



Pre-feasibility Study

PRODUCTION UNIT FOR SALTED AND ROASTED NUTS AND SEEDS

November 2021

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

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

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1. DISCLAIMER

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2. EXECUTIVE SUMMARY

Roasting is a method of cooking food using dry heat. Usually, the nuts and seeds are roasted to enhance their taste and give them a crispy texture. This treatment also makes these food products easier to digest. Roasted nuts and seeds are a good option as healthy and nutritious snacks and are good source of fats, carbohydrates, proteins and fiber. Having a handful of nuts between meals can help a person feel fuller for longer durations and prevent her from indulging into eating unhealthy food. Inclusion of right number of nuts and seeds in a person's regular diet brings in health benefits; such as weight control and prevention of cardiovascular diseases; due to the presence of significant quantities of proteins and high fiber content in these foods. Consuming nuts is thus considered a healthier practice when compared with eating high fat content snacks from unhealthy sources such as fried food, confectionary snacks, etc. Hence, the demand for salted and roasted nuts is increasing due to an increasing diet consciousness and growing awareness about healthy lifestyle among the local population.

The salted and roasted nuts and seeds are consumed as snacks. These are sold as individual products as well as mix of different types of nuts/seeds. They are sold as packaged products as well in unpacked bulk quantities in large super stores and large to medium grocery stores and bakeries. The widely sold nuts include peanuts, almonds, cashew nuts, chick peas and pine nuts.

This "Pre-feasibility Document" provides details for setting up a "Production Unit for Salted and Roasted Nuts and Seeds", which has maximum annual capacity of manufacturing 109,760 kg of nuts; packed in 1,385,411 packs. The production capacity in "Year One" is assumed to be 50%, which translates into an annual production of 54,880 kg of nuts; packed in 692,706 packs. The proposed project is launched as a brand and its ready-to-eat roasted nut and seeds products are produced and sold in packs of four sizes i.e., 50 grams, 100 grams, 250 grams and 450 grams.

The unit is proposed to be ideally located in metropolitan cities like Karachi, Lahore and Islamabad, and other cities with sizeable shares of affluent population, such as Faisalabad, Gujranwala, Hyderabad, Peshawar, Quetta, Multan, Sialkot, Mardan, Sukkur, Muzaffarabad, Gilgit, Bahawalpur, Lasbela, etc. Other important reasons for assigning preference to these cities is due to easy availability of industrial infrastructure and skilled labor.

The "Production Unit for Salted and Roasted Nuts and Seeds" will be set up in a rented building with area of 3,375 square feet. The project requires a total investment of PKR 11.39 million. This includes capital investment of PKR 7.31 million and working capital of PKR 4.08 million. This project is financed through 100% equity. The Net Present Value (NPV) of project is PKR 114.16 million with an Internal Rate of Return (IRR) of 83% and a Payback period of 1.95 years. Further, this project is expected to generate Gross Annual Revenues of PKR 118 million during 1st year, with Gross Profit (GP) ratio ranging from 33% to 40% and Net Profit

(NP) ratio ranging from 6% to 12% during the projection period of ten years. The proposed project will achieve its estimated breakeven point at capacity of 36% (499,129 packs) with a breakeven revenue of PKR 85.03 million.

The proposed project may also be established using leveraged financing. With 50% debt financing, at a cost of KIBOR+3%, the proposed production unit provides Net Present Value (NPV) of PKR 128.06 million, Internal Rate of Return (IRR) of 80% and Payback period of 2.03 year. Further, this project is expected to generate Net Profit (NP) ratio ranging from 6% to 12% during the projection period of ten years. The proposed project will achieve its estimated breakeven point at capacity of 37% (513,303 packs) with a breakeven revenue of PKR 87.44 million.

The proposed project will provide employment opportunities to 43 people. High return on investment and steady growth of business is expected with the entrepreneur having some prior experience or education in the related field of business. The legal business status of this project is proposed as "Sole Proprietorship". Further, the proposed project may also be established as a "Partnership Concern".

3. INTRODUCTION TO SMEDA

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

With a mission "to assist in employment generation and value addition to the national income, through development of the SME sector, by helping increase the number, scale and competitiveness of SMEs", SMEDA has carried out 'sectoral research' to identify policy, access to finance, business development services, strategic initiatives and institutional collaboration and networking initiatives. Preparation and dissemination of prefeasibility studies in key areas of investment has been a successful hallmark of SME facilitation by SMEDA.

Concurrent to the prefeasibility studies, a broad spectrum of business development services is also offered to the SMEs by SMEDA. These services include identification of experts and consultants and delivery of need-based capacity building programs of different types in addition to business guidance through help desk services.

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

The NBDP envisages provision of handholding support / business development services to SMEs to promote business startup, improvement of efficiencies in existing SME value chains to make them globally competitive and provide conducive business environment through evidence-based policy-assistance to the Government of Pakistan. The Project is objectively designed to support SMEDA's capacity of

providing an effective handholding to SMEs. The proposed program is aimed at facilitating around 314,000 SME beneficiaries over a period of five years.

4. PURPOSE OF THE DOCUMENT

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

The purpose of this document is to provide information to the potential investors about “Production Unit for Salted and Roasted Nuts and Seeds”. The document provides a general understanding of the business to facilitate potential investors in crucial and effective investment decisions.

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

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

5. BRIEF DESCRIPTION OF PROJECT & PRODUCTS

Nuts are a healthy source of nutrition. They have no cholesterol, contain fats, are rich in fiber, and contain vitamin E, a fat-soluble vitamin and an antioxidant to protect body tissue from damage. It also helps keeping the immune system strong against viruses and bacteria, in forming red blood cells and widening blood vessels to prevent blood clotting. Eating nuts, therefore, may help in preventing heart disease.

Other benefits of nut consumption are listed below:

- Peanuts are recommended for sharp memory and help reduce high blood pressure.
- Almonds are a good source of calcium to fight osteoporosis.¹
- Cashew nuts are a good source of copper, magnesium and manganese which are important nutrients for energy production, brain health, immunity, and bone health.

¹ Osteoporosis means porous bone. It is a bone disease that involves a loss of bone density. It causes the bones to become more fragile and prone to fractures

- Pine nuts help keep skin healthy and young in appearance. Additionally, regularly eating pine nuts or other seeds and nuts may help reduce the risk of diabetes and heart disease.
- Chickpeas offer a variety of health benefits, such as aiding weight management, improving digestion, and reducing risk of disease.

Nuts are generally roasted and salted to enhance their flavor, crunch, texture and aroma. Raw nuts contain fewer calories and less sodium, and tend to be less digestible. Roasting the nuts either in oil or in dry conditions has a minimal effect on their nutritional value and it enhances their nutty flavor. Furthermore, roasted nuts and seeds, compared to unroasted ones, are easier to digest. Roasting process also reduces exposure to harmful bacteria, such as Salmonella and E. coli, which cause food poisoning.

This study provides information on a production unit for most commonly consumed roasted nuts; including peanuts, almonds, cashew nuts, chick peas and pine nuts.

5.1. Production Process Flow

Process Flow

The production process flow of producing salted and roasted nuts and seeds is given in Figure 1 **Error! Reference source not found..**

Figure 1: Process Flow



Procurement of Raw Material

For producing salted and roasted nuts and seeds, the required raw material includes peanuts, pine nuts, chickpeas, cashew nuts and almonds. Peanuts, almonds and pine nuts are procured in raw and unshelled form, whereas chickpeas and cashew nuts are procured in raw and shelled form. Of all the targeted products, cashew nuts are not grown in Pakistan and thus are imported. They can easily be procured from wholesalers existing in all major cities of the country. Pine nuts are grown in few districts in the northern part of Pakistan and can easily be procured from suppliers

available in each province. Peanuts are mainly grown in rain-fed districts of Chakwal, Jhelum, Attock and Rawalpindi. Whereas, chickpeas and almonds are mostly grown in Southern Punjab and Balochistan respectively.

Product Cracking and Shelling

Cracking of peanuts and almonds is the first process involved in the roasting process. The pine nuts directly go through the roasting machine as they are roasted along with their shell, whereas cashew nuts and chickpeas directly go through salting process before being roasted as they are already shelled when procured. The nuts cracking and shelling machine is used to break and separate the shells and nuts. The nuts are passed between a series of rollers that crack them, and the shelling section of the machine removes the shells. A nut cracking and shelling machine is shown in figure 2 **Error! Reference source not found..**

Figure 2: Nut Cracking and Shelling Machine



Salting

For salting of the nuts, a semi-automatic seasoning machine is being used in the proposed project. A seasoning machine is used to add flavors or different spices to the food products. The nuts will be put in the machine manually by labor where they will pass through a rotating roller to be salted. A semi-automatic seasoning machine is shown in Figure 3.

Figure 3: Semi-Automatic Seasoning Machine

Roasting

Furthermore, the salted and dried peanuts, cashew nuts, almonds and chickpeas are then loaded into the roasting machine whereas, pine nuts are directly roasted without going through any of the previous processes.

Figure 4 **Error! Reference source not found.** shows a nuts roasting machine having a capacity to roast 50 kg of nuts per hour. Hence, the nuts would be roasted in batches of 50 kg and each batch would contain similar type of nuts so they can be evenly roasted.

In this process, the machine roasts the nuts evenly by using electromagnetic radiation from the heaters. It has a maximum working temperature of around 300C and the temperature can be controlled as well as the machine has an automatic temperature controller. Temperatures can be adjusted according to the type of nuts to roast. The time of roasting also varies according to the type of nuts and the temperature at which they are being roasted.

Figure 4: Nuts Roasting Machine

Quality Assurance

After production of roasted nuts and seeds, the quality of the products is checked manually and by using a Nut Moisture Analyzer Machine. The moisture content of the nuts should be around 1-1.5%. Manual sorting is done by labor to remove any burnt, half roasted or broken pieces before packaging.

Packaging

The roasted nuts and seeds are packed in food grade packaging. The final product is packed with polyethylene packing material in attractive packings of different sizes i.e., 50 grams, 100 grams, 250 grams and 450 grams. Packing is carried out using an automatic packaging machine. The packets are filled with nitrogen to provide an inert environment to the products to maintain the product quality. Average useful life of these products is around 12 months. Expiry date is stamped on the packs. **Figure 5Error! Reference source not found.** shows an automatic machine for nitrogen filling as well as packing of the products. The quality of the packed products is ensured by checking the correctness of all the design prints, labels and expiry dates.

Figure 5: Automatic Nitrogen Packing Machine



5.2. Installed and Operational Capacities

The proposed production unit shall, at maximum capacity of 100%, annually produce 109,760 kg of nuts which translates into 1,385,411 packs of 50 grams, 100 grams, 250 grams and 450 grams. The unit would operate for 8 hours per day, working in one shift per day for 280 days in a year. The project is assumed to attain 50% capacity utilization during the first year of operations; an annual production of 54,880 kg which translates into 692,706 packs. It is assumed that during the projected

period of 10 years, the facility will continue to operate with 5% annual increase in capacity utilization each year, reaching at a maximum capacity of 90% in its 9th year of operations.

Table 1 shows the production ratio assumptions, whereas the processing capacity of the roasting machine is shown in Table 2. Table 3, Table 4 and Table 5 depict installed and operational capacities of proposed production unit.

Table 1: Production Ratio

Product	Production Ratio
50-gram Pack	40%
100 gram Pack	40%
250 gram Pack	10%
450 gram Pack	10%
Total	100%

Table 2: Roasting Capacity

Particulars	Roasting Machine Capacity / Hour (kg)	Roasting Machine Capacity / Day (kg)	Annual Capacity (kg)
		@8 hours	@280 Days
Roasting Machine	50	400	112,000

Table 3: Material Input

Particulars	Annual Capacity (kg)	Production Ratio	Product-wise Capacity (kg)	Material Input (grams)
Peanuts	112,000	35%	39,200	39,200,000
Pine Nuts		10%	11,200	11,200,000
Chick Peas		25%	28,000	28,000,000
Cashew nuts		10%	11,200	11,200,000
Almonds		20%	22,400	22,400,000

Table 4: Annual Production Capacity

Product	Material Input (grams)	Process Loss	Material Output (grams)	50g Pack		100g Pack		250g Pack		450g Pack	
				Capacity (grams)	No. of Packs	Capacity (grams)	No. of Packs	Capacity (grams)	No. of Packs	Capacity (grams)	No. of Packs
<i>Calculations</i>	<i>A (Table 3)</i>	<i>B</i>	<i>C = A*(1-B)</i>	<i>D=(C*40%²)</i>	<i>E=(D/50)</i>	<i>F=(C*40%³)</i>	<i>G=(F/100)</i>	<i>H=(C*10%⁴)</i>	<i>I=(H/250)</i>	<i>J=(C*10%⁵)</i>	<i>K=(J/450)</i>
Peanuts	39,200,000	2%	38,416,000	15,366,400	307,328	15,366,400	153,664	3,841,600	15,366	3,841,600	8,536
Pine Nuts	11,200,000		10,976,000	4,390,400	87,808	4,390,400	43,904	1,097,600	4,390	1,097,600	2,439
Chick Peas	28,000,000		27,440,000	10,976,000	219,520	10,976,000	109,760	2,744,000	10,976	2,744,000	6,097
Cashew nuts	11,200,000		10,976,000	4,390,400	87,808	4,390,400	43,904	1,097,600	4,390	1,097,600	2,439
Almonds	22,400,000		21,952,000	8,780,800	175,616	8,780,800	87,808	2,195,200	8,780	2,195,200	4,878
Total					878,080		439,040		43,902		24,389
Grand Total										1,385,411	

² Ratio given in Table 1.³ Ratio given in Table 1.⁴ Ratio given in Table 1.⁵ Ratio given in Table 1.

Table 5: Initial Year Capacity

Particulars	50g Pack		100g Pack		250g Pack		450g Pack	
	Annual Capacity (Packs)	Initial Year Capacity (Packs)	Annual Capacity (Packs)	Initial Year Capacity (Packs)	Annual Capacity (Packs)	Initial Year Capacity (Packs)	Annual Capacity (Packs)	Initial Year Capacity (Packs)
<i>Calculations</i>	<i>A</i>	<i>B=(A*50%)</i>	<i>C</i>	<i>D=(C*50%)</i>	<i>E</i>	<i>F=(E*50%)</i>	<i>G</i>	<i>H=(G*50%)</i>
Peanuts	307,328	153,664	153,664	87,808	15,366	8,781	8,536	4,878
Pine Nuts	87,808	43,904	43,904	21,952	4,390	2,195	2,439	1,220
Chick Peas	219,520	109,760	109,760	43,904	10,976	4,390	6,097	2,439
Cashew nuts	87,808	43,904	43,904	21,952	4,390	2,195	2,439	1,220
Almonds	175,616	87,808	87,808	43,904	8,780	4,390	4,878	2,439
Total	878,080	439,040	439,040	219,520	43,902	21,951	24,389	12,195

6. CRITICAL FACTORS

The following factors should be taken into account while making investment decision:

- Good technical knowhow and knowledge of the industry
- Availability of specialized workforce
- Up-to-date knowledge of market needs
- Selection of appropriate machinery and human resources
- Rigorous supervision of the production
- Eye-catching packaging
- Ability to generate work orders through networking
- Assurance of timely order fulfillment
- Food-grade packaging
- Compliance with international quality control standards

7. GEOGRAPHICAL POTENTIAL FOR INVESTMENT

A production unit for Salted and Roasted Nuts and Seeds can be set up in any major city with significant population such as Karachi, Hyderabad, Lahore, Rawalpindi, Islamabad, Faisalabad, Gujranwala, Hyderabad, Peshawar, Quetta, Multan, Sialkot, Mardan, Muzaffarabad, Gilgit, Bahawalpur, etc. Furthermore, sub-urban areas of all major cities of Pakistan also have potential for this investment.

Availability of skilled labor is vital while selecting a location. All the above-mentioned cities have adequate availability of skilled labor, raw materials and other support infrastructure. Moreover, a sizeable share of the population of these cities comprises of affluent people who are the main consumers of salted and roasted nuts and seeds products.

8. POTENTIAL TARGET MARKETS

The nuts and seeds market emerged as the largest category in the global healthy snacks market in 2019, accounting with a market share of 44.91% of the Global Healthy Snacks Market in 2019.⁶ The analysts forecast the global nuts and seeds market to grow at a CAGR of 5.4% during the period 2020-2025.⁷

An increasing awareness among consumers about the health benefits of nuts and seeds consumption is anticipated to drive the market. The growing vegan increasing

⁶ <https://www.fortunebusinessinsights.com/industry-reports/healthy-snacks-market-101454>

⁷ <https://www.mordorintelligence.com/industry-reports/nuts-and-seeds-market>

dependency on plant-based products for protein intake are expected to leverage the global nuts and seeds market positively.

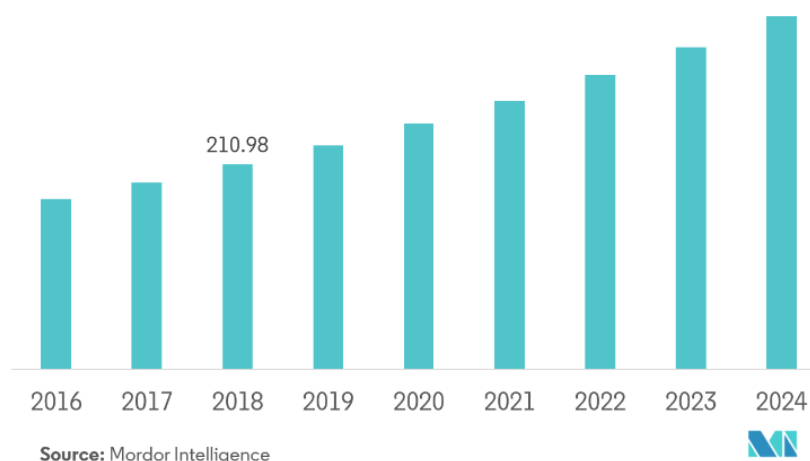
Roasted nuts are heavily used in daily routine across the globe. There is a growing demand of pure/unadulterated roasted and flavored nuts from the customers who are becoming more conscious and aware regarding healthy food consumption. Rising demand for ready-to-eat snacks and convenient foods has fueled the growth of the global nuts and seeds market.

According to Journal of Pakistan Medical Association,⁸ Pakistan's population will almost double in the next 40 years and so will its youth population. Around 63% of Pakistan's population is less than 25 years, 53% individuals are below 19 years of age and 35% of our population is between 15 to 24 years of age. With increasing consumption trends and given population group, making an investment in a "Production Unit for Salted and Roasted Nuts and Seeds" is a favorable option. With the increase in population, the demand for roasted nuts and seeds also increases. To fulfill this demand and supply gap, these products are being produced locally as well as being imported.

A positive trend can be seen in Figure 6 in revenue from savory snack market of Pakistan from 2016-2024 due to growing demand. The Pakistan savory snack market includes Crisps/Chips, Extruded Snacks, Nuts and Seeds and Popcorns. The target customers of this market are usually children and young adults who like to switch between products and enjoy variety.

Figure 6: Revenue from Savory Snack Market

Savory Snack Market: Revenue in USD million,
Crisps/Chips, Pakistan, 2016-2024



Major players in Pakistan are Lays, Super Crisp, Nestle Pakistan, Nuts and Legumes Co., Kohenoor International and Chaman Dry Fruits to name a few. The multinational companies have changed the consumer behavior from consuming raw and roasted nuts from roadside unorganized stalls to commercial roasting in proper setups with introduction of latest technology and hygienic and food grade packing. These

⁸ <https://www.jpma.org.pk/article-details/2810>

products are mainly sold by a vast network of decentralized retailers, kiosks, and grocery stores.

9. PROJECT COST SUMMARY

A detailed financial model has been developed to analyze the commercial viability of Production Unit for Roasted Nuts and Seeds. Various costs and revenue related assumptions along with results of the analysis are outlined in this section.

The projected Income Statement, Cost of Goods Sold, Cash Flow Statement and Balance Sheet are attached as Annexure.

9.1. Project Economics

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

9.2. Project Cost

Total cost of the project has been calculated to be PKR 11.39 million. The project will be financed through 100% Equity. Table 6 provides the details of the costs calculated for the proposed production unit.

Table 6: Project Cost

Description	Amount (PKR)	Reference
Land	-	9.2.1
Building / Infrastructure	1,207,335	9.2.2
Machinery & Equipment	1,780,000	9.2.3
Furniture & Fixtures	860,000	9.2.4
Office Equipment	1,886,000	9.2.5
Office Vehicles	333,300	9.2.6
Incorporation and License costs	16,000	9.2.7
Pre-operating Costs	667,486	9.2.8
Security against building	562,140	9.2.9
Total Capital Cost	7,312,261	
Working capital		
Equipment spare part inventory	14,833	
Raw Material Inventory	2,841,145	
Upfront building rent	187,380	
Upfront insurance payment	35,033	
Cash	1,000,000	

Total Working capital	4,078,391	
Total Project Cost (PKR)	11,390,651	

9.2.1. Land

The Salted and Roasted Nuts Seeds Production Unit will be established in a rented building to avoid the high cost of land. Suitable locations for setting up a production business like this can be easily found on rent. Therefore, no land cost has been added to the project cost. Total space requirement for the proposed unit has been estimated as 3,375 sq. ft. The breakup of the space requirement is provided in Table 7.

Table 7: Breakup of Space Requirement

Break-up of Land Area	% Break-up	Area (Sq. Ft.)
Executive Office	6%	195
Production Area	44%	1,500
Procurement Department	7%	252
Admin & Accounts Office	7%	252
Accounts Office	7%	252
Marketing Office	7%	252
Raw Material Store	7%	252
Finished Goods Store	7%	252
Kitchen	1%	48
Washrooms	4%	120
Total Area	100%	3,375

9.2.2. Building

There will be no cost of building since the unit will be started in a rented premises. However, there will be a renovation cost; required to make the building usable for the business. The proposed project requires electricity load of 15 KW for which an electricity connection under the General Supply Tariff-Industrial three phase will be required. Building rent of PKR 187,380 per month has been included in the operating cost. Building renovation cost is shown in Table 8.

Table 8: Building Renovation Cost

Cost Item	Unit of Measurement	Total Units	Cost/ Unit (PKR)	Total Cost (PKR)
Paint Cost	Liter	90	500	45,045

Labour Cost- Paint	Sq. Feet	9,009	10	90,090
Tiles Cost	Sq. Feet	615	120	73,800
Labour Cost- Tiles	Sq. Feet	615	40	24,600
Glass Partition	Sq. Feet	1,116	550	613,800
Wall Racks	No.	20	15,000	300,000
Curtains	No.	6	5,000	30,000
Blinds	No.	6	5,000	30,000
Total				1,207,335

9.2.3. Machinery and Equipment

Table 9 provides details of machinery and equipment required for the project.

Table 9: Machinery and Equipment

Cost Item	Number	Unit Cost (PKR)	Total Cost (PKR)
Shelling & Cracking Machine 380V 4kW	1	300,000	300,000
Semi-Automatic Seasoning Machine (Salting Machine) 1.5kW	1	300,000	300,000
Roasting Machine 50kg/hr	1	400,000	400,000
Automatic Nitrogen Packing Machine (20 bags/minute)	1	500,000	500,000
Nuts Moisture Analyzer (110 gram)	2	70,000	140,000
Weighing Scale (500 kg)	2	50,000	100,000
Platform Trolleys	2	20,000	40,000
Total			1,780,000

9.2.4. Furniture & Fixtures

Table 10 provides details of the furniture and fixture requirement of the project.

Table 10: Furniture and Fixtures

Cost Item	No.	Unit Cost (PKR)	Total Cost (PKR)
Executive Chairs	5	20,000	100,000
Executive Table	5	35,000	175,000
Office Chairs	22	10,000	220,000
Office Table	7	25,000	175,000

Sofa Sets	4	10,000	40,000
Wall racks	10	15,000	150,000
Total			860,000

9.2.5. Office Equipment

Details of office equipment required for the project is provided in Table 11.

Table 11: Office Equipment

Cost Item	Units	Unit Cost (PKR)	Total Cost (PKR)
Laptop Computer	7	80,000	560,000
Desktop Computer	8	40,000	320,000
Printer	2	40,000	80,000
Air Conditioners (1.5 Ton Inverter)	8	90,000	720,000
LED TV 32"	1	40,000	40,000
Water Dispenser	2	20,000	40,000
Ceiling Fan	10	5,000	50,000
Pedestal Fan	4	10,000	40,000
Security Cameras - 2MP	12	2,000	24,000
Digital Video Recorder (DVR)	1	12,000	12,000
Total			1,886,000

9.2.6. Office Vehicles

Details of office vehicle required for the project is provided in Table 12.

Table 12: Office Vehicles

Cost Item	Units	Unit Cost (PKR)	Total Cost (PKR)
Loader Rickshaw (150 CC)	1	250,000	250,000
Motorcycle	1	80,000	80,000
Total Cost (PKR)			330,000

9.2.7. Licenses Permits and Registration

Details of licenses, permits and registration requirement for the project are provided in Table 13. It is required for establishment of unit renewed annually, and it may differ for other provinces.

Table 13: Licenses, Permits, and Registration

Cost Item	Total Cost (PKR)
Punjab Food Authority	16,000

9.2.8. Pre-Operating Cost

Details of pre-operating cost for the project are provided in Table 14.

Table 14: Pre-Operating Cost

Cost Item	Number of Months	Total Cost (PKR)
Administration expenses	2	617,667
Utilities expenses	1	49,819
Total		667,486

9.2.9. Security against Building

Details of pre-operating cost for the project are provided in Table 15.

Table 15: Security against Building

Cost Item	Months	Unit Cost/Month (PKR)	Total Cost (PKR)
Security against Building	3	187,380	562,140

9.3. Financial Feasibility Analysis

The financial feasibility analysis given in Table 16 provides the information regarding projected IRR, NPV and payback period of the study based on 100% equity.

Table 16: Financial Feasibility Analysis

Description	Project
IRR	83%
NPV (PKR)	114,159,264
Payback Period (years)	1.95
Projection Years	10
Discount Rate used for NPV	15%

9.4. Financial Feasibility Debt Financing

Table 17 provides the information regarding projected IRR, NPV and payback period of the study based on combination of equity (50%) and debt (50%) financing for the proposed project.

Table 17: Financial Feasibility Debt Financing

Description	Project
IRR	80%
NPV (PKR)	128,055,569
Payback Period (years)	2.03
Projection Years	10
Discount Rate used for NPV	13%

9.4.1. Breakeven Analysis

Breakeven analysis is provided in Table 18.

Table 18: Breakeven Analysis

Particulars	Amount First Year (PKR)	Ratio
Sales (PKR) – A	118,004,705	100%
Variable Cost (PKR) – B	81,605,407	69%
Contribution (PKR) (A-B) = C	36,399,298	31%
Fixed Cost (PKR) – D	26,227,495	22%
Contribution Margin $CM=(C/A)$	31%	
Break Even Revenue (PKR) $(D/CM) =E$	85,028,225	
Breakeven Units (Packs)	499,129	
Breakeven Capacity	36%	

9.4.2. Revenue Generation

Based on the 50% capacity utilization of the unit, sales revenue during the first year of operations is estimated in Table 19.

Table 19: Revenue Generation

Product	Quantity Sold (Units)(A)	Sale Price Per Pack (B)	Total Revenue (PKR) (A*B)
Peanuts			
50 g Pack	147,261	75	11,044,600
100 g Pack	73,631	150	11,044,600
250 g Pack	7,363	375	2,761,078
450g Pack	4,090	675	2,761,078

Total	232,345		27,611,356
Pine Nuts			
50 g Pack	42,075	400	16,829,867
100 g Pack	21,037	800	16,829,867
250 g Pack	2,104	2,000	4,207,083
450g Pack	1,169	3,600	4,207,083
Total	66,385		42,073,900
Chick Peas			
50 g Pack	105,187	34	3,550,050
100 g Pack	52,593	68	3,550,050
250 g Pack	5,259	169	887,513
450g Pack	2,921	304	887,513
Total	165,960		8,875,126
Cashew Nuts			
50 g Pack	42,075	175	7,363,067
100 g Pack	21,037	350	7,363,067
250 g Pack	2,104	875	1,840,599
450g Pack	1,169	1,575	1,840,599
Total	66,385		18,407,415
Almonds			
50 g Pack	84,149	100	8,414,933
100 g Pack	42,075	200	8,414,933
250 g Pack	4,207	500	2,103,542
450g Pack	2,337	900	2,103,542
Total	132,768		21,036,950
Total (PKR)			118,004,705

9.4.3. Variable Cost Estimate

Variable costs of the project have been provided in detail in Table 20.

Table 20: Variable Cost Estimate

Variable Cost	Cost (PKR)
Material Cost (Table 21)	68,187,478

Packing Cost	3,427,543
Electricity Cost	621,826
Total Direct Labor	7,440,000
Machinery Maintenance – Cost	178,000
Travelling expense	500,160
Communications expense (phone, mail, internet, etc.)	437,640
Office vehicles running expense	375,120
Office expenses (stationery, entertainment, janitorial services, etc.)	437,640
Total Variable Cost (PKR)	81,605,407

9.4.4. Raw Material Cost

Table 21 provides detail of total raw material cost including raw material cost of nuts used in the production unit of roasted and salted nuts and seeds.

Table 21: Raw Material Cost

Product	Quantity Sold (Units)(A)	Cost Per Pack (B) (Table 22)	Total Cost (PKR) (A*B)
Peanuts			
50 g Pack	147,261	23	3,457,440
100 g Pack	73,631	45	3,457,440
250 g Pack	7,363	113	864,338
450g Pack	4,090	203	864,338
Total	232,345		8,643,556
Pine Nuts			
50 g Pack	42,075	200	8,780,800
100 g Pack	21,037	400	8,780,800
250 g Pack	2,104	1,000	2,195,000
450g Pack	1,169	1,800	2,195,000
Total	66,385		21,951,600
Chick Peas			
50 g Pack	105,187	15	1,646,400
100 g Pack	52,593	30	1,646,400
250 g Pack	5,259	75	411,600

450g Pack	2,921	135	411,600
Total	165,960		4,116,000
Cashew Nuts			
50 g Pack	42,075	125	5,488,000
100 g Pack	21,037	250	5,488,000
250 g Pack	2,104	625	1,371,875
450g Pack	1,169	1,125	1,371,875
Total	66,385		13,719,813
Almonds			
50 g Pack	84,149	90	7,902,720
100 g Pack	42,075	180	7,902,720
250 g Pack	4,207	450	1,975,500
450 g Pack	2,337	810	1,975,500
Total	132,768		19,756,440
Total Material Cost (PKR)			68,187,478
Total Packing Cost (Table 23)			3,427,543

Table 22: Raw material Cost of Nuts

Particulars	Cost Per Kg (PKR)	Cost Per 50g Pack (PKR)	Cost Per 100g Pack (PKR)	Cost Per 250g Pack (PKR)	Cost Per 450g Pack (PKR)
Peanuts	450	23	45	113	203
Pine Nuts	4,000	200	400	1,000	1,800
Chick Peas	300	15	30	75	135
Cashew Nuts	2,500	125	250	625	1,125
Almonds	1,800	90	180	450	810

Table 23 provides detail of total packing cost.

Table 23: Total Packing Cost

Particulars	Cost (PKR)
Packing Cost (Table 24)	2,857,405

Cost of Cartons for Packaging (Table 25)	570,138
Total Cost	3,427,543

Table 24: Packing Cost

Cost Item	Wrapper Cost/Kg (PKR)	Consumption per Pack (gram)	Cost per Pack (PKR)	Annual Production (No. of Packs)	Total Cost (PKR)
	<i>A</i>	<i>B</i>	$C=(A/1000) * B$	<i>D</i>	$E=D*C$
Packing Cost-50 gram	1,500	2.50	3.75	878,080	3,292,800
Packing Cost-100 gram		3.00	4.50	439,040	1,975,680
Packing Cost-250 gram		4.00	6.00	43,902	263,412
Packing Cost-450 gram		5.00	7.50	24,389	182,918
Total					5,714,810

Table 25: Cost of Cartons for Packaging

Cost Item	Carton's Capacity (No. of packs)	Annual Production (No. of Packs)	No. of cartons	Unit Cost (PKR)	Total Cost (PKR)
	<i>A</i>	<i>B</i>	$C=B/A$	<i>D</i>	$E=C*D$
Packing Cost-50 gram	90	439,040	4,878	60	292,693
Packing Cost-100 gram	60	219,520	3,659	60	219,520
Packing Cost-250 gram	48	21,951	457	60	27,438
Packing Cost-450 gram	24	12,195	508	60	30,488
Total					570,139

9.4.5. Fixed Cost Estimate

Table 26 provides details of fixed cost for the project.

Table 26: Fixed Cost Estimate

Fixed Cost	Cost (PKR)
Staff Salaries	12,504,000
Administration benefits expense	997,200
Building rental expense	2,248,560
Distribution cost	5,310,212
Promotional expense	3,540,141
Insurance expense	35,033
Amortization of Membership Fee	3,200
Depreciation expense	849,629
Amortization of pre-operating costs	133,497
Legal and licensing costs	16,000
Bad debt expense	590,024
Total Cost (PKR)	26,227,495

9.4.6. Human Resource Requirement

For the 1st year of operations, the production unit shall require the workforce at a salary cost as projected in Table 27.

Table 27: Human Resource Requirement

Designation	No of Persons	Average Monthly Salary (PKR)	Total Salary (PKR)
Owner/Manager	1	150,000	1,800,000
Production Manager	1	100,000	1,200,000
Production Supervisor cum Foreman	1	60,000	720,000
HR and Admin Manager	1	60,000	720,000
Assistants HR and Admin	2	80,000	960,000
Procurement Officer	1	50,000	600,000
Procurement Assistant	1	40,000	480,000
Raw Material Store Incharge	1	40,000	480,000
Raw Material Store Keeper	1	30,000	360,000
Finished Goods Store Incharge	1	40,000	480,000

Finished Goods Store Keeper	1	30,000	360,000
Sales and Marketing Manager	1	60,000	720,000
Assistant Sales and Marketing Officer	2	80,000	960,000
Accounts Manager	1	60,000	720,000
Assistant accounts officer	2	80,000	960,000
Quality Controller	1	45,000	540,000
Quality Controller Assistant	1	30,000	360,000
Skilled Workers	6	210,000	2,520,000
Un-Skilled Workers	10	250,000	3,000,000
Driver	1	35,000	420,000
Office Boy	2	44,000	528,000
Security Guard	4	88,000	1,056,000
Total			19,944,000

10. CONTACT DETAILS

Details of suppliers of Machinery and Equipment are provided in Table 28.

Table 28: Suppliers of Nuts and Seeds

Supplier Name	Origin	Contact Number	Website
Hunza Bazaar	Gilgit	05811457510	https://www.hunzabazar.com/
Mountain Dry Fruits	Gilgit	05811459990	https://www.mfc-fairtrade.com/
Bilal Enterprises	Lahore	+1-800-114-649	https://bit.ly/3syLnIL
Ajwa Dry Fruit Spice	Muzaffarabad	0306 8940090	https://bit.ly/310nsXy
Mir Traders	Rawalpindi		https://bit.ly/33QH0yx
Mehtab Enterprises	Quetta	081-2866070	https://www.quettdryfruits.com/
Peanut Kernels	Lahore		https://bit.ly/3Erxxuf
Chaman Dry Fruits	Chaman	03418163300	https://www.chamandryfruits.com/
Chilgoza (Pine Nuts)	Karachi		https://bit.ly/3mxUgPc
Nayab Dry Fruits	Peshawar	0323 9800504	

11. USEFUL LINKS

Table 29: Useful Links

Organization	Link
Small and Medium Enterprises Development Authority (SMEDA)	www.smeda.org.pk
National Business Development Program (NBDP)	www.nbdp.org.pk
Government of Pakistan	www.pakistan.gov.pk
Ministry of Industries and Production	www.moip.gov.pk
Government of Punjab	www.punjab.gov.pk
Trade Development Authority of Pakistan	www.tdap.gov.pk
Securities and Exchange Commission of Pakistan	www.secp.gov.pk
State Bank of Pakistan	www.sbp.gov.pk
Federation of Pakistan Chambers of Commerce and Industry (FPCCI)	www.fpcci.com.pk
Punjab Small Industries Corporation	www.psic.gop.pk
Sindh Small Industries Corporation	www.ssic.gos.pk/
Khyber Pakhtunkhwa Small Industries Corporation	www.small_industries_de.kp.gov.pk/
Azad Kashmir Small Industries Corporation	www.sic.ajk.gov.pk/
Industries and Commerce Department Balochistan	www.dgicd.gob.pk/
Sindh Food Authority	https://sfa.gos.pk/
Punjab Food Authority	https://www.pfa.gop.pk/
Balochistan Food Authority	https://balochistan.gov.pk/departments/food-department/
Khyber Pakhtunkhwa Food Authority	https://kpfsa.gov.pk/
All Pakistan Dry Fruit Importers & Exporters Association (APDIEA)	http://www.apdiea.org.pk/

12. ANNEXURES

12.1. Income Statement

Calculations	SMEDA									
Income Statement										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Peanuts	27,611,141	34,751,061	41,739,769	49,783,376	59,023,448	69,619,361	81,750,454	95,618,433	111,450,057	122,953,979
Pine Nuts	42,074,092	52,953,964	63,603,416	75,860,333	89,940,434	106,086,576	124,572,039	145,704,183	169,828,548	187,358,322
Chick Peas	8,875,012	11,169,987	13,416,358	16,001,804	18,971,827	22,377,658	26,276,938	30,734,504	35,823,242	39,520,932
Cashew Nuts	18,407,415	23,167,359	27,826,494	33,188,896	39,348,940	46,412,877	54,500,267	63,745,580	74,299,990	81,969,266
Almonds	21,037,046	26,476,982	31,801,708	37,930,166	44,970,217	53,043,288	62,286,019	72,852,092	84,914,274	93,679,161
Revenue	118,004,705	148,519,354	178,387,744	212,764,575	252,254,865	297,539,759	349,385,717	408,654,792	476,316,111	525,481,659
<i>Cost of sales</i>										
Peanuts	8,643,488	10,464,958	12,565,561	14,983,035	17,759,891	20,943,986	24,589,170	28,756,010	33,512,593	36,886,194
Pine Nuts	21,951,700	26,577,655	31,912,515	38,052,128	45,104,456	53,191,041	62,448,646	73,031,090	85,111,291	93,679,161
Chick Peas	4,115,948	4,983,315	5,983,602	7,134,781	8,457,093	9,973,329	11,709,132	13,693,342	15,958,382	17,564,859
Cashew Nuts	13,719,813	16,611,034	19,945,322	23,782,580	28,190,285	33,244,401	39,030,404	45,644,431	53,194,557	58,549,476
Almonds	19,756,530	23,919,889	28,721,264	34,246,916	40,594,011	47,871,937	56,203,781	65,727,981	76,600,162	84,311,245
Total Material Cost	68,187,478	82,556,852	99,128,264	118,199,440	140,105,736	165,224,693	193,981,133	226,852,853	264,376,984	290,990,933
Packing Cost	3,427,543	3,770,297	4,113,052	4,455,806	4,798,560	5,141,315	5,484,069	5,826,823	6,169,578	6,169,578
Electricity Cost	270,932	295,415	322,111	351,219	382,957	417,564	455,298	496,441	541,303	590,219
Total Direct Labor	7,440,000	8,161,680	8,953,363	9,821,839	10,774,558	11,819,690	12,966,200	14,223,921	15,603,641	17,117,194
Machinery Maintenance - Cost	178,000	195,919	215,641	237,349	261,242	287,541	316,486	348,346	383,413	422,010
Total cost of sales	79,503,952	94,980,163	112,732,430	133,065,653	156,323,054	182,890,802	213,203,186	247,748,384	287,074,918	315,289,934
Gross Profit	38,500,753	53,539,191	65,655,314	79,698,921	95,931,812	114,648,957	136,182,531	160,906,408	189,241,193	210,191,725
<i>General administration & selling expenses</i>										
Management Staff	12,504,000	13,716,888	15,047,426	16,507,026	18,108,208	19,864,704	21,791,581	23,905,364	26,224,184	28,767,930
Administration benefits expense	997,200	1,093,928	1,200,039	1,316,443	1,444,138	1,584,220	1,737,889	1,906,464	2,091,391	2,294,256
Building rental expense	2,248,560	2,473,416	2,720,758	2,992,833	3,292,117	3,621,328	3,983,461	4,381,807	4,819,988	5,301,987
Distribution cost	5,310,212	7,356,164	9,724,990	12,766,718	16,660,012	21,629,008	27,954,553	35,988,174	46,169,407	56,062,493
Electricity Cost	350,894	382,603	417,178	454,877	495,983	540,803	589,674	642,960	701,063	764,415
Travelling expense	500,160	548,676	601,897	660,281	724,328	794,588	871,663	956,215	1,048,967	1,150,717
Communications expense (phone, mail, internet, etc.)	437,640	480,091	526,660	577,746	633,787	695,265	762,705	836,688	917,846	1,006,878
Office vehicles running expense	375,120	412,882	454,446	500,193	550,546	605,967	666,968	734,110	808,010	889,350
Office expenses (stationery, entertainment, janitorial services, etc.)	437,640	480,091	526,660	577,746	633,787	695,265	762,705	836,688	917,846	1,006,878
Promotional expense	3,540,141	4,455,581	5,351,632	6,382,937	7,567,646	8,926,193	10,481,572	12,259,644	14,289,483	15,764,450
Insurance expense	35,033	29,778	24,523	19,268	14,013	8,758	3,503	63,308	53,812	44,316
Depreciation expense	849,629	849,629	849,629	849,629	849,629	849,629	606,664	1,483,836	1,483,836	1,483,836
Amortization of pre-operating costs	133,497	133,497	133,497	133,497	133,497	-	-	-	-	-
Legal and licensing costs	16,000	17,611	19,383	21,335	23,482	25,846	28,448	31,312	34,464	37,933
Bad debt expense	590,024	742,597	891,939	1,063,823	1,261,274	1,487,699	1,746,929	2,043,274	2,381,581	2,627,408
Subtotal	28,328,949	33,176,630	38,493,856	44,827,553	52,395,648	61,334,325	71,993,367	86,074,896	101,946,932	117,207,899
Operating Income	10,171,804	20,362,560	27,161,457	34,871,369	43,536,164	53,314,632	65,188,989	74,831,512	87,294,260	92,983,826
Gain / (loss) on sale of machinery & equipment	-	-	-	-	-	-	445,000	-	-	-
Gain / (loss) on sale of office equipment	-	-	-	-	-	-	471,500	-	-	-
Gain / (loss) on sale of office vehicles	-	-	-	-	-	-	83,325	-	-	-
Earnings Before Interest & Taxes	10,171,804	20,362,560	27,161,457	34,871,369	43,536,164	53,314,632	65,188,989	74,831,512	87,294,260	92,983,826
Subtotal	-	-	-	-	-	-	-	-	-	-
Earnings Before Tax	10,171,804	20,362,560	27,161,457	34,871,369	43,536,164	53,314,632	65,188,989	74,831,512	87,294,260	92,983,826
Tax	2,680,131	6,246,895	8,626,509	11,324,978	14,357,657	17,780,121	21,936,146	25,311,028	29,672,990	31,664,338
NET PROFIT/(LOSS) AFTER TAX	7,491,673	14,115,665	18,534,948	23,546,390	29,178,507	35,534,512	43,252,844	49,520,483	57,621,270	61,319,487

12.2. Balance Sheet

Calculations											SMEDA
Balance Sheet											
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Assets											
<i>Current assets</i>											
Cash & Bank	1,000,000	1,111,364	2,197,278	3,678,918	5,045,295	6,151,459	6,804,886	36,682,413	79,098,032	129,269,118	228,199,758
Accounts receivable	-	10,536,134	13,260,657	15,927,477	18,996,837	22,522,756	26,566,050	31,195,153	36,487,035	42,528,224	34,308,143
Finished goods inventory	-	3,312,665	3,957,507	4,697,185	5,544,402	6,513,461	7,620,450	8,883,466	10,322,849	11,961,455	13,137,081
Equipment spare part inventory	14,833	17,888	21,573	26,016	31,374	37,836	45,629	55,027	66,361	80,029	-
Raw material inventory	2,841,145	3,786,149	5,003,776	6,567,070	8,567,773	11,120,973	14,370,872	18,497,954	23,727,879	28,745,545	-
Pre-paid building rent	187,380	206,118	226,730	249,403	274,343	301,777	331,955	365,151	401,666	441,832	-
Total Current Assets	4,078,391	19,000,096	24,692,043	31,165,336	38,474,037	46,657,021	55,743,346	95,742,473	150,157,634	213,070,519	275,644,981
<i>Fixed assets</i>											
Land	-	-	-	-	-	-	-	-	-	-	-
Building/Infrastructure	1,207,335	1,086,602	965,868	845,135	724,401	603,668	482,934	362,201	241,467	120,734	-
Machinery & equipment	1,780,000	1,513,000	1,246,000	979,000	712,000	445,000	178,000	3,374,187	2,868,059	2,361,931	1,855,803
Furniture & fixtures	860,000	731,000	602,000	473,000	344,000	215,000	86,000	1,630,225	1,385,691	1,141,158	896,624
Office vehicles	333,300	283,305	233,310	183,315	133,320	83,325	33,330	507,817	431,644	355,472	279,299
Office equipment	1,886,000	1,603,100	1,320,200	1,037,300	754,400	471,500	188,600	3,575,122	3,038,853	2,502,585	1,966,317
Security against building	562,140	562,140	562,140	562,140	562,140	562,140	562,140	562,140	562,140	562,140	562,140
Total Fixed Assets	6,628,775	5,779,147	4,929,518	4,079,890	3,230,261	2,380,633	1,531,004	10,011,691	8,527,855	7,044,019	5,560,183
<i>Intangible assets</i>											
Pre-operation costs	667,486	533,988	400,491	266,994	133,497	-	-	-	-	-	-
Total Intangible Assets	667,486	533,988	400,491	266,994	133,497	-	-	-	-	-	-
TOTAL ASSETS	11,390,651	25,326,031	30,031,652	35,518,620	41,840,995	49,062,918	57,294,562	105,769,322	158,695,595	220,119,591	281,245,058
Liabilities & Shareholders' Equity											
<i>Current liabilities</i>											
Accounts payable	-	6,443,707	7,837,332	9,458,660	11,342,494	13,529,088	16,065,066	19,004,518	22,410,307	26,213,033	26,019,013
Short term debt	-	-	-	-	-	-	-	-	-	-	-
Total Current Liabilities	-	6,443,707	7,837,332	9,458,660	11,342,494	13,529,088	16,065,066	19,004,518	22,410,307	26,213,033	26,019,013
<i>Other liabilities</i>											
Total Long Term Liabilities	-	-	-	-	-	-	-	-	-	-	-
<i>Shareholders' equity</i>											
Paid-up capital	11,390,651	11,390,651	11,390,651	11,390,651	11,390,651	11,390,651	11,390,651	13,673,116	13,673,116	13,673,116	13,673,116
Retained earnings	-	7,491,673	10,803,669	14,669,309	19,107,849	24,143,178	29,838,845	73,091,689	122,612,172	180,233,442	241,552,929
Total Equity	11,390,651	18,882,324	22,194,320	26,059,960	30,498,501	35,533,829	41,229,496	86,764,804	136,285,288	193,906,558	255,226,045
TOTAL CAPITAL AND LIABILITIES	11,390,651	25,326,031	30,031,652	35,518,620	41,840,995	49,062,918	57,294,562	105,769,322	158,695,595	220,119,591	281,245,058

12.3. Cash Flow Statement

Calculations											SMEDA
Cash Flow Statement											
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
<i>Operating activities</i>											
Net profit		7,491,673	14,115,665	18,534,948	23,546,390	29,178,507	35,534,512	43,252,844	49,520,483	57,621,270	61,319,487
Add: depreciation expense		849,629	849,629	849,629	849,629	849,629	849,629	606,664	1,483,836	1,483,836	1,483,836
amortization of pre-operating costs		133,497	133,497	133,497	133,497	133,497	-	-	-	-	-
Equipment inventory	(14,833)	(3,055)	(3,684)	(4,443)	(5,358)	(6,462)	(7,793)	(9,398)	(11,334)	(13,668)	80,029
Consumables Inventory	(2,841,145)	(945,004)	(1,217,627)	(1,563,293)	(2,000,703)	(2,553,200)	(3,249,900)	(4,127,082)	(5,229,924)	(5,017,666)	28,745,545
Pre-paid building rent	(187,380)	(18,738)	(20,612)	(22,673)	(24,940)	(27,434)	(30,178)	(33,196)	(36,515)	(40,167)	441,832
Accounts payable		6,443,707	1,393,625	1,621,328	1,883,834	2,186,594	2,535,977	2,939,452	3,405,789	3,802,726	(194,020)
Cash provided by operations	(3,078,391)	111,364	11,889,583	16,150,948	20,474,226	25,274,608	30,492,271	36,682,413	42,415,619	50,171,086	98,970,534
<i>Financing activities</i>											
Issuance of shares	11,390,651	-	-	-	-	-	-	2,282,465	-	-	-
Purchase of (treasury) shares											
Cash provided by / (used for) financing activities	11,390,651	-	-	-	-	-	-	2,282,465	-	-	-
<i>Investing activities</i>											
Capital expenditure	(7,312,261)	-	-	-	-	(25,265)	-	(9,087,351)	-	-	(39,894)
Cash (used for) / provided by investing activities	(7,312,261)	-	-	-	-	(25,265)	-	(9,087,351)	-	-	(39,894)
NET CASH	1,000,000	111,364	11,889,583	16,150,948	20,474,226	25,249,343	30,492,271	29,877,527	42,415,619	50,171,086	98,930,640

13. KEY ASSUMPTIONS

13.1. Operating Cost Assumptions

Table 30: Operating Cost Assumptions

Description	Details
Building rent growth rate	10%
Furniture and fixture depreciation	15%
Vehicle depreciation	15%
Office equipment depreciation	15%
Inflation rate	10.07%
Wage growth rate	9.70%
Electricity price growth rate	9.04%
Office equipment price growth rate	9.57%
Office vehicle price growth rate	6.20%

13.2. Revenue Assumptions

Table 31: Revenue Assumptions

Description	Details
Sale price growth rate	10.07%
Initial capacity utilization	50%
Capacity growth rate	5%
Maximum capacity utilization	90%

13.3. Financial Assumptions

Table 32: Financial Assumptions

Description	Details
Project life (Years)	10
Debt: Equity	0:100
Discount Rate used for NPV	15%

13.4. Debt related Assumptions

Table 33: Debt Related Assumptions

Description	Details
Project life (Years)	10

Debt: Equity	50:50
Discount Rate used for NPV	13%
Debt Tenure	5 years
Grace Period	1 Year

13.5. Cash Flow Assumptions

Table 34: Cash Flow Assumptions

Description	Details
Account Receivable Days	25
Account Payable Days	25

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