



Pre-feasibility Study

GLASS/CERAMIC COATING OF VEHICLES

May 2021

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

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

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1 DISCLAIMER

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2 EXECUTIVE SUMMARY

Auto detailing is an activity of systematically performing operations and procedures that keep the vehicle in its best possible condition, especially cosmetic, as opposed to mechanical. This is achieved by removing both visible and invisible contaminants from the vehicle's interior and polishing the exterior. The most basic detailing options include an exterior wash and wax, interior vacuuming, window cleaning and surface polishing. A recent detailing technique is coating the vehicles' surfaces with Glass/Ceramic materials. Glass/ceramic coating services have high profit margin compared to other detailing services. The profit margins are higher because of multiple benefits of these coatings, which include protection from harmful UV (Ultra-Violet) rays, protection from chemical stains and protection from all types of scratches and swirl marks and water spotting. The coatings have a hydrophobic nature which helps in ease of cleaning and gives candy-like gloss.

This "Pre-feasibility Document" provides details for setting up business to provide services of Glass/Ceramic Coating of Vehicles. The unit is proposed to be located in Karachi, Lahore, Islamabad, Peshawar, Rawalpindi, Quetta, Faisalabad, Sialkot, Hyderabad, Gujranwala, Multan or any other major city of Pakistan. These cities are preferred for the proposed unit due presence of upper class and upper middle class in these cities, because the proposed services will be availed mainly by high-income segments of the population possessing personal vehicles. Due to increasing number of vehicles and increase in disposable income of Pakistani, there is increase in demand of auto detailing services.

The proposed project will be set up in a rented building having an area of 2,700 sq. ft (12 Marla). The proposed project has a total investment of PKR 4.65 million. This includes capital investment of PKR 3.72million and working capital of PKR 0.93 million. This project is financed through 100% equity. The Net Present Value (NPV) of project is PKR 7.06 million with an Internal Rate of Return (IRR) of 42% and a Payback period of 3.27 years. Further, the proposed project is expected to generate Gross Annual Revenues of PKR 12.18 million in 1st year after coming into operations, Gross Profit (GP) ratio ranging from of 38% to 49% and Net Profit (NP) ratio ranging from 1% to 20% during the projection period of ten years. The proposed project will achieve its estimated breakeven point at capacity of 55% (414 vehicles) with breakeven revenue of PKR11.24 million in a year.

The proposed project may also be established using leveraged financing. At 50% financing at a cost of KIBOR+3%, the proposed unit provides Net Present Value (NPV) of PKR 10.05 million, Internal Rate of Return (IRR) of 42% and Payback period of 3.27 years. Further, this project is expected to generate Net Profit (NP) ratio ranging from 5% to 18% during the projection period of ten years. The proposed project will achieve its estimated breakeven point at capacity of 59% (442 coatings) with breakeven revenue of PKR 12.01 million.

The proposed project will provide employment opportunities to 11 to 12 people. As evident from the above financial figures, the proposed project for Glass/Ceramic

Coating of Vehicles shows reasonable profitability and is economically and financially viable. The legal form of this project is proposed as “Sole-Proprietorship”. Further, the proposed project may also be established as a “Partnership Concern”.

3 INTRODUCTION TO SMEDA

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

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

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

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

The NBDP envisages provision of handholding support / business development services to SMEs to promote business startup, improvement of efficiencies in existing SME value chains to make them globally competitive and provide conducive business environment through evidence-based policy-assistance to the Government of Pakistan. The Project is objectively designed to support SMEDA's capacity of providing an effective handholding to SMEs. The proposed program is aimed at facilitating around 314,000 SME beneficiaries over a period of five years.

4 PURPOSE OF THE DOCUMENT

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

The purpose of this document is to provide information to the potential investors about establishing a “Glass/Ceramic Coating of Vehicles”. The document provides a

general understanding of the business to facilitate potential investors in crucial and effective investment decisions.

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

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

5 BRIEF DESCRIPTION OF PROJECT & SERVICES

This document provides details for setting up a business for providing services of Glass/Ceramic Coating of Vehicles. These services will be primarily used by private or commercial vehicle owners who are interested in maintaining a good exterior look of their vehicles. These vehicles include all types of cars, small passenger transportation vehicles (called wagons in local language), small goods transportation vehicles (pickups), all types of four-wheel drive vehicles and small trucks used for transportation within the cities. Passenger cars are the primary target vehicles for this business. In the proposed business, two types of coating may be applied to the vehicles. There include glass coating and ceramic coating of vehicle.

Glass Coating

Glass coating is basically a liquid glass made up of silica and siloxane. It's a clear pure liquid which hardens itself on contact with air. It provides super durable shine, gloss, and protection to vehicle's paint. The ultimate purpose of Glass Coating is to protect paint's clear coat on vehicle. Glass coating repels water, is antistatic¹, protects the surface from dirt, dust and other pollutants sticking to it. This makes surface cleaning much easier. Glass coating also increases resistance to scratches by up to ten times compared to surfaces that are not coated.

Ceramic Coating

Ceramic coating is made up of silicon and carbon that is applied to the exterior of a vehicle to protect it from external paint damage. This coating blends with the paint of vehicle and creates an additional hydrophobic layer of protection. When ceramic coating is applied on a car's body, the polymer forms a chemical bonding with the original factory paint of the vehicle. Once coated, it can only be removed by abrasion² and not by any chemicals.

¹ Reducing, removing, or preventing the buildup of static electricity

² Abrasion is the process of scraping or wearing something away.

Ceramic coating gives a deep gloss, easy maintenance and cleaning, resistance to stains and scratches, protection from UV (Ultra-Violet) rays, temperature regulation and interior protection. It has smoother finish than glass coating. The ceramic coating is more durable than glass coating as it last for almost 6 to 8 months³ compared to glass coating which lasts for 4 to 6 months.⁴

The unit is proposed to be set up in a rented building having covered area of 2,700 sq. ft. (12 Marla). The proposed project shall operate at 60% of installed capacity for the 1st year of operation with service capacity of coating 448 vehicles. The proposed business will create employment opportunities for 11 to 12 persons.

5.1 Key Benefits

Some key benefits of glass and ceramic coatings are:

Durability of Coatings

Glass and ceramic coatings have impressive durability due to their best chemical combinations. Ceramic coating durability last for 6-8 months while glass coating durability last for 4-6 months which shows that ceramic coating is more durable than glass coating.

Protection from Light Scratches

Glass and ceramic coatings also offer protection from light scratches. When a coating is applied to a porous surface, it fills those microscopic imperfections to provide a completely flat and incredibly hard layer of protection. This layer protects the vehicle from harmful UV (Ultra-Violet) rays, all types of scratches and swirl marks, chemical stains and water spotting.

Protection from Harmful Elements/Chemicals

Glass and ceramic coatings protects the vehicle paint from all types of pollutants including dirt, dust, acid rain, road salt, guano etc present in the environment. This coating forms a hard protection layer which protects the vehicle from any environmental damage.

5.2 Machinery and Equipment

Machinery and equipment required for glass/ceramic coating of vehicles are briefly discussed below:

Pressure Washer

Pressure washer is a machine which sprays water on any hard surface with high pressure. It is used to remove loose paint, mold, algae, grime, dust and mud from vehicles. Figure 1 shows pressure washer.

³Source: autodetailingpro.ca

⁴Source: autodetailingpro.ca

Figure 1: Pressure Washer**Rotary Polisher**

Rotary polisher is a polishing machine that uses Rotary Motion (the head of this machine head spins on one axis).⁵ This rotary motion/single motion allows a circular polisher to level the coat that surrounds a scratch so that the scratch's "edges" disappear. The rotary polisher removes paint imperfections and improves the quality of paint finish by creating a polishing effect on the surface of vehicle paint. This machine is used to polish and restore paintwork. Figure 2 shows rotary polisher.

Figure 2: Rotary Polisher**Vacuum Cleaner**

Vacuum cleaner is an electrical apparatus which collects dust and small particles from surfaces by using suction. Vacuum cleaner for car is especially designed to help clean those spots in vehicles which are hard-to-reach and clean. It removes the dust particles accumulated in the car's cabin. Figure 3 shows vacuum cleaner commonly used for cleaning vehicles.

⁵Rotary motion is anything that moves in a circle.

Figure 3: Vacuum Cleaner for Vehicles**Dual Action Polisher**

A dual-action polisher is a tool that is used to smoothen vehicle's bodywork and to apply wax. This machine uses both circular and spinning actions, which creates a double action. This machine also vibrates during its circular and spinning motion, which helps in avoiding burning of the vehicle paint due to continuous rubbing action. shows dual action polisher.

Figure 4 shows dual action polisher.

Figure 4: Dual Action Polisher**5.3 Process Flow**

The process flow for coating the vehicles with Glass/ceramic coatings is shown in Figure 5.

Figure 5: Process Flow

Brief description of the process flow is as follows:

Pressure Washing of Vehicle

The process starts by properly washing the vehicle. In this process, high-pressure water spray is used for pressure washing to remove loose paint, mold, grime, dust, mud, chewing gum and dirt from vehicle surface. Only when the surface is residue-free, the glass/ceramic coating will be able to properly bond with the paint.

Removal of Contamination from Surface of Vehicle

Once the surface of vehicle is clean, it is important to remove any contamination on surface of paint, that may have escaped during washing. If contamination is not properly removed before applying glass/ceramic coating, it will damage the paint and cause irreversible damage. Figure 6 represents decontamination of vehicles.

Figure 6: Decontamination



Buffing of Surface

Once the surface is properly washed and cleaned, the last step before proceeding to coating process is cleansing or wiping to remove oils, waxes or silicones that may still be present on the surface. This is called buffing of surface. For this purpose, rotary polisher (rotary buffer) is used. At this stage, the surface is perfectly clean and residue-free and ready for glass/ceramic coating. Figure 7 shows buffing process.

Figure 7: Buffing



Polishing of Vehicle Surface

After buffing, the polishing will be done which will correct imperfections and remove those pesky bumps to make the surface of car smooth. After the vehicle is polished, coating can be applied to fill in any of the leftover, nagging imperfections that might be noticed. Figure 7 represents the polishing of vehicle.

Figure 8: Polishing



Glazing Process

Glaze fills in the tiny clear coating imperfections and lines that polishing leaves behind; even though they may not be visible to the human eye. Glaze coating can help diminish the appearance of imperfections. Figure 9 shows glazing process.

Figure 9: Glazing



Finishing of Glass and Ceramic Coating Process

After glazing, the vehicle is left for 2 to 3 hours for drying of the coating. Once the coating is dried, final slight touch of the polish is given to finish the coating process.

Figure 10: Finished Product

5.4 Installed and Operational Capacities

The total service capacity is usually based on the time needed to coat a vehicle. The proposed business will have maximum capacity of serving 747 vehicles in a year. However, during 1st year of operation, the proposed business is expected to attain 60% of its installed capacity. The service unit operates in a single shift of 8 hours per day. Based on 280 working days in a year, the unit shall provide services to 448 vehicles during first year at 60% capacity utilization.

Table 1 depicts the installed and operational capacities of the proposed unit.

Table 1: Installed and Operational Capacity

Particulars	Time/Car (Hours) (A)	Annual Working Hours(B)	Ratio (C)	No of Skilled Staff (D)	Annual Capacity (B*C/A*D)	Annual Capacity @ 60 %
Glass Coating	6	2,240	40%	2	299	179
Ceramic Coating	9		60%	3	448	269

6 CRITICAL FACTORS

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

- Technical know-how and basic knowledge of the entrepreneur
- Availability of quality raw materials
- Availability of skilled workforce
- Ensuring aesthetic characteristics and corrosion protection
- Strict checks on quality standards
- Rigorous supervision of the process at every level
- Timely processing and delivery

7 GEOGRAPHICAL POTENTIAL FOR INVESTMENT

The demand for glass or ceramic coating of vehicles will be higher in large cities. Majority of private sector vehicles are present in the big cities of Pakistan. Therefore, the geographical potential for investment in this business is in the cities of Karachi, Lahore, Islamabad, Peshawar, Rawalpindi, Quetta, Faisalabad, Sialkot, Hyderabad, Gujranwala, Multan or any other major city of Pakistan.

8 POTENTIAL TARGET MARKETS

The services of the proposed unit shall be used by primarily the owners of private cars, which are used for personal as well as commercial purposes. These services of the proposed project can be used for any vehicle, these services are not linked with car size, car brand or engine capacity. These services are mostly used by vehicle owners who are very keen to maintain their vehicles in the best possible form. This includes maintaining the engine as well as the exterior look of vehicle. The services provided by the proposed project will be costly; therefore, majority of the customers would be from upper and upper middle classes of the population. Despite high cost of these services, car lovers/ enthusiasts will be the potential customers of these services.

In Pakistan, the registered vehicles in the country increased by 9.6 per cent in 2018 as the number of vehicles reached 23,588,268⁶ compared to 21,506,641 vehicles in 2017. Motor cars, jeeps and station wagons grew by 5.3 percent reaching 3,043,593 from 2,889,500 during the period of one year.

There are number of businesses that have been established over the last 5-6 years to provide glass/ceramic coating services in Pakistan. A rapid growth in transportation and automotive sector during recent years is expected to be a significant factor for market growth during the forecast period.

9 PROJECT COST SUMMARY

A detailed financial model has been developed to analyze the commercial viability of the business of Glass/Ceramic Coating of Vehicles. 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 attached as Annexure.

Project is proposed to be financed through 100% equity. Total project cost has been estimated to be PKR 4,645,204 comprises of capital investment of PKR 3,719,224 and working capital of PKR 925,980.

⁶Source: profit.pakistantoday.com.pk

9.1 Project Economics

All the figures in this financial model have been calculated after carefully taking into account the relevant assumptions and target market. The financial feasibility analysis provides information regarding projected IRR, NPV and payback period of the study. Financial feasibility results are shown in Table 2.

Table 2: Financial Feasibility Analysis

Description	Project
IRR	42%
NPV (PKR)	7,064,474
Payback Period (years)	3.27
Projection Years	10
Discount rate used for NPV	20%

9.1.1. Financial Feasibility with 50% Debt Financing

The financial feasibility analysis provides the information regarding projected IRR, NPV and payback period of the study on the basis of Debt: Equity Model (50:50), which is shown in Table 3.

Table 3: Financial Feasibility Analysis Debt

Description	Project
IRR	42%
NPV (PKR)	10,053,157
Payback Period (years)	3.27
Projection Years	10
Discount rate used for NPV	16%

9.2 Project Cost

The details of initial project cost calculated for the Glass/Ceramic of Vehicles are shown in Table 4.

Table 4: Initial Project Cost

Cost Item	Cost (PKR)
Land	-
Building/Renovation Cost	771,000
Machinery & Equipment	1,500,000
Office Equipment	562,000
Furniture & Fixtures	245,000

Vehicle	163,000
Pre-operating costs	178,224
Advance against Building Rent	300,000
Total Capital Cost	3,719,224
Working Capital	
Equipment spare part inventory	25,000
Raw material inventory	300,980
Prepaid Building Rent	100,000
Cash	500,000
Total Working Capital Cost	925,980
Total Project Cost	4,643,804

9.2.1 Land

The Glass/Ceramic Coating of Vehicles will be established in a rented building to avoid the high cost of land. Suitable location for setting up of the unit like this can be easily found on rent. Therefore, no land cost has been added to the project cost. Total space requirement for the proposed manufacturing unit has been estimated as 2,700 sq. feet. The required space breakup is shown in Table 5.

Table 5: Land Area Breakup

Description	% Break-Up	Numbers	Size	Area Sq. Ft.
Office	22%	1	600	600
Washing Room	22%	1	600	600
Detailing Room ⁷	22%	1	600	600
Studio Room ⁸	19%	1	500	500
Washrooms	10%	1	260	260
Pavement/driveway	5%	1	140	140
Total	100%			2,700

9.2.2 Building

There will be no cost of building since the proposed business will be started in the rented premises. However, there will be a renovation cost required to make the

⁷ Room where all the function related to coating are performed except washing the vehicles.

⁸ Room where vehicles are parked after glass or ceramic coating for display.

building ready to use for the business. The proposed project requires estimated electricity load of 3-4 KW for which an electricity connection under the General Supply Tariff-Commercial A-2 single phase will be required. Cost of such electricity connection has not been included in the Project Cost, since electricity connection is generally available in such buildings, which are offered for rent. Building rent of PKR 100,000 per month has been included in the operating cost. Building renovation cost is shown in Table 6.

Table 6: Renovation Cost Details

Cost Item	Unit of Measurement	Total Liter / Area / Number	Cost/Unit/ Sq.Feet	Total Cost (PKR)
Paint Cost	Liter	270	500	135,000
Labor Cost	Feet	27,000	8	216,000
Wall Racks	Units	2	15,000	30,000
Curtains	Units	4	3,000	12,000
Blinds	Units	2	5,000	10,000
Floor's Tile cost	Sq. Feet	1,700	120	204,000
Wall's Tile cost	Sq. Feet	600	120	72,000
Labor Cost-Tile Fixation	Sq. Feet	2,300	40	92,000
Total Renovation Cost				771,000

9.2.3 Machinery and Equipment Requirement

Table 7 provides details of the machinery and equipment and fixture requirement of the project.

Table 7: Machinery and Equipment Requirement

Cost Item	Unit(s)	Unit Cost (PKR)	Total Cost (PKR)
Pressure Washer	5	100,000	500,000
Rotary Polisher	5	50,000	250,000
Vaccum Cleaner	5	50,000	250,000
Dual Action Polisher	5	100,000	500,000
Total Cost			1,500,000

9.2.4 Office Equipment Requirement

Details of office equipment required for the project is provided in Table 8.

Table 8: Office Equipment Requirement

Cost Item	Units	Unit Cost(PKR)	Total Cost(PKR)
Air Conditioners	2	90,000	180,000
Laptop / Computer	2	80,000	160,000
Printer	1	40,000	40,000
LED/LCD 32 inch	1	40,000	40,000
Water Dispenser	1	20,000	20,000
Ceiling Fan	10	4,500	45,000
Exhaust Fan	10	2,000	20,000
Bracket Fan	3	4,000	12,000
Wi-FiRouter and Connection	1	5,000	5,000
CC TV System	1	40,000	40,000
Total			562,000

9.2.5 Furniture and Fixture Requirement

Table 9 gives details of the furniture and fixture required for the project.

Table 9: Furniture and Fixtures Requirement

Cost Item	Units	Unit Cost (PKR)	Total Cost (PKR)
Office Tables	2	25,000	50,000
Reception Counter	1	50,000	50,000
Executive Tables	1	30,000	30,000
Executive Chairs	1	20,000	20,000
Office Chairs	6	10,000	60,000
Sofa Sets	1	35,000	35,000
Total			245,000

9.2.6 Office Vehicle Requirement

Details of office vehicle required for the project is provided in Table 10.

Table 10: Office Vehicle Requirement

Cost Item	Unit(s)	Unit Cost (PKR)	Total Cost (PKR)
Motorcycle	2	80,000	161,600
Registration Charges	2	1500	3000
Total			163,000

9.2.7 Pre-operating Cost

Details of pre-operating cost for the purposed project is shown in Table 11.

Table 11: Pre-operating cost

Particulars	No.	Hiring Before Year 0 (Months)	Unit Cost (PKR)	Total (PKR)
Owner	1	2	75,000	150,000
Utilities Cost for One month			28,224	28,224
Total Cost				178,224

9.2.8 Advance against Building Rent

Details of advance security against building rent for the project is given in Table 12.

Table 12: Advance against Building Rent

Cost Item	Months	Unit Cost (PKR)	Total Cost (PKR)
Advance Security	3	100,000	300,000
Total Cost			300,000

9.3 Breakeven Analysis

Breakeven analysis is provided in Table 13.

Table 13: Breakeven Analysis

Description	Amount First Year (PKR)	Ratios
Sales (PKR)	12,176,000	100%
Variable Cost (PKR)	7,979,123	66%
Contribution (PKR)	4,196,877	34%

Fixed Cost (PKR)	3,875,550	32%
Contribution Margin	34%	
Breakeven Revenue (PKR)	11,243,154	
Services during the year	448	
Contribution Margin Per Vehicle (PKR)	9,368	
Breakeven Units (no of vehicles)	414	
Breakeven Capacity	55%	

9.4 Revenue Generation

Based on the 60% capacity utilization, sales revenue during the first year of operations is estimated in Table 14.

Table 14: Revenue Generation

Services	Service Capacity for the year (Vehicle)	Capacity Utilization @ 60%	Charges/ vehicle (PKR)	Total Revenue (PKR)
Glass Coating	299	179	20,000	5,973,333
Ceramic Coating	448	269	32,000	14,336,000
Total				20,309,333

Table 15: Glass Coating Time

Process	Time Per Car (Hours)
Pressure washing	1
Buffing	1
Decontamination	1
Polishing	2
Glaze	1
Total Time	6

Table 16: Ceramic Coating Time

Process	Time Per Car (Hours)
Pressure washing	1
Buffing	1
Decontamination	1

Polishing	4
Glaze	2
Total Time	9

9.5 Variable Cost Estimate

Variable costs of the project have been provided in detail in Table 17.

Table 17: Variable Cost Estimate

Description of Costs	Amount (PKR)
Material cost – Glass coating	966,600
Material cost – Ceramic coating	2,645,160
Direct Labour	3,528,000
Direct Utilities cost	257,363
Machinery Maintenance cost	150,000
Travelling expense	96,000
Communications expense (phone, mail, internet, etc.)	144,000
Office expenses (stationery, entertainment, janitorial services, etc.)	192,000
Total	7,979,123

Table 18: Material Cost (Glass Coating)

Material	Cost Per Pack (PKR)	Consumption per Vehicle (Packs)	Cost per Vehicle (PKR)
Compound polish (250 gram)	220	1	220
Meguiar's Polish (500 ml)	3,000	1	3,000
SONAX Polish (250 ml)	2,000	1	2,000
Car washing shampoo (50 ml)	150	1	150
Material Cost per unit (PKR)			5,370
Number of vehicles service during year			179
Total Material Cost(PKR)			966,600

Table 19: Material Cost (Ceramic Coating)

Material	Price Per Pack (PKR)	Consumption per Vehicles (Packs)	Cost per Vehicles (PKR)
Compound polish (250 gram)	220	1	220
Meguiar's Polish (500 ml)	3,000	1	3,000
SONAX Polish (250 ml)	2,000	1	2,000
Ceramic Coating polish (500 ml)	2,500	1	2,500
Degreaser (5 liter)	2,000	1	2,000
Car washing shampoo (50 ml)	150	1	150
Material Cost per unit (PKR)			9,870
Number of Services rendered during year			269
Total Material Cost (PKR)			2,645,160

Table 20: Direct Labor

Post	No of personnel	Monthly Salary (PKR)	Total Direct Labor Cost (PKR)
Owner/ Manager	1	75,000	900,000
Labor - Skilled- Glass Coating	2	35,000	840,000
Labor - Skilled - Ceramic Coating	3	35,000	1,260,000
Labor – Unskilled	2	22,000	528,000
Total Direct Labor Cost			3,528,000

Table 21: Machinery Maintenance

Particulars	Machinery Cost (PKR)	Rate	Machinery Maintenance (PKR)
Maintenance Cost	1,500,000	10%	150,000
Total Maintenance Cost (PKR)			150,000

Table 22: Variable Cost Assumptions

Description of Costs	Details
Travelling expense	10% of administration expense
Communications expense (phone, mail, internet, etc.)	15% of administration expense
Office expenses (stationery, entertainment, janitorial services, etc.)	20% of administration expense

9.6 Fixed Cost Estimate

Details of fixed cost for the project are provided Table 23.

Table 23: Fixed Cost Estimate

Description of Costs	Amount (PKR)
Management Staff Salary	960,000
Administration benefits expense	134,640
Building rental expense	1,200,000
Utilities	975,905
Promotional expense	121,760
Depreciation expense	447,600
Amortization of pre-operating costs	35,645
Total	3,875,550

Table 24: Fixed Cost Assumption-Management Staff Salary

Post	Number of Labor	Monthly Salary (PKR)	Annual Salary (PKR)
Admin & Finance Officer	1	40,000	480,000
Office Boy	1	20,000	240,000
Security Guard	1	20,000	240,000
Total			960,000

Table 25: Fixed Cost Assumptions

Description of Costs	Details
Administration benefits expense	3% of administration expense
Promotional expense	1% of revenue
Depreciation expense	
Building	10% of Cost
Machinery/Vehicle/Equipment/Furniture & Fixtures	15% of Cost

9.7 Human Resource Requirement

For the 1st year of operations, the Glass/Ceramic Coating of Vehicles shall require the workforce at a salary cost shown in Table 26.

Table 26: Human Resource Requirement

Post	No. of Employees	Monthly Salary (PKR)	Annual Salary (PKR)
Owner/Operational Manager	1	75,000	900,000
Labor - Skilled- Glass Coating	2	35,000	840,000
Labor - Skilled - Ceramic Coating	3	35,000	1,260,000
Labor – Unskilled	2	22,000	528,000
Admin & Finance Officer	1	40,000	480,000
Office Boy	1	20,000	240,000
Security Guards	1	20,000	240,000
Total	11		4,488,000

10 CONTACT DETAILS

Names of some relevant suppliers of machinery and equipment are provided in Table 27.

Table 27: Suppliers of Machinery and Equipment

Cost Item	Origin/City	Supplier Name	Contact Number
Pressure Washer	Lahore	JS Enterprises	0320-3131111
Rotatory Polisher	Karachi	AutoHub	0320-2886482
Vacuum Cleaner	Lahore	Chaudhry Auto Store	0322-4022262
DA Polisher	Lahore	Luxe Auto SPA	0321-8419912
Rotary Polisher	Peshawar	Ali Auto Detailing	0333-9608536
Rotary Polisher	Quetta	Quetta autoze and spare part	081-2442778
Raw material	Gujranwala	Platinum detailing and Modification	0300-2222717
Pressure Washer	Muzaffarabad AJK	Khokhar Autos	0312-9641236
Polisher & Raw Material	Skardu-Gilgit Baltistan	Baltistan Autos and Decoration center	0310-8534655

11 USEFUL LINKS

Table 28: Useful Links

Name of Organization	Website
Small and Medium Enterprises Development Authority (SMEDA)	www.smeda.org.pk
National Business Development Program	www.nbdp.org.pk
Government of Pakistan	www.pakistan.gov.pk
Ministry of Industries and Production	www.moip.gov.pk
Trade Development Authority of Pakistan	www.tdap.gov.pk
Pakistan Automotive Manufacturers Association	www.pama.org.pk
Government of Punjab	www.punjab.gov.pk
Government of Sindh	www.sindh.gov.pk
Government of Khyber Pakhtunkhwa	www.kp.gov.pk
Government of Balochistan	www.balochistan.gov.pk
Government of Gilgit-Baltistan	www.gilgitbaltistan.gov.pk
Government of Azad Jammu and Kashmir	https://www.ajk.gov.pk
Auto Detailing Ceramic Coating	www.facebook.com/autodetailinglhr
Detailing Crew	www.detailingcrew.com
Punjab Small Industries Corporation	www.psic.gop.pk/
Small Industries Corporation Government of Khyber Pakhtunkhwa	www.small_industries_de.kp.gov.pk
Industries and Commerce -Government of Balochistan	www.balochistan.gov.pk/departments-download/industries-and-commerce/

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	12,176,000	14,308,596	16,673,790	19,348,277	22,335,355	25,684,998	27,816,853	30,125,652	32,626,081	35,334,046
<i>Cost of sales</i>										
Material Cost- Glass coating	966,600	1,134,063	1,322,667	1,527,945	1,765,574	2,032,124	2,200,791	2,383,456	2,581,283	2,795,530
Material Cost- Ceramic coating	2,645,160	3,110,560	3,623,418	4,212,518	4,860,870	5,587,828	6,051,618	6,553,902	7,097,876	7,687,000
Utilities Cost	257,363	279,899	304,409	331,065	360,055	391,584	425,874	463,166	503,724	547,833
Direct Labor	3,528,000	3,786,720	4,064,413	4,362,470	4,682,384	5,025,759	5,394,315	5,789,898	6,214,490	6,670,220
Machinery Maintenance - Cost	150,000	162,450	175,933	190,536	206,350	223,477	242,026	262,114	283,870	307,431
Total cost of sales	7,547,123	8,473,693	9,490,840	10,624,534	11,875,234	13,260,773	14,314,623	15,452,536	16,681,243	18,008,013
Gross Profit	4,628,877	5,834,903	7,182,950	8,723,744	10,460,122	12,424,226	13,502,231	14,673,116	15,944,839	17,326,033
<i>General administration & selling expenses</i>										
Management Staff	960,000	1,030,400	1,105,963	1,187,067	1,274,118	1,367,553	1,467,841	1,575,482	1,691,018	1,815,026
Administration benefits expense	134,640	144,514	155,111	166,486	178,695	191,799	205,865	220,961	237,165	254,557
Building rental expense	1,200,000	1,320,000	1,452,000	1,597,200	1,756,920	1,932,612	2,125,873	2,338,461	2,572,307	2,829,537
Pre-operating expense	81,325	88,447	96,192	104,615	113,776	123,739	134,574	146,358	159,175	173,113
Utilities	975,905	1,061,362	1,154,302	1,255,380	1,365,310	1,484,865	1,614,890	1,756,301	1,910,094	2,077,355
Travelling expense	96,000	103,040	110,596	118,707	127,412	136,755	146,784	157,548	169,102	181,503
Communications expense (phone, fax, mail, internet, etc.)	144,000	154,560	165,894	178,060	191,118	205,133	220,176	236,322	253,653	272,254
Office expenses (stationery, entertainment, janitorial services, etc)	192,000	206,080	221,193	237,413	254,824	273,511	293,568	315,096	338,204	363,005
Promotional expense	121,760	143,086	166,738	193,483	223,354	256,850	278,169	301,257	326,261	353,340
Depreciation expense	447,600	447,600	447,600	447,600	447,600	447,600	324,100	719,821	719,821	719,821
Amortization of pre-operating costs	35,645	35,645	35,645	35,645	35,645	-	-	-	-	-
Subtotal	4,388,876	4,734,733	5,111,234	5,521,656	5,968,770	6,420,418	6,811,840	7,767,608	8,376,798	9,039,511
Operating Income	240,002	1,100,170	2,071,717	3,202,088	4,491,351	6,003,808	6,690,391	6,905,508	7,568,040	8,286,522
<i>Other income 2</i>										
Gain / (loss) on sale of machinery & equipment	-	-	-	-	-	-	375,000	-	-	-
Gain / (loss) on sale of office equipment	-	-	-	-	-	-	140,500	-	-	-
Gain / (loss) on sale of office vehicles	-	-	-	-	-	-	40,750	-	-	-
Earnings Before Interest & Taxes	240,002	1,100,170	2,071,717	3,202,088	4,491,351	6,003,808	7,246,641	6,905,508	7,568,040	8,286,522
Subtotal	-	-	-	-	-	-	-	-	-	-
Earnings Before Tax	240,002	1,100,170	2,071,717	3,202,088	4,491,351	6,003,808	7,246,641	6,905,508	7,568,040	8,286,522
Tax	152,200	178,857	208,422	420,522	767,405	1,221,332	1,656,324	1,536,927	1,768,813	2,020,282
NET PROFIT/(LOSS) AFTER TAX	87,802	921,313	1,863,294	2,781,566	3,723,946	4,782,476	5,590,317	5,368,581	5,799,227	6,266,240

12.2 Balance Sheet

Balance Sheet											
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Rs. in actuals Year 10
Assets											
Current assets											
Cash & Bank	500,000	783,179	1,595,674	2,609,137	3,705,694	4,835,070	5,977,957	7,358,475	13,181,683	19,394,880	26,403,756
Accounts receivable	-	333,589	362,803	424,416	493,453	571,009	657,813	732,902	793,733	859,613	930,961
Raw material inventory	300,980	300,980	383,077	483,434	607,647	759,649	946,048	1,109,610	1,301,449	1,526,455	1,790,362
Equipment spare part inventory	25,000	29,241	34,201	40,003	46,790	54,727	64,011	74,870	87,570	102,426	-
Pre-paid building rent	100,000	110,000	121,000	133,100	146,410	161,051	177,156	194,872	214,359	235,795	-
Total Current Assets	925,980	1,556,989	2,496,755	3,690,090	4,999,993	6,381,506	7,822,985	9,470,728	15,578,794	22,119,169	29,125,079
Fixed assets											
Land	-	-	-	-	-	-	-	-	-	-	-
Building/Infrastructure	771,000	693,900	616,800	539,700	462,600	385,500	308,400	231,300	154,200	77,100	-
Machinery & equipment	1,500,000	1,275,000	1,050,000	825,000	600,000	375,000	150,000	2,570,736	2,185,126	1,799,515	1,413,905
Furniture & fixtures	245,000	208,250	171,500	134,750	98,000	61,250	24,500	419,887	356,904	293,921	230,938
Office vehicles	163,000	138,550	114,100	89,650	65,200	40,750	16,300	331,015	281,363	231,710	182,058
Office equipment	562,000	477,700	393,400	309,100	224,800	140,500	56,200	963,169	818,694	674,218	529,743
Medical Books & Study material	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000
Total Fixed Assets	3,541,000	3,093,400	2,645,800	2,198,200	1,750,600	1,303,000	855,400	4,816,107	4,096,286	3,376,465	2,656,644
Intangible assets											
Pre-operation costs	178,224	142,579	106,934	71,290	35,645	-	-	-	-	-	-
Legal, licensing, & training costs	-	-	-	-	-	-	-	-	-	-	-
Total Intangible Assets	178,224	142,579	106,934	71,290	35,645	-	-	-	-	-	-
TOTAL ASSETS	4,645,204	4,792,968	5,249,490	5,959,580	6,786,238	7,684,506	8,678,385	14,286,836	19,675,081	25,495,634	31,781,723
Liabilities & Shareholders' Equity											
Current liabilities											
Accounts payable	-	103,863	121,679	141,425	163,775	188,699	216,642	234,775	254,440	275,766	295,615
Total Current Liabilities	-	103,863	121,679	141,425	163,775	188,699	216,642	234,775	254,440	275,766	295,615
Shareholders' equity											
Paid-up capital	4,645,204	4,645,204	4,645,204	4,645,204	4,645,204	4,645,204	4,645,204	4,645,204	4,645,204	4,645,204	4,645,204
Retained earnings	-	43,901	482,607	1,172,951	1,977,258	2,850,602	3,816,539	9,406,856	14,775,437	20,574,664	26,840,904
Total Equity	4,645,204	4,689,105	5,127,811	5,818,155	6,622,462	7,495,806	8,461,743	14,052,060	19,420,641	25,219,868	31,486,108
TOTAL CAPITAL AND LIABILITY	4,645,204	4,792,968	5,249,490	5,959,580	6,786,238	7,684,506	8,678,385	14,286,836	19,675,081	25,495,634	31,781,723

12.3 Cash Flow Statement

Cash Flow Statement											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
<i>Operating activities</i>											
Net profit	-	87,802	921,313	1,863,294	2,781,566	3,723,946	4,782,476	5,590,317	5,368,581	5,799,227	6,266,240
Add: depreciation expense	-	447,600	447,600	447,600	447,600	447,600	447,600	324,100	719,821	719,821	719,821
amortization expense	-	35,645	35,645	35,645	35,645	35,645	-	-	-	-	-
Accounts receivable	-	(333,589)	(29,214)	(61,614)	(69,037)	(77,556)	(86,804)	(75,089)	(60,831)	(65,880)	(71,348)
Finished good inventory	-	-	(82,097)	(100,357)	(124,213)	(152,003)	(186,399)	(163,561)	(191,839)	(225,006)	(263,907)
Equipment inventory	(300,980)	(4,241)	(4,960)	(5,802)	(6,786)	(7,937)	(9,284)	(10,859)	(12,701)	(14,855)	102,426
Raw material inventory	(25,000)	-	-	-	-	-	-	-	-	-	-
Pre-paid building rent	(100,000)	(10,000)	(11,000)	(12,100)	(13,310)	(14,641)	(16,105)	(17,716)	(19,487)	(21,436)	235,795
Pre-paid lease interest	-	-	-	-	-	-	-	-	-	-	-
Advance insurance premium	-	-	-	-	-	-	-	-	-	-	-
Accounts payable	-	103,863	17,816	19,746	22,350	24,924	27,943	18,133	19,664	21,326	19,849
Other liabilities	-	-	-	-	-	-	-	-	-	-	-
Cash provided by operations	(425,980)	327,080	1,295,102	2,186,413	3,073,815	3,979,978	4,959,426	5,665,326	5,823,208	6,213,197	7,008,876
<i>Financing activities</i>											
Issuance of shares	4,645,204	-	-	-	-	-	-	-	-	-	-
Purchase of (treasury) shares	-	-	-	-	-	-	-	-	-	-	-
Cash provided by / (used for) financ	4,645,204	-	-	-	-	-	-	-	-	-	-
<i>Investing activities</i>											
Capital expenditure	(3,719,224)	-	-	-	-	-	-	(4,284,807)	-	-	-
Acquisitions	-	-	-	-	-	-	-	-	-	-	-
Cash (used for) / provided by invest	(3,719,224)	-	-	-	-	-	-	(4,284,807)	-	-	-
NET CASH	500,000	327,080	1,295,102	2,186,413	3,073,815	3,979,978	4,959,426	1,380,518	5,823,208	6,213,197	7,008,876

13 KEY ASSUMPTIONS

13.1 Operating Cost Assumptions

Table 29: Operating Cost Assumptions

Description	Details
Building rent growth rate	10%
Furniture and fixture depreciation	15%
Vehicle depreciation	15%
Office equipment depreciation	15%
Inflation growth rate	8.3%
Wage growth rate	7.3%
Electricity price growth rate	8.8%
Office equipment price growth rate	8.0%
Office vehicle price growth rate	10.7%

13.2 Revenue Assumptions

Table 30: Revenue Assumptions

Description	Details
Sale price growth rate	8.3%
Initial year capacity utilization	60%
Capacity growth rate	10%
Maximum capacity utilization	95%

13.3 Financial Assumptions

Table 31: Financial Assumptions

Description	Details
Project life (Years)	10
Debt: Equity	0:100
Discount Rate (100% Equity)	20%
Discount Rate (50:50, Debt: Equity)	16%

13.4 Cash Flow Assumptions

Table 32: Cash Flow Assumptions

Description	Days
Accounts receivable	10
Accounts payable	10

Small and Medium Enterprises Development Authority

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

www.smeda.org.pk, helpdesk@smeda.org.pk

REGIONAL OFFICE PUNJAB	REGIONAL OFFICE SINDH	REGIONAL OFFICE KPK	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) 5610572 helpdesk-khi@smeda.org.pk	Ground Floor State Life Building The Mall, Peshawar. Tel: (091) 9213046-47 Fax: (091) 286908 helpdesk-pew@smeda.org.pk	Bungalow No. 15-A Chaman Housing Scheme Airport Road, Quetta. Tel: (081) 831623, 831702 Fax: (081) 831922 helpdesk-qta@smeda.org.pk