

SUMMER INTERNSHIP REPORT
On
“DETAILED FEASIBILITY STUDY/ PROJECT REPORT
FOR HAND SANITIZER PRODUCT”

FEDCO
BUILDING STRONG CONNECTION

FACULTY OF COMMERCE (B.H.U)

(Batch 2019-2021)



BHU

Banaras Hindu University

UNDER THE SUPERVISION OF
MR. ADITYA KUMAR

SUBMITTED BY
SULOCHANA THAPA
MBA-FM (1st Year)
2019 - 2021

INDEX

1. ANNEXURE

- I. ANNEXURE**
- II. ANNEXURE**
- III. ANNEXURE**
- IV. ANNEXURE**
- V. ANNEXURE**

2. PROJECT SCOPE

3. PHASE 1

1) Market Study And Marketing Model

- a) Demand Projections (Demand and Supply Gap)
- b) Competition and Name of The Peers in The Industry
- c) Marketing Model - Go -To- Market Strategy for New Projects
- d) Storage and Warehousing, Logistics
- e) Market Segmentation
- f) Advertising and Promotion
- g) Marketing Cost Estimation
- h) Pricing Strategy

2) Raw Materials/Inputs

- a) Description of Detailed Raw Materials/ BOQ/BOM/ Composition
- b) Sources of Raw Material/ Suppliers
- c) Cost of Raw Material

3) Plant And Machineries

- a) Description of Detailed Plant and Machinery
- b) Sources of Plant & Machineries

- c) Cost of Plant and Machineries and Quotations of Major Plant and Machinery
- d) Installation Drawing- High-Level/ Snapshot
- e) Material Handling and Storage Equipment
- f) Any Special Temperature Control / Environment/ Climate
- g) Estimated Life of Each Machine and Equipment

4. PHASE II

1) Factory Set Up &Capex Cost

- a) Choice Of Factory Location
- b) Land Requirement & Cost
- c) Choice Of Technology
- d) Project Implementation – Phase Wise / Activity Wise/ Milestones / Timelines
- e) Timeline For Commercial Production
- f) Capex Cost Estimation- Phase Wise / Milestones

2) Production

- a) Production Process- Flow Chart
- b) Product Mix – Which Products To Be Produced & How Much?
- c) Production Cost Estimation

3) Environment, Health & Safety Requirements & Standards

- a) Pollution Control Measures – Air, Water, Earth, Noise Level Etc.
- b) Disposal Of Effluents, Sludge, Wastes, Scrap Mechanism
- c) Power, Fuel & Electricity Conservation Measures
- d) Cost Estimation – Capex & Opex

5. PHASE III

1. Other Utilities & Cost

- a) Manpower Cost Estimation
- b) Power And Fuel

- c) Water Requirements If Any
- d) Packaging Cost
- e) Logistics & Transportation- Distribution Channel
- f) General And Administrative Overhead Cost
- g) Incentives And Subsidy If Any From Govt

2. Finance & Commercials

- a) Estimate Total Project Cost - Capex
- b) Estimate Cost Of Sale
- c) Estimate Source Of Finance
- d) Working Capital Requirement
- e) Breakeven Analysis, Payback Period
- f) Profitability, Scalability & Suitability
- g) Risk Analysis

6. EXECUTIVE SUMMARY

7. CONCLUSION

ANNEXURE- I

FORMAT FOR PROJECT PROPOSAL

- 1. Name of the programme : MBA;**
Specialization: Financial Management
- 2. Name of the Student:** Sulochana Thapa
- 3. Roll Number:** 74
- 4. Examination Registration Number:** 19415MFM074
- 5. Mobile Number of Student & Email:** 9621275987 /
Sulothapa99@gmail.com
- 6. Name of Proposed Guide:** Mr. Aditya Kumar
- 7. Institution / Organization where the guide works:** FEDCO
- 8. Title of the Project:** Startup- Hand Sanitizer Company

Date: 13/08/2020

Sulochana Thapa

Signature of student

ANNEXURE II

Startup - HAND SANITIZER COMPANY

1) NEED FOR THE STUDY: Due to this pandemic, the demand for Sanitizers have risen because of this high demand the prevailing suppliers are unable to meet the demand of the customers. So, in order to bridge this gap, we thought of starting a Kneat N Klean-hand sanitizers.

2) PRIMARY OBJECTIVE: The primary objective of this project is to prepare a hand sanitizer which is efficient in killing bacteria after the use and minimizing the risk of healthcare associated infections.

3) SECONDARY OBJECTIVES: To produce an affordable product and provide it to every section of society. We will target those sections who are unaware of their hygiene and safety. We will try to expand this not only in Nepal but also to other countries.

4) METHODOLOGY: Measures are as follows:

- Purchase of machineries
- Purchase of raw materials
- Purchase of land and building
- Manufacturing of raw materials into finished products
- Storage and warehousing of products

- Distribution channel and logistics
- Selling of products to customers/consumers
- Feedback

5) LIMITATIONS:

- Lengthy process
- Large number of competitors

Date:13/08/2020

Thapa

Sulochana

Signature of student

ANNEXURE III

DECLARATION

I the undersigned solemnly declare that the project report on "**DETAILED FEASIBILITY STUDY/ PROJECT REPORT FOR HAND SANITIZER PRODUCT**" is based on my own work carried out during the course of our internship under the supervision of **Mr. Aditya Kumar, Feedback Energy Distribution Company**. The work has not been submitted to any other Institution for any other degree/diploma/certificate in this university or any other University of India or abroad.

Sulochana Thapa
Faculty of commerce
Banaras Hindu University
Varanasi – 221005
Date: 13/08/2020

ANNEXURE IV

ACKNOWLEDGEMENT

In preparation of my project, I had to take the help and guidance of some respected persons, who deserve my deepest gratitude. As the completion of this project gave me much pleasure, I would like to show my gratitude Mr. Aditya Kumar, SIP manager, on FEDCO for giving me a good guideline for assignment throughout numerous consultations. I would also like to expand my gratitude to all those who have directly and indirectly guided me for completing this project.

In addition, thank you to Ms. Shruti Singh, FEDCO, Ms. Vanshika Arora, KPMG and Ishan Narain, BHU who introduced me to the Methodology of work. I also thank the Banaras Hindu University(BHU) for providing us such an opportunity for our summer internship where we learnt various practical things.

Many people, especially my batch mates have made valuable comment suggestions on my project which gave me an inspiration to improve the quality of the project report.

ANNEXURE V

PREFACE

This Project Report has been prepared in partial fulfillment of the requirement for the Summer Internship Program: Hand Sanitizer (startup). For preparing the Project Report, we have visited various online website and did research, to avail the necessary information. The blend of learning and knowledge acquired during our practical studies in FEDCO, SIP is presented in this Project Report. The rationale behind preparing the Project Report is to know about how a project is managed and also to implement the knowledge which we had acquired during our online SIP sessions like preparing graphs, excel, management etc. The Project Report starts with the basic concepts of hand sanitizer and its impact on market during this pandemic and also covers the basic objective of the company.

This project contains cost estimation for different aspects needed for this project like CAPEX, COGS, Cost of production etc. this project also contains graphs and tables which will help readers to understand easily.

The information presented in this Project Report is obtained from sources like sample projects and online research.

**Sulochana Thapa
MBA(FM)
Banaras Hindu University**

KNEAT N KLEAN

(A DROP TOWARDS HEALTHY LIFE)

PRODUCT HAND SANITIZER



PROJECT SCOPE

AUTHORISED BY
SULOCHANA THAPA
20 JULY 2020

HAND SANITIZER

Hand sanitizers were firstly introduced in 1966 in medical settings such as hospitals and healthcare facilities. The product was popularized in early 1990s. Hand sanitizer is generally used as a substitute of hand wash and soaps as a reason, it doesn't require water. The product is a liquid, gel or foam generally used to minimize infectious agents on the hands. Basically, there are two versions of hand sanitizers, first the Alcohol-based and second one is Non-Alcohol based. Alcohol-based version typically contain some combination of isopropyl alcohol, ethanol (ethyl alcohol), or propanol, with versions containing 60% - 95% alcohol. Non-Alcohol based contain benzalkonium chloride or triclosan and are very less effective than the Alcohol based.

In 2010 the World Health Organization produced a guide for manufacturing hand sanitizer, which received renewed interest in 2020 because of shortages of hand sanitizer in the wake of the COVID-19 pandemic. Dozens of liquor and perfume manufacturers switched their manufacturing facilities from their normal product to hand sanitizer. In order to keep up with the demand, local distilleries started using their alcohol to make hand sanitizer. Distilleries producing hand sanitizer originally existed in a legal grey area in the United States, until the Alcohol and Tobacco Tax and Trade Bureau declared that distilleries could produce their sanitizer without authorization.

PROJECT OBJECTIVE

The main objective of my project (i.e. hand sanitizer) is to test its efficiency in killing bacteria after the use and minimizing the risk of healthcare associated infections. There can be other objectives like:

- Remove or destroy potentially harmful micro-organism,
- Prevent the hands in becoming a vector of cross infection,
- Render the hands socially clean in order to continue the delivery of health care.

Secondly, providing sanitizers at affordable rate on the basis of sanitizer's quantity and quality. And lastly, maximization of profit, keeping in mind the social and environmental responsibility.

PRODUCT SCOPE

The global hand sanitizer market size valued at USD 2.7 billion in 2019 and is expected to grow at a compound annual growth rate (CAGR) of 22.6% from 2020 to 2027. Shifting consumer preference towards convenient hygiene products is expected to drive the market. Similarly,

PROJECT SCOPE

particularly in India the market size grew from 10 crore per year to 43 crores in March, 2020. The Compound Annual Growth Rate for Indian market has reached above 20%.

The state government of different states in India has granted permission for manufacturing sanitizers which lead to a total of 152 manufacturers in March, commanding 61% market and 46% value share. Hand sanitizer took over the huge market in India as because of this corona pandemic. If we see this, from profit point of view demand for this product will never go down below the Break Even Point because of hygiene reasons. As we know the market keeps on changing rapidly against new innovations and technologies, the scope of the new products and applications are necessary.

MARKET SEGMENTS

DISTRIBUTION CHANNEL

Hypermarket and supermarket channels accounted for the largest share of more than 39.3% of the market in 2019. Online distribution channel is projected to witness a CAGR of 23.2% from 2020 to 2027 owing to the increasing influence of digital media and marketing.

- Supermarket
- Specialty Store
- Medical Store
- Online

PRODUCT TYPES

- Gel
- Liquid
- Foam

REGIONAL OUTLOOK

- Butwal, Nepal
- Pokhara, Nepal
- Kathmandu, Nepal
- Northern Regions of India

PRODUCT INSIGHTS

The gel-based hand sanitizer segment dominated with a share of more than 49.0% of the global market in 2019. Gel sanitizers are usually thin and watery in formulation and therefore provide the convenience of getting spread easily and penetrate into the skin to kill most of the bacteria. Easy product availability and wider access to this type of hand sanitizer are driving the growth of the segment in the market in the last few years. The product results in decreased microbial populations in different ways. Moreover, the inclusion of different flavours affecting the fragrance is driving segment growth in the hand sanitizer market. For instance, in 2017, Himalaya Wellness has launched new sanitizers which are available in fruit flavours including strawberry, green apple, litchi, and orange.

The foam-based hand sanitizer segment is expected to dominate the market with a revenue based CAGR of 23.1% from 2020 to 2027. The product is gaining prominence in the market owing to its ability to penetrate the skin and stay there for a longer period of time. Foam based sanitizers provide easy application on hands as it does not need to get rubbed off and thus provides the convenience of saving time. This product is expected to witness a surge in demand owing to its greater convenience of handling. For instance, in April 2018, Arrow Solutions launched KR10 Hand Sanitizer Foam, which is an alcohol-free foam sanitizer designed for frequent use.

PROJECT REQUIREMENTS

LEGAL DOCUMENTS AND LICENSE

- Permission from local office of food and drug administration
- License for alcohol
- Fire safety norms for alcohol
- Must follow FDA regulations

PLANT AND MACHINERY

- Planetary mixer
- Storage tank
- Filter machine
- Bottle filling machine
- Laboratory equipment's
- PH meter

PROJECT SCOPE

LAND AND BUILDING

- For factory
- Godown

RAW MATERIALS

- Isopropyl alcohol or ethanol
- Hydrogen peroxide
- Glycerol
- Sterile distilled or boiled cold water
- Aloe vera
- Tea tree oil or lavender oil

MAN POWER

- HR/Accountant
- Manufacturing chemist
- Analytical chemist
- Manager
- Labors

PROJECT CONSTRAINTS

Constraints is the factor which every project or business go through sooner or later. Some of the major constraints are as follows:

- Time and cost: Classically time and cost are the first place the sponsors look to see if a project is “in trouble” – i.e., not meeting stakeholder expectations.
- Quality: quality focuses on characteristics of a deliverable. No quality, no demand.
- Benefits and risk: the newest and least-familiar ones, and could be considered controversial – except that they are both already present in projects.

PHASE - I

PROJECT DETAILS

Product or Feature Name	KNEAT N KLEAN
Project Leader	SULOCHANA THAPA

PROJECT OVERVIEW & OBJECTIVES

PROJECT OVERVIEW

We build hand sanitizer. Hand sanitizer is a liquid, gel, or foam generally used to decrease infectious agents on the hands. In most settings, hand washing with soap and water is generally preferred. Hand sanitizer is less effective at killing certain kinds of germs, such as norovirus and Clostridium difficile and unlike soap and water, it cannot remove harmful chemicals. People may incorrectly wipe off hand sanitizer before it has dried, and some are less effective because their alcohol concentrations are too low.

OBJECTIVES

- 1) Market Study and Marketing Model**
- 2) Raw materials/Inputs**
- 3) Plant and Machineries**

1) MARKET STUDY AND MARKETING MODEL



- a) Demand Projections (Demand and Supply Gap)
- b) Competition and Name of The Peers in The Industry
- c) Marketing Model - Go -To- Market Strategy for New Projects
- d) Storage and Warehousing, Logistics
- e) Market Segmentation
- f) Advertising and Promotion
- g) Marketing Cost Estimation
- h) Pricing Strategy

a) DEMAND PROJECTIONS (Demand and Supply gap)

Demand for sanitizers wasn't much at its initial level. Sanitizers are only used by medical health posts and hospitals for which supply was sufficiently done. But after the outbreak of corona virus the demand has increased and the suppliers are unable to meet the demand.

The reason behind the hike in demand, firstly, is the need of household and secondly, of commercial areas for sanitizers. After the outbreak of pandemic, the demand of hospitals and healthcare centers for sanitizers have also increased. Because of the above-mentioned reasons, the state govt. allowed many local manufacturers to switch their production to sanitizers.

Demand for hand sanitizer is also surging around the globe as the new corona virus spreads, prompting retailers to ration supplies and online vendors to hike prices.

The surge in demand has prompted some third-party sellers to inflate their prices on platforms including Amazon and eBay.

- On June 19, 2020, the Food and Drugs administration warned consumers not to use hand sanitizers made by Eskbiochem because of the presence of methanol, a substance that can be toxic when absorbed through the skin or ingested.
- There is a preference for using hand sanitizer by 77.0% of the population covered in a survey, while 23.0% claim not to use the product. The 77.0% population in the favor of using hand sanitizer is comprised of 37.5% male users and 62.5% of female users. Moreover, key manufacturers are adding to their product line in order to increase their market share with increasing awareness. For instance, as per findings, 62.0% of the population surveyed in 2017 claims to use Dettol hand sanitizer, 21.0% use Lifebuoy hand sanitizer, and 17.0% use Himalaya hand sanitizer.
- Forms the most important element of personal care, thereby driving the attractivity of hand sanitizers. In addition, increasing awareness towards hand hygiene is gaining prominence on account of being government further promotes the usage of hand care products in order to increase awareness as well as avoid health issues among consumers. For instance, the WHO and FDA have taken initiatives in order to make people aware of hand hygiene and the risks associated with not maintaining the hygiene.

Advantages

- The extent to which it is easy to use as well as portable and convenient has made the product attractive among consumers.
- Hand sanitizers also contain ingredients that help in reducing skin dryness and irritation compared to hand washing.
- Furthermore, according to studies, classroom application of hand sanitizers is expected to reduce the absenteeism of students due to illness by 20%
- Organic and natural ingredients in the manufacturing of hand sanitizers, which will gain the trust of consumers.

MARKET STUDY AND MARKETING MODEL

The Following Factors Are Likely To Contribute To The Growth Of The Hand Sanitizer Market During The Forecast Period

- Increasing Influence of Internet in Shaping End-users' Purchasing Behavior
- Growing Demand for Flavored & Organic Hand Sanitizers
- Growth in Promotional Activities
- Rise in Health Consciousness among Consumers

Market Challenge: Low Product Penetration In Rural Areas

The low product penetration in rural areas of developing nations such as India, China, and other South-East Asian countries is affecting the global hand sanitizer market. The rural population of these countries is becoming increasingly conscious of the prevalence of several diseases. However, products such as hand washes and sanitizers still have a low rate of adoption rate among rural customers.

Covid-19 Impact On Demand For Hand Sanitizers

Nowadays, various healthcare professionals across the globe are recommending to wash hands regularly with soap and water to prevent from spread of coronavirus. Instant hand sanitizer gel is perfect alternative to use when soap and water is not available to reduce the level of germs from the hands. In addition, the instant hand sanitizer gel is formulated with ethanol or ethyl alcohol ingredient that kill 99.9% of bacteria within seconds. It also contain moisturizers to reduce skin dryness are some of the primary factors boosting the demand for hand sanitizer across the globe.

Currently, the demand for instant hand sanitizer gel is considerably high due to outbreak of coronavirus and rise in consumer awareness regarding the hand hygiene worldwide. Owing to these factors, instant hand sanitizer gel accounts for the highest share in the hand sanitizer market. It is also expected to remain dominant through the course of the forecast period. According to the report, the overall hand sanitizer market can be bifurcated into foaming hand sanitizers, foaming instant hand sanitizers, instant hand sanitizer gel, and spray hand sanitizers in terms of product type.

Significant Adoption of Hand Sanitizer in Hospitality Industry Will Stoke Growth Opportunities

There is zero tolerance for viruses and bacteria in the commercial sector such as hotels and food service restaurants. The commercial sector must abide by stringent rules and regulations on food safety and hygiene. Consequently, commercial sector are increasing adoption of hand sanitizers and encouraging employee such as chefs, waters, barbers, food industry workers and other to use hand sanitizers frequently. In the hospitality sector, the adoption of hand sanitizers is increasing in luxury hotels and other accommodations.

MARKET STUDY AND MARKETING MODEL

Around 80% of hotels and motels in the U.S. experienced problems from the presence of mosquitoes in 2018, which resulted in negative feedback in various social media platforms. Thus, increasing business pressure to rectify their image with hygienic services is expected to boost demand for hand sanitizers in hospitality industry across the globe in coming years.

Moreover, food processing facilities must take care of food hygiene as failure to ensure hygiene may result in cancellation of their business licenses. Increasing pressure on the commercial sector to follow stringent rules and regulations framed by the government boost demand for hand sanitizers. This factor is expected to have a significant impact on the growth of the global hand sanitizers market in foreseeable future

How Growth will Unfold

Rise in coronavirus pandemic worldwide coupled with rapidly growing positive cases and deaths due to spread of COVID-19 disease through contact with an infected person when they sneeze or cough and increasing demand for hand hygiene products are some of the most attractive trends today. In addition, this growing coronavirus outbreak is more threatening to elderly people than children with some medial problems such as diabetes, breathing problems, kidney problems, and other chronic disease.

Thus, this widespread of disease making it imperative for companies to develop hand hygiene products and keep pace with the dynamic consumer preferences. Moreover, various government across the globe are providing licenses to new manufacturers, sugar, and brewing industries to increase production of hand sanitizer to meet growing global demand. Due to the prevailing trend, an increasing number of producers are using alcohol in their products. This is also rather necessary for them to survive in a highly competitive market.

b) COMPETITION

Top Hand Sanitizers Competitors In India And Nepal

1) Dettol Hand Sanitizer

Arguably one of the most well-known hand sanitizers out there is the Dettol hand sanitizer. It is also recommended by the National Integrated Medical Association. A pack of 2 Dettol hand sanitizer will cost we ₹ 509 on various online and offline shopping portals.

2) Godrej Protekt hand sanitizer

Godrej Protekt is based on 0.125% Benzalkonium Chloride which allows it to be kid-friendly. It is meant to be used on the go as its pocketable bottle makes it easier to be carried around. It is reportedly priced at ₹50 for 30 ml.

3) Zuci junior instant hand sanitizer

Zuci is one of the most well-known hand sanitizers based on alcohol. It is reportedly made with with a mix of Ethyl alcohol and isopropyl Alcohol coupled with IP and Vitamin E. It is a 60% alcohol-based hand sanitizer which comes in different fragrances. Fragrances like grapes, apple, orange and strawberry are available for people according to their preference. This product also is relatively less cheap as a 30 ml bottle reportedly costs ₹50.

4) Lifebuoy Total 10 Hand Sanitizer

Lifebuoy total 10 is a 62% alcohol-based hand sanitizer. It promises to clean hands in ten seconds and also has immunity-boosting properties. The sanitizer comes in three fragrances named Lemon, Fresh and Care. It comes in three different sizes like the 30 ml, 50 ml and 190 ml, with the 190 ml bottle costing ₹200 and the 30 ml bottle costing ₹35.

5) Himalaya pure hand Sanitizer

Himalaya's pure hand sanitizer promises to kill 99.9% germs and is reportedly based on 70% alcohol. But what sets this sanitizer apart is the Ayurvedic properties it has. The sanitizer consists of coriander oil, hrivera, Neem and Ushira. besides this, the hand sanitizer comes in multiple fragrances like lemon, litchi and green apple.

6) Sterillium hand sanitizer

The Sterillium hand sanitizer is one of the best portable hand sanitizers available in India. It does not require much space and is fit for people always on the move. The sanitizer is also strongly scented and is reportedly based on over 50% alcohol. It is priced at ₹300 for a 3-pack of 100 ml on online shopping portals.

MARKET STUDY AND MARKETING MODEL

7) Savlon hand sanitizer

Savlon hand sanitizer is another best option for people to buy to stay safe from spreading of germs. It is not based on heavy alcoholic compositions which make it safe for both kids and adults. Besides this, the hand sanitizer claims to provide protection from over 100 diseases.

8) Assured

The company claims that it is enriched with moisturizers, Vitamin E and Aloe Vera. It is easily available in the Nepali market. This product can be placed in hospitals, schools, gyms and office.

9) Patanjali

Anti-Bacterial Herbal Hand Wash is also attractive in the Nepali market. This product contains neem and tulsi extracts. It removes bacteria from our hands and keeps our hands soft and smooth. The sanitizer also adds fragrance to our hands.

MARKET STUDY AND MARKETING MODEL

c) MARKETING MODEL-GO-TO-MARKET STRATEGY

A go-to-market strategy is a business tool (and a critical component of the business plan) that product marketing specialists, managers, and other decision-makers use to ensure a smooth launch of a new product, entry into an unfamiliar market, or the re-launch of a former brand/company.

Basically, a GTM strategy is a comprehensive action plan that details how a new product or a service would reach the end-customers.

Previously, go-to-Market strategy used to focus on only two things i.e.

- The pricing strategy
- The distribution plans

But there are various aspects that have been included in the list as because of the wider marketing concept in today's scenario. It will help to understand the market better.

Business Case

We are creating hand sanitizer as want to do our part to fight COVID-19. "Essentials like hand sanitizer will continue to be in high demand, and this is a time for every company, every person, to look at what they can do to help society,"

The rapid spread of the viral pandemic has motivated people around the world to purchase, and, sometimes hoard, hand sanitizer and other anti-viral products. As a result, shelves in stores and warehouses have been left bare, leaving even the most critical people with no sanitizing resources.

Competitors & Positioning

Direct Competitors

The key players in the hand sanitizer market are The Himalaya Drug Company, Reckitt Benckiser Group, Procter and Gamble, Henkel Corporation, Gojo Industry Inc., Unilever, Chattem Inc., Vi-Jon Laboratories Inc., Best Sanitizers Inc., and Kutol Products Company.

In-Direct Competitors

Antiseptic hand wipes

They also serve the purpose but be careful not to mistake them for baby wipes. Make sure that we are buying the anti-bacterial type.

Alcohol "swab"

Swabs are saturated with alcohol 70%, usually sold in pharmacies and used in clinical analysis laboratories before injection, for example.

Antiseptic spray

It must contain chlorhexidine gluconate or just chlorhexidine. It can also be used to clean the hands

MARKET STUDY AND MARKETING MODEL

Main value proposition	KNEAT N KLEAN is an effective, herbal, alcohol-based hand sanitizer, which kills 99.9% of germs, prevents infection, and ensures total hand hygiene.
Positioning	The state government of different states in India has granted permission for manufacturing sanitizers which lead to a total of 152 manufacturers in March, commanding 61% market and 46% value share. Hand sanitizer took over the huge market in India as because of this corona pandemic.
Messaging plan	<ul style="list-style-type: none">• Proper hand hygiene can reduce absenteeism at work by up to 40%• Employees who use sanitizer at least five times each workday are about 67% less likely to get sick.• 30 seconds of using hand sanitizer kills a much bacteria as two full minutes of handwashing.• Stop the Spread of Germs
Sales and support materials	<ul style="list-style-type: none">• Resources: Sales team going to find, engage with, and sell to potential customers. They going to use for managing relationships and demoing the product. They are in the loop with the latest Instagram trends and other key marketing channels our customers are active on• Training support: We are going to train the sales team so they're knowledgeable enough and confident in selling the product.
Use cases	<ul style="list-style-type: none">• Apply enough of the product to the palm of our hand to wet our hands completely.• Rub our hands together, covering all surfaces, for up to 25 seconds or until they're dry.• If our hands are visibly dirty, however, wash with soap and water.

Buyer Personas

The idea of using personalized sanitizer bottles will allow us to target a wide number of audiences for promoting our brand and logo. As we know, everyone likes cleanliness and sensitization so we can target each and every consumer regardless of the type of our business to spread brand awareness. We can target schools and colleges, hospitals, hotels, government offices, airports, and many other local and surrounding places to offer free

MARKET STUDY AND MARKETING MODEL

hand sanitizer giveaways. It will make our brand highly recognized in the market in a short period.

Persona	Description	Pain Points	Product Solution
Initiator	Shows initial interest in herbal, alcohol-based hand sanitizer, which kills germs, prevents infection, and ensures total hand hygiene	<ul style="list-style-type: none"> • Rough skin • Chemical based 	KNEAT N KLEAN is an herbal based hand sanitizer with Glycerol and Aloe vera
Decision-makers	The buying decision process is the decision-making process used by consumers regarding the market transactions before, during, and after the purchase of a good or service. It can be seen as a particular form of a cost–benefit analysis in the presence of multiple alternatives.	<ul style="list-style-type: none"> • Many alternative • Efficient amount • Efficient work 	

d) STORAGE AND WAREHOUSING, LOGISTIC

Storage

- The Health Sciences Authority (HSA) advises members of the public to be aware of how to use and store alcohol-based sanitizers.
- Alcohol-based sanitizers are generally flammable especially if they contain a high concentration of alcohol (above 60%). Nevertheless, the risk of flammability is low if the hand sanitizer is used and stored properly.
- When using alcohol-based sanitizers, make sure that we rub the product all over the surfaces of our hands until our hands are dry. This is to avoid having any alcohol remaining on our hands and exposing our self to fire risk should we be near any open flames.
- Alcohol-containing sanitizers should be stored in a cool place. They should not be kept in places near open flames and heat, particularly for those in bigger volumes (more than 100ml).
- Always ensure that the lids and caps of the sanitizers are properly sealed. This is to avoid leakage onto other items (e.g. pockets, clothes, bags, vehicles and bedding) which may become a potential fire hazard.

Warehousing logistics

- Warehousing is an important piece of our supply chain. While it's not the sexiest of subjects, warehousing and inventory storage affect everything from efficiently managing inventory to getting orders delivered to customers on time.
- Though the principles of warehousing have not changed much over the years, warehousing solutions have evolved a lot.
- With new technologies, urbanization, and the ever-growing world of online shopping, warehousing has never been a hotter topic — so much so that there has even been a shortage of warehouse space and on-demand warehousing popping up.

Hand Hygiene and Fire Safety in Healthcare Facilities Go Hand in Hand

Hand hygiene is a critically important prevention measure in all healthcare settings. Each year between 1 and 3 million residents of nursing homes or skilled nursing facilities develop healthcare acquired infections and as many as 380,000 people die of these infections. Among hospitalized patients, on any given day, about 1 in 31 has a healthcare-associated infection. Alcohol-based hand sanitizer(ABHS) effectively kills most germs carried on the hands of healthcare workers and is recommended for use by the CDC.

Ensure fire safety when ABHS is used

ABHS contains ethyl alcohol, which readily evaporates at room temperature into an ignitable vapor, and is considered a flammable liquid. Although the incidence of fires related to ABHS is very low, it is vital that ABHS is stored safely and that bulk dispensers are installed and maintained correctly.

MARKET STUDY AND MARKETING MODEL

Follow local and state fire safety laws and standards

Building officers, local, and state fire marshal's work together to protect patients and residents by enforcing fire safety rules.

Fire safety includes activities that

- reduce sources of ignition,
- ensures storage of flammable liquids in a safe manner, and
- establish method for quick exits in case of fire.

Building officers and local fire marshal may work together to make sure ABHS dispensers are accessible and in locations that do not increase the chances of igniting or spreading a fire.

Adhere to the the Life Safety Code

Adherence to the National Fire Protection Association (NFPA) Life Safety Code 101 was adopted by CMS as a minimum fire safety requirement for facilities that receive Medicaid or Medicare reimbursement. The Life Safety Code contains national standards for the storage of ABHS, as well as placement and function of dispensers. When facilities use ABHS all of the criteria listed in Table 1 must be met.

Work with our local fire official

Healthcare facilities may contact their local fire officials to ensure that requirements related to the installation of ABHS have been met. Local fire officials often inspect commercial buildings, and may be required to do so. In healthcare facilities, they may be very receptive to planning these tours to meet their requirement, refresh their familiarity with the structure, and identify vulnerabilities. There are several advantages to the healthcare facilities initiating the request of such a tour including building relationships and demonstrating a commitment to safety.

e) MARKET SEGMENTATION

At the starting, we have already mentioned that how we are going to target our market and at what basis:

Distribution Channel

Supermarket

This channel has the wider area and through this our product Kneat N Klean can be reach out to those higher class society easily who doesn't shop from local market and also , are ready to pay even higher amount.

Specialty Store

We can own a store which contains only products from Kneat N Klean.

Medical Store

Medical stores contains higher demand for medicines and healthcare products, so we can also target the stores to make our products sell to middle class society to higher.

Online

This channel is something extra ordinary and have took over all other channels because it provides almost everything, at just single tap.

Product Types

Gel

For this we can target working people because require less time than hand washing, act quickly to kill microorganisms on hand, are more accessible than sinks and some can even improve condition of skin. Gel sanitizer require up to 30 seconds to eliminate viral or bacterial content.

Liquid

this form of sanitizer is faster than the gel based sanitizer, liquid disinfectant can be faster acting, at a rate of <15 seconds to eliminate viral or bacterial content. It can be used in hospitals and health care posts because hospitals consist of large crowed as sanitizers need to be fast in this case.

Foam

the product clings to hands during the application of the product. It does not easily slide off the hands like gel hand sanitizers can. This can be very important in facilities with waxed floors as sanitizer drips can leave marks on waxed floors.

Regional outlook

Butwal, Nepal

Here, we will target medical stores because this place consists maximum no of middle class population. Supermarkets are not preferable here.

MARKET STUDY AND MARKETING MODEL

Pokhara, Nepal

This place has population richer than the people of Butwal. Here, we can place our product in supermarkets and online.

Kathmandu, Nepal

This is the capital city of Nepal where we can see people of every class. Here, we can place the product in supermarkets, online, medical stores etc. And most importantly, the special stores.

Northern Regions of India

In India also all the platforms are available in terms of selling a product so, we can go with any source to sell our product whether it be B2C or online or medical store etc.

f) ADVERTISING AND PROMOTION

Advertising Strategy

A Different Approach to Business Branding

Traditional ways of promoting new business in the market are not much useful in the present competitive industry. The use of roadside hoardings, TV ads, and pamphlets etc. cannot bring quick results and also wins the trust of people at a modest level. Using hand sanitizer promotional items for promoting a business is a fresh and different approach that can allure the maximum amount of consumers and can leave a good impression on the audience. As a business owner, we can use these products to distribute as free giveaways along with customization of sanitizer bottles with our brand name and logo.

Convenient and Affordable Promotional Tools

We can use these products to provide convenient for hands cleaning to our customers. we can use promotional clip on hand sanitizer bottles that come with a clip to hold the pack in the pocket very easily. It will make the users happy and they will see our brand whenever they use the pack which improves our branding. The hand sanitizers are also very affordable to purchase from an online store and we can also get them customized under a reasonable budget to market our business effectively.

Available in different forms to use for branding

We can find a wide range of promotional hand sanitizers to advertise our brand effectively in the market. These products are available in the form of sprays and sanitizing gel so we can choose as per our specific budget requirements and get them customized by a professional service provider with our brand name and logo to spread awareness about our products and services. As mentioned above that the attractivity of hand sanitizers has become sky-mounting so we can also consider different packing to make the use of products more convenient.

Personalized Hand Sanitizer Pump Bottle: An Ideal Choice

When it comes to marketing or brand promotion, a company always looks out for something original, wise and effective as well. Many companies are now opting for digital advertising so that they can divert the entire traffic towards their business. They are making necessary efforts in order to turn the traditional means of marketing into advanced ways, like using personalized items, and many more creative ideas. Using personalized hand sanitizers is also an efficient and valuable way of promoting our brand in the market. The matter of fact is that only unique marketing really works in today's competitive market.

Promotion Strategy

At a time where the prevention of a pandemic has arisen, it gives KNEAT N KLEAN the perfect opportunity to market the KNEAT N KLEAN Sanitizer for the worried consumers. The promotion of the KNEAT N KLEAN Sanitizer will result in profits skyrocketing. Many schools, hospitals, and offices have taken the necessary precautions to keep their environment safe by stocking up on bottles of disinfecting hand alcohols and wipes. When this innovation hits the current public, the consumers will flock to the stores to purchase these products. KNEAT N KLEAN plans on marketing this product to wholesalers who will then sell to the consumers.

MARKET STUDY AND MARKETING MODEL

Push Strategy

KNEAT N KLEAN plans on using a push strategy. Our flow of demand will go from KNEAT N KLEAN to our wholesalers, to retailers, to the consumer. Wholesalers will consist of the major companies, W.B Mason and Staples. To promote KNEAT N KLEAN Sanitizer to these companies, KNEAT N KLEAN must speak directly with W.B Mason and Staples and discuss ideas for promoting to the consumers. Even though KNEAT N KLEAN is directly selling to wholesalers, advertising must occur over magazines, newspapers, Internet, direct mail, and coupons to the customers. KNEAT N KLEAN is an attractive brand name that when seen, has the ability to attract customers when its flu season. Health magazines and magazine ads would be used to spread the awareness of the swine flu and the advantages of using this new innovation. Doctors would find these articles helpful with the prevention of swine flu and order our products for their offices. Many doctors tend to look through health magazines that include many articles about health issues today. This would persuade the doctor to buy many of these products for his fellow employees and possibly all of the office facilities. Promotions would also include advertising our products in conventions for doctors or teachers. These conventions would spread the awareness and teachers would find the need to convince their educational facilities to order in bulk for the many telephones and computers in their work space.

Everyday magazines that consumers would pick up such as Sports Illustrated or People Magazine would have KNEAT N KLEAN Sanitizer products advertised. Magazine ads would be focused on because many consumers browse through magazines whether they are waiting in a waiting room, online in a supermarket, or for casual reading. These advertisements would catch the attention of the everyday consumer and influence them to buy these helpful products. With many articles arising in the newspapers about the swine flu, now would be the perfect time to advertise our products in several newspapers across the country.

Putting an advertisement next to an article about the dangers of swine flu would also influence consumers to go out to their local retailers and purchase the products. Seeing the harmful effects of the swine flu pushes hospitals and offices to look into the advantages of having KNEAT N KLEAN Sanitizer's covering the technology used in the office. The idea of a safe environment in schools also comforts parents knowing their children are in a cleaner environment.

Online And Digital Startegy

Today, the Internet is used for just about anything. Online shopping is growing more and more attractive every day. Instead of looking at newspapers, most people find it easier to log onto NYTimes.com or CNN.com and look up what's going on in the world. The idea of advertising on these websites goes hand in hand with advertising in a regular newspaper. With a vast majority of people now looking towards technology for news, advertisements next to an article about swine flu persuades the buyer to think about purchasing the KNEAT N KLEAN Sanitizer. Not to mention, KNEAT N KLEAN products are sold through most retailers and wholesalers.

A simple Google search of KNEAT N KLEAN sends the consumer to several different businesses who offer KNEAT N KLEAN products to their customers. Online shopping is very time efficient. The simplicity is what attracts the customers to shop online. One clicks of a mouse allows consumers to purchase, pay, and ship the KNEAT N KLEAN Sanitizer directly to them. A way of getting the wholesalers involved in the promotion process is to incorporate advertisements on their packaging. When a consumer purchases a KNEAT N

MARKET STUDY AND MARKETING MODEL

KLEAN Sanitizer for their telephone or computer, the packaging on the box could have a clever slogan such as “Do we know how many people have touched this box? Do we know how many people have touched that keyboard we’re using?” A slogan such as this one makes the consumer think about what kind of germs can be on their keyboard and makes them grateful for purchasing the product that’s inside that package. W.B Mason and Staples would be paid to let KNEAT N KLEAN advertise on their packaging and for promoting the products. This is a good way for KNEAT N KLEAN to get their name out and it helps to explain the purpose of the KNEAT N KLEAN Sanitizer.

DIRECT CAMPAIGN OR COUPONS

Using direct mail or coupons allows for the awareness of the new products to be spread throughout the country. Sending direct mail gives a sense of importance to the consumer. Coupons give loyal customers opportunities to purchase these products at a very cheap price. Another idea that would encourage the consumer to purchase more KNEAT N KLEAN Sanitizer products would be to offer a special. For example, a coupon special could be “buy the keyboard and get the telephone for half off.” This allows the costumer to take advantage of these deals and purchase more of the products for a cheaper price.

Today, the average consumer won’t have any doubt in their mind about purchasing this product and its safety. If anything, they will buy in bulk to stock up for flu season and the constant threat of the swine flu. The media that we will be taken advantage of in promoting these products focus on the internet. This is focused on the most due to the fact that most consumers look towards the news on the internet to find the most information about today’s growing pandemic. The media will help the promotion of our product in a very big way. This health scare has frightened many consumers and has encouraged them to take as many health precautions as possible.

Promoting the KNEAT N KLEAN Sanitizer with not only the media but with magazines, direct mail, coupons, conventions, and packaging, KNEAT N KLEAN should see the sales of these helpful products increase drastically.

g) COST ESTIMATION

S.NO.	Marketing and Promotional Expenses	Amount (Rs in lakhs)
1.	Personal selling cost (sales person's salary *no. of sales person in each region i.e. 20,000*5 = 1,00,000 and 1,00,000*4 regions)	4,00,000
2.	Website and digital <ul style="list-style-type: none"> • Search engine optimization (SEO) 40,000 • E-mail marketing 25,000 • Social media marketing 20,000 • Website design cost 1,90,000 	2,75,000
3.	Free sample distribution of 50 ml (no. of samples to be distributed*price of product i.e. 1,000*30=30,000 and 30,000*4 regions)	1,20,000
4.	Direct campaign and printing <ul style="list-style-type: none"> • Design cost 8,000 • Marketing copy cost 8,000 • Printing costs (hoarding and pamphlets) 15,000 • Distribution cost (Rs 150/piece)500p. 75,000 	1,06,000
5.	Marketing salaries and fees	1,80,000
6.	Customer research and surveys	20,000
7.	Travel expenses	35,000
8.	Branding development	90,000
	Total Expense	12,26,000

h) PRICING STRATEGY

Skimming

The most appropriate pricing strategy for the introduction of KNEAT N KLEAN Sanitizer's is a skimming approach. By analyzing the recent trends within the disinfectants industry, one will quickly notice the hand sanitation market is currently very profitable due to the recent H1N1 influenza pandemic, more commonly referred to as Swine Flu. This is also outlined within the SWOT analysis' opportunities section. The Swine Flu outbreak has greatly increased consumer demand for sickness prevention products, and while many companies are focusing on individual customers, there remains a large market of businesses seeking to protect their employees through bulk purchasing. A skimming pricing approach allows Purell to take advantage of the current increased awareness about personal hygiene and the demand for more complete sanitation within public workspaces. This all sums up to the simple fact that people are willing to pay for products which make them feel safe as Swine Flu continues to spread and as cold season draws nearer. As the needs of consumers for protection is satisfied, pricing will have to decrease with the falling demand; however, health issues are always developing and the trend for personal hygiene will again grow with the discovery of a new pandemic.

Discussion of Calculations

The use of skimming during the introduction of KNEAT N KLEAN Sanitizer is very beneficial to the company as it helps aggrandize the product through the initial development of revenues. These early figures can be used to subsidize unforeseen costs, increase production to meet backorders, or can be directly channeled to profits. There was a lot of safety in forecasting sales, pricing and the costs which will be incurred during production. The allocation of costs was the neoteric variable in calculating profits.

The cost estimates used were based off of total market figures and the percentage of total sales controlled by KNEAT N KLEAN Sanitizers. Estimating fixed cost was a challenge as this number is likely to be higher during the beginning years and decrease as the years continued; however, the numerous resources which Purell already possess may prove to decrease initial costs and help with the allocation of assets. Many fixed costs are constant, and most of the costs incurred during the early stages of beginning production would be financed and spread out over an extended period of time. Because of this, a constant fixed cost makes most sense to use in forecasting profits. Additionally, with concern to costs, a high variable cost margin was used to compensate for possible shortcomings in the estimated fixed costs and under stocking which would likely result in increased manufacturing products with a lower contribution margin than originally planned.

Even with these safely chosen numbers, KNEAT N KLEAN Sanitizers show impressive profits for both the keyboard and phone markets. The price is effective in attracting wholesalers to keep a large quantity in stock and market the product at attractive prices, but at the same time, sales are generating a large profit with a reasonable breakeven point.

2) RAW MATERIALS/INPUTS



- a) Description of Detailed Raw Materials/
BOQ/BOM/ Composition**
- b) Sources of Raw Material/ Suppliers**
- c) Cost of Raw Material**

RAW MATERIALS/INPUTS

a) DESCRIPTION OF DETAILED RAW MATERIALS/ BOQ/BOM/ COMPOSITION

The principal raw materials required for the production of hand sanitizer are Ethanol or Isopropanol, Glycerol, Hydrogen Peroxide, distilled water and essential oil such as peppermint or Lavender oil or lemon extract. All the enlisted raw materials can be procured locally.

Ethanol

Isopropyl alcohol is miscible in water, ethanol, ether, and chloroform. It dissolves ethyl cellulose, polyvinyl butyral, many oils, alkaloids, gums and natural resins. Unlike ethanol or methanol, isopropyl alcohol is not miscible with salt solutions and can be separated from aqueous solutions by adding a salt such as sodium chloride. The process is colloquially called *salting out*, and causes concentrated isopropyl alcohol to separate into a distinct layer.

Glycerol

Glycerol is a color less, hygroscopic, highly viscous syrupy liquid. It is miscible with water and alcohol in all proportions. The boiling point of glycerol is 563 K which is quite high. Glycerol is non-toxic in nature.

Hydrogen Peroxide

In the pure state, hydrogen peroxide is almost colorless (very pale blue) liquid. It melts at 272.4 K and has a boiling point of 423 K (extrapolated). It is miscible in water in all proportions and forms hydrates. Hydrogen peroxide in both acidic and basic medium acts as an oxidizing as well as the reducing agent.

Lavender oil

Lavender oil benefits are aplenty. From relieving tension and soothing the nerves, it is also known for its anti-inflammatory, antifungal, antidepressant, antiseptic and antibacterial properties.

Cocamidopropyl Betaine

Cocamidopropyl betaine is used as a foam booster in shampoos, emulsifying agent, thickener, antistatic agent and rarely an antiseptic agent. Impurities formed during the manufacturing process are thought to increase the prevalence of contact sensitization and mild skin irritations.

Aloe Vera Gel

Aloe vera gel is one of the key ingredients needed to make your own hand sanitizer. The isopropyl alcohol is responsible for killing off the germs, while aloe vera is needed to stop your hands from drying out too much - the alcohol itself has the ability to leave hands very cracked and sore, so the aloe vera makes the formula gentler and adds in moisture. Aloe vera gel contains polysaccharides that stimulate new cell growth, helping with healing and cell renewal, it also contains glycoproteins that help reduce inflammation, which in turn decreases skin redness and itchiness.

b) SOURCES OF RAW MATERIAL

Ethanol

India ethanol market is projected to grow from \$ 2.50 billion in 2018 to \$ 7.38 billion by 2024, exhibiting a CAGR of 14.50% during 2019-2024, on the back of increasing ethanol use in applications such as fuel additives and beverages. Ethanol is a prominent alcoholic beverage, mainly found in beer, cider, wine, spirits and ale. Indian government is trying to reduce its dependence on imported crude oil and incentivizing Indian sugar manufacturers to produce ethanol for Oil Marketing Companies (OMCs). It is expected that ethanol production will increase by three to five folds in the future in order to meet the demand for its 20% Fuel Blending Program (FBP). Factors such as increasing alcohol consumption and changing lifestyle along with growing influence of the western culture are likely to drive the demand for ethanol in the country.

Some of the leading players in India ethanol market are India Glycols, Bajaj Hindusthan Sugar, Shree Renuka Sugars Ltd., Triveni Engineering & Industries Ltd., Balrampur Chini Mills Ltd., Mawana Sugars Ltd., HPCL Biofuels Limited, Jeypore Sugar Company Ltd., Simbhaoli Sugars Ltd., BSM Sugar and E.I.D Parry India Ltd.

Glycerol

P&G Chemicals is proud to provide consumers with high quality glycerin that is produced in the USA. P&G Chemicals is one of the first glycerin producers to receive a top Global Food Safety Initiative (GFSI) certification and has been BRC certified since 2011. P&G continuously strives to exceed industry standards in safety and quality, protecting consumers and safeguarding your brand equity. P&G Chemicals' glycerin meets all the excipient USP/FCC monograph specifications with tighter specifications in color, odor, flavor, fatty acids and ester content, water, residue on ignition, and heavy metals.

Hydrogen Peroxide

Hydrogen Peroxide demand in India grew at a CAGR of more than 5% during 2015-2020 and is projected to witness robust growth during the forecast period. Increasing use of Hydrogen Peroxide in versatile applications like pulp and paper industry, textile, water treatment and its usage in food and beverage industry is triggering the product's overall demand. Increased digitization has although dropped down the overall paper demand, packaging sector still acts as a supporting factor. Moreover, growing public awareness has compelled most of paper manufacturers in the recent past to invest heavily on greener technologies to be used in paper manufacturing process where Hydrogen Peroxide finds its use.

Major players manufacturing Hydrogen Peroxide in India include National Peroxide Limited, India Peroxide Limited, Gujarat Alkalies And Chemicals Limited, Hindustan Organics Chemicals Limited, Asian Peroxides Limited and others. In order to expand its chemicals business, Meghmani Organics Limited is planning to set up a new 25,000 MTPA Hydrogen Peroxide (50%) plant and National Peroxide Limited is planning to expand its Kalyan plant capacity from 95KTPA to 150 KTPA in FY'20. New entries into the Hydrogen Peroxide business will increase competition among already existing players.

RAW MATERIALS/INPUTS

Lavender Oil

The Personal Care segment had the highest market share of more than 34% in 2016 and it is poised to grow at a CAGR of 6.6% for the period 2016 to 2024 in terms of value. The Personal Care segment by application is predicted to gain 1.1 basis points in the year 2024 as compared to 2016. Personal care should gain momentum among the global population on account of strong demand for essential oils that are naturally derived. This will increase the overall scope of the global lavender oil market. A Y-o-Y growth from 5.8% to about 6% can be reasonably estimated for the Personal Care segment for every year in the forecast period.

Some of the leading players in India lavender oil market are D.S. Fragrances, Hira Enterprise, Arora Aromatics Private Limited, Riya Agro Products, Pragati BioCare Pvt Ltd., Xebec India Tours and Exports Pvt. Ltd.

Cocamidopropyl Betaine

The world cocamidopropyl betaine (CAPB) consuming market will still has a certain amount of growth. The world cocamidopropyl betaine (CAPB) production will increase at a growth rate of about 5.43%. The main consumption region will be in China, USA, Europe and Japan.

According to this study, over the next five years the Cocamidopropyl Betaine (CAPB) market will register a xx% CAGR in terms of revenue, the global market size will reach US\$ 260 million by 2024, from US\$ 260 million in 2019. In particular, this report presents the global market share (sales and revenue) of key companies in Cocamidopropyl Betaine (CAPB) business. Some of the leading players in India Cocamidopropyl Betaine market are Shreeji Pharma International ,Sixteen Directions Homecare Pvt. Ltd.,Seth Keyvanna Herbals, V R Enterprise, Shreeji Pharma International.

Aloe Vera Gel

India aloe vera products market is projected to surpass \$242 million by 2022. Growth is expected to be driven by rising concerns among consumers regarding their health and skin problems, predominantly due to hectic and stressful lifestyles, which is resulting in a shift in consumer preference towards natural alternatives and herbal nutraceuticals. Moreover, growing awareness about consuming a healthy diet that can potentially reduce occurrence of lifestyle diseases such as high blood pressure, cholesterol, obesity and diabetes, is expected to boost demand for aloe vera products in India over the next five years.

Some of the leading players in India Aloe Vera Gelmarket are Vishalorganix, Maharaj Agro Tech, Deccan Agro Hi-Tech, Sanjivani Phytopharma Private Limited, SRP global exports, NBLC Stores, Navshakti Herbal Labs, Phyto Concentrates, Ruchi Overseas.

RAW MATERIALS/INPUTS

c) COST OF RAW MATERIAL

Raw Materials To Prepare 1000 Lit. Of Gel Based Sanitizer

Sl. No.	Materials	Qty.	Rate	Value in Rs.
1.	Ethanol	700 lit.	120/lit.	84,000
2.	Hydrogen Peroxide (3%)	50 lit.	20/lit.	1,000
3.	Lavender Oil	20 lit.	800/lit.	16,000
4.	R.O. Water	80lit.	-	-
5.	Aloe Vera Gel	150lit.	70/lit.	10,500
6.	Bottle (50 ml. cap.) Cartoons, labels	10000 nos.	4/pc.	40,000
			Total	1,51,500

Raw Materials To Prepare 1000 Lit. Of Liquid Based Sanitizer

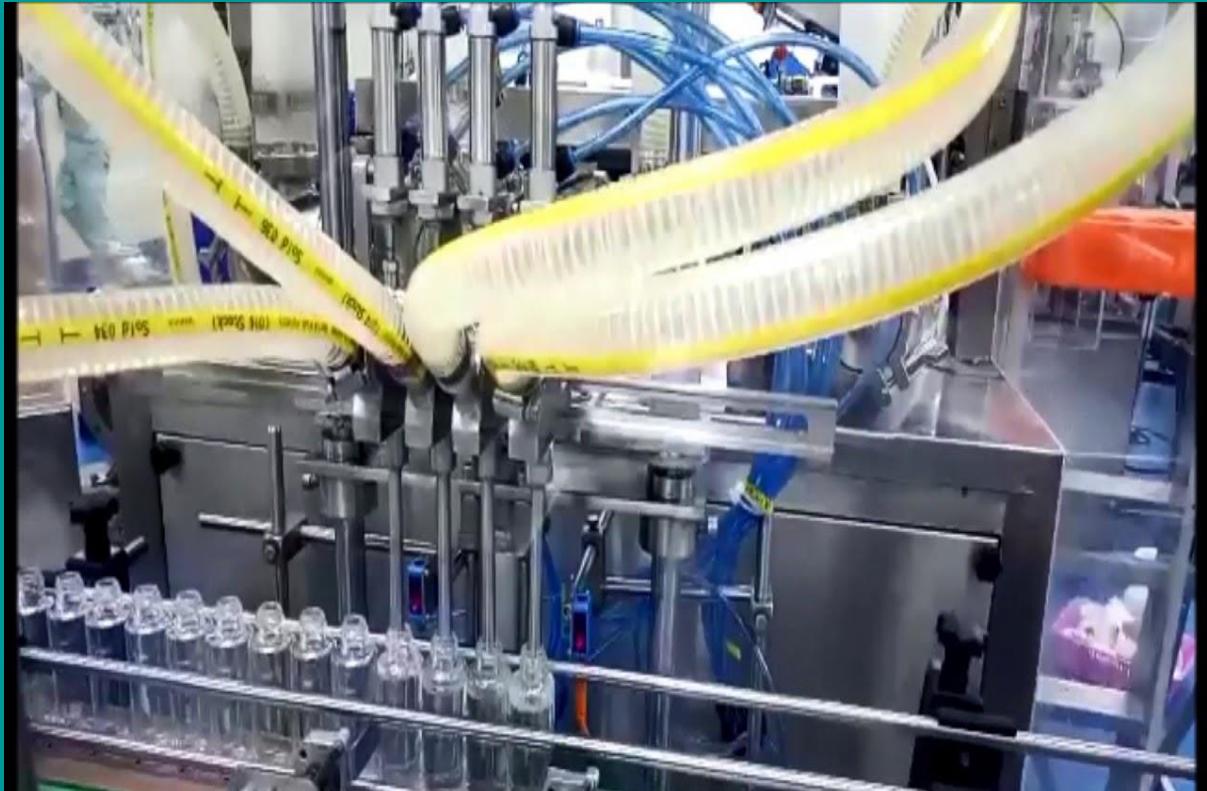
Sl. No.	Materials	Qty.	Rate	Value in Rs.
1.	Ethanol	700 lit.	120/lit.	84,000
2.	Glycerol	100 lit.	150/lit.	15,000
3.	Hydrogen Peroxide (3%)	50 lit.	20/lit.	1,000
4.	Lavender Oil	20 lit.	800/lit.	16,000
5.	R.O. Water	130lit.	-	-
6.	Bottle (50 ml. cap.) Cartoons, labels	10000 nos.	4/pc.	40,000
			Total	1,56,000

RAW MATERIALS/INPUTS

Raw Materials To Prepare 1000 Lit. Of Foam Based Sanitizer

Sl. No.	Materials	Qty.	Rate	Value in Rs.
1.	Ethanol	700 lit.	120/lit.	84,000
2.	Glycerol	80 lit.	150/lit.	12,000
3.	Hydrogen Peroxide (3%)	50 lit.	20/lit.	1,000
4.	Lavender Oil	10 lit.	800/lit.	16,000
5.	Cocamidopropyl Betaine	70lit.	50/lit.	3,500
6.	R.O. Water	100lit.	-	-
7.	Bottle (50 ml. cap.) Cartoons, labels	10000 nos.	4/pc.	40,000
			Total	1,56,500

3) Plant and Machineries



- a) Description of Detailed Plant and Machinery**
- b) Sources of Plant & Machineries**
- c) Cost of Plant and Machineries and Quotations of Major Plant and Machinery**
- d) Installation Drawing- High-Level/ Snapshot**
- e) Material Handling and Storage Equipment**
- f) Any Special Temperature Control / Environment/ Climate**
- g) Estimated Life of Each Machine and Equipment**

Plant and Machineries

a) Description of Detailed Plant and Machinery

Plant detail

Selecting a right location for factory operation is an important aspect. Major required utilities are water and electricity. Easy availability of transport facility and labour is important. Create a floor plan indicating specific space for raw material storage, finished products storage, production unit area, administrative work space, store room and space for miscellaneous usage. Generally, we will need to have 2000 sq. mtrs. of non-agricultural land for establishing an improved sanitizer manufacturing unit. Here, we can erect a plant (1000 sq. mtr) with a processing capacity of 300 kilolitres/annum. Additionally, the land must come with proper elevation.

Machinery detail

Storage Tank [Pressure Vessel Class-1]

Product Specification

Material	Stainless Steel
Material Grade	IS2062,SS316-SS304
Max Design Pressure	NO PRESSURE
Capacity	500-1000 L, 1000-5000 L, 5000-10000 L
Storage Material	Water, Chemicals/Oils, Milk/Dairy, Gases, Waste
Features	Leg Support, Horizontal Orientation, Vertical Orientation, Level Indicator Equipped, High Temperature Resistant
Orientation	Horizontal Orientation, Vertical Orientation
Minimum Order Quantity	1 Unit

Product Description

We are engaged in manufacturing wide range of **Low Pressure Storage Tank** to our respected clients. These tanks are fabricated with authentic stainless steel sourced from certified vendor-base. These tanks are fabricated with authentic stainless steel material.

Features:

- Low maintenance
- Corrosion resistance
- Abrasion resistance
- Accurate dimensions
- Easy to install

Specifications:

- **Material:** Stainless steel of grade SS304 and SS316
- **Size:** Client Specific(Customised)

Plant and Machineries

Reactor Vessel with Stirrer [Stirrer Vessel]

Product Specification

Capacity	100-500 L
Material	Stainless Steel
Brand	Excel Plants
Color	Silver
Surface Treatment	Galvanized

Product Description

We are one of the most popular manufacturers and suppliers of a variety of **Pharma Reactor Vessels**. These are fixed with the tubular stands, stirrers and vessels for proper functioning. Designed and developed as per worldwide commercial requirements, these veins are substantially recommended for the best possible quality and continuous performance. The strong inner jacket of our vessels makes these vessels leak proof and safe.

We offer jacketed tanks that are available with following Salient features:

Features :

- Available from 50 liters to 10000 liters
- With M.S/ S.S jacketed & insulation with SS cladding
- Direct top mounted stirrer with top dish / without top dish
- Different type of stirrer i.e. propeller / pedal / anchor available
- Electrical heating also available for small vessel
- MOC S.S 304 / 316
- Bottom discharge provided
- Also available in 100, 200, 300, 500, 1000, 1500, 2000-liter capacity.

Dilution Reactor Vessel

Product Specification

Finish	Matt
Material of Construction	Stainless Steel, Mild Steel
Usage/Application	Industrial
Max Pressure	0-3 kg, 3-6 kg, 6-9 kg, 9-12 kg, 12-15 kg, >15 kg
Capacity	<1 KL, 1 KL, 1.5 KL, 2 KL, 2.5 KL, 3 KL, >3 KL
Insulated Jacket	Yes
Minimum Order Quantity	1 Unit

Product Description

We are leading manufacturers and suppliers of **Reactor Vessel**.

Plant and Machineries

Specifications:

- Working Pressure: ≤ 2 MPa
- Heating and Cooling Rate: $\leq 5^{\circ}\text{C}/\text{min}$
- Voltage: 220V
- Capacity: 50 ml

Filling Machine

Product Specification

Voltage	440
MOC	SS 304
COntact parts	SS 316
Brand	Swanpack
Grade	Automatic
Power	440 V
Air Consumption	10 CFM
nozzles	2 - 10
Minimum Order Quantity	1 Unit

Product Description

Automatic Liquid Soap Filling machine including hand sanitizer, shampoo toilet cleaners, lotion filling.

Torque Gun With Vacuum Attachment

Product Description

Our range of Vaccum Filler with ROPP Capper- Monoblock is a combination of rotary Vaccum Filler SFPMI and Rotary ROPP capper. This is also a level and maintains same level while filling particular size / adjustment. Moreover, these cap feeders are also fitted with machine for automatic feeding of caps onto neck of bottles after filling and before capping.

Some of its unique features are as follows:

- The liquid overflow system provided with this machine is automatically pneumatically controlled instead of manual system provided with model:SFMPI
- Change parts made out of UHMW
- Centralized lubrication

Plant and Machineries

- Inbuilt conveyor with overlapping conveyor at outfeed end driven by separate imported speed variator
- Capable of handling different size and shapes of bottles and different types of caps
- Speed variable with ac frequency drive
- Electronic bottle counter and BPMter can be provided at an additional cost
- Zigma head made of gun metal/phosphorus bronze can be provided instead of standard heads (option for both the heads available)
- Provision for capping with guala caps by changing ropp heads (zigma heads) with guala heads
- Bulk cap elevator for automatic feeding of caps in feeders, fitted with the machine can also be attached with the machine at an additional cost

Advantage of Zigma head over Standard Head

- Individual arm settings for two threading rollers and two sealing rollers is possible
- Accurate, qualitative with high speed sealing
- In case of no caps, the arms will not function, no neck chipping.
- Better metallurgy- heads are made of phosphorus bronze/gun
- Metal for longer life
- If required same heads can be used for montgomery caps also

Centrifugal Pumps

Product Specification

Head	Up to 60 mtr
Capacity	Up to 48 m ³ /hr
Speed	Up to 3500 rpm
Temperature	Up to 135 degree C
Pressure	Up to 6 kg/cm ²
Size	25 mm to 65 mm
Minimum Order Quantity	1 Number

Product Description

We are Leading manufacturer, Exporter and supplier **Centrifugal Chemical Process Pump**.

Alcohol Concentration Meter /Lab Equipment

Product Specification

Brand	V-Tech
Material	SS
Display Type	Digital
Grade	Semi-Automatic, Automatic

Plant and Machineries

Power (kilowatt)	500KHz
Condition	New
Minimum Order Quantity	1 Piece

- Onboard Real Time Clock
- Displays all sequence of operations
- Fully Field Programmable
- programmable timings for batching sequence Please call us for any of your special customised batching control.

Electronic Weighing Scale

PUNIT INSTRUMENT India introduces a Counter Scale. Now days the most selling scale type is table top weighing machine because it is being used in every kind of field such as Shops, Manufacturers, Traders, etc. This scale can be used by everyone because it is very user-friendly machine. You can see the technical description below for better understating.

Plant and Machineries

b) Sources Of Plant & Machineries

S. No	Name & Address of the Supplier
1.	Sri Krishnaa Techno System Ambattur, Chennai Ph: 08043046149
2.	Inferno Pactec India Private Limited Chinnavedampatti, Coimbatore Ph: 08048600405
3.	Promak Packaging Solutions Chrompet, Chennai Ph: 08048927801
4.	Krishna Scientific Suppliers Moulivakkam, Chennai Ph:08048763605
5.	Nation Techno Engineering No. 18, Kandeshwarar Nagar, Via- Maha Nagar, Kundrathur, Chennai - 600069, Dist. Chennai, Tamil Nadu Ph: 08048791185
6.	Sri Balaji Pharma Engineering, Peenya, Bengaluru, Karnataka Ph: 08048760370
7.	Bombay Engineering Works NO 9, Unity industrial estate, Vasai Easi, Mumbai-401208 Ph:08046053188
8.	Jai Industries Govinda Agraharam, Hosur, Krishnagiri, Tamil Nadu, Ph: 08045353240

Plant and Machineries

c) COST OF PLANT AND MACHINERIES

S. No	Description	Rate (Rs.)	Amount (Rs. in lakhs)
(a) Land & Building			
1.	Land & Building (1000sq. mtrs.)	-	70.00
(b) Machinery			
1.	Storage Tank [Pressure Vessel Class-1]	2,50,000	7.50
2.	Storage Tank [Pressure Vessel Class-3]	3,00,000	9.00
3.	Reactor Vessel with Stirrer [Stirrer Vessel]	5,00,000	15.00
4.	Dilution Reactor Vessel	2,00,000	6.00
5.	Weighing and Metering Equipment	3,00,000	9.00
6.	Filling Machine	10,00,000	30.00
7.	Torque Gun with Vacuum Attachment	1,75,000	5.25
8.	Centrifugal Pumps	65,000	1.95
9.	Alcohol Concentration Meter /Lab Equipment	1,00,000	3.00

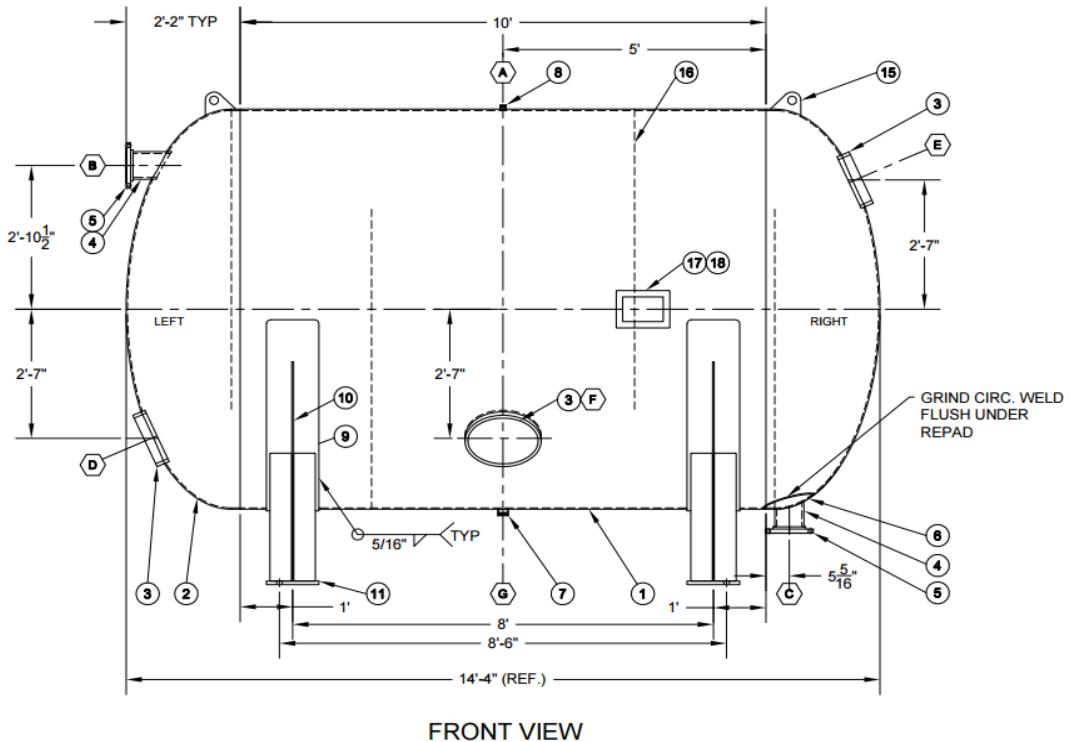
Plant and Machineries

(c)	Electrification & Installation @ 10% Of Cost & Machinery	269000	08.57
(d)	Pre-Operative Expenses	50,000	05.00
(f)	Cost Of Office Equipment/Furniture/Computers Etc.	3,00,000	03.00
	TOTAL		172.27

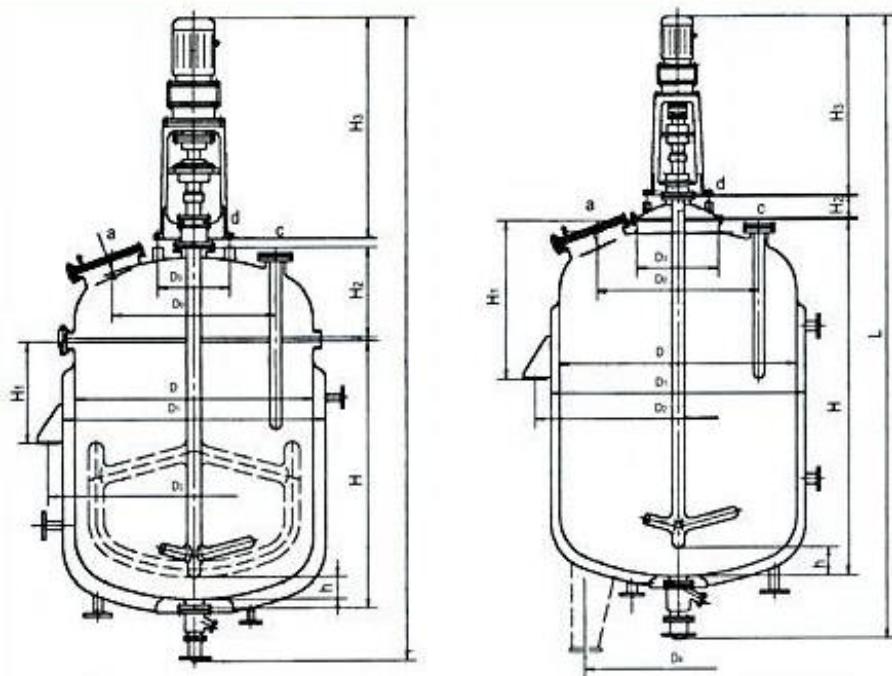
Plant and Machineries

d) INSTALLATION DRAWING- HIGH-LEVEL/ SNAPSHOT

Storage Tank [Pressure Vessel Class-1]

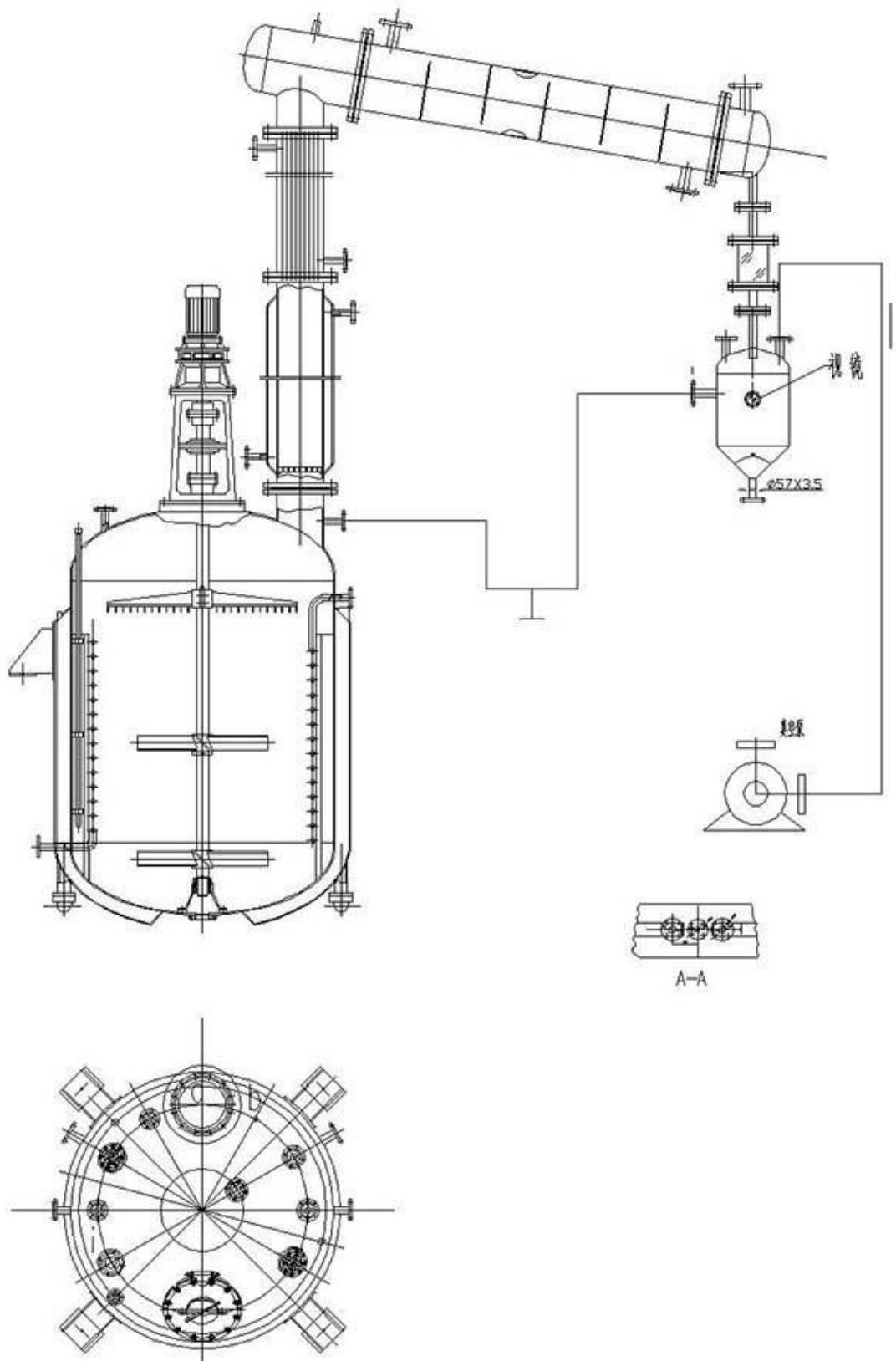


Reactor Vessel with Stirrer [Stirrer Vessel]



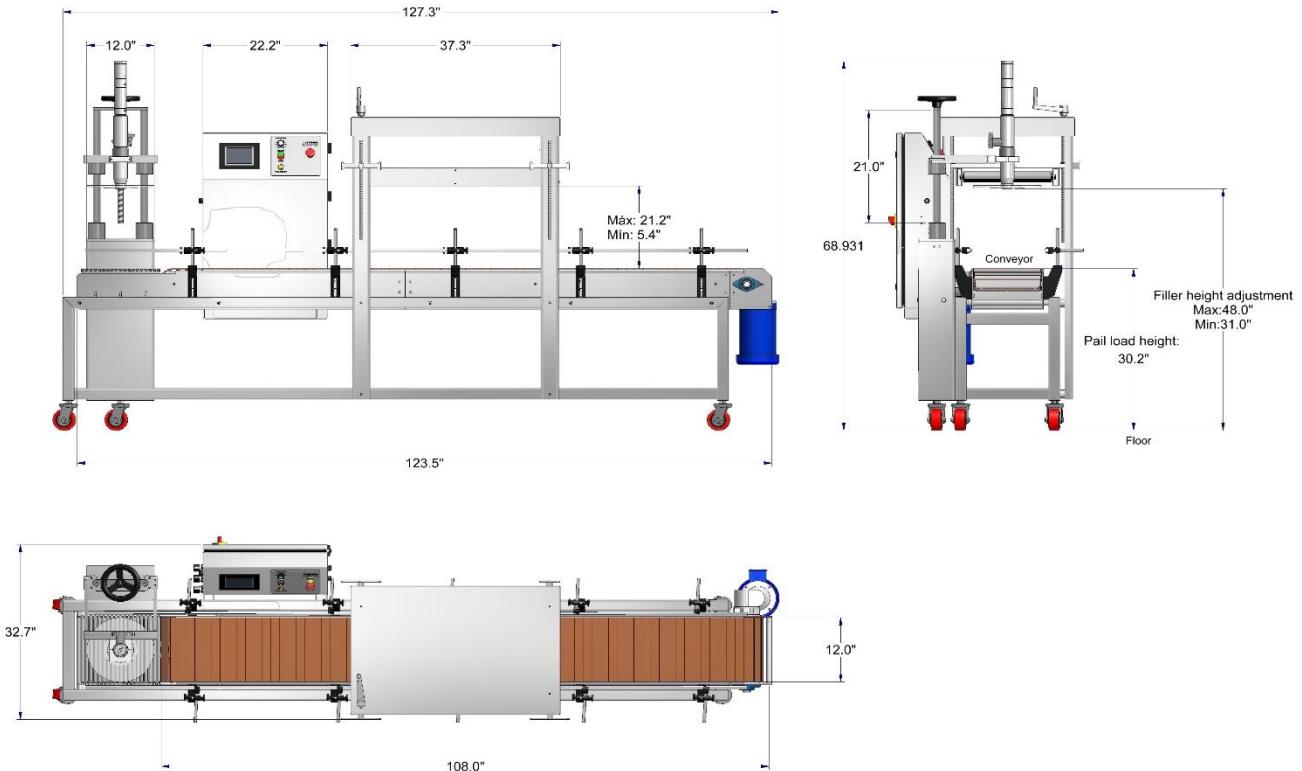
Plant and Machineries

Dilution Reactor VesselS

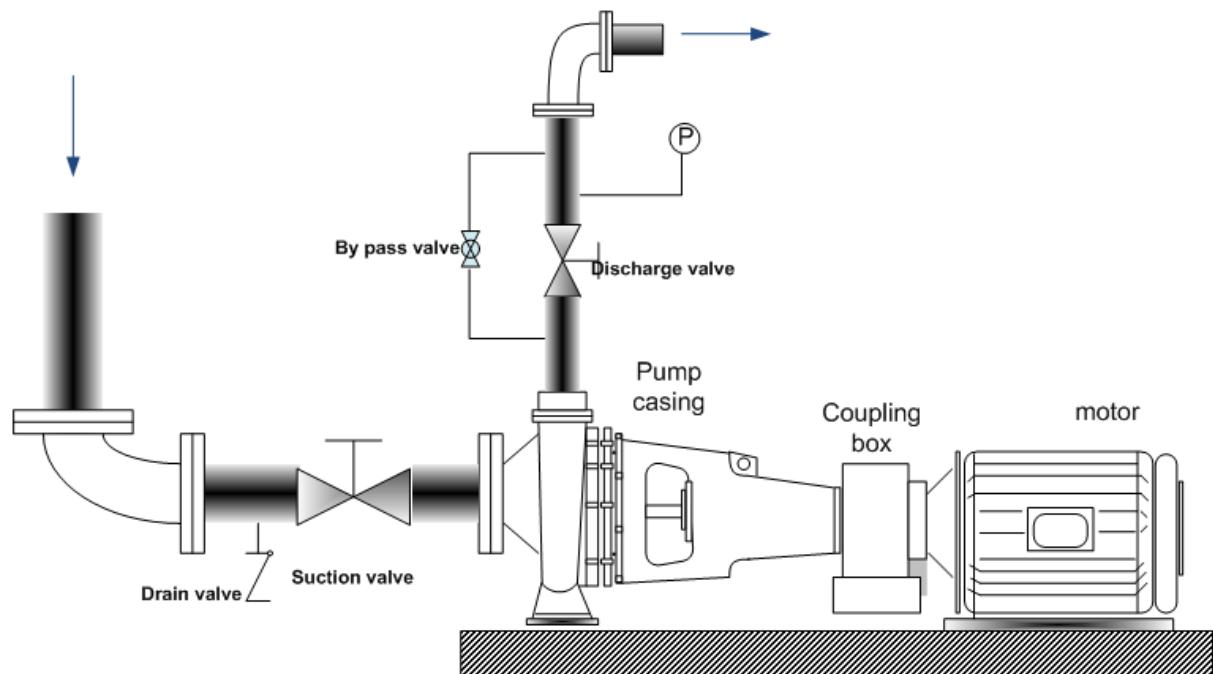


Plant and Machineries

Filling Machine



Centrifugal Pumps



Centrifugal pump system

Electronic Weighing Scale



Plant and Machineries

e) MATERIAL HANDLING AND STORAGE EQUIPMENT

- Storage areas need to be adequately separated from on-site and off-site protected places (e.g. dwellings, public buildings, offices, workshops, warehouses).
- Incompatible dangerous goods need to be kept apart so they do not react and cause an incident.
- Hazardous areas in and around the location need to be correctly classified beforehand, with explosion and fire risks controlled before commencing storage.
- Control of ignition sources – do not smoke near or bring mobile phones into a storage area for flammable liquid. Staff should wear garments made entirely from natural fibers (e.g. cotton) to reduce the risk of static ignition.

Spill Containment

Spill containment storage areas need to be provided with spill containment to capture and contain spills. Any spills should be cleaned up as soon as possible, using appropriate equipment and materials for dangerous goods.

Ventilation

Ventilation flammable liquid storage areas need to be ventilated adequately. Electrical equipment in hazardous areas, such as lights, light switches, electrical wiring, forklifts and ventilation fans, need to be suitable for use in hazardous areas.

Fire Protection

Fire protection adequate fire protection needs to be provided. Operational safety – staff working in flammable liquids storage or handling areas need to be trained to work in those areas safely. Ensure staff are provided with appropriate personal protective equipment (PPE), including training on how to safely use, maintain and clean or dispose of PPE.

Placarding

Placarding storage areas must have placards if storing more than 250 litres of UN Class 3 packing group II dangerous goods, or more than 1000 litres of UN Class 3 packing group III dangerous goods.

Labelling and Packaging

Labelling and packaging hand sanitizer packaging and labelling must comply with the Australian Dangerous Goods Code (ADG Code) and the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) or Approved Criteria for Classifying Hazardous Substances, as required by relevant state legislation.

Plant and Machineries

Safety data sheets (SDS)

Safety data sheets (SDS) manufacturers, suppliers and importers have duties under OHS and dangerous goods legislation to provide certain information about products in SDSs and labelling.

Manufacturing Areas

The manufacturing area needs to be adequately separated from on-site and off-site protected places. The storage and manufacturing areas should also be separated. Pumps and valves need to be suitable for handling flammable liquids.

Control of Ignition Sources

Control of ignition sources do not smoke near or bring mobile phones (unless hazardous area rated) into the manufacturing areas. Staff should wear garments made entirely from natural fibres (eg cotton) to reduce the risk of static ignition.

Spill Containment

Spill containment mixing and blending vats or vessels need to be provided with spill containment to capture and contain spills. Any spills should be cleaned up as soon as possible, using appropriate equipment and materials for dangerous goods.

Hazard Handling

Hazardous areas around the manufacturing facility must be correctly classified beforehand with explosion and fire risks controlled before commencing operations. More guidance is provided in AS/NZS 60079.10.1 Explosive atmospheres Classification of areas - Explosive gas atmospheres.

Electrical equipment in hazardous areas, such as electrically operated pumps, switches, general power outlets and fans, need to be suitable for use in hazardous areas. This may also include the use of hazardous area rated forklifts for moving or removing raw materials and finished products to and from manufacturing areas.

Operational Safety

Operational safety staff working in the sanitizer mixing area must be consulted on matters related to their health or safety (such as risk controls) and trained adequately so that they can do their work safely. Ensure staff members are provided with appropriate PPE to handle the sanitizer mixes and raw materials.

Additional Safety

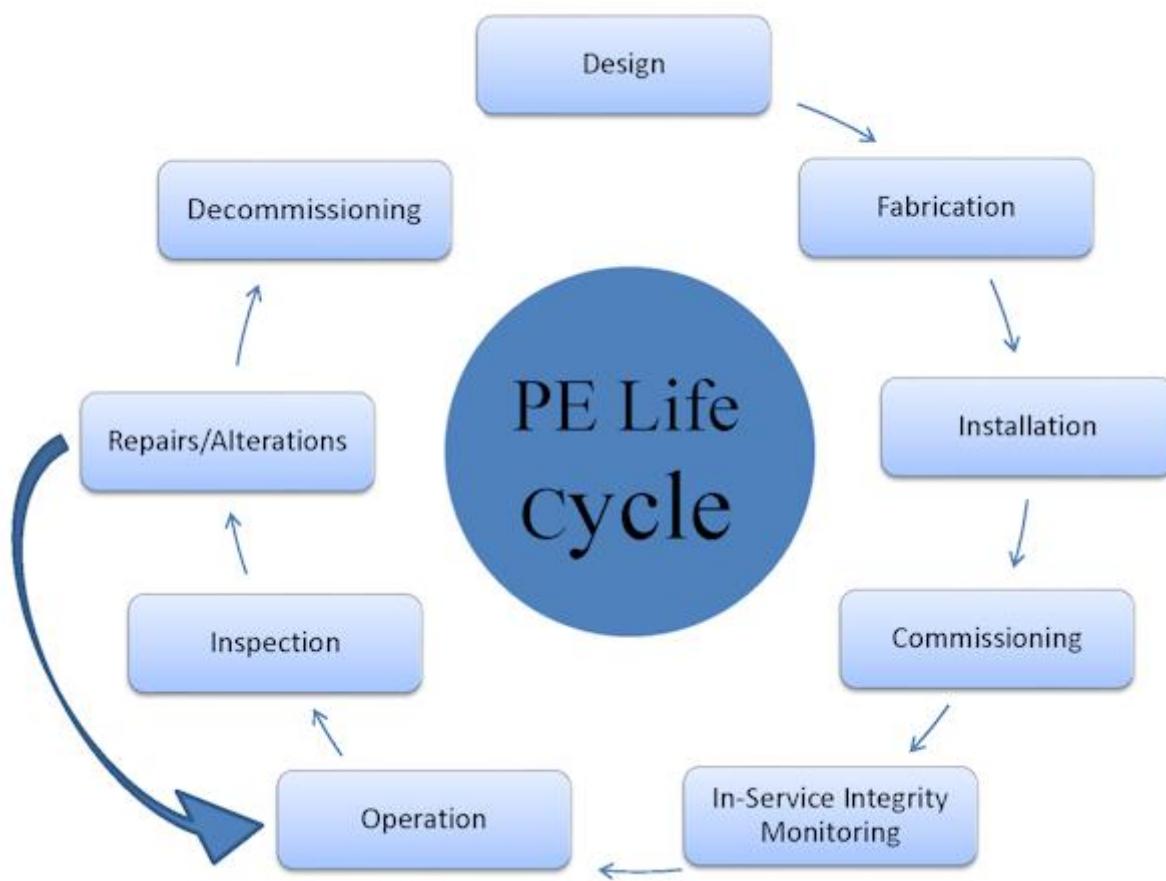
Additional safety controls may be required as a result of the risk assessment. For example, a large-scale production site with a risk of off-site impacts may require a flammable vapour detector interlocked with an automatic shutdown system for manufacturing plant.

Plant and Machineries

Ensure safe transfer of raw materials and finished products by confirming that correct hoses are used and that mixing vessels and associated equipment are suitably bonded and earthed to minimize electrostatic discharge hazards.

f) ESTIMATED LIFE OF EACH MACHINE AND EQUIPMENT

Machinery comes with a warranty of 7 years so it is estimated life of more than years with proper maintenance and service.



PHASE – II

PROJECT DETAILS

Product or Feature Name	KNEAT N KLEAN
Project Leader	SULOCHANA THAPA

PROJECT OVERVIEW & OBJECTIVES

PROJECT OVERVIEW

We build hand sanitizer. Hand sanitizer is a liquid, gel, or foam generally used to decrease infectious agents on the hands. In most settings, hand washing with soap and water is generally preferred. Hand sanitizer is less effective at killing certain kinds of germs, such as norovirus and Clostridium difficile and unlike soap and water, it cannot remove harmful chemicals. People may incorrectly wipe off hand sanitizer before it has dried, and some are less effective because their alcohol concentrations are too low.

OBJECTIVES

1) Factory set up & Capex Cost

2) Production

3) Environment, Health & Safety requirements & Standards



FACTORY SET UP &CAPEX COST

- a) Choice Of Factory Location**
- b) Land Requirement & Cost**
- c) Choice Of Technology**
- d) Project Implementation – Phase Wise / Activity Wise/
Milestones / Timelines**
- e) Timeline For Commercial Production**
- f) Capex Cost Estimation- Phase Wise / Milestones**

a) FACTORY LOCATION

An Ideal Factory Location Refers To The Place Where There Is

- Proximity to Markets
- Transport Facilities
- Availability of Power, Fuel or Gas
- Water Supply
- Disposal Facility for Waste Products
- Climatic and Atmospheric Condition

Selecting a right location for factory operation is an important aspect. Major required utilities are water and electricity. Easy availability of transport facility and labor is important. Create a floor plan indicating specific space for raw material storage, finished products storage, production unit area, administrative work space, store room and space for miscellaneous usage.

Factory would be located in Devdaha, Nepal. Devdaha is situated in outer skirts of East-Butwal, Nepal and this place already consists of various other factories. This place has been chosen because of one and only reason i.e. it will not affect the society and environment much.

b) LAND REQUIREMENT AND COST

There are many need which can be requirement for our manufacturing plant before establish are:

- Whether on main/auxiliary/side road or in street
- Plant should be on roads are national highways/ state highways or interior.
- Topography of land - levelled, undulated.
- Ground water availability and its type and depth at which available
- Plant should be in industrial area
- Distance of nearest electricity pole from where electricity connection can be available.
- Distance from Bus Stop/ Railway Station
- Price of land should be affordable.
- The Department of Infrastructure and Industrial Development, also known as Infrastructure and Industrial Development Department, and often abbreviated IIDD is a department of the Government of Nepal.
- The Department serves as a facilitator of Infrastructure development in the state of Uttar Pradesh.
- Land require for factory setup is 1000 sq. mtrs.. and this will cost 30-40 lakhs.

c) CHOICE OF TECHNOLOGY

Production technology would be to include any machinery that makes creating a tangible physical product possible for a business.

Types of Hand Sanitizers

Depending on the active ingredient used, hand sanitizers can be classified into two types: alcohol-based or alcohol-free. Alcohol-based products typically contain between 60 and 95 percent alcohol, usually in the form of ethanol, isopropanol. At those concentrations, alcohol immediately denatures proteins, effectively neutralizing certain types of microorganisms. Alcohol-free products are generally based on disinfectants, such as benzalkonium chloride (BAC), or on antimicrobial agents, such as triclosan. The activity of disinfectants and antimicrobial agents is both immediate and persistent. Many hand sanitizers also contain emollients (e.g., glycerin) that soothe the skin, thickening agents, and fragrance.

Raw Material for Sanitizer Production

The principal raw materials required for the production of hand sanitizer are Ethanol or Isopropanol, Glycerol, Hydrogen Peroxide, distilled water and essential oil such as peppermint or Lavender oil or lemon extract. All the enlisted raw materials can be procured locally.

c) Hand sanitizer Production Unit Setup & Machinery

Selecting a right location for factory operation is an important aspect. Major required utilities are water and electricity. Easy availability of transport facility and labour is important. Create a floor plan indicating specific space for raw material storage, finished products storage, production unit area, administrative work space, store room and space for miscellaneous usage. Generally, you will need to have 2000 sq.mtrs. of nonagricultural land for establishing an improved sanitizer manufacturing unit. Here, you can erect a plant (1000 sq.mtrs.) with a processing capacity of 240kiloliters/annum. Additionally, the land must come with proper elevation.

d) PROJECT IMPLEMENTATION

To implement a project means to carry out activities proposed in the application form with the aim to achieve project objectives and deliver results and outputs. Its success depends on many internal and external factors. Some of the most important ones are a very well organized project team and effective monitoring of project progress and related expenditures.

IMPLEMENTATION

Phase	ACTIVITY	TOTAL ESTIMATED TIME
1st phase	Market Study <ul style="list-style-type: none"> • Demand projection 2 weeks • Marketing model 2 weeks • Market segmentation 2 weeks • Advertising and Promotion 3 weeks • Cost estimation 2 weeks 	11 weeks
	Factory Setup <ul style="list-style-type: none"> • Factory location 3 weeks • Building design 3 weeks • Building of factory 28 weeks 	34 weeks
2nd phase	Plant And Machinery Setup <ul style="list-style-type: none"> • List of P&M 1 week • Procurement 3 weeks • Installation of P&M 4 weeks 	8 weeks
	Raw Materials <ul style="list-style-type: none"> • List of R.M. 1 week • Sources for R.M. 3 weeks • Purchase of R.M. 3 weeks 	7 weeks
3rd phase	Preparation Of Project Document And Registration	12 weeks
	License From Drug Controller Authority	4 weeks
4th phase	Recruitment Of Staff & Trial Production	12 weeks
	Arrangement Of Finance /Loan	2 weeks

e) TIMELINE FOR COMMERCIAL PRODUCTION

A practical implementation plan should be prepared by the implementation team to define real time schedule of delivery of services, such as:

- When the purchase of materials is completed.
- When the excavation is finished.
- When the structures of the buildings are constructed.
- When the commissioning is expected.

Other aspects that have to be taken into account during the construction phase are: sourcing, availability of funds, payment procedures, preparation of contracts, supervision of community labour, division of labour between women and men (see also gender issues, regular meetings with actors, etc.) And the machinery and equipment ordered.

IMPLEMENTATION OF SOCIAL PROJECTS

As mentioned before, social projects are also very common in the water and sanitation field, as they usually target the human factor that is crucial for achieving sustainability of the SSWM measures. These projects are usually related to the change of behaviour and strengthening of capacities by awareness raising (see PPT) campaigns, training activities, institutional set-ups, etc. As these projects cover a wide range of activities that are case-specific, how the implementation will take place will vary from case to case. However, the implementation of a project will always be successful if management strategies and coordination guidelines are clearly defined.

An activity and financial reporting procedure has to be prepared and communicated to the members of the team. It should be clear from the beginning of the action, how all the costs incurred will be reported and reimbursed. It is important to keep procedures as simple as possible, using simple tables and template for reporting costs, field visits, interviews, workshops, meeting minutes, etc.

A controlling strategy has to be developed, in order to monitor the work done on the field. A clearly defined decision making process will set the roles and responsibilities of the members of the team: field worker ->task leaders -> work package leader -> project manager -> coordinator of the project -> steering committee. This ladder will allow for immediate correction of actions and efficient use of (human) resources.

Communication channels should be kept open between the field workers and the management team, making use of mobile phones, SMS, E-mails, etc. It is important to avoid overloading the team with bureaucratic procedures that nobody will follow (like newsletters, long reports, weekly E-mails, etc). Instead, monthly meetings should be planned, bringing the field workers together to report, exchange experiences and learn from each others successful and failing stories.

IMPLEMENTATION SCHEDULE

Preparation of The project implementation will take about nine months. The break-up of activities with relative time for each activity is as follows:

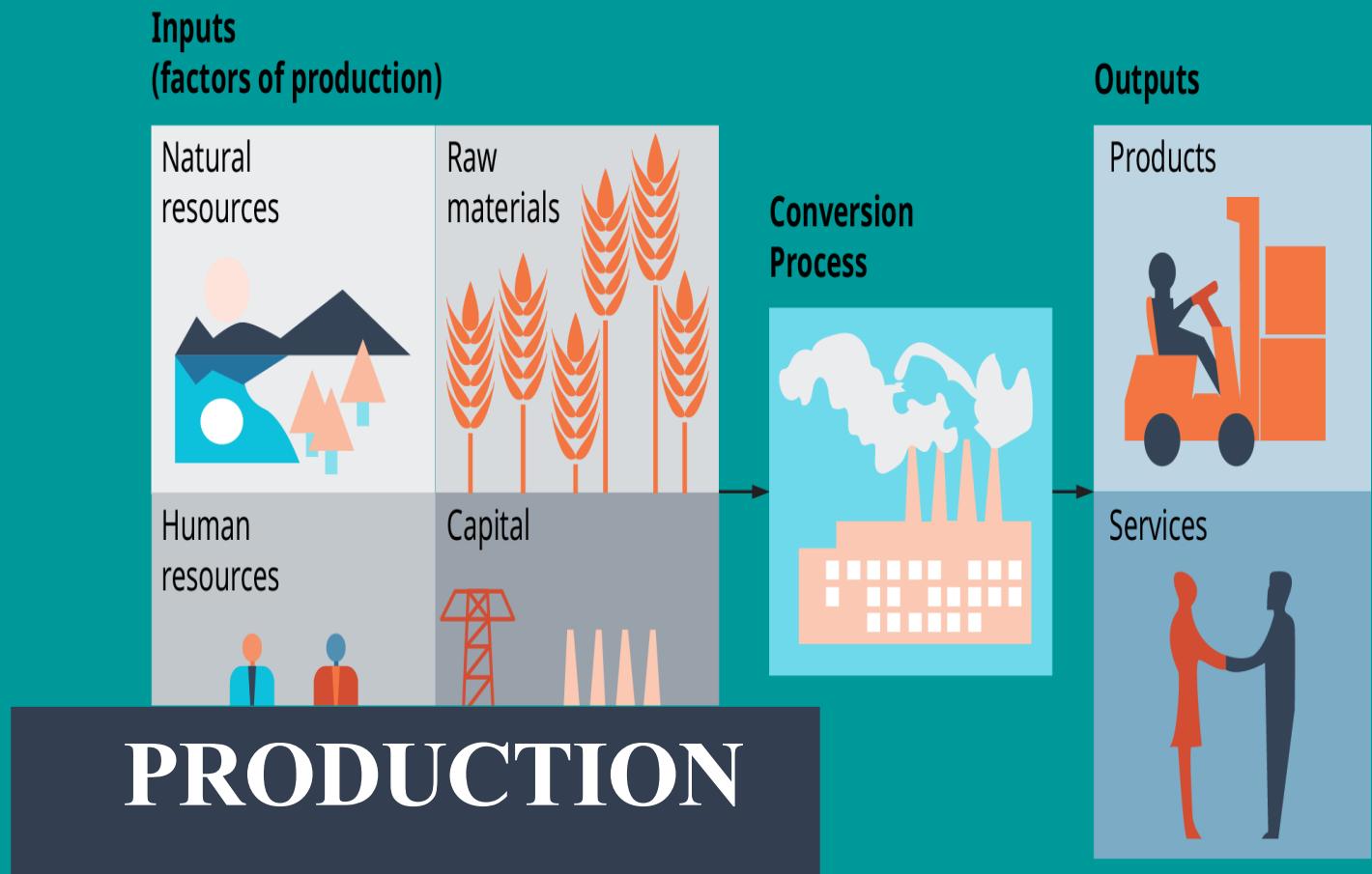


f) CAPEX Cost Estimation

Phase	ACTIVITY	TOTAL ESTIMATED TIME	BUDGET
1st Phase	MARKET STUDY <ul style="list-style-type: none"> • Demand projection 2 weeks • Marketing model 2 weeks • Market segmentation 2 weeks • Advertising and Promotion 3 weeks • Cost estimation 2 weeks 	11 weeks	14,00,000
	FACTORY SETUP <ul style="list-style-type: none"> • Factory location 3 weeks • Building design 3 weeks • Building of factory 28 weeks 	34 weeks	70,00,000
1st phase Total			84,00,000
2nd Phase	PLANT AND MACHINERY SETUP <ul style="list-style-type: none"> • List of P&M 1 week • Procurement 3 weeks • Installation of P&M 4 weeks 	8 weeks	94,27,000
	RAW MATERIALS <ul style="list-style-type: none"> • List of R.M. 1 week • Sources for R.M. 3 weeks • Purchase of R.M. 3 weeks 	7 weeks	5,00,000
2nd Phase Total			99,27,000
3rd Phase	Preparation of project document and Registration	12 weeks	30,000
	License from Drug Controller Authority	4 weeks	55,500
3rd Phase Total			85,500
4th Phase	Recruitment of Staff & Trial production	12 weeks	15,00,000
	Arrangement of finance /loan	2 weeks	1,00,00,000

Factory set up &Capex Cost

4th Phase Total	1,15,00,000
TOTAL	2,99,12,500

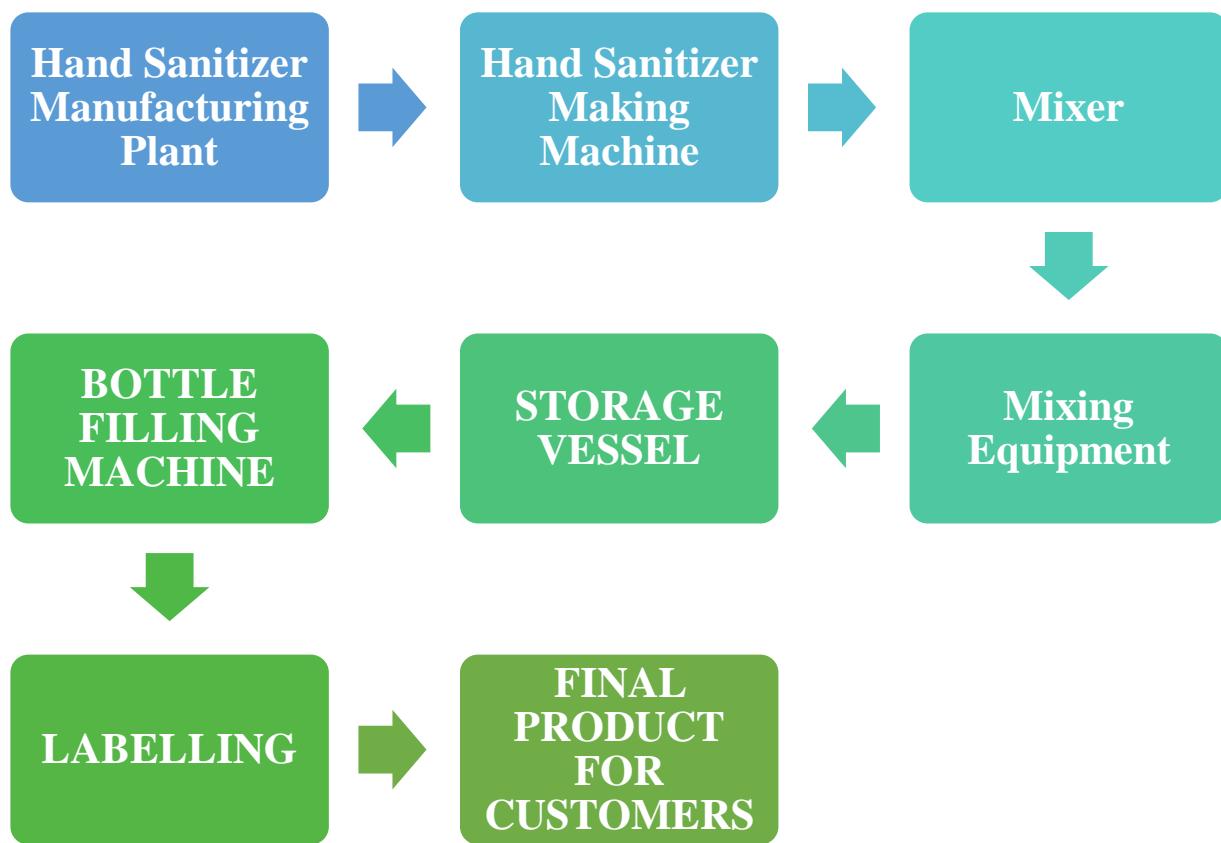


- Production Process- Flow Chart**
- Product Mix – Which Products To Be Produced & How Much?**
- Production Cost Estimation**

a) PRODUCTION PROCESS

Production is a process of combining various material inputs and immaterial inputs (plans, know-how) in order to make something for consumption (output). It is the act of creating and output, a good or service which has value and contributes to the utility of individuals output, a good or service which has value and contributes to the utility of individuals.

Flow chart



Our Hand Sanitizer Manufacturing Mixer & liquid filling machines are designed to meet the changing needs of the Hand Sanitizer industry. We manufacture the ideal machinery to handle your Hand Sanitizer hand sanitizer making machine & filling needs and meet your production goals.

Hand Sanitizer Making Machine

The hand sanitizer production line is generally composed of the hand sanitizer pot (Mixer) , Mixing preparation pot, Transfer pump , Working platform, Operating control Panels and relevant filters, pipes and valves. The hand sanitizer Manufacturing Plant with Main Pot Mixer and hand sanitizer production line are manufactured and installed by our company strictly accordance with the High standards.

Hand Sanitizer Liquid Mixing Machine

- The hand sanitizers pot is the main devices in tech hand sanitizers production lines. It is composed of the inner containers, steams and cooling water, outer insulation layers, upper sapped-adjustable mixing devices, temperature measuring devices, and material feeding and discharging devices. The inner container and aquifer are made of stainless steel.
- HAND SANITIZER Bottle filling line including Bottle filler, capper, induction sealer, two side + round bottle labelers and carton packing line.
- “hand sanitizer works great and is very effective at killing bacteria, fungi and viruses.”
- Hand sanitizer, also called hand antiseptic, hand rub, or hand rub, Hand Sanitizers Antiseptic Hand Gel is particularly popular for quick, easy sanitizing.

Production

b) PRODUCT MIX

Product mix refers to the features of the products that the firm is going to produce for the consumers to use. Product mix consists of types of products that Kneat N Klean is going to produce and how much it is going to produce.

Our product mix contains mainly 3 types of products:

- Gel
- Foam
- Liquid

Plant Capacity

300 KLiter or more as per customer requirement

Liquid Based Hand Sanitizers

Alcoholics hand sanitizer generally contain alcohols or isopropanols as the active ingredient that killed germs and bacteria. The contents of alcohols in the hand sanitizing products usually ranges between 60% and 95%, which is considering by FDA to be effectively killing germ and bacteria, including corona viruses, MRSA, and Ecoli.

Alcohol based hand sanitizers are considering to be more potent and rapid in killing germ, virus and bacteria, compared to alcohols-free hand sanitizer. However, alcohol based hand sanitizer could be worrisome to some consumer for its risks of flammability intoxications, and damages to the users' skins.

Gel -Based Hand Sanitizers

Experiment have been done to exams the efficiency of liquid hand sanitizers and gel hand sanitizer. In general, liquid hand sanitizer fare better than gel hand sanitizers.

Scientists proved that liquid hand sanitizer in liquid form reacts more rapidly compared to gel hand sanitizers. On average, it took the liquid ones 15 seconds and the latter the double of the time to act.

In addition, liquid hand sanitizers leave less residual substance on hands and are generally more effective in terms of killing germs and bacteria, compared to gel hand sanitizers.

Production

Foam -Based Hand Sanitizer

Some believe that foam hand sanitizers are more economical compared to liquid or gel ones, for the airy and incompact texture of the products. In addition, foam is more clinging to hands and will not easily drop, which could cause damage to the floor or the carpet. Therefore, we have witnessed the gaining popularity of foam hand sanitizers in recent years.

However, some argue that the incompact texture of the product might jeopardize its efficiency in killing bacteria and germs.

As mentioned in the previous sections, non-alcohol hand sanitizers are proven to work less efficiently in killing bacteria and germs, compared to its alcohol counterpart. On the other hand, such products are not as flammable and toxic to the human body compared to alcohol-based hand sanitizers.

Raw Materials To Prepare 1000 Lit. Sanitizer

Raw Material	Gel Based	Liquid Based	Foam Based
Ethanol (ethanol based formulation)	700 lit.	700 lit.	700 lit.
Hydrogen Peroxide	50 lit.	50 lit.	50 lit.
Glycerol	-	100 lit.	80 lit.
R.O. water	80lit.	130lit.	100 lit.
Lavender oil for fragrance	20 lit.	20 lit.	10 lit.
Cocamidopropyl Betaine	-	-	70 lit.
Aloe Vera Gel	150lit.	-	-

c) PRODUCTION COST ESTIMATION

RAW & PACKING MATERIALS PER MONTH

Raw Materials to Prepare 3000 Lit. Of Sanitizer

SL.NO.	TYPE	VALUE IN RS.
1.	Gel Based Sanitizer	1,11,500
2.	Liquid Based Sanitizer	1,16,000
3.	Foam Based Sanitizer	1,16,500
4.	Bottle, Cartoons, labels	1,20,000
	Total	4,64,000
	Total Cost Of 300 Klit. Of Sanitizer	4,64,00,000

SALARY & WAGES PER MONTH

Sl.No.	Designation	Nos.	Salary (Rs.)	Value in Rs.
1.	Chemist Production Manager	03	30,000.00	90,000
2.	Sales Executive	03	20,000.00	15,000
3.	Accountant-cum- Store Keeper	03	10,000.00	30,000
4.	Watchman	02	7,000.00	14,000
5.	Skilled Workers	06	6,000.00	36,000
6.	Helpers	06	5,000.00	30,000
7.	Electrician	02	5,000.00	10,000
	Total			2,35,000
	Add perquisite @ 10% of the Salary			23,500
	Total			2,58,000

Production

UTILITIES		
Sr. No.	Description	Value (Rs.)
1.	Power (60% utilisation x 1350 KW x 500 hrs. x Rs. 5 per unit)	21,60,000
2.	Water	6,000
Total		21,66,000

Other Expenses Per Month			
Sr. No.	Description	Quantity	Value (Rs.)
01.	Repairs and Maintenance	L.S.	6,000
02.	Transportation Charges	L.S.	30,000
05.	Consumable Stores		1,000
06.	Advertisement & Publicity	L.S.	1,02,000
08.	Miscellaneous Expenses	L.S.	1,000
Total			1,40,000

Production

COST OF PRODUCTION PER ANNUM		
Sr. No.	Description	Value (Rs.)
1.	Raw & Packing Materials	4,64,00,000
2.	Salary & Wages	30,96,000
3.	Utilities	21,66,000
4.	Other Expenses	16,18,000
5.	Depreciation on Machinery & Equipment's @ 10% p.a.	8,57,000
6.	Depreciation on building @ 5% p.a.	3,50,000
7.	Depreciation on office equipment @ 20% p.a.	60,000
8.	Electrification & Installation @ 10% Of Cost & Machinery	8,57,000
9.	Interest on loan @ 12%	12,00,000
Total		5,66,04,000



ENVIRONMENT, HEALTH & SAFETY REQUIREMENTS & STANDARDS

- a) Pollution Control Measures – Air, Water, Earth, Noise Level Etc.**
- b) Disposal Of Effluents, Sludge, Wastes, Scrap Mechanism**
- c) Power, Fuel & Electricity Conservation Measures**
- d) Cost Estimation – Capex & Opex**

a) POLLUTION CONTROL MEASURES

Every country's govt. sets some norms and standards to safeguard the environment from day to day industrial activities and force the manufacturers to follow those norms and rules in order to check the level pollution taking place due to industrial waste. Govt. has also implemented many rules and regulations for the disposal of industrial waste which every business has to follow. If the rules and regulations are not followed by the industry, they may get charged high amount of fines.

It is essential for our factory to comply with emission limits on dust, vapors, and odors. Emission control is necessary to battle pollution and become a part of the solution to improve air quality everywhere. Addressing a combination of these emission types requires a good, integrated design to prevent an unnecessary maintenance burden in the future.

Measures Towards Pollution Control

A) Prohibition to emit waste in contravention of the prescribed standards

No one shall emit or cause to emit the noise, heat and waste from any mechanical means, industrial establishment or any other place in contravention of the standards prescribed by the Ministry by a Notification published in the Gazette. *16.

B) Provisions relating to provisional or permanent pollution control certificate:

(1) All industries as referred to in Schedule-7 which are currently in operation, shall apply within 90 days from the date of commencement of these Rules and the industries which were registered prior to the commencement of these Rule but are not in operation or the industries which shall be registered after the commencement of these Rules shall apply within the 60 days from the date of beginning of production to the concerned body mentioning their detailed particular to obtain the provisional pollution control certificate. Upon receipt of such application the concerned body shall conduct inquiry into it , and so seek , as required the opinions and suggestion of the Village envelopment committee or Municipality , where the industry is to be operated and if it is found thereafter that the operation of such industry shall cause no Substantial adverse impact on environment or there is possibility of reducing or controlling such effect, then * Amended by first amendment concerned body shall issue a provisional pollution control certificate valid for one year to the applicant within Ninety days from the date of receipt of the application.

(2) Notwithstanding anything contained in Sub-Rule (1), If the industry , which is to be registered after the commencement of these Rules , had already obtained the opinions and suggestions from the concerned Village Development committee or Municipality in course of

Environment, Health & Safety requirements & Standards

preparation of the report pursuant to Rule 7 for the determination of scope (scoping) pursuant to Rule 4 , the concerned body shall not require to obtain the opinions and suggestions from the Village Development Committee or Municipality again regarding impact on environment while operating industry pursuant to Sub- Rule (1).

(3) In cases where the standard of sound, heat, nuclear radiation and waste disposal for any industry has been determined by publishing a notice in Nepal Gazette pursuant to Rule 15, the concerned body shall require to issue a permanent pollution control certificate valid for three years to those industries after having their examination from the designated laboratory or established pursuant to Section 11 of the Act within Six months from the date of determination of such standards.

(4) On failing to issue the provisional or permanent pollution control certificate within the stated time period pursuant to Sub-Rule (1s) and(3) , the concerned body may issue such certificate within additional three months from the date of lapse of such time period.

(5) While issuing the provisional or permanent pollution control certificates pursuant to Sub-Rule (1) and (3) , the concerned body may , as required, prescribe all or any of the following conditions to be complied by such industry: -

- To install within the stated time the equipments required to reduce or control pollution,
- To properly use the installed equipments of pollution control,
- To operate the industry only at stated time,
- To take specific measures to control such activities carried out in the premises of any industry which generate pollution
- To take specific measures to control the activities of any industry which generate pollution outside the premise of the industry
- To make available the equipments necessary for the monitoring activities at the fixed time,
- To work as per other conditions prescribed and defended necessary by the concerned body in view of the nature of industry.

(6) The provisional pollution control certificate pursuant to Sub-rule (1) shall be renewed every years and the permanent pollution control certificate pursuant to Sub-Rule (3) shall be renewed every three year.

(7) The terms and conditions mentioned in the provisional or permanent pollution control certificate obtained pursuant to this Rule shall be put in the places of operation of industry as may be seen by all.

(8) The concerned body shall maintain the updated list of the industries who obtained the certificates pursuant to this Rule and the list shall be made available to the Ministry. 17. Complaints may be Lodged in case anyone causes pollution or emits waste: In cases where any individual,

Environment, Health & Safety requirements & Standards

institution or industry does not control pollution or emits waste in contravention of the conditions or standards prescribed under the Act or these Rules; the individual, institution Village Development Committee or Municipality affected by such action may lodge a complaint with the concerned body.

C) Notice to be issued control pollution or not to emit waste

(1) In cases where the concerned body finds in the course of an investigation conducted on its own or following a complaint lodged under Rule 17 that any individual, institution or industry has not controlled pollution or has emitted waste in contravention of the condition or standards prescribed under the Act and these Rules , it shall immediately issue a notice to the concerned individual, institution or industry to control pollution or immediately not to emit waste according to the prescribed conditions or standards.

(2) While issuing a notice to the concerned individual, institution or industry under Sub-Rules (1) , the concerned body may order him/her it to take all or any of the following actions immediately by prescribing a time limit in that behalf: -

- Measures to be adopted immediately for controlling or reducing pollution, or for no emitting waste,
- To use, operate, or improve any device or equipment,
- Not to use all or any of the equipment currently being used or operated,
- To adopt the specified monitoring programs and submit a report to it,
- To adopt various alternative measures for controlling pollution and avoiding emission of waste,
- To develop environment management system and furnish information thereof,
- To perform other functions which are deemed appropriate for controlling pollution and prohibiting waste emission activities.

Power Of The Concerned Body To Carry Out Sanitation And Cleanliness Activities Itself

(1) In case any individual institution or industry emits waste in contravention of the conditions or standards prescribed in the Act or theses Rules even after being issued a notice prohibiting such action, and such action causes an adverse impact on the public, the concerned body may remove such waste at its own cost.

(2) The concerned body shall realize the cost incurred by it for removing waste from any place under Sub- Rule (1); as well as an additional charge amounting to Twenty Five percent of that cost in consideration of having done so, from the individual, institution or industry which has emitted those wastes, as government dues under the existing laws.

b) DISPOSAL OF EFFLUENTS, SLUDGE, WASTES, SCRAP MECHANISM

Most hand sanitizing liquids and gels consist of 60% or greater concentrations of ethyl alcohol. Alcohol based hand sanitizing fluids are flammable liquids at room temperature. As a result, any unused or partially used containers of hand sanitizing liquid that are no longer wanted must be disposed of as Hazardous Waste. Hazardous Waste must be stored according to the following rules:

- 1.** All collection containers must be closed with a proper fitting top, except when being filled or emptied. In this case, metal to comply with fire codes.
- 2.** Containers must be marked with the words "Hazardous Waste" and with other words that identify the contents of the containers; in this case, "Hazardous Waste—Ethanol Cleaner."
- 3.** Containers holding flammable materials must be stored away from oxidizers, sources of ignition and per the Fire Code. Total waste accumulation cannot exceed 10 gallons in the medical center and 30 gallons in all other university property, including all other flammable liquids in the area.
- 4.** To minimize waste disposal, any remaining liquid in a refill bag should be used up for its intended purpose or consolidated into another bag. Bags that can no longer be used should be collected in the Hazardous Waste container at the Satellite Accumulation Area.

To dispose of Hazardous Waste, call the Hazardous Waste Management Unit to schedule a pickup at x52056. Prior to a waste's being picked up a completed Hazardous Waste Tag must be affixed to each container of Hazardous Waste.

A Hazardous Waste container is considered to be empty if the waste has been removed using common practices typically employed to remove materials from that type of containers (i.e. pumping, pouring, aspirating, etc) and the container contains no more than 1 inch of residue on the bottom, or no more than 3 percent by weight of the total capacity of the container.

Containers meeting the legal definition of empty can be recycled or discarded in the regular trash.

Remember, the best way to minimize the generation of Hazardous Waste from hand sanitizers is to use them up for their intended purpose...sanitizing hands!

Waste can be added only after you choose the proper container and it is labeled. The minimum personal protective equipment (PPE) may be dictated in the Chemical Hygiene Plan. If not, all personal working with chemical waste must wear the following:

- Safety glasses
- Splash goggles if working with liquid waste

Environment, Health & Safety requirements & Standards

- Lab coat
- Gloves specific for the compounds in use

Procedure For Liquid Chemical Waste Management

- Perform liquid chemical waste management in a fume hood. Mixing of liquid waste may generate toxic or corrosive aerosols.
- Check the container label to assure that waste is being added to the correct container.
- The container must be in secondary containment, i.e. large plastic bin or bucket.
- Uncap the container.
- Use a funnel sufficient for the size of the container and volume of waste being added.
- Slowly add the waste, watching for any unintended reactions. If you observe a reaction, immediately stop adding the waste, close the fume hood sash and contact DEHS.
- After the waste has been added, remove the funnel and seal the container with the cap.
- Another option for liquid waste management is to use a specially designed waste funnel called ECO-Funnel. Go to Safety Ecological Funnels for more information.

Procedures For Solid Waste Management

- Go to Laboratory Solid Waste Disposal Set-Up and Laboratory Solid Waste Disposal Procedures for information and guidance on how to set up your solid chemical waste management program in your lab.
- Obtain and label a proper container as described above.
- Open the lid to the container and unseal the bag.
- Add the waste.
- Seal the bag with a bag closure tie or large binder clip.
- Reseal the lid.

Storing Your Waste

Proper storage of chemical waste is extremely important. Explosions have occurred on campus that are attributed to improper storage of chemical waste. If you improperly label a container, other laboratory personnel unknowingly may add incompatible material to the container. For example, if an organic solvent solution is added to a container that is not labeled or labeled as an aqueous inorganic acid, and a fellow researcher may generate an inorganic nitric acid solution and add it to the container. Nitric acid and organic solvents are extremely incompatible and the container over

Environment, Health & Safety requirements & Standards

a short period of time generates pressure and explodes. Go to Chemical Storage for guidance. Adhere to the following procedures on chemical waste storage to protect the health and safety of others, protect the University's facilities and to keep the University in compliance with all federal, state and local regulations:

- Waste containers must remain closed or sealed at all times, except when waste is being added or removed from the container.
- Liquid waste containers must be stored in secondary containment systems according to hazard class.
- Store all bulk liquid waste containers in appropriate cabinets. DO NOT store bulk liquid chemical waste containers in fume hoods that have active experiments or reactions occurring.
 - Flammable Cabinets
 - Corrosive Cabinets
 - Under Fume Hood Cabinets
- Do not allow excess accumulation of chemical waste to build up in your lab.
- Containers can only be filled to a maximum 90% full. Head space is needed for expansion and/or ease of dispensing.

c) POWER, FUEL AND ELECTRICITY CONSERVATION MEASURES

Here they are: 12 basic energy saving tips for manufacturers.

1. Lighting

Switching off lights remains one of the easiest ways to save on energy but it's surprising how often lights are kept on, even when no one is in the lit area. This problem is compounded in when employees go in and out of various buildings and work areas as they go about their duties. Incorporate automated lighting systems that make adjustments based on the room's occupancy or daylight availability. You can also install day/night switches to automatically control outdoor lighting. Additionally, install motion detector sensors that only switch lights on when the area is in use.

2. Turn Off And Run Equipment Only When Required

Ensure you shut off machinery and equipment when not in use. Walking through your plant after-hours and ensuring equipment is powered down when not in use can result in significant savings over time.

3. Reduce Closing Door Delay

Automatic doors are a great way for manufacturing businesses, which require a cold room or refrigerated storage, to save on energy as they use sensors or a time delay to close the door. Energy savings can be made by reducing the close delay timeframe on automatic doors, and limiting the frequency of cool room access as far as its practical.

4. Clean And Maintain Equipment

Regular cleaning and planned maintenance of your electrical and mechanical equipment will go a long way towards optimizing its performance and lifespan, which can translate to energy efficiency savings. energy saving tips for manufacturing-equipment Performing regular maintenance on your equipment will prolong its lifespan.

5. Air Conditioning And Heating

Newer heating and cooling systems will be far more efficient than old ones, so it may be worth getting systems more than 10 years old replaced. Both blow heaters and portable radiators use significant amounts of electricity and will chew through the power bills so discourage their use. Lastly ensure your air conditioning and heating are set to the optimum points during the seasons.

‘Setting the temperature to 25 degrees Celsius could cut your office's daily air-conditioning energy consumption by 18 per cent,’ ABC reports.

6. Insulation

Insulation acts as a barrier against temperature shifts, making it much easier to keep the workplace warmer in winter and cooler in summer. By installing insulation in the roof, and walls of your workspace, you can reduce the amount of energy needed to maintain room temperature during heat loss and heat gain. This is one of the most practical and cost effective ways to make your facility more energy efficient.

7. Shade Windows And Walls

Often, the primary source of heat entering a building is via unprotected windows. The sun’s radiant energy can generate the same local heat as a single bar radiator but Save energy by using fixed or adjustable shading, planting trees and vegetation or installing sun filters on the windows and walls of the workplace— especially industrial sheds— to protect it from radiant

8. Replace Existing Lights With LED

In 2009, Australia commenced the phase out of incandescent bulbs and it is estimated that this has saved nearly as much as 400,000 homes’ worth of electricity consumption every year. LED bulbs use about a quarter of the energy to produce the same light as halogens and can last five to ten times longer. This makes them the logical lighting choice for energy savings, particularly when manufacturing workspaces need adequate and plentiful lighting.

9. Use Natural Airflow

Opening a window, or building door is a simple energy saving technique that can help reduce air conditioning and heating costs by relying on natural ventilation for climate control. Especially as many places in Australia experience up to one hundred days per year with nice enough weather that you can open windows or a roller door.

10. Check Air Conditioning Lines

Make sure that pipe lagging on all refrigerant lines are intact as insulation is absolutely crucial, especially if the air conditioner is an outdoor unit. If the air conditioner lines are not insulated, it's just absorbing heat from the environment and cooling the outside air instead of the building and vice versa in winter.

11. Optimize Appliances

Depending on the appliances used in the workplace, you can optimise their settings to increase energy savings. For example, you can increase the drinks fridge temperature in the kitchen by one or two degrees to save energy without impacting employees or business.

12. Make It Collaborative, Not Top Down

Any energy savings initiative should be collaborative and involve all employees. If you want your employees to change their behavior they need to do it when you're not in the room. So, communicate the real business costs. Let them know how it affects the bottom line, and regularly raise energy at toolbox meetings or monthly company meet ups, to keep it top of mind. People will want to do their part if you let them.

d) COST ESTIMATION CAPEX AND OPEX

Cost estimation for the pollution control and disposal management is basically a part of our expenditure which every industry or business has to incur. Pollution control and disposal management contains certain aspects and amount which we are going to mention below:

Sn. No.	Items	Quantity	Capacity	Amount (in Rs)	Total amount(in Rs)
1.	Chemical waste container	3	1000 L	1200/p	3,600
2.	Plastic waste container	3	1000 kg	800/p	2,400
3.	Sewage system	-	-	-	75,000
Total					81,000

PHASE – III

PROJECT DETAILS

Product or Feature Name	KNEAT N KLEAN
Project Leader	SULOCHANA THAPA

PROJECT OVERVIEW & OBJECTIVES

PROJECT OVERVIEW

We build hand sanitizer. Hand sanitizer is a liquid, gel, or foam generally used to decrease infectious agents on the hands. In most settings, hand washing with soap and water is generally preferred. Hand sanitizer is less effective at killing certain kinds of germs, such as norovirus and Clostridium difficile and unlike soap and water, it cannot remove harmful chemicals. People may incorrectly wipe off hand sanitizer before it has dried, and some are less effective because their alcohol concentrations are too low.

OBJECTIVES

1) OTHER UTILITIES & COST

2) FINANCE & COMMERCIALS



OTHER UTILITIES & COST

- a) **Manpower Cost Estimation**
- b) **Power And Fuel**
- c) **Water Requirements If Any**
- d) **Packaging Cost**
- e) **Logistics & Transportation-Distribution Channel**
- f) **General And Administrative Overhead Cost**
- g) **Incentives And Subsidy If Any From Govt**

OTHER UTILITIES & COST

a) MANPOWER COST ESTIMATION

The link between manpower and company projects is fairly simple: Manpower is proportional to productivity. The more people are available to work; the faster projects can be completed or the more projects a company can take on. Conversely, a lack of adequate manpower prevents businesses from completing tasks.

PER MONTH				
Sl.No.	Designation	Nos.	Salary (Rs.)	Value in Rs.
1.	Chemist Production Manager	03	30,000.00	90,000
2.	Sales Executive	03	20,000.00	15,000
3.	Accountant-cum- Store Keeper	03	10,000.00	30,000
4.	Watchman	02	7,000.00	14,000
5.	Skilled Workers	06	6,000.00	36,000
6.	Helpers	06	5,000.00	30,000
7.	Electrician	02	5,000.00	10,000
	Total			2,35,000
	Add perquisite @ 10% of the Salary			23,500
	Total			2,58,000

OTHER UTILITIES & COST

b) POWER AND FUEL

SR. NO.	DESCRIPTION	VALUE
1.	Power (60% utilisation x 1350 KW x 500 hrs. x Rs. 5 per unit)	21,60,000

c) WATER REQUIREMENT

Sr. No.	DESCRIPTION	VALUE
1.	WATER	6,000

d) PACKAGING COST

Packaging of sanitizer includes:

1. Bottle
2. Labeling
3. Carton

Sr. No.	DESCRIPTION	VALUE
1.	Bottle, labels, cartons	1,20,00,000

OTHER UTILITIES & COST

e) DISTRIBUTION CHANNEL: LOGISTICS AND TRANSPORTATION

Distribution channel is very vital as it plays very crucial role to make products available in different regions and store it safely. Logistics is the process of getting the right product, in the right quantity, in the right condition, at the right place, at the right time, to the right customer, at the right price. And transportation is the part of logistics process.

The distribution channel which we have decided are already mention in the scope of the project. Now here, we will go in deep regarding each channel, how good will be transported to different supermarkets, special stores, medical store and online stores.

PROCESS OF LOGISTICS

1. Scope

This procedure covers all roles, responsibilities, and authorities related to the Logistics process at KNEAT N KLEAN.

2. Purpose

The purpose of this procedure is to manage vehicles, deliver goods to the right place at right time at right condition from the place of production and also manage other heavy equipment in an efficient and effective manner, to encourage the safety of vehicles, drivers and goods and to minimize damage to the vehicles.

3. Reference documents

- KNEAT N KLEAN quality manual
- Procedure for Correction and Corrective Action
- Procedure for Production.
- Procedure for Purchase.

4. Responsibility and authority

- Logistics officer
- Supply Chain Manager

OTHER UTILITIES & COST

- Store keeper
- Drivers and Helpers

5. Details of procedure

• Transportation Management

- Wherever applicable, the term vehicle to be applied to heavy Equipment and driver or the operator of heavy Equipment.
- Usage of vehicles and other Equipment for personal use are prohibited; responsible person besides paying for the loss will be subject to legal action.
- Vehicles should not be used after official working hours, unless there is a need for it based on the work plan.
- Logistics Officer should prepare a Transportation and Routing work plan with approvals work plan by the Project Coordinator.
- The Transferring Party must load products to vehicle according to Transportation and Routing work plan.
- The Driver receives other related documents (Return Note/Rework Report/Scrap Report/Delivery Note) and signs indicating the materials are in his possession, are on the way and transports the materials.
- When loading materials from production, Return Note and Rework/Scrap Report is prepared by Supervisor and given to driver.
- When loading is from Warehouse, Delivery Note is prepared by Storekeeper and given to driver.
- The Driver delivers the Return Note and Delivery Note to transferring party.

• Safe Working Guidelines

- In case of accident drivers should immediately report the incident and type of damage or involving personal injuries to the local law enforcement agency and to his supervisor as soon as possible and the supervisor to visit the accident site to ensure and be able to decide what caused the accident and who the blame goes to.
- Transportation is responsible to ensure all drivers are well aware of traffic regulations and abide by those rules.
- All traffic and parking laws are to be obeyed. Posted speed limits are not to be exceeded, nor is the vehicle to be operated above safe driving speeds for road conditions. All traffic and parking violations and fines, including any late fees

OTHER UTILITIES & COST

or penalties, are the responsibility of the driver involved. Failure to promptly pay a violation or fine may result in disciplinary action.

- The driver should try to consider the safety distance while driving behind the driver in front – more in bad weather or at night.
- The Driver should have a valid licenses and permits and be well aware of all the traffic rules and regulations of the country.

- **Responsibilities of fleet/heavy equipment supervisor**

- To keep all the vehicles ready, functional and fully equipped with supplies and accessories based on the seasonal requirement and make sure efficient use of all transportation means.
- Monitoring all transportation facilities including vehicles power generation machines, workshop and other transport related machinery during official hours.
- Ensure all vehicles have license plate, usage permit, log books, and legally have no barrier to be used by the driver.
- Monitoring the cleanliness, technical maintenance, for all vehicles are done properly and timely.

OTHER UTILITIES & COST

f) GENERAL AND ADMINISTRATIVE OVERHEAD COST

General and administrative expenses are the necessary costs required to maintain a company's daily operations and administer its business. General and administrative costs are not directly attributable to the production of goods and services. While there is a strong motivation for management to reduce these costs, because they are fixed costs, reducing general and administrative costs is a difficult thing to do.

Sr. No.	DESCRIPTION	VALUE
1.	Salaries	30,96,000
2.	Office expenses	90,000
3.	Other expenses	12,96,000
4.	License and registration	85,500
5.	Postage and stationery	24,000
6.	Telephone/Fax/Computer	24,000
7.	Insurance	72,000
	Total	46,87,500

OTHER UTILITIES & COST

g) INCENTIVES AND SUBSIDY FROM GOVERNMENT

The facilities and incentives available to the industries have been spelt out in the Section 15 of the Industrial Enterprises Act, 1992. Cottage industries are exempt from sales tax, excise duty and income tax. Moreover, the government can also grant additional facilities to the national priority industries.

Income Tax Exemption

There is a 5% income tax on dividends earned out of investment in any industry. And, export earnings are taxed at 40% of the income tax imposed on other industries. However, the tax amount shall not exceed 0.5% of the total export amount.

Excise Duty Rebate And Refund

Industries established and operating in the remote, undeveloped and underdeveloped areas, as mentioned in the Appendix-23, are entitled to 35, 25 and 15 percent rebate in the excise duty respectively for a period of ten years from the date of operation. For getting this facility the concerned industry should produce a certificate stating that the industry is operating in the said area during the period.

Bonded Warehouse Facility

The duty drawback facility is available to the industries on the quantities of raw materials imported and used for the production of goods for export. Export oriented industries may obtain the facility of bonded warehouse. The raw materials can be imported just by entering into a passbook without paying any custom duty or sales tax. Those raw materials are deducted from the passbook upon export of finished product. However, the industry must also submit a bank guarantee, which must be sufficient to cover the duties.

Duty Draw- Back

Any duty or taxes levied on the raw materials, auxiliary raw materials etc. used for producing goods for export are entitled to get refund of these duty and taxes based on the quantity of export.



FINANCE & COMMERCIALS

- a) Estimate Total Project Cost - Capex**
- b) Estimate Cost Of Sale**
- c) Estimate Source Of Finance**
- d) Working Capital Requirement**
- e) Breakeven Analysis, Payback Period**
- f) Profitability, Scalability & Suitability**
- g) Risk Analysis**

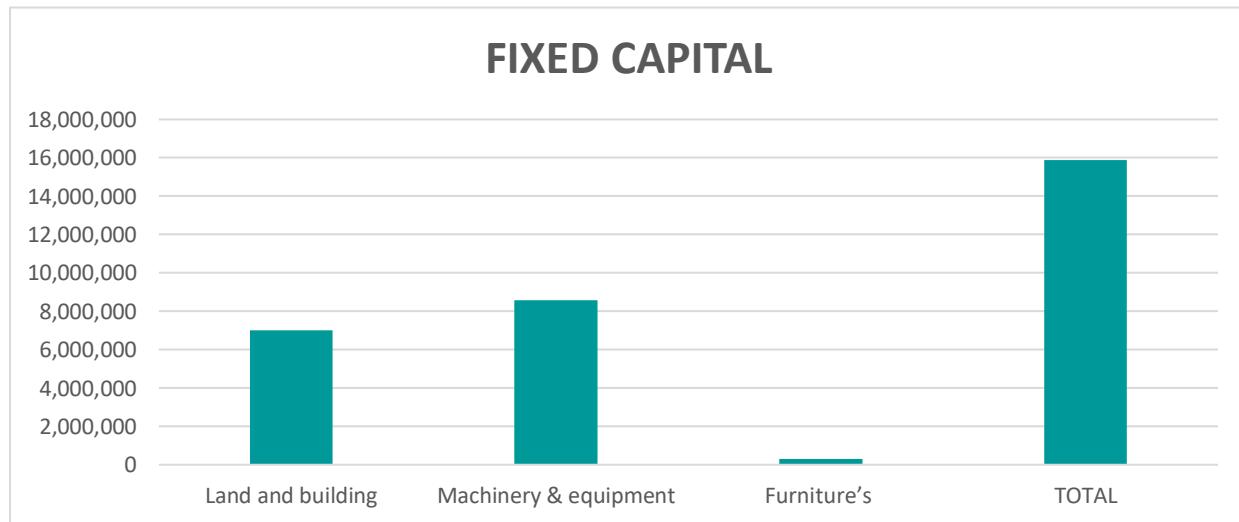
FINANCE & COMMERCIALS

a) CAPEX: ESTIMATION OF TOTAL PROJECT COST

Sr.No.	PARTICULARS	VALUE
1	Land And Building	70,00,000
2	Machinery & Equipment	85,70,000
3	Furniture's	3,00,000
A.	TOTAL FIXED CAPITAL	1,58,70,000
1	Raw & Packing Materials	4,64,00,000
2	Utilities	16,18,000
3	General & Administrative	12,80,700
4	Other Expenses	12,96,000
B.	TOTAL WORKING CAPITAL	5,05,94,700
	TOTAL CAPEX	6,64,64,700

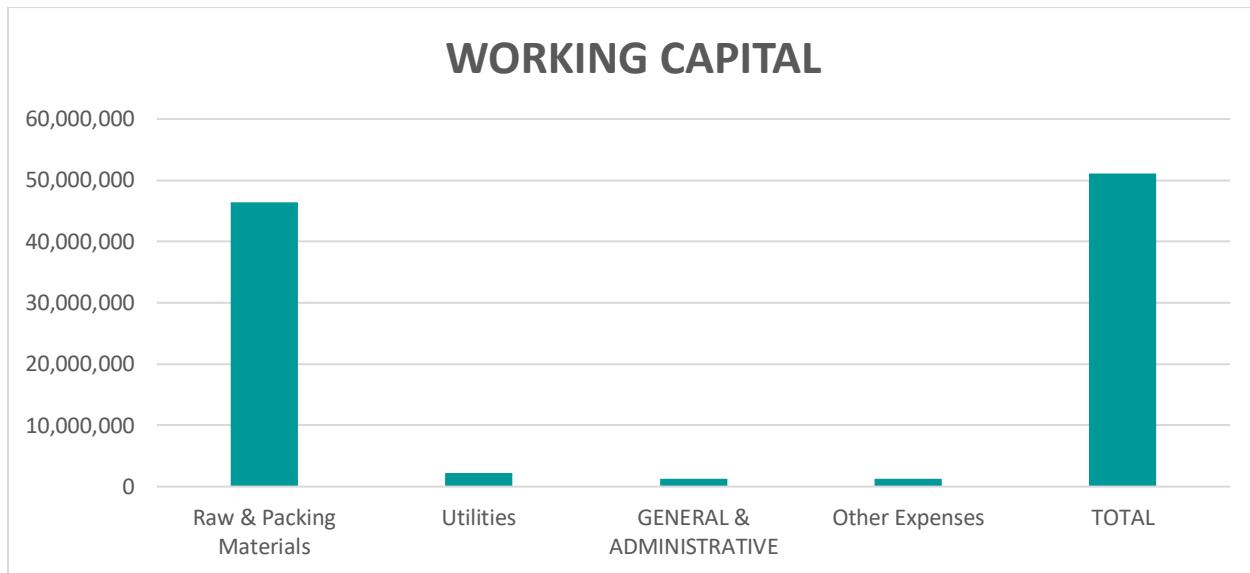
TOTAL CAPEX = FIXED CAPITAL + WORKING CAPITAL

A. FIXED CAPITAL



FINANCE & COMMERCIALS

B. WORKING CAPITAL



FINANCE & COMMERCIALS

b) ESTIMATION OF COST OF SALES

Sr.no.	Items (Hand sanitizer)	Rate in Rs.	Quantity to produce per items(in litres)	Value in Rs.
1.	50 ml	20	75,000	3,00,00,000
2.	100ml	40	50,000	2,00,00,000
3.	500ml	180	1,00,000	3,60,00,000
4.	1 L	350	75,000	2,62,50,000
TOTAL SALES				11,22,50,000



FINANCE & COMMERCIALS

c) ESTIMATION OF SOURCES OF FINANCE

Business simply cannot function without money, and the money required to make a business function is known as business funds. Throughout the life of business, money is required continuously. Sources of funds are used in activities of the business.

• Commercial Banks and Financial Institutions

Banks are a very important part of our economy. They are the center of finance. People keep money in the banks because it is a safe and secure way to store the money.

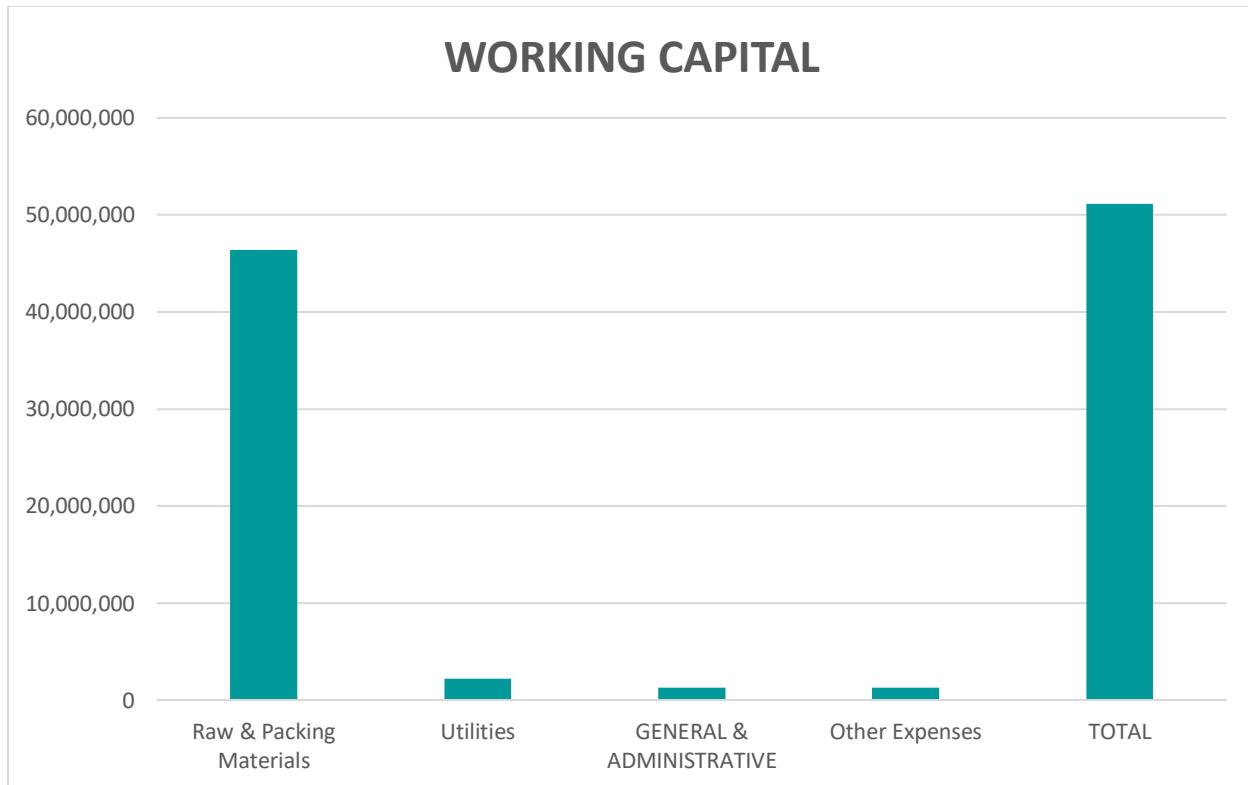
• Retained Earnings

The company sometimes utilize the funds available with it as retained earnings accumulated by keeping aside some part of the profit for business growth and expansion.

FINANCE & COMMERCIALS

d) Working Capital Requirement

Sr.No.	PARTICULARS	VALUE
1.	Raw & packing materials	4,64,00,000
2.	Utilities	21,66,000
3.	General & administrative	12,80,700
4.	Other expenses	16,18,000
TOTAL		5,14,64,700



FINANCE & COMMERCIALS

e) BREAK EVEN ANALYSIS

Sr.No.	PARTICULARS	VALUE
1.	Sales	11,22,50,000
2.	Cost Of Production	5,66,04,000
A.	Net Profit (Per year)	5,56,46,000
B.	Net Profit Ratio	49.57%
3.	Total Capital Investment	6,64,64,700
C.	Rate of Return	83.72%
4.	Depreciation On Building @ 5%	3,50,000
5.	Depreciation On Machinery & Equipment @ 10%	8,57,000
6.	Insurance	72,000
7.	Interest On Total Capital Investment @ 10%	67,01,270
8.	40% Of Salary And Wages	12,38,400
9.	40% Of Other Expenses	18,400
10.	Interest On Loan @ 12%	12,00,000
D.	Break-Even Point	16.42%
E.	Payback Period	1.2 years

Net Profit

NET PROFIT (PER YEAR) = SALES - COST OF PRODUCTION

Net Profit Ratio

FINANCE & COMMERCIALS

Rate of Return

$$\text{RATE OF RETURN} = \frac{\text{NET PROFIT X 100}}{\text{TOTAL CAPITAL INVESTMENT}}$$

Break-Even Point

$$\text{B.E.P. \%} = \frac{\text{FIXED COST X 100}}{\text{FIXED COST + NET PROFIT}}$$

Payback Period

$$= 6,64,64,700 / 5,56,46,000$$

$$= 1.2 \text{ years}$$

$$\text{PAYBACK PERIOD} = \text{TOTAL INVESTMENT} / \text{ANNUAL CASH FLOW}$$

f) PROFITABILITY, SCALABILITY & SUITABILITY

Profitability

There are various factors which helps in improving the profitability of business. These are reducing costs, increasing turnover, increasing productivity, and increasing efficiency. We can also expand into new market sectors, or develop new products or services.

As per the estimation net profit for this year has touched approx. 5.50cr. In near future we will try to minimize our costs and increase productivity to increase our sales.

- If we minimize our costs by 5%

$$\text{Reduced Cost Of Production} = 5,66,04,000 \% 95 = \mathbf{5,37,73,800} \quad (<5,66,04,000)$$

$$\begin{aligned}\text{Net Profit (Per Year)} &= \text{Sales} - \text{Cost Of Production} \\ &= 11,22,50,000 - 5,37,73,800 \\ &= \mathbf{5,84,76,200} \quad (>5,56,46,000)\end{aligned}$$

$$\begin{aligned}\text{Net Profit Ratio} &= \frac{\text{Net Profit X100}}{\text{Sales}} \\ &= \frac{5,84,76,200 \times 100}{11,22,50,000} \\ &= \mathbf{52.10\%} \quad (>49.57\%) \end{aligned}$$

- If we increase sales by 5%

$$\text{Increase Sales} = 11,22,50,000 \% 105 = \mathbf{11,78,62,500} \quad (>11,22,50,000)$$

$$\begin{aligned}\text{Net Profit (Per Year)} &= \text{Sales} - \text{Cost Of Production} \\ &= 11,78,62,500 - 5,66,04,000 \\ &= \mathbf{6,12,58,500} \quad (>5,56,46,000)\end{aligned}$$

$$\text{Net Profit Ratio} = \frac{\text{Net Profit X100}}{\text{Sales}}$$

FINANCE & COMMERCIALS

$$\begin{aligned} &= \frac{6,12,58,500 \times 100}{11,78,62,500} \\ &= \mathbf{51.97\%} \quad (>49.57\%) \end{aligned}$$

Scalability

A scalable company is one that can maintain or improve profit margins while sales volume increases.

1. Clarity of Market Focus

our market focus will be Ideal Customer our process actively encourages sales people to disqualify prospects that fail to meet enough of our “ideal customer” criteria.

2. Repeatability of Solutions

It's hard to build a scalable business unless you have the ability to deliver repeatable solutions. It also requires repeatable, scalable and predictable sales and marketing processes. More than 90% of our revenues & profits come from clearly defined, standardized product and service offerings sold in a consistent way.

3 .Market Differentiation

In today's markets, claiming to be better than your competitors is no basis for sustained differentiation - even if you believe you can prove it. It's simply too easy for competitors to copy your features and up the ante with their own claims. Our product is truly unique. We will consistently position our self in a way that is unique, provable, highly relevant to prospects, and hard for a competitor to claim.

4. Offering Focus

our product will be outcome focused. We will market our product or service offering with a primary focus on the outcomes your customers can expect to achieve from implementing it.

5. Marketing Focus

our product will be socially integrated. In addition to successfully mastering inbound marketing, our entire organization is fully leveraging business social media such as LinkedIn.

FINANCE & COMMERCIALS

6. Sales Process

sales process will a agile process. We have an agile and dynamic sales and marketing process that is continuously refined to reflect new learning and changing market conditions.

7. Customer Focus

We will focus on buyers. Our “sales process” is explicitly designed to facilitate and accelerate each phase in our prospect’s buying decision process.

Suitability

The kind of ownership best suit our business is Corporation. Corporations are, for tax purposes, separate entities and are considered a legal person. This means, among other things, that the profits generated by a corporation are taxed as the “personal income” of the company. Then, any income distributed to the shareholders as dividends or profits are taxed again as the personal income of the owners.

The reasons why we have chosen for Corporation kind of ownership because of the following reasons:

- Limits liability of the owner to debts or losses
- Profits and losses belong to the corporation
- Can be transferred to new owners fairly easily
- Personal assets cannot be seized to pay for business debts

g) RISK ANALYSIS

Risk Analysis is defined as the sequence of processes of risk management planning, analysis of risks, identification and controlling risk on a project. Proper risk management is control of possible future events that may have a negative effect on the overall project. It is more of proactive than reactive process.

Risk Management Process Primarily Involves Following Activities

1. Plan risk management

It is the procedure of defining how to perform risk management activities for a project.

2. Risk Identification

It is the procedure of determining which risk may affect the project most. This process involves documentation of existing risks.

The input for identifying risk will be

- Risk management plan
- Project scope statement
- Cost management plan
- Schedule management plan
- Human resource management plan
- Scope baseline
- Activity cost estimates
- Activity duration estimates
- Stakeholder register
- Project documents
- Procurement documents
- Communication management plan
- Enterprise environmental factor
- Organizational process assets
- Perform qualitative risk analysis
- Perform quantitative risk analysis
- Plan risk responses
- Monitor and control risks

The output of the process will be a

- Risk register

3. Perform qualitative risk analysis

It is the process of prioritizing risks for further analysis or action by combining and assessing their probability of occurrence and impact. It helps managers to lessen the uncertainty level and

FINANCE & COMMERCIALS

concentrate on high priority risks. Plan risk management should take place early in the project, it can impact on various aspects for example: cost, time, scope, quality, and procurement.

The inputs for qualitative risk analysis include

- Risk management plan
- Scope baseline
- Risk register
- Enterprise environmental factors
- Organizational process assets

The output of this stage would be

- Project documents updates

4. Quantitative risk analysis

It is the procedure of numerically analyzing the effect of identified risks on overall project objectives. To minimize the project uncertainty, this kind of analysis are quite helpful for decision making.

The input of this stage is

- Risk management plan
- Cost management plan
- Schedule management plan
- Risk register
- Enterprise environmental factors
- Organizational process assets

While the output will be

- Project documents updates

5. Plan risk responses

To enhance opportunities and to minimize threats to project objectives plan risk response is helpful. It addresses the risks by their priority, activities into the budget, schedule, and project management plan.

The inputs for plan risk responses are

- Risk management plan
- Risk register

While the output is

- Project management plan updates

FINANCE & COMMERCIALS

- Project documents updates

6. Control Risks

Control risk is the procedure of tracking identified risks, identifying new risks, monitoring residual risks and evaluating risk.

The inputs for this stage include

- Software Project management plan
- Risk register
- Work performance data
- Work performance reports

The output of this stage would be

- Work performance information
- Change requests
- Project management plan updates
- Project documents updates
- Organizational process assets updates

Project Procurement Management

Project Procurement Management includes the processes of purchasing or acquiring products needed to run a business. The organization can be a seller, buyer or service provider. Project Procurement Management also includes controlling any contract issued by an outside organization and get work done outside the project team.

Plan Procurement Management includes four stages like

- Plan Procurement Management
- Conduct Procurements
- Control Procurements
- Close Procurements

The input in the plan procurement management are

- Requirements documentation
- Teaming agreements
- Risk register
- Scope baseline
- Project schedule
- Activity cost estimates
- Cost performance baseline
- Risk related contract decisions

FINANCE & COMMERCIALS

- Enterprise environmental factors
- Organizational process assets

Conduct Procurement process

Conduct Procurement process involves activities like

- Selecting a seller
- Receiving seller responses
- Awarding a contract

The benefit of conducting procurement process is that it provides alignment of external and internal stakeholder expectations through established agreements.

The input of the conduct procurement process includes

- Project management plan
- Documents for procurement
- Source selection criteria
- Qualified seller list
- Seller proposals
- Project documents
- Make or buy decisions
- Teaming agreements
- Organizational process assets

Control Procurements

It is the process of monitoring contract performance and correction to the contract as per the guidelines. It will ensure that buyers and sellers both meet the procurement requirement according to the terms of the legal agreement.

The input of the Control Procurements includes

- Project management plan
- Procurement documents
- Agreements
- Approved change requests
- Work performance reports
- Work performance data

The output includes

- Work performance information
- Change requests
- Project management plan updates

FINANCE & COMMERCIALS

- Project documents updates
- Organizational process assets updates

Close procurements

This step involves documenting agreements and other documents for future reference. The input of this tool includes

- Project management plan
- Procurement documents

The output of this tool includes

- Closed procurements
- Organizational process assets updates

Manage Stakeholder Engagement

A stakeholder is an integral part of any project; their decision can leave a deep impact on project deliverables. In this process, the first part is to identify people, groups or organizations that could impact on the project while the second part is to analyze stakeholder expectations. It also focusses on continuous communication with stakeholders to understand their needs and expectations.

Identifying Stakeholders

It is the process of identifying the groups, people or organization that can influence project outcomes. It allows the project manager to identify appropriate stakeholders.

Plan Stakeholder Management

It is the process of preparing a strategy to involve stakeholders throughout the project life cycle. It defines clear, actionable plan to interact with project Stakeholders.

The input for Plan Stakeholder Management includes

- Project management plan
- Stakeholder register
- Enterprise environmental factors
- Organizational process assets

The output of this

- Stakeholder management plan
- Project documents updates

FINANCE & COMMERCIALS

Manage Stakeholder Engagement

In this stage, stakeholder is communicated to understand their expectations, address issues and foster appropriate stakeholder engagement in project activities. It allows the project manager to achieve project success without conflicting with stakeholder's decision.

The input of this stage is

- Stakeholder management plan
- Communication management plan
- Change log
- Organization process assets

While the output of this stage is

- Issue log • Change request
- Project management plan updates
- Project documents updates
- Organizational process assets updates

Control Stakeholder Engagement

It is the process of monitoring stakeholder engagement in the project and adjusting strategies as per requirements. It will increase the stakeholder engagement activities as the project evolves and progresses.

The input for this stage includes

- Project management plan
- Issue log
- Work performance data
- Project documents

The output of this stage includes

- Work performance information
- Change requests
- Project management plan updates
- Project documents updates
- Organizational process assets updates

Risk Management includes the processes of conducting risk management planning, analysis of risks, identification and controlling risk on a project. These steps can be used to manage risk in an organization

- Risk identification
- Risk Qualification

FINANCE & COMMERCIALS

- Risk Response
- Risk Monitoring and Controlling

Procurement Management includes the processes of purchasing or acquiring products needed to run a business. It is the process of monitoring contract performance and correction to the contract as per the guidelines Stakeholder engagement focusses on continuous communication throughout the project lifecycle. The decision of stakeholder can leave a deep impact on project deliverables.

SUMMARY

The product is a liquid, gel or foam generally used to minimize infectious agents on the hands. Basically, there are two versions of hand sanitizers, first the Alcohol-based and second one is Non-Alcohol based. Alcohol-based version typically contain some combination of isopropyl alcohol, ethanol (ethyl alcohol), or propanol, with versions containing 60% - 95% alcohol. Non-Alcohol based contain benzalkonium chloride or triclosan and are very less effective than the Alcohol based.

The main objective of my project (i.e. hand sanitizer) is to test its efficiency in killing bacteria after the use and minimizing the risk of healthcare associated infections.

- Remove or destroy potentially harmful micro-organism,
- Prevent the hands in becoming a vector of cross infection,
- Render the hands socially clean in order to continue the delivery of health care.

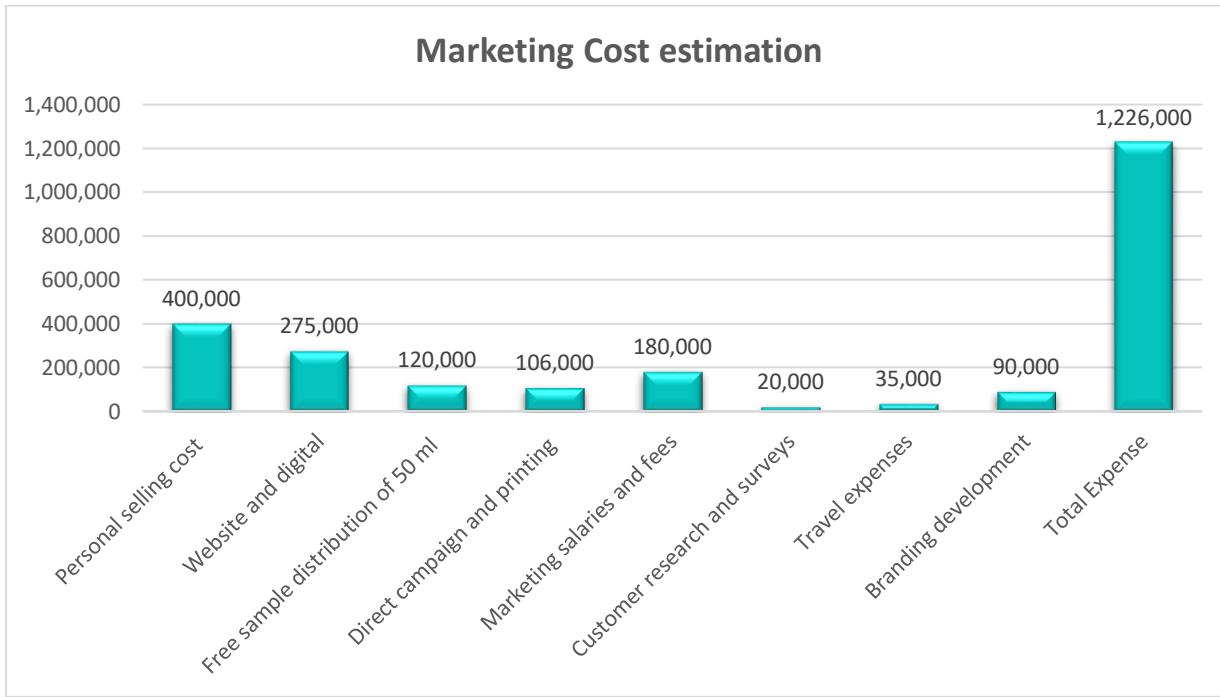
All approaches to sanitizer have expanded and diversified. Even though, new intervention types are developed and evaluated, new settings are included in the prevention networks,

special target populations have gained more attention. The main focus is on capacity building in order to reach out to those in need of interventions and to increase coverage of prevention. However, services must be of good quality in order to be effective. The quest for quality standards is essential. Using available knowledge from research evidence on what works. But while research evidence on efficacy and effectiveness of interventions is growing and can be accessed through reviews and guidelines, a consensus on quality standards still needs to build up.

MARKET STUDY

The research that has been done under market study, we have covered various important things. we projected demand and supply , analysis of competitors, preparation of marketing model, storage and warehousing of goods, segmentation

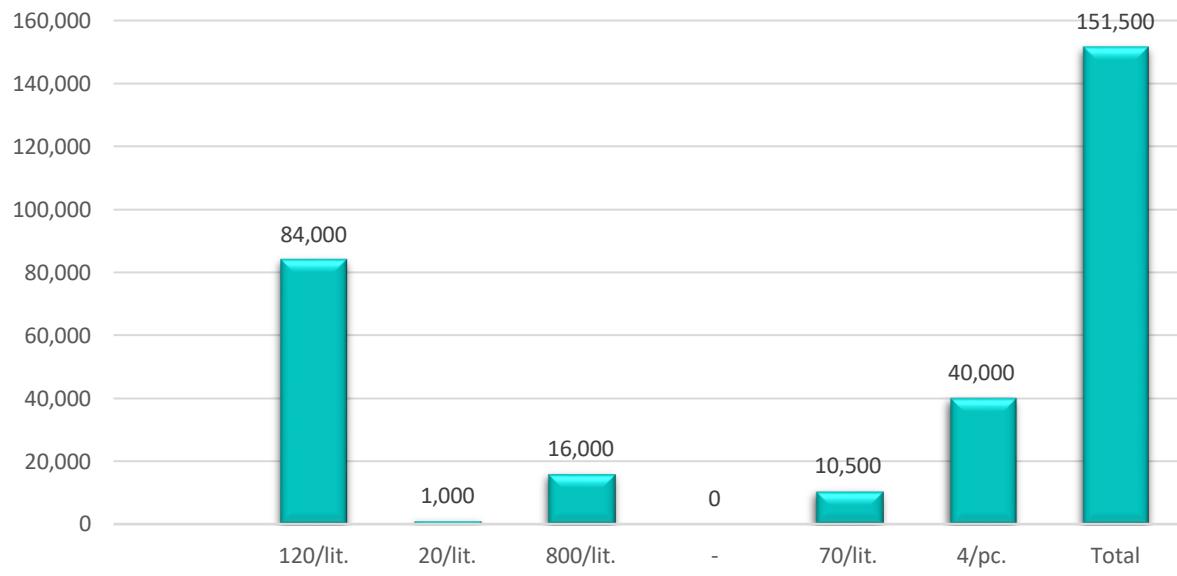
of market, advertising and promotion and lastly, the cost estimation for the market study. The reason behind the hike in demand, firstly, is the need of household and secondly, of commercial areas for sanitizers. After the outbreak of pandemic, the demand of hospitals and healthcare centers for sanitizers have also increased. Because of the above-mentioned reasons, the state govt. allowed many local manufacturers to switch their production to sanitizers. Demand for hand sanitizer is also surging around the globe as the new corona virus spreads, prompting retailers to ration supplies and online vendors to hike prices.



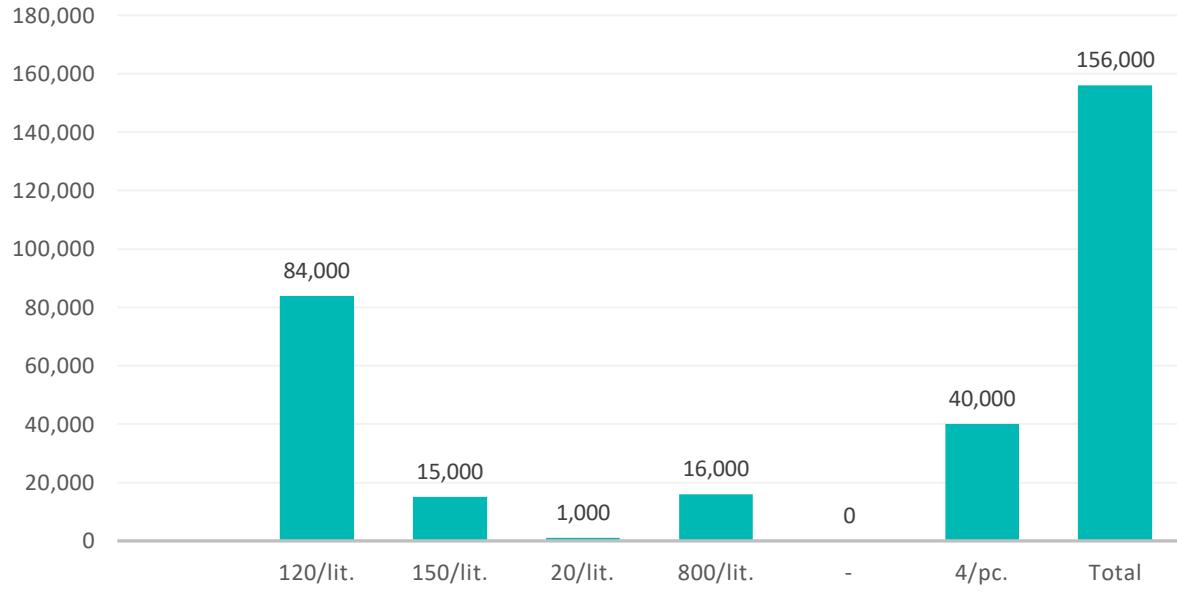
RAW MATERIALS

The different kinds of raw materials which has been used for the production is mentioned. Raw materials like Ethanol or Isopropanol, Glycerol, Hydrogen Peroxide, distilled water and essential oil such as peppermint or Lavender oil or lemon extract. All the enlisted raw materials can be procured locally.

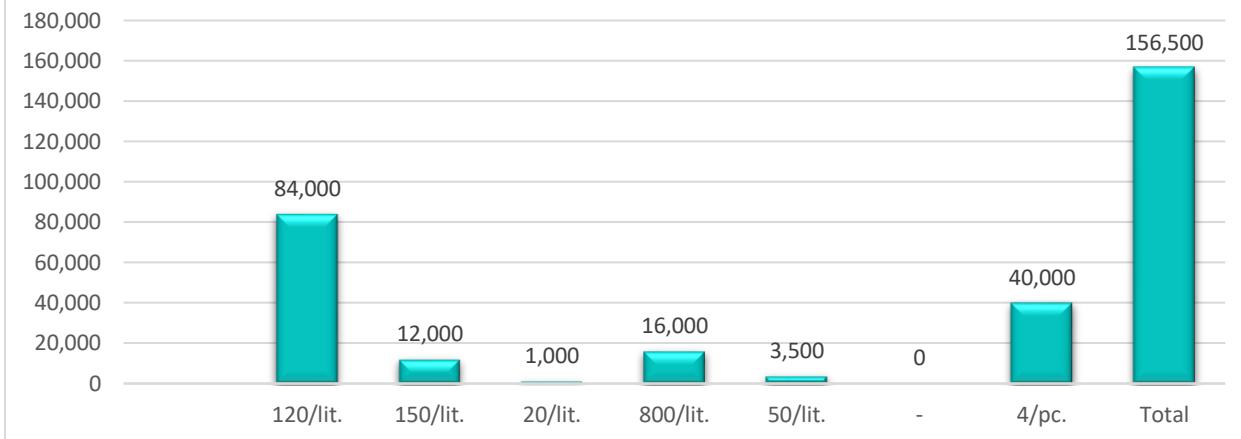
Raw Materials To Prepare 1000 Lit. Of Gel Based Sanitizer



Raw Materials To Prepare 1000 Lit. Of Liquid Based Sanitizer



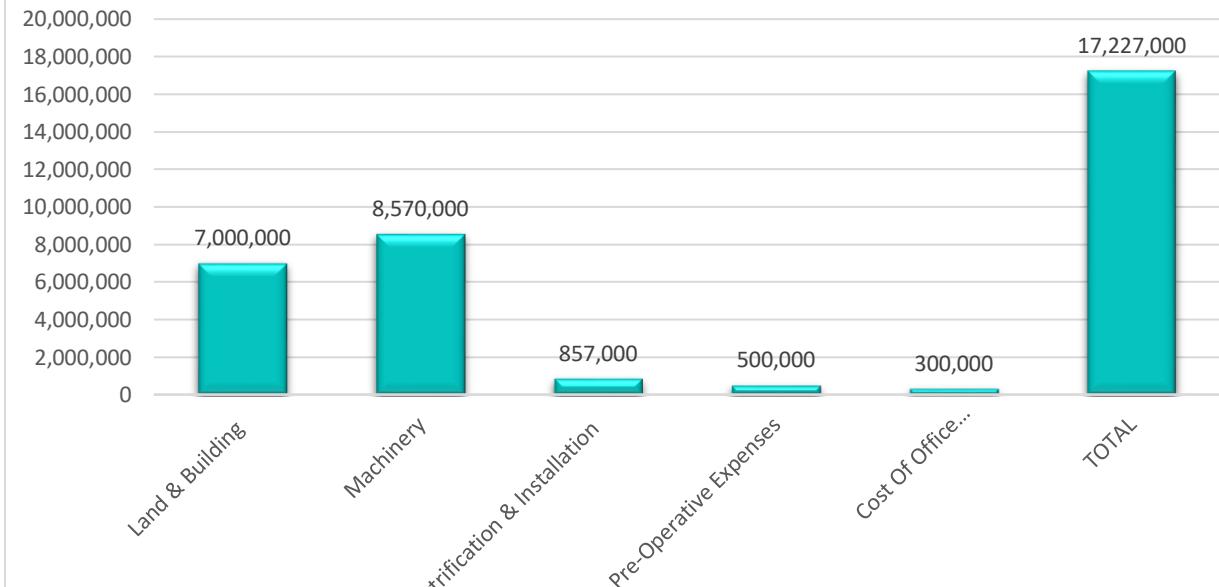
Raw Materials To Prepare 1000 Lit. Of Foam Based Sanitizer



PLANT AND MACHINERY

Plant and machinery section contains the name and cost of machineries to take production further. Only raw materials cannot make the production without the plant and machineries.

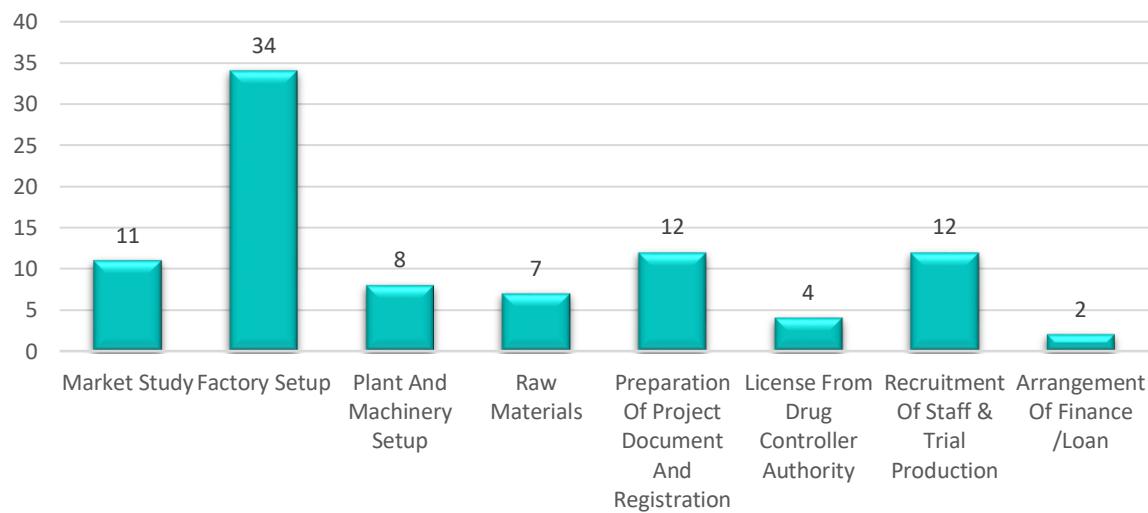
COST OF PLANT AND MACHINERIES

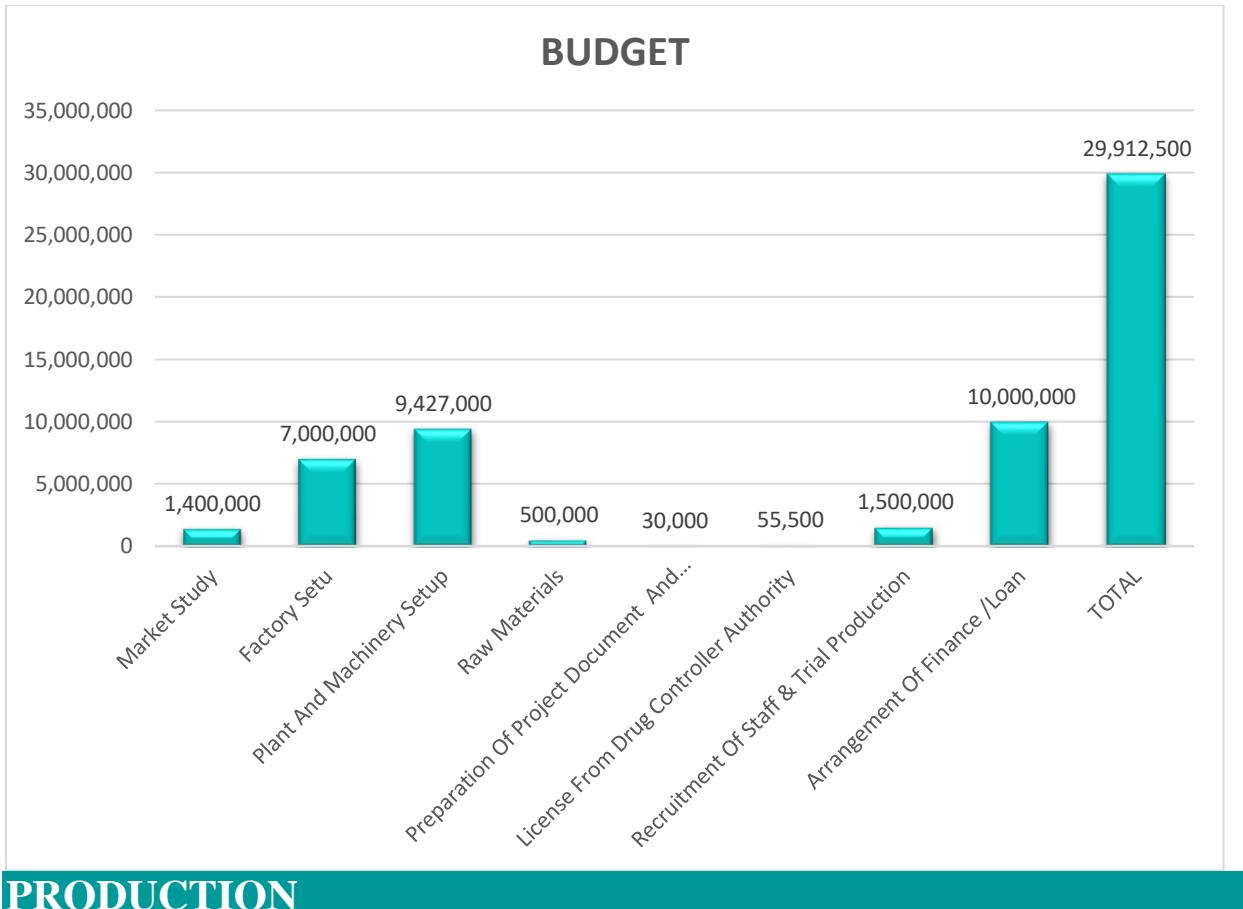


FACTORY SETUP

Selecting a right location for factory operation is an important aspect. Major required utilities are water and electricity. Easy availability of transport facility and labor is important. Create a floor plan indicating specific space for raw material storage, finished products storage, production unit area, administrative work space, store room and space for miscellaneous usage. Land require for factory setup is 1000 sq. mtrs.. and this will cost 30-40 lakhs. The Department serves as a facilitator of Infrastructure development in the region of Butwal.. To implement a project means to carry out activities proposed in the application form with the aim to achieve project objectives and deliver results and outputs. Its success depends on many internal and external factors. Some of the most important ones are a very well organized project team and effective monitoring of project progress and related expenditures.

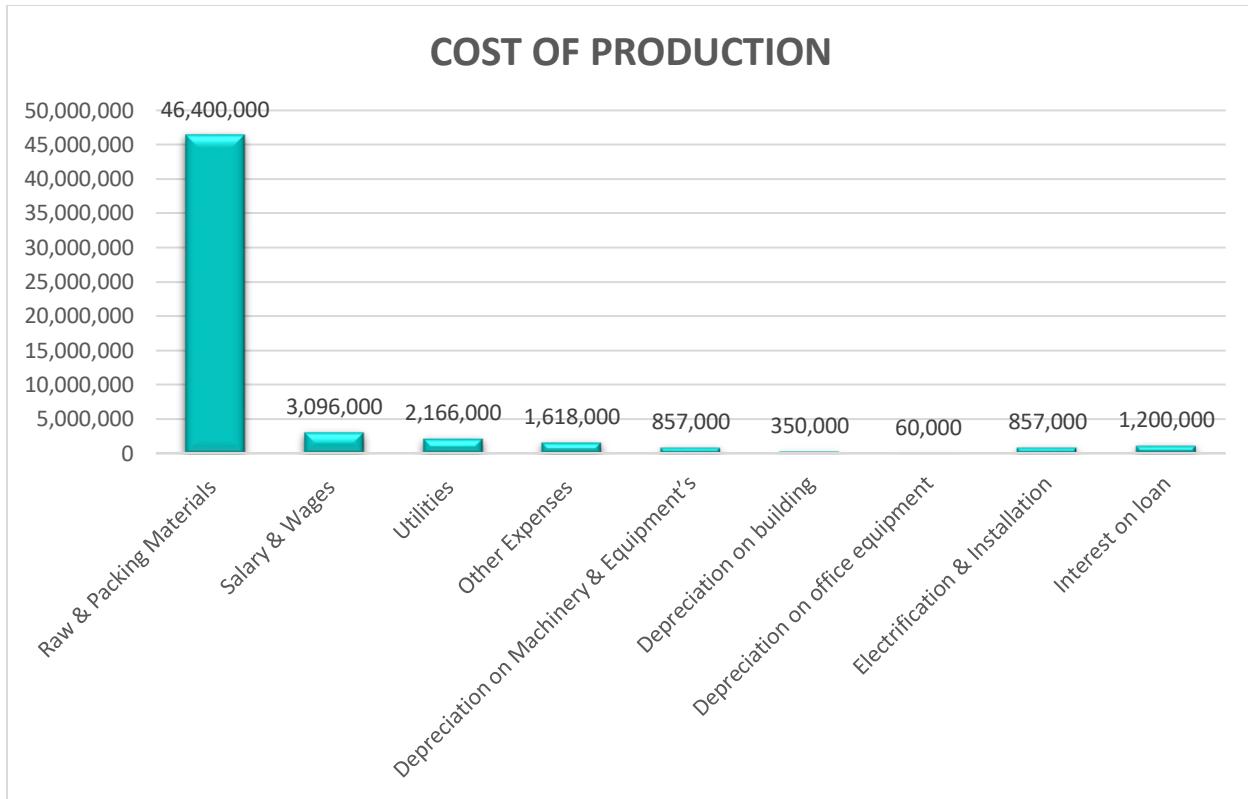
TOTAL ESTIMATED TIME IN WEEKS





PRODUCTION

Production is a process of combining various material inputs and immaterial inputs (plans, know-how) in order to make something for consumption (output). It is the act of creating and output, a good or service which has value and contributes to the utility of individuals output, a good or service which has value and contributes to the utility of individuals. Product mix refers to the features of the products that the firm is going to produce for the consumers to use. Product mix consists of types of products that Kneat N Klean is going to produce and how much it is going to produce.



ENVIRONMENT, HEALTH AND SAFETY REQUIREMENT AND STANDARDS

Every country's govt. sets some norms and standards to safeguard the environment from day to day industrial activities and force the manufacturers to follow those norms and rules in order to check the level pollution taking place due to industrial waste. Govt. has also implemented many rules and regulations for the disposal of industrial waste which every business has to follow. If the rules and regulations are not followed by the industry, they may get charged high amount of fines. This section consists of all the measures that our industry is going to take care of regarding safeguarding the environment.

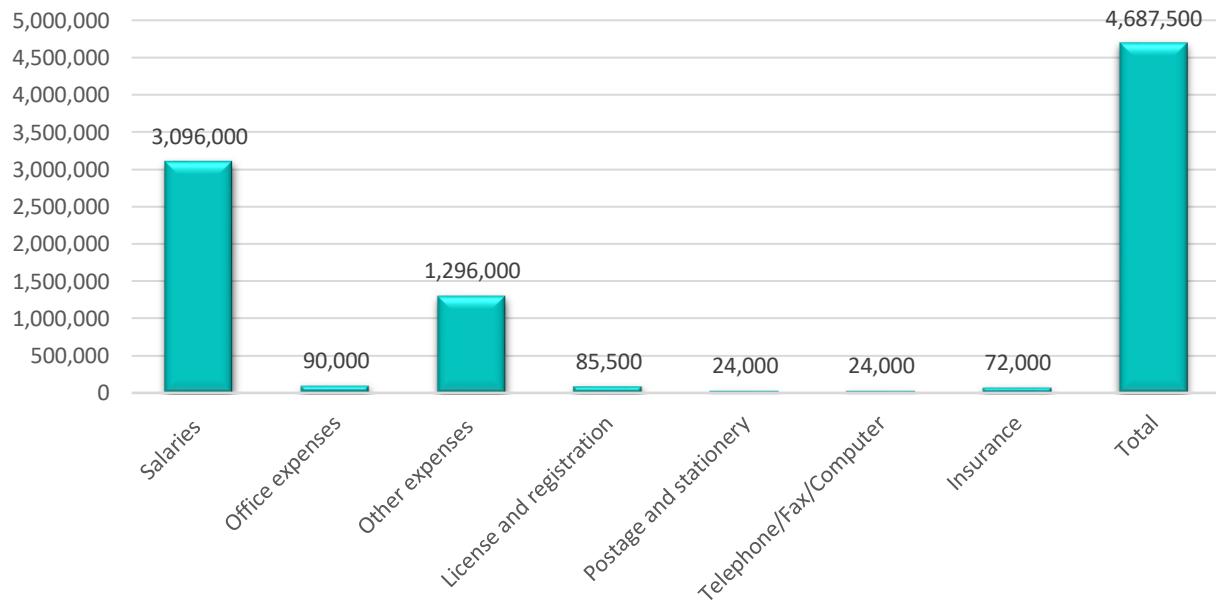
COST ESTIMATION CAPEX AND OPEX



UTILITIES AND COST

Utilities comprises of manpower estimation, power fuel and water requirements, packaging cost, general and administrative cost. The link between manpower and company projects is fairly simple: Manpower is proportional to productivity. The more people are available to work; the faster projects can be completed or the more projects a company can take on. Conversely, a lack of adequate manpower prevents businesses from completing tasks. Packaging of sanitizer includes: Bottle, labeling and carton. We have also mention, the responsibilities that should be taken care of while transferring the goods from one region to another.

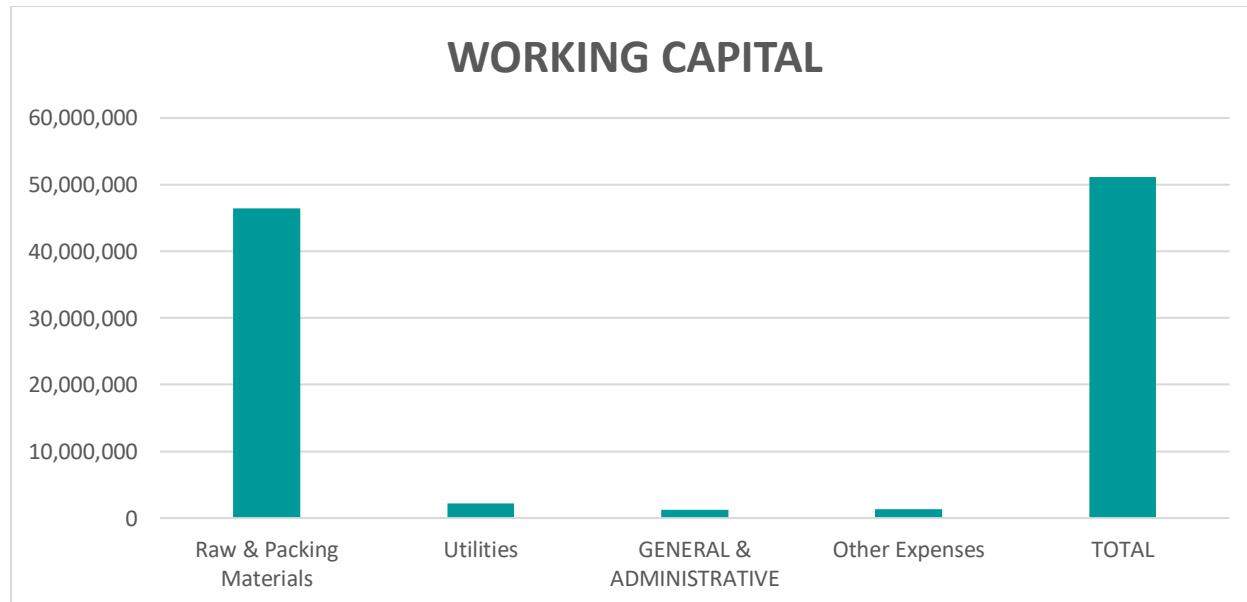
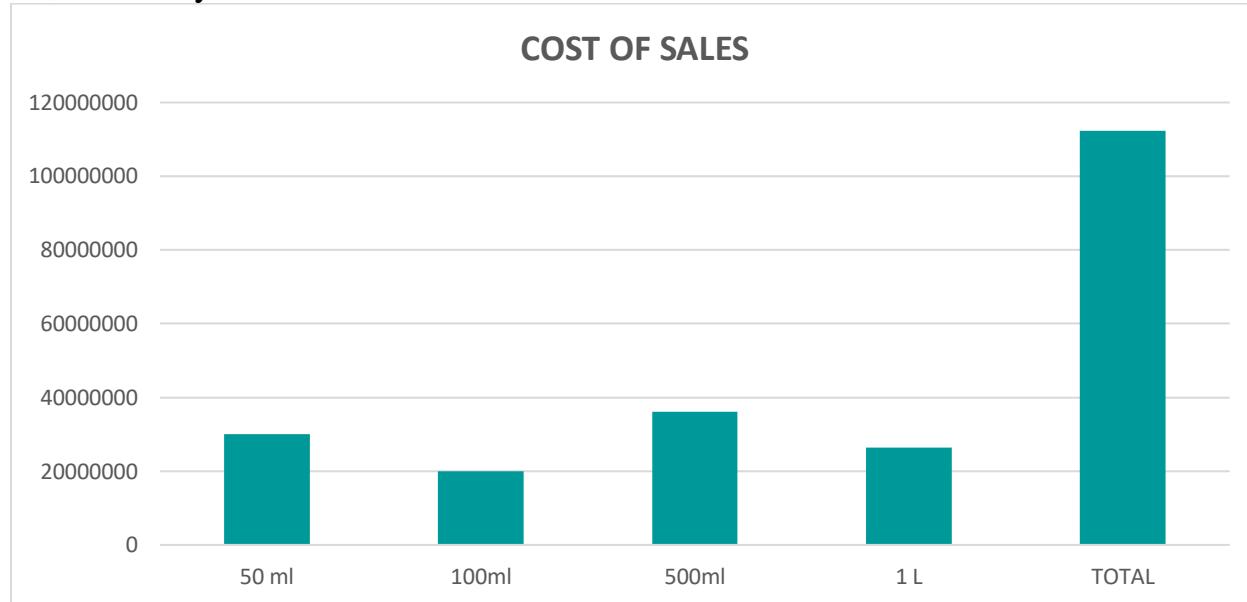
GENERAL AND ADMINISTRATIVE OVERHEAD COST



FINANCE AND COMMERCIALS

Finance and commercials was one of the typical phase and the most technical one too. We have mentioned all kinds of finance and cost required by the company to run the business properly.

Estimation of CAPEX is the major one followed by estimation of cost of sales, sources of finance, working capital requirements, breakeven analysis and payback period, profitability scalability and suitability of product and the most important of all, risk analysis.



CONCLUSION

It was great experience to do research in such an emerging and hygiene concern product. So in conclusion, hand sanitizer is effective. It kills most bacteria and viruses on contact, but be careful because it does not kill every type of invader. Hand washing after activities like using the restroom or outside work and before eating are still recommended. Regardless, hand sanitizer is a great addition to the hygiene routine and a great addition to the work space to ensure employee health.

Before preparing this project we were unaware of the fact that to start a hand sanitizer business is this tough. From this research we came to know about the cost estimation and requirement for machineries and raw materials. How much it costs to setup the factory for manufacturing. A clear and realistic cost estimate is provided and available funding streams are sufficient to cover costs. Staff members are supported in their work as appropriate.

It is important to use the right sanitizer in the proper way. Alcohol-containing hand sanitizers are the most effective, and it must be used in a dime sized amount, spreading it all over your hands, between your fingers and covering all surface area. This is the only way in which, hand sanitizers will fully complete its job and prevent the spread of diseases.

Ethical standards are properly followed as proper measures have been taken to safeguard the environment and arrangements are there, for the disposal of wastes. One more thing we want to include to our ethics is to provide the product to the customers of good quality, with proper amount of quantity as per its price.

Lastly, the project contract, envisage new research to develop best-evidence in those areas where this is not available at affordable rate.