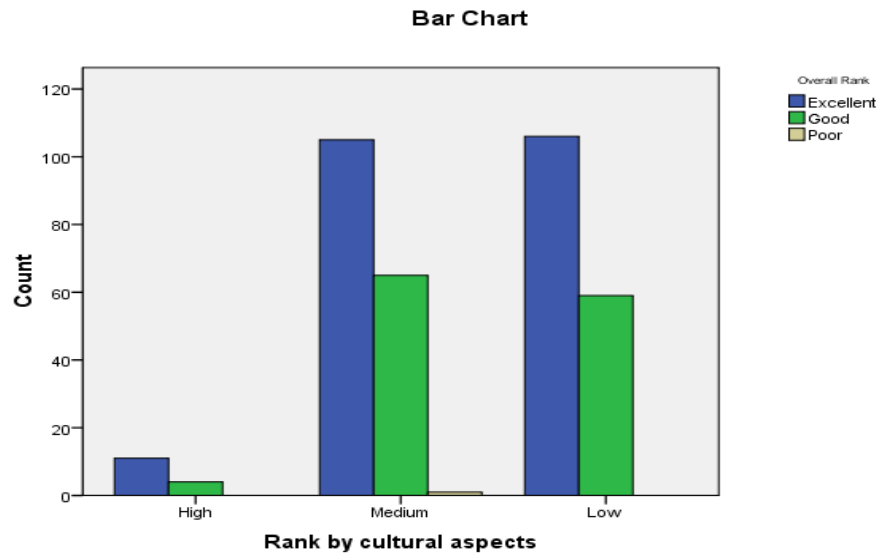


Table No 6.3.20: Chi-Square Test:

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.941 ^a	4	0.747
Likelihood Ratio	2.356	4	0.671
Linear-by-Linear Association	0.011	1	0.916
N of Valid Cases	350		
a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is .04.			

As P-value is large, here the null hypothesis is accepted. Conclusion is that there does not have any association between Culture Factors Vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiac

Services. The result above suggests that there does not have any association between Culture factors and buying behavior, the practically cultural aspects are influential to some extent, and hence the analysis is done in the following sections.

Now, this study identifies the most important cultural factor that influences buying behavior in multispecialty hospitals with specific reference to Cardiology Department. Secondly, this study shows which subculture factors play a significant role in the same. Thirdly, in this study observe and interpret patterns of the way in which influence of cultural factors on buying behavior changes with different parameters

Question 8: Which of the following cultural factors influence you towards this hospital's Cardiac services?

- A) Nationalist
- B) Wealth
- C) Geographic Region

To compare which of the cultural factors stated above are the most important. Two-sample proportion tests are done in R.

H_{02} : Culture factors viz. Nationality w.r.t proportion of people who are influential vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services).

H_{a2} : Culture Factors Viz. Nationality w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services).

Table No 6.3.21: Frequencies of Culture factors (Nationality and Region):

Cultural factor	Frequency	Percentage
Nationality	6	2%
Region	332	98%
Total	338	100%

Table No. 6.3.22: Two-sample test for equality of proportions with continuity correction

Data	Above frequency table
Chi-squared value	625
Degrees of Freedom	1
p-value	2.2×10^{-16}

As p-value is very small (<0.0001), the null hypothesis is rejected even at 1% level of significance. Conclusion is that Culture Factors Viz. Nationality w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services)

Similarly, the test is done for checking Wealth and Geographical Region.

H₀₃: Culture factors viz. Wealth w.r.t proportions of people who are influential vis-à-vis buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services).

H_{a3}: Culture Factors Viz. Wealth w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services).

Table No. 6.3.23: Frequencies of Culture Factors Viz. Wealth and Region:

Cultural factor	Frequency	Percentage
Wealth	12	3%
Region	332	97%
Total	344	100%

Table No. 6.3.24: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	591.63
Degrees of Freedom	1
p-value	2.2×10^{-16}

As p-value is very small (<0.0001), So study reject the null hypothesis even at 1% level of significance. So, Conclusion is that Culture Factors Viz. Wealth w.r.t

proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services). Therefore, as per above discussion Geographical Region is the most influential culture factor. In this section, following analysis is done for the variation in patterns with respect to influence of cultural factors on buying behavior.

Question 6: How patient's cultural factors do influence on buying behavior towards Cardiac Services of this Hospital?

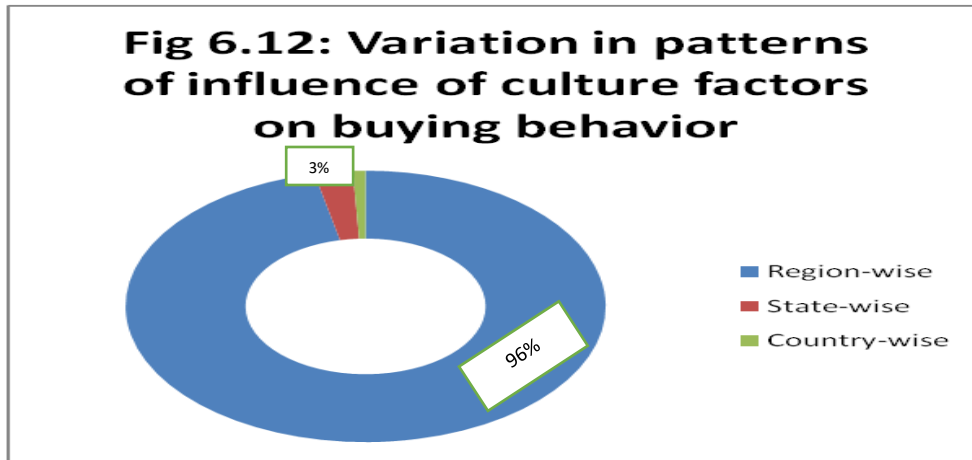
- A) Region to Region
- B) State to State
- C) Country to Country

Table No 6.3.25: The frequency of patients associated with influence of Culture factors.

Category	Frequency	Percentage
Region to Region	338	96%
State to State	9	3%
Country to Country	3	1%
Total	350	100%

The following graph can be constructed using the above table

Figure No. 6.12: Variation in patterns of influence of cultural factors on buying behavior:



As per above figure, 96 per cent for region wise (region to region), 3 per cent for state wise and 1 per cent for country to country. Therefore, people think that influence of the cultural factors on buying behavior in multispecialty hospitals with specific reference to Cardiology Department changes mainly from region to region. This reinforces our interpretation that geographic region is the most influential on buying behavior and nationality (country to country) is not a significant contributor.

Now study shows how the services of the Cardiology Department in the hospitals have been considered rank because the cultural factors.

Question 15: Kindly remark culture factors towards cardiac services of this Hospital?

- A) High
- B) Medium

C) Low

H₀₄: Ranking for culture factors is independent of the hospital with which the respondent is associated.

H_{a4}: Ranking of cultural factors is dependent on the hospital with which the respondent is associated.

Table 6.3.26: Ranking of Culture factors towards Cardiac services of Cardiology Department:

	Fortis		Kohinoor		Cumballa	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
High	7	2%	2	0.57%	6	1.71%
Medium	46	13.16%	23	6.57%	102	29.14%
Low	96	27.42%	14	4%	54	15.42%

The percentages in each column are percentages calculated with respect to total responses.

The results are as follows

Table No: 6.3.27: Pearson's chi-squared test:

Data	Table above
Chi-squared value	35.285
Degrees of freedom	4
p-value	4.059*10 ⁽⁻⁷⁾

As p-value is small (<0.001), this study rejects the null hypothesis even at 1% level of significance. Conclusion is that ranking of culture factor is dependent on the hospital with which the respondent is associated.

This may imply that there are differences in cultural aspects of the hospitals taken into consideration for the study.

6.3.3 Analysis of Social Factors:

Now, this study move on to the third research objectives that is evaluating social factors Vis-a-Vis buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services). Initially we will see if there is an association between social factors and buying behavior and then proceed to analyze social factors in detail.

H_{01} : The factors viz. Social does not have any association Vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department.

H_{a1} : The factors viz. Social have association Vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department.

SPSS study get the following results.

Table 6.3.28: Rank by Social aspect and Overall Rank Crosstabulation:

Rank by social aspects * Overall Rank Crosstabulation						
			Overall Rank			
			Excellent	Good	Poor	Total
Rank by social aspects	High	Count	158	91	0	249
		% within Rank by social aspects	63.5%	36.5%	.0%	100.0%
		% within Overall Rank	71.2%	71.1%	.0%	70.9%
		% of Total	45.0%	25.9%	.0%	70.9%
	Medium	Count	60	37	1	98
		% within Rank by social aspects	61.6%	37.4%	1.0%	100.0%
		% within Overall Rank	27.5%	28.9%	100.0%	28.2%
		% of Total	17.4%	10.5%	.3%	28.2%
	Low	Count	3	0	0	3
		% within Rank by social aspects	100.0%	.0%	.0%	100.0%
		% within Overall Rank	1.4%	.0%	.0%	.9%
		% of Total	.9%	.0%	.0%	.9%
Total		Count	221	128	1	350
		% within Rank by social aspects	63.2%	36.5%	.3%	100.0%
		% within Overall Rank	100.0%	100.0%	100.0%	100.0%
		% of Total	63.2%	36.5%	.3%	100.0%

In the cross-tabulation study try to compare how each hospital is ranked in overall term and how each hospital is ranked across Social aspect. From the above table, it is seen that 63.5 per cent of the total number of patients, patients' relative and friends are given rank to the hospital to be excellent in term of overall and high in term of Social aspect. 36.5 per cent of the total number of patients, patients' relative and friends are given rank to be good in term of overall and high in term of

Social aspect. 61.6 per cent of the total number of patients, patients' relative and friends are given rank to be excellent in term of overall and medium in term of Social aspect. 37.4 per cent of the total number of patients, patients' relative and friends are given rank to be good in term of overall and medium in term of Social aspect. 1 per cent of the total number of patients, patients' relative and friends are given rank to be poor in term of overall and medium in term of Social aspect. 100 per cent of patients, patients' relative and friends are given rank to be excellent in term of overall and low in term of social aspect. Out of all the patient, patients' relative and friends 70.9 per cent of patients, patients' relative and friends gave a high rank, 28.2 per cent of patients, patients' relative and friends gave a medium rank and 0.9 per cent of patients, patients' relative and friends gave a low rank in term of social aspect. Then out of all the patients, patients' relative and friends 63.2 per cent of patients, patients' relative and friends gave an excellent rank, 36.5 per cent of patients, patients' relative and friends gave a good rank and 0.3 per cent of patients, patients' relative and friends gave a poor rank in term of overall aspect.

Figure: 6.13 Rank by Social Aspect:

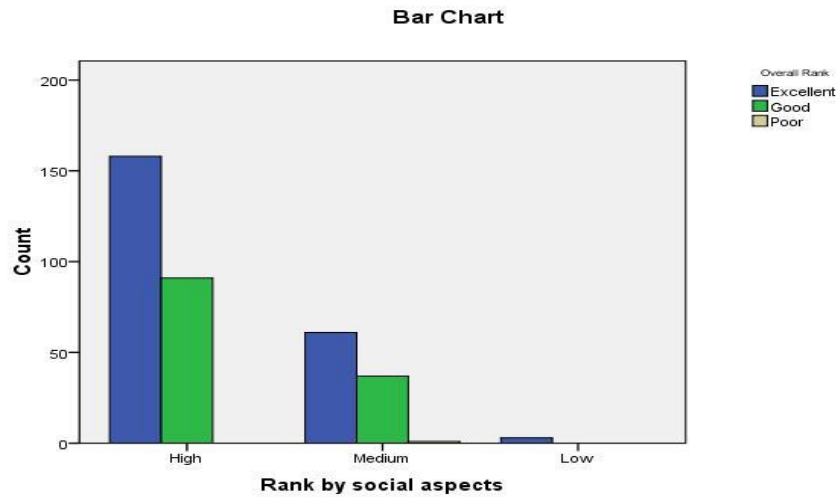


Table 6.3.29: Chi Square Test:

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.346 ^a	4	0.361
Likelihood Ratio	5.329	4	0.255
Linear-by-Linear Association	0.001	1	0.980
N of Valid Cases	350		
a. 5 cells (55.6%) have expected count less than 5. The minimum expected count is .01.			

As p-value is large therefore the null hypothesis is accepted. Conclusion is that the factors viz. Social does not have any association Vis-à-vis buying behavior

in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department. (Services).

Above result suggests that there does not have any association between Social factors and buying behavior but Empirically social factors are influential and hence analysis has done them in the following sections.

Under the category of social factors, this study first identify which factors are the most important in affecting buying behavior in multispecialty hospitals in Mumbai with specific reference to Cardiology Department (Services).

Question 3: What are the Social factors which influence you towards this hospital's Cardiac services?

- A) Reference Group
- B) Family
- C) Role and Status

To compare which of the social factors stated above is the most important, this study perform two-sample proportion tests in R. Logically, it makes sense that most people rely on their family with regards to choose of the hospital, when it comes to health problems. So, this study frame hypotheses such that Study wants to see if the proportion of people relying on family is more than those who rely on reference group or those who make decisions based on role and status.

H_{02} : Social Factor viz. reference group w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department..

H_{a2}: Social Factor viz. reference group w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

Table No.6.3.30: Frequencies of Social Factors Viz. Reference group and Family.

Social factor	Frequency	Percentage
Reference Group	147	49%
Family	156	51%
Total	303	100%

Table No. 6.3.31: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	0.42244
Degrees of Freedom	1
p-value	0.2579

As p-value is not small, the null hypothesis is accepted even at 5% level of significance. Therefore, the conclusion is that Social Factor viz. reference group w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology

Department (Services). This means people rely almost equally on family and reference group.

Now study shows the most influential Social factors among Role and status factors.

H_{03} : Social Factor viz. role and status w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

H_{a3} : Social Factor viz. role and status w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

Table No. 6.3.32: Frequencies of Social Factors Viz. Role and Status;

Social factor	Frequency	Percentage
Role and Status	48	24%
Family	156	76%
Total	204	100%

Table No. 6.3.33 Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	112.25
Degrees of Freedom	1
p-value	2.2×10^{-16}

As p-value is very small (<0.0001), the null hypothesis is rejected even at 1% level of significance. Therefore, conclusion is that Social Factors viz. role and status w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services). So, Family is most influential Social factor.

Now study shows how the Cardiac services of Cardiology Department in the hospitals have been considered rank because the Social factors.

Question 16): Kindly remark Social factors towards Cardiac Services of this Hospital?

- A) High
- B) Medium
- C) Low

H₀₄: Ranking for social factors is independent of the hospital with which the respondent is associated.

H_{a4}: Ranking of social factors is dependent on the hospital with which the respondent is associated.

Table No.6.3.34: Ranking of Social factors towards Cardiac Services of Hospital:

Ranks	Fortis		Kohinoor		Cumballa	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
High	106	30.28%	26	7.42%	116	33.14%
Medium	41	11.71%	13	3.71%	45	12.85%
Low	2	0.57%	0	0%	1	0.28%

The percentages in each column are percentages calculated with respect to total responses.

The result are as follows

Table No. 6.3.35: Pearson's chi-squared test:

Data	Above table
Chi-squared value	1.3075
Degrees of freedom	4
p-value	0.8493

As p-value is large, therefore the null hypothesis is accepted even at the 5% level of significance. Therefore, the conclusion is that ranking of social factor is independent of the hospital with which the respondent is associated. This means that there are very little or no differences in social aspects of the hospitals taken into consideration for the study. A noteworthy fact in the above section for study is that many people have ranked the social factors of the hospitals as high or medium and almost none of the respondents have ranked the same as low.

6.3.4 Analysis of Personal Factors:

Now, this study covers the 4th research objectives that is identifying personal factors Vis-a-Vis buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services). Initially the study shows if there is an association between personal factors and buying behavior and then proceed to analyze personal factors in Detail.

H_{o1}: The factors viz. Personal does not have any association vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with Specific reference to Cardiac Department (Services).

H_{a1}: The factors viz. Personal have association vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department (Services).

Using SPSS study gets the following results

Table 6.3.36: Rank by Personal aspects* Overall Rank Crosstabulation:

Rank by personal aspects * Overall Rank Crosstabulation						
			Overall Rank			Total
			Excellent	Good	Poor	
Rank by personal aspects	High	Count	76	36	1	113
		% within Rank by personal aspects	67.3%	31.9%	.9%	100.0%
		% within Overall Rank	34.2%	28.1%	100.0%	32.2%
		% of Total	21.7%	10.3%	.3%	32.2%
	Medium	Count	119	91	0	210
		% within Rank by personal aspects	56.9%	43.1%	.0%	100.0%
		% within Overall Rank	54.1%	71.1%	.0%	60.1%
		% of Total	34.2%	25.9%	.0%	60.1%
	Low	Count	26	1	0	27
		% within Rank by personal aspects	96.3%	3.7%	.0%	100.0%
		% within Overall Rank	11.7%	.8%	.0%	7.7%
		% of Total	7.4%	.3%	.0%	7.7%
Total		Count	221	128	1	350
		% within Rank by personal aspects	63.2%	36.5%	.3%	100.0%
		% within Overall Rank	100.0%	100.0%	100.0%	100.0%
		% of Total	63.2%	36.5%	.3%	100.0%

In the cross-tabulation study try to compare how each hospital is ranked in overall term and how each hospital is ranked across personal category. From the above table, it is seen that 67.3 per cent of the total number of patients, patients' relative and friends are given rank to the hospital to be excellent in term of overall and high in term of personal aspect. 31.9 per cent of the total number of patients,

patients' relative and friends are given rank to be good in term of overall and high in term of personal aspect. 0.9 per cent of the total number of patients, patients' relative and friends are given rank to be poor in term of overall and high in term of personal aspect. 56.9 per cent of the total number of patients, patients' relative and friends are given rank to be excellent in term of overall and medium in term of personal aspect. 43.1 per cent of the total number of patients, patients' relative and friends are given rank to be good in term of overall and medium in term of personal aspect. 0 per cent of the total number of patients, patients' relative and friends are given rank to be poor in term of overall and medium in term of personal aspect. 96.3 per cent of the total number of patients, patients' relative and friends are given rank to be excellent in term of overall and low in term of personal aspect. 3.7 per cent of the total number of patients, patients' relative and friends are given rank to be good in term of overall and low in term of personal aspect. Out of all the patient, 32.2 per cent of patients, patients' relative and friends gave a high rank, 60.1 per cent of patients, patients' relative and friends gave a medium a rank and 7.7 per cent patients, patients' relative and friends gave a low rank in term of social aspect. Then out of all the patients, patients' relative and friends 63.2 per cent of patients, patients' relative and friends gave an excellent rank, 36.5 per cent of patients, patients' relative and friends gave a good rank and 0.3 per cent of patients, patients' relative and friends gave a poor rank in term of overall aspect.

Figure : 6.14: Rank by personal Aspects:

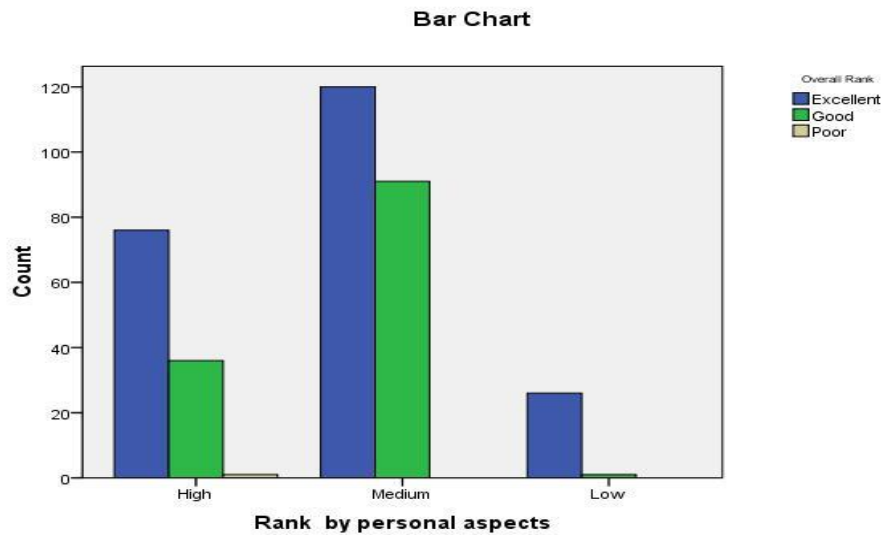


Table 6.3.37: Chi-Square Tests:

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	92.527 ^a	4	0.000
Likelihood Ratio	15.005	4	0.005
Linear-by-Linear Association	1.474	1	0.225
N of Valid Cases	350		
a. 5 cells (55.6%) have expected count less than 5. The minimum expected count is .01.			

As p-value is small, Null Hypothesis is rejected. Therefore, conclusion is that the factors viz. Personal have association vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiology

Department. Under the category of personal factors, This Study identify which factors are the most important in affecting buying behavior in multispecialty hospitals in Mumbai with specific reference to Cardiac Services.

Question 7: What are the Personal factors which influence you towards this hospital Cardiac services?

- A) Age and lifestyle
- B) Economic Situation
- C) Occupation
- D) Personality

For comparison between the personal factors stated above, the study perform two-sample proportion tests in R. Theoretically the economic situation would be the most effective factor influencing buying behavior in Multispecialty Hospitals. So, this study frame hypotheses such that if proportion of people basing their choice on economic situation is more than those who base decisions on their decisions on the either of the other three options above.

H_{02} : Personal Factors viz. age and lifestyle w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to the cardiology Department..

H_{a2} : Personal Factors viz. age and lifestyle w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department..

Table 6.3.38: Frequency of Personal Factors Viz. Economic Situation and Age and lifestyle:

Personal factor	Frequency	Percentage
Economic Situation	129	57%
Age and Lifestyle	98	43%
Total	227	100%

Table 6.3.39: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	7.9295
Degrees of Freedom	1
p-value	0.002432

As p-value is small (<0.01) the null hypothesis is rejected at 1% level of significance. Therefore, conclusion is that Personal Factors viz. age and lifestyle w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services).

Now study shows influencing Personal factors among economic Situation and Occupation.

H₀₃: Personal Factor viz. occupation w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

H_{a3}: Personal Factor viz. occupation w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

Table No.6.3.40: Frequency of Personal Factors Viz. Economic Situation and Occupation:

Personal factor	Frequency	Percentage
Economic Situation	129	89%
Occupation	16	11%
Total	145	100%

Table No: 6.3.41 Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	173.02
Degrees of Freedom	1
p-value	2.2×10^{-16}

As p-value is very small (<0.001), null hypothesis is rejected at 1% level of significance. Therefore, conclusion is that Personal Factors viz. occupation w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services).

Now The study show most influencing personal factors among Economic Situation and Personality.

H_{04} : Personal Factor viz. personality w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

H_{a4} : Personal Factor viz. personality w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

Table No. 6.3.42: Frequency of Personal Factors Viz. Economic Situation and Personality:

Personal factor	Frequency	Percentage
Economic Situation	129	54%
Personality	108	46%
Total	237	100%

Table No. 6.3.43: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	3.3755
Degrees of Freedom	1
p-value	0.03309

As p-value is not that small, the null hypothesis is accepted at 1% level of significance. therefore, conclusion is that Personal Factor viz. personality w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services). This means Economic Situation and Personality are the equally important personal factors influencing buying behavior in multispecialty hospitals in Mumbai with specific reference to Cardiology Department (Services). Now this study analyzes, how the Cardiac services in the hospitals we considered have been ranked because the personal factors.

Questions 17: Kindly remark personal factors towards Cardiac Services of this Hospital?

- A) High
- B) Medium
- C) Low

H₀₅: Ranking for personal factors is independent of the hospital with which the respondent is associated.

H_{a5}: Ranking of personal factors is dependent on the hospital with which the respondent is associated.

Table No. 6.3.44: Ranking of Personal Factors:

Ranks	Fortis		Kohinoor		Cumballa	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
High	46	13.14%	20	5.71%	46	13.14%
Medium	80	22.85%	16	4.57%	115	32.85%
Low	24	6.85%	2	0.57%	1	0.28%

The percentages in each column are percentages calculated with respect to total responses.

The results are as follows

Table No. 6.3.45: Pearson's chi-squared test:

Data	Table above
Chi-squared value	37.545
Degrees of freedom	4
p-value	1.391×10^{-7}

As p-value is small (<0.001), the null hypothesis is rejected even at 1% level of significance. The Conclusion is that that ranking of personal factor is dependent

on the hospital with which the respondent is associated. This means that there exist some differences in personal aspects of the hospitals taken into consideration for the study. An important fact in the above section for study is that many people have ranked the personal factors of the hospitals as medium and very few of the respondents have ranked the same as low.

6.3.5 Analysis of Psychological factors:

The 5th research objective is examined psychological factors Vis-a-Vis buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. But first we study if there is an association between psychological factors and buying behavior and then proceed to analyze personal factors in detail.

H₀₁: The factors viz. Psychological does not have any association Vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department.

H_{a1}: The factors viz. Psychological have association Vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department.

Using SPSS study gets the following results:

Table No.6.3.46:Rank by Psychological aspect*overall Rank Crosstabulation:

Rank by psychological aspects * Overall Rank Crosstabulation						
			Overall Rank			Total
			Excellent	Good	Poor	
Rank by psychological aspects	High	Count	105	75	0	180
		% within Rank by psychological aspects	58.3%	41.7%	.0%	100.0%
		% within Overall Rank	47.3%	58.6%	.0%	51.3%
		% of Total	29.9%	21.4%	.0%	51.3%
	Medium	Count	115	51	0	166
		% within Rank by psychological aspects	69.5%	30.5%	.0%	100.0%
		% within Overall Rank	52.3%	39.8%	.0%	47.6%
		% of Total	33.0%	14.5%	.0%	47.6%
	Low	Count	1	2	1	4
		% within Rank by psychological aspects	25.0%	50.0%	25.0%	100.0%
		% within Overall Rank	.5%	1.6%	100.0%	1.1%
		% of Total	.3%	.6%	.3%	1.1%
Total		Count	221	128	1	350
		% within Rank by psychological aspects	63.2%	36.5%	.3%	100.0%
		% within Overall Rank	100.0%	100.0%	100.0%	100.0%
		% of Total	63.2%	36.5%	.3%	100.0%

In the cross-tabulation study try to compare how each hospital is ranked in overall term and how each hospital is ranked across psychological category. From the above table, it is seen that 58.3 per cent of the total number of patients, patients' relatives and friend are given rank the hospital to be excellent in term of overall and high in term of Psychological aspect. 41.7 per cent of the total number patients,

patients' relatives and friend are given rank to be good in term of overall and high in term of psychological aspect. 0 per cent of the total number of patients, patients' relatives and friends are given rank to be poor in term of overall and high in term of psychological aspect. 69.5 per cent of the total number of patients, patients' relatives and friend are given rank to be excellent in term of overall and medium in term of psychological aspect. 30.5 per cent of the total number of patients, patients' relatives and friend are given rank to be good in term of overall and medium in term of psychological aspect. 0 per cent of the total number of patients, patients' relatives and friend are given rank to be poor in term of overall and medium in term of psychological aspect. 25 per cent of the total number of patients, patients' relatives and friend are given rank to be excellent in term of overall and low in term of psychological aspect. 50 per cent of the total number of patients, patients' relatives and friend are given rank to be good in term of overall and low in term of psychological aspect. Out of all the patient, patients' relative friend, 51.3 per cent of patients, patients' relative and friends gave a high rank, 47.6 per cent of patients, patients' relative and friends gave a medium rank and 1.1 per cent of patients, patients' relative and friends gave low a rank in term of Psychological aspect. Then out of all the patients, patients' relative and friends, 63.2 per cent of patients, patients' relative and friends gave an excellent rank, 36.5 per cent of patients, patients' relative and friends gave a good rank and 0.3 per cent of patients, patients' relative and friends gave a poor rank in term of overall aspect

Figure No 6.15: Rank by Psychological aspects:

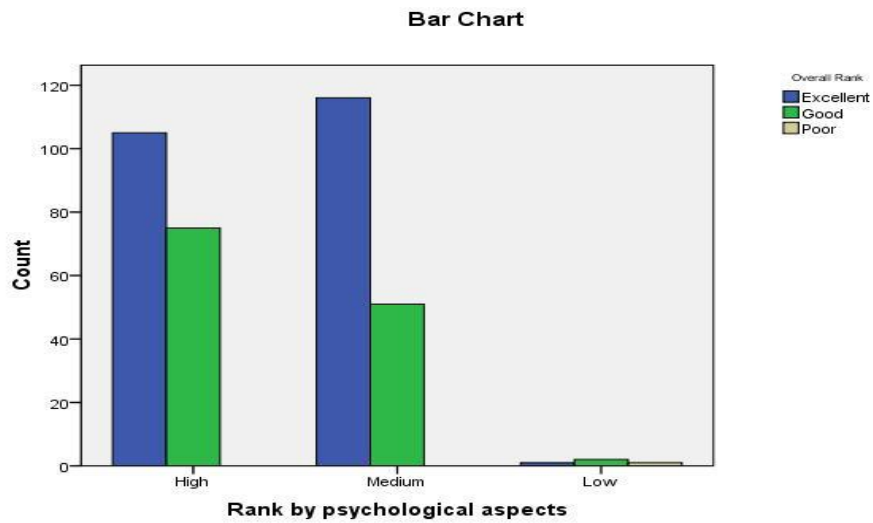


Table No. 6.3.47: Chi-Square Tests:

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	92.527 ^a	4	0.000
Likelihood Ratio	15.005	4	0.005
Linear-by-Linear Association	1.474	1	0.225
N of Valid Cases	350		
a. 5 cells (55.6%) have expected count less than 5. The minimum expected count is .01.			

as p-value is small, null hypothesis is rejected therefore conclusion is that the factors viz. Psychological have association Vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department(Service).

Question 9: What are the Psychological factors which influence you towards this hospital's Cardiac services?

- A) Motivation
- B) Perception
- C) Belief
- D) Attitude

This study try to identify whether motivation is an important factor in influencing buying behavior in multispecialty hospitals in Mumbai with specific reference to Cardiac services. Hence Study perform two-sample proportion tests with Motivation as one factor and one of the remaining three as another.

H_{02} : Psychological factor viz. perception, w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

H_{a2} : Psychological factor viz. perception w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

Table No. 6.3.48: Frequency of Psychological Factors Viz. Motivation and Perception:

Psychological factor	Frequency	Percentage
Motivation	164	67%
Perception	80	33%
Total	244	100%

Table No: 6.3.49: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	56.467
Degrees of Freedom	1
p-value	2.857×10^{-14}

As p-value is very small (<0.0001), the null hypothesis is rejected at 1% level of significance. Therefore, conclusion is that Psychological factors viz. perception w.r.t proportions of people who are not influence vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services)

Now this study shows that most influencing factors among Motivation and Belief.

H₀₃: Psychological factor viz. belief w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

H_{a3}: Psychological factor viz. belief w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

Table No. 6.3.50: Frequency of Psychological factors:

Psychological factors	Frequency	Percentage
Motivation	164	73%
Belief	60	27%
Total	224	100%

Table No. 6.3.51: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	94.723
Degrees of Freedom	1
p-value	2.2×10^{-16}

As p-value is very small (<0.0001), the null hypothesis is rejected at 1% level of significance. Therefore, conclusion is that therefore conclusion is that Psychological factor viz. belief w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services).

This study shows comparison between motivation and attitude.

H₀₄: Psychological factor viz. attitude w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

H_{a4}: Psychological factor Viz. attitude w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

Table No. 6.3.52: Frequency of Psychological Factor Viz. Motivation and Attitude:

Psychological factor	Frequency	Percentage
Motivation	164	78%
Attitude	47	22%
Total	211	100%

Table No. 6.3.53: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	127.55
Degrees of Freedom	1
p-value	2.2×10^{-16}

As p-value is very small (<0.0001), the null hypothesis is rejected at 1% level of significance. Therefore, conclusion is that Psychological Factor Viz. attitude w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services).

Now, need to study if there is a connection between this aspect and the opinion of people as to who motivates them for engaging in cardiac services of a hospital.

Cochran-Mantel Haenszel Test:

The Cochran–Mantel–Haenszel test (which is sometimes called the Mantel–Haenszel test) is used for repeated tests of independence. The most common situation is when study has multiple 2×2 tables of independence and when study has done the experiment multiple times or at multiple locations. There are three categorical variables, the two variables of the 2×2 test of independence, and

the third variable that identifies the repeats (such as different times, different locations, or different studies).

In the context of the data set, the study has the following three variables:

- 1) Psychological factors namely- Motivation, Perception, Belief, Attitude.
- 2) Motivating person- Doctors, Technologist, Marketing Persons, Others
- 3) Hospital with which the person is associated- Fortis, Kohinoor, Cumballa

Using Excel sheet, this study get three tables of counts, one under Fortis Hospital, one under Kohinoor Hospital and one under Cumballa Hospital.

Table No. 6.3.54: Data of Variables of Fortis Hospital:

Fortis Hospital								
	Doctors		Technologists		Marketing Person		Others	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Motivation	70	46.97%	5	3.35%	2	1.34%	0	0%
Perception	36	24.16%	3	2.01%	2	1.34%	0	0%
Belief	16	10.73%	2	1.34%	2	1.34%	1	0.67%
Attitude	7	4.69%	1	0.67%	1	0.67%	1	0.67%

The percentages in each column are percentages calculated with respect to total responses.

Table No. 6.3.55: Data of Variables of Kohinoor Hospital:

Kohinoor Hospital								
	Doctors		Technologists		Marketing Person		Others	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Motivation	13	33.33%	3	7.69%	11	28.20%	2	5.12%
Perception	2	5.12%	1	2.56%	0	0%	0	0%
Belief	1	2.56%	0	0%	3	7.69%	1	2.56%
Attitude	2	5.12%	0	0%	0	0%	0	0%

The percentages in each column are percentages calculated with respect to total responses.

Table No. 6.3.56: Data of Variables of Cumballa Hospital:

Cumballa Hospital								
	Doctors		Technologists		Marketing Person		Others	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Motivation	58	35.80%	0	0%	0	0%	0	0%
Perception	35	21.60%	0	0%	0	0%	0	0%
Belief	32	19.75%	0	0%	1	0.61%	1	0.61%
Attitude	33	20.37%	1	0.61%	0	0%	1	0.61%

The percentages in each column are percentages calculated with respect to total responses.

H_{05} : The relative proportions of people in choosing most influential psychological factor are independent of view about persons motivating in engaging cardiac

services of a hospital within the repeats based on different hospitals, i.e. there is no association between psychological factor and motivating person with respect to Hospital.

H_{a5}: The relative proportions of people in choosing most influential psychological factor are dependent on view about persons motivating in engaging cardiac services of a hospital within the repeats based on different hospitals, i.e. there is an association between psychological factor motivating person with respect to Hospital.

Table No 6.3.57: The CMH test in R software :

Data	Above 3 Contingency Tables
Cochran-Mantel-Haenszel Statistic	15.31
Degrees of Freedom	9
p-Value	0.08276

As p-value is large (>0.05), the null hypothesis is accepted at 5% level of significance. Therefore, conclusion is that there is no association between Psychological factor (Motivation, Perception, Belief, Attitude) and Motivating persons (Doctors, Technologists, Marketing persons, Others) with respect to Hospital with which respondent is associated (Fortis, Kohinoor, Cumballa).

Now the study shows that how the Cardiac services in the hospitals have been considered rank because the psychological factors.

Question 18: Kindly remark psychological factors towards Cardiac Services of this Hospital?

A) High

B) Medium

C) Low

H_{06} : Ranking of psychological factors is independent of the hospital with which the respondent is associated.

H_{a6} : Ranking of psychological factors is dependent on the hospital with which the respondent is associated.

Table No. 6.3.58: Ranking of Psychological Factors:

Ranks	Fortis		Kohinoor		Cumballa	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
High	77	22%	13	3.71%	90	25.71%
Medium	71	20.28%	25	7.14%	70	20%
Low	2	0.57%	1	0.28%	1	0.28%

The results are as follows:

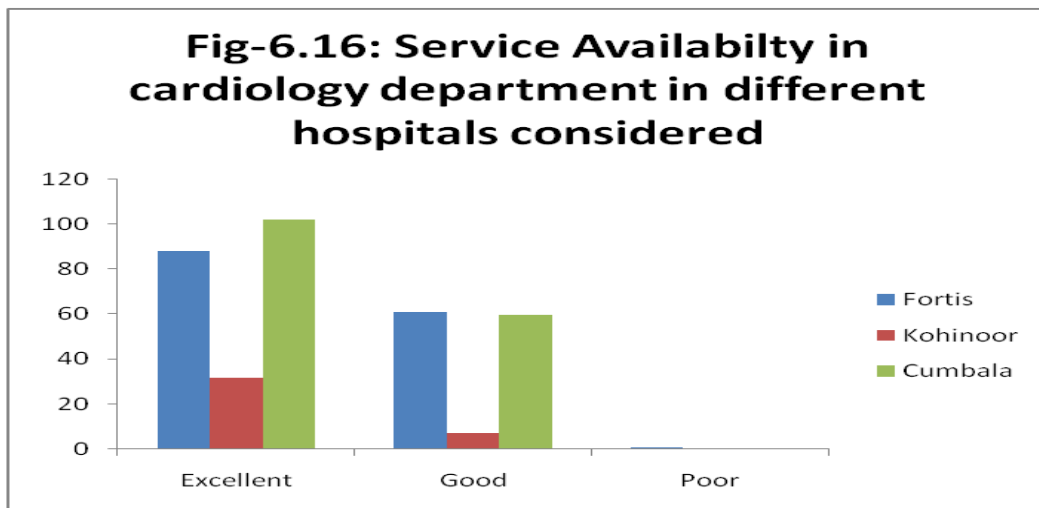
Table No. 6.3.59: Pearson's chi-squared test:

Data	Table above
Chi-squared value	6.8779
Degrees of freedom	4
p-value	0.1425

As p-value is large, the null hypothesis is accepted at 5% level of significance. Therefore, conclusion is that ranking of psychological factors is independent of the Hospital with which the respondent is associated. This means that there exists no difference in Psychological aspect of the Hospitals taken into consideration for the study. An important fact in the above section for study is that many people have ranked the psychological factors of the hospitals as high and medium and very few of the respondents have ranked the same as low.

Now focus on the last research objectives which is to survey the service availability in Cardiology Department in Multispecialty hospitals in Mumbai.

Figure No:6.16: Service Availability in Cardiology Department in different Hospitals:



Most of the respondents have ranked the services in the hospitals as excellent and good. Almost none of them have ranked the services as poor. Therefore, study perform chi-squared test to determine whether ranking of services availability depends on the hospital with which the respondent is associated.

Question 19: How are the cardiac services of this Hospital?

A) Excellent

B) Good

C) Poor

H₀₇: Service availability in Cardiology Department of multispecialty hospitals in Mumbai is excellent.

H_{a7}: Service availability in Cardiology Department of multispecialty hospitals in Mumbai is not Excellent.

Table No 6.3.60: Service availability in the Hospitals:

Category	Fortis		Kohinoor		Cumballa	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Excellent	88	25.14%	32	9.14%	102	29.14%
Good	60	17.14%	7	2%	60	17.14%
Poor	1	0.28%	0	0%	0	0%

The results are as follow:

Table No. 6.3.61: Pearson's chi-squared test:

Data	Table above
Chi-squared value	8.4273
Degrees of freedom	4
p-value	0.07712

As p-value is large the null hypothesis is accepted at 5% level of significance. Therefore, conclusion is that Service availability in Cardiology Department of multispecialty hospitals in Mumbai is not Excellent.

The following is the frequency table for ranking of cardiac services in the multispecialty hospitals in Mumbai.

Table No 6.3.62: Ranking of Cardiac Services availability .

Category	Frequency	Percentage
Excellent	221	63%
Good	128	37%
Poor	1	0%
Total	350	100%

In this study, hardly any respondent has ranked the services as poor, hence conclusion is that the service availability in cardiology department in multispecialty hospitals in Mumbai is Excellent.

6.4 Data Analysis of Doctors and Paramedical Staffs:

In this study, in all 500 respondents out of which 142 belong to the category of doctors and paramedical staff. this analysis focus on the services side that is data obtained from questionnaires framed for doctors and paramedical staff. This analysis begins with checking reliability of data and exploratory data analysis. Later one it shall cover the hypothesis tests and other statistical procedures. Also in this analysis consistency of data has been checked using the data from questions 1, 8 and 15 of questionnaire for doctors and paramedics. These are similar questions

and here find out the Cronbach's Alpha and study the correlations between the data sets of these questions to check the consistency. The following tables are obtained using SPSS.

Questionnaire: Doctors and Paramedical staff.

Question: What are the important parameters to attract Cardiac patient in your Hospitals?

A) Brand

B) Quality

C) Services

D) Patient Satisfaction

Tables No. 6.4.1: Case Processing Summary:

Case Processing Summary			
		N	%
Cases	Valid	142	100.0
	Excluded ^a	0	.0
	Total	142	100.0
a. List wise deletion based on all variables in the procedure.			

Above table suggests that there were no questions left unanswered by any of the respondents and that entire data was used for the reliability study.

Table No. 6.4.2 Reliability Statistics:

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.605	0.602	3

A value of 0.6 for the Cronbach's Alpha is considered as a good reliability level. The value for data is 0.605, In this study the data to be consistent.

Table No. 6.4.3:

Inter-item Correlation Matrix:

Inter-Item Correlation Matrix			
	Parameters to attract	Perception affecting choice	Factors attracting patients
Parameters to attract	1.000	0.235	0.325
Perception affecting choice	0.235	1.000	0.445
Factors attracting patients	0.325	0.445	1.000

The inter-item correlations above re-emphasize that data is consistent as magnitude of correlation coefficients is high in most cases. Therefore, the data is reliable and consistent.

6.4.1 Exploratory Data Analysis:

Now, Study proceeds with the exploratory analysis using diagrammatic representations and graphs. It begins by finding which of the parameters are perceived as most important by the doctors and paramedics as being influential on buying behavior in multispecialty hospitals in Mumbai with specific reference to Cardiology Department (Services).

Question 1: What are the important parameters to attract Cardiac patients in your hospital?

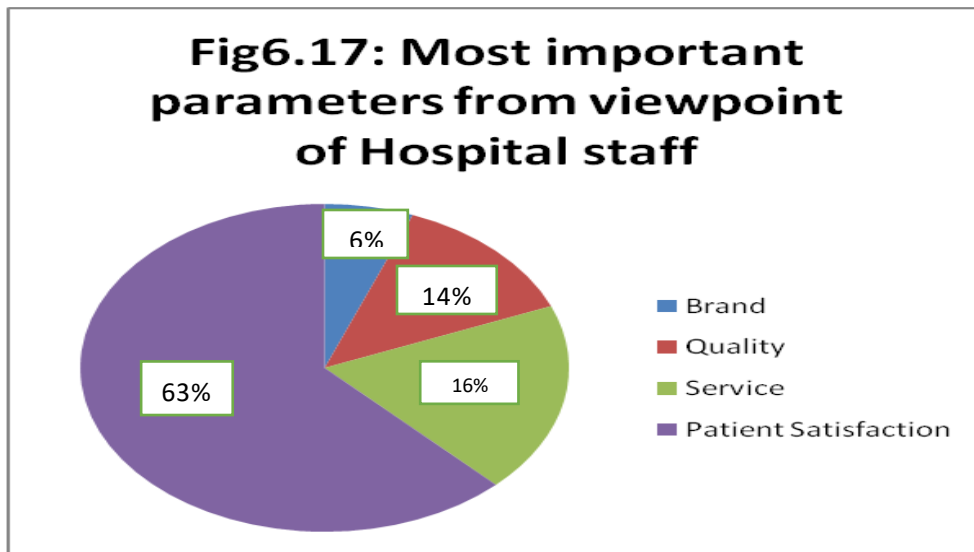
- A) Brand
- B) Quality
- C) Service
- D) Patient Satisfaction

Table No. 6.4.4: Parameters to attract cardiac patients in your hospitals :

Category	Frequency	Percentage
Brand	9	6%
Quality	20	14%
Service	23	16%
Patient Satisfaction	90	63%
Total	142	100%

The following graph can be constructed using the above table.

Figure No. 6.17 most important parameters from view of Hospital staff:



In the above diagram 63 per cent for patient satisfaction, 16 per cent for service, 14 per cent for quality, 6 per cent for brand. Therefore, Patient Satisfaction is the top most priority of the hospital services and thereby is the most important parameter influencing buying behavior. Now, this result with the impact analysis of a similar question in the questionnaire for patients, patient's relatives and Friend, where observation was that the patients expect hospital services to be the most influential factor. Thereby the connection is clear that the hospital staff prioritize patient satisfaction which is expected as a part of good hospital services from the patients' point of view. Further this study analyzes the involvement of the marketing persons in affecting buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiology department (service) as perceived by the hospital staff.

Question 2: What is the Marketing Department's role in Buying Behavior towards Cardiac Services in your Hospital?

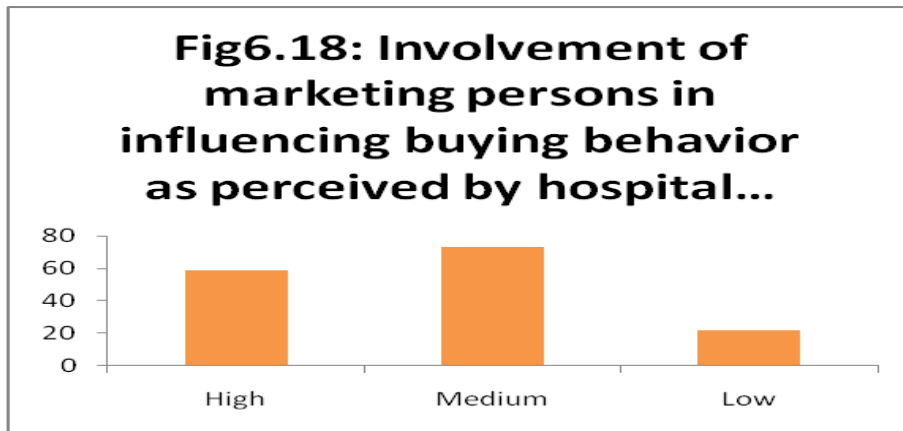
- A) High
- B) Medium
- C) Low

Table No 6.4.5: Involvement of Marketing Persons in influencing buying behavior as perceived by Hospital Staff:

Category	Frequency	Percentage
High	57	40%
Medium	63	44%
Low	22	15%
Total	142	100%

The following graph can be constructed using the above table.

Figure: No. 6.18 Involvement of Marketing Persons in influencing buying behavior as perceived by Hospital Staff:



Involvement of marketing persons is high or medium in affecting buying behavior. Reasons should be identified the same. Also, there may be some scope to quantify this involvement if some more and specific data is collected. Next point is studying how the marketing persons influence buying behavior.

Question 3): How does the Marketing person influence patients to engage Cardiac Services?

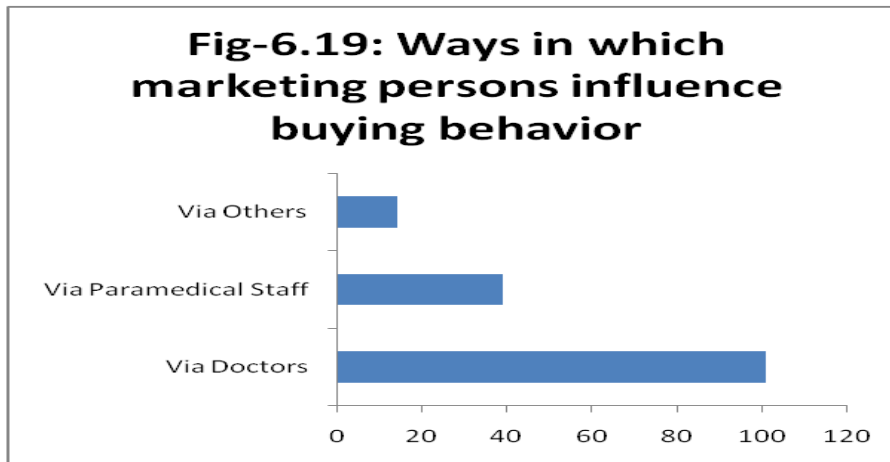
- A) Via Doctors
- B) Via Paramedical Staff
- C) Via others.

Table No: 6.4.6: Marketing persons influence buying behavior:

Category	Frequency	Percentage
Via Doctors	101	69%
Via Paramedical Staff	36	25%
Via Others	9	6%
Total	146	100%

The following graph can be constructed using the above table.

Figure No: 6.19: Ways in which marketing persons influence buying behavior:



Above results said that Doctors are the most influential on buying behavior and following doctors is the paramedical staff. This is logical because doctors and paramedics are the people who are in contact with the patient for the most time.

Also as the service from hospital staff is perceived as most important in affecting buying behavior from the patients' side with which mainly doctors and paramedics are associated so result fits rightly.

Question 4: What are the Social factors which influence you towards this hospital's Cardiac Services?

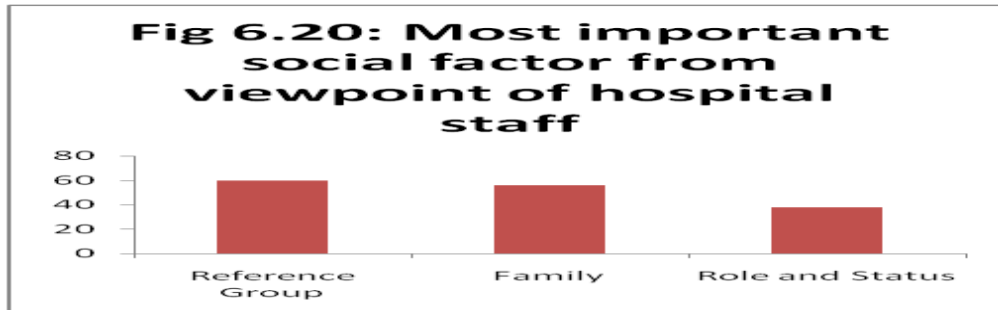
- A) Reference Group
- B) Family
- C) Role and Status

Table No 6.4.7: Most important Social factor from viewpoint of Hospital staff:

Category	Frequency	Percentage
Reference Group	56	39%
Family	52	37%
Role and Status	34	24%
Total	142	100%

The following graph can be constructed using the above table.

Figure No: 6.20 Most important social factor from the viewpoint of Hospital Staff:



The above column chart depicts that reference group and family are the most important social factors affecting buying behavior in multispecialty Hospitals. This result is on lines parallel to our results from impact analysis for the questionnaire for patients, which also says that reference group and family are considered as most important social factors.

Now the study shows personal factors influence towards this Hospital for the Cardiac Services of the Cardiology Department. This views are from the Doctors and Paramedical Staffs. The following question has been selected for the analysis.

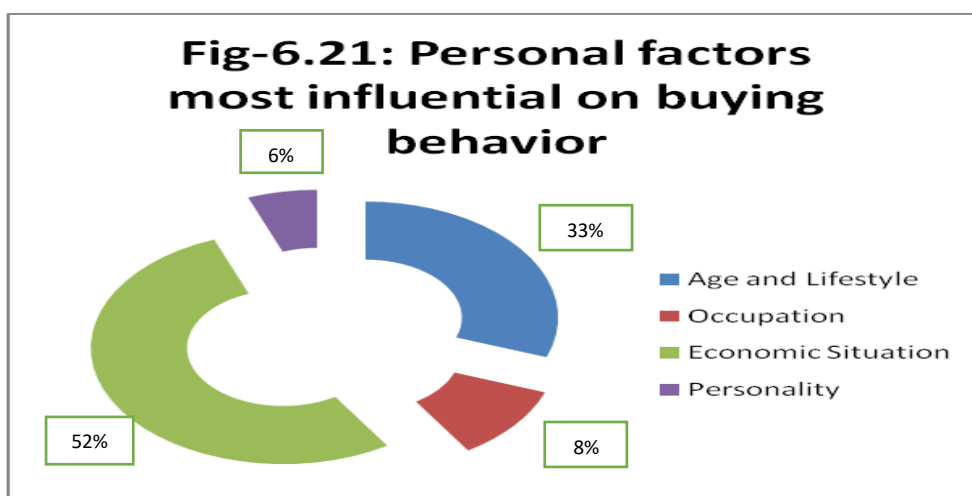
Question 5: Which of the following personal factors influence you towards this Hospital's Cardiac Services?

- A) Age and Lifestyle
- B) Occupation
- C) Economic Situation
- D) Personality

Table No.6.4.8: Personal factors most influential on buying behavior:

Category	Frequency	Percentage
Age and Lifestyle	47	33%
Occupation	12	8%
Economic Situation	74	52%
Personality	9	6%
Total	142	100%

Figure 6.21: Personal factors most influential on buying behavior:



As seen in the above doughnut figure, 52 per cent for Economic situation, 33 per cent for Age and life style, 8 per cent for Occupation and 6 per cent for personality. Therefore, economic situation seems to have the lion's share in affecting patients' choice of a hospital as compared to age and lifestyle, occupation or personality. This result again is in line with the same question in the questionnaire for patients, patients' Relative and Friends.

Now, Psychological factors have been analyzed by the following question.

Question 6: Which of the following psychological factors influence you towards this Hospital's Cardiac Services.

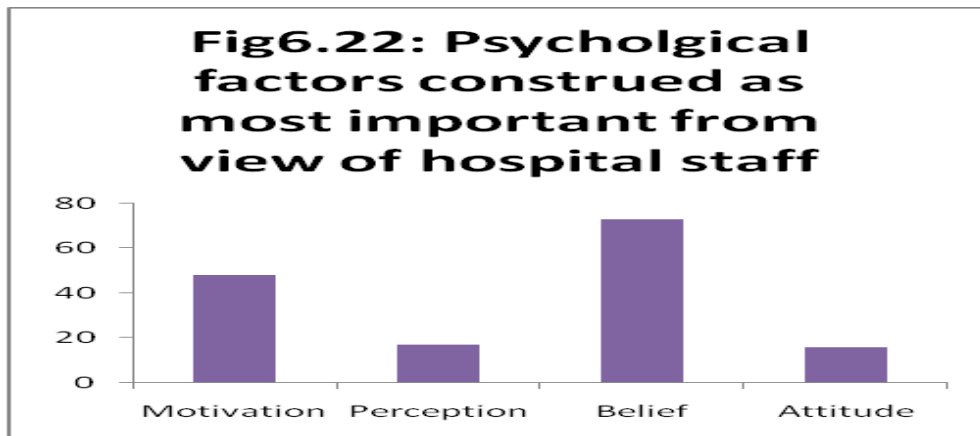
- A) Motivation
- B) Perception
- C) Belief
- D) Attitude

Table. No. 6.4.9: Psychological factors construed as most important from the view of Hospital staff:

Category	Frequency	Percentage
Motivation	44	31%
Perception	17	12%
Belief	67	47%
Attitude	14	10%
Total	142	100%

The following graph can be constructed using the above table.

Figure: 6.22: Psychological factors construed as most important from the view of Hospital staff:



The above column figure suggests that belief is the construed as the most influential factor with respect to buying behavior in multispecialty hospitals in Mumbai with specific reference to Cardiology Department (Services). The next most important factor is Motivation. This result deviates a little from our result for the same question in the questionnaire for patients, patients' relatives and Friends where observation was that Motivation is a most important factor.

Now here culture factors have been analyzed by following question No 3 from the questionnaire Viz. Doctors and Paramedical Staff.

Question No.7: Which of the following culture factors influence you towards this hospital's Cardiac Services?

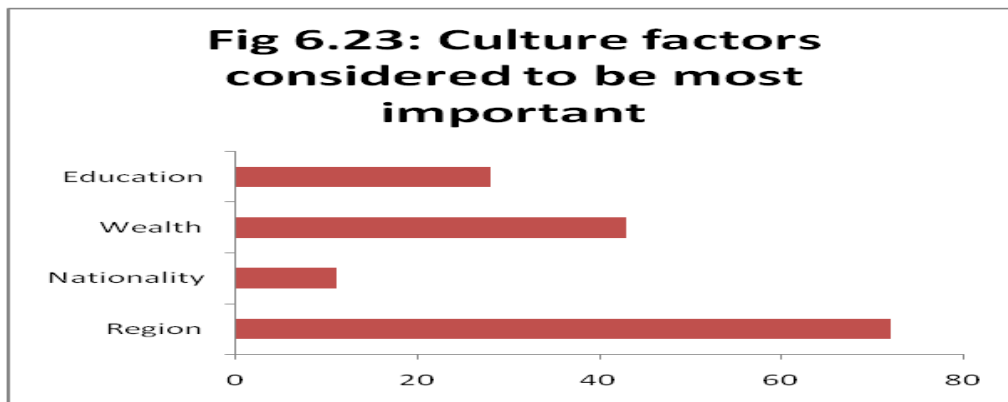
- A) Region
- B) Nationality
- C) Wealth
- D) Education

Table No. 6.4.10: Culture factors considered to be most important:

Category	Frequency	Percentage
Region	68	48%
Nationality	11	8%
Wealth	39	27%
Education	24	17%
Total	142	100%

The following graph can be constructed using the above table.

Figure 6.23: Culture factors considered to be most important:



Above result shows that Geographic region is the most important of cultural factors and Wealth as the next most important cultural factor influencing buying behavior in multispecialty hospitals in Mumbai with specific reference to cardiology Department. This differs a little from our results for effective data analysis-patients and relatives, where study has shown that although region is the most significant factor, wealth is not considered very important and influential.

Now consider the most important question of the questionnaire for doctors and paramedics. This is the crucial question because it is related to the most significant of research objectives.

Question 9: What are the following factors influencing to you towards Cardiac Services of this Hospitals.?

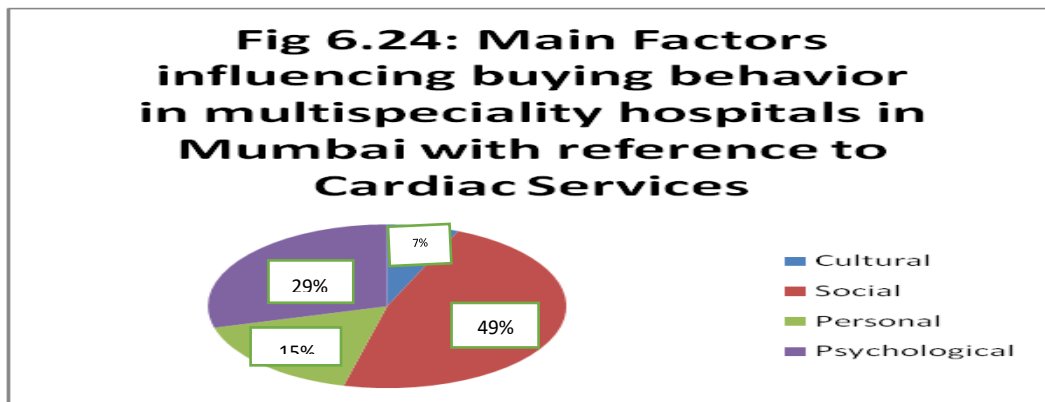
- A) Culture factors (Region, Nationality, Wealth and Education)
- B) Social Factors (Family, Friends, Role and Status)
- C) Personal factors (Age and lifestyle, Economic Situation, Personality)
- D) Psychological factors (Perception, Motivation, learning, beliefs)

Table No. 6.4.11: Main factors influencing buying behavior in multispecialty Hospitals in Mumbai:

Factor	Frequency	Percentage
Cultural factors	10	7%
Social factors	69	49%
Personal factors	22	15%
Psychological factors	41	29%
Total	142	100%

The following graph can be constructed using the above table.

. Figure No: 6.24 Main factors influencing buying behavior in multispecialty Hospitals in Mumbai:



The above pie chart showed that 49 per cent for Social factors, 29 per cent for Psychological factors, 15 per cent for personal factors and 7 per cent for culture factors. It is clearly seen that Social and Psychological Factors play a very important role in influencing buying behavior. This result is like result in impact

analysis patient and relatives. So overall social and psychological factors contribute the most in affecting buying behavior. In the sections following more focus has been placed on the above main factors in a more details

So 1st research objective is to study factors influencing buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services)

The study has been taken into consideration the following four broad categories of factors.

- 1) Culture factors (Region, Nationality, Wealth and Education)
- 2) Social factors (Family, Friends, Role and Status)
- 3) Personal factors (Age and lifestyle, Economic Situation, Personality)
- 4) Psychological factors (Perception, Motivation, Learning, Beliefs)

To identify which of the above factors are most influential on the buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. Now this study performs a Friedman test using SPSS. The results of the same are as follows

Friedman test statistic for more than two dependent samples is given by the formula:

$$\text{Chi-square}_{\text{Friedman}} = ([12/nk (k + 1)] * [\text{SUM}(T_i^2) - 3n (k + 1)])$$

Assumptions:

It is a non-parametric test and does not assume normal distribution. The Friedman's test works for normal distribution as well. So, Study need not verify

this assumption. This test of significance tests for more than two dependent samples and allows multiple dependent samples.

Table No: 6.4.12: Sample Size :

k (number of dependent samples) i.e. 4 main factors influencing buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiac Services (cultural, social, personal, psychological)	4
n (sample size)	142

H_{01} : There are no differences in ranking of the four main factors influencing buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (cultural, social, personal, Psychological)

H_{a1} : There are differences in ranking of the four main factors influencing buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (cultural, social, personal, psychological)

Table No. 6.4.13: Test Statistics:

Test Statistics	
N	142
Chi-Square	73.261
Df	3
Asymp. Sig.	.000
a. Friedman Test	

The above Chi-square test tells that p-value is very small ($p\text{-value} < 0.0001$), here null hypothesis is rejected which means conclusion is that there are differences in ranking of 4 dependent samples.

Table No. 6.4.14: Ranks of Influencing factors:

Ranks	
	Mean Rank
Rank by cultural aspects	2.99
Rank by social aspects	2.16
Rank by personal aspects	2.64
Rank by Psychological aspects	2.21

Now the table for the mean ranks helps to identify the factors which is consistently ranked better or higher (1 as High in our Likert scale) than the other factors. The factor with the lowest score is considered most impactful. So, in the above, Social factor is perceived as most important and Psychological factor is considered as second most important at 1% level of significance. Also, the factor with the highest score is Cultural factor. This implies that cultural factors are not very influential on buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (services). Therefore, conclusion is that Social and Psychological factors are construed to be the most important.

6.4.2: Analysis of Cultural factors:

This study begins by focusing on the 2nd research objectives that is analyzing culture factors Vis-a-Vis buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. Initially we will see if there is an association between cultural factors and buying behavior and then proceed to analyze culture factors in detail.

H₀₁: The factors viz. Culture does not have any association Vis-à-vis buying behaviors in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department.

H_{a1}: The factors viz. Culture have association Vis-à-vis buying behaviors in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department.

Using SPSS study get the following result:

Table No.6.4.15: Rank by Cultural aspects*Overall rank for Hospital

Crosstabulation:

Rank by cultural aspects * Overall rank for hospital Crosstabulation						
			Overall rank for hospital			Total
			Excellent	Good	Poor	
Rank by cultural aspects	High	Count	22	11	2	35
		% within Rank by cultural aspects	62.9%	31.4%	5.7%	100.0%
		% within Overall rank for hospital	29.3%	14.7%	50.0%	22.7%
		% of Total	14.3%	7.1%	1.3%	22.7%
	Medium	Count	38	35	0	73
		% within Rank by cultural aspects	52.1%	47.9%	.0%	100.0%
		% within Overall rank for hospital	50.7%	46.7%	.0%	47.4%
		% of Total	24.7%	22.7%	.0%	47.4%
	Low	Count	15	29	2	46
		% within Rank by cultural aspects	32.6%	63.0%	4.3%	100.0%
		% within Overall rank for hospital	20.0%	38.7%	50.0%	29.9%
		% of Total	9.7%	18.8%	1.3%	29.9%
Total		Count	75	75	4	154
		% within Rank by cultural aspects	48.7%	48.7%	2.6%	100.0%
		% within Overall rank for hospital	100.0%	100.0%	100.0%	100.0%
		% of Total	48.7%	48.7%	2.6%	100.0%

In the cross-tabulation study try to compare how each hospital is ranked in overall term and how each hospital is ranked across Cultural category. From the

above table, it is seen that 62.9 per cent of the total number of doctors and paramedical staffs are given rank the hospital to be excellent in term of overall and high in term of Cultural aspect. 31.4 per cent of the total number of doctors and paramedical staffs are given rank to be good in term of overall and high in term of cultural aspect. 5.7 per cent of the total number of doctors and paramedical staffs are given rank to be poor in term of overall and high in term of Cultural aspect. 52.1 per cent of the total number of doctors and paramedical staffs are given rank to be excellent in term of overall and medium in term of cultural aspect. 47.9 per cent of the total number of doctors and paramedical staffs are given rank to be good in term of overall and medium in term of cultural aspect. 0 per cent of the total number of doctors and paramedical staffs are given rank to be poor in term of overall and medium in term of cultural aspect. 32.6 per cent of the total number of doctors and paramedical staffs are given rank to be excellent in term of overall and low in term of cultural aspect. 63 per cent of the total number of Doctors and paramedical staffs are given rank to be good in term of overall and low in term of cultural aspect. 4.3 per cent of the total number of Doctors and paramedical staffs are given rank to be poor in term of overall and low in term of cultural aspect. Out of all the Doctors and paramedical staffs, 22.7 per cent gave a high rank, 47.4 per cent gave a medium rank and 29.9 per cent of Doctors and paramedical staff gave low rank in term of cultural aspect. Then out of all the doctors and paramedical staffs, 48.7 per cent gave excellent rank, 48.7 per cent gave good rank and 2.6 per cent gave as poor rank in term of overall aspect.

Figure No. 6.25 Rank by Cultural aspects :

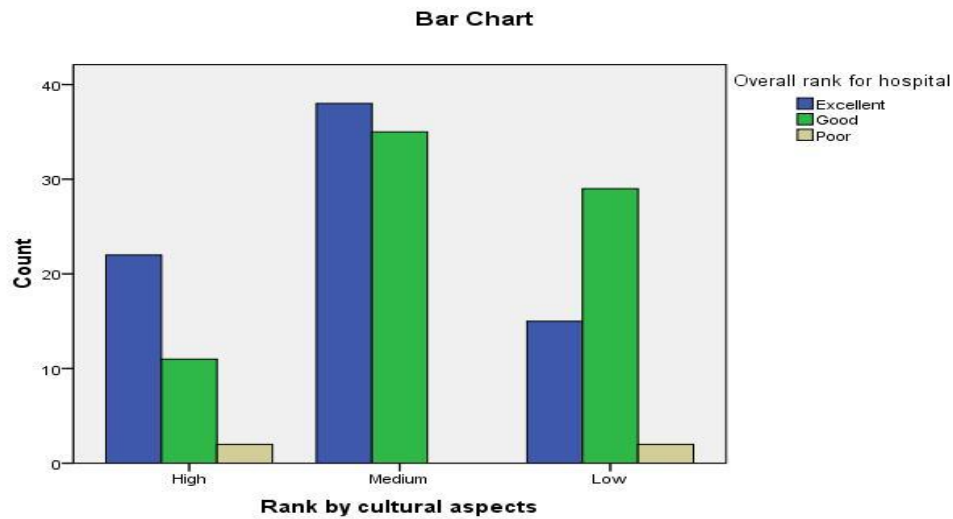


Table No: 6.4.16: Chi-Square Tests:

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.898 ^a	4	.018
Likelihood Ratio	13.708	4	.008
Linear-by-Linear Association	6.007	1	.014
N of Valid Cases	142		
a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is .91.			

As asymptotic significance, i.e. p-value is small, therefore null hypothesis is rejected. and conclusion is that the factors viz. Culture have association Vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department (Services). Here practically also the cultural aspects are influential to some extent and hence this study analyze them in the following sections.

Now, study firstly identify the most important cultural factor that influences buying behavior in multispecialty hospitals with specific reference to Cardiology Department.

Question 7: Which of the following culture factors influence you towards this hospital's Cardiac Services?

- A) Region
- B) Nationality
- C) Wealth
- D) Education

To compare which of the cultural factors stated above is the most important. The study performs two-sample proportion tests in R.

H_{02} : Culture Factor Viz. Nationality w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

H_{a2}: Culture Factors Viz. Nationality w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

Table. No. 6.4.17: Frequency of Culture factors Viz. Nationality, Region:

Cultural factors	Frequency	Percentage
Nationality	11	13%
Region	72	87%
Total	83	100%

Table. No. 6.4.18: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	86.747
Degrees of Freedom	1
p-value	2.2×10^{-16}

As p-value is very small (<0.0001), the null hypothesis is rejected at 1% level of significance. Therefore, conclusion that Culture Factors Viz. Nationality w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services). This means, Geographic region is more influential a factor than nationality. Similarly, this study check if proportion of people who think

geographic region is most important cultural factor is more than proportion of people who think that wealth is most important culture factor.

H_{03} : Culture Factor Viz. Wealth w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

H_{a3} : Culture Factor Viz. Wealth w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

Table No. 6.4.19: Frequency of Culture factors Viz. Wealth, Region:

Cultural factors	Frequency	Percentage
Wealth	43	37%
Region	72	63%
Total	115	100%

Table No. 6.4.20: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	13.635
Degrees of Freedom	1
p-value	0.000111

As p-value is very small (<0.001), the null hypothesis is rejected even at 1% level of significance. Therefore, conclusion is that Culture Factors Viz. Wealth w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services).

Now study shows that the proportion of people who think geographic region is most important cultural factor is more than proportion of people who think that education is most important cultural factor.

H_{04} : Culture Factor viz. Education w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

H_{a4} : Culture Factor viz. Education w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

Table No. 6.4.21: Frequency for the culture factors Viz. Education and Geographical Region:

Cultural factor	Frequency	Percentage
Education	28	28%
Region	72	72%
Total	100	100%

Table No. 6.4.22: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	36.98
Degrees of Freedom	1
p-value	5.697×10^{-10}

As p-value is very small (<0.0001), the null hypothesis is rejected even at 1% level of significance. Conclusion is that Culture Factors Viz. Education w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services).

Now study how the Cardiac services in the hospitals have been considered the rank because the cultural factors.

Question 11) Kindly remark culture factors towards cardiac Services of this Hospital?

- A) High
- B) Medium
- C) Low

H_{05} : Ranking for culture factors is independent of the hospital with which the respondent is associated.

H_{a5} : Ranking of cultural factors is dependent on the hospital with which the respondent is associated.

Table No. 6.4.23: Ranking for the culture factors:

Ranks	Fortis		Kohinoor		Cumballa		L.H. Hiranandani	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
High	14	10%	1	0.71%	12	8.57%	6	4.28%
Medium	30	21.42%	13	9.28%	11	7.85%	11	7.85%
Low	12	8.57%	0	0%	5	3.57%	25	17.85%

The results are as follows -

Table No.6.4.24: Pearson's chi-squared test:

Data	Table above
Chi-squared value	33.98
Degrees of freedom	6
p-value	6.788×10^{-6}

As p-value is small (<0.001), the null hypothesis is rejected even at 1% level of significance and conclusion is that rankings of culture factor are dependent on the hospital with which the respondent is associated. This may imply that there are differences in cultural aspects of the hospitals taken into consideration for the study.

6.4.3 Analysis of Social Factors:

Now study focus on the 3rd research objective that is evaluating social factors Vis-a-Vis buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. Initially, if there is an association

between social factors and buying behavior and then proceed to analyze social factors in details.

H_{o1} : The factors viz. Social does not have any association Vis-à-vis buying behaviors in Multispecialty hospitals in Mumbai with specific reference to Cardiology Departement.

H_{a1} : The factors viz. Social have association Vis-à-vis buying behaviors in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department.

Using SPSS, we get the following results.

Table No. 6.4.25: Rank by Social aspect* overall rank for Hospital

crosstabulation:

Rank by social aspects * Overall rank for hospital Crosstabulation						
			Overall rank for hospital			
			Excellent	Good	Poor	Total
Rank by social aspects	High	Count	50	23	3	76
		% within Rank by social aspects	65.8%	30.3%	3.9%	100.0%
		% within Overall rank for hospital	66.7%	30.7%	75.0 %	49.4%
		% of Total	32.5%	14.9%	1.9%	49.4%
	Medium	Count	24	45	1	70
		% within Rank by social aspects	34.3%	64.3%	1.4%	100.0%
		% within Overall rank for hospital	32.0%	60.0%	25.0 %	45.5%
		% of Total	15.6%	29.2%	.6%	45.5%
	Low	Count	1	7	0	8
		% within Rank by social aspects	12.5%	87.5%	.0%	100.0%
		% within Overall rank for hospital	1.3%	9.3%	.0%	5.2%
		% of Total	.6%	4.5%	.0%	5.2%
Total		Count	75	75	4	154
		% within Rank by social aspects	48.7%	48.7%	2.6%	100.0%
		% within Overall rank for hospital	100.0%	100.0%	100.0 %	100.0%
		% of Total	48.7%	48.7%	2.6%	100.0%

In the cross-tabulation study try to compare how each hospital is ranked in overall term and how each hospital is ranked across Cultural category. From the above table, it is seen that 65.8 per cent of the total number of doctors and paramedical staffs are given rank the hospital to be excellent in term of overall and high in term of social aspect. 30.3 per cent of the total number of doctors and paramedical staffs are given rank to be good in term of overall and high in term of social aspect. 3.9 per cent of the total number of doctors and paramedical staffs are given rank to be poor in term of overall and high in term of Social aspect. 34.3 per cent of the total number of doctors and paramedical staffs are given rank to be excellent in term of overall and medium in term of social aspect. 64.3 per cent of the total number of doctors and paramedical staffs are given rank to be good in term of overall and medium in term of social aspect. 1.4 per cent of the total number of doctors and paramedical staffs are given rank to be poor in term of overall and medium in term of Social aspect. 12.5 per cent of the total number of doctors and paramedical staffs are given rank to be excellent in term of overall and low in term of social aspect. 87.5 per cent of the total number of Doctors and paramedical staffs are given rank to be good in term of overall and low in term of Social aspect. 0 per cent of the total number of Doctors and paramedical staffs are given rank to be poor in term of overall and low in term of social aspect. Out of all the Doctors and paramedical staffs, 49.4 per cent gave a high rank, 45.5 per cent gave a medium rank and 5.2 per cent of Doctors and paramedical staff gave low rank in term of social aspect. Then out of all the doctors and paramedical staffs, 48.7 per cent gave

excellent rank, 48.7 per cent gave good rank and 2.6 per cent gave as poor rank in term of overall aspect.

Figure No. 6.26 : Bar Chart for the Rank by Social aspect:

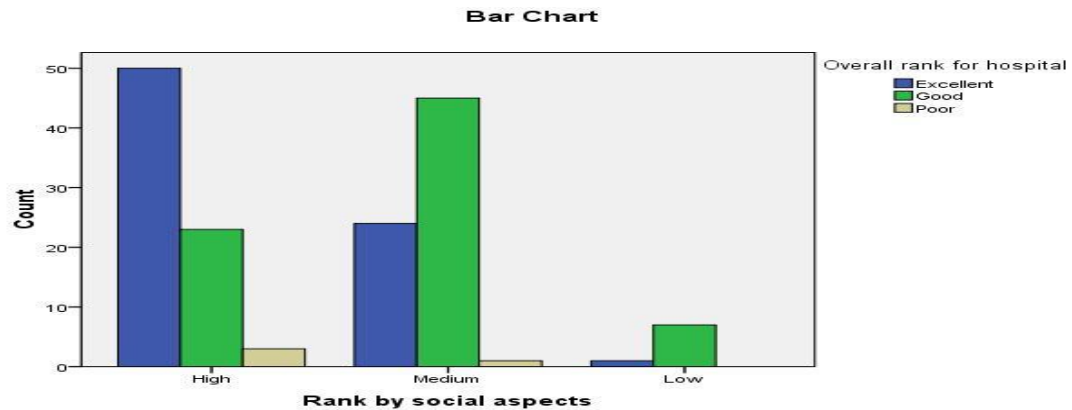


Table No. 6.4.26: Chi-Square Tests:

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.075 ^a	4	.000
Likelihood Ratio	23.128	4	.000
Linear-by-Linear Association	13.149	1	.000
N of Valid Cases	142		
a. 5 cells (55.6%) have expected count less than 5. The minimum expected count is .21.			

As p-value is very small therefore the null hypothesis is rejected and conclusion is that the factors viz. Social have association Vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiac Services.

Under the category of social factors, this study first identify which factors are the most important in affecting buying behavior in multispecialty hospitals in Mumbai with specific reference to Cardiology Department (Services).

Question 4: What are the Social factors which influence you towards this hospital's Cardiac Services?

A) Reference Group

B) Family

C) Role and Status

To compare which of the social factors stated above is the most important, this study perform two-sample proportion tests in R.

H₀₂: Social Factor viz. reference group w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

H_{a2}: Social Factor viz reference group w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

Table No. 6.4.27 frequency of Social Factors Viz. Reference Group and Family:

Social factors	Frequency	Percentage
Reference Group	60	52%
Family	56	48%
Total	116	100%

Table No. 6.4.28: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	0.15517
Degrees of Freedom	1
p-value	0.6532

As p-value is not small, therefore the null hypothesis is accepted even at 5% level of significance. Therefore, conclusion is that Social Factor viz. reference group w.r.t proportions of influential people vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services). This means people rely almost equally on family and reference group.

H_{03} : Social Factors viz. role and status w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

H_{a3} : Social Factor viz. role and status w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

Table No 6.4.29: Frequency for social factor Viz. Role and Status and Family:

Social factor	Frequency	Percentage
Role and Status	38	40%
Family	56	60%
Total	94	100%

Table No.6.4.30: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	6.1489
Degrees of Freedom	1
p-value	0.006575

As p-value is very small (<0.01), the null hypothesis is rejected even at 1% level of significance. Therefore, conclusion is that Social Factor viz. role and status w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services).

Now study shows that how the Cardiac services in the hospitals have been considered the rank because the social factors.

Question 12: Kindly remark Social factors towards cardiac Services of this Hospital?

- A) High
- B) Medium
- C) Low

H_{04} : Ranking for social factors is independent of the hospital with which the respondent is associated.

H_{a4} : Ranking of social factors is dependent on the hospital with which the respondent is associated.

Table No. 6.4.31: Ranking of Social factors:

Ranks	Fortis		Kohinoor		Cumbala		L.H. Hiranandani	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
High	47	30.51%	0	0%	19	12.33%	10	6.49%
Medium	9	5.84%	14	9.09%	12	7.79%	35	22.72%
Low	2	1.29%	0	0%	3	1.94%	3	1.94%

The results are as follows -

Table No. 6.4.32: Pearson's chi-squared test:

Data	Table above
Chi-squared value	58.279
Degrees of freedom	6
p-value	1.006×10^{-10}

As p-value is small, the null hypothesis is rejected at 1% level of significance. Therefore, conclusion is that ranking of social factor is dependent on the hospital with which the respondent is associated. This means that there are differences in Social aspect of the hospitals taken into consideration for the study. A noteworthy fact in the above section for study is that many people have ranked the social factors of the hospitals as high or medium and very few of the respondents have ranked the same as low.

Analysis of Personal Factors:6.4.4:

In the following section this study covers the 4th research objective that is identifying personal factors Vis-a-Vis buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. Initially this study researches if there is an association between personal factors and buying behavior and then proceeds to analyze personal factors in detail.

H₀₁: The factors viz. Personal does not have any association Vis-à-vis buying behaviors in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department.

H_{a1}: The factors viz. Personal have association vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with Specific reference to Cardiology Department.

Using SPSS, Study gets the following results.

Table 6.4.33: Rank by personal aspect* overall rank for Hospital
crosstabulation:

Rank by personal aspects * Overall rank for hospital Crosstabulation						
			Overall rank for hospital			
			Excellent	Good	Poor	Total
Rank by personal aspects	High	Count	17	25	3	45
		% within Rank by personal aspects	37.8%	55.6%	6.7%	100.0%
		% within Overall rank for hospital	22.7%	33.3%	75.0%	29.2%
		% of Total	11.0%	16.2%	1.9%	29.2%
	Medium	Count	48	41	1	90
		% within Rank by personal aspects	53.3%	45.6%	1.1%	100.0%
		% within Overall rank for hospital	64.0%	54.7%	25.0%	58.4%
		% of Total	31.2%	26.6%	.6%	58.4%
	Low	Count	10	9	0	19
		% within Rank by personal aspects	52.6%	47.4%	.0%	100.0%
		% within Overall rank for hospital	13.3%	12.0%	.0%	12.3%
		% of Total	6.5%	5.8%	.0%	12.3%
Total		Count	75	75	4	154
		% within Rank by personal aspects	48.7%	48.7%	2.6%	100.0%
		% within Overall rank for hospital	100.0%	100.0%	100.0%	100.0%
		% of Total	48.7%	48.7%	2.6%	100.0%

In the cross-tabulation study try to compare how each hospital is ranked in overall term and how each hospital is ranked across persona category. From the above table, it is seen that 37.8 per cent of the total number of doctors and paramedical staffs are given rank the hospital to be excellent in term of overall and high in term of personal aspect. 55.6 per cent of the total number of doctors and paramedical staffs are given rank to be good in term of overall and high in term of personal aspect. 6.7 per cent of the total number of doctors and paramedical staffs are given rank to be poor in term of overall and high in term of personal aspect. 53.3 per cent of the total number of doctors and paramedical staffs are given rank to be excellent in term of overall and medium in term of personal aspect. 45.6 per cent of the total number of doctors and paramedical staffs are given rank to be good in term of overall and medium in term of personal aspect. 1.1 per cent of the total number of doctors and paramedical staffs are given rank to be poor in term of overall and medium in term of personal aspect. 52.6 per cent of the total number of doctors and paramedical staffs are given rank to be excellent in term of overall and low in term of personal aspect. 47.4 per cent of the total number of Doctors and paramedical staffs are given rank to be good in term of overall and low in term of personal aspect. 0 per cent of the total number of Doctors and paramedical staffs are given rank to be poor in term of overall and low in term of personal aspect. Out of all the Doctors and paramedical staffs, 29.2 per cent gave a high rank, 58.4 per cent gave a medium rank and 12.3 per cent of Doctors and paramedical staff gave low rank in term of personal aspect. Then out of all the doctors and paramedical

staffs, 48.7 per cent gave excellent rank, 48.7 per cent gave good rank and 2.6 per cent gave as poor rank in term of overall aspect.

Figure No: 6.27 : Rank by Personal aspects:

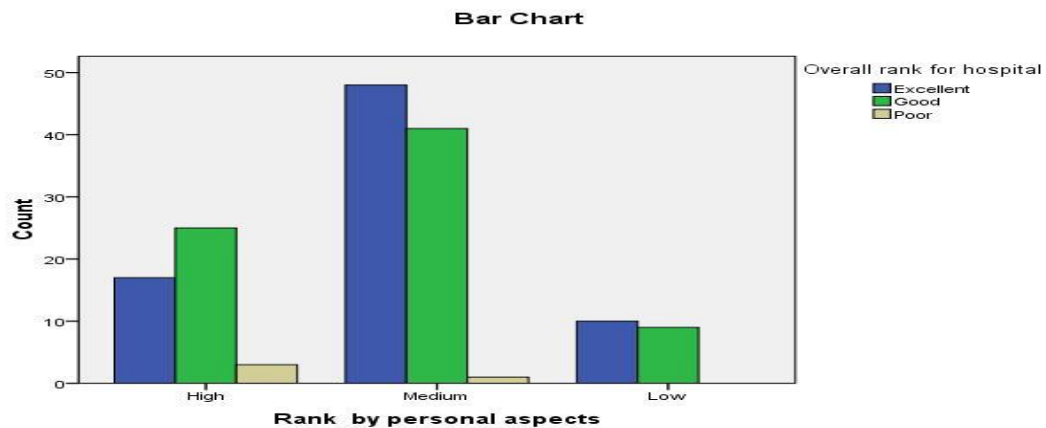


Table No. 6.4.34: Chi-Square Tests:

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.311 ^a	4	.177
Likelihood Ratio	6.205	4	.184
Linear-by-Linear Association	3.539	1	.060
N of Valid Cases	142		
a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is .49.			

As p-value is large, Therefore the null hypothesis is accepted at 5% level of significance. Therefore, conclusion is that the factors viz. Personal does not have any association Vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference Cardiology Department (Services). The result above suggests that there is no association between Personal factors and buying behavior Empirically, Personal factors are influential and hence now study analyze them in the following sections. Under the category of personal factors, the study shows identify which factors are the most important in affecting buying behavior in multispecialty hospitals in Mumbai with specific reference to Cardiac services.

Question 5: What are the Personal factors which influence you towards this Hospital's Cardiac Services?

- A) Age and lifestyle
- B) Economic Situation
- C) Occupation
- D) Personality

For comparison between the personal factors stated above, the study performs two-sample proportion tests in R. Theoretically in this study economic situation would be the most effective factor influencing buying behavior in multispecialty Hospitals. So, Study frames the hypotheses such that if proportion of people basing their choice on economic situation is more than those who base their decisions on the either of the other three options above.

H₀₂: Personal Factor viz. age and lifestyle w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

H_{a2}: Personal Factor viz. age and lifestyle w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

Table No. 6.4.35: Frequency for personal factors Viz. Age and Lifestyle, Economic Situation:

Personal factor	Frequency	Percentage
Economic Situation	82	64%
Age and Lifestyle	47	36%
Total	129	100%

Table No. 6.4.36: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	17.922
Degrees of Freedom	1
p-value	1.15×10^{-5}

As p-value is very small (<0.0001), the null hypothesis is rejected at 1% level of significance. Therefore, the conclusion is that Personal Factor viz. age and lifestyle w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services).

Now analyzing for personal factors viz. occupation as per follows,

H_{03} : Personal Factor viz. occupation w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

H_{a3} : Personal Factor viz. occupation w.r.t proportions people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

Table No. 6.4.37: Frequency of Personal Factors Viz. Economic Situation and Occupation:

Personal factor	Frequency	Percentage
Economic Situation	82	84%
Occupation	16	16%
Total	98	100%

Table No.6.4.38: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	86.224
Degrees of Freedom	1
p-value	2.2×10^{-16}

As p-value is very small (<0.0001), the null hypothesis is rejected at 1% level of significance. Therefore, conclusion is that Personal Factor viz. occupation w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services).

Now analyzing for the personal factor personality

H_{04} : Personal Factors viz. personality w.r.t proportion of people who are influential vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

H_{a4} : Personal Factor viz. personality w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

Table No. 6.4.39: Frequency for the personal factors Viz. Economic Situation and Personality:

Personal factor	Frequency	Percentage
Economic Situation	82	90%
Personality	9	10%
Total	91	100%

Table No. 6.4.40: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	113.93
Degrees of Freedom	1
p-value	2.2×10^{-16}

As p-value is very small, the null hypothesis is rejected at 5% level of significance. Therefore, conclusion is that personal Factor viz. personality w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services).

Now, this study analyzes how the Cardiac services in the hospitals have been considered in rank because the personal factors.

Question 13: Kindly remark personal factors towards cardiac Services of this Hospital?

- A) High
- B) Medium
- C) Low

H_{05} : Ranking for personal factors is independent of the hospital with which the respondent is associated.

H_{a5} : Ranking of personal factors is dependent on the hospital with which the respondent is associated.

Table No. 6.4.41: Ranking of personal factors:

Ranks	Fortis		Kohinoor		Cumballa		Dr. L.H. Hiranandani	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
High	5	3.52%	1	0.70%	19	13.38%	16	11.26%
Medium	37	26.05%	13	9.15%	12	8.45%	20	14.08%
Low	12	8.45%	0	0%	3	2.11%	4	2.81%

The results are as follows -

Table No. 6.4.42: Pearson's chi-squared test:

Data	Table above
Chi-squared value	35.573
Degrees of freedom	6
p-value	3.336×10^{-6}

As p-value is small (<0.001), the null hypothesis is rejected even at 1% level of significance. Hence conclusion is that ranking of personal factor is dependent on the hospital with which the respondents is associated. This means that there exist some differences in personal aspects of the hospitals taken into consideration for the study. An important fact in the above section for study is that many people have ranked the personal factors of the hospitals as medium and very few of the respondents have ranked the same as above.

6.4.5: Analysis of Psychological factors:

The 5th of our research objectives is examined psychological factors Vis-a-Vis buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. But first this study shows if there is an association between psychological factors and buying behavior and then proceed to analyze personal factors in detail.

H_{01} : The factors viz. Psychological does not have any association Vis-à-vis buying behaviors in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department.

H_{a1} : The factors viz. Psychological have association Vis-à-vis buying behaviors in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department.

Using SPSS, we get the following results.

Table No. 6.4.43: Rank by Psychological aspects* Overall rank for hospital

crosstabulation:

Rank by Psychological aspects * Overall rank for hospital Crosstabulation						
			Overall rank for hospital			
			Excellent	Good	Poor	Total
Rank by Psychological aspects	High	Count	52	24	4	80
		% within Rank by Psychological aspects	65.0%	30.0%	5.0%	100.0 %
		% within Overall rank for hospital	69.3%	32.0%	100.0%	51.9%
		% of Total	33.8%	15.6%	2.6%	51.9%
	Medium	Count	17	42	0	59
		% within Rank by Psychological aspects	28.8%	71.2%	.0%	100.0 %
		% within Overall rank for hospital	22.7%	56.0%	.0%	38.3%
		% of Total	11.0%	27.3%	.0%	38.3%
	Low	Count	6	9	0	15
		% within Rank by Psychological aspects	40.0%	60.0%	.0%	100.0 %
		% within Overall rank for hospital	8.0%	12.0%	.0%	9.7%
		% of Total	3.9%	5.8%	.0%	9.7%
Total		Count	75	75	4	154
		% within Rank by Psychological aspects	48.7%	48.7%	2.6%	100.0 %
		% within Overall rank for hospital	100.0%	100.0 %	100.0%	100.0 %
		% of Total	48.7%	48.7%	2.6%	100.0 %

In the cross-tabulation study try to compare how each hospital is ranked in overall term and how each hospital is ranked across psychological category. From the above table, it is seen that 65 per cent of the total number of doctors and

paramedical staffs are given rank the hospital to be excellent in term of overall and high in term of Psychological aspect. 30 per cent of the total number of doctors and paramedical staffs are given rank to be good in term of overall and high in term of Psychological aspect. 5.0 per cent of the total number of doctors and paramedical staffs are given rank to be poor in term of overall and high in term of psychological aspect. 28.8 per cent of the total number of doctors and paramedical staffs are given rank to be excellent in term of overall and medium in term of psychological aspect. 71.2 per cent of the total number of doctors and paramedical staffs are given rank to be good in term of overall and medium in term of psychological aspect. 0 per cent of the total number of doctors and paramedical staffs are given rank to be poor in term of overall and medium in term of psychological aspect. 40 per cent of the total number of doctors and paramedical staffs are given rank to be excellent in term of overall and low in term of Psychological aspect. 60 per cent of the total number of Doctors and paramedical staffs are given rank to be good in term of overall and low in term of psychological aspect. 0 per cent of the total number of Doctors and paramedical staffs are given rank to be poor in term of overall and low in term of psychological aspect. Out of all the Doctors and paramedical staffs, 51.9 per cent gave a high rank, 38.3 per cent gave a medium rank and 9.7 per cent of Doctors and paramedical staff gave low rank in term of psychological aspect. Then out of all the doctors and paramedical staffs, 48.7 per cent gave excellent rank, 48.7 per cent gave good rank and 2.6 per cent gave as poor rank in term of overall aspect.

Figure No. 6.28 Bar Chart Rank by Psychological aspect:

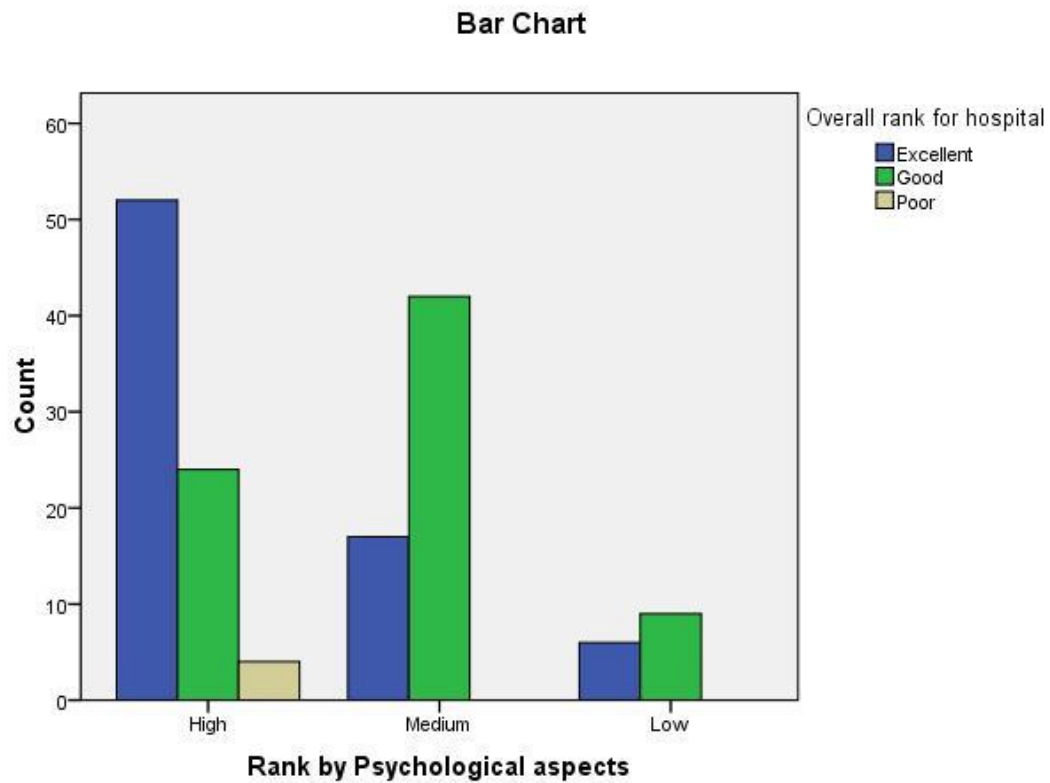


Table No.6.4.44: Chi square Tests:

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	25.352 ^a	4	.000
Likelihood Ratio	27.440	4	.000
Linear-by-Linear Association	7.086	1	.008
N of Valid Cases	142		
a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is .39.			

As p-value is small, the null hypothesis is rejected, therefore conclusion is that the factors viz. Psychological have association Vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiac Services.

Now, this study analyze that which Psychological factors influence towards the Hospitals.

Question 6: What are the psychological factors which influence you towards this Hospital's Cardiac Services?

- A) Motivation
- B) Perception
- C) Belief
- D) Attitude

Now, this study tries to identify whether motivation is an important factor in influencing buying behavior in multispecialty hospitals in Mumbai with specific reference to Cardiac Services. Hence, study performs two-sample proportion tests with Motivation as one factor and the remaining three as another.

H_{02} : Psychological factor viz. perception w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

H_{a2} : Psychological factor viz. perception w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

Table No. 6.4.45: Frequency for the Psychological factors viz. Motivation and Perception:

Psychological factor	Frequency	Percentage
Motivation	48	74%
Perception	17	26%
Total	65	100%

Table No 6.4.46: two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	27.692
Degrees of Freedom	1
p-value	7.111×10^{-8}

As p-value is small (<0.001), the null hypothesis is rejected at 1% level of significance. The Conclusion is that Psychological factors viz. perception w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services).

Now study analyzes the Psychological factors viz. Motivation and Belief as follows

H₀₃: Psychological factor viz. belief w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

H_{a3}: Psychological factor viz. belief w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

Table No: 6.4.47: Frequency of Psychological factors viz. Motivation, belief:

Psychological factor	Frequency	Percentage
Motivation	48	40%
Belief	73	60%
Total	121	100%

Table No: 6.4.48: two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	9.5207
Degrees of Freedom	1
p-value	0.999

As p-value is very large, the null hypothesis is accepted at 1% level of significance. Therefore, conclusion is that Psychological factor viz. belief w.r.t proportions of people who are influential vis-à-vis buying behaviors in

multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services).

Forward, this study analyzes the psychological factors viz. Motivation and Attitude.

H₀₄: Psychological factor viz. attitude w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

H_{a4}: Psychological factor viz. attitude w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

Table No. 6.4.49: Frequency of the Psychological factors Viz. Motivation, Attitude:

Psychological factor	Frequency	Percentage
Motivation	48	75%
Attitude	16	25%
Total	64	100%

Table No. 6.4.50: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	30.031
Degrees of Freedom	1
p-value	2.126×10^{-8}

As p-value is very small (<0.0001), the null hypothesis is rejected at 1% level of significance therefore the conclusion is that Psychological factor viz. attitude w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services).

Now, this study shows how the Cardiac services in the hospitals have been considered in rank because the psychological factors.

Question 14: Kindly remark psychological factors towards cardiac Services of this Hospital?

- A) High
- B) Medium
- C) Low

H₀₅: Ranking for psychological factors is independent of the hospital with which the respondent is associated.

H_{a5}: Ranking of psychological factors is dependent on the hospital with which the respondent is associated.

Table No. 6.4.51: Ranking of Psychological factors of the hospital:

Ranks	Fortis		Kohinoor		Cumbala		L.H. Hiranandani	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
High	43	30.28%	1	0.70%	17	11.97%	11	7.74%
Medium	9	6.33%	13	9.15%	10	7.04%	23	16.19%
Low	2	1.40%	0	0%	3	2.11%	10	7.04%

The result is as follows

Table No.6.4.52: Pearson's chi-squared test:

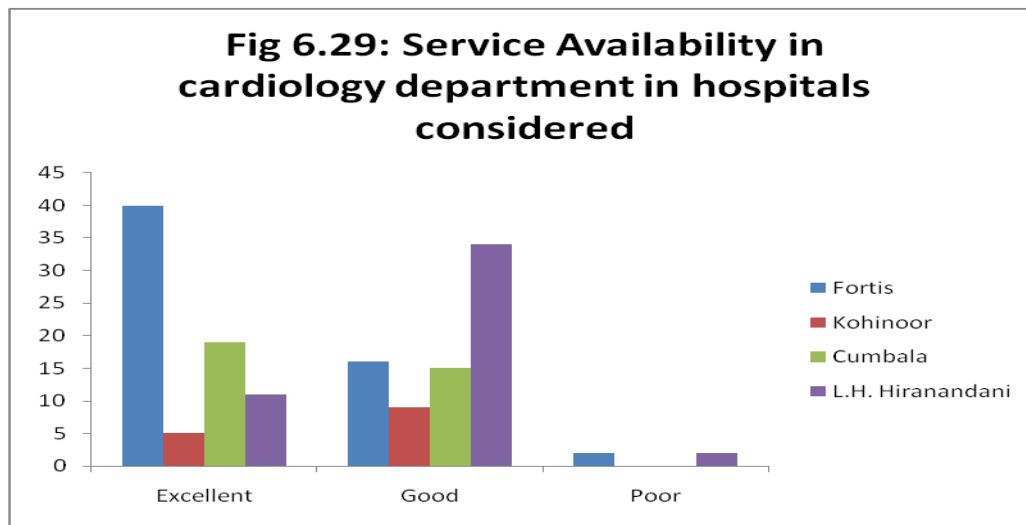
Data	Table above
Chi-squared value	56.562
Degrees of freedom	6
p-value	2.241×10^{-10}

As p-value is small, the null hypothesis is rejected at 1% level of significance. Hence, the conclusion is that ranking of psychological factor is dependent on the hospital with which the respondent is associated. This means that

there exist some differences in psychological aspects of the hospitals taken into consideration for the study. An important fact in the above section for study is that many people have ranked the psychological factors of the hospitals as high and medium and few of the respondents have ranked the same as low.

Now, this study focus on the last of our research objectives which is to study the service availability in Cardiology Department in Multispecialty hospitals in Mumbai.

figure No. 6.29: Service availability in Cardiology Department in hospitals considered:



Above bar diagram shows that most of the respondents have ranked the services in the hospitals as excellent and good. Very few people have ranked it as poor.

Question 19: How are the Cardiac Services in this Hospital?

A) Excellent

B) Good

C) Poor

Table No. 6.4.53: frequency for ranking of Cardiac Service in the Multispecialty Hospitals in Mumbai:

Rank	Number	Percentage
Excellent	71	50%
Good	66	46%
Poor	5	4%
Total	142	100%

In this study, above table shows that 50 per cent for excellent, 46 per cent for good, 4 per cent for poor. Therefore, very few of the respondents have ranked the services as poor, hence conclusion is that the service availability in cardiology department in multispecialty hospitals in Mumbai is Excellent

6.5 Data Analysis - Marketing Persons

In this study sample size for marketing persons is small, so Study focus on very specific non-parametric tests rather than starting with the graphical analysis because it may fail to fully reflect the data characteristics.

Now, study begins with the first question which gives an idea about the marketing person's perspective of which per them is the most convincing factor for choice of Hospital.

Questionnaire: Marketing Persons:

Question 1: How do you convince the cardiac patients to engage your hospital's Healthcare services for Cardiology Department?

- A) Brand
- B) Quality
- C) Service
- D) Patient Satisfaction

Table No 6.5.1: Parameters (Convincing factors) of Services of Cardiology Department:

Category (Parameters)	Frequency	Percentage
Brand	0	0%
Quality	7	88%
Service	1	12%
Patient Satisfaction	0	0%
Total	8	100%

A two-sample proportion test in R will tell that which is the most convincing factor.

H_{01} : Service w.r.t proportions of marketing people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services).

H_{a1} : Service w.r.t proportions of marketing people who are not influential vis-à-

vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services).

Table No 6.5.2: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	6.25
Degrees of Freedom	1
p-value	0.00621

As per above result the null hypothesis is rejected at 1% level of significance as p-value is small. Service w.r.t proportions of marketing people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services).

In this study quality and service are not considered to be equally parameter (convincing factors) for marketing.

Now, this study analyzes the most influential marketing tool as follows

Question 2: What are the tools you use to attract Cardiac Patient in your Hospital?

- A) Promotion
- B) Consultation of Doctors
- C) Counseling of paramedical Staff

Table No 6.5.3: Marketing Tools:

Category (Tools)	Frequency	Percentage
Promotion	3	38%
Consultationof Doctors	5	63%
Counselling of Paramedical staff	0	0%
Total	8	100%

A two-sample proportion test in R gives information which is considered as the most influential marketing tool by the marketing persons.

H_{02} : Promotion and Service w.r.t proportions of marketing people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

H_{a2} : Promotion and Service w.r.t proportions of marketing people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

Table No. 6.5.4: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	0.25
Degrees of Freedom	1
p-value	0.6915

The null hypothesis is accepted at 1% as well as 5% level of significance as p-value is large. Therefore, promotion and services are equally important marketing tools. Now, study moves on to one of the most important questions in this research objectives and try to find out the factor that is most influential on buying behavior towards cardiac services of multispecialty Hospitals.

Question 9: Which of the following factors influences buying behavior towards Cardiac Services of your Hospital?

- A) Culture factors (Region, Nationality, Wealth and Education)
- B) Social factors (Family, Friends, Role and Status)
- C) Personal factors (Age and Lifestyle, Economic Situation, Personality)
- D) Psychological factors (Perception, Motivation, Learning, beliefs)

Table.No:6.5.5: Influencing factors:

Influencing Factors	Frequency	Percentage
Cultural	2	25%
Social	1	12.5%
Personal	1	12.5%
Psychological	4	50%
Total	8	100%

The following section includes some proportion tests to determine the same and will make use of the above contingency table.

H₀₃: Culture factors and Social factors w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

H_{a3}: Culture factors and Social factors w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

Table No. 6.5.6: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	0
Degrees of Freedom	1
p-value	0.5

The p-value being very high, this study fails to reject the null hypothesis and may say the cultural and social factors are considered equally influential on buying behavior in multispecialty hospitals with specific reference to Cardiology Department (Services).

Now, this study analyzes how social factors and personal factors influence on buying behavior as follows

H₀₄: Personal factors and Social factors w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

H_{a4}: Personal factors and Social factors w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

Table No.6.5.7: Two-sample test for equality of proportions with continuity correction;

Data	Above frequency table
Chi-squared value	0
Degrees of Freedom	1
p-value	0.5

The p-value being very high, therefore study fail to reject the null hypothesis and may say the personal and social factors are considered equally influential on buying behavior in multispecialty hospitals with specific reference to Cardiology Department (Services).

Now, this study analyzes how social factors and psychological factors influence on buying behavior as follows

H₀₅: Psychological factors and Social factors w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

H_{a5}: Psychological factors and Social factors w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department.

Table No. 6.5.8: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	0
Degrees of Freedom	1
p-value	0.1404

The p-value being very high, the study fails to reject the null hypothesis and may say the psychological and social factors are considered equally influential on buying behavior in multispecialty hospitals with specific reference to Cardiology Department (Services).

This study may conclude that cultural, social, personal as well as psychological factors seem to be equally important. This deviates from study results for patients and doctors. But a plausible reason for this may be the very small sample size and the fact that marketing persons share a completely different perspective as compared to patients and medical staff.

Now, this study looks at the prominent tools used by marketing persons to attract more patients to the multispecialty hospitals with specific reference to Cardiology Department (Services).

Questionnaire from Marketing Persons:

Question 7: What types of marketing strategy do you use to attract patient to your Hospitals for Cardiac Services?

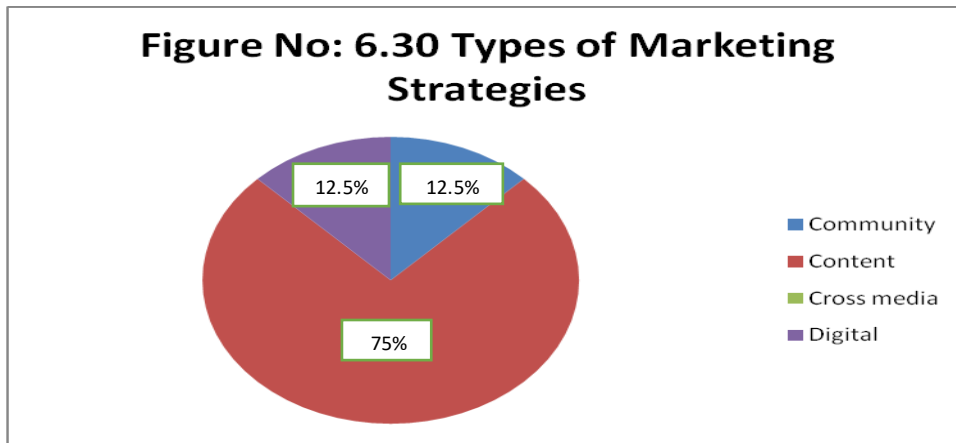
- A) Community Marketing
- B) Content Marketing
- C) Cross Media Marketing
- D) Digital Marketing

Table No. 6.5.9: Marketing strategies used by Marketing persons:

Marketing strategies	No of Respondents	Percentage
Community	1	12.5%
Content	6	75%
Cross-media	0	0%
Digital	1	12.5%
Total	8	100%

The following graph can be constructed using the above table.

Figure No: 6.30 Types of Marketing Strategies:



The above pie chart shows that 75 per cent for content, 12.5 per cent for Digital, 12.5 per cent for Community and 0 per cent for cross media. Therefore, content marketing is the most used strategy which directs the conclusion from analysis for patients and doctors pointing that service and patient satisfaction are indeed the most important parameters influencing buying behavior in multispecialty hospitals in Mumbai with specific reference to Cardiology Department.

6.6: Overall Analysis for the entire Sample Size

This study has successfully covered the different objectives under the three categories of respondents namely patients, doctors and marketing persons. Now, this study analyzes the entire sample size based on this study's research objectives.

Now first this study identifies if there is association between each of the factors stated in the table below and the buying behavior in Multispecialty Hospitals.

Table No:6.6.1: Factors influencing buying behavior towards Healthcare Services:

Influencing Factor	Frequency	Percentage
Cultural	17	3%
Social	293	59%
Personal	47	9%
Psychological	143	29%
Total	500	100%

H_{01} : The factors viz. Culture does not have any association Vis-à-vis buying behaviors in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department.

H_{a1} : The factors viz. Cultural have association vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

The following are the results of the analysis using SPSS.

Table No.6.6.2: Case Processing Summary:

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Rank Cultural * Services rank	500	100.0%	0	.0%	500	100.0%

Table No. 6.6.3: Rank Cultural*Services rank Cross tabulation:

		Services rank					
		Excellent		Good		Poor	
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Rank Cultural	High	36	7.2%	16	3.2%	2	0.4%
	Medium	142	28.4%	101	20.2%	1	0.2%
	Low	118	23.6%	83	16.6%	1	0.2%

In the cross-tabulation study try to compare how each hospital is ranked in services and how each hospital is ranked across Cultural category. From the above table, it is seen that 7.2 per cent of the total number respondents are given rank the hospital to be excellent in term of services and high in term of cultural aspect. 3.2 per cent of the total number of respondents are given rank to be good in term of services and high in term of cultural aspect. 0.4 per cent of the total number of respondents are given rank to be poor in term of services and high in term of cultural

aspect. 28.4 per cent of the total number of respondents are given rank to be excellent in term of services and medium in term of cultural aspect. 20.2 per cent of the total number of respondents are given rank to be good in term of services and medium in term of cultural aspect. 0.2 per cent of the total number of respondents are given rank to be poor in term of overall and medium in term of cultural aspect. 23.6 per cent of the total number respondents are given rank to be excellent in term of services and low in term of cultural aspect. 16.6 per cent of the total number of respondents are given rank to be good in term of services and low in term of cultural aspect. 0.2 per cent of the total number of respondents are given rank to be poor in term of services and low in term of Cultural aspect

Figure No. 6.31 Bar Chart for the Rank Cultural factors:

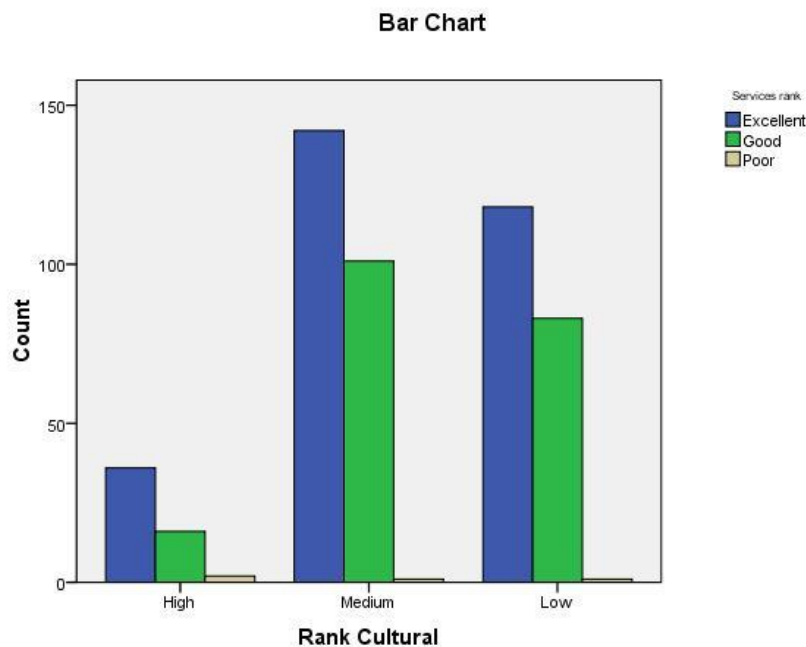


Table No. 6.6.4: Chi-Square Tests:

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.592 ^a	4	.0072
Likelihood Ratio	6.157	4	.0088
Linear-by-Linear Association	.214	1	.001
N of Valid Cases	500		
a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is .43.			

As p-value is small, the null hypothesis is rejected, therefore conclusion is that the factors viz. cultural have association Vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department.

Now, this study Hypothetically analyze Social factors influencing buying towards healthcare services as per follows:

H₀₂: The factors viz. Social does not have any association Vis-à-vis buying behaviors in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department.

H_{a2}: The factors viz. Social have association vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

The following are the results for the analysis using SPSS.

Table No 6.6.5: Rank Social*Services rank Cross tabulation:

		Services rank					
		Excellent		Good		Poor	
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Rank Social	High	205	41%	110	22%	2	0.4%
	Medium	87	17.4%	83	16.6%	2	0.4%
	Low	4	0.8%	7	1.4%	0	0%

In the cross-tabulation study try to compare how each hospital is ranked in services and how each hospital is ranked across social category. From the above table, it is seen that 41 per cent of the total number respondents are given rank the hospital to be excellent in term of services and high in term of social aspect. 22 per cent of the total number of respondents are given rank to be good in term of services and high in term of social aspect. 0.4 per cent of the total number of respondents are given rank to be poor in term of services and high in term of social aspect. 17.4 per cent of the total number of respondents are given rank to be excellent in term of services and medium in term of social aspect. 16.6 per cent of the total number of respondents are given rank to be good in term of services and medium in term of social aspect. 0.4 per cent of the total number of respondents are given rank to be poor in term of overall and medium in term of social aspect. 0.8 per cent of the total number respondents are given rank to be excellent in term of services and low in term of social aspect. 1.4 per cent of the total number of respondents are given

rank to be good in term of services and low in term of social aspect. 0 per cent of the total number of respondents are given rank to be poor in term of services and low in term of Social aspect.

Table No. 6.6.6: Chi-Square Tests:

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.906 ^a	4	.008
Likelihood Ratio	11.876	4	.018
Linear-by-Linear Association	11.281	1	.001
N of Valid Cases	500		
a. 4 cells (44.4%) have expected count less than 5. The minimum expected count is .09.			

As asymptotic significance, i.e., p-value is small, the null hypothesis is rejected therefore conclusion is that the factors viz. Social have association vis-à-vis buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services). Now, this study Hypothetically analyze personal factors influencing buying behaviors towards cardiology department as per follows.

H₀₃: The factors viz. Personal have no association Vis-à-vis buying behaviors in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department.

H₃: The factors viz. Personal have association vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

The following are the results for the analysis using SPSS.

Table 6.6.7: Rank personal*Services rank Cross tabulation:

		Services rank					
		Excellent		Good		Poor	
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Rank Personal	High	96	19.2%	62	12.4%	4	0.8%
	Medium	164	32.8%	127	25.4%	0	0%
	Low	36	7.2%	11	2.2%	0	0%

In the cross-tabulation study try to compare how each hospital is ranked in services and how each hospital is ranked across personal category. From the above table, it is seen that 19.2 per cent of the total number respondents are given rank the hospital to be excellent in term of services and high in term of personal aspect. 12.4 per cent of the total number of respondents are given rank to be good in term of services and high in term of personal aspect. 0.8 per cent of the total number of respondents are given rank to be poor in term of services and high in term of personal aspect. 32.8 per cent of the total number of respondents are given rank to be excellent in term of services and medium in term of personal aspect. 25.4 per cent of the total number of respondents are given rank to be good in term of services

and medium in term of personal aspect. 0 per cent of the total number of respondents are given rank to be poor in term of overall and medium in term of personal aspect. 7.2 per cent of the total number respondents are given rank to be excellent in term of services and low in term of personal aspect. 2.2 per cent of the total number of respondents are given rank to be good in term of services and low in term of personal aspect. 0 per cent of the total number of respondents are given rank to be poor in term of services and low in term of personal aspect

Table No. 6.6.8: Chi-Square Tests:

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.468 ^a	4	.004
Likelihood Ratio	16.485	4	.002
Linear-by-Linear Association	2.629	1	.105
N of Valid Cases	500		
a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is .38.			

As p-value is very small, the study accepts the alternative hypothesis and say that the factors viz. Personal have association vis-à-vis buying behavior in Multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services).

Now, this study Hypothetically analyze Psychological factors influencing buying behaviors towards Cardiology Department as per follows:

H₀₄: The factors viz. Psychological does not have any association Vis-à-vis buying behaviors in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department.

H_{a4}: The factors viz. Psychological have association vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

The following are the results for the analysis using SPSS

Table No 6.6.9: Rank Psychological*Services rank Cross Tabulation:

		Services rank					
		Excellent		Good		Poor	
		Frequency	Percentage	frequency	Percentage	Frequency	Percentage
Rank Psychological	High	156	31.2%	96	19.2%	3	0.6%
	Medium	133	26.6%	93	18.6%	0	0%
	Low	7	1.4%	11	2.2%	1	0.2%

In the cross-tabulation study try to compare how each hospital is ranked in services and how each hospital is ranked across psychological category. From the above table, it is seen that 31.2 per cent of the total number respondents are given rank the hospital to be excellent in term of services and high in term of psychological aspect. 19.2 per cent of the total number of respondents are given rank to be good in term of services and high in term of psychological aspect. 0.6 per cent of the total number of respondents are given rank to be poor in term of services and high in term of psychological aspect. 26.6 per cent of the total number

of respondents are given rank to be excellent in term of services and medium in term of psychological aspect. 18.6 per cent of the total number of respondents are given rank to be good in term of services and medium in term of psychological. 0 per cent of the total number of respondents are given rank to be poor in term of overall and medium in term of psychological aspect. 1.4 per cent of the total number respondents are given rank to be excellent in term of services and low in term of psychological aspect. 2.2 per cent of the total number of respondents are given rank to be good in term of services and low in term of psychological aspect. 0 per cent of the total number of respondents are given rank to be poor in term of services and low in term of psychological aspect

Table No. 6.6.10: Chi-Square tests:

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.717 ^a	4	.003
Likelihood Ratio	9.878	4	.0043
Linear-by-Linear Association	1.996	1	.001
N of Valid Cases	500		
a. 3 cells (33.3%) have expected count less than 5. The minimum expected count is .15.			

As p-value is extremely small, the null hypothesis is rejected at 1 % level of significance and conclusion is that the factors viz. Psychological have

association vis-à-vis buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services). Now, study's aim is to measure how influential each of the above-stated factors are on buying behaviors.

Therefore, study perform a Friedman test using SPSS. The results of the same are as follow

Friedman test statistic for more than two dependent samples is given by the formula:

$$\text{Chi-square}_{\text{Friedman}} = ([12/nk(k+1)] * [\text{SUM}(T_i^2)] - 3n(k+1))$$

Assumptions:

It is a non-parametric test and does not assume normal distribution. The Friedman's test works for normal distribution as well. So, in this study need not to verify this assumption.

This test of significance tests for more than two dependent samples and allows multiple dependent samples.

Table No. 6.6.11: Number of Dependent:

k (number of dependent samples) i.e., 4 main factors influencing buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiac Services (cultural, social, personal, psychological)	4
n (sample size)	500

H₀₅: There are no differences in ranking of the four main factors influencing buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiac Services (cultural, social, personal Psychological)

H_{a5}: There are differences in ranking of the four main factors influencing buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiac Services (cultural, social, personal, psychological)

Table No. 6.6.12: Test Statistics:

Test Statistics	
N	500
Chi-Square	490.781
Df	3
Asymp. Sig.	.000
a. Friedman Test	

The p-value is small, the null hypothesis is rejected, and conclusion is that there are differences in ranking of the four main factors influencing buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiac Services (cultural, social, personal, psychological)

Table No 6.6.13: Ranks of Influencing factors:

Ranks	
	Mean Rank
Rank Cultural	3.33
Rank Social	1.93
Rank Personal	2.58
Rank Psychological	2.16

The above table shows that mean rank 3.33 for cultural, 1.93 for Social, 2.58 for personal and 2.16 for Psychological. The factor with the lowest score is considered as the most influential. Hence the Social factors are the most contributing factors that influence buying behavior in multispecialty hospitals and the next most influential is Psychological factors. Personal factors are second last influential vis-à-vis buying behaviors in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department (Services). Cultural factors are last influential on the ranking.

6.7 Overall Analysis Question-wise (Common and important questions):

In this section, we cover the most important questions for the entire sample size of 500 using hypothesis testing.

Question: What are the Social factors which influence you towards this hospital's cardiac Services?

A) Reference Group

B) Family

C) Role and status

Table No.6.7.1: Social factors towards cardiac Services:

Category	Frequency	Percentage
Reference group	212	42%
Family	210	42%
Role and Status	78	16%
Total	500	100%

Now again this study performs two-sample proportion tests in R to identify the most influential social factor from the ones stated above. Clearly, family and reference group seem to be the most suitable candidates for this statistical test. Also, ideally family would be the most influential factor affecting choice of hospital; hence we frame the hypotheses as given below.

H_{01} : Social Factors viz. reference group and family w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (services).

H_{a1} : Social Factors viz. reference group and family w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services).

Table No.6.7.2: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	.0040998
Degrees of Freedom	1
p-value	0.5255

The p-value being very high, so this study fail to reject the null hypothesis and may say that reference group and family are considered equally influential social factors on buying behavior in multispecialty hospitals with specific reference to Cardiology Department.

Question: What are the personal factors which influence you towards this Hospitals Cardiac Services?

- A) Age and lifestyle
- B) Economic Situation
- C) Occupation
- D) Personality

Table No. 6.7.3: Personal factors influence towards the Cardiac Services:

Category	Frequency	Percentage
Age	142	28%
Economic situation	210	42%
Occupation	32	6%
Personality	116	23%
Total	500	100%

So here this study performs two-sample proportion tests in R to identify the most influential personal factor from the ones stated above. Practically it makes sense that economic situation may push people to make the choice of hospital.

H_{02} : Personal Factors Viz. Economic Situation and age w.r.t proportions of people who are equally influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services).

H_{a2} : Personal Factors Viz. Economic Situation and age w.r.t proportions of people who are not equally influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services).

Table No:6.7.4: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	14.68
Degrees of Freedom	1
p-value	4.77×10^{-6}

The p-value being very small (<0.0001), So study reject the null hypothesis and may say that economic situation and age are not equally influential personal factors with respect to influence on buying behavior in multispecialty hospitals in Mumbai with specific reference Cardiology Department.

Question: What are the Psychological factors which influence you towards this Hospital's cardiac Services?

- A) Motivation
- B) Perception
- C) Belief
- D) Attitude

Table No 6.7.5: Psychological factors influencing towards Cardiology Department:

Category	Frequency	Percentage
Motivation	207	41%
Perception	95	19%
Belief	135	27%
Attitude	63	13%
Total	500	100%

This study try to identify whether motivation is an important factor in influencing buying behavior in multispecialty hospitals in Mumbai with specific reference to Cardiology Department. Hence study perform two-sample proportion tests with motivation as one factor and belief as another.

H_{03} : Psychological Factors viz. belief w.r.t proportions of people who are most influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services).

H_{a3} : Psychological Factors Viz. Belief w.r.t proportions of people who are not most influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services).

Table No.6.7.6: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	22.401
Degrees of Freedom	1
p-value	1.106×10^{-6}

As p-value is very small (<0.0001), The study reject the null hypothesis at 1% level of significance. Therefore, the conclusion is that Psychological Factors Viz. Belief w.r.t proportions of people who are not most influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services).

Now, coming to the 6th research objectives, Now the study shows the characteristics of service availability in Multispecialty hospitals in Mumbai with specific reference to Cardiac services as perceived by our entire sample of size 500 constituting patients and their relatives, doctors, and paramedics and marketing persons

Question: How are the Cardiac Services of this Hospital?

- A) Excellent
- B) Good
- C) Poor

The following table shows the frequencies associated with the ranks given by the respondents to the four hospitals considered in the survey and for the analysis.

Table No. 6.7.7: the frequencies associated with the ranks given by the respondents to the four hospitals:

Rank	Frequency	Percentage
Excellent	296	59%
Good	200	40%
Poor	4	1%
Total	500	100%

Now, here study identify that very few respondents have ranked the hospitals (in terms of service availability) and studied as poor. It is seen that 99.2% of the people have ranked the multispecialty hospitals in Mumbai as excellent or good. A one sample proportion test will help to identify if the proportion of people who ranked the hospitals as excellent in cardiac services and service availability is greater than 0.55.

H_{04} : Service availability in Cardiology Department of multispecialty hospitals in Mumbai is Excellent.

H_{a4} : Service availability in Cardiology Department of multispecialty hospitals in Mumbai is not Excellent.

Table No. 6.7.8: Two-sample test for equality of proportions with continuity correction:

Data	Above frequency table
Chi-squared value	3.396
Degrees of Freedom	1
p-value	0.03268

As p-value is less than 0.05, the null hypothesis is rejected at 5% level of significance. So, conclusion is that Service availability in Cardiology Department of multispecialty hospitals in Mumbai is not Excellent. Therefore, finally this study shows that Service Availability in Mumbai is Excellent as well as good because both the remarks are almost equal.

6.8 Interpretations:

This study was done to analyze factors influencing buying behaviors in Multispecialty Hospitals in Mumbai area with specific reference to the Cardiology department. Data were collected for this study in categories namely 1) patients, patient's relative and friend 2) Doctors and Paramedical staff. 3) Marketing persons. Total 500 respondents were for the data collection. 350 out of 500 respondents were patients, patient's relative and friend. 142 out of 500 respondents were Doctors and Paramedical staffs. 8 out of 500 respondents were Marketing persons. Therefore, data analysis was done in the categories namely 1) Patients, Patient's Relative and friend 2) Doctors and Paramedical staffs 3) Marketing Person 4) Overall analysis.

6.8.1 Interpretations for the Patients, Patient's relative and friends:

70 per cent of respondents were Patients, Patient's relative and friends. 41 per cent of patients, patient's relative and friends decided service was reason for their choice of the Hospital. 21 per cent of patients, Patient's relative and friends chose quality was the reason for their choice of the Hospital. 18 per cent of patients, Patient's relative and friends decided brand was the reason for their choice of the Hospital. 19 per cent of patients, patient's relative and friends made patient satisfaction was the reason for their choice of the Hospital. Therefore, service is most important reason for their choice of the multispecialty Hospitals. Family and reference group were the most influencing social factors. 44 per cent of respondents decided family was the most influencing social factor as well as 42 per cent of respondents chose reference group was the most influencing social factor. Both values were almost equal, therefore family and reference group were the most influencing social factor among this category. 95 per cent of respondents marked Geographic region was culture factor. Therefore, geographic region is most influencing culture factor among this category. Economic situation was the most influencing personal factor as 37 per cent of respondents for Economic situation, 28 per cent for age and life style, 31 per cent for personality and 5 per cent for the occupation. In this category 47 per cent of respondents for motivation, 23 per cent for perception, 17 per cent for belief and 13 percent for attitude. Therefore, motivation was the most influencing Psychological factor. In all patients, Patient's relative and friend category, 65 per cent of respondents for social factors, 28 per cent for Psychological factors, 6 per cent for personal factors and 1 per cent for

culture factors. Therefore, this study analyzed that social factor was the most influencing factor in multispecialty hospitals in Mumbai area with specific reference to the Cardiology Department.

There were differences in ranking of the four main factors influencing buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiac Department. The mean ranks helped to identify the factor which was consistently ranked better or higher (1 as High in our Likert scale) than the other factors. The factor with the lowest score was considered most impactful. Values of Means rank for cultural factors, Social factors, Personal factors and psychological factors were 3.51, 1.80, 2.56 and 2.12 respectively. Therefore, Social factors were the most influencing factors in multispecialty hospitals in Mumbai area with specific reference to Cardiology Department. As per the Hypothetical analysis of cultural factors in this category p value was large therefore null hypothesis was accepted that there does not have any association between culture factors vis-à-vis buying behavior in multispecialty hospitals in Mumbai with specific reference to Cardiology Department. For the social factors values is large. Therefore, the null hypothesis was accepted. Therefore, the factors viz. social does not have any association vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai. But empirically social factors are influential. The factors viz. personal have association vis-à-vis buying behavior in Multispecialty Hospitals in Mumbai with specific reference to the Cardiology Department. The factors viz. Psychological have association Vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department.

6.8.2 Interpretations for the Doctors and Paramedical Staffs:

28 per cent of respondents were Doctors and Paramedical Staff. 63 per cent of respondents decided that patient satisfaction was the parameter to attract the cardiac patients. 16 per cent for service, 14 per cent for quality and 6 per cent for brand. Therefore, patient satisfaction was the most important parameter to attract the Cardiac patient. 39 per cent of Doctors and Paramedical staff for reference group, 37 per cent of respondents for family, 24 per cent of respondents for role and status. Therefore, Reference group and family were the most influencing social factors. 33 per cent of respondents for age and life style, 8 per cent for occupation, 52 per cent for Economic Situation and 6 per cent for personality. Therefore, Economic situation is the most important personal factor on buying behavior of cardiac patient. 31 per cent of respondents for motivation, 12 per cent for perception, 47 per cent for belief and 10 per cent for attitude. Therefore, Belief was most psychological factor on buying behavior of Cardiac Patient. 48 per cent of respondents for region, 8 per cent for Nationality, 27 per cent for wealth, 17 per cent for education. Therefore, region was the most important culture factor on the buying behaviors. This study analyzed main influencing factors on buying behaviors. 7 per cent of respondents for cultural factor, 49 per cent for social factors, 15 per cent for personal factors and 29 per cent for Psychological factors. Therefore, Social factors were the most influencing on buying behaviors of the cardiac patients in the Multispecialty Hospitals in Mumbai area.

There were differences in ranking of four influencing factors. Ranks of influencing factors helped to identify the factors which was consistently ranked better or higher (1 as High in our Likert scale) than the other factors. The factor with the lowest score was considered most impactful. Mean rank was 2.99 for cultural factors, 2.16 for social factors, 2.64 for personal factors, 2.21 for psychological factors. Social factors got lowest score, therefore social factors are the most influential factors on buying behavior in multispecialty hospitals in Mumbai area with specific reference to the Cardiology Department. As per the hypothetical analysis, study identified the factors viz. Social have association Vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiac Department as p-value was very small therefore the null hypothesis was rejected. The factors viz. Personal does not have any association vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department as p-value was large. The factors viz. Psychological have association Vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiac Department as p-value was small, the null hypothesis was rejected.

6.8.3 Interpretations for the Marketing Person:

Only 2 per cent of respondents were Marketing Persons. So, 88 per cent of marketing persons decided quality was the parameter to attract the cardiac patients for the cardiac services of the Hospitals. 12 per cent for the services of the Hospitals, 0 per cent for the Brand and patient satisfaction. Therefore, quality was most important parameters to attract cardiac patients in multispecialty Hospitals.

This study analyzed influencing factors on buying behavior. 25 per cent of respondents for cultural factors, 12.5 per cent of respondents for Social factors, 12.5 per cent for personal factors and 50 per cent for psychological factors. Therefore, as per exploratory data analysis, Psychological factors were the most influencing factors in this Marketing persons' categories. But as per hypothetically study stated that cultural, Social, Personal, as well as psychological factors seems to be equally important. This deviates from study result for patients, patients relative and friends. The fact was that marketing person shared totally different perspective as compared to patients and medical staff. The content marketing strategy is most effective and used.

6.8.4 Interpretations for the Overall analysis:

In the overall analysis percentages of factors viz. Social, Psychological, Personal, Cultural were 59 per cent, 29 per cent, 9 per cent, 3 per cent respectively. Therefore, Social factors were most influencing buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. Ranking score of Influencing Factors Viz. Social, Psychological, Personal and Cultural were 1.93, 2.16, 2.58 and 3.33 respectively. So, lowest value indicates most influential factors on Buying behaviors. Therefore, Social factors were most influencing buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

As per Hypothetical analysis factors viz. Social, Psychological, Personal and cultural have association vis-à-vis buying behavior in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. In the social factors,

42 per cent of respondents for reference group, 42 per cent of respondents for family and 16 per cent of respondents for role and status. Therefore, reference group and family were considered equally influential social factors in buying behavior in multispecialty hospitals with specific reference to Cardiology Department. In the personal factors, 28 per cent of respondents for age, 42 per cent for Economic situation, 6 per cent for occupation and 23 per cent for personality. Therefore, economic situation and age were not equally influential personal factors on buying behavior in multispecialty hospitals in Mumbai with specific reference Cardiology Department. In the psychological factors, 41 per cent of respondents for motivation, 19 per cent for perception, 27 per cent for belief and 13 per cent for attitude. Therefore, motivation was most influential psychological factor on buying behaviors in multispecialty hospitals in Mumbai. Culture factors were least influential on buying behaviors in multispecialty Hospitals in Mumbai area with specific reference to the Cardiology Department. Service Availability in Mumbai is Excellent as well as good because both the remarks are almost equal in the hypothetical analysis.

6.9 Summary:

In this chapter, Impact data analysis is done in the three categories 1) Patients and patients Relatives or Friends 2) Doctors and Paramedical staff 3) Marketing Persons. Overall Effective data analysis of total 500 Respondents is done in this chapter. This chapter also show impact analysis with Hypothetical Testing. Cronbach's Alpha and inter-item correlation matrix, Friedman test, Chi-square tests, Two-sample test for equality of proportion and Cochran-Mantel-Haenszel test

these all tests are for the impact analysis. Interpretations also done in three categories namely, 1) patients and patients relatives or friends 2) Doctors and Paramedical staff 3) Marketing persons. Reliability test is done for the questionnaires.

CHAPTER-7

RESULT AND DISCUSSION

Chapter -7

Result and Discussions

7.1 Overview: In this study, data analysis was done in the three categories 1) Patients and patients relatives or Friends 2) Doctors and Paramedical staffs 3) Marketing Persons. Also, done analysis for the overall respondents. The study shows total sample size was 500 respondents. This sample size was categorized into 1) Patients, Patients friends and Relatives 2) Doctors and Paramedical Staff 3) Marketing Person. In this research 350 out of 500 respondents were Patients, Patients friends and relatives, 142 out of 500 respondents were Doctors and paramedical staff. and 8 out of 500 respondents are marketing persons.

7.2 Patient, Patients relatives and Friends: In this study, total 350 respondents were patients, patient's relatives and friends. As per exploratory data analysis patients has chosen hospital for the services of the Cardiology Department. Family is most Social influential factors in the category of patient, patients' relatives and Friends. Then Geographic Region is most Culture factor in the category of patients, Patients relative and friends. As per the analysis, Economic Situation is most influential Personal factors in this category. Motivation is most influencing Psychological factors in the above category. Doctors are most motivating person in the cardiac services. Good doctors are the perception of the patients, patients relative and friends in the Cardiology Department. As per analysis of Exploratory data the Social factors is the most Influencing factor in buying behaviors in

Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department.

In this study, the analysis of the influencing factors also done by hypothetically. The lowest score is considered for the most influential factor for buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services). In the Hypothetical analysis, score of Social factor, Psychological factor, Personal factors and Culture factors are 1.80, 2.12, 2.56 and 3.51 respectively. So as per the analysis, the social factors are the most influencing on buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department. Psychological factors are the second most important and Personal factors are the less important but more important than Culture factors. As per the Hypothetical analysis of the cultural factors, in this category p value is large therefore null hypothesis is accepted that there does not have any association between culture factors vis-à-vis buying behavior in multispecialty hospitals in Mumbai with specific reference to Cardiology Department (services). Culture factors viz. nationality, wealth w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty hospitals in Mumbai with specific reference to Cardiology Department. So, Culture factors viz. Geographic region is most influential factor. Ranking of cultural factors is dependent on the Hospital with which the respondent is associated.

As per hypothetical analysis of Social factors, P values is large. Therefore, the null hypothesis is accepted. Therefore, the factors viz. social does not have any

association vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai. But empirically social factors are influential therefore done more analysis for social factors. As per the analysis, the Social factors viz. reference Group w.r.t proportions of people who are influential vis-à-vis buying behaviors in Multispecialty Hospitals. It means patients rely on equally on family and reference group as frequencies of both are almost equal. Social Factors viz. role and status w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services). As per the analysis, Family is most influential in social factors. Ranking of social factor is independent of the hospital with which the respondent is associated.

In the analysis of Personal factor, P-value is small; Null Hypothesis is rejected. Therefore, conclusion is that the factors viz. personal have association vis-à-vis buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. Analysis of Personal factors includes that Economic Situation is most influential factor. Also, there are some findings in analysis of Psychological factors. Findings is P value is small. So, null hypothesis is rejected. So, the factors viz. Psychological have association Vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department(Service). As per Hypothetical study, motivation is most influential Psychological factor. Psychological factors are independent. Ranking of whole cardiac service is Excellent.

7.3: Doctors and Paramedical Staff

Total 142 out of 500 respondents were Doctors and Paramedical staff. As per the paramedical staff and doctors, patient satisfaction is the most important parameter for the Cardiology Department. As per the data collection and analysis of involvement of Marketing people is medium. Marketing person influence to patients via Doctors. It means doctors are most influence on buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department. Reference Group is most influencing social factor. Economic Situation is most influential personal factor on buying behaviors. Belief is most influential psychological factors on buying behaviors in multispecialty Hospitals in Mumbai with specific reference cardiology Department. Geographic Region is most influential culture factor on buying behaviors. As per Exploratory data analysis, Social factors are the most influential on buying behaviors in Multispecialty Hospital in Mumbai with specific reference to Cardiology Department.

As per Hypothetical Analysis, Social factor is most influential on buying behaviors in Multispecialty Hospital in Mumbai. But value of ranks of influencing Social factors and Psychological factors on buying behaviors are 2.16 and 2.21 respectively. Therefore, conclusion is that Social and Psychological factors are construed to be the most important.

As per analysis of cultural factors, the P value is very small. Therefore, null hypothesis is rejected, so conclusion is that the factors viz. culture have association

vis-à-vis buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services). The Culture Factors Viz. Nationality, Education, Wealth w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services). Ranking of culture factor is dependent on the hospital with which the respondent is associated. In the analysis of Social Factors, P-value is very small, so null hypothesis is rejected. Therefore, conclusion is that the factors Viz. social have association vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (services). Social factors Viz. Reference Group, Role and status w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services). So, the family is most influential Social factors. Ranking of social factor is dependent.

In the analysis of Personal factors, the factors viz. Personal does not have any association Vis-à-vis buying behaviors in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department (Services). Personal factors viz. Age and lifestyle, occupations, Personality w.r.t proportion of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services) as well as ranking of personal factor is dependent on with which respondents are associated. As per Hypothetical Analysis of the Psychological factors, P value is small, so null hypothesis is rejected. Therefore, conclusion is that the factors Viz. Psychological

have association vis-à-vis buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services.) The Psychological factors viz. perception, Belief, and Attitude w.r.t proportion of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services.) Therefore, Motivation is most influential psychological factor. Ranking of psychological factor is dependent on Hospital with which the respondents are associated. Service of the Cardiology Department is Excellent.

7.4 Marketing Persons:

As per the analysis of marketing persons, service is not influential parameter on buying behaviors in multispecialty Hospital. So, Quality is the most influential parameter as per marketing person. Consultation of doctors is most effective tool to attract the Cardiac patients. As per hypothetically study stated that cultural, Social, Personal, as well as psychological factors seems to be equally important. This deviates from study result for patients, patients relative and friends. The fact is that marketing person shared totally different perspective as compared to patients and medical staff. The content marketing strategy is most effective and used.

7.5 Overall Analysis for Entire Respondents

In the overall analysis, the frequencies of factors viz. Social, Psychological, Personal, Cultural are 293, 143, 47,17 respectively. Therefore, Social factors are most influencing buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services.) As per Hypothetical analysis, the factors viz. Social, Psychological, Personal and cultural have

association vis-à-vis buying behavior in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (services). Also, study measured how influential each of the above-stated factors are on buying behaviors in Multispecialty Hospitals. After Hypothetical analysis study got result is there are differences in ranking of the four main factors influencing buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiac Services (cultural, social, personal, psychological). As per the Ranking of Influencing factors, social is most influential on buying behaviors. Ranking score of Influencing Factors Viz. Social, Psychological, Personal and Cultural are 1.93, 2.16, 2.58 and 3.33 respectively. So, lowest value indicates most influential factors on Buying behaviors. Therefore, Social factors are most influencing buying behaviors in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services). In the social factors, reference group and family are considered equally influential social factors in buying behavior in multispecialty hospitals with specific reference to Cardiology Department. In the personal factors, economic situation and age are not equally influential personal factors on buying behaviors in multispecialty hospitals in Mumbai with specific reference Cardiology Department. Psychological factor Viz. Belief w.r.t proportions of people who are not most influential vis-à-vis buying behaviors in multispecialty Hospitals. So, Motivation most influential in Psychological factors. Culture factors are least influential on buying behaviors so did not analyzed by sub factors of cultural. Service Availability in Mumbai is Excellent as well as good because both the remarks are almost equal in the hypothetical analysis. But If looks at Frequencies

associated with ranks given by respondents then Service availability in Multispecialty hospitals is Excellent. But both Remark numbers are very high and almost equal, so Services availability is Excellent as well as good.

7.6 Summary:

This chapter included the result and discussions of the this study. Results and discussion written in the four categories namely 1) patients, patient's relative and friends 2) Doctors and Paramedical staff 3) Marketing person 4) Over all analysis. Results & discussions cover all points of the data analysis. As per overall analysis, Social factors were the most influential on buying behaviors of cardiac patients.

CHAPTER-8
CONCLUSIONS AND SUMMARY

Chapter-8

Conclusions and Summary

8.1 Overview:

This chapter explains all the conclusions and summary of the study. It also includes recommendations for the improving the Cardiac Services, Contributions of the study, Limitations of the study and scope for future research. All conclusions majorly segregated into four main categories 1) Patients and patients Relative and Friend. 2) Paramedical Staff and Doctors 3) Marketing persons 4) Overall (All sample size). The chapter explains that most of the conclusions depend on the test of the hypotheses. The conclusions are also made for the influencing factors viz. Social, Psychological, Personal and cultural vis-a-vis buying behavior in multispecialty Hospital in Mumbai with specific reference to Cardiology Department.

8.2 Summary of the Factors influencing buying behaviors towards Healthcare Services:

This study is done to analyze factors influencing buying behaviors towards Cardiac services in the Cardiology Department of the multispecialty Hospitals in Mumbai. The area Mumbai, which was chosen for the this study. Primary data collection is done from the 500 respondents in the Mumbai area. Total four Hospitals were selected for the data collection, namely Fortis Hospital, Mulund, Mumbai, Dr. L. H. Hiranandani Hospital, Powai, Mumbai, Kohinoor Hospital Kurla, Mumbai and Cumballa Hospital and Heart Institute, Kemps corner, Mumbai.

In the study 350 out of 500 respondents are patients and patients relative or friends and remaining 150 out of 500 respondents are Doctors and Paramedical staffs as well as marketing persons. Secondary data are collected from the websites, journals, books etc. Questionnaires were made for three categories namely 1) Patients and patients relatives or friends 2) Doctors and Paramedical staff 3) marketing persons. Cronbach's Alpha and inter-item correlation matrix, Friedman test, Chi-square tests, Two-sample test for equality of proportion and Cochran-Mantel-Haenszel test these all tests are for the impact analysis.

In this study, Pilot survey is done to verify the reliability and validity of the questionnaires of every category. Study analysis is done in the four categories namely 1) Patients and patients, relatives or friends 2) Doctors and Paramedical staff 3) Marketing persons and 4) overall analysis. After overall analysis of the data, study shows that Social factors are most influencing towards Healthcare services. Psychological factors and Personal factors are second, third most influencing factors towards Healthcare Services respectively. Culture factors are very less influence towards Healthcare Services (Cardiac Services) of multispecialty Hospitals in Mumbai.

8.3 Conclusions on Patients and Patients relatives:

Social factor is perceived as most important and Psychological factor is considered as second most important at 1% level of significance. Also, the factor with the highest score is Cultural factor. This implies that cultural factors are not very influential on buying behavior in Multispecialty Hospitals in Mumbai with

specific reference to Cardiology Department (Services). Therefore, conclusion is that Social and Psychological factors are construed to be the most important.

8.3.1 Conclusions on culture factors of Patients and Patients relatives:

Hypothetical study shows that there does not have any association between Culture factors and buying behavior, in this study, practically & Empirically cultural aspects are influential to some extent and hence study analyzed them in the following sections.

The Culture Factors Viz. Nationality w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services) as p-value is very small (<0.0001) therefore the null hypothesis is rejected even at 1% level of Significance.

The Culture Factor Viz. Wealth w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services) as p-value is very small (<0.0001), the null hypothesis is rejected even at the 1% level of significance.

The ranking of culture factor is dependent on the hospital with which the respondent is associated as p-value is small (<0.001), the null hypothesis is rejected even at 1% level of significance.

8.3.2 Conclusion on Social factors of patient and patient relatives:

The factors viz. Social does not have any association Vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department (Services) as P-value is large, the null hypothesis is accepted. But Empirically, social factors are influential, and hence this study analyzed them in the following sections.

The Social Factors viz. reference group w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services) as p-value is not small therefore the null hypothesis is event at 5% level of significance. This means people rely almost equally on family and reference group.

The Social Factors viz. role and status w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services) as p-value is very small (<0.0001), the null hypothesis is rejected even at 1% level of significance. Therefore, family is most influential Social factor.

The ranking of social factor is independent of the hospital with which the respondent is associated as p-value is large, the null hypothesis is accepted even at 5% level of significance. This means that there are very little or no differences in social aspects of the hospitals taken in to consideration for the study.

A noteworthy fact, in the above section for study is that many people have ranked the social factors of the hospitals as high or medium and almost none of the respondents have ranked the same as low.

8.3.3 Conclusions on Personal factors of patients and patients relative:

The factors viz. Personal have association vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department as p-value is small, Null Hypothesis is rejected. Under the category of personal factors, This Study identify which factors are the most important in affecting buying behavior in multispecialty hospitals in Mumbai with specific reference to Cardiac Services.

The Personal Factor viz. age and lifestyle w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services) as p-value is small (<0.01), the null hypothesis is rejected at 1% level of significance.

The Personal Factor viz. occupation w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services) as p-value is very small (<0.001), null hypothesis is rejected at 1% level of significance.

The Personal Factors viz. personality w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services) as p-value is not that small,

the null hypothesis is accepted at 1% level of significance. This means Economic Situation and Personality are the equally important personal factors influencing buying behavior in multispecialty hospitals in Mumbai with specific reference to Cardiology Department (Service)

The ranking of personal factor is dependent on the hospital with which the respondent is associated as p-value is small (<0.001), the null hypothesis is rejected even at 1% level of significance. This means that there exist some differences in personal aspects of the hospitals taken into consideration for the study. An important fact in the above section for study is that many people have ranked the personal factors of the hospitals as medium and very few of the respondents have ranked the same as low.

8.3.4 Conclusions on Psychological factors of patients and patients relative or Friends:

The factors viz. Psychological have association Vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department(Service) as p-value is small, null hypothesis is rejected.

The Psychological factors viz. perception w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services) as p-value is very small (<0.0001), the null hypothesis is rejected at 1% level of significance

The Psychological factor viz. belief w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services) as p-value is very small (<0.0001), the null hypothesis is rejected at 1% level of significance.

The Psychological Factor Viz. attitude w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services) as p-value is very small (<0.0001), the null hypothesis is rejected at 1% level of significance.

The ranking of psychological factors is independent of the Hospital with which the respondent is associated as p-value is large, the null hypothesis is accepted at 5% level of significance. This means that there exists no difference in Psychological aspect of the Hospitals taken into consideration for the study. An important fact in the above section for study is that many people have ranked the psychological factors of the hospitals as high and medium and very few of the respondents have ranked the same as low.

The Service availability in Cardiology Department of multispecialty hospitals in Mumbai is not Excellent as p-value is large the null hypothesis is accepted at 5% level of significance

8.4 Conclusion on factors influencing of Paramedical staff and Doctors:

This study identified the factor which is consistently ranked better or higher (1 as high in our Likert scale). The factor with the lowest score is considered most impactful. So, in the above, Social factor is perceived as most important and

Psychological factor is considered as second most important at the 1% level of significance. Also, the factor with the highest score is Cultural factor. This implies that cultural factors are not very influential on buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (services). Therefore, the conclusion is that Social and Psychological factors are construed to be the most important.

8.4.1 Conclusion on Culture factors of Paramedical staff and Doctors:

The Culture Factors Viz. Nationality w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services) as p-value is very small (<0.0001), the null hypothesis is rejected at 1% level of significance this means, Geographic region is more influential a factor than nationality.

The Culture Factors Viz. Wealth w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services) as p-value is very small (<0.001), the null hypothesis is rejected even at 1% level of significance

The Culture Factors Viz. Education w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services) as p-value is very small (<0.0001), the null hypothesis is rejected even at 1% level of significance

The ranking of culture factor is dependent on the hospital with which the respondent is associated as p-value is small (<0.001), the null hypothesis is rejected

even at 1% level of significance. This may imply that there are differences in cultural aspects of the hospitals taken into consideration for the study.

8.4.2 Conclusions on Social factors of paramedical staff and Doctors:

The factors viz. Social have association Vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiac Services as p-value is very small therefore the null hypothesis is rejected.

The Social Factor viz. reference group w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services) as p-value is not small; therefore, the null hypothesis is accepted even at 5% level of significance. This means people rely almost equally on family and reference group.

The ranking of social factor is dependent on the hospital with which the respondent is associated as p-value is small, the null hypothesis is rejected at 1% level of significance. This means that there are differences in Social aspect of the hospitals taken into consideration for the study. A noteworthy fact in the above section for study is that many people have ranked the social factors of the hospitals as high or medium and very few of the respondents have ranked the same as low.

8.4.3 Conclusions on Personal factors of Paramedical staff and Doctors:

The factors viz. Personal does not have any association vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department (Services) as p-value is large, this study accepts the null hypothesis is accepted at 5% level of significance. The result suggested that there is

no association between Personal factors and buying behavior, Empirically, Personal factors are influential and hence now study analyze them in the following sections. Under the category of personal factors, the study shows identify which factors are the most important in affecting buying behavior in multispecialty hospitals in Mumbai with specific reference to Cardiac services.

The Personal Factor viz. age and lifestyle w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services) as p-value is very small (<0.0001), the null hypothesis is rejected at 1% level of significance.

The Personal Factor viz. occupation w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services) as p-value is very small (<0.0001), the null hypothesis is rejected at 1% level of significance

The Personal Factor viz. personality w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services) as p-value is very small, the null hypothesis is rejected at 5% level of significance

The ranking of personal factor is dependent on the hospital with which the respondents is associated as p-value is small (<0.001), the null hypothesis is rejected even at 1% level of significance. This means that there exist some differences in personal aspects of the hospitals taken into consideration for the study. An important fact in the above section for study is that many people have

ranked the personal factors of the hospitals as medium and very few of the respondents have ranked the same as above.

8.4.4 Conclusion on Psychological factors of Paramedical staffs and Doctors:

The factors viz. Psychological have association Vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiac Services as p-value is small, the null hypothesis is rejected

The Psychological factors viz. perception w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services) as p-value is small (<0.001), the null hypothesis is rejected at 1% level of significance.

The Psychological factor viz. belief w.r.t proportions of people who are influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services) as p-value is very large, the null hypothesis is accepted at 1% level of significance.

The Psychological factor viz. attitude w.r.t proportions of people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services) as p-value is very small (<0.0001), the null hypothesis is rejected.

The ranking of psychological factor is dependent on the hospital with which the respondent is associated as p-value is small, the null hypothesis is rejected at the 1% level of significance. This means that there exist some differences in psychological aspects of the hospitals taken into consideration for the

study. An important fact in the study is that many people have ranked the psychological factors of the hospitals as high and medium and few of the respondents have ranked the same as low. The service availability in cardiology department in multispecialty hospitals in Mumbai is good.

8.5 Conclusion on factors influencing of Marketing Persons:

The Service w.r.t proportions of Marketing people who are not influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services) as p-value is small, so the null hypothesis is rejected at 1% level of significance. In this study quality and service are not considered to be equally parameter (convincing factors) for marketing.

Promotion and services are equally important marketing tools as P value is large the null hypothesis is accepted at 1% as well as 5% level of significance. Now, study moves on to one of the most important questions in our research objectives and try to find out the factor that is most influential on buying behavior towards cardiac services of multispecialty Hospitals.

The cultural and social factors are considered equally influential on buying behavior in multispecialty hospitals with specific reference to Cardiology Department (Services) as p-value being very high. Therefore, this study failed to reject the null hypothesis

The personal and social factors are considered equally influential on buying behavior in multispecialty hospitals with specific reference to Cardiology Department (Services) as the p-value is very high; therefore, null hypothesis is rejected.

The psychological and social factors are considered equally influential on buying behavior in multispecialty hospitals with specific reference to Cardiology Department (Services) as p-value is very high. Therefore, study failed to reject the null hypothesis.

8.6 Conclusions on Overall Analysis (All sample Size):

The factors viz. cultural have association Vis-à-vis buying behavior in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department as asymptotic significance, i.e., p-value is small, the null hypothesis is rejected.

The factors viz. Social have association vis-à-vis buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services) as asymptotic significance, i.e., p-value is small, the null hypothesis is rejected

The factors viz. Personal have association vis-à-vis buying behavior in Multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services) as p-value is very small, the study accepts the alternative hypothesis

The factors viz. Psychological have association vis-à-vis buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiology Department (Services) as p-value is extremely small, the null hypothesis is rejected at 1 % level of significance.

The differences in ranking of the four main factors influencing buying behavior in Multispecialty Hospitals in Mumbai with specific reference to Cardiac Services as p-value is small; the null hypothesis is rejected. The factor with the lowest score is considered as the most influential. Hence the Social factors are the most contributing factors that influence buying behavior in multispecialty hospitals and the next most influential is Psychological factors. Personal factors are second last influential vis-à-vis buying behaviors in Multispecialty hospitals in Mumbai with specific reference to Cardiology Department (Services). Cultural factors are last influential on the ranking.

The reference group and family are considered equally influential social factors on buying behavior in multispecialty hospitals with specific reference to Cardiology Department as p-value being very high, So, this study fail to reject the null hypothesis.

The economic situation and age are not equally influential personal factors with respect to influence on buying behavior in multispecialty hospitals in Mumbai with the specific reference Cardiology Department as p-value being very small (<0.0001), So study rejects the null hypothesis.

The Psychological Factors Viz. Belief w.r.t proportions of people who are not most influential vis-à-vis buying behaviors in multispecialty Hospitals in Mumbai with specific reference to cardiology Department (Services) as p-value is very small (<0.0001), Therefore, study reject the null hypothesis at 1% level of significance.

Service availability in Cardiology Department of multispecialty hospitals in Mumbai is not Excellent as p-value is less than 0.05; therefore, null hypothesis is rejected at 5% level of significance. Therefore, finally this study shows that Service Availability in Mumbai is Excellent as well as good because both the remarks are almost equal.

8.7 Comparison with Literature survey:

This Ph.D. study is unique. Literature survey done on Healthcare Services, Telecom services and banking sectors. At the time of literature survey none of the researches are found as like Factors influencing buying behaviors towards healthcare services “A study in multispecialty hospitals in Mumbai with specific reference to Cardiology Department”. But many researches are done on common topic name on factors influencing buying behaviors towards healthcare services. E.g. James L Wofford et al. (2004) said that the seven complaint categories of physician behaviors should be useful in developing curricula related to professionalism, communication skills and practice-based learning. Carol Propper et al (2002) stated that One of the key factors influencing family doctors’ choice of hospital was patient waiting time. However, without cash inducements, hospitals would get no direct reward from giving shorter waiting times to a subset of patients. Using a unique dataset, they investigated whether GP fund holders could secure shorter waiting times for their patients, whether they could do so in cases where they had no financial rewards to offer hospitals, and whether the impact of fundholding spilled over into shorter waiting times for all patients. Liao HL et al. (2008) stated that Factors influencing the purchasing behavior of TCM out patients

in Taiwan. Also, done literature survey on buying behaviors towards Banking sectors & telecom sectors.

Eventually, after comparisons of this study & literature surveys, this PhD study is unique in Multispecialty Hospitals with specific reference to cardiology department in Mumbai area. also, all literature surveys done in very deeply & also similar to this study.

8.8 Recommendation for the Improving Cardiac Services:

8.8.1. Engagement of qualified employees:

Cardiac Hospital should engage most qualified Employee in the Cardiac Department. Cath lab technicians should pass post graduate diploma in Cath lab technology or equivalent courses. Cath lab nurses should aware about the Cath lab procedures. Qualified staff can give more knowledge to the cardiac patients.

8.8.2 Use Healthcare Analysis for the Cardiac Department:

Hospital should appoint the Healthcare Analyst for the Cardiac Department. Because of this Analysis of Cardiac Department, Hospital will get excellent relationship with cardiac patients. Hospital can get more details about the cardiac patients. Patients can get more satisfaction from the cardiac treatment of the Hospitals. Because of the analysis, Hospital can improve cardiac services of the Cardiac Department. This healthcare analysis would help to increase revenue of the Cardiac Department of the Hospital.

8.8.3 Advertising of Cardiac Services (Branding):

Every Cardiac Hospital should create good brand in the market. They should give more awareness to the people about availability of the cardiac services and technologies. Due to advertising, Hospital can change patients buying behaviors for the cardiac services. Cardiac Hospital can attract more patients for the cardiac services.

8.8.4 Awareness Program for the Cardiac Disease:

Hospital should arrange the patients' awareness program. Due to this program, hospital, can give more information about the cardiac diseases and treatments from the Hospitals for the cardiac care. Due to Patient awareness program, hospital, can increase the relationship with cardiac patients.

8.9 Contributions of the study:

This study helps to understand the cardiac services of multispecialty Hospitals in Mumbai. Factors influencing buying behaviors help to understand the patients buying behaviors towards Cardiac Services. Multispecialty Hospitals can improve their Cardiac Services as per the patients' behaviors and due to these cardiac patients can get more patient satisfaction for the cardiac services of the Multispecialty Hospitals in Mumbai. This study is not for the patient satisfaction but, due to this research, Multispecialty Hospitals can provide better cardiac services in Mumbai. Multi-specialty Hospitals can understand the effectiveness of their branding, quality of cardiac services in the Mumbai. Due to analysis of factors influencing buying behaviors in cardiac Services, Multi-specialty Hospitals can enhance the Cardiac Services. Due to this research, multi-specialty Hospitals get

helps to understand most influential factors buying towards healthcare Services. Multi-specialty Hospitals understood that the social factors are the most influential factors in buying behaviors towards Healthcare Services. Social factors include friends, family, reference group. Therefore, at the time of branding of cardiac services and quality of the cardiac services, Hospitals will more concentrate on buying behaviors of family of patients, friends and reference group of patients. This research also helps to understand the behaviors of the patients for the better cardiac services in the Mumbai area.

8.10 Limitations of the Study:

This study is done in the Mumbai area. All four multispecialty Hospitals are chosen from the Mumbai area. This study is done in the Cardiology department of the Hospitals. Four Hospitals are namely Fortis Hospital, Mulund, Mumbai, Kohinoor Hospital, Kurla, Mumbai, Dr. L. H. Hiranandani Hospital, Powai, Mumbai, and Cumballa Hill Hospital and Heart Institute, Kemps corner, Mumbai. There was Hospital management to give permission for this Research. As per the Hospital management, patients should not be bother by the researcher at the time of Primary data collection. The Researcher should follow all the rules of the Hospitals at the time of data collection. Permission of the Hospital Management is necessary for the data collection. There was specific time for the IPD data collections. The Hospital does not allow to collect data at any time. In this total, 500 respondents are in the Mumbai area. Respondents are in the three categories namely 1) Patients and patients' relatives or friends 2) Doctors and Paramedical Staff 3) Marketing persons. Sometime patients or relative were not ready to fill the

questionnaires form. Pilot data study done in the Fortis Hospital Mulund, Mumbai and Kohinoor Hospital, Kurla, Mumbai.

8.11 Research Implications:

Due to this study, buying behaviors of the patient will be focused by the Multispecialty Hospitals and hence the patient satisfaction will be increased. Subsequently, brand image of the hospitals will be increased.

If Managers of Cardiology Department of the multispecialty Hospitals arrange such type of the study in their department then it will be beneficial for the Hospitals. Because of such type study, Healthcare Manager can decide the most influencing factors on buying behaviors of the Cardiac Patients of the Hospitals. Therefore, if cardiology Manager submit his analysis report to Marketing department of the multispecialty Hospital, then Marketing department of the Multispecialty hospital can concentrate on most influencing factors on buying behaviors of cardiac patients of Multispecialty Hospitals. Therefore, Marketing Department can attract more cardiac patients towards the Hospitals. Healthcare Managers also can understand the buying behaviors of the Patients, family and friends of the patients. Therefore, it will help to the patients to get reliable Cardiac Services from the Hospitals.

8.12 future scope for the study:

This study was done in the Mumbai area. Therefore, results of this study were for only Mumbai area. Four Hospitals were chosen in the different areas of Mumbai. Therefore, this study brought information about the Mumbai area. In future, if researcher does another study for the pan India then it will be very helpful

to improve Cardiac Services of the pan India. Researcher will get more information about the Pan India.

Researcher can choose some other departments like Neurology, Nephrology, Urology etc. in any part of India or world. Researcher also can compare the different segments of the India. Researcher can compare the different departments in the same Hospitals. Hence, multispecialty hospital will get more knowledge about the influencing factors on buying behaviors the patients for the different Departments. Researcher can do this study for any particular state of India.

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Publication-Presentation

Name of the Research Paper	Name of the Journal/Publication	Organizer/Conference Name
1) Factors influencing buying behaviours towards Healthcare Services: "A study in Madhu Hospital, Mumbai with specific reference to Orthopedic Services."	INSPIRA	INSPIRA
2) Factors influencing buying behaviors towards Healthcare Services," A study in S.S Hospital and Research Center, Bhiwandi with specific reference to Cardiology Services.	International Multidisciplinary Half-yearly Research Journal-Royal	International Multidisciplinary conference on commerce, Management, Technology and environmental Science held at St.Joseph College of arts and commerce, Satpud, Virar, Maharashtra
3) Factors influencing buying behaviors towards healthcare Services: "A study in Ramkrishna Netralay, Thane with specific reference to eye care services."	Journal of Veer Narmad South Gujarat University.	National conference on emerging trends in Global Business management held at Veer Narmad South Gujarat University, Surat.

List of Abbreviations

Sr.No	Abbreviation	Term
1)	Dr.	Doctor
2)	Ph.D	Doctor of Philosophy
3)	w.r.t	With respect to
4)	N	Sample Size
5)	K	Number of Dependent samples
6)	Asymp Sig.	Asymptotic Significance
7)	Df	Degree of freedom

Annexure I

Research Form

Patients, Patient's Relatives and Patient's Friends

Name: _____

Kindly Read questions carefully and tick the below options

1) Why have you chosen this hospital for Cardiac Treatment or Cardiac surgery?

A) Brand

B) Quality

C) Service

D) Patient Satisfaction

2) Which Hospital's Cardiology Department is best for Cardiac Services?

A) Fortis Hospital

B) Kohinoor Hospital

C) Dr. H. L. Hiranandani Hospital

D) Cumballa Hill Hospital and Heart Institute

3) What are the Social factors which influence you towards this hospital's Cardiac services?

A) Reference Group

B) Family

C) Role and Status

4) What are the factors which influence you towards this Hospital's Cardiac Services?

A) Wealth

B) Education

C) Occupation

5) What are the Subculture factors which influence you towards this Hospital's Cardiac services?

A) Religion

B) Nationalities

C) Geographic Region

6) How patient's cultural factors do influence on buying behavior towards Cardiac Services of this Hospital?

- A) Region to Region
- B) State to state
- C) Country to Country

7) What are the personal factors which influence you towards Cardiac services of this Hospital?

- A) Age and Lifestyle
- B) Economic situation
- C) Occupation
- D) Personality

8) Which of the following culture factors influence you towards Cardiac services of this Hospital?

- A) Nationalities
- B) Wealth
- C) Region

9) What are the Psychological factors which influence you towards Cardiac Services of this Hospital?

A) Motivation

B) Perception

C) Belief

D) Attitude

10) What is your motivation to engage cardiac Service of this Hospital?

A) Brand

B) Quality

C) Service

D) Patients Satisfaction

11) Who motivates you for cardiac Service of this Hospital at the time consultation?

A) Doctors

B) Technologists

C) Marketing persons

D) Others

12) What are the Beliefs and attitude towards this Cardiac service of this Hospital?

- A) Brand
- B) Quality
- C) Service
- D) Patients Satisfaction

13) What are the perceptions towards Cardiac Services of this Hospital?

- A) Good Doctors
- B) New Technologies
- C) Good Paramedical Staffs
- D) Patient services

14) What are the following factors influencing to you towards Cardiac services of this Hospitals?

- A) Culture factors (Region, Nationality, Wealth, and Education).
- B) Social factors (Family, Friends, Role and Status)
- C) Personal Factors (Age and Lifestyle, Economic Situation, Personality)
- D) Psychological Factors (Perception, Motivation, learning, beliefs)

15) Kindly remarks culture factors towards cardiac Services of this Hospital?

A) High

B) Medium

C) Low

16) Kindly remarks Social factors towards cardiac Services of this Hospital?

A) High

B) Medium

C) Low

17) Kindly remarks Personal factors towards cardiac Services of this Hospital in percentage?

A) High

B) Medium

C) low

18) Kindly remarks Psychological Factors towards cardiac Services of this Hospital in percentage?

A) High

B) Medium

C) Low

19) How is the Cardiac Services in this Hospital?

A) Excellent

B) Good

C) Poor

Annexure-II

Doctors and Paramedical staffs

Name: _____

Kindly Read questions carefully and tick the below options

- 1) What are the important parameters to attract Cardiac patients in your Hospitals?
 - A) Brand
 - B) Quality
 - C) Service
 - D) Patient Satisfaction

- 2) What is the Marketing Department's role in Buying Behavior towards Cardiac Services in your Hospital?
 - A) High
 - B) Medium
 - C) Low

3) How does the Marketing Person influence patients to engage Cardiac services?

- A) Via Doctors
- B) Via Paramedical Staffs
- C) Via Others

4) What are the Social factors which influence patients to be attracted in your Hospital for Cardiology Services?

- A) Reference Group
- B) Family Group
- C) Role and Status

5) What are the Personal factors which influence patients to be attracted to your hospital for Cardiac services?

- A) Age and Life Style
- B) Occupation
- C) Economic Situation
- D) Personality

- 6) What are the psychological Factors influencing patient's buying behavior towards cardiac Services of your Hospital?
- A) Motivation
 - B) Perception
 - C) Belief
 - D) Attitude
- 7) What are the Culture Factors influencing patients' buying behaviors towards cardiac Services of your Hospital?
- A) Region
 - B) Nationalities
 - C) Wealth
 - D) Education
- 8) Which Perception of patients affects the buying behavior towards Cardiac Services of Your Hospital?
- A) Brand
 - B) Quality
 - C) Service
 - D) Patient Satisfaction

9) Which of the following factors influence Buying Behavior towards Cardiac services of your Hospital?

- A) Culture factors (Region, Nationality, Wealth, and Education).
- B) Social factors (Family, Friends, Role and Status)
- C) Personal Factors (Age and Lifestyle, Economic Situation, Personality)
- D) Psychological Factors (Perception, Motivation, learning, beliefs)

10) Who motives the Cardiac patients to engage for Cardiac Services in Your Hospital?

- A) Doctors
- B) Paramedical Staffs
- C) Your self
- D) Others

11) Kindly remark culture factors influencing Buying behavior towards cardiac Services of your Hospital?

- A) High
- B) Medium
- C) Low

12) Kindly remark social factors influencing Buying behavior towards cardiac Services of your Hospital?

A) High

B) Medium

C) Low

13) Kindly remark Personal factors influencing Buying behavior towards cardiac Services of your Hospital?

A) High

B) Medium

C) Low

14) Kindly remark Psychological factors influencing Buying behavior towards cardiac Services of your Hospital?

A) High

B) Medium

C) low

15) Which of the following factors attract the patients for Cardiac Services in your Hospital?

- A) Brand
- B) Quality
- C) Service
- D) Patient Satisfaction

16) How is the Cardiac Services in this Hospital?

- A) Excellent
- B) Good
- C) Poor

Annexure-III

Marketing Person

Name:_____

Kindly Read questions carefully and tick the below options

1) How do you convince the Cardiac Patients to engage your hospital's healthcare services for Cardiology Department?

- A) Brand
- B) Quality
- C) Service
- D) Patient Satisfaction

2) What are the tools you use to attract Cardiac Patients in Your Hospital?

- A) Promotion
- B) Consultation and counseling of Doctors
- C) Counseling of Paramedical staff.

3) What are the Social factors which influence patients to attract in your Hospital for Cardiology Services?

A) Reference Group

B) Family Group

C) Role and Status

4) What are the Personal factors which influence the patients to attract to your hospital for Cardiac service?

A) Age and Life Style

B) Occupation

C) Economic Situation

D) Personality

5) What are the psychological Factors influencing patient's buying behavior towards cardiac Service of your Hospital?

A) Motivation

B) Perception

C) Belief

D) Attitudes

6) What are the Culture Factors influencing patients' buying behaviors towards cardiac Service of your Hospital?

- A) Region
- B) Nationalities
- C) Wealth
- D) Education

7) What types of marketing strategy do you use to attract patients to your hospitals for cardiac Services?

- A) Community Marketing
- B) Content Marketing
- C) Cross Media Marketing
- D) Digital Marketing

8) Which Perception of patients affects the buying behavior towards Cardiac Services of Your Hospital?

- A) Brand
- B) Quality
- C) Service
- D) Satisfaction

9) Which of the following factors influence Buying Behavior towards Cardiac services of your Hospital?

- A) Culture factors (Region, Nationality, Wealth, and Education).
- B) Social factors (Family, Friends, Role and Status)
- C) Personal Factors (Age and Lifestyle, Economic Situation, Personality)
- D) Psychological Factors (Perception, Motivation, learning, beliefs)

10) Who motives the Cardiac patients to engage for Cardiac Service in Your Hospital?

- A) Doctors
- B) Paramedical Staffs
- C) Your self
- D) Others

11) Kindly remark culture factors influencing Buying behavior towards cardiac Services of your Hospital?

- A) High
- B) Medium
- C) low

12) Kindly remark social factors influencing Buying behavior towards cardiac Services of your Hospital?

A) High

B) Medium

C) low

13) Kindly remark Personal factors influencing Buying behavior towards cardiac Services of your Hospital in percentage?

A) High

B) Medium

C) Low

14) Kindly remark Psychological factors influencing Buying behavior towards cardiac Services of your Hospital in percentage?

A) High

B) Medium

C) Low

15) Which of the following factors attract the patients for Cardiac Services in your Hospital?

- A) Brand
- B) Quality
- C) Service
- D) Patient Satisfaction

16) How is the Cardiac Services in this Hospital?

- A) Excellent
- B) Good
- C) Poor

Annexure IV

Photographs

Dr. L.H. Hiranandani Hospital, Powai, Mumbai:



Fortis Hospital, Mulund, Mumbai:



Kohinnor Hospital, Kurla, Mumbai:



Cumballa Hospital and Heart Institute, Mumbai:



