Pre-Feasibility Study

SOFT CANDY MANUFACTURING
(SMEDA DOCUMENT)

Small and Medium Enterprise Development Authority
Government of Pakistan

June 2018

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1. PROJECT PROFILE

1.1 Opportunity Rationale

Candy is a marketable product and its demand is stable throughout the years. Population demographic analysis indicate that 43.40% of total population of Pakistan falls under the age of 15 years[1], who are, luckily, the target consumer group of confectionery products. Considering the current population which is estimated around 207.772 million, population growth rate and percentage of under 15 age group, increase in per capita income, reduction in poverty rate etc., opportunity for the confectionery products and its demand appears to be attractive and growing.

1.2 Project Brief

Products like candies, toffees, chew jellies, fudges, lollypops, chocolates and bubble gums are considered to be the part of confectionery industry which also includes all kinds of biscuits, cookies and sweet meats. However, this pre-feasibility provides details on soft candy, its manufacturing, packaging, marketing and distribution. Soft candy may include candy types which are sticky, soft and easily chewable i.e. Éclairs, Dewy Chewy, Yums Fruity, Toffo, Spacer, etc.

Soft Candy enjoys about 30% of total candy market and its manufacturing is easy and could be done using home recipes. Many industrial producers of candies and other confections are manufacturing soft candies on large scale for the local market and export purposes. This project envisages the production of soft candy using local plant and machinery.

Ingredients such as milk powder and vegetable fats are mixed in the homogenizer and kept separately. Desired quantity of water is put into the Toffee cooker and the steam is released. When the sugar is dissolved other materials such as liquid glucose and milk paste are added in the cooker. After desired temperature is achieved on the temperature indicator, steam is stopped and material is discharged in the vacuum pan for vacuuming and then on the water circulation cooling table for cooling. Cooled material is then folded and put into the batch former. It makes a thick rope of toffee mass which is fed directly into the Cut & Wrap Machine, which is then transferred into the rotating chamber which takes it to the twisting fingers where these are twisted from ends and is ejected on to the delivery chute automatically.

Product is packed in cartons and stored in the warehouse, from where it is shipped to wholesale suppliers who further deliver it to the retail shops.

1.3 Key Success Factors

Soft Candy business like other low priced consumer products largely depends on the effectiveness of distribution network and intensive marketing efforts; however, during the discussions with the industry stake holders, following factors were found to be of significant importance, for the success of business.

[1] Population census 2017

- Distribution Network
- Advertising /Promotional Activities and Demand Creation
- Product Mix and Innovation parameters
- Product Life Cycle Management and Revitalization
- Market Entry Timing
- Existing Competition

Distribution Network

Distribution network has a major role in capturing market for any confectionery item. The fact that most of the items are of very small retail price (like toffees and candies are normally available from 50 paisa to one rupee) and the average inventory that a retailer keeps on shop does not exceed four to five hundred rupees, implies that effectiveness of distribution coverage and practice is of paramount importance in achieving the desired sales.

Toffees and candies are consumed both in rural and urban areas without any exception. It was found during the discussions with confectionery business experts (distributors, retailers and manufacturers) that an average consumer when buying a confectionery product gives only 5% consideration to choose a specific brand; he does *impulse-buying.* On 95% of the occasions consumer makes a choice from whatever visibly available. However, for gift purposes, imported brands are preferred as they are provided in attractive packaging.

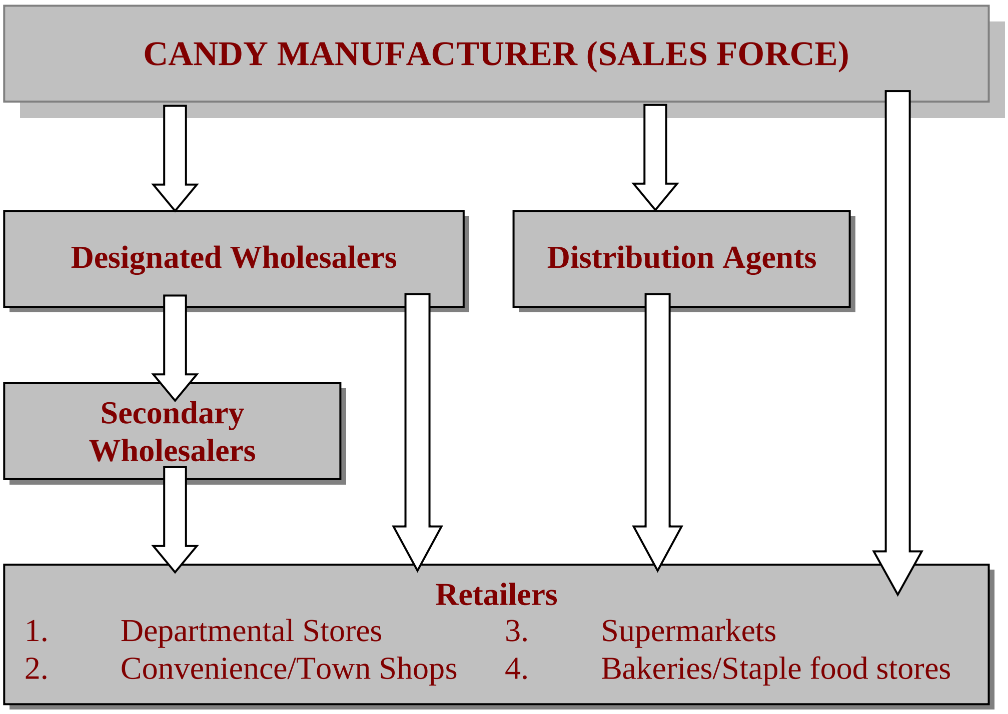
As in case of other consumer goods, the effectiveness of distribution network for confectionery items is also derived through same measures i.e. distribution margins, frequency of distribution and product penetration. However, in this industry distribution margins are relatively higher (around 12 to 15%) than other consumer goods due to low retail price and high retail margins (about 18% to 22%).

Potential customer belongs to the age group of 5 to 15 years who uses his/her pocket money on a day to day basis to buy toffee or candy. This fact coupled with the small volume that a retailer keeps on shop, translates into a requirement of a higher frequency of visits of distributor to the retail outlets.

All above factors reflect upon the importance of distribution and marketing network as well as its high cost implications. Moreover during the discussions with industry experts, it was also found that most of the existing operators in this business have a dedicated market follow up team, who frequently visits the retail outlets and ensure permanent and prominent availability of the product on the shelf. For this purpose generally pots and jars are also provided by the distributor. Schemes and gifts on sales volumes are also very commonly exercised by this industry.

Soft Candy Distribution

A domestic producer is generally able to handle distribution within his home city and surrounding areas. Most manufacturers, using their own sales force, distribute directly to local retailers, concentrating on the large department stores, food stores and supermarket chains (falling under the A, B or C category of retailers). During the discussions with the market experts, it was observed that in Pakistani local market around 99% of (candy) distribution is being done through informal networks. Commonly observed candy distribution practices are elaborated in the following flowchart:



When a confectionery manufacturer expands his market to another city (or one outside his local distribution capability) he normally signs up a distribution agent to cover the entire city market. A *distribution agent* is a privately-controlled company whose main job is to sell, distribute and sometimes market the manufacturer's products within the retail (and occasionally wholesale) market of one city or region. Most distribution companies require exclusivity for the area they cover. Distribution agents generally work to target the city market and cover the full spectrum of retailers.

Most agents are themselves food retailers or have a retail subsidiary. They own or have access to warehouse facilities and keep a rolling stock of their main products. They own their own vehicles and deliver directly to the retailers. Depending on the product's performance and popularity, distributors may pay up-front for stock or may only accept a product on consignment. Sometimes regional agents go on to sign up separate city sub-agencies that operate in the exact same manner as described above. Large volumes of confectionery products still move through the traditional wholesale markets, heading mainly to the smaller towns and the rural countryside.

A *designated wholesaler* is generally a private company such as a large successful wholesaler, whose main job is to sell and promote the manufacturer's product at one wholesale market. Manufacturers generally appoint a designated (or primary) wholesaler, either one per city, if the city is a bigger one and its markets cater to different non-overlapping localities, or one per wholesale market. Smaller cities move all of their consumer goods through a single major wholesale market. The designated wholesaler gets preferential discounts and money incentives based on performance, has limited storage facilities, and rarely owns any delivery vehicles. Sometimes

manufacturers rent or buy a stand in the major wholesale markets of their home city and act as their own primary wholesaler, although this is rather uncommon.
In bigger cities, designated wholesalers may sell to some smaller retail shops if they do not overlap with an existing distribution agent. In smaller cities, the designated wholesaler acts as a de facto distribution agent. But the primary wholesalers' major customers are the so-called *secondary wholesalers*. They are relatively small private wholesalers from surrounding towns and villages that buy all their products (food, beverage and consumer goods) from the same city wholesaler.

Secondary wholesalers generally sell to small local retailers (convenience stores), although sometimes their products go onto tertiary wholesalers in even smaller localities. The retail price formation formula varies significantly for different products as they move through the above distribution channels. Generally speaking, lower-value bulk confectionery products are modestly marked up by manufacturers and wholesalers and rely on large volumes to achieve profitability.

Distribution, being a critical factor has been managed in different ways by the local manufacturers; to make it successful it is necessary to operate with a mixed distribution setup. For the purpose of this project, we propose that company owned distribution team would cover the home city and the factory surrounding areas to capture the niche market which will provide business a room for survival whereas remote distribution operations will be outsourced to the distribution agents playing around the distribution margins and gift schemes. Designated wholesalers and secondary wholesalers may also play a key role to capture the far off markets for the product. For setting up a distribution network and sourcing of distributors across the country for metro cities and town, the following may be contacted:

1. FAIR MARKETING PAKISTAN
   405 R-2 Johar Town Lahore Punjab 54000, Pakistan
   T +92-42-35955284

2. AL KHAIR DISTRIBUTORS
   117 Block 3 Bahadurabad, Karachi, Pakistan
   +92-21-34124044-45

3. BURQUE DISTRIBUTORS
   Plot # M-1, Begum Rabia Siddiqui Road, Central Commercial Area,
   Bahadurabad, Karachi - 74800, Pakistan.
   +92-21-34949595

Advertising /Promotional Activities and Demand Creation

Promotional activities play a key role in driving sales. It is very important to focus on promotional activities to ensure a constant stream of business. Most of the confectionery producers offer variety of the same brand with different price mix to attract customers, which do not give them the desired results though to some extent it works especially in low income areas.

The primary focus should be to introduce promotional activities in the concerned locality to attract a larger volume of retail shops. Although majority of the confectionery items producers bank on the promotional activities of the confectionery brands for attracting business, self initiated promotional activities that are specifically tailored to meet the requirements of the concerned localities are of vital importance to the confectionery business. For example, a Candy Specialty shop decorated colorfully might want to capitalize on the opportunity of attracting children with discounted prices.

At the retail level, it has been suggested by the industry experts to have a promotional scheme on the confectionery item (e.g. 2 candies for Rs. 1 instead of 1 candies in Rs. 1) than to offer greater discounts or margins to the retailers.

It is also important to ensure that the product has a meaningful point of difference (i.e. color, package, flavor, type, etc). Most new products fail in the market because they are "me-too" products with no unique benefit (or attraction) for the consumer (children).

Generally for the Confectionery business advertising budget is 3% of the total sale but for a small or medium scale confectionery concern, it may vary (on the higher side). **It is generally said for the confectionery industry that advertising a confectionery is nothing but to make it 'top of the mind' because customer's level of involvement (in brand) when buying sweets and candies is very little, however, quality is the prime concern.**

Billboards, Television, Radio, F.M Channels, and Newspapers are the conventional mediums, which have been powerfully used for the promotion of confectionery products, but the fact remains that availability and visibility of the product are key elements and it could only be achieved through an effective distribution network.

Product Marketing and Budget Expenditures

Marketing and promotional activities will be critical in the success of any newly introduced candy brand; however, it takes years to establish brand equity which is highly dependent on electronic media and a continuous and persistent follow-up media campaign. Television and Radio have the most in-depth penetration in the consumer market of Pakistan and companies usually use these two electronic mediums for the promotion of their products; however these are also high cost options for product promotion and a new business entrepreneur will be constrained to afford this cost.

With the passage of time, new radio channels have been introduced, which are comparatively cheaper and cover most of the urban areas. Other mediums like local and national level Newspapers, evening newspapers, roadside hoardings, billboards etc. are also used for the advertisement of products. The print media is supposed to be of limited scope in terms of attracting (target) consumer. As in the case of confectionery items, it is known that children within the age bracket of 5 to 15 are the potential customers and they mostly stay either at home or go outside with in a limited circle of their residential area. Therefore, in this case hoardings and billboards can not fulfill the desired purpose of advertisement.

Keeping in mind the above limitations, it is proposed for a new entrepreneur to adapt a cost efficient marketing plan using flexible and innovative advertisement and promotional mediums. We propose the following promotional formats:

Promotional Format/Activity	Frequency of advertisement and other details	Approximate Cost
1. Promotional gift schemes and special discount for distributors and retailers (e.g. 5 additional candies in each bag)	Twice in a year and for one month period each	Rs. 600,000/-
2. Advertisement in the Local radio channel and Cable (i.e. FM radio channels)[1]	5 to 10 spot ads (1 minute each)	Rs. 300,000/-
3. Banners and Pamphlets	Once in a year	Rs. 200,000/-
4. Collaborate with a local favorite restaurant / fast food establishment / fueling station to promote their business for a percentage of their sales for a given date and time.	*	*
5. Advertisements in the child oriented papers, digests like Nonehal or Hamdard digest	Thrice in a year (in a monthly children magazine)	Rs. 200,000/-
6. Free availability of candies to local schools children at special events like 14th of August	Once in a year and target 5 to 10 schools	Rs. 150,000/-
7. Inviting school children for a study visit to your factory and provide them free gift packs of candies	Once in a year and target 5 to 10 schools	Rs. 150,000/-
8. Establish your candy brand participation in by organizing carnivals, talent shows, raffles and parties at local educational institutions	*	*

*** For these types of advertisement and promotional activities, substantive huge logistic support and other resources may be needed; therefore it is suggested to avoid them during the initial operations and consider them after 3 to 4 years of business establishment.**

[1] Average rate would be approximately upto US$ 80 for a 30 second commercial.

Product Mix and Innovation Parameters

Proposed product mix for the candy manufacturing business should be:

- Introduce at least 3 to 4 candy types like Caramels, Traditional Milk Toffees or Toffee bars etc.
- Introduce unconventional but somewhat known flavors with eye catching colors & shapes.
- Innovative packaging and designs should be given importance.
- Place emphasis on new products development and shift gradually towards a good mix of different candy types like hard boiled candy, and other confectionery items, i.e. chewing gum and chocolate etc.
- Revitalize your product by introducing new flavors, colors and distributor schemes etc.

Some of the soft candy types are given on the following page:

Half coated toffee

Stick pack toffee

Traditional toffee

Small piece toffee chocolate panned

Toffee with nut inclusion

Caramel

Filled Toffee Cup

Toffee

2 colour stripe toffee

Toffee with chocolate centre fill

Toffee Bars

Toffee Bars

Oiled fruit jelly - pectin

Oiled fruit jelly - starch/gelatine

Oiled fruit jelly - starch

Oiled jelly with soft centre fill

Soft Candy - Brand Building

It is very important to develop a long term strategy for building a brand. Pakistani consumers are constantly bombarded with new, innovative, low cost and differentiated confectionery products. Buying behavior of consumers while purchasing a candy is inconsistent, and they switch among huge product variety and price combination. This phenomenon is vividly reflected in the product lifecycle mechanism followed by manufacturers. Buying behavior is largely influenced by the mass media and the art and science of marketing. Building a brand is the only way a company can differentiate its product from the rest and ensure long-term success in this very competitive market. Backing your brand with consistent high quality is a winning formula and the reason why so many relatively expensive foreign products are considered superior to the local ones.

The most popular brands in the Pakistani market largely depend on media campaign to make it successful, whereas, most successful soft candies in Karachi include Eclairs (Milk Candy) and Soft Mint. Nevertheless as a long term strategy, a company can not depend on one flavor or brand; a good mix of flavors with continuous development of the brand will only be the success path for a candy manufacturing business. However for the purpose of this feasibility, we propose to start with the following three Soft Candy types with traditionally popular flavors:

Candy Type	Flavor/Taste
1. Soft Milk Candy	Milk
2. Chocolate Candy with centrally filled almond	Chocolate
3. Milk Peanut Candy	Peanut

1.3.4 Product Life Cycle

"With a very short life span a new brand of candy comes, enjoys its peak sale for 4 to 6 months and disappears" that is what said by the industry experts. There is only one brand for a confectionery concern on which it survives and out of 3 to 4 newly introduced brands success to failure ratio is said to be 1:4. Therefore an innovative approach in introducing different types and flavors of candy is important in introducing new products. Currently in the local market, following types of Soft Candy are successful:

- Milk Candy (chocolate, coffee paste) – brown color
- Traditional Milk Toffee – brown color
- Fruit flavored milky candy – white color
- Jellies (Sugar sprayed, spicy sour taste) – Transparent eye catching colors

1.3.5 Market Entry Timing

To take entry into Candy business, *beginning of winter is supposed to be the best time.* The reason is that in winter children and teenagers are more inclined to have food more rich in starch/sugar; secondly confectionery remains safe from melting and de-shaping. During summer, children prefer to have Ice cream, Flavored Ice bowls due to hot weather. Arrival of mango also affects children's inclination towards sweets and candies.

Existing Competition

When starting up a new business of candy manufacturing, direct competition will mainly be with un-organized or informal sector which is mostly involved in producing 'me-too' products. Due to the simplicity of producing Candy, almost every confectionery manufacturer is producing Soft Candy which increases the level of difficulty of competing with existing players. To assess existing competition, the factors to consider would be the number of competitors, variety of products they offer, promotional schemes they offer etc. Besides the informal sector, following medium and small scale business units might be tough competitors.

- **B.P. Sweets**
- Hilal Foods
- CandyLand
- CEMCON Foods
- DANPAK Foods
- A & B Foods
- Akbar Foods
- Sana Foods
- Silver Lake Food etc.

1.4 Proposed Business Legal Status

The legal status of business tends to play an important role in any setup; the proposed Soft Candy Manufacturing setup is assumed to operate as a Sole Proprietorship.

1.5 Proposed Soft Candy Manufacturing Plant Capacity

Locally manufactured Soft Candy manufacturing plant with 600 k.g./hr. production capacity would be an economical size for starting Candy business. However, due to the time required in developing market reputation and running of the unit, it is expected that the plant would achieve 100% efficiency in the last year of the projected period.

1.6 Project Cost

Total project cost of the Soft Candy business is approximately Rs. 17.66 million. Out of this, capital cost of the project is around Rs. 11.245 million and remaining will be the working capital.

1.7 Project Investment

A total of Rs. 17.66 million will be required to setup and operate the proposed Soft Candy business.

1.8 Recommended Project Parameters

Capacity	Human Resource	Technology/Machinery	Location
1.4 tons of soft candy per day	15	Local Machinery	Medium Cost Industrial Area

Financial Summary

Project Cost	IRR	NPV (Rs)	Payback Period
Rs. 17.66 million	30%	12,973,348	4.5 Years

1.10 Proposed Location

Location for setting up a candy manufacturing plant has imperial implications on fixed costs, operational costs and procedures. Generally locations where labor and skilled manpower is easily available and population density is also reasonable are preferred, however availability of utilities like Power, Water, Gas, Telephone, Roads and Sewerage should also be considered when deciding where to setup the business. In addition, a location should be chosen from where business operations like production and distribution can be performed quickly with low operational cost.

For soft candy business, it is suggested to locate the manufacturing facility in North Karachi Industrial Area, Federal B Industrial Area Karachi, or any industrial area in any other city. For the purpose of this study, it is assumed that the project will be setup in a medium cost industrial location.

2. SECTOR & INDUSTRY ANALYSIS

2.1 Project Risk Factors

Major risks that may hamper the attainment of the business objectives are:

- Volatile movements in the prices of major raw materials of sugar and glucose, which largely depend on the growth of agriculture sector and the government policies relating to regulation of prices of relevant agricultural commodities.

- Increased competition, especially from the small producers of low quality confectionery products in the informal sector who do not pay their taxes, indulge in counterfeit products and have minimum overhead costs.

2.2 A Brief Snapshot of the Industry

Confectionery industry is considered to be a highly un-documented industry, which makes it difficult to determine the exact market size and shares. However on a macro scale, there are a number of major players like Hilal foods, CandyLand, Mayfair, Mitchell’s, Cadburys and Nestle, which account for most of the market share of the Soft Candy business.

According to available industry information, there are 23 units in the organized sector. The Ismail Industries (Pvt) limited, with more than 30 brands, leading the confectionery market with 50% of retail value sales. The company's major brand Candyland have enjoyed immense brand equity and consumer trust. The company has many brands and wide market distribution network.

2.3 Sector Characteristics

Product Pricing and Brand Management

During the study of confectionery industry it was observed that product price for candies are revised generally after every 3 to 5 year. This is due to small price of the product which forces the manufacturers to keep unit price in round figure i.e. 1 rupee instead of 1.5 rupee. On the other hand it is difficult to maintain price at the same level over the years while production cost does not stay at the same level. In order to maintain profit margins and cover production cost manufacturers gradually reduce the size and weight of product till the time when product lifecycle is completed. We have discussed earlier that candy products have a very short lifecycle; therefore, during the last stages of the product life, manufacturers follow the strategy to reintroduce the product with increased price compensated by new varieties, size and innovation of form.

Retailer and Distributor Role

Distributor and retailers are of primary importance in marketing confectionery products, especially for candies, toffees, chocolate and bubble gums because of easy availability of alternate brands. That is the reason that, unlike other consumer goods, distribution and retailer margins are relatively higher on confectionery items. For distributor and retailer, around 25 to 35% profit margins are normally given by the manufacturer, especially by those with small to medium sized operations.

The distribution network desirable for marketing and distribution of confectionery items like candy will be one which provides complete solution from pickup of product from the manufacturer's premises, distribution and ensuring space availability for the product on the retail outlets. This kind of distribution solutions can be availed at the cost of 30 to 35% of the gross sales.

This type of distribution network is proposed for the reason that being a new business setup, it would be difficult for the manufacturer (owner) to handle logistics involved in managing distribution; therefore commissioning such kind of solution will make it possible for the manufacturer to concentrate on product development and broaden market niche. Once the product become successful, the distribution cost will gradually be reduced. The proposed distribution network for candy business is supposed to be operating on regional level and having ample experience of confectionery distribution.

Consumption Patterns

Consumption patterns can be explained on the basis of following demographical factors:

Age Group: Children from 5 to 15 years of age are considered to be the potential buyers of confectionery products.

Urban and Rural: Low price candy brands are mostly consumed in economically low profile urban and in all rural areas.

Low, medium and high Income areas: Confectioneries products like chocolate, chewing gums etc. are consumed in medium and high income areas, but there is a difference of packaging mainly. For medium and high income areas candies are also being sold in good, attractive and fancy crystal jars, boxes and gift packs.

Demographic consumption patterns show that 60% to 70% of the total produced candy is consumed by children in the age group of 5 to 15 years and companies focus on this age group when launching and designing advertisement campaigns.

Soft Candy - Local Market

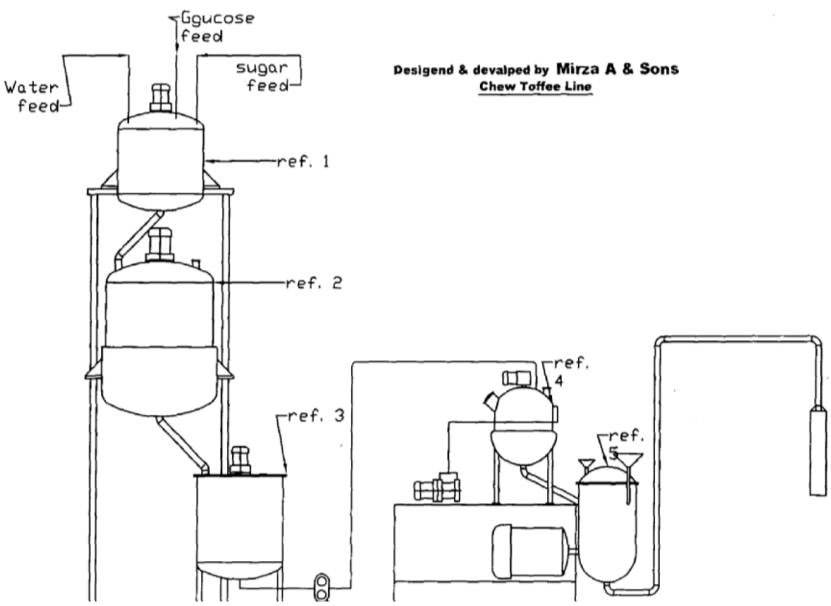
For Soft Candy, main markets are considered to be the following cities:

- Karachi
- Lahore
- Peshawar
- Quetta
- Rawalpindi and Islamabad
- Hyderabad
- Sukkur
- Faisalabad and;
- Multan

Since population is the main demand driver for confectionary, it is evident that Punjab accounts for more then half of the overall Candy market.

3. PROCESS FLOW AND SOFT CANDY INGREDIENTS

Major ingredients for the production of soft candy are condensed milk, sugar, glucose, vegetable fat, emulsifiers, flavors and colors. Milk accounts for 55% of the total ingredients, while, Sugar and Glucose account for 40%.



3.1 Process Flow

Granulated sugar and liquid ingredients are individually delivered to fully automatic, weighing and mixing Tank (Reference 1 in flow diagram) where they are measured according to a recorded recipe and blended together.

Several recipes can be stored in the PLC (program and logic control) of the system, which automatically controls the feeding of various ingredients, as well as the relevant pneumatically operated valves.

When one batch (about 100 kg volume) of all the ingredients is ready in the weighing vessel, it is discharged into the dissolver (Reference 2), while a new batch is being weighted in mixing tank. In dissolver, the product is pre-cooked to the boiling point. (Approximately 110^0C). After pre-cooking the product is discharged in a stainless steel storage tank (Reference 3). At this stage transferring pump transfers milk powder, vegetable fat into it. The product is then transferred into Warm Mix. Toffee cooker with vacuum (Reference 4) suck mixed toffee ingredients from Warm Mix Tank by force of vacuum. After taking the product ingredients it cooks it (at required temperature). After cooking the product mass, it discharges it in Press whip Machine (Reference 5). The Press-whip machine whips under air pressure. At this stage colors, flavors and other ingredients are added and product mass is made here fluffy and weight less.

Product is then transferred to cooling table. The product is cooled down to the temperature of approximately 50 degree centigrade. It is folded and put into the batch former. It makes a thick rope of toffee mass which is fed directly into the Cut & Wrap Machine. In this machine, the rope first gets rough impression of lining while passing through the first set of sizing rollers and then it gets exact shape in the next set of size rollers. Then the rope is cut by set of toffee cutting knifes and paper is cut by the rotating paper blades and paper is wrapped over the toffee, which is then transferred into the rotating chamber which takes it to the twisting fingers where these are twisted from ends and is ejected on to the delivery chute automatically.

3.2 Technology Options

The type of technology to be employed largely depends on the market to be captured. The proposed business setup is based on the assumption to cover both local and export markets. Currently in Pakistan export oriented confectionery manufacturers are also using local plants and machinery i.e. JOJO from Gujranwala is exporting candies and Bubble Gums to Australia using local machinery. However, for the purpose of high volume, manufacturers are also using imported plant and machinery to obtain economy of scale and volume based market leadership. Hilal is using this strategy and enjoying leadership in local bubble gum market.

Available technology options are as follows:

1. Full European Plant – New
2. Full European Plant – Used
3. Full Chinese Plant with local Wrapping machine
4. Locally Manufactured Plant with Wrapping and bagging Machine

Beside technology options, a few things should also be taken into account before deciding on setting up a candy manufacturing unit. Normally Candy Plants are not readily available in Pakistani market. Therefore entrepreneur will have to place order to the local plant and machinery manufacturer well in advance. Normally the delivery period is 1 ½ to 2 months for wrapping and bagging machines and 6 months for production plant/machinery. However for imported machinery professional indenters and importers may be contacted. Some of the local plant and machinery manufacturers are as follows:

S. No.	Company Name	City	Services & Machinery available	Phone Number
1	Mirza A.M. & Sons.	Faisalabad	Complete Plant/Machinery Manufacturers **Services Offered:** Machinery Installation and trial production /Importer of Plant/Machinery	041-8751502
2	Sama Engineering	Karachi	**Packaging/Wrapping Machine Manufacturers** Services Offered: **Machinery Installation and trial production /Importer of Plant/Machinery**	021- 36688883 021-36603311 021-36602467

Source: Internal research

3.3 Product/Project Standards and Compliance Issues

There are no specific requirements or standards to be met for operating a Candy manufacturing plant. There is a basic requirement to ensure proper handling of machine, especially when dealing with the production of food products, to avoid any unwanted health hazard. However, among other consumer products, the government has laid down certain regulations which include registration of product with Pakistan Standard Quality Control Authority (PSQCA) and carrying a safety logo on the package. Failure to do so is punishable by fine and imprisonment.

4. LAND & BUILDING REQUIREMENT

4.1 Land Requirement

The workspace required to setup the assumed Candy plant is a 2250 sq. ft. (250 yards plot), which will serve for the office, storage godown and manufacturing plant. It is normally available for Rs. 3 – 4 million in a medium cost industrial location.

5. MANPOWER REQUIREMENT

15 persons can handle the operations of a candy manufacturing business unit. The business unit will work on one shift basis. Technical staff with secondary school education is sufficient to look after specific tasks at the plant while trained staff will be required for operating production plant and wrapping/bagging machines. Such staff is available in the local market. Total estimated manpower required for the business operations along with their respective salaries is given in the table below.

Technical Manpower Required

Operational Staff	Number	Monthly Salary	Annual Salary
Plant Operator	1	25,000	300,000
Wrapping and Bag Making Machine Operator	1	25,000	300,000
Helpers	6	14,000	1,008,000
Store Keeper	1	20,000	240,000
Total	**9**	**-**	**1,848,000**

General Management / Administrative & Selling Staff

Office Staff	Number	Monthly Salary	Annual Salary
Owner	1	100,000	1,200,000
Admin. / Accounts Officer	1	50,000	600,000
Sales & Marketing Manager	1	60,000	720,000
Assistant Manager Sales	1	35,000	420,000
Office Driver	1	15,000	180,000
Security Guard	1	15,000	180,000
Total	**6**	**-**	**3,300,000**

1. ***The owner*** is required to manage the following jobs:
   - Overall business operations including general administration.
   - Procurement of new orders
   - Distribution
   - Customer handling
   - Product quality
   - Ensuring adequate cash flow to meet working capital requirements etc.

2. ***The plant operator*** is required to operate production plant, checking and managing raw material/production quantity/quality and mixing ingredients; and testing output quality etc.

3. ***Wrapping and Bagging machines Operators*** are required to operate the wrapping and bagging machines. They are also responsible for machine's timely maintenance, oiling, etc. Further, they will also be responsible for providing necessary support and assistance to the plant operator.

4. ***Packer & Helper*** are required to facilitate in packing process and shifting of produced material to store room etc.

5. ***Sales Coordinators*** are responsible for day to day coordination with distribution and production functions. They are also responsible to carry out field surveys and ensuring product availability in the immediate market.

6. ***Admin. / Accounts Officer*** is mainly responsible for carrying out day to day administrative activities of the overall business including facilitation provided to the owner as and when required.

6. FINANCIAL ANALYSIS & KEY ASSUMPTIONS

The project cost estimates for the proposed "Soft Candy Production Business" have been formulated on the basis of discussions with relevant stakeholders and experts. The projections cover the cost of land, machinery and equipment including office equipment, fixtures etc. The specific assumptions relating to individual cost components are given as under.

6.1 Land & Building

Size	Location	Total Cost (Rs.)	Rent Per Month (Rs.)	Expected Annual Increase in rent
250 Yards (covered area) (equivalent to 2250 sq.ft.)	Medium Cost Industrial Area	3 to 4 million	100,000	10%
150 Yards (covered area) (equivalent to 1350 sq.ft.)				
Construction Cost	Office & Warehouse	400,000		
	Production Facility	1,000,000		

This pre-feasibility assumes that the space will be acquired on rental basis. Initial contract would be for two years with 6 month deposit and 6 month advance rent after which the rent will be payable on a monthly basis. In addition construction and renovation will cost around Rs. 1,400,000/- which will depreciate at 10% per annum using diminishing balance method. Total initial cash outflow for acquisition of land would be as follows:

	Months	Rent
Security Deposit	6	600,000
Advance Rent	6	600,000
Total		**1,200,000**

Land & Building will include:

- General Management Office / Storage Area
- Production Facility

The proposed business unit will be based in a medium cost industrial locality in a metropolitan area like North Karachi or Federal B. Area as the business highly depends on a good distribution network and quick access to the prospects market with less distribution cost. The expected area required for the set up would be a single story building with two storage godown of 30ft. x 30ft. each. One for raw material storage and other will be used for finished products.

It is assumed that all activities will be undertaken under one roof and the factory be acquired on a rental basis at Rs. 100,000 per month for the projected period. This rent is expected to increase at a rate of 10% per year. It is further assumed that there will be no addition or deletion during the projected period. Furthermore, it is assumed that Rs. 1,200,000 will be paid in advance before possession of premises. This will include advance rent for six months and six months security deposit.

6.1.1 Overall Factory & Office Renovation

It is expected that a total of Rs.500,000 would be incurred to renovate the factory / office premises in Year 5 and Year 10.

In the following lines we are providing a break up of other assets required for setting up Soft Candy business.

6.2 Candy Manufacturing Plant and Machinery

Considering factors like tough competition in the industry, technology advancement, machinery used by the competitors, desired volume of production and the minimum cost in which machinery is easily available in the local market, we have assumed that local machinery will be used for the proposed set-up.

The production capacity of the machine would depend on the amount of business expected to be generated. Capacities vary from brand to brand but on a general scale they can be segregated into three categories as follows:

1. Machines having a production capacity of 350 k.g. of candy per hour
2. Machines having a production capacity of 750 k.g. of candy per hour
3. Machines having a production capacity of more then 1000 k.g. of candy per hour

The cost implications would depend on the capacity of the machine. For this pre-feasibility, local machinery with expected capacity of 600 k.g. per hour is assumed to be sufficient which cost around Rs. 7.3 million. The detailed specification of the machinery will be as follows:

Sr. No.	Unit	Local/ Foreign	Cost (Rs.)	Capacity in k.g.
1.	Weighing and Mixing Pot	Local	20,000	600/hr.

Candy making plant (Manpower required to operate = 2)

1.	Warm Mix	Local	875,000	600 kg/hr.
2.	Press Whip	Local	2,000,000	Works synchronically
3.	Cooling Drum Conveyer	Local	700,000	Works synchronically
4.	Extruder	Local	350,000	Works synchronically
5.	Cooling Tunnel	Local	800,000	Works synchronically
6.	Rope Sizer	Local	250,000	Works synchronically
7.	Forming Machine	Local	700,000	Works synchronically

8.	Liquid & Powder Filler	Local	200,000	Works synchronically
9.	Pan Lifting Jack	Local	50,000	Works synchronically
	Total Cost of Plant	**Local**	**5,945,000**	**-**

Candy Twist Wrapping and bags making machine (Manpower required to operate = 4)

10.	Wrapping Machines (2)	Local	1,000,000	500 candy / min.
11.	Candy bags making machine (1)	Local	400,000	1200 bags/hr.
	Total Cost of Wrapping and Bagging machines	**Local**	**1,400,000**	
	Total cost of the machinery		**7,345,000**	

The selection of Candy making machine depends on the quality and quantity of business assumed to be undertaken. Based on discussions with industry stakeholders and other experts, we understand that a local production line having a capacity of 600 k.g. / hour would be installed. A good quality local machine fulfilling such requirements is expected to cost around Rs. 7.3 million. Assumptions of working hours for plant and machinery at the beginning of the production operations will be as follows:

Machinery	Working Hours
Production Plant	3 hrs/day
Wrapping	8-12 hrs/day
Packing Machinery	8-12 hrs/day

In addition, one additional wrapping machine will be required in the 4th year due to expected increase in the production which will cost around 600,000.

6.2.1 Maintenance Requirement

The local machine is expected to be serviced on an annual basis, for the projected period, costing around 1.5% of the cost of machine for first five years and 2.5% for the coming years.

6.2.2 Depreciation Treatment

The treatment of depreciation would be on a diminishing balance method at the rate of 10% per annum. This method is also expected to provide accurate tax treatment.

6.3 Factory / Office Equipment & Furniture

A lump sum provision of Rs. 150,000 for procurement of office furniture and factory equipment is assumed. This would include table, desk, chairs, office stationery and plant & machinery equipment. The breakup of Factory Office Furniture & Fixtures is as follows:

Item	Number	Total Cost
Table & Chair for Owner	1	7,000
Tables & Chairs for Staff	4	20,000
Carpet for Office	1	10,000
Air Conditioner	1	30,000

Item	Number	Total Cost
Waiting Chairs	6	9,000
Sofa Set	1	10,000
Curtains & Interior Decoration	-	10,000
Electrical Fittings & Fancy Lights	-	40,000
Others	-	14,000
Total		**150,000**

6.3.1 Depreciation Treatment

Factory/Office equipment and furniture is expected to depreciate at a constant rate of 10% per annum according to the diminishing balance depreciation method.

6.4 Office Vehicle

The proposed setup would require an office vehicle (a delivery van) to carry out all office activities and to cater urgent delivery requirements, if any. The cost of vehicle is assumed to be Rs. 800,000.

6.4.1 Depreciation Treatment

The office vehicle is expected to depreciate at a constant rate of 10% according to the diminishing balance method.

6.5 Utilities

The proposed Candy making machinery will operate using electricity for Candy production. This would draw considerable amount of electricity. The cost of the utilities including electricity, telephone, and water is estimated to be Rs. 960,000 per annum. The utility expenses are assumed to increase at 10% per annum.

Utilities	Total Monthly Cost
Water & Gas	15,000
Telephones (2)	10,000
Electricity	85,000
Total	**110,000**

6.6 Working Capital Requirements

It is estimated that an additional amount of approximately Rs. 6.4 million will be required as cash in hand to meet the working capital requirements / contingency cash for the initial stages. This provision has been estimated based on the salaries of the staff and utilities charges for first three months of operations of the proposed Soft Candy business.

Cost	Amount in Rs.
First Three Months Salary	1,287,000
First Three Months Utilities Charges	330,000

First Three Months Misc. Expenses	300,000
Inventory (Raw Material-One Month)	4,501,193
Total	**6,418,193**

6.7 Preliminary and Machinery Transportation Expenses

A lump sum provision of Rs. 100,000 is assumed to cover all preliminary expenses like registration, documentation charges etc. which will be amortized over the 5 year period. There has been a provision of Rs. 150,000 for plant and machinery transportation. Machinery installation and trial run production services are generally provided by the machinery suppliers; therefore no cost has been assumed for this purpose.

6.8 Miscellaneous Expenses

Miscellaneous expenses of running the business are assumed to be Rs. 100,000 per month. These expenses include various items like office stationery, daily consumables, fuel expenses, traveling allowances etc. and are assumed to increase at a nominal rate of 10% per annum.

6.9 Raw Materials Inventory

It is assumed that an initial raw material inventory for one month would be purchased the total cost of which would be around Rs. 4.5 million. The cost of raw materials is expected to increase at the rate of 10% per annum for the projected period.

6.10 Finished Goods Inventory

The proposed setup is assumed to maintain a Finished Goods Inventory of at least 15 days.

6.11 Revenue Projections

Key assumptions for the revenue projections are as following:

• Candy Weight	3.5 gms.
• Net Weight per Candy Bag	192 gms.
• Price of 55 candies large bag (55 candies)	Rs. 45

Sales price of confectionery items are generally revised after every 3 to 5 years. However, for the purpose of this pre-feasibility we have assumed 10% price growth annually.

It has been assumed that it will take some time for the business to reach the optimal capacity utilization point for the projected period. Therefore the first year sales are assumed to be based on 30% capacity utilization and an annual increase of 8% in capacity utilization is expected for the projection period. Provision for raw material wastage is assumed to be 1% of the daily production.

6.12 Accounts Receivables

A collection period of 45 days is assumed for sales. A provision for bad debts has been assumed equivalent to 2% of the annual gross sales.

6.13 Accounts Payables

A payable period of 45 days is assumed for raw material purchases.

6.14 Taxation

The business is assumed to be run as a sole proprietorship; therefore, tax rates applicable on non-salaried individual are used for income tax calculation of the business.

6.15 Owner's Withdrawal

It is assumed that the owner will draw funds from the business once the desired profitability is reached from the start of operations. The amount would depend on business sustainability and availability of funds for future growth.

6.16 ANNEXURES

- **Summary of Key Assumptions**
- **Cost and Revenue Sheet**
- **Projected Income Statement**
- **Projected Balance Sheet**
- **Projected Cash Flow Statement**

Summary of Key Assumptions

Sr. No.	PARTICULARS	TOTAL COST/DETAILS
1	Plant & machinery	7,345,000
2	Facility Construction Cost	1,400,000
3	Office Equipment & Furniture	250,000
4	Vehicles	800,000
5	Rent in Advance	1,200,000
6	Preliminary and Transportation Expenses	250,000
	Total Capital Cost	**11,245,000**
7	Utilities - Three Months	330,000
8	Salaries - Three Months	1,287,000
9	Raw Material Inventories - One Month	4,501,193
10	Misc. Expenses - Three months	300,000
	Total Working Capital	6,418,193
	Total Project Cost	**17,663,193**
	PROJECT RETURNS AND OTHER FINANCIAL ASSUMPTIONS	
11	IRR	30%
12	NPV	12,973,348
13	Payback Period (Years)	4.5 Years
14	Debt Equity Ratio	0:100
	OTHER ASSUMPTIONS	
18	Depreciation	10%
19	Bed debts	2%
20	Wastage During production	1%
21	Repair & Maintenance	1.5% of the Total Plant Cost for Initial 5 Years and 2.5% after 5 Years
22	Increase in the Raw Material Cost (Annual)	10%
23	Increase in capacity utilisation (Annual)	8%
24	Capacity Utilisation at the beginning of the period	
a	*Main Production Plant*	30%
b	*Wrapping Machine*	8-12 Hours
c	*Bagging Machine*	8-12 Hours
28	Addition of Wrapping Machine in the 4th year	1'
29	Finished Goods Inventory at the End of the Year	15 days
30	Accounts Receiveable period	45 Days
31	Accounts Payable period	45 Days
32	Increase in Product Price	10%

SOFT CANDY MANUFACTURING BUSINESS SETUP

COST AND REVENUE SHEET

REVENUE CALCULATIONS		
Production		
Rated capacity	600	Kg / Hr
Estimated No. of Operating Hours	8	Hrs / Day
Estimated Optimal Production	4800	Kg / Day
Expected Capacity Utilization (At the beginning of the projec	30%	
Annual Capacity Utilization Growth Rate	8%	
Expected Production at the beginning of the project	1,440	Kg / Day
Provision for Wastage	1.0%	
Total Realised Production	**1,426**	**Kg / Day**
Approximate Net weight of a Candy	3.5	Grams / Candy
Total Candies Produced	407,314	Candies / Day
Approximate No. of Candies per Bag	55	Candies / Bag
Number of Bags Packed in a Day	7,406	Bags / Day
Approximate No. of Bags per Carton	60	Bags / Carton
Number of Cartons Packed in a Day	123	Cartons / Day
		192
Price of 55 candy Bag @ 1 Rupee	45	Rs.
Price charged / Carton	2700	Rs.
Total Price of Cartons Produced per Day	**333,257**	**Rs.**
Total Price of Cartons Produced per Month	7,998,171	Rs.
Total Price of Cartons Produced per Year	95,978,057	Rs
Provision for Finished Goods Inventory	15	Days Inventory
Estimated Finished Goods Inventory at end of the Year	4,998,857	Rs
Gross Annual Sales	**90,979,200**	**Rs.**
Wrapping Machine		
Rated capacity	27,000	Candies / Hour
No. of hours worked	8	Hrs / Day
Estimated Wrappings per day	216,000	Candies / Day
Number of Machines Proposed	1	
Total Estimated Wrappings per day	**216,000**	**Candies / Day**
Bagging Machine		
Rated Capacity	1,200	Bags / Hour
No. of hours worked	8	Hrs / Day
Estimated Number of Bags Packed	**9,600**	**Bags / Day**
COST CALCULATION		

Main Ingredients

	Net weight of ingredients/bag (gms)	%	Cost	
Sugar (Sucrose)	**58**	30%	3.20	Rs.
Net Weight per Bag				
Number of Bgs per Kg				
Liquid Glucose	**10**	5%	2.5	
Whole Milk/Skimmed Milk Powder/Condensed	**77**	40%	5	
Vegetable fat	**10**	5%	2	
Permitted colours and flavours	**4**	2%	1	
Salt	**10**	5%	1	
Emulsifiers	**6**	3%	1	
Other material as required for relevant products such as Coffee powder is required for Coffee Toffee and Coconut Powder is required for coconut toffee	**19**	10%	4	
Total Ingredient Cost			**19.70**	**Rs / Bag**

Wrapping & Packing Material

Cost of Wrapping & Packing per Bag	12.5%	of the Price
Total Wrapping & Packing Cost per Bag	**5.6**	**Rs**
Total Cost of Material per Bag	**25.33**	**Rs.**
Number of Bags produced per day	7,406	Bags / day
Number of Bags Produced per Month	177,737	Bags / Month
Total Material Cost per Month	**4,501,193**	**Rs.**
Total Material Cost per Year	**54,014,318**	**Rs.**

SOFT CANDY MANUFACTURING BUSINESS SETUP

Projected Income Statement (Rs.)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenue	***95,978,057***	***114,021,932***	***135,458,055***	***160,924,169***	***191,177,913***	***227,119,361***	***269,817,801***	***320,543,547***	***380,805,734***	***452,397,212***
Beginning Inventory	-	***2,335,297***	***4,844,084***	***5,746,573***	***6,817,909***	***8,089,756***	***9,599,717***	***11,392,460***	***13,521,037***	***16,048,468***
Ending Inventory	***2,335,297***	***4,844,084***	***5,746,573***	***6,817,909***	***8,089,756***	***9,599,717***	***11,392,460***	***13,521,037***	***16,048,468***	***18,849,884***
Gross Revenue	***93,642,761***	***111,513,145***	***134,555,566***	***159,852,833***	***189,906,067***	***225,609,400***	***268,025,058***	***318,414,970***	***378,278,304***	***449,595,796***
Net (Adjusted Sales)	**91,769,905**	**109,282,882**	**131,864,455**	**156,655,776**	**186,107,946**	**221,097,212**	**262,664,557**	**312,046,670**	**370,712,738**	**440,603,880**
Cost of Sales	**57,182,318**	**67,653,809**	**80,066,063**	**94,781,154**	**112,228,950**	**132,919,825**	**157,459,768**	**186,568,321**	**221,099,894**	**262,069,076**
Raw Material	54,014,318	64,169,009	76,232,783	90,564,546	107,590,681	127,817,729	151,847,462	180,394,785	214,309,005	254,599,098
Labor (Production Staff)	1,848,000	2,032,800	2,236,080	2,459,688	2,705,657	2,976,222	3,273,845	3,601,229	3,961,352	4,357,487
Utilities	1,320,000	1,452,000	1,597,200	1,756,920	1,932,612	2,125,873	2,338,461	2,572,307	2,829,537	3,112,491
Gross Profit	**34,587,588**	**41,629,072**	**51,798,392**	**61,874,622**	**73,878,996**	**88,177,387**	**105,204,789**	**125,478,349**	**149,612,844**	**178,534,804**
Gross Profit Margin	**38%**	**38%**	**39%**	**39%**	**40%**	**40%**	**40%**	**40%**	**40%**	**41%**
General Administrative & Selling Expenses										
Salaries	3,300,000	3,630,000	3,993,000	4,392,300	4,831,530	5,314,683	5,846,151	6,430,766	7,073,843	7,781,227
Rent Expense	1,200,000	1,320,000	1,452,000	1,597,200	1,756,920	1,932,612	2,125,873	2,338,461	2,572,307	2,829,537
Office Miscellaneous & beginning Expenses	1,200,000	1,320,000	1,452,000	1,597,200	1,756,920	1,932,612	2,125,873	2,338,461	2,572,307	2,829,537
Amortization of Preliminary Expenses	30,000	30,000	30,000	30,000	30,000	-	-	-	-	-
Depreciation Expense	969,500	872,550	785,295	706,766	736,089	712,480	641,232	577,109	519,398	467,458
Maintenance Expense	91,813	91,813	91,813	91,813	91,813	183,625	183,625	183,625	183,625	183,625
Selling & Distribution	27,530,972	32,784,865	39,559,336	46,996,733	55,832,384	66,329,164	78,799,367	93,614,001	111,213,821	132,181,164
Subtotal	***34,322,284***	***40,049,227***	***47,363,444***	***55,412,011***	***65,035,655***	***76,405,176***	***89,722,122***	***105,482,422***	***124,135,301***	***146,272,549***
Operating Income	**265,304**	**1,579,845**	**4,434,948**	**6,462,611**	**8,843,341**	**11,772,211**	**15,482,668**	**19,995,927**	**25,477,543**	**32,262,255**
Earnings Before Taxes	**265,304**	**1,579,845**	**4,434,948**	**6,462,611**	**8,843,341**	**11,772,211**	**15,482,668**	**19,995,927**	**25,477,543**	**32,262,255**
Tax	66,326	394,961	1,108,737	1,615,653	2,210,835	2,943,053	3,870,667	4,998,982	6,369,386	8,065,564
Net Profit	**198,978**	**1,184,884**	**3,326,211**	**4,846,958**	**6,632,505**	**8,829,158**	**11,612,001**	**14,996,945**	**19,108,157**	**24,196,691**
Monthly Profit After Tax	***16,581***	***98,740***	***277,184***	***403,913***	***552,709***	***735,763***	***967,667***	***1,249,745***	***1,592,346***	***2,016,391***

SOFT CANDY MANUFACTURING BUSINESS SETUP

Projected Balance Sheet (Rs.)	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Assets											
Current Assets											
Cash & Bank Balance	1,917,000	4,708,996	6,439,737	11,890,020	15,991,312	22,057,579	30,450,496	41,278,937	55,200,617	73,006,460	95,445,178
Raw Material Inventory	4,501,193	4,951,312	5,446,444	5,991,088	6,590,197	7,249,217	7,974,138	8,771,552	9,648,707	10,613,578	11,674,936
Accounts Receivable	0	4,208,152	4,739,050	3,593,600	4,268,393	5,069,968	6,022,149	7,153,244	8,496,877	10,092,996	11,793,332
Prepaid Rent	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
Total Current Assets	**7,618,193**	**15,068,461**	**17,825,231**	**22,674,708**	**28,049,902**	**35,576,764**	**45,646,783**	**58,403,732**	**74,546,202**	**94,913,035**	**120,113,446**
Fixed Assets											
Plant Machinery & Facility	8,745,000	7,870,500	7,083,450	6,375,105	6,737,595	6,563,835	5,907,452	5,316,706	4,785,036	4,306,532	4,375,879
Furniture & Fixtures	150,000	135,000	121,500	109,350	98,415	88,574	79,716	71,745	64,570	58,113	52,302
Vehicle	800,000	720,000	648,000	583,200	524,880	472,392	425,153	382,638	344,374	309,936	278,943
Total Fixed Assets	**9,695,000**	**8,725,500**	**7,852,950**	**7,067,655**	**7,360,890**	**7,124,801**	**6,412,320**	**5,771,088**	**5,193,980**	**4,674,582**	**4,707,123**
Intangible Assets											
Preliminary and Transportation Expenses	**150,000**	**120,000**	**90,000**	**60,000**	**30,000**	**0**	**0**	**0**	**0**	**0**	**0**
Total Assets	**17,463,193**	**23,913,961**	**25,768,181**	**29,802,363**	**35,440,792**	**42,701,564**	**52,059,104**	**64,174,821**	**79,740,181**	**99,587,616**	**124,820,569**
Owner's Equity	17,463,193	17,162,171	17,747,055	20,273,266	24,120,224	29,252,729	36,081,887	45,193,888	57,190,833	72,798,991	92,995,682
Short-term Liabilities											
Account Payable	0	6,751,790	8,021,126	9,529,098	11,320,568	13,448,835	15,977,216	18,980,933	22,549,348	26,788,626	31,824,887
Long Term Liability	0	0	0	0	0	0	0	0	0	0	0
Total Equity & Liabilities	**17,463,193**	**23,913,961**	**25,768,181**	**29,802,363**	**35,440,792**	**42,701,564**	**52,059,104**	**64,174,821**	**79,740,181**	**99,587,616**	**124,820,569**

SOFT CANDY MANUFACTURING BUSINESS SETUP

Projected Statement of Cash Flows (Rs.)	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Cash Flow From Operating Activities											
Net Profit	0	198,978	1,184,884	3,326,211	4,846,958	6,632,505	8,829,158	11,612,001	14,996,945	19,108,157	24,196,691
Add: Depreciation Expense	0	969,500	872,550	785,295	706,766	736,089	712,480	641,232	577,109	519,398	467,458
Amortization Expense	0	30,000	30,000	30,000	30,000	30,000	-	-	-	-	-
(Increase) / decrease in Receivables	-	(4,208,152)	(530,898)	1,145,450	(674,793)	(801,574)	(952,182)	(1,131,095)	(1,343,633)	(1,596,119)	(1,700,336)
(Increase) / decrease in Payables	-	6,751,790	1,269,336	1,507,972	1,791,470	2,128,267	2,528,381	3,003,717	3,568,415	4,239,277	5,036,262
(Increase) / decrease in RM Inventory	-	(450,119)	(495,131)	(544,644)	(599,109)	(659,020)	(724,922)	(797,414)	(877,155)	(964,871)	(1,061,358)
Net Cash Flow From Operations	**0**	**3,291,996**	**2,330,741**	**6,250,283**	**6,101,292**	**8,066,267**	**10,392,916**	**13,328,441**	**16,921,681**	**21,305,843**	**26,938,717**
Cash Flow From Financing Activities											
Receipt of Long Term Debt	0										
Repayment of Long Term Debt		0	0	0	0	0	-	-	-	-	-
Owner's Equity	17,463,193	(500,000)	(600,000)	(800,000)	(1,000,000)	(1,500,000)	(2,000,000)	(2,500,000)	(3,000,000)	(3,500,000)	(4,000,000)
Net Cash Flow From Financing Activities	**17,463,193**	**(500,000)**	**(600,000)**	**(800,000)**	**(1,000,000)**	**(1,500,000)**	**(2,000,000)**	**(2,500,000)**	**(3,000,000)**	**(3,500,000)**	**(4,000,000)**
Cash Flow From Investing Activities											
Capital Expenditure	(9,545,000)				(1,000,000)	(500,000)					(500,000)
Office Equipment & Furniture	(150,000)										
Preliminary Operating Expenses	(150,000)										
Security Deposit and Advance Rent	(1,200,000)										
Raw Material Inventory	(4,501,193)										
Net Cash Flow From Investing Activities	**(15,546,193)**	**0**	**0**	**0**	**(1,000,000)**	**(500,000)**	**0**	**0**	**0**	**0**	**(500,000)**
NET CASH FLOW	**1,917,000**	**2,791,996**	**1,730,741**	**5,450,283**	**4,101,292**	**6,066,267**	**8,392,916**	**10,828,441**	**13,921,681**	**17,805,843**	**22,438,717**
Cash at the Beginning of the Period	**0**	**1,917,000**	**4,708,996**	**6,439,737**	**11,890,020**	**15,991,312**	**22,057,579**	**30,450,496**	**41,278,937**	**55,200,617**	**73,006,460**
Cash at the End of the Period	**1,917,000**	**4,708,996**	**6,439,737**	**11,890,020**	**15,991,312**	**22,057,579**	**30,450,496**	**41,278,937**	**55,200,617**	**73,006,460**	**95,445,178**