



DENTAL COLLEGE

Introduction

Dental education in India was established 91 years ago, when the first dental college was started in Calcutta by Dr. Ahmed in 1920. Diseases such as dental caries, periodontal problems, poor oral hygiene and oral cancers have always been major public health issues in India. It is well known that poor Socioeconomic Status (SES) provides negative impact on favorable dental health awareness, attitude and oral hygiene behavior. Only in the last two decades dental industry has emerged as an field independent from general healthcare. Moreover, efforts of various organizations like, World Health Organization (WHO), Indian Dental Association (IDA) and Dental Council of India (DCI), to increase awareness of oral hygiene have provided major contribution in establishing today's developing dental industry.

Market Potential

The Indian healthcare industry is experiencing quick transformation owing to the increasing demand for quality healthcare. With the increased standard of living in India people are becoming health conscious, shaping a new market which is giving increasing importance to healthy teeth and dental cosmetics. The potential size of India's dental market is vast and as per the IDA, India is slated to become one of the largest single country markets for overseas dental products and materials [3]. Currently, the Indian dental care services market is estimated at about US \$600 million and dental equipment and appliances market is around US\$ 90 million, with a yearly growth rate of 10% [4]. As per the report of year 2010 published by Cygnus Business Consulting and Research, the Indian dental equipments industry is expected to reach US\$ 116.43 million, the dental care services market to US\$ 1.16 billion and oral care market to US\$ 1.8 billion by 2014. This huge market of dental industry in India has also made a remarkable impact on the dental education. The dental colleges providing bachelor's degree in dentistry (BDS) have grown in number with consequent increase in the number of dental graduates.

Cost of Project

Particulars	Amount (Rs. In Lakhs)
Land (own)	-
Civil works and Buildings (158000 sqft @1200/sqft)	1,896.00
Fixed Asset	539.97
Misc. Fixed Assets	10.00
D G Set 50 KV and stabilizer	4.45
Escalation & Contingencies	122.52
Preliminary & Preoperative Expenses	355.45
Sub-total (A)	2,928.39
Working Capital Margin @40% of Total WC Requirement	0.80
Total Project Cost	3,284.64
Total Working Capital Requirement (25% of 1st Year Project Turn Over) (B)	2.00
MEANS OF FINANCE	
Total Funds Required(A+B)	2,930.39
Loan Component	
TERM LOAN(60% of A)	1,757.03
WORKING CAPITAL(60% of B)	1.20
Total	1,758.23
Equity	1,172.15
Total	2,930.39

Detailed Cost Element

Sl. no	Particulars	Qty.	Rate	Amount (Rs. In Lakhs)
1	Tables	339	3500	11.87
2	Big Tables	120	7000	8.40
3	Chairs	1,70	2000	34.00
4	Benches	200	3500	7.00
5	Cupboards	510	10000	51.00
6	Dental Chair	10	1,20,000	12.00
7	Furniture for classroom, staffroom, teacher's room, office)	-	-	5.00
8	Furniture for lab	-	-	10.00
9	Washroom Fittings	-	-	10.00
10	Air Conditioner	140	30000	42.00
11	Water Filters	15	15,000	2.25
12	CCTV	50	2,800	1.40
13	Condenser	1	55,000	0.55
14	Electric Appliances (Fan, Tube light etc.)	-	-	10.00
15	Books for library	-	-	200.00
16	Server	1	90,000	0.90
17	Computers	60	35,000	21.00
18	Software	-	-	5.00
19	Lab Equipment	-	-	100.00
20	Other Fixed Asset	-	-	10.00
21	Ambulance	1	7,00,000	7.00
22	Fire Extinguisher	40	1500	0.60
TOTAL				549.97

Contingencies and Escalations

It has been assumed at approximately 5% at cost.

Preliminary Expenses

Particulars	Amount (Rs. In Lakhs)
Incorporation Expenses	0.15
Project Report Preparation and Consultation	0.35
Feasibility and Engineer's/Architect's Report and Plans	47.4
Legal Charges - Drafting for agreements, contracts, stamp paper, notary and affidavit cost	0.05
Other recurring expenses of revenue nature up to start of commercial operations -salary, etc.	0.50
Interest Cost for period before commercial operations	307.00
Total	355.45

Salary

Designation	Manpower	Amount per annum (Rs. In lakhs)
Principal	1	9.60
Professors	10	12.00
Assistant professors / Trainer	15	18.00
Dean/ Vice Principal	1	3.60
Lab Assistant	8	12.00
Office Staff/ Administrator etc.	10	12.00
Sweeper	10	24.00
Security Guard	10	24.00
Others (helpers)	2	12.00
Warden	2	12.00

(Note: Vice President will get salary after first 2 years)

Profitability Statement

Amount (Rs. In Lakhs)							
Particulars	Year- 1	Year- 2	Year- 3	Year- 4	Year- 5	Year-6	Year-7
A. INCOME							
Maximum Capacity - students	100	200	300	400	400	400	400
Capacity utilization	100%	100%	100%	100%	100%	100%	100%
Capacity utilized- students	100	200	300	400	400	400	400
Revenue from students							
Fees (yearly)	300.00	600.00	900.00	1,200.0	1,200.0	1,200.0	1,200.0
Hostel	120.00	240.00	360.00	480.00	480.00	480.00	480.00
Other revenue (canteen, sale of books, accessories, etc.)	12.00	24.00	36.00	48.00	48.00	48.00	48.00
Total income during	432.00	864.00	1,296.0	1,728.0	1,728.0	1,728.0	1,728.0
B. OPERATING EXPENSES							
Consumables	3.00	6.00	9.00	12.00	12.00	12.00	12.00
Salary	114.00	210.00	294.00	342.00	378.00	396.00	396.00
Expenses on various programmes, seminars, placements etc.	2.00	5.00	5.00	5.00	5.00	5.00	5.00
Research and Development	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Repair & Maintenance	5.54	5.77	6.00	6.24	6.49	6.75	7.02
Power & utilities	9.54	19.08	28.61	38.15	38.15	38.15	38.15
Depreciation and	192.92	252.61	258.00	258.00	258.00	186.91	186.91
Total Operating Expenses	326.00	494.45	593.62	651.39	687.64	634.81	635.08
Operating Profit (A-B)	106.00	369.55	702.38	1,076.6	1,040.3	1,093.1	1,092.9
C.FINANCIAL							
Interest on loan	160.40	141.87	120.19	96.69	76.81	55.12	-
D. Other Expenses							
Administrative and	8.64	17.28	25.92	34.56	34.56	34.56	34.56
Total Expenses	169.04	159.15	146.11	131.25	111.37	89.68	34.56
Profit Before Tax	-63.04	210.40	556.28	945.36	928.99	1,003.5	1,058.3
Provision for Tax	-15.76	52.60	139.07	236.34	232.25	250.88	264.59
Profit After Tax	-47.28	157.80	417.21	709.02	696.74	752.63	793.77
Dividend	-	-	-	-	-	-	-
Retained Profit	-47.28	157.80	417.21	709.02	696.74	752.63	793.77

Breakeven Point

Break Even Point (BEP)		Amount (Rs. In Lakhs)						
SL	Particulars	Year- 1	Year- 2	Year- 3	Year- 4	Year- 5	Year- 6	Year- 7
A.	Net Sales	432.00	864.00	1,296.00	1,728.00	1,728.00	1,728.00	1,728.00
B.	Variable Cost							
	Consumables	3.00	6.00	9.00	12.00	12.00	12.00	12.00
	Power and Utility	9.54	19.08	28.61	38.15	38.15	38.15	38.15
	Other Misc. Expenses	8.64	17.28	25.92	34.56	34.56	34.56	34.56
	Total Variable Cost	18.18	36.36	54.53	72.71	72.71	72.71	72.71
C.	Contribution (A-B)	413.82	827.64	1,241.47	1,655.29	1,655.29	1,655.29	1,655.29
D.	Fixed Cost							
	Expenses on Programs/ Events etc.	2.00	5.00	5.00	5.00	5.00	5.00	5.00
	Research and Development	2.00	2.00	2.00	2.00	2.00	2.00	2.00
	Salary	114.00	210.00	294.00	342.00	378.00	396.00	396.00
	Interest	160.40	141.87	120.19	96.69	76.81	55.12	-
	Repair & Maintenance	5.54	5.77	6.00	6.24	6.49	6.75	7.02
	Depreciation	192.92	252.61	258.00	258.00	258.00	186.91	186.91
	Total Fixed Cost	476.86	617.24	685.19	709.93	726.30	651.78	596.93
E.	Breakeven Point	115%	75%	55%	43%	44%	39%	36%
G.	Cash BEP	69%	44%	34%	27%	28%	28%	25%

Debt-Service Coverage Ratio

		Amount (Rs. In Lakhs)						
SL	Particulars	Year- 1	Year- 2	Year- 3	Year- 4	Year- 5	Year- 6	Year- 7
i	Profit	-47.28	157.80	417.21	709.02	696.74	752.63	793.77
ii	Depreciation	192.92	252.61	258.00	258.00	258.00	186.91	186.91
iii	Interest	160.40	141.87	120.19	96.69	76.81	55.12	-
A	Total (i + ii + iii)	306.04	552.28	795.40	1,063.71	1,031.56	994.67	980.68
i	Interest	160.40	141.87	120.19	96.69	76.81	55.12	-
li	Principal repayment	-	127.57	255.15	255.15	255.15	255.15	255.15
B	Total (i + ii)	160.40	269.45	375.33	351.84	331.96	310.27	255.15
	DSCR (A /B)	1.91	2.05	2.12	3.02	3.11	3.21	3.84

Equipment

Trainee's school kit
Works knife
Works spatula
Plaster spatula
Rubber bowl
Some trimming burs for Acrylic, metal & ceramic
Flask (Different Size)
PMT- Set
Needle Holder

Wax up Section
Electro Waxer M/c. with hand piece
Hand Wax curver
Exhaust Fan

Casting Section
Induction casting Mc.
Sand Blasting Mc.
Muffle Furnace
Manual Casting Machine
Air compressor

Common for all sections
Tongs
Portable weighing machine
Hammer
Plier
Cutter
Die saw

Denture Section
Hanging Motor
Hand Piece
Polishing Machine
Cable Arm

Metal Section
Micro Motor Inc. Hand Piece
Vacuum Mixer Cum Vibrator Mc.

Ceramic Section
Porcelain Furnace
Micro Motor with Hand Piece
Ultra Sonic Cleaner
Air conditioner

Model Section
Trimmer
Finishing lathe
Heating Oven

Chemicals/ Raw Materials

Denture Section
Sand Paper
Modeling Wax
RR Powder
RR Liquid
Articulator 3 Pin
Shellac Base Plate-Upper
Shellac Base Plate-Upper
Chip Blower
Teeth Set
Flask
Clamp
Container (Vessel)
Gas Cylinder
Denture Polishing Buff-Cotton
Denture Polishing Cake
Acrylic trimming Burs
Sand Paper
Stainless Steel Wire
Heat Cure Powder
Heat Cure Liquid
Cold Mould Seal
Mckintosh sheet
Pumice Powder
SC-10

Ceramic Section
Opaque-Powder
Opaque Paste
Ceramic Brushes
Ceramic Blade
Dentin Powder
Enamel Powder
Modelling fluid
Glass slab
Glass sterrea
Mixing Spatula
Filling Tray

Metal Section
Crucible
Graphite Crucible
Alloy Nickel Chromium
Japanese gold alloy
Cutting disc small
Cutting disc large
Conical Bur
Casbide Bur
Metal Gauze
Mask
Sanitary Bur
Sand
Polishing Cake -Metal
Silicon wheel
Rubber Pont
Buff –Metal
Mandrel
Sand Paper-Mandrel

Wax-up Section
Blue Inlay wax
Margin wax
Hard wax
Mock up wax
Hardener
Brush
Sprue
Debnblizer
BP Blade
BP Handle
Investing Ring
Vaseline
Investment Powder
Investment Liquid
Ring Liniss
Articulator
Articulating Paper

Diamond Bur
Round Bur
Glaze Powder-Liquid
Ceramic Stone
Stains-Yellow
Articulator
Articulating Paper
Tissue Roll

Model Section
Base Former
Dental Stone
Die Stone
Dental Plaster
Die Saw Blade
Die Pins

Casting Section
Investing Ring
Investment powder
Investment Liquid
Crucible
Ring Liniss
Graphite Crucible
Alloy Nickel Chromium
Japanese Gold Alloy

Interest on Term Loan and Principal Repayment

Refer Annexure I.

We have assumed the repayment tenure of term loan for a period of 7 years, Rate of interest being 8.5% p.a. with the moratorium period of 9 months.

Address of Vendors

Name of vendor	Address and Contact Number
Shree Ji Steel Corporation	18/1, Maharshi Debendra Road 7th Floor, Burrabazar, Kolkata – 700007 Ph. 08048003167
Vikash Lubricants	23/A, Jadu Bazar Road, Ashutosh Mukherjee Rd, Bhowanipore, Kolkata, West Bengal 700020 Ph. 099035 09110
Tata Agrico, Tata Steels Ltd.	Tata Centre, No. 43, Jawaharlal Nehru Road, Park Street Area, Park Street Area, Kolkata 700071 Ph. 08048602075

ANNEXURE- I

O													
Principal													
Opening	1,757	1,769	1,782	1,795	1,807	1,820	1,833	1,846	1,859	1,872	1,886	1,899	
Repaid													-
Closing	1,769	1,782	1,795	1,807	1,820	1,833	1,846	1,859	1,872	1,886	1,899	1,912	
Interest	12	13	13	13	13	13	13	13	13	13	13	13	155
O.2													
Principal													
Opening	1,796	1,809	1,821	1,834	1,847	1,860	1,874	1,887	1,900	1,914	1,914	1,914	
Repaid	-	-	-	-	-	-	-	-	-	-	-	-	-
Closing	1,809	1,821	1,834	1,847	1,860	1,874	1,887	1,900	1,914	1,914	1,914	1,914	
Interest	13	13	13	13	13	13	13	13	13	14	14	14	158
I													
Principal													
Opening	1,914	1,914	1,914	1,914	1,914	1,914	1,914	1,892	1,871	1,850	1,829	1,807	
Repaid	-	-	-	-	-	-	21	21	21	21	21	21	128
Closing	1,914	1,914	1,914	1,914	1,914	1,914	1,892	1,871	1,850	1,829	1,807	1,786	
Interest	14	14	14	14	14	14	14	13	13	13	13	13	160
II													
Principal													
Opening	1,786	1,765	1,744	1,722	1,701	1,680	1,658	1,637	1,616	1,595	1,573	1,552	
Repaid	21	21	21	21	21	21	21	21	21	21	21	21	255
Closing	1,765	1,744	1,722	1,701	1,680	1,658	1,637	1,616	1,595	1,573	1,552	1,531	
Interest	13	13	12	12	12	12	12	12	11	11	11	11	142
III													
Principal													
Opening	1,531	1,510	1,488	1,467	1,446	1,425	1,403	1,382	1,361	1,340	1,318	1,297	
Repaid	21	21	21	21	21	21	21	21	21	21	21	21	255
Closing	1,510	1,488	1,467	1,446	1,425	1,403	1,382	1,361	1,340	1,318	1,297	1,276	
Interest	11	11	11	10	10	10	10	10	10	9	9	9	120
IV													
Principal													
Opening	1,276	1,254	1,233	1,212	1,191	1,169	1,148	1,127	1,106	1,084	1,063	1,042	
Repaid	21	21	21	21	21	21	21	21	21	21	21	21	255
Closing	1,254	1,233	1,212	1,191	1,169	1,148	1,127	1,106	1,084	1,063	1,042	1,021	
Interest	9	9	9	8	8	8	8	8	8	8	7	7	97
V													
Principal													
Opening	1,021	999	978	957	936	914	893	872	850	829	808	787	
Repaid	21	21	21	21	21	21	21	21	21	21	21	21	255
Closing	999	978	957	936	914	893	872	850	829	808	787	765	
Interest	7	7	7	7	7	6	6	6	6	6	6	6	77
VI													
Principal													
Opening	765	744	723	702	680	659	638	617	595	574	553	532	
Repaid	21	21	21	21	21	21	21	21	21	21	21	21	255
Closing	744	723	702	680	659	638	617	595	574	553	532	510	
Interest	5	5	5	5	5	5	5	4	4	4	4	4	55