Pre-Feasibility Study

FUELLING STATION

Small and Medium Enterprises Development Authority

Ministry of Industries & Production

Government of Pakistan

www.smeda.org.pk

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April 2009

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DOCUMENT CONTROL

Document No.	PREF-16
Revision	-
Prepared by	SMEDA-Balochistan
Issued by	Library Officer
Issue Date	April, 2009

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1 INTRODUCTION TO SMEDA

The Small and Medium Enterprise Development Authority (SMEDA) was established with the objective to provide fresh impetus to the economy through the launch of an aggressive SME support program.

Since its inception in October 1998, SMEDA had adopted a sectoral SME development approach. A few priority sectors were selected on the criterion of SME presence. In depth research was conducted and comprehensive development plans were formulated after identification of impediments and retardants. The all-encompassing sectoral development strategy involved recommending changes in the regulatory environment by taking into consideration other important aspects including financial aspects, niche marketing, technology up gradation and human resource development.

SMEDA has so far successfully formulated strategies for sectors including, fruits and vegetables, marble and granite, gems and jewelry, marine fisheries, leather and footwear, textiles, surgical instruments, urban transport and dairy. Whereas the task of SME development at a broader scale still requires more coverage and enhanced reach in terms of SMEDA's areas of operation.

Along with the sectoral focus a broad spectrum of business development services is also offered to the SMEs by SMEDA. These services include identification of viable business opportunities for potential SME investors. In order to facilitate these investors, SMEDA provides business guidance through its help desk services as well as development of project specific documents. These documents consist of information required to make well-researched investment decisions. Pre-feasibility studies and business plan development are some of the services provided to enhance the capacity of individual SMEs to exploit viable business opportunities in a better way.

This document is in the continuation of this effort to enable potential investors to make well-informed investment decisions.

2 PURPOSE OF THE DOCUMENT

The objective of the pre-feasibility study is to provide the entrepreneur with potential investment opportunity in setting up and operating a Fuelling Station business. 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 the business concept development, start-up, production, marketing, and finance and business management. The document also provides sectoral information, brief on government policies and international scenario, which have some bearing on the project itself.

This particular pre-feasibility is regarding "Petrol & Diesel Fuelling Station" which comes under "Petroleum" sector.

3 CRUTIAL FACTORS IN DECISION MAKING FOR INVESTMENT

Following are the key factors in making this project profitable

3.1 Key Success Factors

The commercial viability of the proposed Fuelling Station depends on the following factors

- Location of the project is of prime importance.
- Selection of proper equipment and staff would be required to run project successfully.
- Continuous efforts should be made for up-gradation of the technology.
- Keeping in view the current market structure, the most important factor for the success of the project would be the quality of services provided to the customers in order to get a comparative advantage.

3.2 Opportunities

- Rapidly growing population along with income per capita and number of vehicles in the country.
- Low Pressure of GAS (especially in winter season) gives a comparative advantage to a petrol & diesel fuelling station over the CNG station.
- Increasing demand for petroleum products even across the borders especially in Afghanistan.
- The demand for petroleum products is inelastic in nature creating an ever lasting demand for the project.
- Exploration of multiple sources for oil.

3.3 Threats

The proposed project will be facing the following threast:

- Price fluctuations and macroeconomic instability.
- Emerging alternatives for petroleum products.
- Possible Environmental degradations related to the use of petrol and diesel.
- Illegal Trading of smuggled oil.

4 PROJECT PROFILE

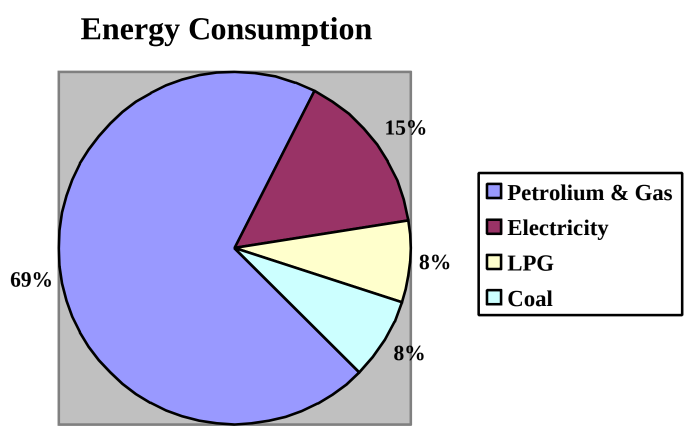
4.1 Project brief

The proposed project is about petrol and diesel fuelling station, inclusive of car wash and tire shop facility. The Fuelling station will work as a retail outlet for prescribed oil marketing company (OMC), in Return the entrepreneur will get the profit share on each liter of fuel he sales. The cost of project has been estimated as Rs.39.755 million including land, civil works, office equipment, etc. The total cost is composed of Rs.38.609 Million of capital cost, and Rs.1.146 Million of working capital cost. The entire process flow is suggested to be semi automatic requiring mainly unskilled workers.

4.2 Opportunity Rationale

Transport is one of the most essential sectors of an economy and direct customer for this project. This sector facilitates the peoples not only in traveling but also in the transportation of goods and services throughout the country. The population of Pakistan is growing with the rate of around 2.0 percent[1] per annum which shows an increase of 3.2 Million people each year. In order to facilitate the growing population not only the number of motor vehicle is increasing (5.287 to 5.366 Million in years 2006, 2007 respectively)[2] which has increased the demand for petroleum products throughout the country. Not only transport sector, but Industrial, agriculture and other sectors of the economy are also growing with a greater pace hence further strengthening the demand for petroleum and lubricant products.

According to the GoP statistics the petroleum products and gas consumption accounts for approximately 70 percent of modern energy supply in Pakistan. Electricity (15 percent), LPG and coal account for the balance. The transport sector (the direct customer for this project) is the largest user of petroleum products (59 percent), followed by power (29 percent); industry accounts for about 12 percent, and the balance is used in other sectors – including the residential sector.[3]



Till the end of 1990s the market was mainly captured by the four oil marketing companies (OMCs), PSO, Caltex (Chevron), Shell, and Attock Refineries. After analyzing the strapping market demand and special government incentives, few other OMCs have also entered the industry, and expanding their businesses through the establishment of petroleum retail outlets (fuelling stations) throughout the country.

[1] Federal Bureau of Statistics

[2] Pakistan Statistical Year Book 2007, *Federal Bureau of Statistics*

[3] Energy Book, *Hydrocarbon Development Institute of Pakistan*

4.3 INTRODUCTION

A filling station, fueling station, gas station, service station, or petrol station, is a facility which sells fuel and lubricants for motor vehicles. The most common fuels sold are petroleum (gasoline in U.S. and Canada) or diesel fuel. Fuel dispensers are used to pump any types of fuel into vehicles. Fuel dispensers are also known as bowsers in Australia.

The birth of the motor car in the 1890s meant the need for fuel and initially this came in the form of 2 gallon cans which could be bought from ironmongers, chemists and the like. After World War One, with the increase demand for fuel from the increasing numbers of motor vehicles on the road, the need for speedy delivery became high priority and the first roadside Bowser petrol pumps, which were hand-operated, appeared.

During the 1930s and 40s, the pump itself was continuously being developed to produce quicker fuel injection. The hand pumps were replaced by mechanical versions, and storage facilities for the fuel were hidden away, providing greater access for the motorist to the pump.

Most fuelling stations are built in a similar manner, with most of the fueling installation underground, pump machines in the forecourt and a point of service inside a building. Single or multiple fuel tanks of varying sizes, dependant on the needs of the local market, are usually deployed underground. Local regulations and environmental concerns may require a different method, with some stations storing their fuel in container tanks, entrenched surface tanks or unprotected fuel tanks deployed on the surface. Fuel is usually offloaded direct from a tanker truck into the tanks through a separate valve, located on the fuelling station's permitter. Fuel from the tanks is pumped to dispenser through a system of underground pipes. For every fuel tank, direct access has to be granted at all times. Most tanks can be accessed through a service canal directly from the forecourt.

4.4 Viable Economics Size

The viable economic size is proposed by keeping in view the minimum sales requirement. Approximately 450 numbers of vehicles (15 liter per vehicle assumed) would be required to be fueled daily in order to meet the minimum daily sales requirement of 3300 liters of petrol and diesel each, set by the oil marketing companies (OMCs).

4.5 Market Entry Timing

As per nature of this business no specific time is required for an entry, investment can be made any time during the year.

4.6 Product Mix

The project primarily revolves around selling the petrol & diesel, where as other product mixes are also considered in order to attract healthy number of customers and to provide additional source for revenue generation.

- Lubricants: a variety of lubricant is available for sale on the retail outlet (fuelling station), like motor oil, diesel engine oil, gear oil etc. the packs are available with different sizes from 1 to 4 liters.

- Car wash, Tire Shop & Tuck Shop: the facility of car wash tire shop & tuck shop can also be availed on a request to oil marketing company, and can be used as an additional source of earning. The choice is of the entrepreneur whether to run it on his own or tender it to some contractor.
  Note: this project is inclusive of only car wash and tire shop facility.

5 PROPOSED BUSINESS LEGAL STATUS & SHARING

The proposed legal structure of the business entity is as franchise, either sole proprietorship or Partnership. Although selection totally depends upon the choice of the entrepreneur but this pre feasibility report is based on a franchise owned by a single person.

5.1 Joining Fee & Security Deposit

In order to join any oil marketing company (OMC) as a retailer/dealer the entrepreneur is required to pay a specified amount of joining fee and security deposit. The joining fee is normally about Rs.100,000 along with the security deposit of Rs.300,000.

5.2 Franchise Fee

A franchisee fee is charged on regular bases by the OMCs from the franchise. The fee normally costs around 0.10 to 0.15 rupee charged on each liter of petroleum oil supplied. Whereas, **machinery and equipment** along with its maintenance is provided by the oil marketing companies to the franchisee against this fee.

Additional facilities like Car wash, tire shop and tuck shop can also be installed on the station on the permission of OMC under the same procedure. The fee for car wash and tire shop is charged around 0.02 to 0.03 rupee per liter by the OMCs.

Note: The fees may vary according to the agreement.

5.3 Retailer's (Franchise) Margin

Just like the OMC's fee the franchise gets the profit share on each liter of petrol/diesel he sales. The percentage of share is decided and regulated by the Oil & Gas Regulatory Authority (OGRA) for more details please see the table (6.5-1). The percentage of share normally stays the same but the value varies from 0.85 to 1.50 rupees per liter on petrol & more or less the same for the diesel.

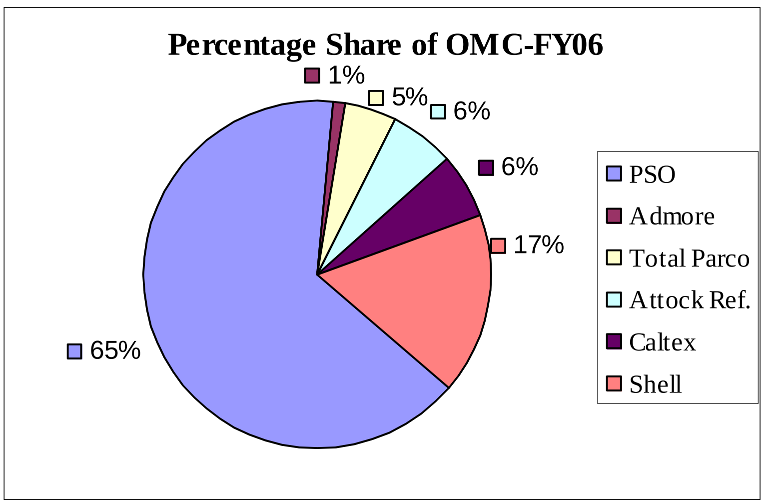
6 MARKET ANALYSIS

The market for petroleum products is highly concentrated. The PSO has got the major market share of around 65% and the remaing portion of market is shared by other oil marketing companies (OMCs) like Shell, Caltex, Attock Refineries, Total Parco and Admore. The market shares are listed in the table below:

Table 1: Market Structure

Oil Marketing Companies	% Market Share
PSO	65
Shell	17
Attock Ref.	6
Caltex	6
Total Parco	5
Admore	1

Source: Privatization Commission GoP



The above diagram explains the percentage of market share that each company possesses.

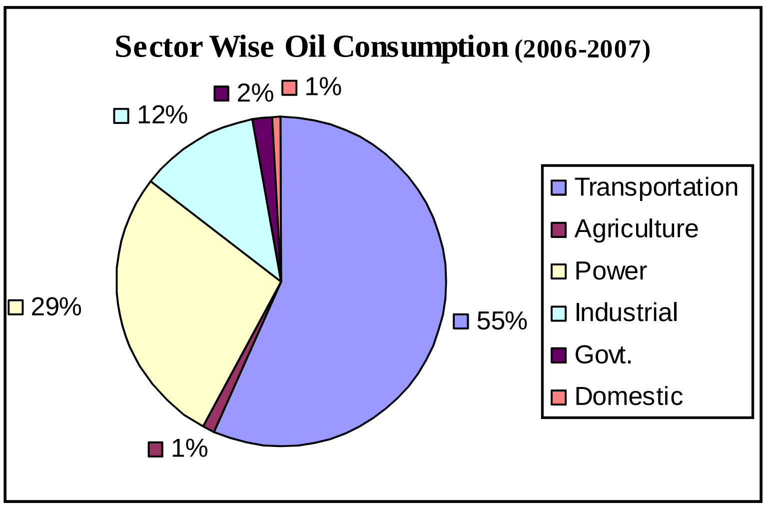
6.1 Target Customer

The target customers for the fuelling station are diversified; with reference to their consumption for the year 2006-07 is as following.

Table 2: Sector Wise Oil Consumption (2006-07)

Sectors	**% Consumption**
Transportation	55
Power	29
Industrial	12
Govt.	2
Agriculture	1
Domestic	1

Source: Ministry of Petroleum & Natural Resources



The major oil consumer without any doubt is the transportation sector, which is a direct customer for Petrol/Diesel fuelling stations. Power & Industrial sectors are respectively at the second and third spot and the rest is consumed by the other sectors of the economy.

6.2 Market Demand

The petroleum products account for approximately 40 percent of modern energy consumption in Pakistan. Consumption of petroleum products grew sharply during the 1980s at about 7 percent per annum, but slowed to about 2.5 percent during late 1990s and have gained a momentum in 2004-05 to about 9.31%.

Table 3: CURRENT/PROJECTED DEMAND OF PETROLEUM PRODUCTS

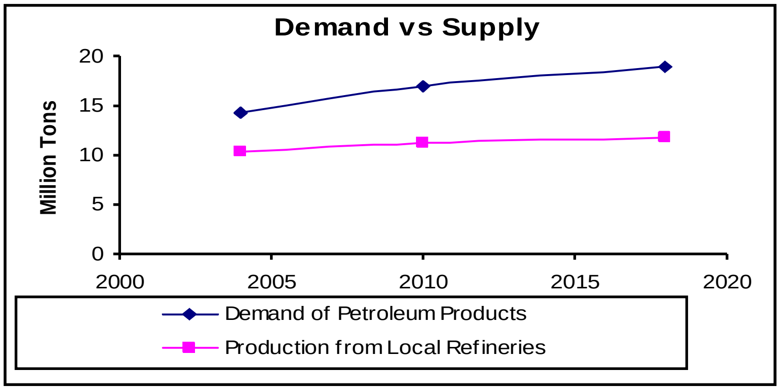
(In million tones)

	2003-2004	2004-05	2010-11	*2017-18*
Demand of Petroleum Products	14.3	15.5	17.0	19.0
Production from Local Refineries	10.3	12.0	11.3	11.8
Surplus Naphtha / Motor gasoline available for exports	1.3	1.5	0.8	0.8
Deficit of HSD and FO	*5.3*	*5.0*	*6.5*	*8.0*

Source: Ministry of Petroleum & Natural Resources

The demand is expected to increase around 17 million tones per annum by the year 2010-11. Thereafter, it is expected to further increase to around 19 million tones by the year 2017-18. The production of refined products by the local refineries during the year 2003-04 was 10.27 million tons. The deficit products import were 5 million tons in 2003-04 while it will remain around 5-6 million tons per annum up to year 2010-11. Thereafter, it is expected to increase to a level of around 8.0 million tons per annum by the year 2017-18.[4]

[4] *Ministry of Petroleum & Natural Resources*



Pakistan has incurred an import bill of $ 4.7 billion for crude and petroleum products in 2004-05 and projected import bill for the year 2005-06 is about US $ 5.4 billion. Recent up-ward price trend in the international market indicate increasing gap between import of crude and finished products.

In order to bridge up the above demand and supply gap and to improve the Petroleum products supply infrastructure, different incentives have been given under the Petroleum Policy/Investment Policy 1997 to attract local and foreign investments in the sector.

6.3 Market Supply

Keeping in view such a rapidly growing market demand for petroleum products over the past few years one can not deny the need of fuel fuelling stations. According to the statistics only 18% of the oil demand is satisfied from the local sources, rest is imported in the form of either crude oil or finished products from Middle East exporters (Saudi Arab playing the lead role). Different OMCs are expanding their retail outlet’s network to satisfy the demand and capture a maximum market share.

6.4 Industry Growth

- There has been a tremendous growth in the transportation sector as well as the oil fuelling station or retail outlets over the past years. According to the table 4, in 1998 there were 4.303 Million registered vehicles, which rose up to 5.366Million during the year 2007 that shows a growth of around 1.1 Million vehicles. There are around 5500 or more petrol pumps (fuelling stations) operating throughout the country. Due to the growing demand of petroleum products new oil marketing companies are commencing their operations.

The table given below represents the steadily growing trend of transportation sector over the last decade.

Table 4: Number of Motor Vehicles

YEAR	Motor Cars jeeps & wagons	Motor Cabs	Buses	Trucks	Motor cycles	Rickshaws	Others	Total
								In Millions
1998	1.085	0.083	0.125	0.132	2.068	0.081	0.729	4.303
1999	1.162	0.083	0.150	0.1.45	2.175	0.095	0.746	4.559
2000	1.182	0.083	0.154	0.1.48	2.260	0.099	0.772	4.701
2001	1.198	0.090	0.161	0.1.55	2.283	0.010	0.786	4.784
2002	1.205	0.090	0.162	0.1.64	2.382	0.119	0.822	4.947
2003	1272	0.090	0.162	0.1.75	2.422	0.120	0.833	5.077
2004	1.285	0.091	0.162	0.1.78	2.444	0.122	0.846	5.132
2005	1.307	0.092	0.165	0.1.81	2.481	0.124	0.858	5.209
2006	1.344	0.095	0.170	0.1.84	2.556	0.128	0.871	5.287
2007	1.344	0.095	0.170	0.1.87	2.556	0.128	0.884	5.366

Source: *Statistical Year Book 2007 (FBS)*

There are around six new oil marketing companies who've joined the oil marketing industry, and recently started their operation.

- Askar Oil Services (PVT.)LMT.
- Bakri Trading Company Pakistan (PVT.)LTD.
- Total-Parco Pakistan LTD.
- Hascombe Storage (PVT.)LTD.
- Overseas Oil Trading Co. (PVT.)LTD.
- Admore Gas (PVT.)LTD.

The apparent miss match of demand and supply, and special government incentives signifies the further entry of oil marketing companies in Pakistan to get the maximum gains from the speedily rising demand.

Table 5: OMCs Number of Retail Outlets (July 2001)

	Karachi	**Sindh ex-Karachi**	**Punjab**	**NWFP**	**Balochistan**	**Total**
Pakistan State Oil	154	564	2,167	579	353	3,817
Shell Pakistan	103	197	688	160	82	1,230
Caltex Pakistan	66	64	239	60	30	459
Attock Petroleum	0	0	4	11	0	15
Total	**323**	**825**	**3,098**	**810**	**465**	**5,521**

Source: OCAC Petroleum Statistics 200 1-02

To keep pace with the growing oil demand the oil marketing companies has initiated different projects, investing large sum of money on retail outlets (fuelling stations). Attock petroleum which was having only 15 retail outlets till FY 2001-02 is now bringing the total number of operational petrol pumps to 209 as on June 30, 2008. In addition, 54 retail outlets are currently under construction and an additional 164 are at different stages of securing the necessary licences. The Caltex which was having 459 is now having 597 outlets. Total Parco Pakistan LTD. An emerging oil marketing company has planned to develop 30-35 sites each year to have a network of about 450-500 retail outlets in 15 years time.[5] The other newly entered OMCs are also expanding their network, which gives the small and medium level entrepreneurs to invest in retail outlets' business and own their own Petrol/Diesel fuelling stations under the brand name of chosen OMC.

[5] http://www.ocac.org.pk/members.html

6.5 Price Mechanism[6]

The final prices of petroleum products include value addition at different stages as given in the table below.

Table 6: Ex-depot Sale Price Build up Formula

i.	**Ex-refinery Import Price**	As per refineries pricing formula based on fortnightly international market (Arab gulf) price
ii.	**Custom/ excise duty**	As per FBR notified rate
iii.	**Petroleum development levy (PDL)**	As per rate notified by the ministry of petroleum and natural resources in consultation with finance division
iv.	**Transportation Expenses**	Actual transportation cost determined by OMCs
v.	**Sub total-A**	i+ii+iii+iv
vi.	**Distribution margin for Oil marketing companies (OMCs)**	3.5% of (v)
vii.	**Dealers commission**	4.0% of (v)
viii.	**Price before GST**	Sub-total (A)+vi+vii
ix.	**General sales tax**	15 % of price before GST at viii
x.	**Ex-depot sale price**	(viii)+(ix)

The dealer or the owner of the fuelling station gets 4.0% commission for the oil he sales as explained in the table above.

Table 7: Petroleum Product Price Build up, December 16, 2007

	Ex-refinery/ IPP	**Excise Duty**	**Petroleum Levy**	**Inland Freight**	**OMC Margin**	**Dealer Margin**	**Sales Tax**	**Ex-Depot Sale Price**
MS	39.95	0.00	1.12	2.45	1.48	1.70	7.00	53.7
HOBC	40.89	0.00	7.49	4.63	1.59	1.82	8.46	64.88
Kerose	26.79	0.00	0.00	2.80	1.04	0.00	4.60	35.23
LDO	24.77	0.00	0.00	2.59	0.96	0.00	4.25	32.57

7 LICENSING PROCESS FOR RETAIL OUTLET (FRANCHISE)

The process of opening up a fuelling station includes few essential steps that need to be followed in order to full fill the criteria of oil marketing company (OMC) as well as the government.

[6] How Pakistan is coping with the Challenge of High Oil Prices (2008), *Pakistan Institute of Development Economics, Islamabad.*

7.1 Application

An entrepreneur interested in franchisee business submits a written application (expression of interest) to an oil marketing company (OMC). The applicant requests the OMC to asses the feasibility of his land for the purpose of retailer ship of their petroleum & lubricant products.

7.2 Feasibility Study

After Initial survey OMC scrutinizes the applicant on the bases of his credibility (both social and financial), & skills, and then a feasibility study is conducted by the OMC's expert to measure the viability of applicant's land with respect to its location. After fulfilling the feasibility criteria for the project the OMC signs a retailer ship agreement with the applicant and acquire his land on rental lease for the period of minimum 15 years[7]. The rent is just a nominal amount based on the location of the land.

7.3 No Objection Certificates (NOCs)

After signing the agreement the OMC's architects draw a map for the sight representing the anticipated structure of the sight as per the national standards. The application is then submitted to the district coordinator officer (DCO) along with the map in order to acquire a no objection certificates from the concerned departments for this project. The DCO calls a consultative meeting including the representatives of the concerned departments to critically analyze the project and share if they have some objections or not regarding the project. With the view of all the representatives regarding the project the DCO issues a no objection certificate for the prescribed project.

7.4 License of Explosives

The explosives department is a supreme authority for issuing a license to store or sale the explosive (petroleum) items. The OMC finally submits the application to the department of explosives for the grant of license. The application includes NOC and the sight map issued and approved by the DCO respectively.

7.5 Construction phase

After the permission of explosives department the infra structure construction is to be started according to the approved map. The cost of infra structure is shared between the entrepreneur and the OMC. The company totally pays for the machinery and equipment and the civil work is the responsibility of entrepreneur. After the completion, the sight is inspected by an expert engineer of OMC. The sight constructed according to the standards qualifies for the certificate of "safety and completion" issued by the OMC's engineer.

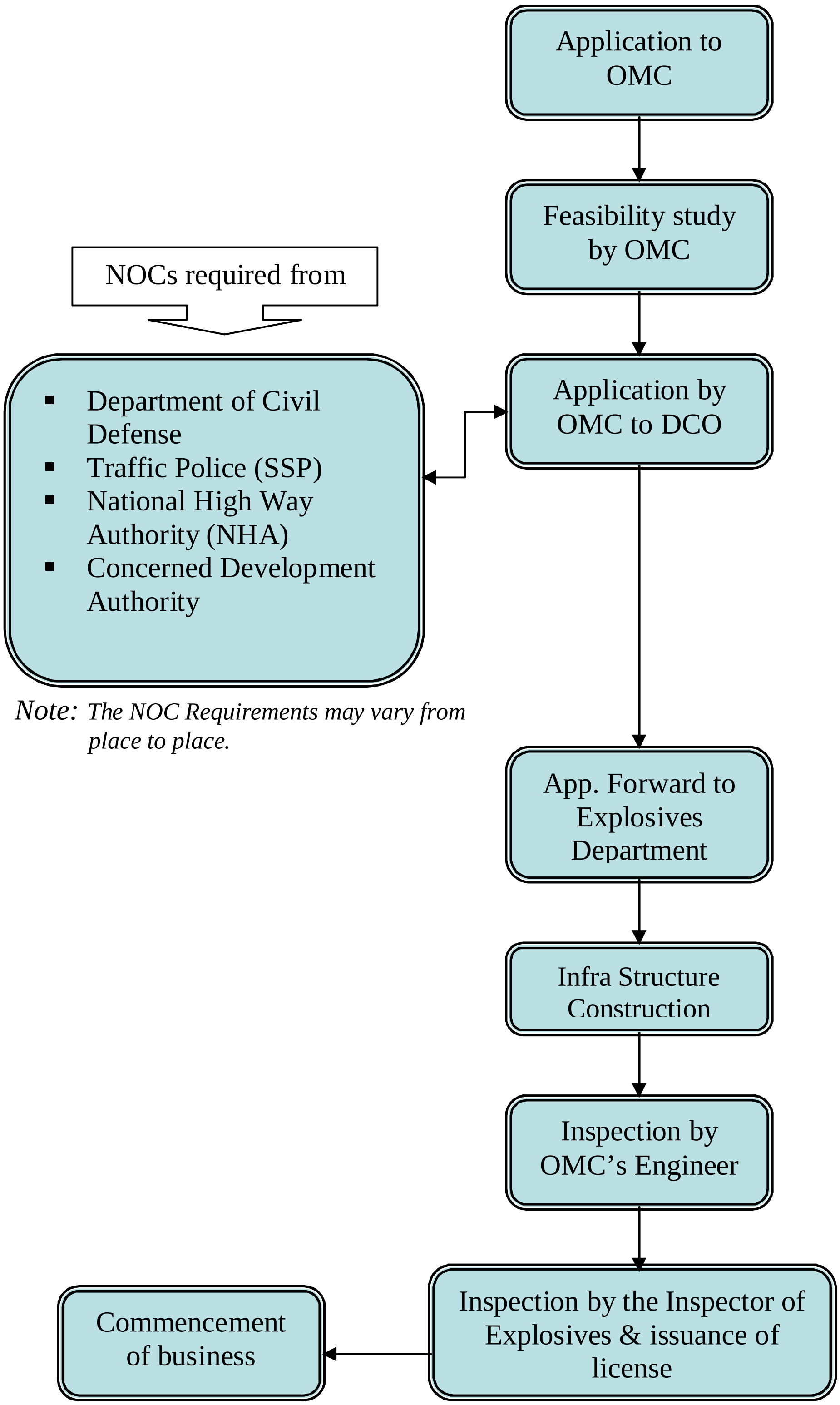
7.6 Grant of License

The last and final step is the sight inspection by the inspector of explosives from the explosives department. The inspector critically inspects the site (specially the fuel storage tanks) according to the pre defined rules of explosives department and grants the license to the franchisee (entrepreneur) to start his business.

[7] OMC's Representative

- Note: The unit measure of the fuel is monitored by the weight and measurement department. The dispensers are sealed by the department to make sure the standardized quantity of fuel is sold every where.

PROCESS FLOW CHART



8 PROJECT INPUTS

8.1 Proposed Capacity

The annual sales capacity of the station will be 2.85 million litters of petrol & diesel, based on double-shift services. For financial projection Capacity utilization will be 80% in the first year; and increased at a rate of 5% annually and will be capped at 95%.

8.2 Land

The total land requirement would be of 15,000 Sqfts. to install various facilities of the project, inclusive of car wash, tire shop and office building.

8.3 Suitable Locations

The Fuelling Station is recommended to be installed next to the populated area while considering other mandatory inputs i.e. availability of human resource, electricity and water etc. for the purpose, a location in the main city would be feasible to make sure a healthy number of populations is around the fuelling station along with the compulsory infra structure.

8.4 Office Equipment

Table 9 Office Equipment

Description	Qty	Cost/Unit	Total Amount (PKR)
Computer	1	12,000	12,000
Printer	1	6,000	6,000
Telephone	2	1,000	2,000
Fax Machine with Extra Phone Line	1	12,000	12,000
Total			**32,000**

Table 9-1 Furniture & Fixture

Description	Total Amount (PKR)
Furniture	30,000
Air conditioners (1.5 Ton Window)	24,000
Total	**54,000**

8.5 *Human Resource Requirements*

The possible human resource requirements for the project are provided in the following table:

Table 10 Human Resource Details

Designation	Number	Per Month Salary (Rs)	Annually (Rs)
Supervisor	1	12,000	144,000
Dispenser Operator	6	4,500	324,000
Watch Man	1	5,000	60,000
Sweepers	1	2,500	30,000

Note: The staff salaries are estimated according to the market trends; however, the investor may set different pay scales.

RS. 558,000

The anticipated work forces include 9 numbers of employees consisting of 1 supervisor, 6 dispenser operator, 1 Watch Man, and a sweeper.

8.3 Duties of the Labour

1. Fuelling the vehicles.
2. Selling the lubricants.
3. Counting and accepting the cash
4. Operating the machinery
5. Cash Management.
6. Book Keeping

8.4 Infrastructure Requirement

The infrastructure requirements of the project will be:

a. Power
b. Water
c. Railway/Road
d. Telecommunication

8.6 Land and Building Requirement

Table 11 Land Cost

Description	Cost/sq.ft	Area in sq.ft	Total Cost (Rs.)
Land	2,500	15,000	**37,500,000**

Table 12 Building Construction Cost

Description	Cost/sq.ft	Area in sq.ft	Total Cost (Rs.)
Office Building	1,200	240	288,000
Car Wash	800	224	179,200
Tire Shop	1,200	120	144,000
Total			**RS. 611,200**

9. PROJECT ECONOMICS

9.1 Project Cost

Description	Amount in (Rs.)
Land	37,500,000
Building & Infrastructure	611,200
Furniture & Fixtures	54,000
Office Equipment	32,000
Pre-operating costs	12,000
Company Joining Fee and Security	400,000
Total Capital Cost	**38,609,200**
Working Capital	
Raw Material Inventory	646,060
Cash	500,000
Total Working Capital	**1,146,060**
Total Project Cost	**39,755,260**

9.2 Project Returns

Description	Equity	Project
IRR	68%	56%
MIRR	43%	34%
Pay Back Period (Yrs)	3.05	3.22
Net Present Value (NPV)	232,816,329	306,244,247

9.3 Project Financing

Description	Percentage	Amount in Rs
Equity Financing	60%	23,852,131
Debt Financing	40%	15,903,129
Total		**39,755,260**

10. FINANCIAL ANALYSIS

Financial Evaluation of Pre-feasibility Fuelling Station **SMEDA**

Key Variables		
Total Investment in Project		**39,755,260**
Equity	**60%**	**23,852,131**
Debt	**40%**	**15,903,129**
Interest Rate		**18%**
Debt Tenure		**5**
Total Number of Employees		**9**

Rs. in actuals

	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**
Free Cash Flow to Equity (FCFE)	(5,987,990)	1,862,411	20,324,443	36,694,259	53,320,794	77,063,684	97,871,485	120,966,469	146,580,633	176,211,483
Free Cash Flow to Firm (FCFF)	(6,651,562)	12,262,846	24,972,046	41,464,432	58,235,597	77,063,684	97,871,485	120,966,469	146,580,633	242,227,745
Profit margin on sales	-1%	7%	13%	20%	25%	31%	36%	40%	44%	48%
ROE	-9%	32%	43%	42%	38%	33%	30%	27%	25%	23%
Times interest earned	0.42	5.25	16.44	37.62	97.31	-	-	-	-	-

		Equity		**Project**
Internal Rate of Return (IRR)		**68%**		**56%**
Modified Internal Rate of Return (MIRR)*		**43%**		**34%**
Payback Period (yrs)		**3.05**		**3.22**
Net Present Value (NPV)	**@ 16%**	**232,816,329**	**@ 12%**	**306,244,247**

**Re-investment rate has been taken to be the interest on cash in bank, which in this case is 2%*

10.1 Projected Income Statement

Statement Summaries **SMEDA**

Rs. in actuals

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenue	131,497,344	153,687,521	179,000,760	207,839,771	228,623,748	251,486,123	276,634,735	304,298,208	334,728,029	368,200,832
Cost of goods sold	129,722,861	137,861,683	146,008,014	154,162,724	154,233,935	154,312,158	154,398,083	154,492,467	154,596,145	154,710,030
Gross Profit	1,774,483	15,825,837	32,992,746	53,677,047	74,389,813	97,173,964	122,236,652	149,805,741	180,131,885	213,490,802
General administration & selling expenses										
Administration expense	354,000	388,466	462,414	507,435	556,839	611,054	670,547	735,833	807,474	886,091
Utilities expense	3,200	3,300	3,410	3,531	3,664	3,811	3,972	4,149	4,344	4,558
Comm. expense (phone, fax, etc.)	169,920	186,464	221,959	243,569	267,283	293,306	321,863	353,200	387,588	425,324
Office expenses (stationary, etc.)	14,160	15,539	18,497	20,297	22,274	24,442	26,822	29,433	32,299	35,444
Professional fees (legal, audit, etc.)	65,749	76,844	89,500	103,920	114,312	125,743	138,317	152,149	167,364	184,100
Depreciation expense	39,160	39,160	39,160	39,160	39,160	39,160	39,160	39,160	39,160	39,160
Amortization expense	42,400	42,400	42,400	42,400	42,400	40,000	40,000	40,000	40,000	40,000
Subtotal	688,589	752,172	877,339	960,312	1,045,932	1,137,516	1,240,681	1,353,923	1,478,229	1,614,677
Operating Income	1,085,895	15,073,665	32,115,407	52,716,735	73,343,881	96,036,449	120,995,972	148,451,818	178,653,656	211,876,125
Other income	300,200	343,344	597,685	1,203,591	2,143,033	3,490,098	5,286,991	7,527,667	10,260,665	13,551,865
Earnings Before Interest & Taxes	1,386,095	15,417,010	32,713,091	53,920,326	75,486,913	99,526,546	126,282,963	155,979,485	188,914,321	225,427,989
Interest expense	3,335,274	2,935,151	1,990,295	1,433,164	775,749	-	-	-	-	-
Earnings Before Tax	(1,949,179)	12,481,859	30,722,796	52,487,162	74,711,164	99,526,546	126,282,963	155,979,485	188,914,321	225,427,989
Tax	-	2,317,190	6,759,015	11,547,176	16,436,456	21,895,840	27,782,252	34,315,487	41,561,151	49,594,158
NET PROFIT/(LOSS) AFTER TAX	(1,949,179)	10,164,669	23,963,781	40,939,986	58,274,708	77,630,706	98,500,711	121,663,999	147,353,170	175,833,832
Balance brought forward		(1,949,179)	8,215,490	32,179,271	73,119,258	131,393,965	209,024,671	307,525,383	429,189,381	576,542,551
Total profit available for appropriation	(1,949,179)	8,215,490	32,179,271	73,119,258	131,393,965	209,024,671	307,525,383	429,189,381	576,542,551	752,376,383
Dividend	-	-	-	-	-	-	-	-	-	-
Balance carried forward	(1,949,179)	8,215,490	32,179,271	73,119,258	131,393,965	209,024,671	307,525,383	429,189,381	576,542,551	752,376,383

10.2 Projected Balance Sheet

Statement Summaries **SMEDA**

Rs. in actuals

	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	500,000	-	1,862,411	22,186,853	58,881,113	112,201,906	189,265,590	287,137,075	408,103,543	554,684,176	730,895,660
Accounts receivable	-	3,602,667	3,906,642	4,557,374	5,299,185	5,978,952	6,576,848	7,234,532	7,957,986	8,753,784	9,629,162
Raw material inventory	646,060	720,761	801,317	888,126	932,532	979,159	1,028,117	1,079,523	1,133,499	1,190,174	-
Total Current Assets	1,146,060	4,323,428	6,570,369	27,632,353	65,112,830	119,160,018	196,870,554	295,451,130	417,195,028	564,628,134	740,524,822
Fixed assets											
Land	37,500,000	37,500,000	37,500,000	37,500,000	37,500,000	37,500,000	37,500,000	37,500,000	37,500,000	37,500,000	37,500,000
Building/Infrastructure	611,200	580,640	550,080	519,520	488,960	458,400	427,840	397,280	366,720	336,160	305,600
Machinery & equipment	-	-	-	-	-	-	-	-	-	-	-
Furniture & fixtures	54,000	48,600	43,200	37,800	32,400	27,000	21,600	16,200	10,800	5,400	-
Office vehicles	-	-	-	-	-	-	-	-	-	-	-
Office equipment	32,000	28,800	25,600	22,400	19,200	16,000	12,800	9,600	6,400	3,200	-
Total Fixed Assets	38,197,200	38,158,040	38,118,880	38,079,720	38,040,560	38,001,400	37,962,240	37,923,080	37,883,920	37,844,760	37,805,600
Intangible assets											
Pre-operation costs	12,000	9,600	7,200	4,800	2,400	-	-	-	-	-	-
Legal, licensing, & training costs	400,000	360,000	320,000	280,000	240,000	200,000	160,000	120,000	80,000	40,000	-
Total Intangible Assets	412,000	369,600	327,200	284,800	242,400	200,000	160,000	120,000	80,000	40,000	-
TOTAL ASSETS	39,755,260	42,851,068	45,016,449	65,996,873	103,395,790	157,361,418	234,992,794	333,494,210	455,158,948	602,512,894	778,330,422
Liabilities & Shareholders' Equity											
Current liabilities											
Accounts payable	-	1,779,902	1,891,632	2,003,448	2,114,683	2,115,321	2,115,992	2,116,696	2,117,436	2,118,212	2,101,908
Short term debt	-	5,487,990	-	-	-	-	-	-	-	-	-
Total Current Liabilities	-	7,267,892	1,891,632	2,003,448	2,114,683	2,115,321	2,115,992	2,116,696	2,117,436	2,118,212	2,101,908
Other liabilities											
Long term debt	15,903,129	13,680,224	11,057,196	7,962,023	4,309,719	-	-	-	-	-	-
Total Long Term Liabilities	15,903,129	13,680,224	11,057,196	7,962,023	4,309,719	-	-	-	-	-	-
Shareholders' equity											
Paid-up capital	23,852,131	23,852,131	23,852,131	23,852,131	23,852,131	23,852,131	23,852,131	23,852,131	23,852,131	23,852,131	23,852,131
Retained earnings	-	(1,949,179)	8,215,490	32,179,271	73,119,258	131,393,965	209,024,671	307,525,383	429,189,381	576,542,551	752,376,383
Total Equity	23,852,131	21,902,952	32,067,621	56,031,402	96,971,388	155,246,096	232,876,802	331,377,513	453,041,512	600,394,682	776,228,514
TOTAL CAPITAL AND LIABILITIES	39,755,260	42,851,068	45,016,449	65,996,873	103,395,790	157,361,418	234,992,794	333,494,210	455,158,948	602,512,894	778,330,422

10.3 Projected Cash Flow

Statement Summaries **SMEDA**

Rs. in actuals

	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	-	(1,949,179)	10,164,669	23,963,781	40,939,986	58,274,708	77,630,706	98,500,711	121,663,999	147,353,170	175,833,832
Add: depreciation expense	-	39,160	39,160	39,160	39,160	39,160	39,160	39,160	39,160	39,160	39,160
amortization expense	-	42,400	42,400	42,400	42,400	42,400	40,000	40,000	40,000	40,000	40,000
Deferred income tax	-	-	-	-	-	-	-	-	-	-	-
Accounts receivable	-	(3,602,667)	(303,975)	(650,732)	(741,812)	(679,767)	(597,895)	(657,685)	(723,453)	(795,799)	(875,378)
Raw material inventory	(646,060)	(74,701)	(80,556)	(86,809)	(44,406)	(46,627)	(48,958)	(51,406)	(53,976)	(56,675)	1,190,174
Accounts payable	-	1,779,902	111,730	111,816	111,235	639	671	704	739	776	(16,304)
Other liabilities	-	-	-	-	-	-	-	-	-	-	-
Cash provided by operations	(646,060)	(3,765,085)	9,973,429	23,419,616	40,346,563	57,630,513	77,063,684	97,871,485	120,966,469	146,580,633	176,211,483
Financing activities											
Change in long term debt	15,903,129	(2,222,905)	(2,623,028)	(3,095,173)	(3,652,304)	(4,309,719)	-	-	-	-	-
Change in short term debt	-	5,487,990	(5,487,990)	-	-	-	-	-	-	-	-
Issuance of shares	23,852,131	-	-	-	-	-	-	-	-	-	-
Cash from financing activities	39,755,260	3,265,085	(8,111,018)	(3,095,173)	(3,652,304)	(4,309,719)	-	-	-	-	-
Investing activities											
Capital expenditure	(38,609,200)	-	-	-	-	-	-	-	-	-	-
Acquisitions	-	-	-	-	-	-	-	-	-	-	-
Cash from investing activities	(38,609,200)	-	-	-	-	-	-	-	-	-	-
NET CASH	500,000	(500,000)	1,862,411	20,324,443	36,694,259	53,320,794	77,063,684	97,871,485	120,966,469	146,580,633	176,211,483
Cash balance brought forward		500,000	-	1,862,411	22,186,853	58,881,113	112,201,906	189,265,590	287,137,075	408,103,543	554,684,176
Cash available for appropriation	500,000	(0)	1,862,411	22,186,853	58,881,113	112,201,906	189,265,590	287,137,075	408,103,543	554,684,176	730,895,660
Dividend	-	-	-	-	-	-	-	-	-	-	-
Cash carried forward	500,000	-	1,862,411	22,186,853	58,881,113	112,201,906	189,265,590	287,137,075	408,103,543	554,684,176	730,895,660

11. KEY ASSUMPTIONS

11.1 Project Capacity Assumptions

Description	Calculation
Assumed Total Sale / Day	8,000 Liters
Assumed Wastages	1 % (80 Liters/Day)
Assumed total No. of Business Days	360
Total Yearly Assumed Capacity	7,920 * 360 = 2,851,200 Liters / Year
Assumed Capacity Utilization 1st Year	80%
Assumed Growth in Capacity Utilization	5%
Maximum Attainable Capacity	95%

11.2 Revenue Assumptions

Description	Calculation
Average Price / Liter	Rs. 57.65
Price Growth Rate / Year	10%
Additional Yearly Income from Tire Shop and Service Station Rent	Rs. 295,200
1st Year Revenue	57.65 * (2,851,200 * 0.8) = Rs. 131,497,344
Total Revenue in Year 1	**Rs. 131,792,544**

11.3 Economic Assumptions

Electricity Price Growth Rate	10%
Gas Price Growth Rate	10%
Water Price Growth Rate	10%
Salary Growth Rate	10%

11.4 Expense Assumptions

Fuel Transportation Expenses	40% of administration expense
Telephone and Internet Expense	8% of administration expense
Office Expense	4% of administration expense
Professional Fee (Legal, Audit etc)	0.1% of revenue
Operating Cost Growth Rate	5%

11.5 Depreciation Expense Assumptions

Depreciation Method	Straight Line
Furniture & Fixtures	5%
Office Equipment	5%

11.6 Cost of Goods Sold

All the direct costs that directly affect the revenue of any project are called Cost of Goods Sold (COGS). For a Fuelling Pump/Station, following are the components and estimated value of COGS in the first year:

Description	**Total 1st Year's Cost (PKR)**
Raw Material (Fuel)	129,212,050
Direct Labor Cost	324,000
Direct Electricity Cost	186,811
Total COGS	**129,722,861**

11.7 Cash flow Assumptions

Accounts Receivables Cycle (In Days)	10
Accounts Payable Cycle (In Days)	5
Initial Cash in Bank	500,000

11.8 Financing Assumptions

Debt	40%
Equity	60%
Long Term Debt Interest Rate	18%
Tax Treatment	Sole proprietorship
Discount Rate for NPV (WACC)	12 %