

Market Assessment Study for an Upcoming Eye Hospital in Palanpur, Gujarat

By

Aditi Chopra

*Dissertation submitted for the partial fulfillment of the
MBA Hospital and Health Management*

Academic year, 2016-2018



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TO WHOMSOEVER MAY CONCERN

This is to certify that Dr. Aditi Chopra, student of MBA Hospital and Health Management from The IIHMR University, Jaipur has undergone internship training at Hosmac India Pvt. Ltd from February 15th, 2018 to May 9th, 2018.

The Candidate has successfully carried out the study designated to her during internship training and her approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish her all success in all her future endeavors.



Dean, Academics and Student Affairs
The IIHMR University, Jaipur



Professor
The IIHMR University, Jaipur

No. HRD/HIPL/2018

Date: 9th May 2018

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Dr. Aditi Chopra** from The IIHMR University, Jaipur has successfully completed her **Internship Program** from 15th February 2018 to 9th May 2018 as an Intern in our **Management Consultancy Division**.

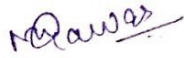
Dr. Aditi Chopra has satisfactorily completed the following project:

1. **Market Assessment Study for an upcoming Eye hospital in Palanpur.**

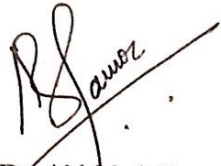
During her stay with our organization her conduct was good and she has worked sincerely on the projects assigned to her. The quality of her project work is extremely high, which has been very useful to our organization.

We wish her a good and bright future.

Yours faithfully,
For Hosmac India Pvt. Ltd.


Manisha Gawas
Asst. Manager- HR




Dr. Abhishek Pawar
Principal Consultant

THE IIHMR UNIVERSITY, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **Market Assessment Study for an upcoming Eye Hospital in Palanpur, Gujarat** and submitted by **Aditi Chopra , MBA-HM21- 0372** under the supervision of Dr. Ranjan Kumar Prusty (Assistant Professor) for award of MBA in Hospital and Health from The IIHMR University, carried out during the period from 15 February 2018 to 4 May, 2018 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other institute or other similar institution of higher learning.



(ADITI CHOPRA)

Signature

Abstract

Setting up of a new hospital is a herculean task mainly because of the financial and the human resources required to achieve this goal. It is, therefore, imperative that proper planning is done before the commencement of the project. It requires a thorough need assessment and a comprehensive preliminary study to ensure that the proposed hospital meets the expectations of the patients and turns out to be a successful venture for the investors. This study was performed at HOSMAC India Pvt. Ltd, Mumbai for a period of 2 months. The client intends to set up a single specialty hospital dedicated to ophthalmology in Palanpur, Gujarat. The objectives of the study included studying the demographic profile of the primary service area along with surrounding catchment areas, studying the Healthcare market of Palanpur and Gujarat with regards to Ophthalmology, performing Key Competitor Profiling and providing Strategic Recommendations for the proposed facility. The study performed is a cross sectional study and both primary and secondary research was used for data collection. Primary data was collected with the help of semi structured questionnaires and personal interviews with consultants and hospital administrators practicing in the primary and secondary catchment area. Simple Random sampling was used to select the respondents. Secondary research was performed using online databases, census and various reports published by government and leading private consultancies. After data analysis, it was realized that Palanpur has a good market for ophthalmology services and lacks in centers providing retina services. It was concluded that a 20-bed hospital dedicated to eye services providing services for cataract, glaucoma, refractive errors and retina would be best suited for the proposed location.

Acknowledgement

Success of any project is never due to an individualistic effort. It requires the active participation of many members to lead to a satisfying conclusion. My dissertation project is no different. First, I would like to thank my parents for their never-ending support and the confidence that they show in me.

I would like to extend my heartfelt gratitude to The IIHMR University for giving me this opportunity to apply our theoretical knowledge in a practical set up, especially, my guide, Dr. Ranjan Kumar Prusty for guiding me at every step.

I would also like to extend a note of thanks to the team at HOSMAC India Pvt. Ltd. for allowing me to be a part of their organization and helping me learn the minute details of market research. I would like to make a special mention of Dr. Vivek Desai, a truly exceptional talent in the field of Hospital Consultancy. Thank you, Sir, for sharing your valuable knowledge about your field of expertise and for giving ample exposure to me which shall be beneficial for me in my future endeavors.

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List of Abbreviations:

CAGR: Compound Annual Growth Rate

INR: Indian National Rupee

NPCB: National Programme for Control of Blindness

MLP: Mid-Level Personnel

GDP: Gross Domestic Product

IT: Information Technology

OPD: Out Patient Department

IPD: In Patient Department

MRD: Medical Records Department

CSSD: Central Sterile and Supply Department

OT: Operation Theatre

RSBY: Rashtriya Swasthya Bima Yojna

MA: Mukhyamantri Amrutam

NH: Narayana Hrudayalaya

1. Introduction

Setting up a new hospital is a herculean task and requires a lot of preparation. It requires a collaborative effort of many people to ensure that the new hospital is a successful venture. This is primarily important since huge financial and human resources are utilized in this effort. It is, therefore, imperative that proper planning is done before the commencement of the project. Many factors like the number of beds, specialties offered, size of the hospital, architectural design and economic feasibility need to be taken into consideration. A vital part in setting up a new hospital is, therefore, played by the team that conducts the market research and feasibility study and determines the best possible facility and bed mix for the new venture.

This study was conducted at HOSMAC India Pvt. Ltd., Mumbai and is aimed at conducting a market assessment for an upcoming hospital in Palanpur. A client approached HOSMAC India Pvt. Ltd. with the intention of starting a single specialty hospital in Palanpur offering eye services. It is to be noted that the client already owns an operational multispecialty hospital in Palanpur and the proposed hospital will be located exactly opposite to the running hospital on a plot area of 6000 square foot owned by the client. Certain non-clinical facilities will be shared by the two facilities. The client wishes to know the Ophthalmology market scenario in Palanpur and thus determine the economic and financial feasibility of the project.

1.1 Aim: The aim of this study is to assess whether a specialized eye hospital will be commercially viable in the proposed location and what would be the ideal service mix for the same.

1.2 Objectives: The following objectives were kept in mind while conducting the study:

- To understand the socio-economic profile of the potential catchment area and health needs of the population in the primary and secondary catchment area with regards to ophthalmology
- To explore available healthcare facilities and understand potential competitor in the study area
- To analyze the demand- supply gap in the proposed location of the hospital
- To propose an idea for an eye hospital best suited for the proposed location.

1.3 Outline of the Study Performed: The study was performed using both primary and secondary research. Two types of primary survey were conducted: Consultant's survey and Institutional Survey. For secondary research, online database, HOSMAC database, reports of various government and leading private consultancies were referred. The data collected from the above-mentioned methods was analyzed to reach to a conclusion regarding the services to be provided, bed mix and broad estimation of the area required for each service.

1.4 Limitations of the study

- Financial feasibility has not been performed
- Consumers' Survey has not been performed
- The size of the hospital and the service mix is as per the demand of the client
- The feasibility study is pertaining only to the hospital in question and cannot be applied in general

2. Methodology

This study was conducted as a part of the dissertation programme in HOSMAC India Pvt. Ltd. and a visit was conducted to Palanpur, Gujarat, the site of the project. The various methods and materials used are described under the following heads:

2.1 Study Methodology

Research Questions: The following research questions formed the basis of the study:

- Does a demand supply gap exist in Palanpur for Ophthalmology?
- What services should be present in the proposed facility?

Research Design: A cross sectional study design was used for this study.

Duration: 2 months

- Understanding the project needs: 1 week
- Preparation of questionnaire: 1 week
- Secondary Research: 2 weeks
- Primary data collection: 1 week

- Data Analysis: 2 weeks
- Report Writing and Presentation: 1 week

S. No	Task name	Time (in weeks)	15 Feb-21 Feb	22 Feb- 28 Feb	1 Mar- 7 Mar	8 Mar- 14 Mar	15 Mar- 21 Mar	22 Mar- 28 Mar	29 Mar- 4 Apr	5 Apr- 11 Apr
1.	Understanding the project needs	1								
2.	Preparation of Questionnaire	1								
3.	Secondary Research	2								
4.	Primary data collection	1								
5.	Data Analysis	2								
6.	Report Writing and Presentation	1								

Figure 2.1: Gantt Chart for the proposed study

2.2 Data Collection

The study included collection of both primary and the secondary data followed by a comprehensive analysis of the data.

Secondary Data: The sources for collection of secondary data included:

- Online research
- Reports of the leading Market research organizations
- HOSMAC database

Primary Data: Hospital Planning literature usually recommends conducting three surveys for the collection of primary data: consumers' survey, consultants' survey and institutional survey. The survey design used was face to face interviews. In this study two surveys were undertaken:

- Consultants' Survey

- Institutional Survey

The data was collected in terms of the following characteristics:

- Major localities / hospitals within the area with their service-mix
- Broad level tariff and Productivity
- Catchment area
- Stakeholders perception about the lack of specialties
- Paying capacity and insurance penetration in the proposed location.

Data Collection tool used: A semi structured questionnaire containing both open and closed ended questions was used. (Appendix)

Qualitative data: Open ended questions reflecting the stakeholders' perspective about the deficiencies present in the healthcare market and the services available was collected.

Quantitative Data: Closed ended questions regarding the paying capacity of the patients and insurance penetration in the healthcare market categorized into High, medium and Low was collected. Open ended questions regarding the bed occupancy, productivity details, tariff details, and patient drainage was collected.

Sampling Technique: Two staged technique Purposive sampling followed by Systematic Random Sampling was used.

In the first stage, purposive sampling of the consultants related to ophthalmology were chosen and in the second stage, every third consultant was chosen randomly making it systematic random sampling.

3.Review of literature

- Prof. Govind Ram Aggarwal, 2008, in his publication “Project Management in Nepal” studies the viability of a project to satisfy the customer needs and at the same time be a successful venture.
- Philip Laux, MS in his study “Feasibility Studies: The key to Evaluate Expansion Opportunity” states that the hospitals are increasingly turning towards feasibility studies to determine whether they should venture into a new service. This study describes the entire process of feasibility studies.

- NIIR Project Consultancy Services in their report “Medical College & Hospital (500 Beds) - Detailed Project Report, Profile, Business Plan, Trends, Market Research, Survey, Feasibility Study, Investment Opportunities, Cost And Revenue, Plant Economics, Working Capital Requirement, Plant layout” lay out the importance of feasibility studies and also describe the various gaps that need to be addressed while setting up a new medical college with a hospital.
- Nitin Sippy & Shital Naikwade in their research paper “Market Feasibility of an upcoming hospital- Ajmer, Rajasthan” describe the feasibility study conducted for setting up a new multispecialty hospital in the region which included the need gap analysis and proposed facility mix.

4. Results

The results of the study were collected and analyzed using the following methodology:

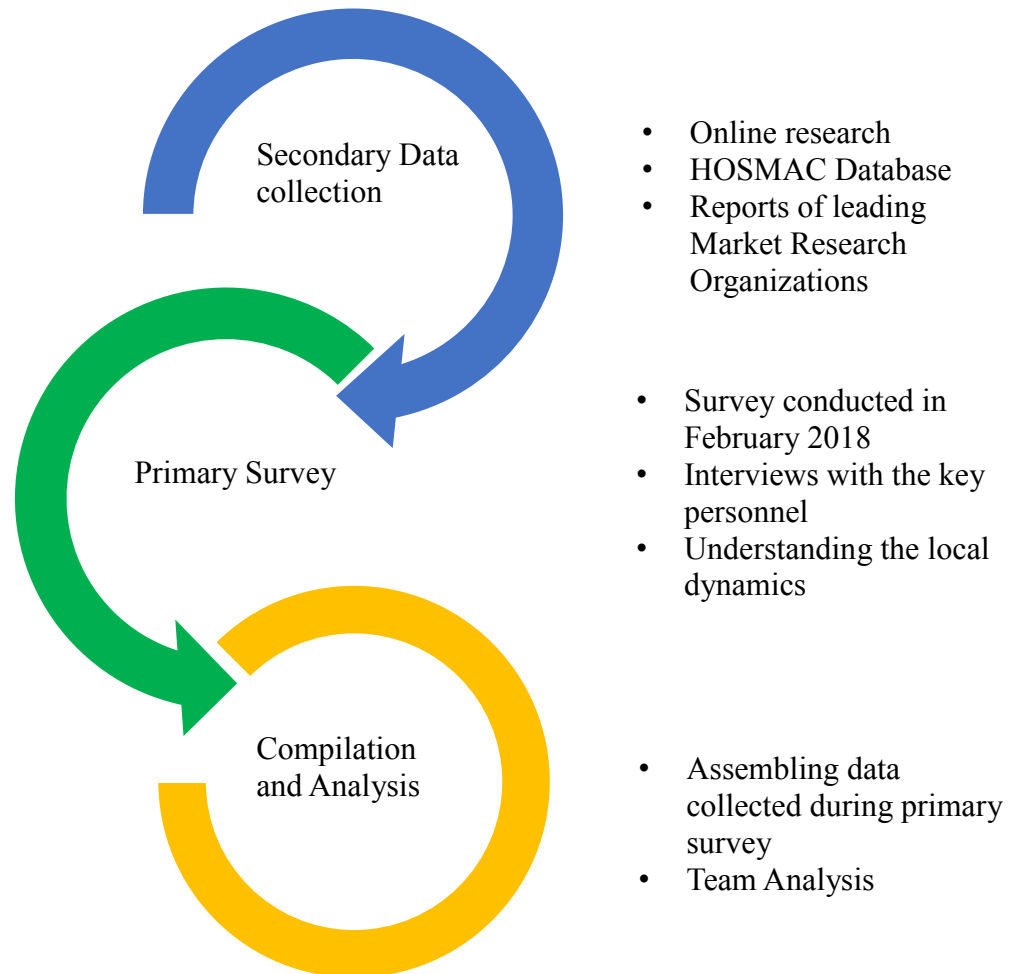


Figure 4.1 Study Methodology

The results of the study will be described in four parts:

- Secondary Research- India
- Secondary Research- Gujarat & Palanpur
- Market Survey Analysis
- Competitor Analysis

4.1 Secondary Research- India

For this study, a comprehensive secondary research was carried out relating to the eye disorders and the market for ophthalmology in India. We shall discuss the secondary research for India under the following heads:

- Ophthalmology Market in India- An Overview
- Causes of Blindness in India
- Prevalence of Eye disorders in India
- Eye Care Service Delivery

4.1.1 Ophthalmology Market in India- An Overview

- India currently has 12 million blind people as opposed to 39 million blind people globally. This means that India is home to one third of the world's blind population.
- The ophthalmology market in India is predicted to grow at a Compound Annual Growth Rate (CAGR) of 6.8, thereby increasing the market from the existing 90 billion INR to 125 billion INR in 2021.
- Organized / Private Eye Care Market is growing at a CAGR of ~22% from INR 27 billion in 2015 to INR 73 billion by 2020.
- India is one the fastest growing economy in the world and has a large unmet need for ophthalmic care.
- The country is home to approximately 30% of the world's blind people, half of which whom are blind from cataracts, and is seeing rising numbers of people with glaucoma or retinal disease as people live longer.
- By 2022, over 145 million Indians will be of age 60 or over.
- In revenue terms, the two largest submarkets are cataract surgery and diagnostic equipment, followed by retina and glaucoma.

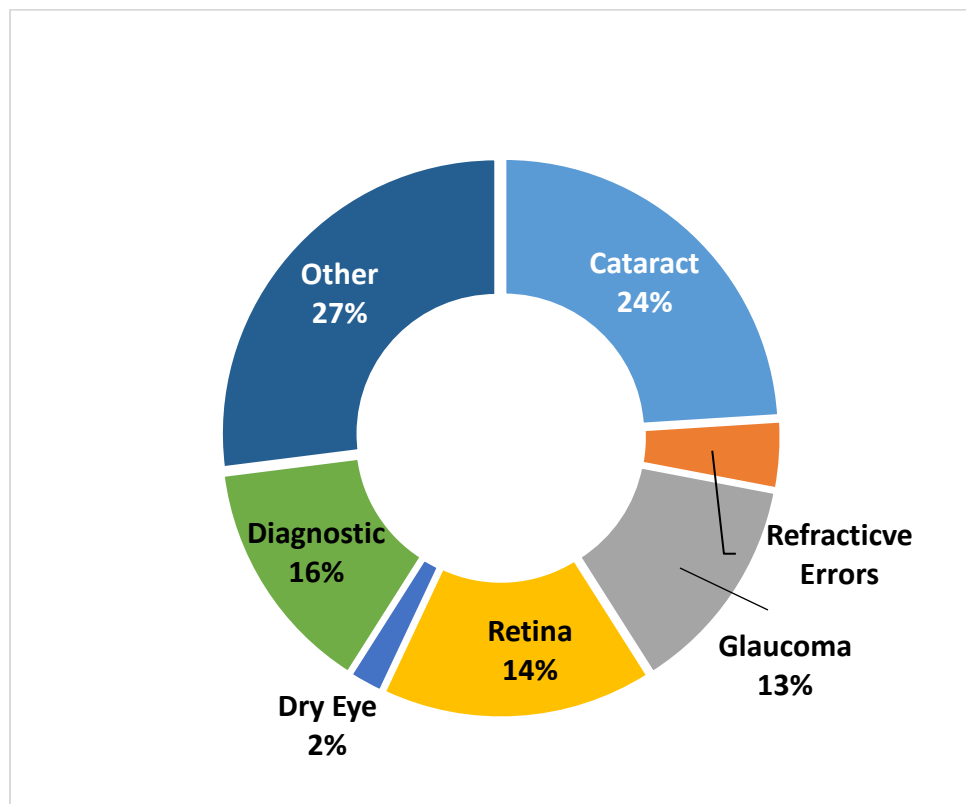


Figure 4.2: Ophthalmology Market in India

4.1.2 Causes of Blindness in India

- India shoulders the largest burden of global blindness wherein cataract and refraction errors remain major causes of blindness, while glaucoma is emerging as the third largest cause known as “silent thief of human sight”
- In India, every year 1 person per 1000 population goes blind due to cataract. There are ~12 million blind people in India with Cataract affecting ~62% of the population.
- According to the National Programme for Control of Blindness (NPCB) estimates, there are currently 12,000 corneal blind persons in the country.
- To the exiting burden, nearly 30,000 corneal blindness cases are added every year
- Beside corneal blindness, 456 million people require vision correction.
- It is worth noting that nearly 80% of the disease burden causing blindness is completely avoidable

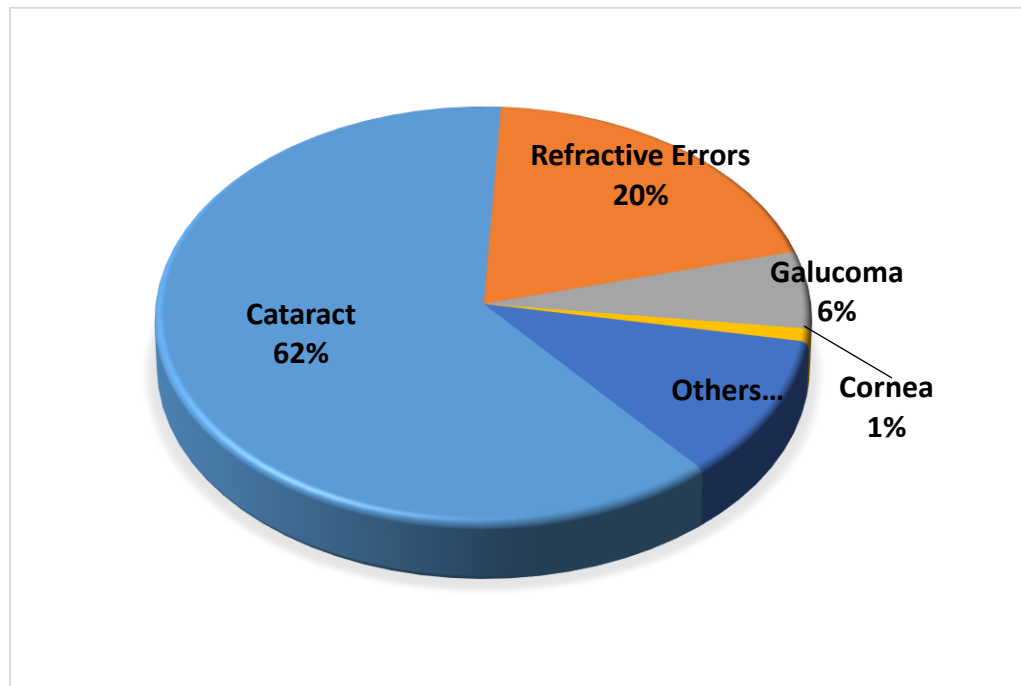


Figure 4.3: Causes of Blindness in India

4.1.3 Prevalence of Eye disorders in India

- It has been estimated that around 70% of the population older than 60 years of age, which constitutes to around 60 -62 million people suffer from cataract.
- Glaucoma affects people aged 40 years and above and affects around 2- 2.5% of the population.
- Refractive errors affect 30-40% of the population while 0.5% of the population is affected by corneal disorders.
- Retina problems can be noticed in 2- 2.5% of the population whereas squint affects 0.4-0.5% of the population.

4.1.4 Eye Care Service Delivery in India

- The distribution of eye hospitals in India is focused predominantly in South and western region.
- Eye hospitals are set up as part of standalone center, chain of hospitals with hub and spoke model or as a unit / department in a multispecialty hospital.
- India has approximately 1300 Eye hospitals including the major chains wherein most of the major hospitals are present in urban belt.

- Some of the major Eye hospitals / chains in India are Sankara Nethralaya, Aravind Eye Hospitals, L.V. Prasad Eye Institute, Vasan Eye Care, Shroff Eye hospital, Dr. Agarwal's Eye Hospitals, etc.
- While there are many eye hospitals in urban India, primary eye care is not well-established in rural parts of the country.
- There is a huge disparity in eye care service delivery in India; nearly 80% of the ophthalmologists are clustered in urban areas, where only 24% of the population resides.
- Though the secondary and tertiary eye care facilities have come up in tier – I and II cities, there is still a vacuum in rural India due to the lack of organized primary eye care services.

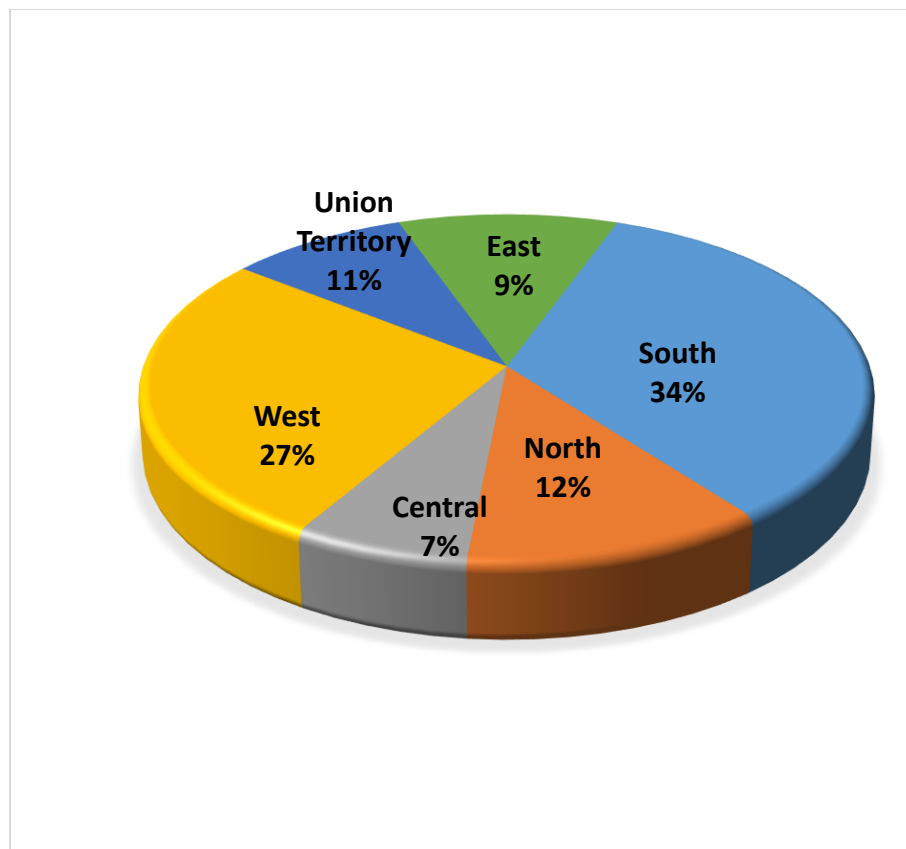


Figure 4.4: Distribution of Eye Services

- About 65% of surgical performance in the country; mostly cataract surgery; is performed in the private and voluntary sector and only 35% is within the government sector

- Ophthalmologists performed approximately 7 million cataract surgeries across India in 2017
- About 15,000 ophthalmologists and an equal number of trained and recognized mid-level personnel (MLP) exist as opposed to the ratio of having at least 4-5 MLP for each ophthalmologist.
- An estimated 40-50% of the ophthalmologists may be surgically inactive within the country
- The ophthalmologist to population ratio in urban India is 1:25,000 but in rural India it is about 1: 250,000 whereas it is believed that an average ratio of 1: 15,000 is adequate

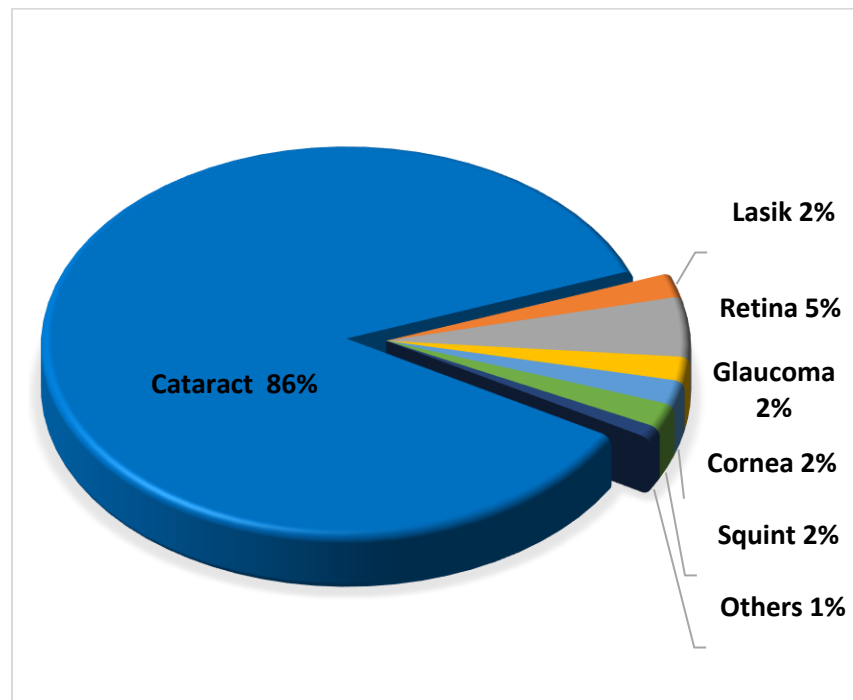


Figure 4.5: Surgical Volume Break Up

4.2. Secondary Research- Gujarat and Palanpur

- In this section, we shall discuss the various findings regarding the demography, economic conditions and healthcare infrastructure of Gujarat and Palanpur.

4.2.1 Overview- Gujarat

- **Area:** 1,96,024 Sq. km
- **Population:** 60,383,628

- **Literacy Rate:** 79.31%
- **Major Cities:** Ahmedabad, Vadodara, Surat, Rajkot, Bhuj, Junagadh, Jamnagar
- **Key Industries:** Argo and food processing, Dairy, Chemicals and petrochemicals, Textiles and apparels, Engineering and auto, Gems and jewelry, Oil and gas, Pharmaceuticals and biotechnology, IT, Minerals, Ports, power and Tourism.
- **GDP:** \$235 billion, second only to Maharashtra and slightly above the national average.



Figure 4.6 A Map of Gujarat

4.2.2 Healthcare Landscape of Gujarat

- The state has a total of 19 medical institutions with 2930 seats. It also has 4 self-financed optometry institutions with a total of 125 seats.
- In the state budget for 2017-18, US\$ 1.08 billion has been allocated by the state government for Health & Family Welfare department under Plan & Non-Plan expenditure.

- The Key Health Schemes operating in the state include:
 - Chiranjeevi Scheme
 - Mukhyamantri Amrutam (MA) Yojana
 - Centre Aided Health Insurance Scheme
 - Rogi Kalyan Samiti

Table 4.1 The State Medical Infrastructure of Gujarat

Institution Name	Numbers
Super specialty Facilities	3
Medical Colleges	19
District Hospital	18
Sub- District Hospital	30
Mobile health Units	129
Community Health Centers	300
Primary Health Centers	1208
Sub- Centers	7744
Ayurvedic Hospitals	40
Ayurvedic Dispensaries	523
Homeopathic Hospitals	4
Homeopathic Dispensaries	216

4.2.3 Overview- Palanpur

- **District:** Banskantha
- **Population:** 140344
- **Male population:** 53%
- **Female Population:** 47%
- **Sex ratio:** 912
- **Average Literacy Rate:** 86%
- **Male literacy:** 94%
- **Female Literacy:** 78%
- **Major Religion:** Hinduism
- **Important Languages:** Gujrati, Hindi, English
- **Neighbouring Areas:** Mehsana, Deesa, Patan

- **Major Industries:** Dairy, Textile, Diamond polishing and marble.



Figure 4.7: A Map of Palanpur

4.2.4 Connectivity of Palanpur with the Neighboring Areas

- Since the town is the headquarter of the Banas kantha district it is well connected by road and rail.

► Railways:

- Palanpur lies on the Jaipur Ahmedabad Line and comes under the control of Western Railways Zone of Indian Railways.
- It is directly linked to major cities like Chennai, Mumbai, Bangalore, Pune, Dehradun, Jodhpur, Delhi, Muzaffarpur, Bareilly, Jammu, Jaipur, Mysore and Thiruvananthapuram.
- It is also well connected with the major towns and cities of Gujarat like Ahmedabad, Surat, Vadodara, Bhuj, Rajkot, Jamnagar and Porbandar.

► Road:

- National Highway 14 passes through Deesa- Palanpur thus connecting it to major cities.

- It is also well connected by road to major towns and cities of the state through state highways.

► **Air:**

- The nearest airport is Deesa airport while the closest International Airport is the Sardar Vallabhbhai Patel Airport, Ahmedabad.



Figure 4.8: A Map showing the Connectivity of Palanpur

4.2.5 Public Health Infrastructure of Palanpur

- The following tables show the public health infrastructure of Palanpur and the surrounding districts.

Table 4.2 Public Health Infrastructure of Palanpur

District	District Hospital	Sub- district Hospital	Community Health Centers	Primary Health Centers
Banskantha	1	1	19	88
Mehsana	1	3	14	55
Patan	1	1	15	36

Table 4.3 Public Health Infrastructure of Palanpur And Deesa

Taluka	District Hospital	Sub District Hospital	Community Health Centers	Primary Health Centers
Palanpur	1	0	1	8
Deesa	0	1	1	11

4.3 Market Survey Analysis

This section is aimed at representing the results of the primary data collection.

Date of Market survey:

February 2018

Data Analysis:

- Both the primary and the secondary data were analyzed to develop a perspective on the Ophthalmology market in Palanpur, Gujrat.
- **Primary catchment area** for the proposed facility would be the **Banskantha district and other surrounding districts of North Gujrat.**
- **Secondary Catchment area** for the proposed facility would be **South Rajasthan.**

Primary Market Survey:

- Personal interviews were conducted with the ophthalmologists and hospital administrators.
- Out of the total interviews conducted, 53.85% of them were consultants while 46.15% were Hospital Administrators
- Dedicated eye care centers and ophthalmologists having their private practice were also interviewed.

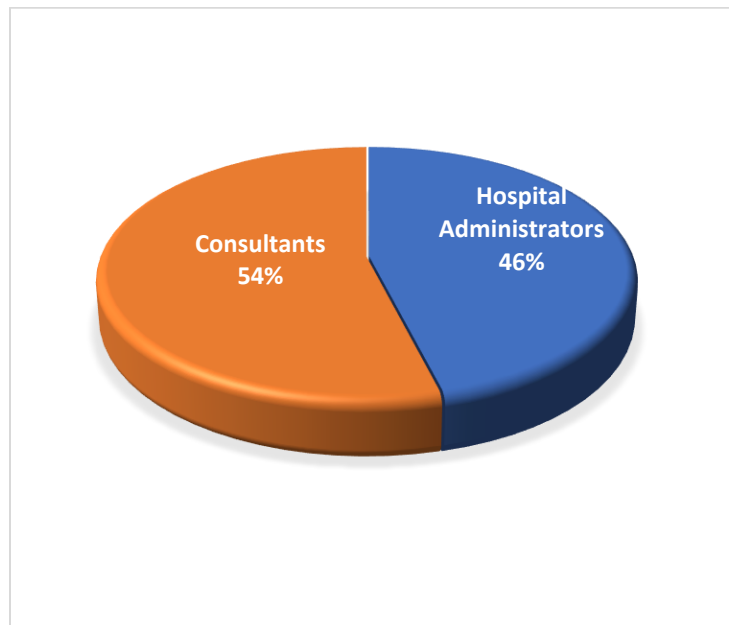


Figure 4.9 Graph Showing personnel interviewed

Socio- Economic Findings:

- The socio-economic condition of the service area is important to assess the given market and identify the target consumer group; understand their paying capacity and derive the bed-mix, decide the pricing strategy and accordingly design the tariff structure for the proposed hospital.
- Based on the survey, it was found that a majority of ~56% population falls in the middle-income group.
- This shows that the target population has the capacity to afford quality healthcare.

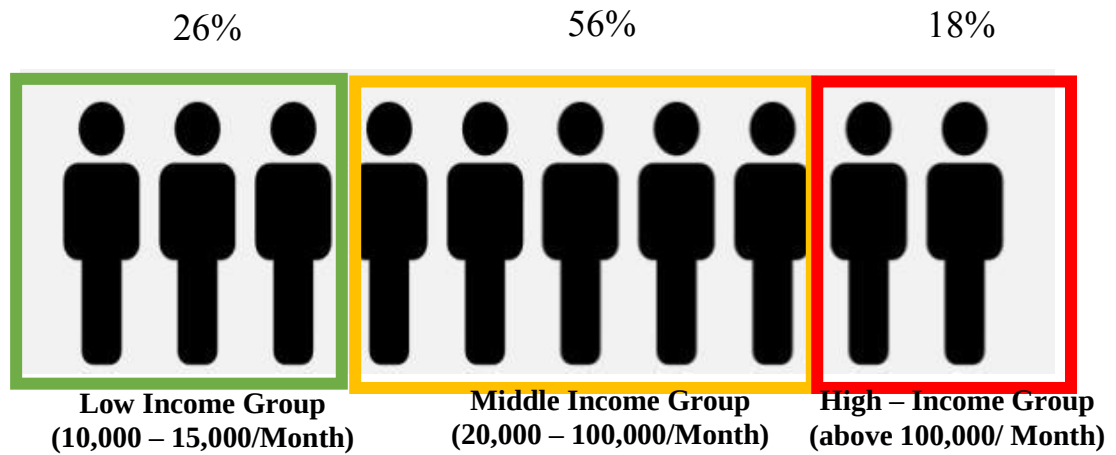
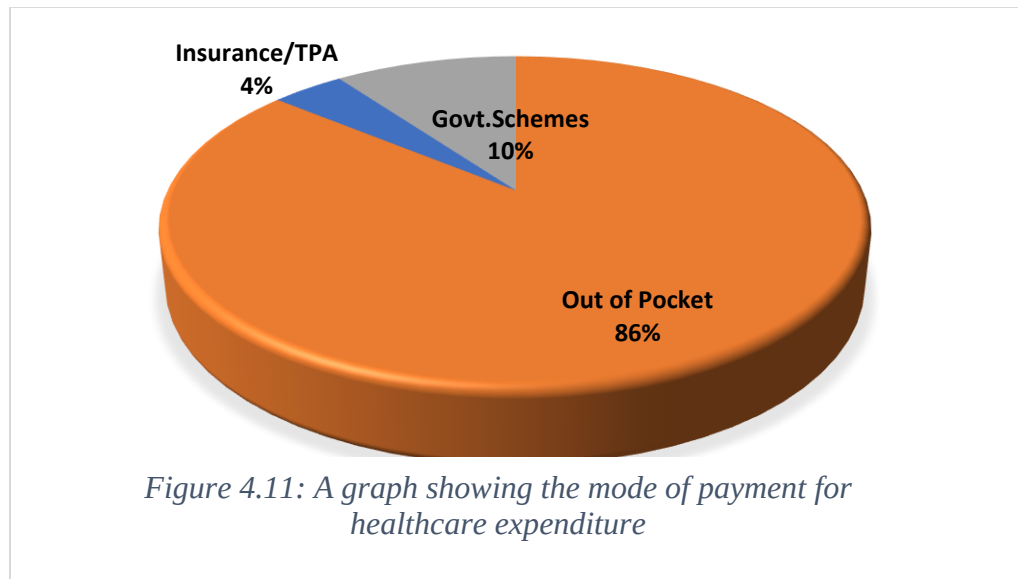


Figure 4.10 A figure showing the socio- economic status of the patients

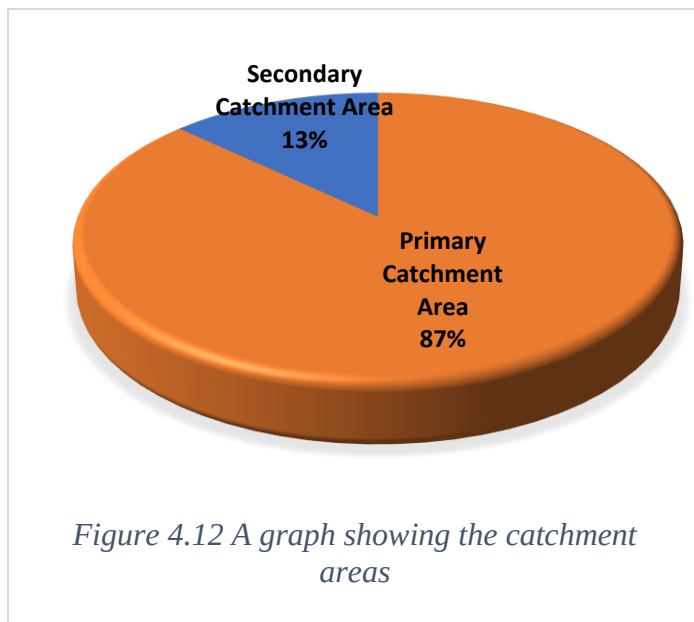
Mode of payment:

- Most of population of Palanpur pays out of pocket for their healthcare needs.
- Private health insurance has a very low penetration in the target population.
- Government health schemes like RSBY and MA constitute the major portion of the insurance.



Patient Drainage of Palanpur:

- The primary catchment area for the proposed facility is the Banskantha district and the surrounding districts of North Gujarat.
- The surrounding districts include Deesa, Mehsana, Patan
- The secondary catchment area would be South Rajasthan.
- 87% of the patients in the existing facilities are from the primary catchment area whereas 13% are from the secondary catchment area.



- This huge gap may be attributed to the lack of super specialty in the target area leading to an outward movement of Palanpur
- The outward drainage of patients from Palanpur is towards Ahmedabad for all advance surgeries including the complex cases of ophthalmology.
- The inward drainage towards Palanpur is only for cataract surgeries from the surrounding districts.



Figure 4.13 Patient Drainage of Palanpur

4.4 Competitor Analysis

- The following section deals with the analysis of the key players near the proposed facility.

4.4.1 Key Players- Snapshot

The following table gives a snapshot of the key players in terms of the type of hospital, number of beds, bed occupancy and the area in which it is situated.

Table 4.4 A Snapshot of the Key Competitors

Hospital Name	Type	Number of beds	Bed Occupancy	Area
NH Mavjat Hospital	Multispecialty	100	95%	Palanpur
Aman Eye Hospital	Single Specialty	12	100%	Palanpur
Samarpan Eye Hospital	Single Specialty	30	90%	Palanpur
Mahesh Eye Hospital	Single Specialty	10	85%	Palanpur
Jay Eye Hospital	Single Specialty	10	100%	Palanpur
Lion's Hospital	Multispecialty	50	100%	Palanpur
Divya Eye Hospital	Single Specialty	8	100%	Palanpur
Shanku Medicity	Multispecialty	65	90-95%	Mehsana
Abha Eye Hospital	Single Specialty	-	-	Palanpur
Lion's General Hospital	Multispecialty	300	80%	Mehsana
Bhansali Hospital	Multispecialty	150	70%	Deesa
Mohan Eye Hospital	Single Specialty	12	100%	Deesa

4.4.2 Facility Mix of Competitors

The following table shows the facility mix of the competitors in and around Palanpur.

Table 4.5 Facility Mix of the Competitors

Specialty	NH Mavjat Hospital	Aman Eye Hospital	Samarpan Eye Hospital	Mahesh Eye Hospital	Jay Eye Hospital	Lion's Hospital	Divya Eye Hospital	Abha Eye Hospital	Shakus Mediitiy	Lion's General Hospital	Bhansali Hospital	Mohan Eye Hospital
Cataract Surgeries	×	√	√	√	√	√	√	√	√	√	√	√
Glaucoma Surgeries	×	√	√	√	√	√	√	√	√	√	√	√
Refraction Services	×	√	√	√	√	√	√	√	√	√	√	√
Cornea Services	×	×	×	×	×	×	×	×	×	×	×	×
Retina Services	×	×	×	×	×	×	×	×	×	×	×	√
Neuro Ophthalmology	×	×	×	×	×	×	×	×	×	×	×	×
Squint & Uvulitis	×	×	×	×	×	×	×	×	×	×	×	×
Diabetic Retinopathy	×	×	×	×	×	×	×	×	×	×	×	×
Lasik Procedures	×	×	×	×	×	×	×	×	×	×	×	×
Ocular oncology	×	×	×	×	×	×	×	×	×	×	×	×

4.4.3 Productivity Details of the Competitors

The following table shows the volume of patients visiting the various hospitals for various ailments per month.

Table 4.6 Productivity details of the Competitors

Hospital	Cataract Volume*	Glaucoma Volume*	Refraction Services Volume*	OPD Volume*
Aman Eye	120	60	250	500
Samarpan Eye	300	150	400	1500
Mahesh Eye	100	40	150	350
Jay Eye	120	40	150	400
Lion's Hospital	300	180	500	1800
Divya Eye	100	30	200	500
Abha Eye	120	45	250	450
Bhansali Hospital	250	150	1000	2000
Mohan Eye	150	70	550	1200

*The values are per month

4.4.4 Tariff Details of the Competitors

The following table represents the details of the tariff charged by the various competitors with regards to the different surgeries.

Table 4.7 Tariff Details of the Competitors

Hospital	Cataract	Glaucoma	Refraction Services	OPD
Aman Eye	8000-15000	12000	100-300	200
Samarpan Eye	4500-10000	8500	100-400	150
Mahesh Eye	5000-10000	8500	150-300	100
Jay Eye	5000-6000	7000	100-250	100
Lion's Hospital	4800-20000	15000	150-300	150
Divya Eye	7000-25000	18000	100-300	200
Abha Eye	NA	NA	NA	150
Bhansali Hospital	500-1000	800	20-150	10
Mohan Eye	5000-50000	20000-30000	200-600	250

5. Discussion

The following section contains the various interpretations that can be drawn from the results.

5.1 Key Growth Drivers for Ophthalmology in India

Various factors that contribute to the growth of ophthalmology in the Indian Market include:

- **Rising Proportion of ageing population**
 - Currently ~7.4% of India's Population (~89 Million people) is over 60 years of age
 - Number of people requiring cataracts are expected to grow significantly by 2020
- **Rising number of diabetic retinopathy cases**
 - India has the maximum number of diabetes cases in the world, with a prevalence ratio of 4.5% of the population.
 - Almost two-third of all Type 2 and almost all Type 1 diabetics are expected to develop diabetic retinopathy over a period.
- **Emergence of better technology**
 - It is estimated that 50% of surgeries are performed free of cost or at highly subsidized rates currently; With emergence of latest technologies, doctors can perform complex and less time-consuming surgeries efficiently enabling them to increase the throughput
- **Attractive returns on an eye care specialty hospital**
 - As compared to most other single-specialty hospitals such as cardiology, oncology and so on, a tertiary eye care center requires a capital investment of only Rs. 60-70 million.
 - A well-established tertiary center can earn operating margins of 25-30% once it breaks even and IRR of ~17 – 18 %, which is better than other hospital models

5.2 Primary Survey Findings related to Health Infrastructure in Palanpur

- Being the administrative capital of the district, Palanpur is equipped with a variety of healthcare specialties.
- However, it is to be noted that the town has only a single well equipped multi-specialty hospital, i.e., NH Mavjat Multispecialty Hospital.
- A large no. of single and dual specialty clinics is present in the area which cater to the healthcare needs of the population.
- The various single specialty clinics include dental, ophthalmology, gynecology and urology among others.
- Based on the primary survey conducted it can be concluded that the town lacks any super specialties.
- The major services which are missing include psychiatry, neurophysicians, pediatrics, cardiology and advanced ophthalmology services.
- A new hospital in Mehsana, i.e., Shankus Medicity caters to the oncology needs of the population.

5.3 Scope of Retina Services in Palanpur

- It was surfaced during the primary survey that there is **lack of retina services** in and around Palanpur
- There is **no full-time practitioner** for retina which forces the consultants to refer the patients to Ahmedabad for all the cases
- The consultants feel that around **20% of the cases must be referred to Ahmedabad** owing to the absence of retina services in and around the area.
- The only consultant available for Retina is a visiting consultant in “Mohan Eye Hospital” in Deesa who visits once a week.
- Given the background, it could be inferred that there is a potential to develop retinal services in the primary service area as there is a **demand supply gap**.

5.4 Advantages of Palanpur

- **Few Eye Care Specialty Services**
 - The proposed area has a very few super specialty eye hospitals in the vicinity offering quality care.
 - Most of the eye care centers are run by single private practitioners focusing mainly on cataract services.
 - Absence of specialties like retina in and around the proposed area
- **Drainage Area**
 - Palanpur offers a wide catchment area which includes the neighboring towns and cities extending up to Rajasthan.
 - Palanpur has a good connectivity with the major towns and cities of Gujarat.
- **Huge available market**
 - The volume of cataract cases in Palanpur is quite high.
 - It is estimated that by 2020, the prevalence and incidence of cataract will increase due to the increasing life expectancy.

5.5 Market Insights

- The market for ophthalmology is highly dependent on the doctors and private practitioners play an equally important role as the healthcare institutions.
- Palanpur is equipped with only one multi-specialty hospital, i.e. NH Mavjat Multispecialty Hospital and even that lacks ophthalmology.
- It has been noted that due to the lack of several multispecialty hospitals, the healthcare market of Palanpur offers a good potential for growth.
- One major hindrance that has been unearthed during primary survey is the affinity of people towards the doctors of their community, thereby increasing their possibility of favouritism for a facility or consultant.
- Besides, the availability of skilled manpower for advanced ophthalmology services seems to be a challenge.
- The only consultant offering Retina services is a visiting consultant in Deesa, thereby highlighting that the availability of manpower can pose a serious threat to a new player.

6. Recommendations

Based on the findings of the primary and secondary research, the following facility was proposed. It is to be noted that the area recommendations are only broad level meant for an estimation. The architectural designs may differ according to the need of the project and the thought process of the engineering and architectural team.

Table 6.1 Proposed facility mix with broad level area details

Facility	Number	Unit Area (in sq. feet)	Total Area (in sq. feet)
Consultation Rooms	4	150	600
Work Up/ Counselling rooms	2	100	200
IPD Beds (4 rooms, 5 beds in each room)	20	500	2000
Private Rooms	2	250	500
Operation Theatre	2 (1 major, 1 minor)	600 + 400	1000
Pre/Post Op Rooms	2	100	200
Changing room/ Doctors' Rest Room	1	100	100
Sample Collection Room	1	100	100
Reception	1(considering 2 work desks with scope of another one for expansion)	40	120
Waiting Area	1	250	250
MRD	1	100	100
Optical Shop	1	100	100
Pharmacy	1	140	140
CSSD	1	250	250
Cafeteria	1	200	200
Server Room	1	100	100
Store	1	80	80
Diagnostics	1	250	250
Washrooms	4(2 staff, 2 patients, 1 male and female each)	40+30	140
Total Area			6530

Total Area Required keeping in mind the built-up area and circulation space:

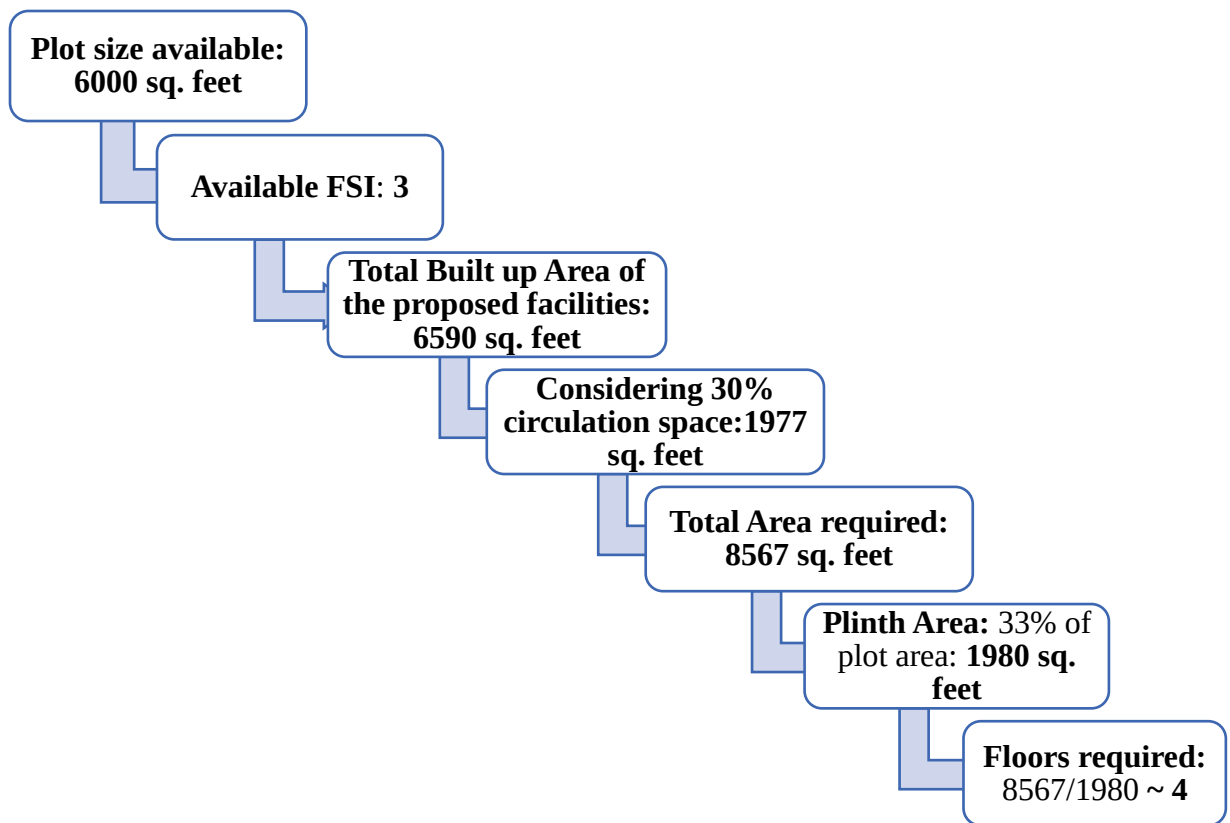


Figure 6.1 Total Space Required for the proposed facility

Service Mix Proposed:

- Cataract Surgeries
- Refraction Services
- Glaucoma surgeries
- Retina Services

7. The Way Forward

The proposed facility and service mix has been prepared according to the requirements of the client. In addition, SWOT Analysis and the Way forward have been provided.

7.1 SWOT Analysis

A SWOT Analysis has been performed to have an idea regarding the feasibility of the project.

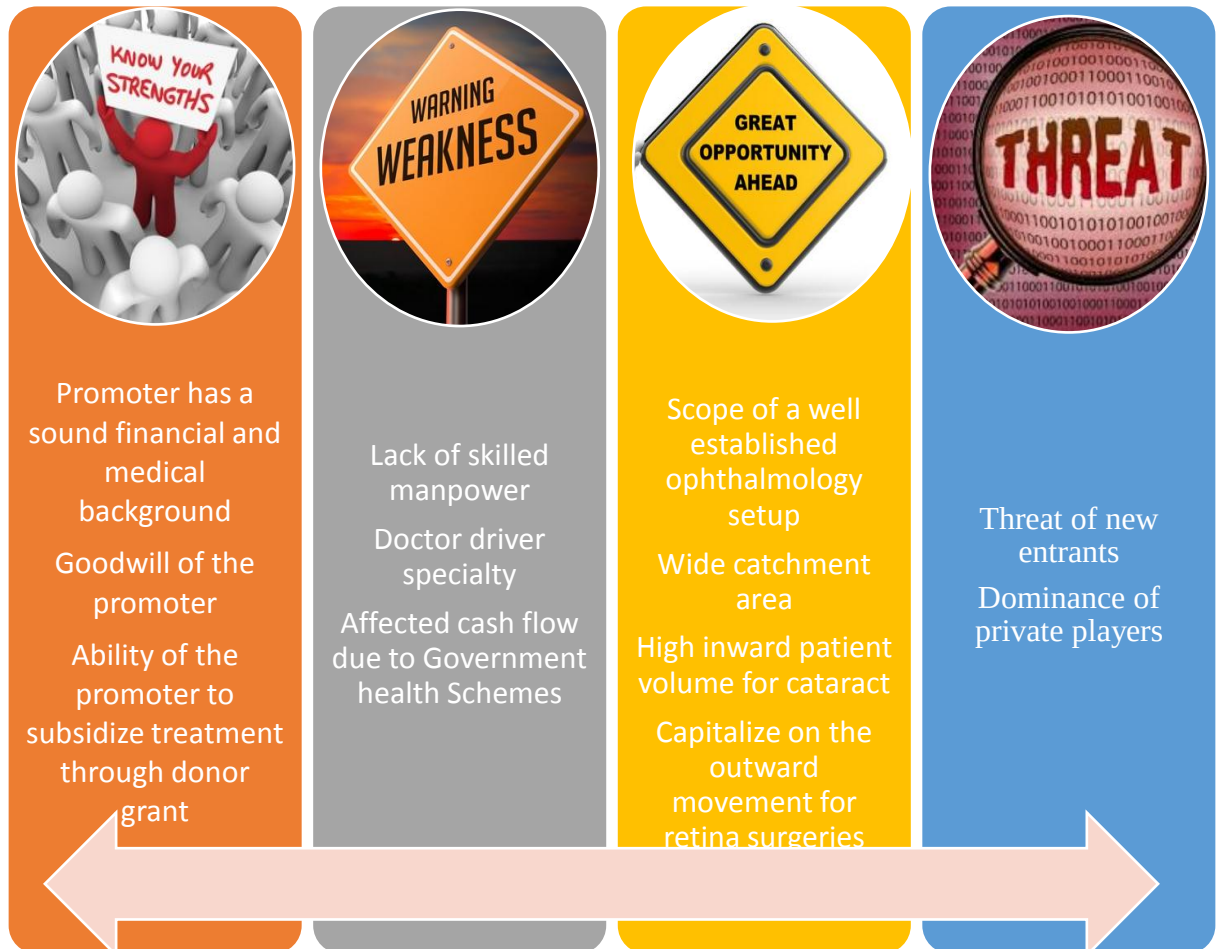


Figure 7.1: SWOT Analysis

7.2 Business Risk Mitigation

Any business faces some potential risks and it is better to develop a mitigation plan for the risks in the initial stages. The business risk mitigation for the proposed facility is represented in the table 7.1

Table 7.1 Business Risk Mitigation

Risk	Description	Probability of Occurrence	Mitigation
Risk of New Entrants	New players might enter in the market and hospitals like NH may plan to set up an ophthalmology unit	High	• Capitalize on the first mover advantage • Tie up with the well-known retina surgeons of Ahmedabad
Dominance of Private Practitioners	The private players dominate the ophthalmology market and pose a strict competition to any new player	High	• Establish a name in the market • Capitalize on the advantage of catering to all income groups • Quality Accreditation

7.3 Critical Success Factors

According to the study conducted, we have realized that six major factors shall play an important role in the success of the project. They are:

- **First Mover Advantage:** Due to the lack of retina services in the proposed location, the promoter has an advantage of being the first mover.
- **Right Positioning:** The facility needs to be positioned as an integrated center for ophthalmology.
- **Affordability:** The proposed facility will benefit from the fact that it is a charitable organization.
- **Quality Accreditation:** The proposed facility needs to be quality accredited to stand out from the rest.

- **Focused marketing Strategy:** The proposed hospital should focus on marketing and make it a known name in the catchment area.
- **Right Talent Acquisition:** The best retina surgeons of Ahmedabad should be tied up with, in order to avoid threat from new entrants.



Figure 7.2: Critical Success Factors

7.4 Conclusion

- The market for ophthalmology is a skill dependent market and both the healthcare organizations and private practitioners play an equally important role.
- As a result of the secondary research conducted, it can be concluded that the market for ophthalmology is set to grow.
- The primary survey has revealed that the Palanpur offers a good scope of growth for ophthalmology.
- Further, the intention of the client to cover all the income groups can prove to be an advantageous step.

- Due to a lack of skilled manpower in Palanpur for retina services, we suggest an initial tie up with the retina specialists of Ahmedabad. As the facility reaches a stabilization phase, full time in house consultants for retina can be hired.
- The future of the proposed facility and ophthalmology as a service seems bright.
- Therefore, we propose a holistic approach towards ophthalmology beginning with cataract surgeries, glaucoma surgeries, refraction and retina services with scope of future expansion for other advanced services like cornea, diabetic retinopathy and Lasik services.

8.Supplementary: This section consists of the additional resources used for the completion of this study.

8.1 Questionnaire

The following questionnaire was used for this study:

CONSULTANT QUESTIONNAIRE

Hospital Name and Address	
Name of Consultant	Dr.
Type of Hospital	
No. of Beds	

Out-Patient Services	Name of the Outsourced company for Lab, Radiology Investigations
In-Patient Services	Pathology / Radiology / Other (Yes or No)
Other Facilities	

« Drainage Areas

Primary Catchment area	Secondary Catchment area
%	%

« Percentage of patients as per Socio Economic Status

LOW (Income 10,000- 15000/ month)	MIDDLE (150000 to 100,000/ month)	HIGH (Income >1,00,000/ month)
%	%	%

« Percentage of patients with regards to **Payments**

INSURANCE/ TPA	OUT-OF-POCKET
%	%

« Which hospitals / nursing homes do you **refer** them to? & the **Criteria** for choice:

Criteria	Consultants Opinion (out of 5)
Availability of Medical Technology	
Affordable Cost of treatment	
Quality of Care	
Availability of Particular Consultant	
Proximity of location	
Brand Name of the Hospital	

« What are the **deficiencies** in the existing health care system in your area? (In terms of Infrastructure/ Services)

« What are the common ailments in the service area?

« What are the hindrances in setting up and sustaining a hospital setup in this region?

What according to you **should a new venture have**; as specialty mix kindly rate

Grade according to the need of this area on a scale of 1- 3; least to highest			
Specialty	Rank	Specialty	Rank
Surgical Intervention		OPD's	

Cataract		Optometrist Room	
Glaucoma		Operation Theatres	
Cornea		Anesthesia	
Pediatric Ophthalmology		Others	
Neuro Ophthalmology		Ophthalmology Shop	
Refractive Surgery		Retina & Orbit	
Squint and Uveitis		Refraction services and Optical Dispensing	
Diabetic Retinopathy			

Productivity Details:

Specialty	Volume per day	Tariff
Surgical Intervention		
Cataract		
Glaucoma		
Cornea		
Pediatric Ophthalmology		
Neuro Ophthalmology		
Refractive Surgery		
Squint and Uveitis		
Retina & Orbit		
Refraction services and Optical Dispensing		
Diabetic Retinopathy		
OPD's		

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