

A STUDY ON OPERATIONS MANAGEMENT IN HEALTHCARE - HOSPITALS

Submitted in partial fulfillment of the requirements for the award of

MASTER OF BUSINESS ADMINISTRATION

by

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DECLARATION

I **Deepak.S(42410221)** hereby declare that the Project Report entitled “**Study on operations management in health care - Hospitals of Chennai**” done by me under the guidance of **DR. Yasmeen Bano** is submitted in partial fulfillment of the requirements for the award of Master of Business Administration degree.

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1. INTRODUCTION.

1.1. OPERATIONS

What are Operations?

Definition: Operations are the business activities that a firm engages in to convert materials into finished products or services, sell them to customers, and earn a profit.

What Does Operations Mean?

What is the definition of operations?

These procedures are used to create goods and services, market them to customers, and deliver the final products. Thus, every business' operations are slightly different.

A manufacturer's activities largely consist of purchasing raw materials and turning those materials into actual products. These activities include machining, milling, sandblasting, painting, and assembling materials. All of these activities add value to the product and the company overall.

Contrast that with a retailer that doesn't create any products. It simply purchases goods from manufacturers and wholesalers and markets these goods to customers. A retailer's operations consist mainly of logistics and marketing activities.

Most companies, like the two mentioned above, have multiple operations that are interconnected. These activities are called a process and typically consist of four parts: processing, inspecting, transporting, and storing.

Operations have the general purpose of increasing value to customers. For instance a company might obtain more business assets or improve efficiency with the use of current assets in order to reduce the production costs of its products. Thus, it can lower the price to the consumer. These procedures never cease and usually become more complex and more focused as time goes on to pinpoint areas a business can improve upon.

Summary Definition

Define Operations: Operation means The actions and decisions made by participants and members of a business that affect the production, distribution, service, management, etc. needed for a company to function that requires the use of resources and assets.

1.2. Operations Management

Operations management is one of the most in-demand careers in the industry. Getting the most value out of your resources is the key to profit in every business. If you are seeking a career in operations management, it's essential to understand the Review of Literature, responsibilities, and requirements of this field.

What is Operations Management

Simply put, operations management is the administration of business activities to accomplish goals, achieve higher productivity, and maximize profitability.

Operations management is the branch of management that administers the complete production timeline of a service/ product from the input stage to the finished stage, including planning, organizing, and supervising the operations, manufacturing and production processes, and service delivery to lead to the desired outcome of high-quality product/service that meets the demands of the customers.

While operations management is the management and control Review of Literature of the functions and operations, **project management** is the management and control Review of Literature of project activities.

Operations Management – A Core Aspect of Every Business

Project management involves unique but temporary endeavors with a specific beginning and end. On the other hand, operations management involves ongoing activities of an organization that produce repetitive and long-term outputs such as supplying services or manufacturing products. Defining what operations management for a particular field is essential as it is vital in every field. Operations management aims to ensure that the day-to-day operations are smooth, cost-effective, and well-timed while maintaining critical quality standards.

Importance of Operations Management

Operations management is the heart of any organization. Below are pointers that would explain the importance of operations management.

- Operations management oversees the complete operating system of an organization.
- Operations management is essential for organizations to manage their daily activities seamlessly.
- Operations management control Review of Literatures all the processes and handles issues including design, operation, maintenance, and improvement of the systems. It also maintains smooth, effective, timely production of products and services even when unexpected situations arise.

- An operation management helps improve the reputation of an organization and thus has a positive influence on its capability to achieve growth and stability goals.
- Operations management ensures that products meet the quality standards and customers' expectations. Thus, satisfied customers also mean customers buy from you again and referrals, which further improves brand value, giving a competitive edge in the market.
- Operations management includes recognizing and optimizing the processes included in the production of services or goods, which can help cut costs. Thus, operations management facilitates selling more products/services and reducing costs, which means increased revenues and enhanced growth of an organization.
- Operation management motivates the employees toward their Review of Literatures and improves employee productivity.

What is the Review of Literature of Operations Management

Operations management constitutes diverse responsibilities, from product development to project management.

- **Capacity planning** – Operations management involves evaluating the number of products or services a company can sell or distribute in a particular period.
- **Product design/service design** – Product design or service design involves generating new ideas and creating a service or product to ensure that the products sold/ services rendered to customers meet their needs and expectations. Operations management needs to consider the cost-efficiency of a product while ensuring that it meets the needs of customers.

- **Quality control Review of Literature** – This involves quality management or quality assurance. It deals with monitoring services or products through each step in the production process or service operations for probable issues or errors.
- **Process improvement and optimization** – This involves evaluating the steps involved in a process and recreating the process totally or restructuring the steps to maximize efficacy.
- **Supply chain management** – This involves managing the supply chain process by maintaining control Review of Literature of sourcing of the supplies, the production process, inventory management, sales, and distribution, at affordable rates. This results in lower overhead costs, effective production, and timely delivery of products.
- Operations management is also responsible for high-level strategizing and planning.

Strategies of Operations Management

Operations management involves managing a wide range of tasks – devising strategies is of utmost importance to execute the tasks efficiently.

Strategies of operations management could include the utilization of data, handling data, inventory analysis, identifying departments or specific processes within departments that need overhauling, social accountability, departmental collaboration, human resource management, and many more

1.3. SUPPLY CHAIN MANAGEMENT

Supply Chain Management - Origin

In an interview with the Financial Times in 1982, Keith Oliver, a consultant at Booz Allen Hamilton, coined the phrase “Supply Chain Management.” The results of an accomplished “Supply Chain Management project” directed by Wolfgang Partsch were originally reported in 1983 in the German magazine Wirtschaftswoche. More than a decade later, in the mid-1990s, when a flurry of articles and books on the subject appeared, the term “supply chain management” became popular. All operations connected with the flow and transformations of goods from raw materials to end-users, as well as the associated information flows, were initially classified as supply chains. The integration of supply chain activities through improved supply-chain relationships to generate a competitive advantage was then further characterized as supply-chain management. The term “Supply Chain Management” (SCM) gained popularity in the late 1990s, and operations managers began to use it more frequently in their titles.

1.4. OBJECTIVES.

- To study the patient expectation on various parameters of service quality
- To understand healthcare management system in hospitals.
- To maximize the use of resources and reduce waste, leading to more effective healthcare delivery.
- Service layout.

1.5. SCOPE FOR THE STUDY

- This study allows understand the working system followed and the know the service layout of the hospitals
- The purpose of the study is to understand the supply chain process of healthcare.
- This study helps to determine the decision making in regard to supply chain management of healthcare.
- It allows determining the expectation of the patients in accordance with service and cost of the treatment.

2. CONTENT

2.1. OPERATIONS MANAGEMENT IN HEALTHCARE

Operations management is critical in every industry, and healthcare is no exception. At its core, operations management is the planning, organizing, and supervising of internal processes to keep an organization running smoothly. In the ever-changing healthcare industry, effective operations management is not an option, but a necessity. Without it, it's difficult for a hospital, residential facility, nursing home, doctor's office, or home healthcare organization to provide the quality care services that improve and save lives.

What is Healthcare Operations Management?

Operations management in healthcare refers to overseeing the day-to-day practices of a healthcare facility that impact the client experience and organizational goals. These practices are typically broken down into three components: administrative, financial, and legal.

- **Administrative** tasks may include keeping detailed records of medical and office supplies, scheduling employees, responding to questions from staff and customers, and updating patient records.
- **Financial** responsibilities often involve managing claims, medical billing, revenue cycle management, and value-based reimbursement.
- **Legal** practices usually revolve around compliance and credentialing. Essentially, those who work in healthcare operations management focus on overseeing the facility and staff functions, which play a vital role in the delivery of care.

The Importance of Operations Management in Healthcare

The importance of operations management in healthcare cannot be overstated, as the healthcare industry is incredibly diverse, and operations often require unique solutions based on a variety of factors. If you're an urgent care clinic, for example, the way you operate is far different than that of an assisted living facility.

Proper operations management can help you overcome a variety of obstacles so you can provide excellent customer service at every interaction. The right solution can eliminate manual processes to save you both time and money, and it can make HIPAA compliance easier and more consistent. Implementing proper tools can also improve staff and client communication, promote more effective collaboration among healthcare providers, and reduce or eliminate bottlenecks in your workflow.

Healthcare software options that support operations management vary widely, so it's crucial to understand what each solution offers and how it suits your needs and customer base.

The Benefits of Successful Healthcare Operations

There are a number of benefits to successful healthcare operations management, including:

Better client experience

Customers are more informed and have higher expectations for healthcare service than ever. Offering excellent customer service is vital for any business, but it's especially important in healthcare, where every interaction can have significant consequences. Operational excellence requires giving employees the proper tools to be confident and successful in customer interactions so they're well-prepared to deliver high-quality care.

By empowering healthcare workers with easy-to-use solutions for communication, data tracking, and appointment scheduling, you'll be able to provide your clients with a consistent, high-quality experience. This makes it easier to develop the long-term relationships that help you serve more clients and grow the business.

Improved bottom line and competitive edge

More efficient operations means less wasted time and money, which translates to better profit margins. Building and maintaining a profitable healthcare organization requires a running operation as smoothly as possible, while keeping employees and customers satisfied.

With strong operations management, you can find opportunities to improve in many different places, such as:

- **Automating or simplifying recurring tasks:** Identify points in the administrative process that require manual work, like calling to confirm patient appointments, and identify a simpler, more automated, and less error-prone method, like an automated appointment reminder system. This frees up time for tasks that are more important to the customer and the bottom line.
- **Clarifying Review of Literatures** – Sometimes tasks are delayed or missed because no one knows who is responsible. Find these trouble areas, reset expectations, and clarify Review of Literatures to improve operations and increase employee productivity.
- **Identifying patient care trends** – By collecting and reviewing patient satisfaction data and employee engagement data, you can take meaningful action in underperforming areas. If patients are waiting too long for appointments, find ways to optimize the scheduling and booking process. If

employees are frustrated by long hours, look at opportunities to better manage the schedule or bring in qualified temporary workers.

Paying close attention to trends in service delivery (and the supporting data) helps you make informed, data-driven decisions that put you one step ahead of the competition. It also helps you get ahead of trends that greatly impact revenue, like employee retention and customer satisfaction.

Improved employee productivity

The numerous roadblocks that often arise in healthcare operations—disparate data, siloed processes, or poor communication—impede productivity. Healthcare providers, schedulers, and administrators spend too much time tracking down information and making calls, and not enough time delivering care. Strong healthcare operations supported by centralized technology puts the focus where it belongs: caring for patients. Reducing and eliminating operational bottlenecks makes for more productive doctors, nurses, home health providers, lab technicians, and other staff members.

2.2. Supply Chain Management

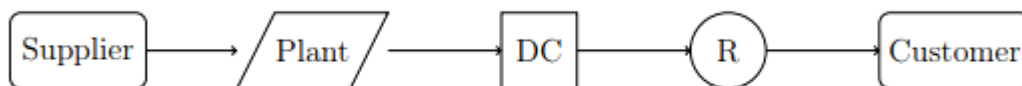
Supply Chain Management (SCM) is the management of supply chain i.e. management of the flow of products and services between enterprises and locations, and it encompasses the movement and storage of raw materials, completed items, and end-to-end order fulfillment from point of origin to point of consumption. SCM has been defined as the “design, planning, execution, cont. Review of Literature and monitoring of SC activities with the objective of creating net value, leveraging logistics, synchronizing supply with demand and measuring performance”. Demand planning, sourcing, manufacturing, inventory management,

and logistics – or storage and transportation – are all part of SCM, which entails the integrated planning and execution of operations required to optimize the movement of material, information, and capital.

Supply chain (SC) consists of the following:

1. A series of stages (e.g., suppliers, manufacturers, distributors, retailers, and customers) that are physically distinct and geographically separated at which inventory is either stored or converted in form and/or in value.
2. A coordinated set of activities concerned with the procurement of raw materials, production of intermediate and finished products, and the distribution of these products to customers within and external to the chain.

Thus, a supply chain includes all the partners involved in fulfilling customer demands and all the activities performed in fulfilling those demands. { Figure 1.1 illustrates a typical supply chain. }



DC = Distribution Center, R = Retailer

DC = Distribution Center, R = Retailer

Figure 1.1: Typical supply chain network

Healthcare Supply Chain Management and its Importance

Obtaining resources, managing supplies, and delivering goods and services to clinicians and patients are all part of the healthcare supply chain management process. Physical commodities and information concerning medical products and services typically pass through manufacturers, hospitals, providers, and regulatory processes in order to complete the process.

The following are the key activities for the effective management of Healthcare Supply Chain:

1. Design of the supply chain network.
2. Purchasing of raw materials and parts, and medicines from suppliers/manufacturers to the healthcare.
3. Management of the production and inventory of finished goods to meet customer demands.
4. Management of the transportation and logistics network to deliver the final products to the warehouses and retailers.
5. Management of the integrity of the supply chain network by mitigating supply chain disruptions at all levels.

Medical products are subsequently delivered to the healthcare facility, where they are inventoried for both products and patients. The group makes certain that caregivers do not go without critical medical supplies and to keep good track of demand with balance of supplies, so that they will not face any circumstance that would lead to raise the cost of medical supplies which in turn would raise the cost of treating patients. A healthcare with improper supply chain management would lead to sudden appraisal of costs, shortages, and also inability to treat the patients. Thus, it is important to manage supply chain for the healthcare to maintain a stable

outcome and run without any difficulties/obstacles and for the caregivers to treat patients with their best ability . As a result, in order to correctly run the SC, healthcare SCM must take into account a variety of requests and opinions, which will be discussed further.

2.3. Decision Making

The application of advanced analytical tools to assist make better judgments is known as operations research. One of the most widely used problem-solving and decision-making disciplines is operations research. It is a set of programmable rules and managerial decision-making processes that give a foundation for managers at all levels of global business to make decisions. By following the possibilities identification and picking alternatives, decision making brings concrete remedies to a problem based on the demand condition. In many domains of human activity, the decision making problem is extremely useful. Probabilistic approaches are the most extensively utilized decision making methods. Its advantages include maintaining better cont Review of Literature, better decision making, better coordination of departments, and increased business productivity.

Strategic Decisions

Strategic decisions deal primarily with the design of the supply chain network and the selection of partners. These decisions are not only made over a relatively long time period (usually spanning several years), and have greater impact in terms of the company's resources, but are also subject to significant uncertainty in the operating environment over this lengthy span of time.

Examples of strategic decisions include the following:

Production and Sourcing: make or buy?

- Produce internally or outsource
- Choice of suppliers, sub-contractors, and other partners

Tactical Decisions

Tactical decisions are primarily supply chain planning decisions and are made in a time horizon of moderate length, generally as monthly or quarterly decisions, covering a planning horizon of one or two years. Thus, these decisions are typically made in an environment characterized by less uncertainty relative to strategic decisions, but where the effects of uncertainty still are not inconsequential.

Examples of tactical decisions include the following:

- Purchasing decisions—e.g., how much to buy and when?
- Production planning decisions—e.g., how much to produce and when?
- Inventory management decisions—e.g., how much and when to hold to balance the costs of resupply with the risks of shortages?
- Distribution decisions—e.g., how to coordinate DC replenishment with production schedules?

Operations Decisions

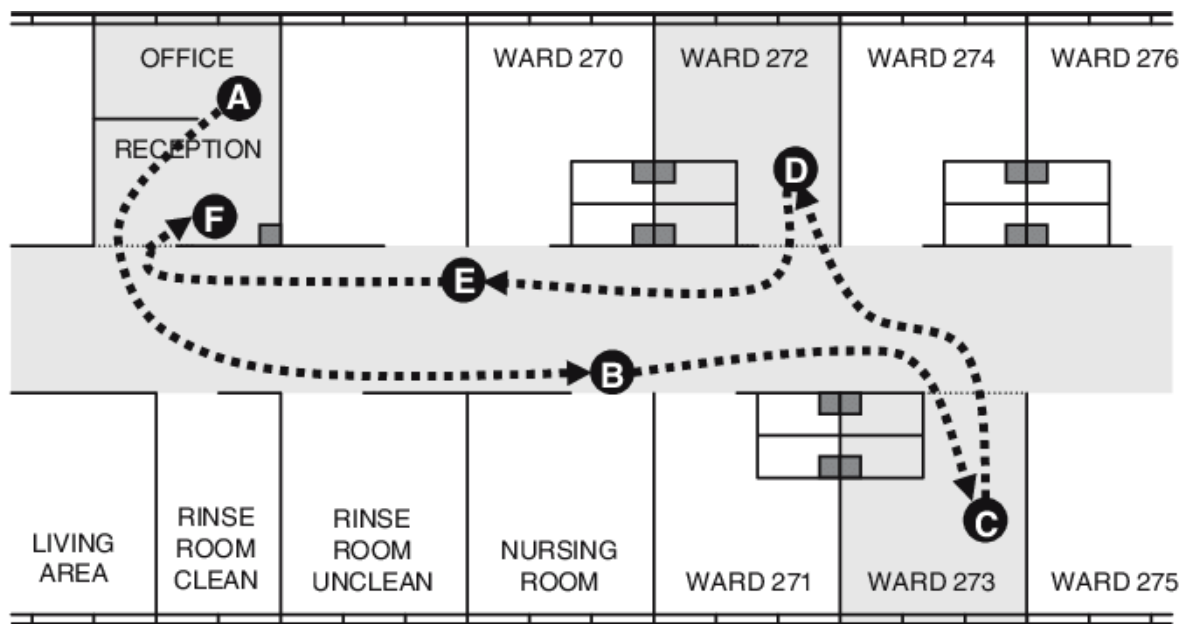
Operational Decisions are short-term decisions made on a daily/weekly basis, at which point much of the operational uncertainty that existed when the strategic and tactical decisions were made has been resolved. In addition, since the time scale is so short, most of these decisions involve a significantly lower expenditure of funds.

Examples include the following:

- Setting delivery schedules for shipments from suppliers
- Generating weekly or daily production schedules

2.4. SERVICE LAYOUT

A hospital isn't "completed" just because construction has ended. To ensure a hospital's health, marrying design with facility operations comes into play. One way to think about healthcare facilities services, which includes the departments that make up Materials Management, is to think of the human circulation system. A good, strong heart ensures an unobstructed flow of materials to keep everything moving efficiently and effectively through the system. Materials management services are in many ways the heart and lifeblood of the facility.



Components of Facility Layout and Materials Management

There are many moving parts in healthcare facilities, all with unique design challenges. Some of the more important ones are:

- **Loading Docks.** The coordination of supply trucks and waste stream movement can be challenging and requires the dock area to be sized correctly to accommodate both clean and soiled waste streams, as well as located conveniently. Regulatory and Licensing agencies stringently enforce separation of clean supply and waste to minimize overlap.
- **Materials Management.** Storage of supplies and equipment often are not integrated with physician needs, resulting in too many of some supplies and too few of others. Connecting supply vendors with the hospitals electronic

records system is a way to track real-time information on how many supplies are currently on hand, where they are located, and what's in stock.

Hospitals are required to have 20 square-feet per bed minimum storage on hand. Ensuring that the overall supply space is used efficiently can reduce overhead costs.

- **Environmental Services.** These are services required to maintain cleanliness and infection control. Efficient design is required to ensure that flows of both clean and soiled materials are separated to minimize contamination.
- **Mailroom and Courier Services.** Even though hospital facilities are moving towards more digital services, there are still plenty of transactions that happen through physical mailings. Having a system that allows incoming and outgoing mail to happen easily is often overlooked, but just as important for day-to-day function.
- **Dietary Services.** There are many people that need to be fed within a hospital environment. Dietary services have the challenge of having patient meals that are delivered hot from a remote location within the facility which is a difficult proposition as patients are not always in their rooms when meals are delivered.
- **Waste Management.** Managing hospital waste is an expensive proposition for owners. Hospital trash needs to be sorted for recycling, biological waste needs to be held separately and stored before sending to a landfill. Food waste – depending on the municipality needs to be managed carefully for landfill or composting. Chemical, Radioactive, Pathological, Sharps and Pharmaceutical waste are also part of the waste stream that requires careful management.



Understanding Material Management for Facility Layout

The various material management components support clinical and administrative work in the hospital. As such, a deep understanding of the sizing, operations, and flows associated with each department is required when designing a hospital. The general goals for the broad category of materials management are to acquire the optimum pricing for supplies, optimize inventory turnover, maintain cost control, effectively distribute thru the facility, and to eliminate losses and theft.

Material management is so important to hospital executives because there is a huge amount of financial resources tied up in it. It's estimated that 30-35 percent of recurring expenditures are materials, and the cost of labor for these services are considered overhead costs, which are non-reimbursable by insurance providers. Approximately 25 percent of the costs are carried by the facility, tied up in storage, manpower, obsolete equipment, and theft/breakage, which is over and above purchase costs

2.5. Managing Waste Effectively

The most challenging and costly part of the Materials Management system is the segregation, safe handling, and disposal of hospital waste – particularly that of Infectious medical waste. In addition to the myriad of federal, state and local

regulations, hospitals can help improve management oversight and lower costs by considering the following:

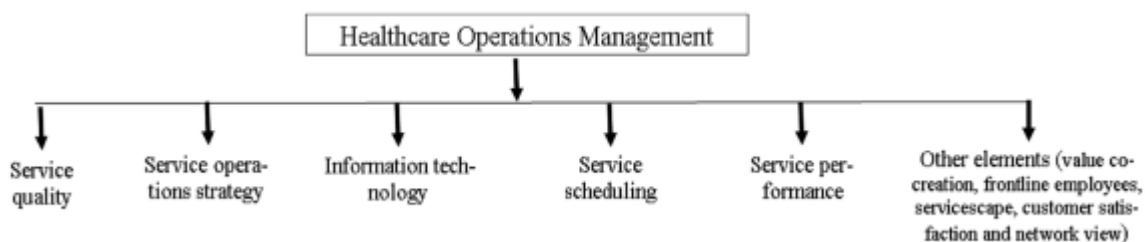
1. **Define the problem:** Understand the 3 major categories of waste: Hospital, Medical, and Infectious waste and what treatments are required for each
2. **Segregation as a first strategy:** Segregating waste at the point of generation prior to disposal is an important step to ensure health worker safety and can further assure a clean solid waste stream which can easily and safely be managed. It's estimated that less than 10% of all hospital waste streams are infectious, requiring specialized costly treatment.
3. **Provide a Sharps management system:** Of the 10% portion of the waste stream that is potentially infectious eliminating the indiscriminate disposal of needles helps protect hospital personal.

However essential they are to facility operations, they are often overlooked in terms of their importance, costs, and improvement opportunities. By communicating with the client and showing examples of how attention to these details can benefit the efficiency of the whole facility, we can ensure that the design supports material management, rather than fights it. Looking towards the future, there are exciting design opportunities that will come with implementing strategies for automated guided vehicles, which can support improved materials management within healthcare facilities.

3. REVIEW OF LITERATURE

R. K. Jha . B. S. Sahay . P. Char an – published by Decision (September 2016) 43(3):259–279 has done a project on ‘Healthcare operations management; a structured literature review, by referring authors and publications which was researched by them and made a conclusions on the major elements of healthcare. Their research paper elements go as follows,

Major elements of healthcare OM identified on the basis of previous literature reviews in the field of OM and service management were service quality, service operations strategy, information technology (IT), service scheduling, service performance, and other elements. This is mainly based on the works of Johnne and Storey (1998), Johnston and Bowen (2005), Johnston (2005), Edvardsson et al. (2005), and Liberatore and Nydick (2008). The element “other elements” consists of five sub elements, i.e. value co-creation, frontline employees, customer satisfaction, servicescape, and network view. These are those elements which on an individual basis contributed <10 research papers in the literature review.



1. Service quality

Healthcare service quality management practices cover the aspects of customer satisfaction evaluation, statistical quality control Review of Literature,

employee quality teams, and benchmarking (Gowen et al. 2006). The publication of report “To err is human” in 1999 by Institute of Medicine (IOM) is the point from where quality improvement in healthcare started receiving the required emphasis (Boyer et al. 2012). Batalden and Davidoff (2007) have defined healthcare quality improvement as the combined and unceasing efforts of everyone—healthcare professionals, patients and their families, researchers, payers, planners, and educators—to make the changes that will lead to better patient outcomes (health), better system performance (care), and better professional development. Emphasis on patient safety has increased, and now more focus is being paid to bring improvements in systems and processes rather than on individuals (Woodhouse et al. 2003). The literature review revealed empirical-based research methodology to be the primary research methodology being used in selected articles in the domain of service quality. The literature review identified the following major sub elements in the domain of service quality.

- ***Effect of service quality on organizational performance***

Improving the quality of healthcare service being provided can contribute to overall profitability of healthcare organizations and can also act as means of gaining competitive advantage (Dagger and Sweeney 2006). The biggest problem with providing quality healthcare services is that the definition of quality is dynamic in the sense that perception of quality for patients keeps on changing (O'Connor et al. 2000). Quality context and market orientation have a positive effect on organization's performance (Raju and Lonial 2001). The degree of implementation of processes advocated by quality managers forebodes the process performance after 10 years but only if the organization maintains high financial slack (Goldstein and Iossifova 2012). Improved clinical quality was found to reduce length of

stay and also it has been found that more the clinical flexibility, lesser the length of stay and lower the average cost (Nair et al. 2013). Drivers of quality in healthcare It was found that hospitals with moderate amount of patient volume are able to maintain higher process quality, and higher involvement in teaching activities leads to better process quality (Theokary and Justin Ren 2011). Hospital arrival rate is one of the defining factors affecting the quality of treatment patients received as it was found that patients coming to hospital between 6 p.m. and 6 a.m. received significantly lesser quality of treatment (Anderson et al. 2014). The reason behind this was found to be the absence of good-quality resources during this time period (Anderson et al. 2014). Management policies such as process-driven pay-for-performance (P4P) programmes can help the healthcare organizations in obtaining better performance at lesser costs (Andritsos and Tang 2014).

- ***Patient safety***

Improving patient safety is one of the critical targets of quality improvement, and the topic of “operations safety” is gaining more and more prominence among healthcare researchers (McFadden et al. 2009). Patient safety has been found to be associated with operationalisation of patient safety initiatives which in turn are associated with willingness of top leadership and safety culture in the organization (McFadden et al. 2009).

2. Service operations strategy

Strategy helps in operational decision-making on subjects such as investment in employee development, infrastructure, and structure, and this gives way to better operational capabilities (Goldstein 2003). The strategy used by management while

allocating their organizational resources and organizational efforts determines their operational capability which ultimately cont Review of Literatures the organization's overall outcome (Goldstein and Iossifova 2012). Internally, service strategy is used to enhance organizational capability which delivers the required service, and externally, service strategy enhances customer perception about any service (Goldstein 2003). Healthcare organizations have been trying to enhance their performance. One of the strategies used for enhancing performance is to reduce idle time and overtime for doctors and simultaneously minimize patients waiting time in long run. Appointment systems, which optimally utilizes the strategy of patient classification, perform well when it comes to reducing idle time and overtime for doctors and simultaneously, minimizing patient waiting time (Cayirli et al. 2008). Those hospitals that employ physicians during the formulation of their strategic plans perform better than those do not (Goldstein and Ward 2004). Volume flexibility is another strategy which can be used to deliver better service performance at healthcare organizations by allowing healthcare organizations to use their scarce resources in tandem with patient demand (Jack and Powers 2004). The literature review revealed empirical-, modeling/analytical-, and qualitative-based research methodologies to be the primary research methodologies being used in selected articles in the domain of service operations strategy. The literature review identified the following major sub-elements in the domain of service operations strategy.

- ***Service location***

Service location is a long-term strategy that greatly affects hospital performance. Li et al. (2002) showed that the rural hospitals are at a disadvantage in comparison with their urban counterparts.

- ***Cost management***

Overall cost management is a major challenge in any service organization. In healthcare services, few departments have a big say on overall cost sheet of hospitals (Gupta 2007). The strategy of “focus” has been found to be of great help in reducing cost (McDermott and Stock 2011) as is evident in case of Shouldice hospital. Strategy of mass customization seems to be one of the ways to deal with the demand for variety at low costs. In healthcare services, demand for variety such as demand for different health packages by different sections of the society is a challenge because overall cost goes up. Modularity has been found to be one of the main drivers of mass customization (Mikkola 2007), and it can be used to deliver demand-based service packages at reasonable cost (de Blok et al. 2010).

- ***Human resource management***

Human resource management (HRM) decisions are one of the strategic decisions in sequence of decisions that are made while designing and managing any service organization (Green 2006). The aim of staffing decision is to minimize the staff hours required to meet a given level of service performance (Green 2006). The biggest hurdle in making staffing decisions is that demand for service varies with time during the day (Green 2006). Another important aspect in managing human resource is improving the efficiency of employees. One of ways of achieving this is to increase coordination among employees which many a time requires strategic use of localized solutions. Increasing or maintaining the commitment level of employees is an important aspect of HRM. Organization’s mission fulfillment has a positive impact on employees such that employees become more committed to provide better customer service which in long term leads to more satisfied and loyal customers (Suh et al. 2011).

3. Information technology

High level of coordination is needed during information exchange in healthcare setting to provide desired level of quality of service to patients (Boyer and Pronovost 2010), but coordination in information exchange in hospitals is inherently a very challenging task because it is very difficult to synchronize hospital operations and information exchange. Usage of hospital IT such as electronic health records and other upcoming developments in information systems in general has been found to be one of the ways of improving coordination among service providers (Angst et al. 2011). Major research methodologies used in articles selected in the domain of hospital IT are empirical-, modeling/analytical-, and qualitative research-based research methodologies.

The literature review identified following major themes in the domain of usage of IT in healthcare organizations.

Factors affecting successful implementation of information technology

The success of IT implementation is dependent on a number of factors. One of the factors is the sequence in which technology becomes part of the overall information system of healthcare organizations (Angst et al. 2011). Those organizations that follow the best integration sequences are able to reduce their process costs while enhancing process quality (Angst et al. 2011). Another factor is congruence between IT and the overall technological, environmental, and organizational attributes of healthcare organization (Dey et al. 2013). Internal politics and personal likings of few individuals sometimes lead organizations to investments in IT solutions which are not completely in congruence with the requirements of the healthcare organization (Waring and Wainwright 2002). Size of healthcare organizations is another factor which affects the success of IT

implementation. Large hospitals tend to spend more money on technology implementation than their counterparts, and also, these hospitals tend to pay more attention on staff training which helps in successful implantation of IT (Li and Benton 2006).

- ***Effect of HIT implementation on organizational performance***

In spite of perceived positive effects of usage of IT, there is an ongoing debate among researchers when it comes to benefits of IT implementation in healthcare organizations (Gardner et al. 2015). Some researchers are of the view that IT would help in increasing efficiency, timeliness, and quality of service provided in healthcare sector like in case of other service sectors (Gardner et al. 2015; Li and Benton 2006).

Simultaneously, there is also a group of researchers who warns of possible harmful effects of IT on healthcare performance (Gardner et al. 2015). Even healthcare sector perceives that return on investment in IT as uncertain, and as a result, they avoid huge investments in IT (Porter and Teisberg 2006). In fact, investment in IT in the healthcare sector has not even been half of the average investment by private companies in general (Devaraj et al. 2013). But in the current economic scenario with decreasing margins in the healthcare sector, financial pressures have forced hospitals to leverage IT for making them financially viable and at same time help them provide high-quality service (Devaraj et al. 2013). Once successfully implemented, IT leads to several benefits. For example, computerized physician order entry (CPOE) has been found to positively impact patient satisfaction level (Queenan et al. 2011). Also implementation of technology makes patient flow swift which in turn improves the quality performance of healthcare organizations. Technology implementation can also improve the hospital–

supplier integration, and this leads to more exchange of knowledge between hospital and supplier (Chen et al. 2013), which has the potential to improve the operational performance of healthcare organizations and simultaneously reduce overall costs. Remote service is another major benefit of implementation of technology, and it needs to be used in regions which do not have direct access to healthcare services (Paluch and Blut 2013).

4. Service scheduling

The literature review provides a comprehensive survey of research papers on various aspects of service scheduling in healthcare. Effective scheduling systems have the aim of aligning demand and capacity, so that resources are efficiently utilized while minimizing patient waiting time. Major research methodologies used in articles selected in the domain of service scheduling are based on modeling/analytical, simulation, and theoretical/conceptual techniques. The literature review identified following major sub-themes in the domain of service scheduling.

- ***Surgical scheduling***

Surgical scheduling or scheduling of operation theatre is mainly done to balance two aspects: firstly, to give adequate freedom to surgeons to let them perform surgeries at times preferred by them, and secondly, in order to maximize the usage of operation theatre and other hospital resources (May et al. 2011). At present, the lack of sufficient number of long-term care beds is a major reason for congestion in many hospitals. This leads to increase in waiting time in emergency departments. This is because emergency departments are clogged as patients cannot be shifted towards wards are

clogged by patients who are looking for long-term care because of lack of beds in long-term care department (Patrick 2011). Appointment scheduling

One of the major challenges for appointment schedulers is no-shows. No-show adversely affects productivity and overall cost. Cayirli et al. (2012) suggested a dome rule for fixing appointment times while taking care of different interruptions generally experienced in day to day operations of healthcare organizations. LaGanga and Lawrence (2012) came up with an appointment system which could overbook appointment schedules in a way that revenue generated from serving extra patients could balance the negative effects of increased patient waiting time and physician overtime costs. Empirical studies have shown that chances of patient not turning up on his appointment day increase with patient's appointment delay (Liu and Ziya 2014). Later, Zacharias and Pinedo (2014) came up with guidelines on how to use overbooking to mitigate the effect of no-shows. Handling urgent patients is another major challenge for appointment schedulers because they disrupt the regular scheduling, which in turn results in increases waiting time for regular patients. At times, it is not possible to serve urgent patients during scheduled hours, and then, this can result in overtime or urgent patients being referred to other physicians (Dobson et al. 2011). Physician lateness and regular interruptions during service period are another set of challenges for scheduling department in most healthcare organizations. To resolve this issue, Klassen and Yoogalingam (2013) came up with a simulation model which could develop appropriate appointment schedules that could take care of these two issues. This study had two major findings: firstly, duration of appointment slots should be reduced and put later in the session when physician lateness increases, and secondly, increase the

appointment slot duration during mid-portion of the service session in case of interruptions.

- ***Home or personal care scheduling***

The increased lifespan of human beings due to advancements in medical science is posing a major challenge to the scheduling department of healthcare organizations. This is because it has given rise to a large pool of elderly people, most of whom wish to avail medical services at their homes. The personal care demanded by these elderly people is severely constrained by shortage of workforce which needs to be dealt with on two fronts simultaneously, i.e. firstly, more healthcare workers should be trained, and secondly, better scheduling methods are needed to make best use of presently available human resource (Koeleman et al. 2012). Home healthcare services in spite of aforesaid challenges offer a huge benefit in case of long-term treatments. It offers a much cheaper option as compared to treatment at hospitals (Nickel et al. 2012). Many small organizations in Germany are trying to provide planning support for resolving routing and scheduling issues in healthcare services being provided at homes (Nickel et al. 2012). The area of home or personal scheduling is the topic of discussion of future, given the large population of elderly people in our society.

5. Service performance

Performance measurement is one of the most important means to improve performance of any organization. At present, a number of organizations do not have a well-defined plan to improve their performance. One of biggest reasons behind this is the lack of clear understanding of problems existing in the

organization (Elg et al. 2013). It is especially important in healthcare organizations given the fact that the rise in overall cost of hospitals is quite high when compared to improvement in its overall performance (Ding 2014). This makes service performance measurement a very vital area of research among service operations researchers (Ja"askela"inen et al. 2014). Service performance measurement as a term can have three interpretations: It can address the quality aspect of customer service, it can focus on the challenges of using performance measurement practices used in factory settings, and it can address the performance issues related to resources and processes that ultimately deliver the service (Ja"askela"inen et al. 2014). Elg et al. (2013) found six activities that enable improvement in the performance of healthcare organizations: regular follow-up in discussions and meetings, formal distribution of goals, awareness creation, professional effort, and effort made to do better work and report preparation in accordance with the demand of external parties. Some of the commonly used performance measurement tools in healthcare organizations are (Dey et al. 2006). Balanced score card, standardized mortality rate, activity-based costing, and performance measurement questionnaires. A number of researchers have been using standard performance measurement tools innovatively. Santos et al. (2002) proposed a framework which simultaneously used system dynamics and multi-criteria analysis to help managers in performance analysis. Ramanathan (2005) used data envelopment analysis (DEA) to evaluate the relative performance of 20 hospitals in Oman and later used the "Malmquist" productivity index to study the patterns of changes in operational efficiency. Analytic hierarchy process (AHP) was used by Dey et al. (2006) to measure the performance of ICU's of three hospitals by conducting focus group discussions and developed a model to assess performance which could be understood easily and at the same time gave results which were both quantitative and hierarchical.

Even though new and better methodologies are being developed, lot of researchers still only focus on structure and output but do not focus on outcome which is the real measure of any organization's performance (Amado and Dyson 2008). Major research methodologies used in research papers selected in the domain of performance measurement are based on qualitative, empirical, and theoretical/conceptual techniques.

6. Other elements

This section consists of five themes, i.e. value co creation, frontline employees, servicescape, network view, and customer satisfaction. These are those elements which individually contributed 10 research papers in the literature review.

- ***Value co-creation***

The research community feels that customers have mostly played a passive role in creation of new services (Nambisan 2002). A number of services are performed in the presence of a customer, and if service is designed appropriately, then there is an opportunity of using the customer as a co producer which can potentially increase the overall productivity of the organization. Involving customers in actual operations can become a medium to reduce cost if the customers are interested in serving themselves (Fitzsimmons and Fitzsimmons 2006). McColl-Kennedy et al. (2012) identified five practice styles of customer value co creation: team management, pragmatic adapting, insular control, partnering, and passive compliance; out of these five practice styles, team management along with partnering are associated with better quality of life and hence they can be of prime focus for managers.

Healthcare research is certainly favoring value co creation (i.e. patients can play an active role when medical care services are being provided to them) (Badcott 2005). A positive effect of value co-creation is that it has the potential to increase adherence in patients which in turn can improve clinical performance for healthcare organizations and lowers total cost incurred (Elg et al. 2012). In spite of all these benefits, healthcare organizations are only partially involving patients during development of new services (Elg et al. 2012). This provides a definite impetus for healthcare organizations to design their services in a way that can benefit from value co-creation. Research methodologies being used by papers selected in the domain of value co-creation are based on empirical and qualitative techniques.

- ***Frontline employees***

Healthcare organizations are high-contact service organizations; hence, encounter between patient and staffs carries a lot of importance. Customers tend to gauge quality of services to be provided based on their experience with frontline employees during their service encounter (Goldstein 2003), i.e. frontline employees act like the mirrors of the organization. The perceptions created by frontline employees on customers spill over to other aspects of entire service process (Dagger et al. 2013). In addition, frontline employees hold the key to stop reoccurrence of certain commonly encountered failures (Tucker 2004). Management by walking around (MBWA) technique is being used by hospitals to improve performance of frontline employees. In this technique, managers keep a watch over frontline employees and resolve their problems right on their workstations. In this respect, Tucker and Singer (2015) found that mere

physical presence of senior managers on organization's frontlines did not help until it enabled real problem-solving. A major drawback of using this method of managerial control Review of Literature is that if managers are not able to resolve undertaken issues, then it negatively impacts the psyche of frontline employees (Tucker and Singer 2015). Research methodologies used in papers selected in the domain of frontline employees are based on empirical and qualitative techniques.

- ***Customers satisfaction***

One of the major goals of service organizations is to have satisfied customers. Past researchers have long been with the view that service satisfaction and quality leads organization towards huge gains in the form of customer loyalty, willingness to pay more, word of mouth, and increased chances of repeat purchase (Mittal and Kamakura 2001), and this ultimately leads to higher return on investment and bigger market share. One very important aspect of patient satisfaction is behavior of physicians, and it has been seen to have more influence on overall satisfaction of patients than the technical expertise of physicians (Berry and Bendapudi 2007).

Customers access the service organization via two means, i.e. with the help of net outcome for customers from the service provided and with the help of process used to deliver a given service. A number of studies have reported that overall satisfaction with a given service is dependent on some specific aspects of the service or product (Malthouse et al. 2004). In healthcare setting, patients may link their level of satisfaction based on certain specific aspects of the service provided such as price, some specific service attribute, quality of interaction with frontline employees, and other such aspects of medical service (Malthouse et al. 2004). Overall satisfaction

of customer seeking healthcare services has two components: first, cost component, and secondly, quality component. Extra care must be taken during service design because on a macro-level, importance of each parameter of customer satisfaction is different in different markets, and on micro-level, predictors of overall service satisfaction may be different even for each sub-unit of a healthcare organization (Malthouse et al. 2004). The customer satisfaction factors in case of negative services are very different from those in case of nonnegative services and service design should consider it (Miller et al. 2009). Impact of culture on how customer assesses service encounters is an area where still much more work needs to be done. It is especially important given that a huge proportion of empirical research in the area has been done in the USA (Frazer Winsted 2000). Cross-cultural studies on service encounters carry a lot of importance for firms that either operates in more than one country or has customers visiting from all over the world. Research in the domain of customer satisfaction predominantly is based on empirical techniques.

- ***Servicescape***

Servicescape is the physical environment of the service facility. It is designed in congruence with service concept of the organization as it influences the behavior of employees and customers (Parish et al. 2008). The various elements of servicescape have the potential to positively affect employees by reducing their job stress, increasing their job satisfaction, and increasing their commitment to the organization (Parish et al. 2008). In high-contact service like healthcare, the mood of the employees affects the service experience of customers (Parish et al. 2008). The service experience of patients based on human relationship leads to patient satisfaction, and

service climate plays a mediating Review of Literature between employee's climate orientation and satisfaction level of patients (Ancarani et al. 2011). In healthcare services, production and consumption of services being provided occurs simultaneously and hence the physical environment (servicescape) of the service facility plays a big Review of Literature in determining the overall service experience of patients (Bitner 1990; Bitner et al. 2014). The physical environment of healthcare organizations must facilitate interaction between service provider and customer in way that it displays authority and competence (Fitzsimmons and Fitzsimmons 2006). Research in the domain of servicescape dominantly is based on empirical techniques.

- ***Network view***

Network has always been considered as one of the sources of bringing in changes. Papadopoulos et al. (2011) showed by using actor–network theory as a theoretical lens how the dynamic network underpins socio-economic changes in a complex organization setting like in the case of United Kingdom's National Health Service trust (here, the organization was trying to promote change by introducing lean thinking). This paper tries to explore various dynamics involved in emergence of networks. Research in the domain of network view dominantly uses is based on empirical techniques.

3.2. REVIEW OF LITERATURE BY ARTICLE & REPORTS

The Consumer Assessment of Healthcare Providers and Systems (CAHPS) is one of the tools applied for measuring patient satisfaction with quality of care.

According to Agency for Healthcare Research and Quality (2009), CAHPS is an internationally validated tool to be anchored on a specific episode of contact between the patient and healthcare professional. CAHPS focuses on assessing the actual experience of patients during care process instead of measuring patient's perception. As per the CAHPS Methodology, patients are asked to indicate if they receive any specific quality of care.

3.3. REVIEW OF LITERATURE BY CONFERENCE PROCEEDINGS

(Ali. M.), conducted a field study at out- patient department with two hundred and forty six patients at Ayub Teaching Hospital Pakistan, to evaluate the correlation between service quality dimensions and overall service quality and patient's satisfaction. The results revealed that the customer's perceptions did not exceed their expectations. Responsiveness and empathy had a positive response while factors reliability, tangibility and assurance showed a huge gap and found that patients were dissatisfied on these dimensions. Specifically, patients were satisfied with the response and were appreciative on effective services and attention paid to patients.

(Raj A), observed that most patients prefer private hospitals. The authors concluded, that knowledge and education of doctors, expertise, precision and personal touch, convenience, timings, nursing, environment and cleanliness across both type of hospitals were satisfying the customers. Treatment outcome had a major while cost had the least influence on patient's satisfaction. Therefore the service providers needed to be more conscious of amenities which satisfy the patients in order to have a positive impact on the recovery of patients.

3.4. REVIEW OF LITERATURE BY JOURNALS

- **(Rahman R, 2013)**, attempted to identify the satisfaction of patients from ten private hospitals in the city of Dhaka. He concluded that patients were highly satisfied with assurance and neutral with communication, responsiveness and empathy and were satisfied by the balance quality dimensions. The maximum impact on customer satisfaction was through reliability followed by responsiveness and empathy while cost was the least. Hence quality dimension need to be managed well at private hospitals
- **(Thangaraj B, 2016)**, reported that that priority to private corporate hospitals was given as they were better equipped with modern technology. The other parameters ranked for the preference was quality, followed by responsiveness and infrastructure which was described in the research paper titled —A study on patient's perception towards service quality of private hospitals in Coimbatore city.
- **(Dave, 2014)**, examined the factors for choice of any hospital and the satisfaction and loyalty of customers in the city of Vadodara and concluded that perception plays an important part in service quality. Primarily, family influenced the choice of hospitals. The following criterion played an important part in the choices, which were reputation of the hospitals, additional facilities, knowledge of doctors and proximity to the house. 61% patients showed loyalty to the hospitals and were keen on referral.

4. RESEARCH METHODOLOGY

Fundamental to the success of any formal marketing research project is a sound research design. A good research design has the characteristics of problem definition, specific methods of data collection and analysis, time required for research project and estimate of expenses to be incurred. The function of a research design is to ensure that the required data are collected accurately and economically. A research design is purely and simply the framework or plan for an analysis of data. It is a blue print that is followed in completing a study. It resembles the architect's blue-print (map) for constructing a house. It may be worthwhile to mention here that a research design is nothing more than the framework for the study ensures that the study will be relevant to the problem and the study will employ economical procedures.

Claire seltizetal defines Research Design as “Research design is a catalogue of the phases and facts relating to the formulation of a research effort. It is the arrangement of collection and analysis of data in a manner that aims to combine relevant to the research purpose with economy in procedure”.

Three important about research design are

1. The design of investigation should stem from the problem
2. Whether the designs are productive in a given problem setting depends on how imaginatively they are applied. An understanding of the basic design is needed so that they can be modified to suit specific purpose
3. The three basic design are as follows
 - i. Exploratory Research design
 - ii. Descriptive Research design
 - iii. Casual Research design

The Research design used in the study is descriptive research design

4.1. RESEARCH DESIGN

Descriptive research design is also called explanatory design. This is the one that simply describes something such as demographic characteristics. The descriptive study is typically concerned with determining frequency with which something occurs or how two variables vary together.

4.2. SAMPLE SIZE

It refers to the number of elements of the population to sample. The sample size chosen for the survey is 120.

4.3. DATA SOURCES

After identifying and defining the research problem and determining specific information required to solve the problem, the researcher's task is to look the type and sources of data which may yield the desired results. Data sources are of two types through which data is collected.

Data sources may be classified as

1. Primary data
2. Secondary data

4.3.1. PRIMARY DATA

Primary data is the original data collected by the researcher first hand. It is collected for the first time through field survey. These are those that are gathered specifically, for the problem at hand. The various sources for collecting primary data are questionnaire, observation, interview etc. The primary source used for the study is questionnaire.

4.3.2. SECONDARY DATA

Secondary data is the information which is already available in published or unpublished form. When the needed information is collected from the census of population available in a library means then it is a secondary data. It is also used for collecting historical data. The various sources of secondary data are books, periodicals, journals, directories, magazines, statistical data sources etc. The secondary source used for this study is company profile, scope, need, review of literature.

4.4. RESEARCH INSTRUMENTS

Research instrument are the instruments which is used for gathering or collecting information. The instruments used in the study are

1. Direct questions
2. Close end questions
3. Multiple choice questions

4.4.1. DIRECT QUESTIONS

Direct questions are just what their names indicate. They explicitly ask for the desired data. However the directness of the question also relates to the way a response is interpreted.

4.4.2. CLOSE END QUESTIONS

Such questions are also called fixed alternative questions they refer to those questions in which the respondent is given a limited number of alternative response frame which he/she is to select one that most closely matches his/her opinion or attitude.

4.4.3. MULTIPLE CHOICE QUESTIONS

A multiple choice question refers to one which provides several set alternatives for its answers. Thus, it is a middle ground between free answers and dichotomous question.

4.5. SAMPLING

Collecting data about each and every unit of the population is called census method. The approach, where only a few units of population under study are considered for analysis is called sampling method. There are two main categories under which various sampling method can be put.

The two categories are

1. Probability sampling
2. Non-probability sampling

The sampling method adopted for the study is convenience sampling under non-probability sampling.

4.5.1. NON-PROBABILITY SAMPLING

In non-probability sampling, the chance of any particular unit in the population being selected is unknown, since randomness is not involved in the selection process. But this does not mean that the findings obtained from non-probability sampling are of questionable value. If properly conducted their findings can be accurate as those obtained from probability sampling. The three frequencies used non-probability designs are

1. Judgment sampling
2. Convenience sampling
3. Quota sampling

4.5.1.1. CONVENIENCE SAMPLING:

In this method, the sample units are chosen primarily on the basis of the convenience to the investigator. The units selected may be each person who comes across the investigator.

4.6. SAMPLE FRAME:

A Sample frame may be defined as the listing of the general components of the individual units that comprise the defined population.

4.7. SAMPLE DESIGN

Sample design is the theoretical basis and the practice means by generalizing from characteristics of relatively few of the comprising population. It is the method by which the sample is chosen.

4.8. ANALYTICAL TOOLS

4.8.1. PERCENTAGES

Percentages refer to a special kind of ratio. Percentages are used in making comparison between two or more series of data. Percentages are used to describe relationships, it is expressed as.

$$\text{Percentage} = (\text{no of employees} / \text{total no of employees}) 100$$

4.8.2. CHARTS:

Charts are graphic displays of data for easy understanding of relative positions that is not always possible with descriptive words or numbers. Types of charts commonly used in business data presentation are: Bar and pie.

4.8.2.1. BAR CHARTS:

The bar chart is commonly used for presentation of qualitative data. The data can be continuous or discrete data, which are plotted against discrete data intervals. The vertical bar diagram, also called bar chart where the length or height of bars represent the numerical value of the event or measurement. Width or gap between

the bars is of no significance to the bar chart data, but they are uniform in a diagram.

4.9. HYPOTHEIS

- The patients/customers prefer hospitals with good service on affordable prices
- People believe private hospitals are more comfortable than government hospitals. This becomes biggest advantage of private hospitals.

5. DATA ANALYSIS AND INFERENCE

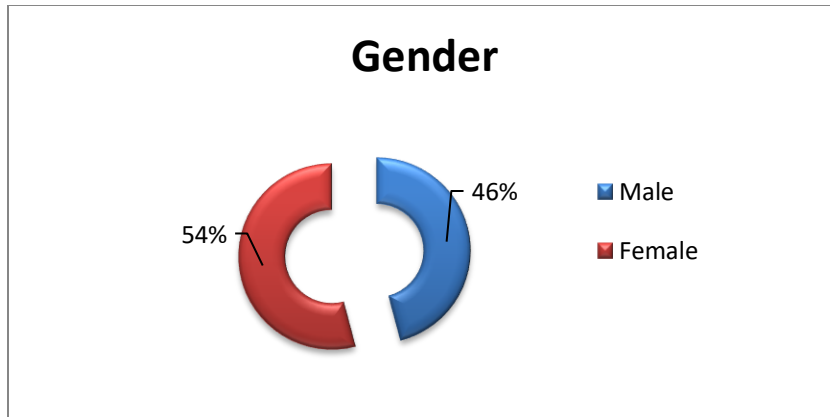
5.1. PERCENTAGE ANALYSIS (Source: Primary Data)

Information:
TOTAL = 122
PERCENTAGE = 100%

5.1.1. Table of Gender of the respondents

S. No	Gender	No. of Respondents	Percentage
1.	Male	56	46
2.	Female	66	54

5.1.1. Chart of Gender of the respondents

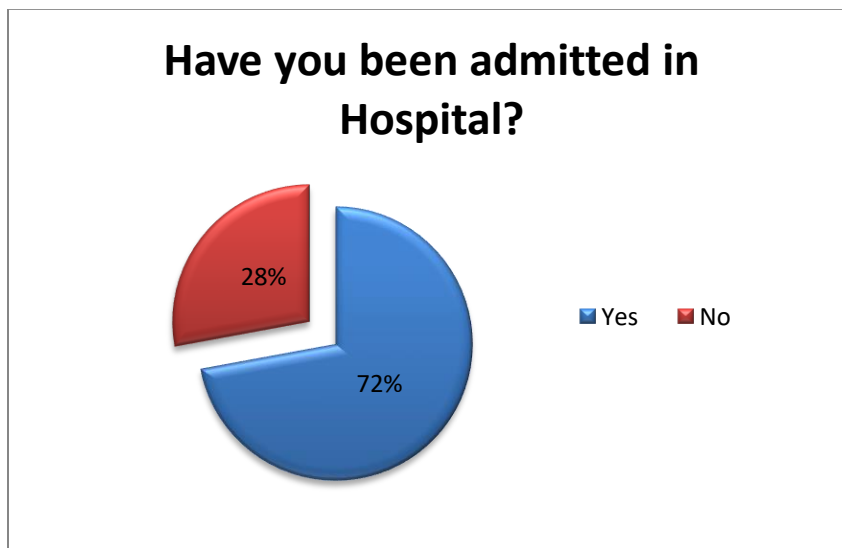


Inference: Majority (54%) of the respondents are Female.

5.1.2. Table of respondents who has been admitted in hospital

	Yes	No
No. of respondents	88	34
Percentage	72.1	27.9

5.1.2. Chart of respondents who has been admitted in hospital



INFERENCE: Majority (72%) have been admitted in hospitals

5.1.3. Table of respondents who visits doctor/ hospitals on regular basis

(O – Often, A – Always, S – Sometimes, R – Rarely, N – Never)

Factors	O	%	A	%	S	%	R	%	N	%
Respondents	8	6.6	9	7.4	54	44.3	46	37.7	5	4.1

5.1.3. Chart of respondents who visits doctor/ hospitals on regular basis



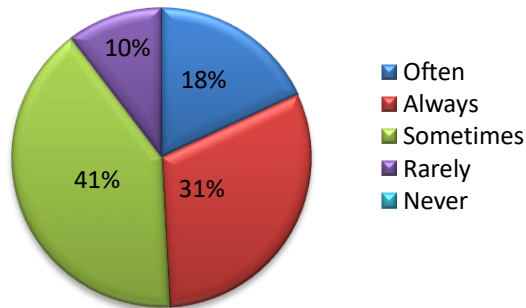
Inference: Majority of the respondents (44%) sometimes visits the doctor/ hospitals

5.1.4. Table of respondents who visit the same Doctor/ Hospital again

Factors	O	%	A	%	S	%	R	%	N	%
Respondents	21	17.2	36	29.5	47	38.5	12	9.8	6	4.9

5.1.4. Chart of respondents who visit the same Doctor/ Hospital again

Do you visit the same Doctor/ Hospital again when you get sick?



Inference: Majority of the respondents (41%) sometimes visit the same Doctor/ Hospital again

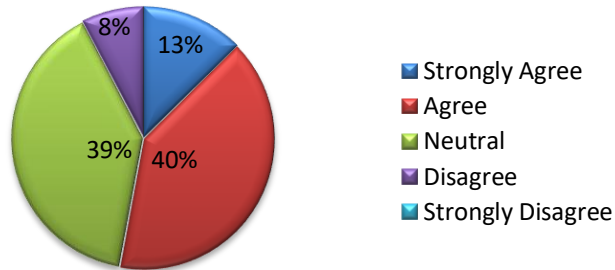
5.1.5. Table of respondent's perspective on Hospitals provide good treatment for the money

S.A – Strongly Agree, A – Agree, N – Neutral, DA – Disagree, S.DA – Strongly Disagree

Factors	S.A	%	A	%	N	%	DA	%	S.DA	%
Respondents	15	12.3	48	39.3	47	38.5	9	7.4	3	2.5

5.1.5. Chart of respondent's perspective on Hospitals provide good treatment for the money

Do Hospitals provide good treatment for the money?



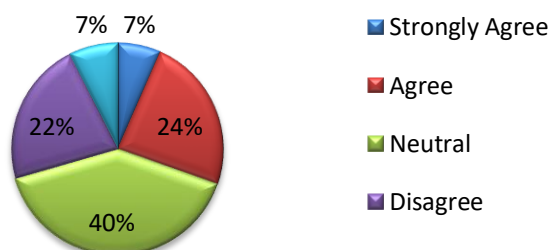
Inference: Majority of the respondents (40%) agrees that Hospitals provide good treatment for the money

5.1.5. Table of respondent's perspective on Treatment provided by the Hospital is affordable or not

Factors	S.A	%	A	%	N	%	DA	%	S.DA	%
Respondents	8	6.6	29	23.8	49	40.2	27	22.1	9	7.4

5.1.5. Chart of respondent's perspective on Treatment provided by the Hospital is affordable or not

Do you think people are able to afford the Treatment provided by the Hospital?

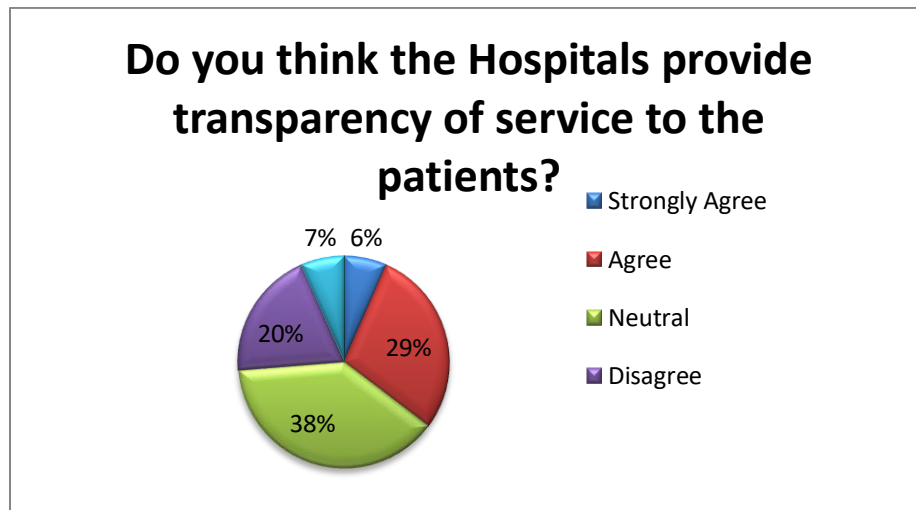


Inference: Majority of the respondents (40%) are neutral and they are not sure that the treatment is affordable or not

5.1.6. Table of respondent's perspective on transparency of service to the patients provided by the hospitals

Factors	S.A	%	A	%	N	%	DA	%	S.DA	%
Respondents	8	6.6	35	28.7	47	38.5	24	19.7	8	6.6

5.1.6. Chart of respondent's perspective on transparency of service to the patients provided by the hospitals

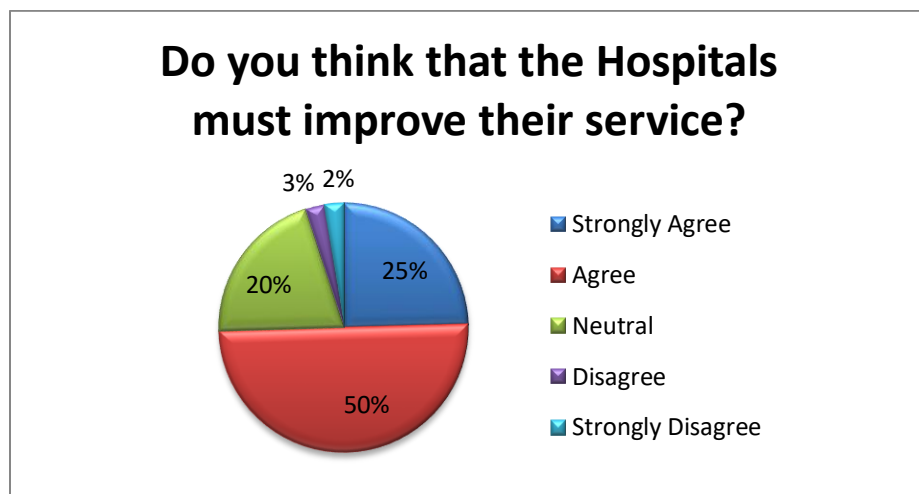


Inference: Majority of the respondents (38%) are neutral and they are not sure of the transparency of service provided by hospitals

5.1.7. Table of respondent's perspective on that the Hospitals must improve their service

Factors	S.A	%	A	%	N	%	DA	%	S.DA	%
Respondents	30	24.6	61	50	25	20.5	3	2.5	3	2.5

5.1.7. Chart of respondent's perspective on that the Hospitals must improve their service



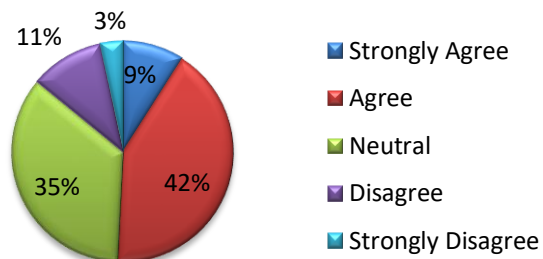
Inference: Majority of the respondents (50%) agrees that the Hospitals must improve their service

5.1.8. Table of respondent's perspective on does the necessary medical supplies readily available in hospitals

Factors	S.A	%	A	%	N	%	DA	%	S.DA	%
Respondents	11	9	51	41.8	43	35.2	13	10.7	4	3.3

5.1.8. Chart of respondent's perspective on does the necessary medical supplies readily available in hospitals

Do Hospitals have the necessary medical supplies readily available?



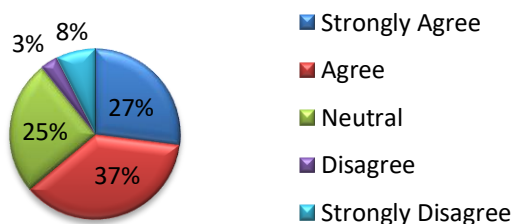
Inference: Majority of the respondents (42%) agrees that hospitals have the necessary medical supplies readily available

5.1.9. Table of People's Preference

Factors	S.A	%	A	%	N	%	DA	%	S.DA	%
Respondents	33	27	45	36.9	31	25.4	4	3.3	9	7.4

5.1.9. Chart of People's Preference

Do you agree that people prefer Private Hospitals even if the service fee is high?

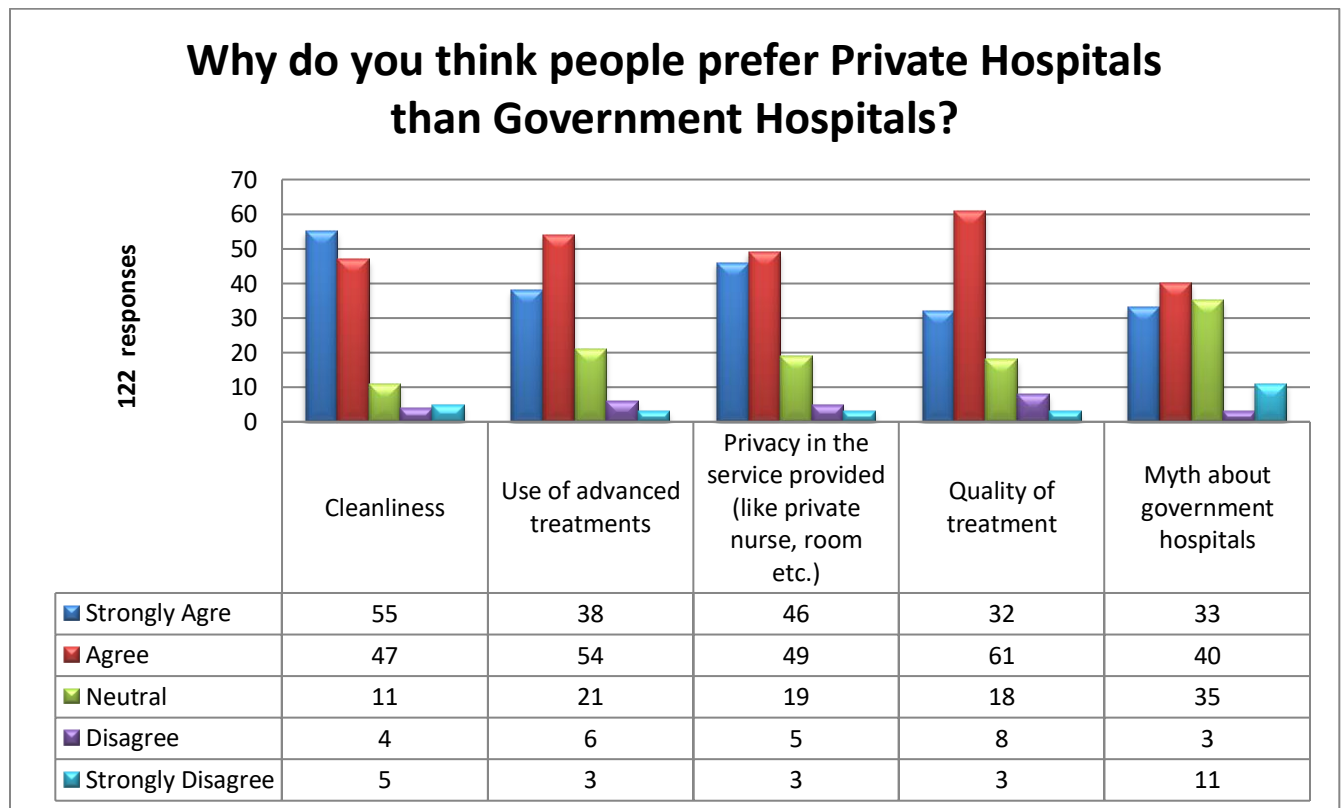


Inference: Majority of the respondents agrees that people prefer Private Hospitals even though the service fee is high

5.1.10. Table on the reason of people's preference

Factors	SA	%	A	%	N	%	DA	%	SDA	%
Cleanliness	55	66	47	56.4	11	13.2	4	4.8	5	6
Use of advanced treatments	38	45.6	54	64.8	21	25.2	6	7.2	3	3.6
Privacy in the service provided (like private nurse, room etc.)	46	55.2	49	58.8	19	22.8	5	6	3	3.6
Quality of treatment	32	38.4	61	73.2	18	21.6	8	9.6	3	3.6
Myth about government hospitals	33	39.6	40	48	35	42	3	3.6	11	13.2

5.1.10. Chart on the reason of people's preference



Inference:

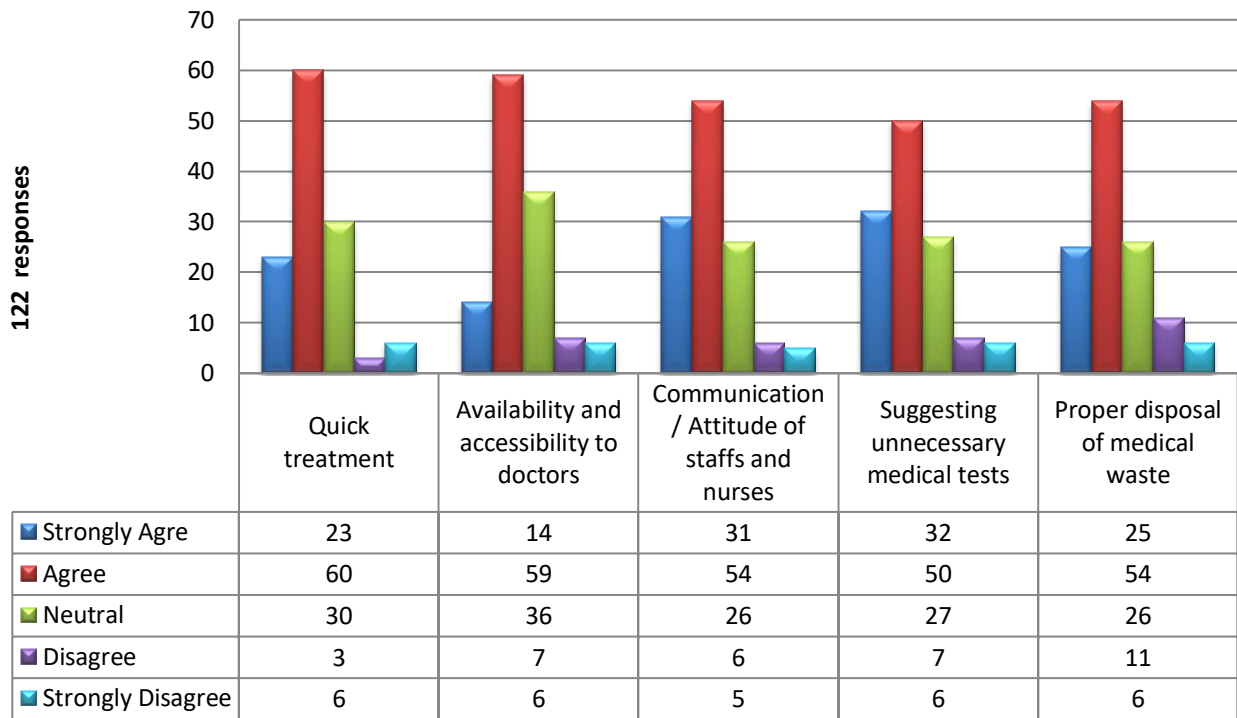
- i. Majority (55) strongly agrees that people prefer private hospitals due to cleanliness**
- ii. Majority (54) agrees that people prefer private hospitals due to use of advanced treatments**
- iii. Majority (49) agrees that people prefer private hospitals due to privacy in the service**
- iv. Majority (40) agrees that people prefer private hospitals due to myth about government hospitals**

5.1.11. Table on Service to be improved by Hospitals

Factors	SA	%	A	%	N	%	DA	%	SDA	%
Quick treatment	23	27.6	60	72	30	36	3	3.6	6	7.2
Availability and accessibility to doctors	14	16.8	59	70.8	36	43.2	7	8.4	6	7.2
Communication / Attitude of staffs and nurses	31	37.2	54	64.8	25	31.2	6	7.2	5	6
Suggesting unnecessary medical tests	32	38.4	50	60	27	32.4	7	8.4	6	7.2
Proper disposal of medical waste	25	30	54	64.8	26	31.2	11	13.2	6	7.2

5.1.11. Chart on Service to be improved by Hospitals

What do you think that Hospitals lack in their service?



Inference:

- i. Majority (60) agrees that hospitals should improve on quick treatment
- ii. Majority (59) agrees that hospitals should improve on the availability and accessibility to doctors
- iii. Majority (54) agrees that hospitals should improve on Communication / Attitude of staffs and nurses
- iv. Majority (50) agrees that hospitals should improve on the suggestion of unnecessary tests
- v. Majority (54) agrees that hospitals should improve on the disposal of waste

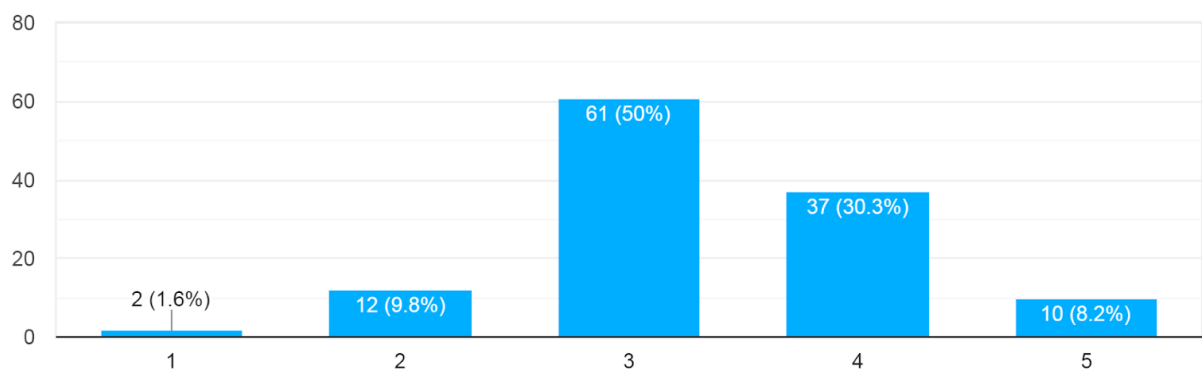
5.1.12. Table on rating of Hospitality/ Ambience in Hospitals

Rating Scale	1	%	2	%	3	%	4	%	5	%
Respondents	2	1.6	12	9.8	61	50	37	30.3	10	8.2

5.1.12. Chart on rating of Hospitality/ Ambience in Hospitals

On a scale what will be your rating for the Hospitality/ Ambience in Hospitals?

122 responses



Inference: The rating of the Hospitality/ Ambience of Hospitals is 3

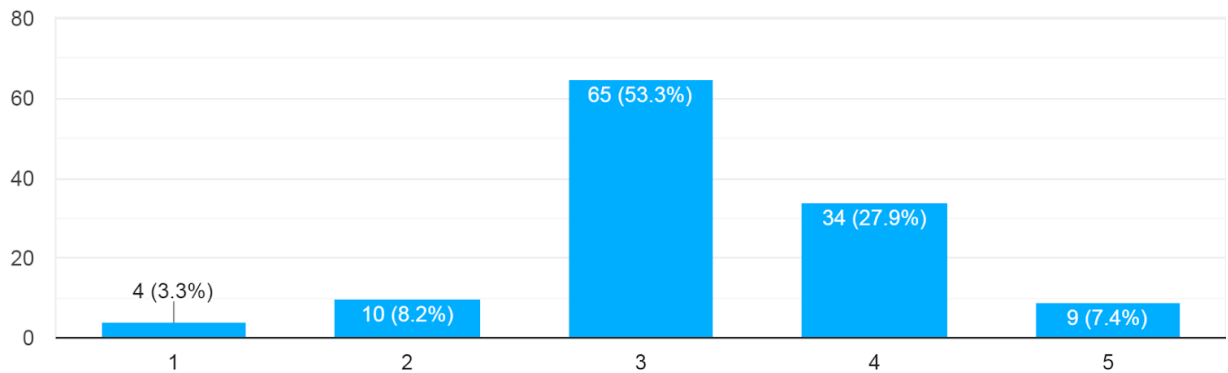
5.1.12. Table on rating on Quality of services provided by Hospitals

Rating Scale	1	%	2	%	3	%	4	%	5	%
Respondents	4	3.3	10	8.2	65	53.3	34	27.9	9	7.4

5.1.12. Chart on rating on Quality of services provided by Hospitals

On a scale what will be your rating for the Quality of services provided by Hospitals?

122 responses



Inference: The rating on Quality of services provided by Hospitals is 3

6. FINDINGS, SUGGESTIONS AND CONCLUSION

6.1. FINDINGS

- Majority (54%) of the respondents are Female.
- Majority (72%) have been admitted in hospitals
- Majority of the respondents (44%) sometimes visits the doctor/ hospitals
- Majority of the respondents (41%) sometimes visit the same Doctor/ Hospital again
- Majority of the respondents (40%) agrees that Hospitals provide good treatment for the money
- Majority of the respondents (40%) are neutral and they are not sure that the treatment is affordable or not
- Majority of the respondents (38%) are neutral and they are not sure of the transparency of service provided by hospitals
- Majority of the respondents (50%) agrees that the Hospitals must improve their service

- Majority of the respondents (42%) agrees that hospitals have the necessary medical supplies readily available
- Majority of the respondents agrees that people prefer Private Hospitals even though the service fee is high
- Majority (55) strongly agrees that people prefer private hospitals due to cleanliness
- Majority (54) agrees that people prefer private hospitals due to use of advanced treatments
- Majority (49) agrees that people prefer private hospitals due to privacy in the service
- Majority (40) agrees that people prefer private hospitals due to myth about government hospitals
- Majority (60) agrees that hospitals should improve on quick treatment
- Majority (59) agrees that hospitals should improve on the availability and accessibility to doctors
- Majority (54) agrees that hospitals should improve on Communication / Attitude of staffs and nurses
- Majority (50) agrees that hospitals should improve on the suggestion of unnecessary tests
- Majority (54) agrees that hospitals should improve on the disposal of waste
- The rating of the Hospitality/ Ambience of Hospitals is 3
- The rating on Quality of services provided by Hospitals is 3

6.2. SUGGESTIONS

- People visit hospitals in their unable times, especially when they are both physically and mentally weak, so it is their duty to comfort them with their service.

- Government hospitals should improve their service and their hospitality so that all people can get effective treatment.
- Healthcare must be seen as service, not business
- People should be aware of their treatments given to them and not blindly accept to any unnecessary treatments suggested.

6.3. LIMITATIONS OF THE STUDY

For anything there should be some limitations like that my project also have certain limitations. The following are some limitations what I faced:

- The data couldn't be collected from people who doesn't have a smart phone as the form was circulated online
- Time is one major constraint, which limits the effective data collection.
- The sample size is only 120 so the sample may not be truly representative of the total population.
- The information provided by majority of the respondents could also be biased or inaccurate. No independent verification of the data was possible.
- Reliability and accuracy of the analysis depends on the respondents' openness and trueness towards each question in the questionnaire.

6.4. CONCLUSION

The operation of healthcare is essential for an effective service which is to be provided seamlessly. The study gives insights and understands the workload of healthcare industry.

People and hospitals are mutually independent to each other. The people should be aware of the treatment and must have knowledge about it. People trust hospitals and doctors, it their duty to maintain the trust level of people towards them.

The doctors and hospitals are working tirelessly to cure the sick. They must be treated with respect and they must also treat their patients with the same respect. Service must be first priority than to earn money. All wealth can be enjoyed only if there is wealth.

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ANNEXURES

QUESTIONNAIRE

1. Gender:

- a) Male b) female

2. Age

- a) Less than 25
b) 26-40
c) 41-60
d) More than 60

3. Have you been admitted in hospital?

Yes	No
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4. How often you visit a doctor/ hospital?

Often	Always	Sometimes	Rarely	Never
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5. Do you visit the same doctor/hospital again when you get sick?

Often	Always	Sometimes	Rarely	Never
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6. Do hospitals provide good treatment for the money?

Strongly Agree	Agree	Neutral	Disagree	S. Disagree
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7. Do you think people are able to afford the treatment provided by the hospital?

Strongly Agree	Agree	Neutral	Disagree	S. Disagree
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8. Do you think the hospitals provide transparency of service to the patients?

Strongly Agree	Agree	Neutral	Disagree	S. Disagree
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9. Do you think that the hospitals must improve their service?

Strongly Agree	Agree	Neutral	Disagree	S. Disagree
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10. Do hospitals have the necessary medical supplies readily available?

Strongly Agree	Agree	Neutral	Disagree	S. Disagree
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11. Do you agree that people prefer private hospitals even if the service fee is high?

Strongly Agree	Agree	Neutral	Disagree	S. Disagree
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12. Why do you think people prefer private hospitals than government hospitals?

- i. Cleanliness
- ii. Use of advanced treatments
- iii. Privacy in the service provided (like private nurse, room etc.)
- iv. Quality of treatment
- v. Myth about government hospitals

Strongly Agree	Agree	Neutral	Disagree	S. Disagree

13.What do you think that hospitals lack in their service?

- i. Quick treatment
- ii. Availability and accessibility to doctors
- iii. Communication / Attitude of staffs and nurses
- iv. Suggesting unnecessary medical tests
- v. Proper disposal of medical waste

Strongly Agree	Agree	Neutral	Disagree	S. Disagree

14.What will be your rating for the hospitality/ Ambience in hospitals?

1	2	3	4	5
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(lowest)

(highest)

15.What will be your rating for the quality of services provided by hospitals?

1	2	3	4	5
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(lowest)

(highest)

16.Did you feel that the healthcare staff understood your needs and concerns

Strongly agree	agree	neutral	disagree	Strongly disagree
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