
Pre-Feasibility Study

PAPER CUP MANUFACTURING UNIT



Small and Medium Enterprises Development Authority

Ministry of Industries & Production

Government of Pakistan

www.smeda.org.pk

HEAD OFFICE

4th Floor, Building No. 3, Aiwan-e-Iqbal Complex, Egerton Road,
Lahore

Tel (92 42) 111 111 456, Fax: (92 42) 36304926-7

helpdesk@smeda.org.pk

REGIONAL OFFICE PUNJAB	REGIONAL OFFICE SINDH	REGIONAL OFFICE KHYBER PAKTUNKHWA	REGIONAL OFFICE BALOCHISTAN
3 rd Floor, Building No. 3, Aiwan-e-Iqbal Complex, Egerton Road, Lahore. Tel: (042) 111 111 456, Fax: (042) 36304926-7 helpdesk.punjab@smeda.org.pk	5 th Floor, Bahria Complex II, M.T. Khan Road, Karachi. Tel: (021) 111-111-456 Fax: (021) 35610572 helpdesk-khi@smeda.org.pk	Ground Floor State Life Building The Mall, Peshawar. Tel: (091)111 111 456, 9213046-7 Fax: (091) 5286908 helpdesk-pew@smeda.org.pk	Bungalow No. 15-A Chamn Housing Scheme Airport Road, Quetta. Tel: (081) 2831623, 2831702 Fax: (081) 2831922 helpdesk-qta@smeda.org.pk

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1 DISCLAIMER

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For Information	Provincial Chief (Punjab) ianjua@smeda.org.pk

2 EXECUTIVE SUMMARY

Paper cups are disposable made from food graded paper and are lined with plastic or wax on internal surface to avoid leakage. Their demand have been on the rise in past several years to minimize the exposure of food borne infections. They can be used to serve both hot and cold liquids. Paper cups are easy to manufacture and do not pose environmental threat as plastic cups do.

This particular pre-feasibility study is for setting up a paper cup manufacturing unit for both cold and hot drinks. The focus of the business would be to provide quality paper cups of different sizes and designs as per customer requirement. All these products are proposed to be sold to wholesalers, food chains, industrial canteens and catering companies etc. in major cities of Pakistan.

The proposed unit has capacity to produce 28.51 million paper cups (10,800 cups / hour) of different sizes in a year based on 330 working days with 08 hours operational per day. However, starting operational capacity is assumed at 70% (i.e. 19.96 million cups). Out of the total production, 50% cups will be produced for cold drinks and remaining 50% will be for hot drinks. This production capacity is estimated to be economically viable and justifies the capital as well as operational cost of the project. However, entrepreneur's knowledge of industry, competitive pricing and strong linkage with suppliers and wholesalers network are key factors for the success of this business.

The estimated total cost of the proposed 'Paper Cup Manufacturing Unit' is estimated at Rs. 21.21 million out of which Rs. 18.99 million is the capital cost and Rs. 2.22 million is for working capital. The project is to be financed through 50% debt and 50% equity. The project NPV is around Rs. 33.83 million, with an IRR of 37% and Payback Period of 3.77 years. The project will provide employment opportunities to 19 individuals including owner / manager. The legal business status of this project is proposed as 'Sole Proprietorship'.

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 'sectorial research' to identify policy, access to finance, business development services, strategic initiatives and institutional collaboration and networking initiatives.

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

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

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, production, marketing, finance, and business management.

The purpose of this document is to facilitate potential investors in **Paper Cup Manufacturing Unit** business by providing them with a general understanding of the business with the intention of supporting potential investors in crucial 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 set-up and its successful management.

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

5 BRIEF DESCRIPTION OF PROJECT & PRODUCT

A paper cup is a disposable made out of paper and lined with wax or plastic to prevent liquid from leaking. The cups are to be made from food graded material and are to be manufactured for both cold and hot liquids. This particular pre-feasibility study based on semi-automatic machine that can produce 5 different sizes of cups as per the requirement. According to proposed business model unit will operate on order manufacturing basis, mainly targeting fast food chains, caterers, cafes, restaurants, etc. The unit will be able to produce different sizes of cups (e.g. 4 oz., 6 oz., 8 oz., 9 oz., and 12oz.) both for cold and hot drinks. It is assumed that 50% of production will be for cold liquids and same will be for hot liquids. However, the production of cup sizes and usage will mainly depend on customer requirements

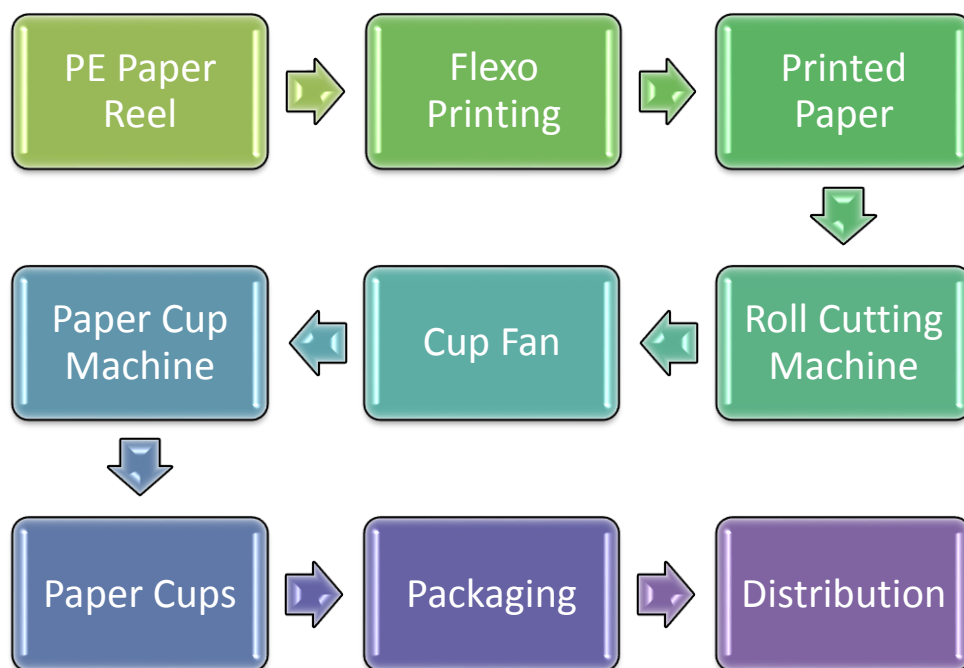
The proposed unit will procure PE paper from the market to produce the cups. About 5% of the total production is considered as wastage and is common in the paper cup

manufacturing process. The unit will have an in-house designing and printing facility for designing and printing of paper cups as per customer needs.

5.1 Production Process Flow

The production process flow of paper cup manufacturing unit starts with the purchasing of PE paper from the market. The paper is then printed according to the designs provided by the clients. After printing, the paper is being cut in different sizes to make cup fans and bottoms according to the details provided by customer. Cup fans and bottoms are then fed into paper cup machine for the finished product i.e. paper cup. At the end paper cups are packed and dispatched to the client.

Figure 1: Production Process Flow



5.2 Proposed Product Mix

The product mix would include paper cups of different volumes. Detailed production mix is given in the table below:

Table 1: Product Mix

Size of Cups	Production Percentage
4 oz.	25%
6 oz.	25%
8 oz.	20%
9 oz.	10%
12 oz.	20%
Total	100 %

5.3 Installed & Operational Capacity

The installed and operational capacities of the paper cup manufacturing unit mainly depends upon the installed machinery.

The pre-feasibility study is based on 02 paper cup making machines that can produce 28,512,000 cups (5,400 cups / hour / machine) per annum on 08 hours single shift basis while maximum capacity utilization of the unit is assumed at 95%. However, during 1st year operation unit will operate at 70% capacity and will manufacture 19,958,400 cups. 50% of the total production will be of hot drink cups whereas remaining 50% will be of cold drink cups.

The details of operational and installed capacity according to product mix are provided in the table below:

Table 2: Installed and Operational Capacities

Product Mix	Installed Capacity	Operational Capacity in year 1 @ 70%
4oz Cups	7,128,000	4,989,600
6oz Cups	7,128,000	4,989,600
8oz Cups	5,702,400	3,991,680
9oz Cups	2,851,200	1,995,840
12oz Cups	5,702,400	3,991,680
Total	28,512,000	19,958,400

6 CRITICAL FACTORS

Following points should also be ensured to make the business successful:

- ⇒ Prior knowledge and information about the disposable food packaging industry especially paper cups.
- ⇒ Adherence to the utilization of food graded quality raw material.
- ⇒ Awareness regarding prevailing quality standards of the paper packaging for food industry.
- ⇒ Develop strong linkages with raw material suppliers for sourcing quality material on time at economical prices.
- ⇒ Time management is very important in completing orders. Delay in delivery can cost as high as losing a customer.
- ⇒ Continuous flow of orders through aggressive marketing and establishing good working relations for repeat orders.
- ⇒ Efficient management of stock to keep inventory cost at the minimum.

⇒ Induction of trained human resource for the handling of business operations especially in operations and sales.

⇒ Stringent supervision of the production process at every level.

7 POTENTIAL TARGET CUSTOMERS / MARKETS

The potential target customers of the proposed paper cup manufacturing facility will be restaurants, large organizations, fast food chains, cafes, wholesale dealers of paper products, super markets, caterers, canteens situated in both factories as well as in educational institutes and other related businesses.

8 GEOGRAPHICAL POTENTIAL FOR INVESTMENT

Due to existence of the potential target customers of paper cups in metropolitan cities, it is recommended that the proposed venture is to be established in these cities. Therefore cities like Lahore, Islamabad, Karachi, Rawalpindi, Peshawar, Quetta etc. are the most suitable locations for erecting the proposed paper cup manufacturing unit.

9 PROJECT COST SUMMARY

A detailed financial model has been developed to analyse the commercial viability of the proposed Paper Cup Manufacturing Unit. Various costs and revenue related assumptions along with results of the analysis are outlined in this section.

The projected Income Statement, Cash Flow Statement and Balance Sheet are also attached as annexure.

9.1 Project Economics

All the figures in this financial model have been calculated for estimated sales of Rs. 34.47 million in the year one. The capacity utilization during year one is worked out at 70% with 5% increase in subsequent years up to the maximum capacity utilization of 95%.

The following table shows Internal Rate of Return, Payback Period and Net Present Value:

Table 3: Project Economics

Description	Detail
IRR	37%
NPV	Rs. 33,834,377
Payback	3.77 Years

9.2 Project Financing

Following table provides the details of required equity and variables related to bank loan:

Table 4: Project Financing

Description	Detail
Total Debt	Rs. 10,602,987
Total Equity	Rs. 10,602,987
Interest Rate	12%
Debt Tenure (Years)	5

9.3 Project Cost

Following fixed and working capital requirements have been identified for operations of the proposed business:

Table 5: Project Cost

Description	Amount (Rs.)
Capital Investment	
Machinery & Equipment	15,402,820
Furniture & Fixtures	1,830,000
Office Vehicles	700,000
Office Equipment	365,000
Pre Operating Cost	692,947
Total Capital Costs	18,990,767
Working Capital	
Equipment Spare Part Inventory	8,385
Raw Material Inventory	806,822
Pre-paid Building Rent	500,000
Cash	900,000
Total Working Capital	2,215,207
Total Investment	21,205,974

9.4 Space Requirement

In order to reduce the initial capital expenditure, the proposed Paper Cup Manufacturing Unit will be established on a rental premises. Therefore, space may be acquired in the industrial state or in the outskirts of big cities. The rent of the building will depend on the area and geographical location of the unit. An estimated area of 6,000 sq. ft. will be required for the proposed venture.

The area requirement has been calculated on the basis of space requirement for production, management and storage. However, the units operating in the industry do not follow any set pattern. Following table shows calculations for project space requirement:

Table 6: Space Requirement

Description	Area Required sq. ft.
Management building	500
Production Hall	4,500
Storage facility	1,000
Total Area Required	6,000

For this particular pre-feasibility the rent amount has been determined at Rs. 150,000 per month.

9.5 Machinery and Equipment Requirement

Following table provides list of plant and machinery required for Paper Cup Manufacturing Unit:

Table 7: Machinery and Equipment Requirement

Description	Quantity	Cost per Unit (Rs.)	Amount (Rs.)
Flexo Printing Machine	1	4,012,000	4,012,000
Die Cutting Machine	1	3,776,000	3,776,000
Paper Cup Making Machine	2	1,888,000	3,776,000
Custom Dusty, Sale Tax, Clearance Charges			2,948,820
Generator (30 KVA)	1	850,000	850,000
Industrial Fans	4	10,000	40,000
Total Machinery and Equipment			15,402,820

9.6 Furniture and Fixture Requirement

The details of required furniture and fixture for the proposed Paper Cup Manufacturing unit are provided in the following table:

Table 8: Furniture and Fixture Requirement

Description	Quantity/ Area	Cost per Unit (Rs.)	Amount (Rs.)
Furniture Set	1	500,000	500,000
Electric wiring & lighting	1	300,000	300,000
Air conditioners (1.5 ton)	2	65,000	130,000
Renovation	6,000	150	900,000
Total Furniture and Fixtures			1,830,000

9.7 Office Equipment Requirement

Following office equipment will be required for the proposed venture:

Table 9: Office Equipment Requirement

Description	Quantity	Cost per Unit (Rs.)	Amount (Rs.)
Laptop	1	100,000	100,000
Computer Desktop	3	60,000	180,000
Computer Printer	2	20,000	40,000
Telephone Sets	5	2,000	10,000
Fax Machines	1	15,000	15,000
Scanner	1	20,000	20,000
Total Office Equipment			365,000

9.8 Raw Material Requirement

Main raw material required for manufacturing of paper cup is polyethylene coated paper. Following are the details of raw material required for paper cups:

Table 10: Raw Material Requirement

Description	Cost (Rs./Ton)
Single PE Coated Paper Roll for Bottom and Fan (For Hot Drinks)	135,700
Double PE Coated Paper Roll for Bottom and Fan (For Cold Drinks)	153,400

9.9 Human Resource Requirement

In order to run operations of Paper Cup Manufacturing Unit smoothly, details of human resources required along with number of employees and monthly salary are recommended as under:

Table 11: Human Resource Requirement

Description	No. of Employees	Salary per Employee per Month (Rs.)
Owner / Manager	1	70,000
Production In-charge	1	50,000
Accountant	1	35,000
Marketing Executive	1	30,000
Machine Operator	4	25,000
Helper	6	15,000
Driver	1	18,000
Guard	2	18,000
Office Boys	2	15,000
Total	19	

It is assumed that the owner would have prior experience or knowledge about the Paper Cup Manufacturing Business. Salaries of all employees are estimated to increase at 10% annually.

9.10 Other Costs

An essential cost to be borne by the business is the cost of electricity; the annual electricity expenses is estimated as Rs. 1.38 million. This project also requires marketing and promotional activities; for which approximately Rs. 345,000 will be spent on marketing and promotion expenses in year 1. Similarly, during 1st year of operation communication and office expenses are estimated at Rs. 525,600 and Rs. 262,800 respectively. The cost of maintenance of machinery is assumed as Rs. 201,250 per annum.

9.11 Revenue Generation

Following tables provide assumption for revenues generation assumptions of the proposed Paper Cup Manufacturing Unit during first year of operation:

Table 12: Revenue Generation in First Year*

Description	Product Mix					Total
	4oz Cups	6oz Cups	8oz Cups	9oz Cups	12oz Cups	
Hot Drink (No. of Cups)	2,271,308	2,271,308	1,817,046	908,523	1,817,046	9,085,231
Hot Drink Cups Sale Price (Rs. / cup)	0.999	1.317	1.954	2.071	3.020	
Revenue from Hot Drink Cups (Rs.)	2,269,652	2,992,310	3,550,095	1,881,685	5,487,479	16,181,221
Cold Drink (No. of Cups)	2,271,308	2,271,308	1,817,046	908,523	1,817,046	9,085,231
Cold Drink Cups Sale Price (Rs. / cup)	1.130	1.489	2.209	2.341	3.414	
Revenue from Cold Drink Cups (Rs.)	2,565,693	3,382,611	4,013,151	2,127,122	6,203,708	18,292,286
Revenue (Rs.)**	4,835,345	6,374,921	7,563,247	4,008,808	11,691,187	34,473,507

* 5% wastage and 15 days finished goods inventory is considered while calculating the no. of cups sold during year 1.

** Difference is due to rounding off.

10 CONTACT DETAILS

In order to facilitate potential investors, contact details of private sector Service Providers relevant to the proposed project are given in table below:

10.1 Machinery Suppliers

Name of Supplier	Address	Phone	E-mail / Website
Wenzhou Qichen Industry & Trade Co. Limited	Ruian City, China	0086-15355919299	damond@wz-qc.com

11 USEFUL LINKS

Small & Medium Enterprises Development Authority (SMEDA)	www.smeda.org.pk
Government of Pakistan	www.pakistan.gov.pk
Ministry of Industries & Production	www.moip.gov.pk
Ministry of Education, Training & Standards in Higher Education	http://moptt.gov.pk
Government of Punjab	www.punjab.gov.pk
Government of Sindh	www.sindh.gov.pk
Government of Khyber Pakhtunkhwa	www.khyberpakhtunkhwa.gov.pk
Government of Baluchistan	www.balochistan.gov.pk
Government of Gilgit Baltistan	www.gilgitbaltistan.gov.pk
Government of Azad Jamu Kashmir	www.ajk.gov.pk
Trade Development Authority of Pakistan (TDAP)	www.tdap.gov.pk
Security & Exchange Commission of Pakistan (SECP)	www.secp.gov.pk
Federation of Pakistan Chambers of Commerce and Industry (FPCCI)	www.fpcci.com.pk
State Bank of Pakistan (SBP)	www.sbp.org.pk
Punjab Small Industries Corporation	www.psic.gop.pk
Sindh Small Industries Corporation	www.ssic.gos.pk
Punjab Vocational Training Council (PVTC)	www.pvtc.gop.pk
Technical Education and Vocational Training Authority (TEVTA)	www.tevta.org
Punjab Industrial Estates (PIE)	www.pie.com.pk
Pakistan Association of Printing and Graphic Arts Industry (PAPGAI)	www.papgai.org

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
Revenue	34,473,922	42,278,732	49,615,682	57,997,234	67,558,940	78,453,015	86,487,984	95,136,782	104,650,460	115,115,506
<i>Cost of sales</i>										
Raw Material Cost	16,494,699	19,309,556	21,630,467	24,135,196	26,836,322	29,747,223	31,303,231	32,868,393	34,511,812	36,237,403
Printing, Packing, and other Cost	2,869,020	3,358,625	3,762,314	4,197,977	4,667,799	5,174,109	5,444,755	5,716,993	6,002,842	6,302,984
Operation costs 1 (direct labor)	2,760,000	3,159,200	3,475,725	3,823,885	4,206,847	4,628,097	5,102,096	5,612,305	6,173,536	6,790,889
Operating costs 2 (machinery maintenance)	201,250	235,594	263,911	294,471	327,427	362,943	381,927	401,024	421,075	442,129
Operating costs 3 (direct electricity)	1,019,653	1,250,500	1,467,509	1,715,415	1,998,226	2,320,446	2,558,100	2,813,910	3,095,302	3,404,832
Total cost of sales	23,344,623	27,313,474	30,599,927	34,166,943	38,036,622	42,232,818	44,790,110	47,412,625	50,204,567	53,178,237
Gross Profit	11,129,299	14,965,258	19,015,755	23,830,291	29,522,318	36,220,198	41,697,874	47,724,157	54,445,893	61,937,269
<i>General administration & selling expenses</i>										
Administration expense	2,628,000	2,890,800	3,179,880	3,497,868	3,847,655	4,232,420	4,655,662	5,121,229	5,633,351	6,196,687
Administration benefits expense	262,800	289,080	317,988	349,787	384,765	423,242	465,566	512,123	563,335	619,669
Building rental expense	1,800,000	1,980,000	2,178,000	2,395,800	2,635,380	2,898,918	3,188,810	3,507,691	3,858,460	4,244,306
Electricity expense	360,000	396,000	435,600	479,160	527,076	579,784	637,762	701,538	771,692	848,861
Water expense	240,000	264,000	290,400	319,440	351,384	386,522	425,175	467,692	514,461	565,907
Gas expense										
Travelling expense	394,200	433,620	476,982	524,680	577,148	634,863	698,349	768,184	845,003	929,503
Communications expense (phone, fax, mail, internet, etc.)	525,600	578,160	635,976	699,574	769,531	846,484	931,132	1,024,246	1,126,670	1,239,337
Office vehicles running expense	350,000	385,000	423,500	465,850	512,435	563,679	620,046	682,051	750,256	825,282
Office expenses (stationary, entertainment, janitorial services, etc.)	262,800	289,080	317,988	349,787	384,765	423,242	465,566	512,123	563,335	619,669
Promotional expense	344,739	422,787	496,157	579,972	675,589	784,530	864,880	951,368	1,046,505	1,151,155
Insurance expense	-	-	-	-	-	-	-	-	-	-
Professional fees (legal, audit, consultants, etc.)	172,370	211,394	248,078	289,986	337,795	392,265	432,440	475,684	523,252	575,578
Depreciation expense	1,899,782	1,899,782	1,899,782	1,899,782	1,899,782	1,985,253	1,985,253	1,985,253	1,985,253	1,985,253
Amortization of pre-operating costs	138,589	138,589	138,589	138,589	138,589	-	-	-	-	-
Bad debt expense	517,109	634,181	744,235	869,959	1,013,384	1,176,795	1,297,320	1,427,052	1,569,757	1,726,733
Subtotal	9,895,989	10,812,473	11,783,156	12,860,234	14,055,280	15,327,998	16,667,962	18,136,233	19,751,331	21,527,939
Operating Income	1,233,310	4,152,784	7,232,599	10,970,057	15,467,039	20,892,200	25,029,912	29,587,924	34,694,562	40,409,330
Gain / (loss) on sale of office vehicles	-	-	-	-	280,000	-	-	-	-	-
Earnings Before Interest & Taxes	1,233,310	4,152,784	7,232,599	10,970,057	15,747,039	20,892,200	25,029,912	29,587,924	34,694,562	40,409,330
Interest on short term debt	71,867	71,867	-	-	-	-	-	-	-	-
Interest expense on long term debt (Project Loan)	1,139,446	960,086	759,203	534,214	282,226	-	-	-	-	-
Interest expense on long term debt (Working Capital Loan)	73,307	-	-	-	-	-	-	-	-	-
Subtotal	1,284,620	1,031,953	759,203	534,214	282,226	-	-	-	-	-
Earnings Before Tax	(51,310)	3,120,831	6,473,396	10,435,843	15,464,812	20,892,200	25,029,912	29,587,924	34,694,562	40,409,330
Tax	-	502,708	1,488,188	2,875,044	4,635,184	6,534,769	7,982,968	9,578,273	11,365,596	13,365,765
NET PROFIT/(LOSS) AFTER TAX	(51,310)	2,618,124	4,985,208	7,560,799	10,829,629	14,357,431	17,046,943	20,009,651	23,328,966	27,043,565

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	500,000	-	1,575,897	6,208,098	13,147,695	21,895,405	37,600,880	55,938,653	77,243,642	101,798,551	135,133,304
Accounts receivable		1,416,737	1,577,109	1,888,241	2,211,224	2,579,921	3,000,246	3,389,199	3,732,016	4,105,217	4,515,739
Finished goods inventory		1,014,984	1,141,232	1,278,326	1,427,120	1,588,536	1,763,568	1,866,255	1,975,526	2,091,857	2,215,760
Equipment spare part inventory	8,385	10,307	12,123	14,204	16,583	19,301	21,326	23,512	25,922	28,579	-
Raw material inventory	806,822	991,733	1,166,481	1,366,633	1,595,561	1,857,061	2,051,909	2,262,230	2,494,108	2,749,754	-
Pre-paid building rent	900,000	990,000	1,089,000	1,197,900	1,317,690	1,449,459	1,594,405	1,753,845	1,929,230	2,122,153	-
Total Current Assets	2,215,207	4,423,760	6,561,842	11,953,402	19,715,874	29,389,683	46,032,334	65,233,693	87,400,443	112,896,111	141,864,803
<i>Fixed assets</i>											
Machinery & equipment	15,402,820	13,862,538	12,322,256	10,781,974	9,241,692	7,701,410	6,161,128	4,620,846	3,080,564	1,540,282	-
Furniture & fixtures	1,830,000	1,647,000	1,464,000	1,281,000	1,098,000	915,000	732,000	549,000	366,000	183,000	-
Office vehicles	700,000	560,000	420,000	280,000	140,000	1,127,357	901,886	676,414	450,943	225,471	-
Office equipment	365,000	328,500	292,000	255,500	219,000	182,500	146,000	109,500	73,000	36,500	-
Total Fixed Assets	18,297,820	16,398,038	14,498,256	12,598,474	10,698,692	9,926,267	7,941,014	5,955,760	3,970,507	1,985,253	-
<i>Intangible assets</i>											
Pre-operation costs	692,947	554,358	415,768	277,179	138,589	-	-	-	-	-	-
Total Intangible Assets	692,947	554,358	415,768	277,179	138,589	-	-	-	-	-	-
TOTAL ASSETS	21,205,974	21,376,156	21,475,867	24,829,055	30,553,155	39,315,950	53,973,347	71,189,453	91,370,950	114,881,365	141,864,803
Liabilities & Shareholders' Equity											
<i>Current liabilities</i>											
Accounts payable		1,690,439	1,979,374	2,222,263	2,485,462	2,770,513	3,070,480	3,239,643	3,411,488	3,592,937	3,532,810
Short term debt	-	1,133,322	-	-	-	-	-	-	-	-	-
Total Current Liabilities	-	2,823,761	1,979,374	2,222,263	2,485,462	2,770,513	3,070,480	3,239,643	3,411,488	3,592,937	3,532,810
<i>Other liabilities</i>											
Long term debt (Project Loan)	9,495,384	8,000,718	6,326,692	4,451,783	2,351,886	-	-	-	-	-	-
Long term debt (Working Capital Loan)	1,107,604	-	-	-	-	-	-	-	-	-	-
Total Long Term Liabilities	10,602,987	8,000,718	6,326,692	4,451,783	2,351,886	-	-	-	-	-	-
<i>Shareholders' equity</i>											
Paid-up capital	10,602,987	10,602,987	10,602,987	10,602,987	10,602,987	10,602,987	10,602,987	10,602,987	10,602,987	10,602,987	10,602,987
Retained earnings		(51,310)	2,566,814	7,552,022	15,112,821	25,942,449	40,299,880	57,346,823	77,356,475	100,685,441	127,729,006
Total Equity	10,602,987	10,551,677	13,169,801	18,155,009	25,715,808	36,545,436	50,902,867	67,949,811	87,959,462	111,288,428	138,331,993
TOTAL CAPITAL AND LIABILITIES	21,205,974	21,376,156	21,475,867	24,829,055	30,553,155	39,315,950	53,973,347	71,189,453	91,370,950	114,881,365	141,864,803

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		(51,310)	2,618,124	4,985,208	7,560,799	10,829,629	14,357,431	17,046,943	20,009,651	23,328,966	27,043,565
Add: depreciation expense		1,899,782	1,899,782	1,899,782	1,899,782	1,899,782	1,985,253	1,985,253	1,985,253	1,985,253	1,985,253
amortization of pre-operating costs		138,589	138,589	138,589	138,589	138,589	-	-	-	-	-
Accounts receivable		(1,416,737)	(160,373)	(311,132)	(322,983)	(368,697)	(420,324)	(388,953)	(342,817)	(373,202)	(410,522)
Finished goods inventory		(1,014,984)	(126,248)	(137,094)	(148,795)	(161,416)	(175,032)	(102,686)	(109,271)	(116,331)	(123,903)
Equipment inventory	(8,385)	(1,922)	(1,816)	(2,080)	(2,379)	(2,718)	(2,025)	(2,186)	(2,410)	(2,657)	28,579
Raw material inventory	(806,822)	(184,911)	(174,748)	(200,152)	(228,928)	(261,500)	(194,849)	(210,321)	(231,879)	(255,646)	2,749,754
Pre-paid building rent	(900,000)	(90,000)	(99,000)	(108,900)	(119,790)	(131,769)	(144,946)	(159,440)	(175,385)	(192,923)	2,122,153
Accounts payable		1,690,439	288,934	242,889	263,199	285,051	299,967	169,163	171,845	181,449	(60,127)
Cash provided by operations	(1,715,207)	968,947	4,383,245	6,507,110	9,039,495	12,226,952	15,705,476	18,337,773	21,304,988	24,554,910	33,334,753
<i>Financing activities</i>											
Project Loan - principal repayment		(1,494,666)	(1,674,026)	(1,874,909)	(2,099,898)	(2,351,886)	-	-	-	-	-
Working Capital Loan - principal repayment		(1,107,604)	-	-	-	-	-	-	-	-	-
Short term debt principal repayment		-	(1,133,322)	-	-	-	-	-	-	-	-
Additions to Project Loan	9,495,384	-	-	-	-	-	-	-	-	-	-
Additions to Working Capital Loan	1,107,604	-	-	-	-	-	-	-	-	-	-
Issuance of shares	10,602,987	-	-	-	-	-	-	-	-	-	-
Cash provided by / (used for) financing activities	21,205,974	(2,602,269)	(2,807,348)	(1,874,909)	(2,099,898)	(2,351,886)	-	-	-	-	-
<i>Investing activities</i>											
Capital expenditure	(18,990,767)	-	-	-	-	(1,127,357)	-	-	-	-	-
Cash (used for) / provided by investing activities	(18,990,767)	-	-	-	-	(1,127,357)	-	-	-	-	-
NET CASH	500,000	(1,633,322)	1,575,897	4,632,201	6,939,597	8,747,709	15,705,476	18,337,773	21,304,988	24,554,910	33,334,753

13 KEY ASSUMPTIONS

13.1 Operating Cost Assumptions

Description	Detail
Administration Benefits Expense	10% of Admin Expense
Communication Expense	20% of Admin Expense
Office Expense	10% of Admin Expense
Promotional Expense	1% of Revenue
Professional Fees (legal, audit, consultants, etc.)	0.5% of Revenue
Travelling Expense	15% of Admin Expense
Bad debt Expense	1.5% of Revenue

13.2 Production Cost Assmptions

Description	4oz Cups	6oz Cups	8oz Cups	9oz Cups	12oz Cups
Per Cup Paper Weight (grams)	3.347	4.413	6.544	6.938	10.117
Cups Made from 1 Ton PE Coated Paper (No. of cups approximately)	298,758	226,606	152,802	144,142	98,847
Cost of Paper Per Cup for Hot Drinks (Rs.)	0.454	0.599	0.888	0.941	1.373
Cost of Paper Per Cup for Cold Drinks (Rs.)	0.513	0.677	1.004	1.064	1.552
Printing and Packing Cost Per Cup (Rs.)	0.15	0.15	0.15	0.15	0.15

13.3 Revenue Assumptions

Description	Detail
Sale Price Growth Rate	10%
Days Operational / Year	330
Production Capacity / year	28,512,000
Production Wastage	5%
Production Capacity in year 1	70%
Percentage Increase in Production per year	5%
Maximum Production Capacity	95%
Hours Operational / Day	8

13.4 Financial Assumptions

Description	Detail
Debt	50%
Equity	50%
Interest Rate	12%
Debt Tenure (Years)	5