

Business Proposal

(Marble Tiles Manufacturing Unit)



Pakistan Stone Development Company
Ministry of Industries & Production
Government of Pakistan

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Note: All PASDEC Services / information related to PM's Youth Business Loan are Free of Cost

December, 2018

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1. DISCLAIMER

This information memorandum is to introduce the subject matter and provide a general idea and information on the subject. Although, the material included in this document is based on data / information gathered from various reliable sources; however, it is based upon certain assumptions which may differ from case to case. The information has been provided on as is where is basis without any warranties or assertions as to the correctness or soundness thereof. Although, due care and diligence has been exercised to compile this document, the contained information may vary due to any change in any of the concerned factors, and the actual results may differ substantially from the presented information. PASDEC, its employees or agents do not assume any liability for any financial or other loss resulting from this memorandum in consequence of undertaking this activity. The contained information does not preclude any further professional advice. The prospective user of this memorandum is encouraged to carry out additional diligence and gather any information which is necessary for making an informed decision, including taking professional advice from a qualified consultant / technical expert before taking any decision to act upon the information.

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2. 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 Marble Tiles Manufacturing Unit 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 form basis of any investment decision.

3. INTRODUCTION TO PASDEC

The Pakistan Stone Development Company (PASDEC) was established in June 2006 for development of marble and granite sector of Pakistan. The mandate of PASDEC is to establish model project for development of value chain to introduce new technology, practices and to meet skill development needs of the sector. PASDEC has established fifteen Mechanized Quarries, two machinery pools, two warehouses and work is in progress on three marble cities, four common facility training centers. Besides this PASDEC has trained more than 1400 trainees on different traits of marble and granite value chain.

Concurrent to the prefeasibility studies, a broad spectrum of business development services is also offered to the SMEs by PASDEC. These services include general information, specific information, support in development of pre-feasibility studies , establishment of marble business and identification of

Skilled work force and capacity building programs of different types in addition to business guidance through help desk services.

5. EXECUTIVE SUMMARY

Marble Tiles Manufacturing Plant is proposed to be located at or near Marble Processing clusters of, Gujranwala, Lahore, Lasbela, Multan, Peshawar, Rawalpindi, Rawat, Risalpur, Swat, Buner and Quetta, also where basic infrastructure is available for easy transportation of raw material and finished goods. Products include 1 cm thick tiles, of 11.5”x11.5” and 11.5”x23”.

The proposed project will have the Installed capacity of 187,200 sq. ft per year whereas during the first year, the plant will operate at 50% capacity to produce 93,600 sq. ft/year, and increasing at the annual rate of 3% per year.

The total Project Cost is **Rs. 2,172,000**, including the **Capital Cost of 1,330,000**, and the Working Capital of Rs. 842,000. Given the cost assumptions IRR, payback, and NPV are 47%, 1.5 years, and Rs. 10,986,491 respectively, hence making the project viable.

The following factors should be considered for sustainable operations:

- Efficient and cost effective procurement system for raw material.
- Availability and retention of skilled labour.

6. BRIEF DESCRIPTION OF PROJECT AND PRODUCT

The project is related to setting up Marble Tiles Manufacturing Plant with following detail:

- **Technology:** This proposed unit with local processing machines including cutting, splitting, resizing, and polishing will produce marble stones of three types, namely, the unpolished tiles with uneven sides, unpolished tiles with even sides, and polished even sided tiles.
- **Location:** The unit will be located in or near marble processing clusters at , Gujranwala, Lahore, Lasbela, Multan, Peshawar, Rawalpindi, Rawat, Risalpur, Swat, Buner and Quetta, also where basic infrastructure is available for easy transportation of raw material and finished goods.
- **Product:** The unit will initially process 14 sooter Gutka (about 1.75 inches thick sheet), and 9 sooter Slab/Sheet (around 1.1 inch thick), into 3 Tiles (1cm thickness), and 2 Tiles (1 cm thickness) respectively. Though the project will be capable of producing many varieties of marble and onyx with the small Tiles to a minimum of 4" Width x 12" Length, but its main focus will be upon the highly demanded sizes.
- **Target Market:** In addition to the middle class in Karachi, Lahore, Peshawar, and Quetta, the target market for marble exist in rapidly expanding small cities like, Bahawalpur, Bannu, Charsada, Dadu, D.G. Khan, D.I. Khan, Gawadar, Gujrat, Karak, Khuzdaar, Mansehra, Mardan, Mastong, Minawaali, Muzzafargarh, Nawabshah, Nowshehra, Rahimyar Khan , Saadiqabad, Sargodha , Sahiwaal, Sawabi, Shikarpur, and Sialkot.
- **Employment Generation:** The proposed project will provide direct employment to 3 people.
- **Profitability:** The Financial Analysis shows that the unit will be profitable from the very first year of operation.

7. CRITICAL FACTORS

The following factors should be considered thoroughly:

- Efficient and cost effective procurement system for raw material.
- Availability and retention of skilled labour.
- Factory location must take into account the availability of electric power and water supply, proximity to supply sources and markets, and optimum visibility and ease of access by customers.
- Sufficient inventory of cutting blades and proper maintenance of machinery.
- Effective market linkages, especially with civil contractors focusing upon construction of houses for lower middle and middle class.
- Customer services through advice on cost effective transportation and maintaining a list of transporters for the purpose. Clear communication to the customers about expected colour variation.
- Continuous productivity improvement and energy efficiency through best practices on the floor.

8. INSTALLED AND OPERATIONAL CAPACITIES

The installed capacity of the project for 8 hours daily shift will be 187,200 sq. ft per year whereas during the first year, the plant will operate at 50% operational capacity to produce 93,600 sq. ft/year.

9. GEOGRAPHICAL POTENTIAL FOR INVESTMENT

With total estimated reserves of around 160.1 million tons, the marble and onyx mines of Pakistan are mainly located in Balochistan (Chaghi, Lasblea, Loralai, Mastong, and Naal), Khyber Pakhtunkhwa/Federally Administered Tribal Areas (Bunair, Mardan, Mohamand, Swat), Chitral, and Sindh (Dadu, Johi range). The major marble processing clusters are concentrated in specific areas of Gujranwala, Islamabad/Rawalpindi, Karachi, Lasbela, Lahore, Peshawar, and Nowshera/Risalpur. About 50% to 60% of the marble processors of Balochistan and Khyber Pakhtunkhwa prefer to produce Gutka/Sheet and Slabs respectively. These are sold to the small scale Tile Manufacturing Units of distant locations, because the finished Tiles are thinner and bear the risk of breakage during long journey. The low level of competition within the previously suggested areas will be the main advantage provided the critical issues are addressed proactively. The rapid urbanisation is also a promising factor for such investment.

10. POTENTIAL TARGET MARKETS AND CITIES

Potential target markets for the proposed project will be the middle class consumers (houses and retail shops), and civil contractors. The target cities will be the place of origin as per the suggested locations, and the nearest urban and suburban areas, like, Bahawalpur, Bannu, Charsada, Dadu, D.G. Khan, D.I. Khan, Gawadar, Gujrat, Karak, Khuzdar, Mansehra, Mardan, Mastong, Minawaali, Muzaffargarh, Nawabshah, Nowshera, Rahimyar Khan, Saadiqabad, Sargodha, Sahiwal, Sawabi, Shikarpur, and Sialkot.

12. PROJECT COST SUMMARY

A detailed financial model has been developed to analyze the commercial viability of the Marble Tiles Manufacturing Plant under the Prime Minister's Small Business Loan Scheme. Various costs and revenues related assumptions along with results of the analysis are outlined in this section.

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

12.1 Project Economics

All the figures in this financial model have been calculated for installed capacity of 187,200 Sq Ft/Year with initial capacity utilization at 93,600 Sq. Ft/Year with an annual increase of 3%.

The following table shows internal rate of return, payback period and NPV:

Table 1 - Project Economics

Description	Details
Internal Rate of Return (IRR)	47%
Payback Period (yrs)	1.5
Net Present Value (NPV)	(Rs.)10,986,491

Returns on the scheme and its profitability are highly dependent on the efficiency of efficient procurement system from marble suppliers, sound market knowledge and trends about the international and domestic market, availability and retention of skilled labour, suitable factory location, appropriate technology and effective marketing campaign.

12.2 Project Financing

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

Table 2 - Project Economics

Description	Details
Total Equity (10%)	Rs. 217,200
Bank Loan (90 %.)	Rs. 1,954,800
Markup to the Borrower (%age/annum)	8%
Tenure of the Loan (Years)	8
Grace Period (Year)	1

12.3 Project Cost

Following requirements have been identified for operations of the proposed business.

Table 3: Project Cost

Capital Investment	Total Cost (Rs.)
Furniture & fixtures	30,000
Office equipment / Machinery & Equipment	1,300,000
Total Capital Costs	1,330,000
Initial Working Capital	842,000
Total Project Cost	2,172,000

12.4 Space Requirement

The area has been calculated on the basis of space requirement for production area, management building, stores, and grounds. However, the units operating in

the industry do not follow any set pattern. Following table shows calculations for project space requirement on rental basis.

Table 4: Space Requirement

Space Requirement	Rs/Sq. ft	Sq. ft	Amount/ Month(Rs.)
Management building	20	200	4,000
Production Area	20	900	18,000
Store	20	150	3,000
Grounds	20	750	15,000
Total		2,000	40,000

Total investment in rented building and infrastructure is calculated to be approximately Rs.480,000 per annum that is reflected in the working capital.

12.5 Furniture and Fixtures

The proposed unit requires a very nominal expenditure of Rs. 30,000 against purchases of chairs, and tables.

12.6 Machinery and Equipment

Following table provides list of machinery and equipment required for an average Marble Tiles Manufacturing Plant.

Table 5: List of Machinery and Equipment

Description	Quantity	Cost Rs/unit	Total Rs.
Section Machine (18")	01	250,000	250,000
Resizer (12")	01	250,000	250,000
Manual Polisher	01	150,000	300,000
Installation & Foundations			500,000
Total	03		1,300,000

12.7 Raw Material Requirements

Following table shows raw material requirement to process the required finished goods:

Table 6: Cost of Raw Material

	Unit	Unit Rate	Quantity	Monthly Cost (Rs.)
Gutka (14 Sooter)	No.	129	2,600	335,400
Cost				335,400

12.8 Human Resource Requirement

Table 7: Required Human Resources

Description	No. of Employees	Salary per month (Rs.)
Skilled Labor	03	33,000
Total	03	33,000

The table above provides details of human resource required to run such a project during working period of 312 days per annum per labor. Salaries of all employees are estimated to increase at 10% annually.

12.9 Revenue Generation

Table 8: Sales Revenue for the First Year

Product	Unit	Sales Price (Rs./Unit)	First Year Production	First Year Sales Revenue (Rs)
Tiles	Sq. Ft	70	93,600	6,552,000
Total				6,552,000

12.10 Other Costs

Table 9: Other Costs

Product	Rs./Month
Electricity	30,000
Water	6,000
Communication	2,000
Total Costs	38,000

13. CONTACTS

Majoka Traders

Business: Blades for Marble Machinery, Air Compressors, and Generator
Contact Person: Mr. Waseem Chiragh
Contact Detail: House No. 31, Asad Park, Phase II, Ahmed Block, Chuk No. 50., Shumali, Sargodha, Punjab.
EMAIL: majokatraders@gmail.com
Cell: 0333-3385278

N-Traders

Business: Marble Machinery, and Marble Stone Supply
Contact Person: Mr. Ilyas

Contact Detail: Plot No. 100-110, Sector B, Street No. 2, Marble City
Gadani, Lasbela, Balochistan.
Contact Detail: 0346-2332552

MOD Minerals

Business: Mine Owner and Processor for Marble Blocks, Slabs, and Tiles
Contact Person: Mr. Haroon
Contact Detail: Marble City Gadani, Lasbela, Balochistan.
Email: moomande@gmail.com

Shashan Marble

Business: Mine Owner and Processor for Verona Marble Blocks, and Tiles
Contact Person: Mr. Gohram Bizinjo, Mr. Umer Farooq, and Mr. Saleem
Contact Detail: Marble City Gadani, Lasbela, Balochistan.
Email: umar@sitaratelecom.com

Karkon Marble

Business: Marble Slabs, and Tiles
Contact Person: Mr. Sajid Aalam
Contact Detail: Pir Baala, Warsak Road, Peshawar.

Hanam Marble

Business: Marble and Onyx Slabs, and Tiles
Contact Person: Mr. Khurram Rangoonwala
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14. ANNEXURES

14.1 Income Statement (With 10 Years Projections)

	YEAR- 1	YEAR- 2	YEAR- 3	YEAR- 4	YEAR- 5	YEAR- 6	YEAR- 7	YEAR- 8	YEAR- 9	YEAR- 10
SALES										
Tiles	6,552,000	7,207,200	7,927,920	8,720,712	9,592,783	10,552,062	11,607,268	12,767,994	14,044,794	15,449,273
Total Sales	6,552,000	7,207,200	7,927,920	8,720,712	9,592,783	10,552,062	11,607,268	12,767,994	14,044,794	15,449,273
COST OF SALES										
Tiles	4,024,800	4,185,792	4,353,224	4,527,353	4,708,447	4,896,785	5,092,656	5,296,362	5,508,217	5,728,545
Cost of Goods Sold	4,024,800	4,185,792	4,353,224	4,527,353	4,708,447	4,896,785	5,092,656	5,296,362	5,508,217	5,728,545
OPERATING EXPENSES										
Utilities Expense	456,000	501,600	551,760	606,936	667,630	734,393	807,832	888,615	977,476	1,075,224
Payroll Expense (All Staff)	396,000	435,600	479,160	527,076	579,784	637,762	701,538	771,692	848,861	933,747
Depreciation Expense	26,600	26,068	25,547	25,036	24,535	24,044	23,563	23,092	22,630	22,178
Machine Maintenance Expense	26,600	26,068	25,547	25,036	24,535	24,044	23,563	23,092	22,630	22,178
Rent Expense	480,000	504,000	529,200	555,660	583,443	612,615	643,246	675,408	709,179	744,638
Amortization of Preliminary Expenses	1,000	1,000				-	-	-	-	-
Total Operating Expenses	1,386,200	1,494,336	1,611,213	1,739,743	1,879,926	2,032,858	2,199,743	2,381,899	2,580,777	2,797,964
EARNINGS BEFORE INTEREST & TAXES	1,141,000	1,527,072	1,963,483	2,453,616	3,004,410	3,622,419	4,314,869	5,089,733	5,955,800	6,922,764
FINANCIAL EXPENSES										
Financial Charges on Long term loan	156,384	143,873	127,749	110,335	91,528	71,216	49,279	25,587	-	-
Total Financial Expenses	156,384	143,873	127,749	110,335	91,528	71,216	49,279	25,587	-	-
PROFIT BEFORE TAX	984,616	1,383,199	1,835,734	2,343,281	2,912,883	3,551,203	4,265,590	5,064,146	5,955,800	6,922,764
INCOME TAX	70,192	129,980	214,647	316,156	450,721	610,301	802,177	1,041,744	1,309,240	1,645,467
PROFIT AFTER TAX	914,424	1,253,219	1,621,087	2,027,125	2,462,162	2,940,902	3,463,413	4,022,402	4,646,560	5,277,296
Retained Earnings at the beginning of year	-	914,424	1,710,431	2,704,908	3,921,490	5,370,089	7,079,910	9,072,872	11,363,568	13,998,927
Dividend		457,212	626,609	810,544	1,013,562	1,231,081	1,470,451	1,731,707	2,011,201	2,323,280
Retained Earnings at the end of year	914,424	1,710,431	2,704,908	3,921,490	5,370,089	7,079,910	9,072,872	11,363,568	13,998,927	16,952,943

14.2 Cash Flows (With 10 Years Projections)

	YEAR- 0	YEAR- 1	YEAR- 2	YEAR- 3	YEAR- 4	YEAR- 5	YEAR- 6	YEAR- 7	YEAR- 8	YEAR- 9	YEAR- 10
OPERATING ACTIVITIES											
Net Profit	-	984,616	1,383,199	1,835,734	2,343,281	2,912,883	3,551,203	4,265,590	5,064,146	5,955,800	6,922,764
Add:											
Depreciation	-	26,600	26,068	25,547	25,036	24,535	24,044	23,563	23,092	22,630	22,178
Amortization (Pre-operational Expenses)	(2,000)	1,000	1,000	-	-	-	-	-	-	-	-
Net profit before working capital changes	(2,000)	1,012,216	1,410,267	1,861,281	2,368,317	2,937,418	3,575,247	4,289,154	5,087,238	5,978,431	6,944,941
Working Capital changes											
Raw materials stock	(236,000)	(160,951)	(15,878)	(16,513)	(17,174)	(17,861)	(18,575)	(19,318)	(20,091)	(20,894)	(21,730)
W.I.P	-	(13,189)	(528)	(549)	(571)	(593)	(617)	(642)	(668)	(694)	(722)
Finished goods stock	-	(90,300)	(3,612)	(3,756)	(3,907)	(4,063)	(4,226)	(4,395)	(4,570)	(4,753)	(4,943)
Accounts payable	-	335,400	13,416	13,953	14,511	15,091	15,695	16,323	16,976	17,655	18,361
Accounts receivable	-	(546,000)	(54,600)	(60,060)	(66,066)	(72,673)	(79,940)	(87,934)	(96,727)	(106,400)	(117,040)
Working capital changes	(236,000)	(475,040)	(61,202)	(66,926)	(73,206)	(80,099)	(87,663)	(95,966)	(105,080)	(115,087)	(126,075)
	-	(70,192)	(129,980)	(214,647)	(316,156)	(450,721)	(610,301)	(802,177)	(1,041,744)	(1,309,240)	(1,645,467)
Cash provided by/ used in operations	(238,000)	466,983	1,219,085	1,579,708	1,978,954	2,406,598	2,877,284	3,391,011	3,940,414	4,554,103	5,173,399
FINANCING ACTIVITIES											
Long term loan	1,954,800	(156,384)	(201,553)	(217,677)	(235,091)	(253,898)	(274,210)	(296,147)	(319,839)	-	-
Owner equity	217,200										
Dividend paid	-		(457,212)	(626,609)	(810,544)	(1,013,562)	(1,231,081)	(1,470,451)	(1,731,707)	(2,011,201)	(2,323,280)
Cash provided by/ used in Financing activities	2,172,000	(156,384)	(658,765)	(844,286)	(1,045,635)	(1,267,461)	(1,505,291)	(1,766,598)	(2,051,545)	(2,011,201)	(2,323,280)
INVESTING ACTIVITIES											
Capital Expenditure	(1,330,000)	-	-	-	-	-	-	-	-	-	-
Cash provided by/ used in Investing activities	(1,330,000)	-	-	-	-	-	-	-	-	-	-
Net Cash Flow	604,000	310,599	560,321	735,422	933,319	1,139,138	1,371,992	1,624,412	1,888,868	2,542,902	2,850,119
Cash balance B/ F	-	604,000	914,599	1,474,920	2,210,342	3,143,661	4,282,799	5,654,791	7,279,203	9,168,072	11,710,974
Cash balance C/ F	604,000	914,599	1,474,920	2,210,342	3,143,661	4,282,799	5,654,791	7,279,203	9,168,072	11,710,974	14,561,093

14.3 Balance Sheet (With 10 Years Projections)

	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	126,000	410,599	1,162,397	1,811,066	2,716,603	3,826,568	5,464,076	7,080,018	8,458,893	10,966,336	13,779,224
Raw materials stock	236,000	396,951	412,829	429,342	446,516	464,376	482,951	502,270	522,360	543,255	564,985
W.I.P	-	13,189	13,717	14,266	14,836	15,430	16,047	16,689	17,356	18,051	18,773
Finished goods stock	-	90,300	93,912	97,668	101,575	105,638	109,864	114,258	118,829	123,582	128,525
Receivables		546,000	600,600	660,660	726,726	799,399	879,338	967,272	1,064,000	1,170,399	1,287,439
Total Current Assets	362,000	1,457,040	2,283,455	3,013,002	4,006,256	5,211,411	6,952,277	8,680,507	10,181,438	12,821,623	15,778,946
Fixed Assets											
At Cost less: Acc. Depreciation	1,330,000	1,303,400	1,277,332	1,251,785	1,226,750	1,202,215	1,178,170	1,154,607	1,131,515	1,108,885	1,086,707
Intangible Assets											
Upfront Rent	480,000	504,000	529,200	555,660	583,443	612,615	643,246	675,408	709,179	744,638	781,869
Pre-operational Expenses Worth		1,000	1,000								
TOTAL ASSETS	2,172,000	3,265,440	4,090,987	4,820,447	5,816,449	7,026,240	8,773,693	10,510,522	12,022,131	14,675,145	17,647,522
LIABILITIES AND EQUITY											
Current Liabilities											
Current maturity of long term loan			217,677	235,091	253,898	274,210	296,147	319,839	-	-	-
Accounts Payable	-	335,400	348,816	362,769	377,279	392,371	408,065	424,388	441,364	459,018	477,379
Total Current Liabilities	-	335,400	566,493	597,860	631,178	666,581	704,213	744,227	441,364	459,018	477,379
Noncurrent Liabilities											
Long term Loan	1,954,800	1,954,800	1,798,416	1,596,863	1,300,479	1,046,581	772,370	476,223	-	-	-
EQUITY											
Paid up Capital	217,200	217,200	217,200	217,200	217,200	217,200	217,200	217,200	217,200	217,200	217,200
Retained Earnings	-	914,424	1,710,431	2,704,908	3,921,490	5,370,089	7,079,910	9,072,872	11,363,568	13,998,927	16,952,943
Total Equity	217,200	1,131,624	1,927,631	2,922,108	4,138,690	5,587,289	7,297,110	9,290,072	11,580,768	14,216,127	17,170,143
TOTAL LIABILITIES & EQUITY	2,172,000	3,265,440	4,090,987	4,820,447	5,816,449	7,026,240	8,773,693	10,510,522	12,022,131	14,675,145	17,647,522

14.4 USEFUL PROJECT MANAGEMENT TIPS

Technology

- **List of Machinery & Equipment** (As per Section 12.6)
- **Required Spare Parts & Consumables:** Suppliers credit agreements and availability as per schedule of maintenance be ensured before start of operations.
- **Energy Requirement:** Should not be overestimated or installed in excess and alternate source of energy for critical operations be arranged in advance
- **Machinery Suppliers:** Should be asked for training and after sales services under the contract with the machinery suppliers. They must be communicated about the timely availability with clear mutual understanding of the required time period.
- **Quality Assurance Equipment & Standards:** Required products quality standards need to be defined on the packaging and a system to check them be instituted, this improves credibility

Marketing

- **Product Development & Packaging:** Expert's help may be engaged for product packaging design & development
- **Sales & Distribution Network:** Strong contacts with the civil works contractors focusing upon house construction for middle class people and owners of retail shops.
- **Price - Bulk Discounts, Cost plus Introductory Discounts:** Price should never be allowed to compromise quality. Price during introductory phase may be lower and used as promotional tool. Product cost estimates should be carefully documented before price setting. Government controlled prices shall be displayed.

Human Resources

- **List of Human Resource** (As per Section 12.8)
- **Adequacy & Competencies:** Skilled and experienced staff should be considered an investment even to the extent of offering share in business profit.
- **Performance Based Remuneration:** Attempt to manage human resource cost should be focused through performance measurement and performance based compensation.

- **Training & Skill Development:** Encouraging training and skill development of self & employees through experts and exposure of best practices is route to success. Least cost options for Training and Skill Development (T&SD) may be linked with compensation benefits and awards.

14.5 USEFUL LINKS

- **Prime Minister's Office**
www.pmo.gov.pk
- **Pakistan stone Development Company (PASDEC)**
www.pasdec.com.pk
- **National Bank of Pakistan (NBP)**
www.nbp.com.pk
- **First Women Bank Limited (FWBL)**
www.fwbl.com.pk
- **Government of Pakistan**
www.pakistan.gov.pk
- **Ministry of Industries & Production**
www.moip.gov.pk
- **Government of Punjab**
www.punjab.gov.pk
- **Government of Sindh**
www.sindh.gov.pk
- **Government of Khyber Pakhtoonkhwa**
www.khyberpakhtunkhwa.gov.pk
- **Government of Balochistan**
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 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

15. KEY ASSUMPTIONS

PRODUCTION ASSUMPTIONS

Maximum Capacity Utilization		100%
Maximum Capacity Utilization (Year-1)		50%

At 100% capacity, the following will be the per day production break-up;

Tiles (Sq.Ft)	100%	600
Total production per day		600
Per Annum		187,200

OPERATING ASSUMPTIONS

Annual Production Capacity(Tiles) year 1		93,600
Total Production Capacity (Year 1)		93,600
Growth Rate in Production (3%)	OR (times)	1.03
Hours operational per day		8
Days operational per month		26
Days operational per year		312

ECONOMY RELATED ASSUMPTIONS

Electricity growth rate (10%)	OR (times)	1.1
Pay roll growth (10%)	OR (times)	1.1

CASH FLOW ASSUMPTIONS

Accounts receivable cycle (in days)		30
Accounts payable cycle (in days)		30
WIP (Days)		1
Finished Goods (Days)		7
Raw Materials Inventory (Days)		30
Cash on Hand		126,000

REVENUE ASSUMPTIONS

Sales price per unit in year 1		
Tiles		70
Sale price growth rate (10%) (times)	OR	1.1

EXPENSES ASSUMPTIONS

Utilities	456,000
Machine maintenance Cost /year (% of total machinery cost)	2%
Growth in maintenance cost 3 %) OR (times)	1.03
Pre-paid land rent (months)	480,000
Cost of raw limestone (Rs/Sq Feet)	5
Wastage margin per ton (kgs)	10%
Raw material cost growth rate	5%
Rent growth rate	5%

COST OF GOODS SOLD ASSUMPTIONS

COGS Year 1	
Tiles	43
COGS Growth Rate (4%) OR (times)	1.04

FINANCIAL ASSUMPTIONS

Project Life (Years)	10
Debt	90%
Equity	10%
Interest rate on long term loan	8%
Debt tenure (years)	8
Debt payments per year	12
Grace Period (Year)	1