Pre-feasibility Study

DERMATOLOGY CLINIC

September 2022

"The figures and financial projections are approximate due to fluctuations in exchange rates, energy costs, and fuel prices etc. Users are advised to focus on understanding essential elements such as production processes and capacities, space, machinery, human resources, and raw material etc. requirements. Project investment, operating costs, andrevenues can change daily. For accurate financial calculations, utilize financial calculators on SMEDA's website and consult financial experts to stay current with market conditions."

Small and Medium Enterprises Development Authority
Ministry of Industries and Production
Government of Pakistan

Table of Contents

Table of Tables

Table of Figures

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2. EXECUTIVE SUMMARY

Dermatology is the branch of medicine concerned with the diagnosis and treatment of skin disorders. Dermatology is an area of medicine that focuses on health issues affecting the skin, hair and nails. It is one of the most diverse specialties treating patients from all age groups with inflammatory, inherited, environmental, occupational and malignant skin diseases.

Dermatologists are specialist medical physicians who have specialized knowledge and training. Dermatologist diagnoses and treats diseases related to skin, hair, nails, and cosmetic problems such as acne, skin cancer, rashes, dermatitis, nail infections, psoriasis, eczema, wrinkles and hair loss.

A dermatology clinic is a medical facility dedicated to providing superior diagnosis and treatment services of skin-related diseases. Cosmetic and medically-necessary procedures are also carried out at dermatology clinics.

In modern world, skin disorders constitute a significant portion of the total diseases, affecting millions of people worldwide. The proposed business of “Dermatology Clinic” will provide specialized services related to skin, hair and cosmetic problems. These specialized services include acne treatment, scar removal, hair transplant and laser hair removal treatment. In addition, the clinic will also provide consultation related to general skin diseases/problems.

In urban areas, people usually suffer from higher number of skin diseases due to pollution, dust problems, contaminated water, unhygienic food, which is why they are more conscious about skin disorders. Patient rate is growing day by day and current health care facilities are not enough to accommodate all patients which brings in the need for opening of new clinics. Therefore, the proposed dermatology clinic would ideally be located in major cities of Pakistan like Karachi, Lahore, Faisalabad, Islamabad, Peshawar, Quetta, Multan, Rawalpindi, Bahawalpur, Sargodha, Sialkot, Gujranwala, Gujrat, Hyderabad and other cities of Pakistan. These cities are suitable due to presence of large urban population, availability of required resources, availability of good infrastructure and qualified personnel.

The proposed dermatology clinic will operate in a single shift of 10 hours a day (4 hours in morning and 6 hours in the evening) in a day for 280 days in a year with having 2 dermatologist specialist doctors. Further, it is assumed that the operational capacity for the dermatology clinic is 60% during the first year of its operations. The capacity will increase at the rate of 5% per annum attaining 90% of its total service capacity during the projected period of 7 years. The service unit will annually provide five different skin related treatments to 11,470 patients at maximum capacity which includes 4,480 acne treatments, 933 laser skin scars treatments, 84 hair transplant treatments, 1,493 laser hair removal treatments and 4,480 general treatments of general skin diseases/problems. At 60% initial year service capacity of the proposed dermatology clinic, it will provide treatment to 6,882 patients per year, which includes

2,688 acne treatments, 560 laser skin scars treatments, 50 hair transplant treatments, 896 laser hair removal treatments and 2,688 general treatments.

This services unit will be set up in a rented building with an area of 2,250 square feet (10 Marla). The proposed business requires a total investment of PKR 10.41 million. This includes capital investment of PKR 9.10 million and working capital of PKR 1.32 million. The project will be established using 100% equity financing. The Net Present Value (NPV) of project is PKR 27.45 million with an Internal Rate of Return (IRR) of 65% and a Payback period of 2.24 years. Further, this project is expected to generate Gross Annual Revenues of PKR 45.17 million during 1st year, Gross Profit (GP) ratio ranging from 27% to 39% and Net Profit (NP) ratio ranging from 3% to 19% during the projection period of ten years. The proposed project will achieve its estimated breakeven point at capacity of 51% (5,813 patients) with annual breakeven revenue of PKR 38.16 million.

The proposed project may also be established using leveraged financing. At 50% financing at a cost of KIBOR+3%, the proposed business provides Net Present Value (NPV) of PKR 31.53 million, Internal Rate of Return (IRR) of 62% and Payback period of 2.40 years. Further, this project is expected to generate Net Profit (NP) ratio ranging from 3% to 19% during the projection period of ten years. The proposed project will achieve its estimated breakeven point at 53% of its total service capacity (6,067 patients), with breakeven revenue of PKR 39.82 million.

The proposed project will provide employment opportunities to 19 people, working in a single shift of 10 hours each during 280 days in a year. High return on investment and steady growth of business is expected to the entrepreneur having some prior experience or education in the related field of business. The legal business status of this project is proposed as “Sole Proprietorship” or “Partnership Concern”.

3. INTRODUCTION TO SMEDA

The Small and Medium Enterprises Development Authority (SMEDA) was established in October 1998 with the objective to provide fresh impetus to the economy through development of Small and Medium Enterprises (SMEs).

With a mission "to assist in employment generation and value addition to the national income, through development of the SME sector, by helping increase the number, scale and competitiveness of SMEs", SMEDA has carried out ‘sectorial research’ to identify policy, access to finance, business development services, strategic initiatives and institutional collaboration and networking initiatives.

Preparation and dissemination of prefeasibility studies in key areas of investment has been a successful hallmark of SME facilitation by SMEDA.

Concurrent to the prefeasibility studies, a broad spectrum of business development services is also offered to the SMEs by SMEDA. These services include identification

of experts and consultants and delivery of need-based capacity building programs of different types in addition to business guidance through help desk services.

National Business Development Program for SMEs (NBDP) is a project of SMEDA, funded through Public Sector Development Program of Government of Pakistan.

The NBDP envisages provision of handholding support / business development services to SMEs to promote business startup, improvement of efficiencies in existing SME value chains to make them globally competitive and provide conducive business environment through evidence-based policy-assistance to the Government of Pakistan. The Project is objectively designed to support SMEDA's capacity of providing an effective handholding to SMEs. The proposed program aimed at facilitating around 314,000 SME beneficiaries over a period of five years.

4. PURPOSE OF THE DOCUMENT

The objective of the pre-feasibility study is primarily to facilitate potential entrepreneurs in project identification for investment. The project pre-feasibility may form the basis of an important investment decision and in order to serve this objective, the document/study covers various aspects of project concept development, start-up, and production, marketing, finance and business management.

The purpose of this document is to facilitate potential investors in setting up a “Dermatology Clinic” by providing a general understanding of the business with the intention of supporting them in investment decisions.

The need to come up with pre-feasibility reports for undocumented or minimally documented sectors attains greater imminence as the research that precedes such reports reveal certain thumb rules; best practices developed by existing enterprises by trial and error, and certain industrial norms that become a guiding source regarding various aspects of business setup and its successful management.

Apart from carefully studying the whole document one must consider critical aspects provided later on, which form the basis of any investment decision.

5. BRIEF DESCRIPTION OF PROJECT & PRODUCTS

Skin is the largest organ of human body. It is body’s first line of defense against diseases, for protecting other organs. Problems with the skin can harm patient’s sense of self-worth and create discomfort that can make every day’s activities difficult. Skin diseases have been known to mankind since its origin. The study of skin, the science of dermatology, has undergone significant transformations through the centuries.

Dermatology is the branch of medicine concerned with the diagnosis, treatment, and prevention of diseases of the skin, hair, nails. In other words, dermatology is an area of medicine that focuses on health issues affecting the skin, hair and nails. Major diseases include acne, hair loss, baldness, ashes, inflammation, itchiness or other

skin changes which occurs due to range of factors, such as aging factor, infections, heat, allergens, system disorders and medications.

Dermatologist is a physician who specializes in the diagnosis and treatment of these unwanted skin, hair and nail conditions. Training required to become a dermatologist takes many years of experience of exclusively treating skin diseases, which gives him/her the highest level of expertise, unique skills and experience to offer the best care for the skin. A dermatologist can identify and treat more than 3,000 diseases of the skin, hair and nails and the related cosmetic concerns.

Dermatology clinic is a medical facility, equipped with trained medical and dermatology staff, where consultation and treatment services cover a range of medical and cosmetic issues related to skin, hair and other parts of human body. Dermatology clinics comply with strict medical standards, are equipped with the most modern devices and equipment that are always in the best hygienic condition. Dermatology clinics, following a patient-centric approach, are known for good quality of care.

In the proposed project, the pharmacy, located within the clinic premises, is outsourced and the clinic only charges rent from the pharmacist. Any kind of medicines required for any treatment are available at the pharmacy and the customer has the facility to purchase the required medicines related to the specific treatment. Patient bears all these expenses related to the medication as well as the treatment. Revenue generated from the sale of medication will be received by pharmacist while the clinic will receive the monthly rental charges from the outsourced pharmacy.

As per market practice, in the proposed project the owner of clinic will hire two dermatologist specialist doctors on agreement basis, In the agreement, the doctors will receive 40% share of the fees received from the patients, who are provided consultation/treatment at the clinic. In addition to this share, each doctor will receive salary of PKR 125,000 per month in lieu of working full-time at the clinic.

The proposed dermatology Clinic will provide diagnosis and treatments of skin and hairs related to unwanted dermatology conditions. These conditions are acne, skin scars, hirsutism and alopecia (hair loss). Conditions and their treatments are described below:

Acne

Acne is a common skin condition that happens when hair follicles[1] under the skin become clogged (blocked). Sebum (oil gland that helps to keep skin from drying out) and dead skin cells block the pores, which leads to outbreaks of acne. Most people with acne are aged between 12 to 25 years but sometimes people at older age also got affected. Acne usually affects the face but may also affect the back, neck and chest. There are different types of treatments that dermatologist recommend to patients, depending upon the severity of acne. Under normal conditions, dermatologist

[1]A hair follicle is a tube-like structure (pore) that surrounds the root and strand of a hair.

generally recommend using gels, lotions and creams. Figure 1 shows a patient's face with acne disease.

Figure 1: Acne

Skin Scars

Skin Scars form when the dermis (deep, thick layer of skin) is damaged. The body forms new collagen fibers (a naturally occurring protein in the body) to re-form the damage. The new tissue will have a different texture and quality than the surrounding tissue. Scars can result from accidents, diseases, skin conditions such as acne or surgeries. Scar treatments prescribed by dermatologist may include prescriptions, surgery, laser treatment, steroid injections and other different ways. Under normal conditions, dermatologist generally recommends laser treatment. Therefore, in the proposed project laser treatment is used to treat skin scars problem.

One of the safe and effective procedures is the Fractional CO2 Laser. It involves the removal of the outer layers of the skin through laser which reveals the fresh and glowing skin underneath. The fractional CO2 laser is often done by applying a local anesthetic cream to the problem area 30 to 45 minutes prior to the procedure. The procedure itself lasts for only 15 to 20 minutes. It uses short-pulsed light energy (known as ultra-pulse) that is continuously blasted through a scanning pattern to remove thin, outer layers of damaged skin. Once the dead skin cells are eliminated, the procedure activates the production of multiple microthermal zones that reaches deep into the skin. Through this, it can stimulate body's natural healing process and boost collagen production. This ultimately replaces the old, damaged cells with new, healthy skin. Figure 2 shows a skin scar.

Figure 2:Skin Scar

Hirsutism

Hirsutism is presence of excessive hair on skin or excess hair growth on the body or face. It is caused by excess hormones called androgen. It can happen if the level of these hormones increases or if body becomes more sensitive to them. Dermatologists usually prescribe laser treatment for excessive hair removal from face or other parts of body. Therefore, in the proposed project, laser treatment is used to treat hirsutism problem. One of these safe and effective procedures is the ND YAG laser treatment. It is a cosmetic procedure that uses a concentrated beam of light, also called laser, to remove unwanted body hair. To be more precise, the laser treatment uses selective photo-thermolysis. A specific wavelength of light and pulse duration will match to obtain the desired effect on a specific target without damaging the surrounding skin tissues. During a laser hair removal, the laser targets the hair to travel through to the hair follicle where it turns into thermal energy. The goal of the laser procedure is to damage the hair follicle beyond repair so that it cannot regenerate nor create any new hair. When the hair follicle stops regenerating, hair growth stops. Furthermore, the combined effects of all the hair follicles going through the same process will help achieve long-term hair growth reduction. Figure 3 shows a patient's face with hirsutism disease.

Figure 3: Hirsutism

Alopecia (hair loss)

Alopecia can be the result of heredity, hormonal changes, medical conditions or a normal part of aging. Baldness typically refers to excessive hair loss from the scalp. By the age of reaching 50, at least 50% of men have suffer noticeable hair loss. By the age of 60, about two-third of men are either bald or have a balding pattern. To overcome this condition, dermatologists prescribe the follicular unit extraction (FUE) hair transplant surgery, a procedure in which a dermatological surgeon moves hair from donor area of the head to the bald area of the head. In FUE, hair follicles are extracted out directly from the donor area. During the process, individual follicles (typically contain between 1 and 4 hairs) are extracted under local anesthesia. The extraction procedure utilizes a micro motor surgical extraction instrument which uses FUE punch of the size between 0.6 mm to 1.0 mm in diameter which acts as an incision drill to extract out the follicles. The surgeon uses sapphire blades to create tiny slits on the scalp area that is to receive the grafts. Surgeons are experts at inserting the grafts in tiny slits by using FU implanter at an angle and density that matches the original hair, so that it resembles a natural and realistic hair pattern. Figure 4 shows the alopecia (hair loss) condition.

Figure 4: Alopecia (hair loss)

5.1. Machinery and Equipment

Machinery and equipment required in “Dermatology Clinic” is as follows:

LED OT Lights

Operation theatre light is a medical device intended to assist medical personnel during a surgical procedure by illuminating the surgical site. Its function is to facilitate optimal display of low contrast, shadow proof and small objects in body cavities and incisions at different depths. It has 25 LED lights and high light intensity of 80,000 LUX. It has an electricity consumption of 60 watts. Figure 5 shows LED OT lights.

Figure 5: LED OT Lights

Hair Transplant Micromotor/FUE Machine

The micro motor device or FUE machine is used to speed up the operation in the hair transplantation process with the FUE technique and to get a much larger number of hair follicles. To make the surgery faster and avoid the damage of the hair grafts and scalp, the FUE motor device is used by the specialists. It has a maximum speed of 35,000 RPM and electricity consumption of 45 watts. Figure 6 shows hair transplant micromotor/FUE machine

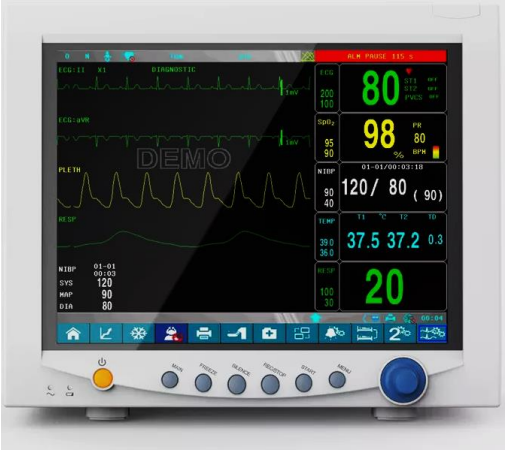
Figure 6: Hair Transplant Micromotor/FUE Machine

Patient Monitor

The equipment used to monitor a patient through a surgical operation is usually made up of one single system. It is used to measure a set of patient parameters such as heart rate, blood pressure, temperature, respiratory rate, blood pressure and blood oxygen saturation that reflects the functioning of the body systems accurately and

continuously. Various sensors and electrodes are attached to the patient to gather information. These measurements are displayed on monitors to keep a track of the patient's health and provide them with high-quality health care. It has an electricity consumption of 35 watts. Figure 7 shows a patient monitor.

Figure 7: Patient Monitor



CO2 Scar Removal Laser Machine

The CO2 fractional resurfacing laser is carbon dioxide laser which precisely removes deep outer layers of damaged skin and stimulates the re-formation of healthy skin underneath. It is generally used in beauty salons, hospitals and skin care centers. In the proposed project, it is used for treating the scars on face and parts of patient's body. It has a wavelength of 10,600 nm and electricity consumption of 40 watts. Figure 8 shows CO2 scar removal laser machine.

Figure 8: CO2 Scar Removal Laser Machine

ND YAG Hair Removal Laser Machine

The ND:YAG laser system is the hair removal laser. Its large wavelength and ability to treat larger areas makes it ideal for removing hairs from face and other parts of body. YAG laser in treating photo-damage of the face and neck is safe and effective. There are minimal side effects and patient heals within 3 to 5 days. In the proposed project, it is used for removing hairs from face and other parts. It has a pulsed wavelength of 1,064 nm and electricity consumption of 3,000 watts. Figure 9 shows ND YAG hair removal laser machine.

Figure 9: ND YAG Hair Removal Laser Machine

Treatment Chair

Specially designed chair for hair transplantation is used to keep the patient in a comfortable position during treatment and make it convenient for the doctor to carry out the required procedures. A hair transplant lasts on average for about 4 to 8 hours, which makes a high quality and comfortable treatment chair very necessary. It is dual actuator based product which provides horizontal and vertical movements. It has a maximum loading weight of 200 kg. Figure 10 shows treatment chair.

Figure 10: Treatment Chair

Surgical Bed

Surgical bed is a hospital bed, used in a medical or surgical unit, where general medical/surgical services can be provided. A surgical bed is equipped with mechanisms that can flex or extend individual components of the platform or raise or lower the head or the feet of the patient independently. In the proposed project, it is used to keep the patient in place while the surgical team operates. Figure 11 shows surgical bed.

Figure 11: Surgical Bed

Laser Hair Line Device

This device is used for creating natural hairlines. Specialist can also use this device for donor site hair harvesting, hair restoration, restoring eyebrows as well as for beard and mustache symmetry. Figure 12**Error! Reference source not found.** shows laser hair line device.

Figure 12: Laser Hair Line Device

Surgical Magnifying Loupes

Surgical magnifying loupes offer a portable, practical and economical way to provide magnification for surgical team during complex procedures. It provides the right magnification strength to work from an optimal distance that helps to reduce eye strain, neck, shoulder and back tension. Its magnification power enables the surgeons to see the surgical site clearly and closely, thus enhancing both precision and accuracy. Figure 13 shows surgical magnifying loupes.

Figure 13: Surgical Magnifying Loupes

Medical Kit

The medical kit contains the instruments necessary for minor surgical procedures. It normally includes scalpel, scissors, hemostats, forceps, probe, suture material, gauze pads and other instruments. Figure 14**Error! Reference source not found.** shows medical kit.

Figure 14: Medical Kit

Hair Trimmer

Hair trimmers are designed with a blade and motor. The blades on a trimmer a thinner, which makes it better tool for cutting short hair. In the proposed project, it is used in hair transplant. Figure 15**Error! Reference source not found.** shows hair trimmer.

Figure 15: Hair Trimmer

Screen Folds

Screen folding is a type of free-standing furniture consisting of several frames or panels, which are often connected by hinges or by other means. Screen folds are used for ward partition in hospital and clinic. Figure 16 shows screen folds.

Figure 16: Screen Folds

Medical LED Wireless Headlamp

Medical LED wireless headlamp is mainly used in hospitals or specialized surgical centers to provide focused and direct light for delicate procedures. Medical LED wireless headlamp are also used by other medical professionals in the veterinary and dentistry fields. Light weight and discreet head lamp using powerful LED technology to produce intense white light. The head lamp is wireless, which makes it very comfortable to use. It has a charging time of 1.5 hours and high light intensity of 110,000 LUX. It has an electricity consumption of 10 watts. Figure 17 shows Medical LED wireless headlamp.

Figure 17: Medical LED Wireless Headlamp

5.2. Consumables Inventory

Consumables inventory required in “Dermatology Clinic” is described as follows:

FUE Hair Punch

An FUE hair punch, made of stainless steels is the main component of FUE hair extraction system. It is the tool used to physically separate the grafts (hair follicles) from the surrounding tissue during FUE hair transplant procedure. These instruments generally have a diameter of 0.6 mm to 1 mm. A range of FUE punch sizes and types is available. Figure 18 shows FUE hair punch.

Figure 18: FUE Hair Punch

Graft Plate

When the grafts have been removed, they are placed in a graft plate. This dish contains a special substance, in which the hairs survive outside the head and so can be put back later. Figure 19 shows graft plate.

Figure 19: Graft Plate

Sapphire Blades

Sapphire blades, made from a precious gemstone called sapphire, are used during the process of creating incisions (openings) within the recipient site. The blades are designed to minimize scab formation and speed up the recovery process by opening smaller micro-channels within the recipient site for hair transplantation. Figure 20 shows sapphire blades.

Figure 20: Sapphire Blades

FU Implanter

The FU implanter is a pen-like instrument with a hollow needle. The operation team puts the grafts into the hollow needle one by one. The surgeon uses the pen and shoots the grafts into the scalp for implantation. Figure 21 shows FU implanter.

Figure 21: FU Implanter

Laser Light Safety Goggles (Patient)

Protective eyewear is necessary where irradiation of the eye is possible. Laser safety goggles have lenses that absorb, attenuate, or reflect specific wavelengths of light at specific strengths and protect the eyes of patient from hazards of laser light during treatment. Figure 22 shows laser light safety goggles for patient.

Figure 22: Laser Light Safety Goggles(Patient)

Laser Light Safety Glasses(Operator)

Laser light safety glasses protect the sensitive photoreceptors of the eyes of laser operator from being damaged or destroyed by direct or scattered laser radiation. Figure 23 shows laser light safety glasses for operator.

Figure 23: Laser Light Safety Glasses(Operator)

Disposable Surgery Lab Coats

Disposable coat provides protection of skin and personal clothing from incidental contact and small splashes during surgeries. Figure 24 shows disposable surgery lab coats.

Figure 24: Disposable Surgery Lab Coats

Disposable Caps

Surgical hats or scrub caps are specially designed headwear for surgeons, to be worn in operation theaters, to prevent any possible contamination of the sterile area. Figure 25 shows disposable caps.

Figure 25: Disposable Caps

Disposable Vinyl Gloves

The primary purpose of surgical gloves is to act as a protective barrier to prevent the possible transmission of diseases between healthcare professionals and patients during surgical procedures. Figure 26 shows disposable vinyl gloves.

Figure 26: Disposable Vinyl Gloves

Disposable Mask

A surgical mask is a personal protective equipment used by healthcare professionals that serves as a barrier that interferes with direct airflow in and out of respiratory orifices. Figure 27 shows disposable mask.

Figure 27: Disposable Mask

Local Anesthesia Injection

Local anesthesia is usually a one-time injection of medicine that numbs a small area of the body. Hair transplant is always done under local anesthesia. The anesthetic ensures that the patient does not have any pain during the extraction and transplantation of the grafts.

Disposable Syringe

Disposable syringes are widely used for injecting medications and vaccinations or for collecting blood. In an attempt to prevent transmitting a disease, these are also used instead of reusable syringes. Figure 28 shows disposable syringe.

Figure 28: Disposable Syringe

IV Cannula

IV cannula is a small flexible plastic tube inserted into a vein. The cannula is used to give medication or fluids when patients are unable to take by mouth or that need to enter the body through blood stream directly. Figure 29 shows IV cannula.

Figure 29: IV Cannula

Bandage (3-inch roll)

Bandages are used to hold dressings in place, apply pressure to a part, immobilize a part, obliterate cavities, support an injured, protect the wound and to perform many other functions. Figure 30 shows bandage.

Figure 30: Bandage

Surgical Trays

Surgical Trays (ST) are containers that hold surgical instruments. Each ST contains the instruments needed to perform a surgical procedure or procedures. Figure 31 shows surgical tray.

Figure 31: Surgical Trays

Sweeper Kit

Sweeper Kit contains dust mop, double bucket mop trolley, floor squeegee, phenyl (5 liter), broom brush & dustpan, cob web cleaner. It is used for keeping the clinic in clean and hygienic condition.

Hand Sanitizer

Hand Sanitizer is a liquid or gel, typically one containing alcohol, that is used to clean hands and kill infection-causing microorganisms. In the proposed project, the patients as well as the doctors and related staff use this sanitizer before treatment.

Air Freshener

Air freshener is a substance or device for making the air in a room smell fresh. In proposed project, it will be used to provide fresh and clean atmosphere in the clinic.

Surgical Sponges

Surgical sponges can be used for several purposes during surgery: hemostasis, protection, retraction, blunt dissection, and wound management. In the proposed project, these are used during the treatments. Figure 32 shows surgical sponges.

Figure 32: Surgical Sponges

Instrument Disinfectant Cleaner

Instrument disinfectant cleaner effectively removes organic residues and prevents corrosion and discoloration of instruments. It is used for cleaning and disinfecting the surgical instruments. Figure 33 shows instrument disinfectant cleaner.

Figure 33: Instruments Disinfectant Cleaner

Cotton Roll

A roll of medical-grade cotton provides padding and absorbency for cleaning the wounds, burns or cuts, or other clinical applications. Figure 34 shows cotton roll.

Figure 34: Cotton Roll

Sterilization Pouches

A sterilization pouch is a disposable package used in a sterilizer to allow penetration of the sterilant to the items placed inside. After sterilization, it maintains the sterility of the processed item. Figure 35 sterilization pouches.

Figure 35: Sterilization Pouches

Hand Held Lighted Magnifying Glass

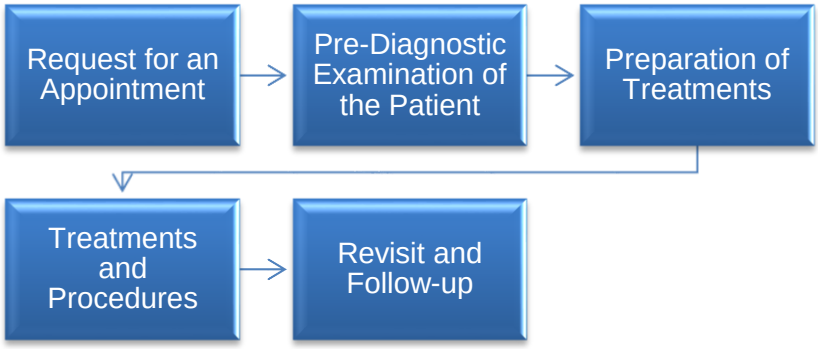
Magnifying glasses are commonly the simplest form of a basic microscope. Magnifying glasses are optical devices used for viewing details of objects with magnification. It is a magnifying tool about the size of a small computer mouse that uses light to give a bigger, clearer picture of a skin lesion. Figure 36 shows hand held lighted magnifying glass.

Figure 36: Hand Held Lighted Magnifying Glass

5.3. Process Flow for Dermatology Clinic

A general process flow of a dermatology clinic is shown in Figure 37.

Figure 37: Process Flow for Dermatology Clinic



The brief description of process flow is as follows:

Request an Appointment

An appointment may be sought by the patients by calling or visiting the clinic. Walk in patients may also be entertained based on the availability of the dermatologist time. In case of appointment, patients are given a specific date and time at which they may come for consultation. Receptionist records patient's appointment date and time. Sometimes, he/she may also receive consultancy fee at the time of appointment. Alternatively, the fee may also be collected when the patient comes for consultation.

Pre-Diagnostic Examination of the Patient

Before sending a patient to a dermatologist, a nurse tests/checks and records basic health indicators which include his/her blood pressure, sugar level, etc. depending on the medical treatment to be provided afterwards. The dermatologist meets the patient and obtains his/her medical history and analyze the condition of the patient. If the dermatologist has identified that the patient has acne problem, then dermatologist will prescribe some medication. However, for other cases like skin scar, hirsutism and alopecia patient's dermatologist may give them the next appointment for further treatment.

Preparation for Treatment

For detailed treatment, the clinic is equipped with the required tools and instruments. These instruments have to be sterilized before doing procedures. Safety measures are taken i.e. wearing gloves, gowns and goggles to avoid exposure to hazards i.e. injury due to sharp edges, radiation and/or spread of contagious diseases.

Treatments and Procedures

On the next appointment, for skin scar, hirsutism and alopecia patients, the dermatologist performs required suitable treatments and procedures. In this process, the patient first purchases the prescribed medication related to specific treatment from the pharmacy. If required, the patient gets the prescribed medical tests and shows the

results to the dermatologist to initiate the treatment. In case of skin scars and hirsutism, dermatologist may perform laser treatment. However, for alopecia dermatologist usually performs hair transplant surgery.

Revisit and Follow-up

As per the instructions of dermatologist, patient revisits for follow-up checkups. For that, a new appointment is usually sought, and consultation fee has to be paid again. Looking at patient's condition, the doctor may change the medication and give a date for further follow up examination, if required.

5.4. Concept of Quality in Dermatology Clinics

- There should be proper display of working hours of the clinic for consultation at a prominent place outside and inside the clinic for the convenience of patients.
- Arrangement for patients' privacy during examination must be ensured and the privacy of the patients must be respected. Female patients and minors should not be examined alone by male practitioner and in such cases the accompanying attendant should be made to remain present.
- Keeping in view the local social norms, appropriate partition of the waiting area for male and female patients and attendants may be done; either through a cloth curtain or a wooden or tinted glass wall installed inside the clinic. A ward screen may also be used for this purpose.
- The patient record should be maintained and should include serial number, consultation date, patient's name, parent's/husband's name, age, gender, address, contact number, the symptoms and the prescription provided / advised. Patient's record should preferably be maintained electronically and should be quickly retrievable.
- The clinic needs the following facilities to provide a comfortable environment for patient:
    - Adequate sitting arrangements
    - Alternate arrangements for lighting during power outages
    - Airy space, with proper natural ventilation for the comfort of patients
    - General cleanliness / hygiene in the clinic premises
    - Safe handling of medical/ clinical waste

5.5. Installed and Operational Capacities

The proposed dermatology clinic will operate in a single shift of 10 hours a day (4 hours in morning and 6 hours in the evening) in a day for 280 days in a year with 2 dermatologist specialist doctors. The service unit will annually provide five different skin related treatments to 11,470 patients at maximum capacity which includes 4,480 acne treatments, 933 laser skin scars treatments, 84 hair transplant treatments, 1,493 laser hair removal treatments and 4,480 treatments of general skin problems.

It is assumed that the operational capacity for the dermatology clinic is 60% during the first year of its operations. The capacity will increase at the rate of 5% per annum attaining 90% of its total service capacity during the projected period of 7 years. At 60% capacity utilization, the proposed clinic will provide treatments to 6,882 patients per year, which includes 2,688 acne treatments, 560 laser skin scars treatments, 50 hair transplant treatments, 896 laser hair removal treatments and 2,688 general treatments. Table 1 shows service capacity of dermatology clinic.

Table 1: Service Capacity of Dermatology Clinic

Treatments	No. of Dermatologist Specialist	Total Hours per Year	Ratio%	Annual Hours Available per Treatment	Average Hours Required per Patient	Annual Year Patients @ 100% Capacity	Initial Capacity @ 60% (Patients)
Acne Treatment	2	5,600	20%	1,120	0.25	4,480	2,688
Scar Removal Treament			25%	1,400	1.5	933	560
Hair Transplant			15%	840	10	84	50
Laser Hair Removal			20%	1,120	0.75	1,493	896
General Treatment			20%	1,120	0.25	4,480	2,688
Total (PKR)			**100%**	**5,600**		**11,470**	**6,882**

6. CRITICAL FACTORS

Before making the decision to invest in dermatology clinic, one should carefully analyze the associated risk factors. The important considerations in this regard include:

- Location considerations for easy access of the patients
- Appointment of trained, highly skilled and professional staff
- Strict compliance of hygiene standards
- Maintenance of high standards of patients' care and comfort
- Arrangement of courteous administration staff for patient satisfaction
- Regular feedback and follow up of the patients
- Provision of high-quality services
- Up-to-date knowledge of treatments and new technology

7. GEOGRAPHICAL POTENTIAL FOR INVESTMENT

For business success, it is necessary to determine the target market. In urban areas, usually people suffer from a higher number of skin diseases due to pollution, dust problems, contaminated water, unhygienic food, which is why they are more conscious about skin disorders. Therefore, the number of patients is growing day by day and current health care facilities are not enough to accommodate all patients which brings in the need for opening of new clinics Therefore, the proposed dermatology clinic would ideally be located in major cities of Pakistan like Karachi, Lahore, Faisalabad, Islamabad, Peshawar, Quetta, Multan, Rawalpindi, Bahawalpur, Sargodha, Sialkot, Gujranwala, Gujrat, Hyderabad and other cities of Pakistan. These cities are suitable due to presence of large population, availability of required resources, availability of good infrastructure and qualified personnel.

8. POTENTIAL TARGET MARKETS/CUSTOMERS

Pakistan is the fifth most populous country in the world, with 220 million people, growing at around 2% per annum. This increase in population keeps generating additional demand for health coverage. Although public health expenditure has been increasing over the years, it still remains insufficient to ensure provision of quality healthcare to the entire population.

The private sector plays a vital role to provide delivery of healthcare services in Pakistan. The rising population pressure on state health institutions has made it essential that the private sector comes forward to bridge the rising demand-supply gap.

With increasing disposable incomes and changing lifestyles, people prefer to go to private clinics due to availability of state-of-the-art facilities, safe and quality healthcare services, flexible timings and patient-centric approach.

Based on data from Pakistan Association of Dermatologists, Pakistan has only 760 licensed dermatologists. The available dermatologists are not enough to provide adequate healthcare coverage to the entire population of Pakistan. Majority of the specialist dermatologists are concentrated in big cities/towns leaving smaller towns and rural areas without any such service. In term of target customer or demand in the health sector, every city of Pakistan has huge potential. Therefore, growing needs of healthcare facilities and gap between doctor to patient ratio can be reduced by investing in establishing more dermatology clinics in the country.

Pakistan has a high prevalence of skin disorders. The common causes of skin disorders are medications, poor hygiene, contaminated water, sun burn and pollution. Therefore, skin diseases represent a significant health problem for the local population. Provision of specialized dermatologic clinics needs to be extended over a larger scale for prevention and better management of skin disorders.

9. PROJECT COST SUMMARY

A detailed financial model has been developed to analyze the commercial viability of dermatology clinic. Various assumptions relevant to revenue and costs along with the results of the analysis are outlined in this section.

The projected Income Statement, Cash Flow Statement and Balance Sheet are attached as annexures of this document.

All the figures in this financial model have been calculated after carefully considering the relevant assumptions and target market.

9.1. Initial Project Cost

Table 2 provides fixed and working capital requirements for establishment of dermatology clinic.

Table 2: Initial Project Cost estimates

Particulars	Cost (PKR)	Reference
Land	-	9.1.1
Building / Infrastructure	616,988	9.1.2
Machinery & equipment	4,221,500	9.1.3
Office equipment	1,585,000	9.1.4
Furniture & fixtures	1,260,800	9.1.5
Office vehicles	236,000	9.1.6

Pre-operating costs	409,172	9.1.7
Security Against Building	750,000	9.1.8
License costs	15,000	
Total Capital Cost - (A)	**9,094,460**	
Equipment spare part inventory	70,358	
Upfront building rent	250,000	
Cash	1,000,000	
Total	**1,320,358**	
Total Project Cost - (A+B)	**10,414,818**	

9.1.1. Land

The proposed unit will be established on a rented land having an area of 2,250 square feet (10 Marla). Total rental cost has been estimated as PKR 250,000. The breakup of the space requirement is provided in Table 3.

Table 3: Breakup of Space Requirement

Production Area	Number	Length	Width	Area (Sq. Ft.)
Reception Area	1	15	14	210
Pharmacy	1	14	10	140
Consultation Room	1	20	11	220
Staff Area	1	10	23	230
Waiting Area	1	12	10	120
Acne Treatment Room	1	20	14	280
Hair Transplant Surgery Room	1	15	18	270
Scar Removal Treatment Room	1	15	14	210
Laser Treatment Room	1	15	14	210
Store Room	1	10	10	100
Kitchen	1	10	10	100
Washrooms	4	5	8	160
Total				**2,250**

9.1.2. Building/ Infrastructure

There will be no cost of building construction since the dermatology clinic will be started in a rented building. However, there will be a renovation cost required to make the building usable for the business. Building rent of PKR 250,000 per month has been included in the operating cost. The proposed project requires electricity load of around 15-16 KW for which an industrial electricity connection will be required. Table 4 provide details of building renovation cost.

Table 4: Building Renovation Cost

Cost Item	Unit of Measurement	Total Units	Cost/Unit (PKR)	Total Cost (PKR)
Paint Cost	Liter	80	800	63,648
Labour Cost	Sq.Feet	7,956	15	119,340
Tile Cost	Sq.Feet	2,250	120	270,000
Labour Cost-Tile	Sq.Feet	2,250	40	90,000
Curtain	Units	10	6,000	60,000
Blinds	Units	2	7,000	14,000
Total				**616,988**

9.1.3. Machinery and Equipment

Table 5 provides details of machinery and equipment for the proposed project.

Table 5: Machinery Cost Details

Cost Item	Number of Items	Unit Cost (PKR)	Total Cost (PKR)
Hair Transplant Micromotor/FUE Machine	1	45,000	45,000
Treatment Chair	5	65,000	325,000
LED OT Lights	5	150,000	750,000
Patient Monitor	1	150,000	150,000
Surgical Bed	2	500,000	1,000,000
CO2 Scar Removal Laser Machine	1	500,000	500,000
ND YAG Hair Removal Laser Machine	1	500,000	500,000
Laser Hair Line Device	6	46,000	276,000
Surgical Magnifying Loupes	10	35,000	350,000
Medical Kit	15	4,000	60,000
Hair Trimmer	6	4,000	24,000

Screen Folds	15	6,500	97,500
Medical LED Wireless Headlamp	6	24,000	144,000
Total			**4,221,500**

9.1.4. Office Equipment

Table 6 shows details of equipment cost required for the dermatology clinic.

Table 6: Office Equipment Cost Details

Cost Item	No.	Unit Cost (PKR)	Total Cost (PKR)
Air Conditioners	8	105,000	840,000
Laptop	2	150,000	300,000
Desktop Computer	2	75,000	150,000
Printer	2	51,500	103,000
Water Dispenser	2	20,000	40,000
Security System (6 Cams , 2 MP)	8	2,500	20,000
DVR	1	14,000	14,000
LED/LCD TV	1	36,000	36,000
WI-FI/ Internet Connection	1	3,500	3,500
Ceiling Fan	7	8,000	56,000
Exhaust Fan	5	4,500	22,500
Total			**1,585,000**

9.1.5. Furniture and Fixture

Table 7 provides details of furniture and fixtures.

Table 7: Furniture & Fixtures Cost Details

Cost Item	Number of Items	Unit Cost (PKR)	Total Cost (PKR)
Executive Table	1	60,000	60,000
Executive Chair	1	30,000	30,000
Staff Chairs	21	14,000	294,000
Staff Table	7	30,000	210,000
Visitor Chairs	15	20,000	300,000
Sofa Set	6	45,000	270,000

Reception Desk	1	80,000	80,000
Patient Stool	8	2,100	16,800
Total			**1,260,800**

9.1.6. Vehicles

Table 8 provides details of the vehicles required along with their cost for the proposed project.

Table 8: Office Vehicle Cost Details

Cost Item	Number of Vehicles	Unit Cost (PKR)	Registration Fee Plus Number Plate Charges	Total (PKR)
Motorcycles	2	111,500	13,000	236,000
Total Cost (PKR)				**236,000**

9.1.7. Pre-Operating Costs

Table 9 provides details of estimated pre-operating costs.

Table 9: Pre-Operating Cost Details

Costs Item	Hiring Months Beforein Year 0	Unit Cost (per month) (PKR)	Cost (PKR)
Dermatologist Specialist	1	100,000	100,000
Nursing Staff	1	50,000	50,000
Receptionist	1	40,000	40,000
Office Boy	1	25,000	25,000
Security Guard	1	75,000	75,000
Sweeper	1	25,000	25,000
Utility expenses			94,172
Total Cost (PKR)			**409,172**

9.1.8. Security against Building

Table 10: Security against Building

Particular	Months	Rent per month (PKR)	Total (PKR)
Security against building	3	250,000	750,000
Total (PKR)			**750,000**

9.2. Breakeven Analysis

Table 11 shows calculation of break-even analysis.

Table 11: Breakeven Analysis

Particulars	Amount First Year (PKR)	Profitability Ratio
Sales (PKR) – A	45,176,000	100%
Variable Cost (PKR) – B	34,465,314	76%
Contribution (PKR) (A-B) = C	10,710,686	24%
Fixed Cost (PKR) – D	9,317,062	21%
Contribution Margin	24%	
Breakeven Analysis		
Breakeven Revenue (PKR)		38,156,572
Break-Even (Patients)		5,813
Breakeven Capacity		51%

9.3. Revenue Generation

Table 12 and Table 13 provides details regarding revenue generation from the dermatology clinic and other income generated from pharmacy during the first year of its operations.

Table 12: Revenue Details

Products	Number of Patients @ 60%	Treatment Charges Per Patient (PKR)	Total Revenue (PKR)
Acne Treatment	2,688	4,000	10,752,000
Scar Removal Treament	560	23,000	12,880,000
Hair Transplant	50	180,000	9,000,000
Laser Hair Removal	896	8,000	7,168,000
General Treatment	2,688	2,000	5,376,000
Total (PKR)	**6,882**		**45,176,000**

Table 13: Other Income for Pharmacy

Particulars	Monthly Rent (PKR)	Annual Rental Income (PKR)
Pharmacy Rentals	50,000	600,000
Total (PKR)		**600,000**

9.4. Variable Cost Estimate

Variable costs of the project have been provided in Table 14.

Table 14: Variable Cost Estimate

Description of Costs	Amount (PKR)
Consumables	2,331,200
Direct Utilities Cost	963,545
Dermatologist Specialist Share	18,070,400
Direct Labor	11,400,000
Machinery Maintenance Cost	844,300
Communications expense (phone, mail, internet, etc.)	405,000
Office vehicles running expense	300,869
Office expenses (stationery, entertainment etc.)	540,000
Total Variable Cost (PKR)	**34,855,314**

Table 15: Consumables

Personnel	Number of Personnel	Salary per Head (PKR)	Annual Salaries (PKR)
FUE Hair Punch	50	5,000	250,000
Graft Plate	50	500	25,000
Sapphire Blades	30	12,000	360,000
FU Implanter	30	7,000	210,000
Laser Light Safety Goggles(Patient)	15	2,000	30,000
Laser Light Saety Glasses (Operator)	10	10,000	100,000
Disposable Surgery Lab Coats	50	1,000	50,000
Hand Held Lighted Magnifying Glass	20	1,000	20,000
Disposable Caps	7,000	15	105,000
Disposable Vinyl Gloves	7,000	15	105,000

Disposable Mask	7,000	10	70,000
Local Anthesia Injection (50pcs)	150	1,200	180,000
Disposable Syringe and Test Tubes	1,500	25	37,500
IV Cannula	500	150	75,000
Bandage (3 inch roll)	400	100	40,000
Surgical Trays	30	600	18,000
Tape	50	50	2,500
Marker	30	50	1,500
Sweeper Kit (**Table 16**)			84,200
Hand Sanitizer (50ml)	150	300	45,000
Air Freshener	150	400	60,000
Surgical Sponges (200pcs)	40	5,000	200,000
Instrument Disinfectant Cleaner	50	3,000	150,000
Cotton Roll	2,000	45	90,000
Sterilization Pouches (200pcs)	30	750	22,500
Total			**2,331,200**

Table 16: Sweeper Kit

Item	No.	Cost (PKR)	Total Cost (PKR)
Dust Mop	10	770	7,700
Double Bucket Mop Trolly	3	10,000	30,000
Floor Squeegee	8	1,200	9,600
Phenyle (5 Litre)	15	1,500	22,500
Broom Brush & Dustpan	8	1,500	12,000
Cob Web Cleaner	6	400	2,400
Total			**84,200**

Table 17: Direct Labor

Personnel	Number of Personnel	Salary per Head (PKR)	Annual Salaries (PKR)
Dermatologist Specialist	2	125,000	3,000,000
Dermatologist Assistant	4	100,000	4,800,000

Nursing Staff	6	50,000	3,600,000
Total			**11,400,000**

Table 18: Vehicle Running Expenses

Particulars	Motorcycle KM Per Year	Motorcycle
Fuel cost	22,400	131,768
Mileage (KM)		40
Oil & Tuning Cost per Year (PKR)		18,667
Oil & Tuning KM		1,200
No of Vehicles		2
Yearly Cost		**300,869**

Table 19: Variable Cost Assumption

Description of Costs	Rational
Machinery Maintenance Cost	20% of Cost of Machinery
Commuication expense	15% of Management staff expense
Office expenses (stationery, entertainment, etc.)	20% of Management staff expense
Dermatologist Specialist Share	40% of Revenue

9.5. Fixed Cost Estimate

Table 20 shows the estimated fixed cost of the project.

Table 20: Fixed Cost Estimate

Description of Costs	Amount (PKR)
Management Staff	2,700,000
Administration benefits expense	705,000
Building rental expense	3,000,000
Indirect Utilities	166,514
Promotional expense	903,520
Amortization of Legal, Licensing, and Training costs	3,000
Depreciation expense	1,157,194
Amortization of pre-operating costs	81,834

Total Fixed Cost	**8,717,062**

Table 21: Management Staff

Personnel	Number of Personnel	Salary per Head (PKR)	Annual Salaries (PKR)
Receptionist	1	40,000	480,000
Accountant	1	60,000	720,000
Office Boy	1	25,000	300,000
Security Guard	2	25,000	600,000
Sweeper	2	25,000	600,000
Total			**2,700,000**

Table 22: Fixed Cost Assumptions

Description of Costs	Rational
Promotional expense	2% of revenue
Administration benefits expense	5% of administration expense
Depreciation	
Building & infrastructure	10% of cost
Machinery & equipment	15% of cost
Office equipment, Furniture & Fixture, Office vehicles	15% of cost

9.6. Financial Feasibility Analysis

The financial feasibility analysis provides the information regarding projected Internal Rate of Return (IRR), Net Present Value (NPV) and Payback period of the study, which is shown in Table 23.

Table 23: Financial Feasibility Analysis

Description	Project
IRR	65%
NPV (PKR)	27,450,232
Payback Period (years)	2.24

Projection Years	10
Discount rate used for NPV	25%

9.7. Financial Feasibility Analysis with 50% Debt

The financial feasibility analysis provides the information regarding projected IRR, NPV and payback period of the study on the basis of Debt: Equity Model (50:50), which is shown in Table 24.

Table 24: Financial Feasibility Analysis with 50% Debt

Description	Project
IRR	62%
NPV (PKR)	31,532,467
Payback Period (years)	2.40
Projection Years	10
Discount rate used for NPV	22%

9.8. Human Resource Requirement

The proposed services shall require the workforce as provided in Table 25.

Table 25: Human Resource

Personnel	Number of Personnel	Salary per Head (PKR)	Annual Salaries (PKR)
Dermatologist Specialist	2	125,000	3,000,000
Dermatologist Assistant	4	100,000	4,800,000
Nursing Staff	6	50,000	3,600,000
Receptionist	1	40,000	480,000
Accountant	1	60,000	720,000
Office Boy	1	25,000	300,000
Security Guard	2	25,000	600,000
Sweeper	2	25,000	600,000
Total	**21**		**14,100,000**

10. CONTACT DETAILS

The contact details of all the major suppliers of machinery and equipment are given in Table 26.

Table 26: Contact Details

Name of Supplier	Product	Contact	Website/Email
Guru Hair Instruments	Punch Motor Machine and Consumables		www.guruhairinstruments.com
Soft Imaging & Medical Solutions	LED OT Lights	91-8048602234	www.softimaging.in
Contec Medical Systems Co., Ltd.	Patient Monitor		www.contecmed.en.alibaba.com
Harbin Howell Medical Apparatus And Instruments Co., Ltd.	Surgical Bed		www.huaxier.en.alibaba.com
Haidari Beauty Technology (Beijing) Co	CO2 Scar Removal Laser Machine	8618518348666	info@hadierbeauty.com
Beijing Sincoheren Science and Technology Development	ND YAG Hair Removal Laser Machine		www.topsincoheren.en.alibaba.com
New India Works	FUE Hair Punch		www.newindiaworks.trustpass.alibaba.com
Chengdu Great Long Hua Trade Co.,ltd.	Sapphire Blades		www.cdgreatlh.en.alibaba.com
Ningbo Healsunny Technology Co., Ltd.	FU Implanter		www.healsunny.en.alibaba.com

11. USEFUL LINKS

Table 27: Useful Links

Name of Organization	E-mail Address
Small and Medium Enterprises Development Authority (SMEDA)	www.smeda.org.pk
National Business Development Program (NBDP)	www.nbdp.org.pk
Government of Pakistan	www.pakistan.gov.pk
Ministry of National Health Services Regulations and Coordination	www.nhsrc.gov.pk
Ministry of Federal Education and Professional Training	www.mofept.gov.pk
Specialized Healthcare and Medical Education Department Lahore	health.punjab.gov.pk/
Government of Punjab	www.punjab.gov.pk
Government of Sindh	sindh.gov.pk/
Government of Balochistan	balochistan.gov.pk/
Government of KPK	kp.gov.pk/
Government of Gilgit Baltistan	gilgitbaltistan.gov.pk/
Government of Azad Jammu & Kashmir	ajk.gov.pk/
Trade Development Authority of Pakistan	www.tdap.gov.pk
Securities and Exchange Commission of Pakistan	www.secp.gov.pk
State Bank of Pakistan	www.sbp.gov.pk
Federal Board of Revenue	www.fbr.gov.pk
Federation of Pakistan Chambers of Commerce and Industry (FPCCI)	www.fpcci.com.pk
Pakistan Stock Exchange (PSX)	www.psx.com.pk
Pakistan Standards and Quality Control Authority (PSQCA)	http://www.psqca.com.pk
Punjab Small Industries Corporation	https://www.psic.gop.pk/
Sindh Small Industries Corporation	https://ssic.gos.pk/
Government of KPK	https://small_industries_de.kp.gov.pk/
Government of Balochistan Industries and Commerce	https://balochistan.gov.pk/departments-download/industries-and-commerce/

Table 28: Healthcare Commissions

Name of Organization	Website	Contact
Islamabad Healthcare Regulatory Authority	https://ihra.gov.pk	051-9199902
Punjab Healthcare Commission	https://www.phc.org.pk	042-99333161
Sindh Healthcare Commission	http://shcc.org.pk	111-117-422
Khyber Pakhtunkhwa Healthcare Commission	http://hcc.kp.gov.pk	091-9213242
Balochistan Healthcare Commission	https://balochistan.gov.pk/departments/health/	081-9202287
Directorate of Health Services Gilgit Baltistan		05811-920280
Department of Health Services Azad Jammu & Kashmir	https://health.ajk.gov.pk	0582-2920015

12. ANNEXURES

12.1.Income Statement

Income Statement **SMEDA**

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenue-Acne Treatment	10,752,000	12,820,565	15,196,643	17,921,185	21,040,267	24,605,716	28,675,791	31,562,487	34,739,777	38,236,915
Revenue-Scar Removal Treatment	12,880,000	15,341,092	18,195,025	21,468,086	25,181,983	29,463,212	34,351,207	37,809,229	41,615,358	45,804,637
Revenue-Hair Transplant	9,000,000	10,896,600	12,865,781	15,120,999	17,699,890	20,644,764	24,323,215	26,771,752	29,466,775	32,433,097
Revenue-Laser Hair Removal Treatment	7,168,000	8,541,173	10,127,865	11,947,456	14,019,017	16,399,503	19,117,194	21,041,658	23,159,851	25,491,276
Revenue-General Treatment	5,376,000	6,410,283	7,598,322	8,960,592	10,520,134	12,302,858	14,337,895	15,781,243	17,369,889	19,118,457
Revenue	**45,176,000**	**54,009,713**	**63,983,635**	**75,418,318**	**88,461,290**	**103,416,053**	**120,805,302**	**132,966,369**	**146,351,651**	**161,084,383**
Cost of sales										
Consumables	2,331,200	2,565,874	2,824,172	3,108,472	3,421,392	3,765,812	4,144,903	4,562,157	5,021,414	5,526,903
Direct Utilities Cost	963,545	1,050,617	1,145,558	1,249,079	1,361,954	1,485,029	1,619,226	1,765,550	1,925,097	2,099,061
Direct Labor	11,400,000	12,505,800	13,718,863	15,049,592	16,509,403	18,110,815	19,867,564	21,794,718	23,908,805	26,227,959
Dermatologist Specialist Share	18,070,400	21,603,885	25,593,454	30,167,327	35,384,516	41,366,421	48,322,121	53,186,548	58,540,660	64,433,753
Machinery Maintenance Cost	844,300	929,293	1,022,842	1,125,808	1,239,139	1,363,879	1,501,176	1,652,295	1,818,626	2,001,701
Total cost of sales	33,609,445	38,655,470	44,304,889	50,700,278	57,916,403	66,091,955	75,454,990	82,961,267	91,214,602	100,289,378
Gross Profit	11,566,555	15,354,244	19,678,747	24,718,040	30,544,887	37,324,097	45,350,312	50,005,102	55,137,049	60,795,006
General administration & selling expenses										
Management Staff	2,700,000	2,961,900	3,249,204	3,564,377	3,910,122	4,289,404	4,705,476	5,161,907	5,662,612	6,211,885
Administration benefits expense	705,000	773,385	848,403	930,698	1,020,976	1,120,011	1,228,652	1,347,831	1,478,571	1,621,992
Building rental expense	3,000,000	3,300,000	3,630,000	3,993,000	4,392,300	4,831,530	5,314,683	5,846,151	6,430,766	7,073,843
Indirect Utilities	166,514	181,561	197,968	215,858	235,364	256,633	279,824	305,111	332,683	362,746
Communications expense (phone, mail, internet, etc.)	405,000	444,285	487,381	534,657	586,518	643,411	705,821	774,286	849,392	931,783
Office vehicles running expense	300,869	331,157	364,493	401,186	441,572	486,023	534,950	588,801	648,074	713,313
Office expenses (stationery, entertainment etc.)	540,000	592,380	649,841	712,875	782,024	857,881	941,095	1,032,381	1,132,522	1,242,377
Promotional expense	903,520	1,080,194	1,279,673	1,508,366	1,769,226	2,068,321	2,416,106	2,659,327	2,927,033	3,221,688
Amortization of Legal, Licensing, and Training costs	3,000	3,000	3,000	3,000	3,000	4,737	4,737	4,737	4,737	4,737
Depreciation expense	1,157,194	1,157,194	1,157,194	1,157,194	1,157,194	1,157,194	792,029	2,125,162	2,125,162	2,125,162
Amortization of pre-operating costs	81,834	81,834	81,834	81,834	81,834	-	-	-	-	-
Subtotal	9,962,931	10,906,890	11,948,991	13,103,045	14,380,130	15,715,144	16,923,373	19,845,695	21,591,552	23,509,526
Operating Income	1,603,624	4,447,353	7,729,755	11,614,995	16,164,757	21,608,953	28,426,939	30,159,407	33,545,497	37,285,479
Other income 1 (Pharmacy Rental Income)	600,000	660,400	726,880	800,053	880,592	969,238	1,066,808	1,174,200	1,292,402	1,422,504
Gain / (loss) on sale of machinery & equipment	-	-	-	-	-	-	1,055,375	-	-	
Gain / (loss) on sale of office equipment	-	-	-	-	-	-	396,250	-	-	
Gain / (loss) on sale of office vehicles	-	-	-	-	-	-	59,000	-	-	
Earnings Before Interest & Taxes	2,203,624	5,107,753	8,456,636	12,415,048	17,045,349	22,578,191	31,004,372	31,333,607	34,837,899	38,707,984
Subtotal	-	-	-	-	-	-	-	-	-	-
Earnings Before Tax	2,203,624	5,107,753	8,456,636	12,415,048	17,045,349	22,578,191	31,004,372	31,333,607	34,837,899	38,707,984
Tax	564,700	731,744	1,459,159	2,459,138	3,732,471	5,254,003	7,596,312	7,695,082	8,746,370	9,907,395
NET PROFIT/(LOSS) AFTER TAX	**1,638,924**	**4,376,009**	**6,997,477**	**9,955,910**	**13,312,878**	**17,324,188**	**23,408,060**	**23,638,525**	**26,091,529**	**28,800,588**

12.2.Balance Sheet

Balance Sheet											SMEDA
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Assets											
Current assets											
Cash & Bank	1,000,000	3,021,999	5,997,324	9,387,898	13,150,387	17,269,536	21,843,925	32,203,466	57,869,413	85,972,421	117,834,593
Accounts receivable	-	-	-	-	-	-	-	-	-	-	-
Equipment spare part inventory	70,358	84,850	102,326	123,401	148,817	179,468	216,432	261,009	314,767	379,598	-
Pre-paid building rent	250,000	275,000	302,500	332,750	366,025	402,628	442,890	487,179	535,897	589,487	-
Total Current Assets	1,320,358	3,381,848	6,402,150	9,844,049	13,665,229	17,851,631	22,503,247	32,951,654	58,720,078	86,941,506	117,834,593
Fixed assets											
Land	-	-	-	-	-	-	-	-	-	-	-
Building Infrastructure Renovation	616,988	555,289	493,590	431,892	370,193	308,494	246,795	185,096	123,398	61,699	-
Machinery & equipment	4,221,500	3,588,275	2,955,050	2,321,825	1,688,600	1,055,375	422,150	8,002,320	6,801,972	5,601,624	4,401,276
Furniture & fixtures	1,260,800	1,071,680	882,560	693,440	504,320	315,200	126,080	2,389,986	2,031,488	1,672,990	1,314,492
Office vehicles	236,000	200,600	165,200	129,800	94,400	59,000	23,600	359,570	305,635	251,699	197,764
Office equipment	1,585,000	1,347,250	1,109,500	871,750	634,000	396,250	158,500	3,004,543	2,553,861	2,103,180	1,652,499
Security against building	750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000
Total Fixed Assets	8,670,288	7,513,094	6,355,900	5,198,707	4,041,513	2,884,319	1,727,125	14,691,516	12,566,354	10,441,192	8,316,031
Intangible assets											
Pre-operation costs	409,172	327,337	245,503	163,669	81,834	-	-	-	-	-	-
Total Intangible Assets	424,172	339,337	254,503	169,669	84,834	23,686	18,948	14,211	9,474	4,737	37,400
TOTAL ASSETS	**10,414,818**	**11,234,280**	**13,012,553**	**15,212,424**	**17,791,576**	**20,759,636**	**24,249,321**	**47,657,381**	**71,295,906**	**97,387,436**	**126,188,024**
Liabilities & Shareholders' Equity											
Current liabilities											
Total Current Liabilities	-	-	-	-	-	-	-	-	-	-	-
Other liabilities											
Total Long Term Liabilities	-	-	-	-	-	-	-	-	-	-	-
Shareholders' equity											
Paid-up capital	10,414,818	10,414,818	10,414,818	10,414,818	10,414,818	10,414,818	10,414,818	10,414,818	10,414,818	10,414,818	10,414,818
Retained earnings		819,462	2,597,735	4,797,606	7,376,758	10,344,818	13,834,503	37,242,563	60,881,088	86,972,618	115,773,206
Total Equity	10,414,818	11,234,280	13,012,553	15,212,424	17,791,576	20,759,636	24,249,321	47,657,381	71,295,906	97,387,436	126,188,024
TOTAL CAPITAL AND LIABILITIES	**10,414,818**	**11,234,280**	**13,012,553**	**15,212,424**	**17,791,576**	**20,759,636**	**24,249,321**	**47,657,381**	**71,295,906**	**97,387,436**	**126,188,024**

12.3.Cash Flow Statement

Cash Flow Statement											SMEDA
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Operating activities											
Net profit		1,638,924	4,376,009	6,997,477	9,955,910	13,312,878	17,324,188	23,408,060	23,638,525	26,091,529	28,800,588
Add: depreciation expense		1,157,194	1,157,194	1,157,194	1,157,194	1,157,194	1,157,194	792,029	2,125,162	2,125,162	2,125,162
amortization of pre-operating costs		81,834	81,834	81,834	81,834	81,834	-	-	-	-	-
Accounts receivable		-	-	-	-	-	-	-	-	-	-
Equipment inventory	(70,358)	(14,491)	(17,476)	(21,075)	(25,416)	(30,651)	(36,964)	(44,577)	(53,758)	(64,831)	379,598
Pre-paid building rent	(250,000)	(25,000)	(27,500)	(30,250)	(33,275)	(36,603)	(40,263)	(44,289)	(48,718)	(53,590)	589,487
Cash provided by operations	(320,358)	2,841,461	5,573,061	8,188,179	11,139,247	14,487,652	18,408,893	24,115,960	25,665,947	28,103,008	31,899,572
Financing activities											
Issuance of shares	10,414,818	-	-	-	-	-	-	-	-	-	-
Cash provided by / (used for) financing activities	10,414,818	-	-	-	-	-	-	-	-	-	-
Investing activities											
Capital expenditure	(9,094,460)	-	-	-	-	(23,686)	-	(13,756,419)	-	-	(37,400)
Cash (used for) / provided by investing activities	(9,094,460)	-	-	-	-	(23,686)	-	(13,756,419)	-	-	(37,400)
NET CASH	1,000,000	2,841,461	5,573,061	8,188,179	11,139,247	14,463,967	18,408,893	10,359,541	25,665,947	28,103,008	31,862,172

13. KEY ASSUMPTIONS

13.1. Operating Cost Assumptions

Table 29: Operating Cost Assumptions

Description	Details
Operating costs growth rate	10.1%
Electricity growth rate	9.0%
Water price growth rate	9.0%
Gas price growth rate	9.0%
Wage growth rate	9.7%
Office equipment price growth rate	9.6%
Office vehicles price growth rate	6.2%

13.2. Revenue Assumptions

Table 30: Revenue Assumptions

Description	Details
Sale price growth rate	10.1%
Capacity utilization	60%
Capacity utilization growth rate	5%
Maximum capacity	90%

13.3. Financial Assumptions

Table 31: Financial Assumptions

Description	Details
Project life (Years)	10
Debt: Equity	0:100
Discount Rate	25%

13.4. Debt Related Assumptions

Table 32: Debt Related Assumption

Description of Cost	Details
Project Life (Years)	10

Debt: Equity	50:50
Discount Rate	22%
Debt Grace Period	1 Years
Interest Rate (KIBOR+3%)	19%

13.5.Cash Flow Assumptions

Table 33: Cash Flow Assumptions

Description	Details
Accounts receivable cycle (in days)	-
Accounts payable cycle (in days)	-

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