

Business Proposal Barber Shop**Business Description**

Barber Shop

Proponent

Mr. Onalenna Ramontshonyana has seven years experience as the owner of the barber shop. He has 3 employees that work on a part-time basis. The shop is registered with the Gaborone Town Council. Mr. Ramontshonyana has accounts with BBS and BSB and has secondary education up to form 2.

Location

The barber shop is located at the corner of the Kagiso Mall parking lot, opposite the private hospital, in the centre of Gaborone. Although the barber shop is located in Gaborone, there is no mains electrical connection.

Business Factors

The barber shop renders barber services such as cutting of hair and shaving. The business is strategically located with high exposure to people shopping at the Kagiso Mall and people visiting the private hospital. The barber shop is housed in a portocabin which the owner obtained on a cash basis in 1999. This portocabin was paid from savings. The barber shop initially used a small generator for powering the business but it was found that the generator had high running costs and was constantly breaking down. In 2000 a solar system was purchased for approximately P5000, consisting of two 50Wp solar panels and one 100Ah batteries and a regulator and inverter. In 2006 the solar panels were stolen since they were not fixed properly on the roof. After this a portable solar panel was used that was placed outside during daytime and taken inside during the night to prevent theft. In December 2006 a new system was installed with four solar panels and four 100Ah batteries. This system is capable of providing sufficient energy for the barber shop, as well as lighting advertising located at the outside of the barber shop. The business is open 7 days per week from 8am to 19.00am



There is a good opportunity to generate additional income from payphone operation and cell phone charging. Also the service may be increased by installing ceiling fans to make it more comfortable for the clients.

Pre-Assessment

The barber shop is an existing and operating business. It has proven to be feasible. This exercise serves as an assessment to determine if similar barber shops may be feasible in other areas and to determine what the most important success and failure factors may be.

From the operational experience, the following facts are known:

Cost of:

- Portocabin: P20.000
- Inventory: P5.000
- solar system: P8.000

Production:

- Number of hair cuts per day: 5/day start of the month, 20/day towards the end of the month
- Price per haircut: plain P15/cut style P20/cut
- Number of shaving per month is 50 at P5/shaving

Operational expenses:

- The owner has 2 to 3 helpers who are paid depending on the number of clients that they serve. It is not clear how much these helpers earn. They are well known / relatives of the business owner.
- There is no payment for rent since the portocabin is owned by the entrepreneur. The portocabin is not insured.
- Advertising is by word of mouth
- Approximately P200 is spent on shaving cream, powders, creams, etc. on a monthly basis.

The pre-assessment table1 contains all above data. Then sensitivity analysis with table 1 shows the impact of the various cost factors. Most sensitive elements are the number of haircuts per month, the price per haircut and the wages.

Market Assessment

There seems sufficient demand for the services that the barber shop is offering since the business has been in operation for over 7 years. Income could increase considerably if there would be more customers earlier in the month. The barber shop serves 20 persons towards the end of the month. This is four times more than in the first half of the month. A better marketing effort could improve this situation. Also there could be a price setting with a discount earlier in the month to attract more customers, to avoid working under-capacity for most of the time. Furthermore a customer loyalty programme could be established where a customer gets a free haircut say every 5th haircut.

The existing barber shop is not a typical shop that is normally found in rural villages in Botswana. Most often barber shops operate either from private premises or are set up under a tree with an additional shade. An assessment has also been made for this type of operation and the results are shown in table 2. This operation is further assessed (simple barber shop).

Table 3 shows a comparison between the simple barber shop that uses solar energy and a barber shop that uses hand clippers. The comparison shows that the barber shop with hand clippers has less investment cost but also fewer clients due to slower operation of the hand clippers, and as a result fewer clients can be served. Since there is a high sensitivity towards number of clients, this barber shop is not viable. It appears that the investment in a solar powered clipper pays off.

Operational Plan

It appears that awareness regarding the possibility of using a solar powered hair clipper is lacking with many small barber entrepreneurs. There are a number of entrepreneurs that use a car battery that they charge every number of days. Also there are no 12VDC clippers available in Botswana. What is required is a product package that offers a 12VDC clipper with one or two 12VDC lights, two 50Wp solar panels and two 100Ah batteries that can be offered to the potential users. Therefore what is required is:

- awareness creation
- technology package

Table 4 gives the cash flow during the first three years of operation. The cash flow analysis at the bottom of the table indicates clearly, how much financing would be required. Under the prevalent conditions, capital infusion of 1000 Euro would be sufficient. The graphs 4a and 4b visualize this business development for the first year, and for three years, respectively.

Table 5 finally, gives the profitability forecast and balance for the business start-up.

Table 1: Pre-Assessment of existing Barber Shop

INSABA Preassessment of Project Proposals

Country:	Botswana
Pilot Region:	Gaborone
RE Technology:	Solar PV Electricity
Business Idea:	Barber shop using Solar Energy

Proponent name, contact	Mr. Onalenna Ramontshonyana	
Years of experience as owner of business		7
Number of employees w/contract		3
Proponent uses bank account	(yes=5, No=0)	0
Experience with formal loan	(received=5, applied=3, no=0)	0
Experience in cost calculations, business p	(no=0, several=5)	2
Practice in maintaining/operating equipment (RET)	(none yet=0, regularly=5)	5
Total		17

ROE BW Pula to US\$ 6

Calculation of ROI

	Barber sshop US\$	Determination of parameters	Definitions
Investment Capital	3,333.33	Portocabin shop (1999)	The barbershop operates in a portocabin. Most rural barbers operate from a shade under a tree
Investment Capital	833.33	Inventory and equipment	Scissors, mirrors, chairs, table, etc.
Investment Capital	1,333.33	PV solar system	2x 50Wp solar panels, 2x 100Ah batteries, battery box, regulator, inverter, wiring and installation
Investment Capital	5,500.00	Total of shop, inventory, equipment and PV	Total cost of investment
Investment Lifespan	15	Conservative average life	Life of the investment - i.e. period before it must be replaced
Haircuts	160	Haircuts per month	
Production	1920	Haircuts per year	Units produced per year
Price/unit	2.83	Haircut: Plain=P15, Style=P20 say av.= P17	Sales price per unit produced and sold
Production	600	Shavings per year	
Price/unit	0.83	Price of shaving	
Revenue	5,940	US\$	Sales price multiplied by number of units sold
Variable cost/unit		Calculated inti fixed costs	
Variable cost/unit			Cost per unit produced e.g. material, processing packaging
Cost of energy/unit	0	no other energy	costs of power, fuel added to variable cost
Fixed costs	3000	Wages	Annual
Fixed costs	116.67	Battery replacements	Lifetime of battery taken as 2 yrs, cost per year
Fixed costs	400.00	Shaving cream, spirits, powders, etc.	Annual
Total fixed costs	3,516.67	Total fixed costs	Annual indirect costs such as rent, telephones, salaries
Amortization/unit:	0.19	367	Amount needed per unit to cover investment in lifetime
Direct costs per unit:	0.19	367	Variable costs plus amortization plus cost of energy
Gross Margin/unit	2.64		Sales price per unit less the direct costs per unit
Fixed costs/unit	1.83		Total fixed costs divided by the number of units produced
Total costs	2.02	3,883	Direct costs plus fixed costs
Net Margin	0.81	1,557	Revenue less total costs
ROI	28%		Return on Investment = net margin divided by capital investment
Payback period years	2.86		capital investment divided by cash flow until initial expenses are compensated by the net margin

Note: Changing the number of haircuts per month from 120 to 160 per month changes the ROI from 4% to 28%. Equally sensitive for the price per haircut.

Table 2: Pre-Assessment of simple Barber Shop

INSABA Preassessment of Project Proposals

Country:	Botswana
Pilot Region:	Rural Area
RE Technology:	Solar PV Electricity
Business Idea:	Barber shop using Solar Energy

Proponent name, contact	Cheaper alternative	
Years of experience as owner of business		1
Number of employees w/contract		1
Proponent uses bank account	(yes=5, No=0)	0
Experience with formal loan	(received=5, applied=3, no=0)	0
Experience in cost calculations, business	(no=0, several=5)	2
Practice in maintaining/operating equipment (RET)	(none yet=0, regularly=5)	0
Total		4

ROE BW Pula to US\$⁶

Calculation of ROI

	Barber Shop US\$	Determination of parameters	Definitions
Investment Capital	166.67	Operates under nylon shade	Small shade fixed permanently
Investment Capital	166.67	Inventory and equipment	Scissors, mirrors, chairs, table, etc.
Investment Capital	583.33	PV solar system	1x 50Wp solar panels, 1x 100Ah batteries, battery box, regulator, inverter, wiring and installation
Investment Capital	916.67	Total of shop, inventory, equipment and PV	Total cost of investment
Investment Lifespan	15	Conservative average life	Life of the investment - i.e. period before it must be replaced
Haircuts	75	Haircuts per month	
Production	900	Haircuts per year	Units produced per year
Price/unit	2.83	Haircut: Plain=P15, Style=P20 say av.= P17	Sales price per unit produced and sold
Production	300	Shavings per year	
Price/unit	0.83	Price of shaving	
Revenue	2,800	US\$	Sales price multiplied by number of units sold
Variable cost/unit		Calculated into fixed costs	
Variable cost/unit			Cost per unit produced e.g. material, processing packaging
Cost of energy/unit	0	no other energy	costs of power, fuel added to variable cost
Fixed costs	1800	Wages	Annual
Fixed costs	58.33	Battery replacements	Lifetime of battery taken as 2 yrs, cost per year
Fixed costs	400.00	Shaving cream, spirits, powders, etc.	Annual
Total fixed costs	2,258.33	Total fixed costs	Annual indirect costs such as rent, telephones, salaries
Amortization/unit:	0.07	61	Amount needed per unit to cover investment in lifetime
Direct costs per unit:	0.07	61	Variable costs plus amortization plus cost of energy
Gross Margin/unit	2.77		Sales price per unit less the direct costs per unit
Fixed costs/unit	2.51		Total fixed costs divided by the number of units produced
Total costs	2.58	2,319	Direct costs plus fixed costs
Net Margin	0.26	231	Revenue less total costs
ROI	25%		Return on Investment = net margin divided by capital investment
Payback period years	3.14		capital investment divided by cash flow until initial expenses are compensated by the net margin

Table 3: Competitive Analysis

INSABA Verification & Market-Assessment of Project Proposals

Country:	Botswana
Pilot Region:	Gaborone
RE Technology:	Solar PV Electricity
Business Idea:	Barber shop using Solar Energy

Market Context : describe

Market Size & Potential	There appears sufficient potential for Barber Shops. The business is scalable to a certain degree. When more energy is required due to an increase of customers, solar panels and batteries may be added, provided this has been considered when purchasing the regulator and inverter. The same business model is replicable for different parts of the country.
Market Need, Risk	Market needs barbers and with the correct service and price setting there appears little risk
Competitor	There in competition with barbers that use either clippers operated from the electric grid, where grid connections are available and hand clippers.
Competing Technology	Electricity (subsidized) and human operated hair clippers
Appropriateness of RET	Using solar powered clippers compared to hand clippers give better end result and increased speed. Solar system may power light for extended business hours and ventilation for improved comfort.
Market Segment	Barbers with hand clippers may operate cheaper
Main Differentiator	Better end result, faster, more comfort due to ventilation
Sustainable Production	n.a.

Manual hand clippers Compared to simple Barber Shop

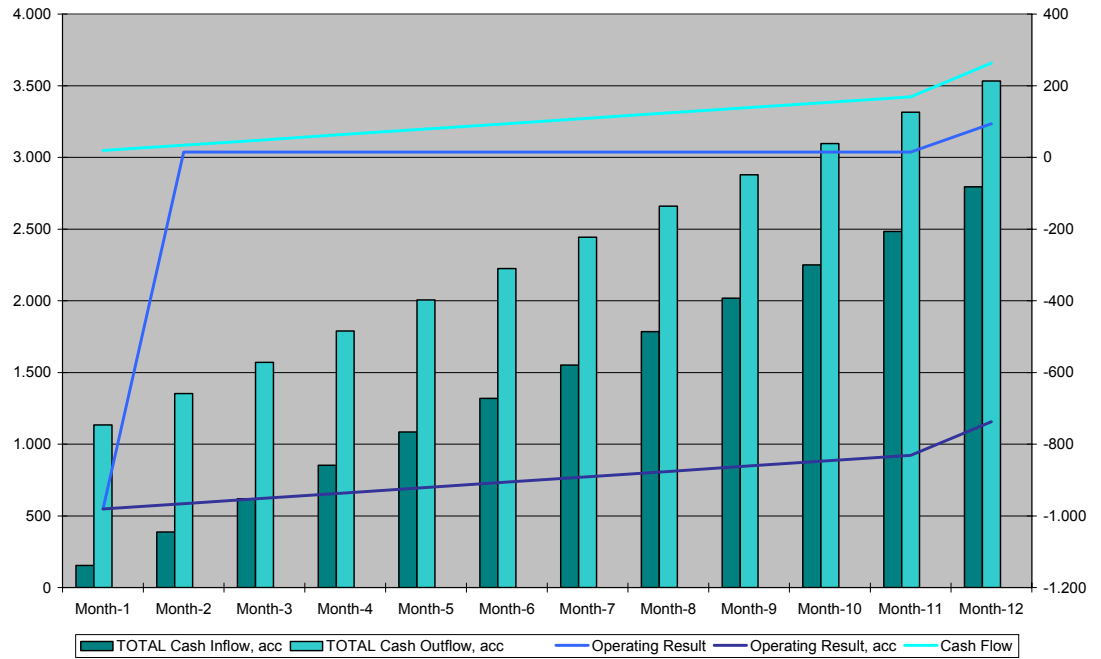
Calculation of Competitiveness

	Barber Shop		Alternative		Description of Alternative
Investment Capital	917		333		Simple barber shop with hand clipper
Investment Lifespan	15		15		equipemnt
Production	900		600		Haircuts per year is reduced because hair cutting is manual > slower and less service
Price/unit	2.83		2.00		Cheaper rates for hair cutting
Production	300		300		Shavings not effected by hair clipper
Price/unit	0.83		0.83		Price of shaving
Revenue	2,800		1,450		US\$
Variable cost/unit					
Cost of energy/unit	0		0		drying of 10 kg lasts 10 h, stove needs 1 kW, price of power is 0,22 €/kWh, therefore costs for power are 2,2 €/kg
Fixed costs	1,800		1,800.00		Wages not effected by technology
Fixed costs	58		0.00		Battery replacements > no batteries
Fixed costs	400		300.00		Shaving cream, spirits, powders, etc.
Total fixed costs	2,258		2,100		Total fixed costs
Amortization/unit:	0.07	61	0.04	22	ROI of alternative barber shop with manual hair clippers is negative due to less customers and reduced price per hair cut. Because of the high sensitivity to these to factors there is a large change in the ROI comparing the two different businesses.
Direct costs per unit:	0.07	61	0.04	22	
Gross Margin/unit	2.77		1.96		
Fixed costs/unit	2.51		3.50		
Total costs	2.58	2,319	3.54	2,122	
Net Margin	0.26	231	-1.54	-922	
ROI	25%		-277%		
Payback period years	3.14		-0.37		

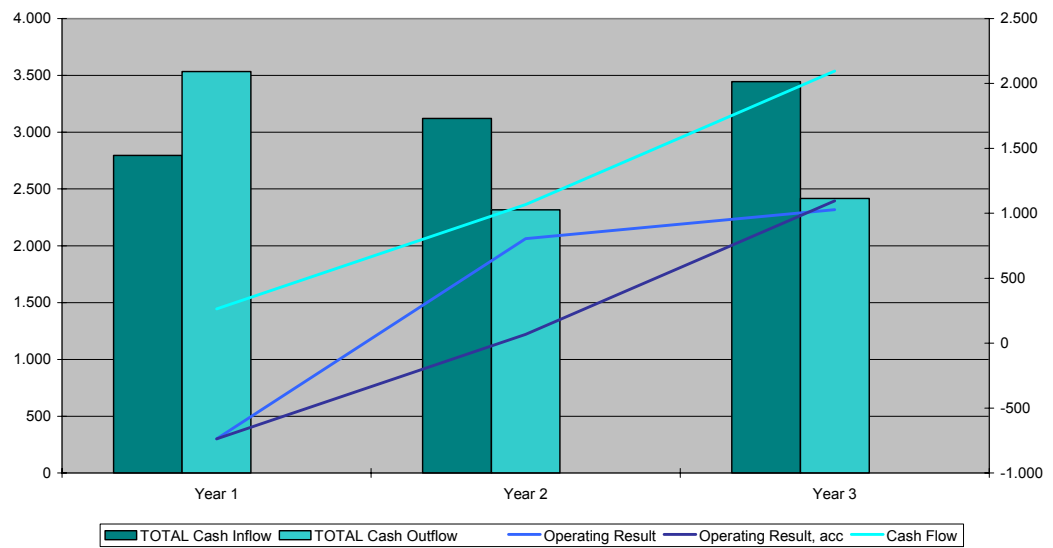
Table 4: Cash Flow Analysis

Cash Flow Analysis		Month-1	Month-2	Month-3	Month-4	Month-5	Month-6	Month-7	Month-8	Month-9	Month-10	Month-11	Month-12
		Year 1	Year 1	Year 1	Year 1	Year 1	Year 1	Year 1	Year 1	Year 1	Year 1	Year 1	Year 1
Products	Sales												
Hair cuts		50	75	75	75	75	75	75	75	75	75	75	100
Shavings		15	25	25	25	25	25	25	25	25	25	25	35
Product 3		0	0	0	0	0	0	0	0	0	0	0	0
Cash Inflow													
Turnover	Price												
Hair cuts	2.83	142	212	212	212	212	212	212	212	212	212	212	283
Shavings	0.83	12	21	21	21	21	21	21	21	21	21	21	29
Product 3		0	0	0	0	0	0	0	0	0	0	0	0
TOTAL Turnover		154	233	233	233	233	233	233	233	233	233	233	312
TOTAL Cash Inflow		154	233	233	233	233	233	233	233	233	233	233	312
Cash Outflow													
Material	Cost												
Hair cuts		25	25	25	25	25	25	25	25	25	25	25	25
Shavings		8	8	8	8	8	8	8	8	8	8	8	8
Product 3		0	0	0	0	0	0	0	0	0	0	0	0
TOTAL Material		33	33	33	33	33	33	33	33	33	33	33	33
Overhead Cost													
Staff A share		150	150	150	150	150	150	150	150	150	150	150	150
Staff B													
Office share		0	0	0	0	0	0	0	0	0	0	0	0
Communication		0	0	0	0	0	0	0	0	0	0	0	0
Vehicle		0	0	0	0	0	0	0	0	0	0	0	0
Marketing		0	0	0	0	0	0	0	0	0	0	0	0
Investment		917			0								0
Investment Lifespan		15			6								
TOTAL Overhead		1,067	150	150	150	150	150	150	150	150	150	150	150
Capital cost													
interest, redemption	16%	35	35	35	35	35	35	35	35	35	35	35	35
TOTAL capital		35	35	35	35	35	35	35	35	35	35	35	35
TOTAL Cash Outflow		1,135	218	218	218	218	218	218	218	218	218	218	218
Operating Result		-981	15	15	15	15	15	15	15	15	15	15	94
/accumulated		-981	-966	-951	-936	-921	-906	-891	-876	-861	-846	-831	-737
Capital input		1,000											
Cash Flow		19	34	49	64	79	94	109	124	139	154	169	263

Cash Flow Analysis: First Year



Cash Flow Analysis: 1st - 3rd Year



Profitability Preview

	Year 1	Year 2	Year 3
Sales	2.796	3.121	3.445
Cost of Sales	400	0	0
Gross profit	2.396	3.121	3.445
other operating income	0	0	0
personnel costs	1.800	1.900	2.000
hire charges	0	0	0
communication	0	0	0
vehicle	0	0	0
marketing	0	0	0
office	0	0	0
interest	83	83	83
depreciation	61	61	61
other expenses	0	0	0
TOTAL Expenses	1.944	2.044	2.144
annual surplus/deficit	452	1.076	1.301
/accumulated	451,89	1528,28	2829,17

Balance

Year 1		Liabilities	
Assets			
fixed assets	856	shareholders equity	452
current assets	263	liabilities	667
Σ	1.119	Σ	1.119
Year 2		Liabilities	
Assets			
fixed assets	794	shareholders equity	1.528
current assets	1.067	liabilities	333
Σ	1.862	Σ	1.862
Year 3		Liabilities	
Assets			
fixed assets	733	shareholders equity	2.829
current assets	2.096	liabilities	0
Σ	2.829	Σ	2.829