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FINANCIAL MANAGEMENT

REPORT ON

AUTOMOBILE INDUSTRY

(ABC Energy)

BY

GROUP 6

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INTRODUCTION

The electric two-wheeler set-up appears a lot more promising, in the form of research, financial acquisitions & investments, that makes the electric vehicle segment thrilling. Well, there is also the forward push by the government and the references of its think-tank, NITI Aayog.

The innovation of internal combustion engine is one of the best creations of humankind. The traditional vehicles with ICE provide a good performance but are the major cause for poor efficiency and environment pollution across the country.

Decreasing fuel consumption and carbon emissions are the most important goal among the present-day plan of government across the globe. Thinking about the future of a country, an efficient and eco-friendly electric two-wheeler must be designed and manufactured.

The automobile industry is in the midst of a huge technological disruption. Today, electric is the preferred choice because of its inherent efficiency that will shape urban commute and the cities of tomorrow. In parallel, the world around us is getting connected, enabling integration of devices and making our life experiences seamless. Intelligent vehicles will revolutionize our commute experience in the future and the ABC's 250 Plus stands at the cusp of this exciting reality.

ABC Energy is a startup focused on designing and selling premium electric two-wheelers for the Indian market. We want to change the perspective about electric vehicles by building high-performance, zero-maintenance, and smart electric vehicles. The company manufactures only one scooter model at present - 250. We have also established an electric vehicle charging network called ABC Grid.

COMPETITIVE LANDSCAPE

The top 10 competitors in ABC Energy's competitive set are:

- Ola Electric
- Ather
- GoGreenBOV
- Ampere
- Okinawa Scooters
- AVERA
- Bajaj Auto
- Hero MotoCorp
- TVS
- Pure EV
- Tork Motors Pvt

BUSINESS MODEL

At ABC Energy, the business model which we are using is online-only purchase model for selling the product with doorstep service. We have set up its manufacturing unit in Whitefield, Bangalore which commenced production in 2024 with a capacity of around 100 vehicles per month. We have disclosed the price of the ABC 250 to be ₹1,25,000.

We are planning to set up our new 10,000 sq ft. facility in Hosur, Tamil Nadu by the end of 2022. The new facility will be designed to produce 2500 units annually and is scalable to three thousand units.

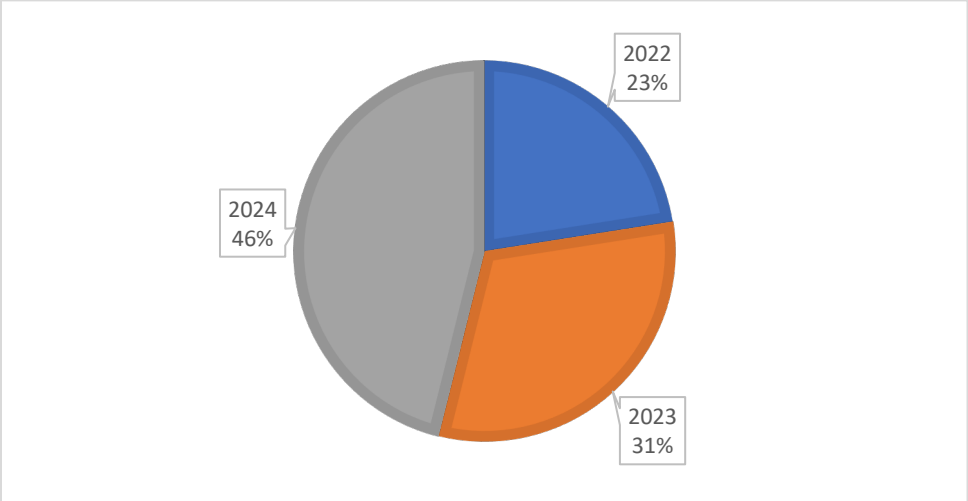
Customers get to see all our options including things like customer reviews, ingredient lists, and related recipes or uses. Videos and photos of your product in use and FAQ sections can give customers more information than they would ever have in a brick-and-mortar store.

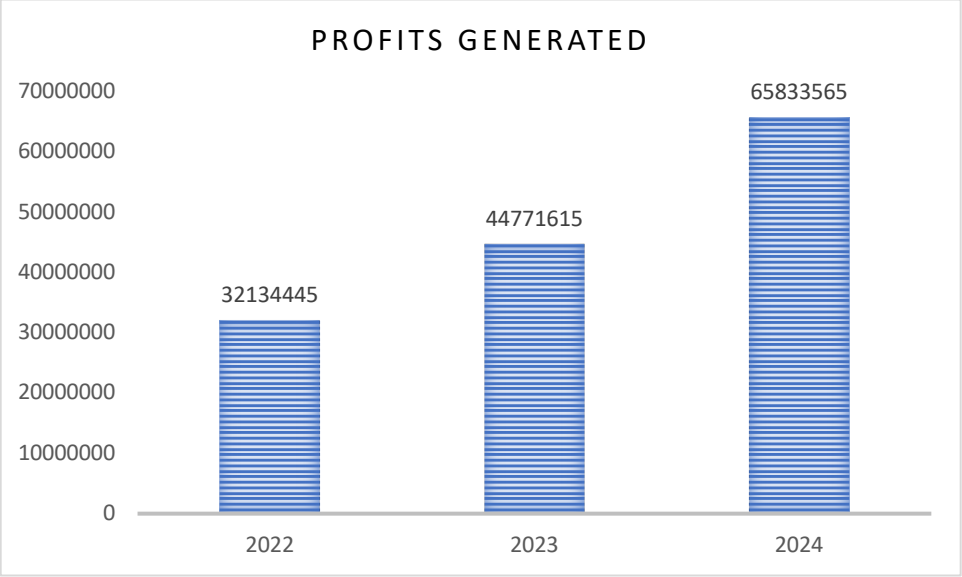
Finally, as more and more consumers are switching their buying habits to online, we'll be able to reach more people and increase sales from an online presence.

REVENUE MODEL

A revenue model is the strategy of managing a company's revenue streams and the resources required for each revenue stream. At ABC Energy we use transactional revenue model, the production model is also one of the most common revenue models. Using the production model, we produce/manufacture a new product for sale and generates revenue when the customer pays for it.

The advantage which we get at ABC is that consumers are more attracted to this experience because of its simplicity and the wider set of options. The revenue is generated by directly selling our e-bike to a customer. The price of the e-bike constitutes the production costs and margin. Increasing the margin, our business can generate more income from sales.





OUTCOMES

1. Cost Sheet

Particulars	Quantity	Unit Cost (in Rs.)	Total Amount (in Rs.)	Per Year (in Rs.)	Life (in years)
		Machinery			
Cutting	5	800000	4000000		20
Spot Welding	5	275000	1375000		20
Bending	5	120000	600000		20
Assembling	5	350000	1750000		20
Alignment	8	527500	4220000		20
Reaming	5	2500000	12500000		20
Stablizer	3	100000	300000		20
Tire Mounting	20	120000	2400000		20
TOTAL MACHINERY COST		4792500	**27145000**	1357250	20
Software			500000	100000	5
Depreciation & Ammortization				**1457250**	

Wages / Month			
Industrial Labour	60	3000	180000
Office Employes	30	40000	1200000
Managers	5	50000	250000

TOTAL WAGES PER MONTH				**1630000**	**19560000**
TRANSPORTATION CHARGES PER MONTH	1	50000		**50000**	**600000**
Preliminary R&D	1	2000000		**2000000**	**2000000**

Other Costs			
Fire Extinguisher	5	1600	8000
Pulley	4	1100	4400
Power Supply	1	75000	75000
Land Rent	1	200000	200000
Maintainence	1	20000	20000
TOTAL OTHER CHARGES PER MONTH			**307400**

Raw Material			
Speed grip	2	299	598
Brake Lever	2	399	798
Brake Cable	2	349	698
Cable Holder	2	120	240
Screw Reflector	2	100	200
Plate	2	40	80
Front Break Shoe	2	340	680
Tire	2	1500	3000
Tube	2	260	520
Rim	2	600	1200
Tombol Power Assist	1	2000	2000
Headlamp	1	500	500
Horn	1	200	200
Grip	2	50	100
Speed Cable	1	289	289
Handle Stem	1	2500	2500
Seat Post Key	1	200	200
Seat Post	1	1500	1500
Frame	1	6000	6000
Fork	2	1800	3600
Throttle	1	450	450
Saddle	1	500	500
Lithium Ion Battery	1	15000	15000
BackSeat	1	500	500
RearFootStep	1	500	500
Controller	1	1000	1000
BackHolder	1	400	400
Screw Reflector	1	400	400
Shifter Cable	4	300	1200
Shifter Housing	4	300	1200
Brake Cable	4	200	800
Tire Cap	2	90	180
Electric Motor	1	1500	1500
Alternator	1	5000	5000
Rear Drum Brake	2	650	1300
Kick Stand	1	400	400
Indicator Display	1	1000	1000
Foot Rest	1	200	200
Rear Wheel Shock Absorber	2	1800	3600
Tail & Stop Light	2	40	80
Fender	1	350	350
Mirror	2	230	460
Nuts & Bolts	200	1	200
Paint	1	2000	2000
Charger	1	1500	1500
Oil	1	200	200
TOTAL RAW MATERIAL COST (Per Vehicle)			**64823**

As seen from the above table, the following inferences can be made:

- Total Machinery Cost is: 27145000
- Total wages per month: 1630000
- Total wages per year: 19560000
- Transportation charges per month: 50000
- Transportation charges per year: 600000
- Preliminary R&D: 2000000
- Total raw material cost: 64823
- Total other charges per month: 307400
- Total other charges per year: 3688800

2. Capital Budgeting

	Year 1	Year 2	Year 3
	1200	1500	2000
sales	150000000	187500000	250000000
VC	77787600	97234500	129646000
Contribution	72212400	90265500	120354000
FC	23848800	23848800	23848800
EBITDA	48363600	66416700	96505200
DA	1457250	1457250	1457250
EBIT	46906350	64959450	95047950
Interest	1000000	1000000	1000000
EBT	45906350	63959450	94047950
Taxes @ 30%	13771905	19187835	28214385
EAT	32134445	44771615	65833565

DA	1457250	1457250	1457250
CFAT	33591695	46228865	67290815
PVIF	0.905430817	0.819804965	0.742276679
PVCIF	30414955.85	37898653.04	49948402.69
PVCOF	78000329.69	91880789.14	97626678.34
Total PVCOF	297152797.2		
Total PVCIF	397517261.2		
NPV	100364464.1		

Since the NPV value is positive which is 100364464.1, we can infer that the investment made are profitable for the company.

Total Investment	29645000			
Salvage Value	2964500			
Avg PVCIF	36136878.75			
Payback period	9.844237033	Months or	295.327111	days
ARR				
Avg Income	47579875			
Avg Investment	392519250			
ARR	12.12166664			
PI RATIO	0.364831283			
IRR	21.40472473			

Payback period = 9.85 months
Average of return = 12.12%
Profitability Index Ratio = 0.36
Internal Rate of Return = 21.40%

3. **Income Statement**

Year	2022	2023	2024
Income			
Revenue from operations	150000000	187500000	225000000
Other income	0	0	0
Total income	150000000	187500000	225000000
Expenses			
Cost of Machinery	77787600	97234500	116681400
Finance Costs	1000000	1000000	1000000
Employee Benefits	19560000	19560000	19560000
Depreciation & Amortization	1457250	1457250	1457250
Other Expenses	4288800	4288800	4288800
Total Expenses	104093650	123540550	142987450
Tax			
Profit Before Tax	45906350	63959450	82012550
Tax Expenses			
Current Tax	13771905	19187835	24603765
Deferred Tax	0	0	0
Total Tax Expenses	13771905	19187835	24603765
Profit For The Year	32134445	44771615	57408785
Earnings Per Equity Share			
Basic	321.34445	447.71615	574.08785

As seen from the above table, the following inferences can be made:

- Total income of the company for 2022 = 150000000, for 2023 = 187500000 and for 2024 = 225000000

- Total Expenses of the company for 2022 = 104093650, for 2023 = 123540550 and for 2024 = 142987450

- Total Tax paid by the company for 2022 = 13771905, for 2023 = 19187835 and for 2024 = 24603765

- Total profits made by the company in 2022 = 32134445, for 2023= 44771615 and for 2024= 57408785

- Finally, the earning per equity share would be 321.34445 in 2022, 447.71615 in 2023 and 574.08785 in 2024

4. Balance Sheet

Balance Sheet			
	2022	2023	2024
Assets			
Non-current assets			
Property, plant and equipment	27145000	27145000	27145000
Other Intangible assets	2500000	2500000	2500000
Current Assets			
Inventories	77787600	97234500	129646000
Accounts receivable	15000000	18750000	25000000
Total Assets	122432600	145629500	184291000
Equity and Liabilities			
Equity			
Equity share capital	15000000	15000000	15000000
Preference share capital	4645000	4645000	4645000
Total Equity	19645000	19645000	19645000
Liabilities			
Noncurrent Liabilities			
Financial Liabilities			
Borrowings	10000000	10000000	10000000
Current Liabilities			
Trade Payables	54451320	68064150	90752200
Provisions	38336280	47920350	63893800
Total Liabilities	102787600	125984500.00	164646000
Total Equity and Liabilities	122432600	145629500.00	184291000

From the above table we can conclude that the total assets of the company for the given year is equal to total equity and liabilities of the company for that particular year. Hence, this verifies our balance sheet.

5. Cost of Capital

Total Investment	29645000
Equity	15000000
Debt @ 10%	10000000
Preference Share @ 12%	4645000
Cost of Debenture Shares (Kd)	
No of debentures	100000
Cost per Debenture	100
P	10000000
Net Proceeds	9800000
n	12
[P - NP] /n	16666.66667
P + NP /2	9900000
Interest	1000000
Tax	30%
I(1-T)	700000
Kd	0.072390572
Cost of Preference Shares (Kp)	
P	4645000
D	557400
NP	4552100
[P - NP] /n	9290
P+NP/2	4598550
Kp	0.123232323
Cost of Equity Shares (Ke)	
P	15000000
No Of Shares	100000
Cost Per Share	150

Expected Dividend	4%
Dividend Amount	6
Growth	8%
Ke	0.12
WACC	
Ko	0.104446614

As seen from the above table, the following inferences can be made:

- Cost of Debenture Shares is 0.072
- Cost of Preference Shares is 0.123
- Cost of Equity Shares is 0.12
- Overall cost of Capital is 0.1044

6. Loan Amortization

Loan Amortization	
Debentures	10000000
Interest	10%
Time	12
Loan Instalments	₹ -14,67,633.15

Year	Principle	Interest	Loan Instalments	Balance
1	10000000	1000000	-1467633.15	9532366.85
2	9532366.85	953236.685	-1467633.15	9017970.385
3	9017970.385	901797.039	-1467633.15	8452134.274
4	8452134.274	845213.427	-1467633.15	7829714.551
5	7829714.551	782971.455	-1467633.15	7145052.856
6	7145052.856	714505.286	-1467633.15	6391924.992
7	6391924.992	639192.499	-1467633.15	5563484.341
8	5563484.341	556348.434	-1467633.15	4652199.625
9	4652199.625	465219.962	-1467633.15	3649786.437
10	3649786.437	364978.644	-1467633.15	2547131.931

11	2547131.931	254713.193	-1467633.15	1334211.974
12	1334211.974	133421.197	-1467633.15	0

Loan installment for every year is equal to Rs 14,67,633.15.

7. Cashflow

CASH FLOW OF ABC ENERGY (in Rs. Cr.)	Mar-22	Mar-23	Mar-24
	12 mths	12 mths	12 mths
NET PROFIT/LOSS BEFORE EXTRAORDINARY ITEMS AND TAX	**4.59**	**6.40**	**9.40**
Net CashFlow From Operating Activities	10.16	12.11	15.35
Net Cash Used In Investing Activities	-7.20	-8.50	-8.60
Net Cash Used From Financing Activities	0.00	0.00	0.00
Foreign Exchange Gains / Losses	0	0	0
Adjustments On Amalgamation Merger Demerger Others	0	0	0
NET INC/DEC IN CASH AND CASH EQUIVALENTS	**2.96**	**3.61**	**6.75**
Cash And Cash Equivalents Begin of Year	15	18.75	25
Cash And Cash Equivalents End Of Year	12.04	15.14	18.25

8. Leverage

LEVERAGES			
Year	**2022**	**2023**	**2024**
	1200	1500	1800
Sales	150000000	187500000	225000000
VC	77787600	97234500	116681400
Contribution	72212400	90265500	108318600
FC	23848800	23848800	23848800
EBITDA	48363600	66416700	84469800
DA	1457250	1457250	1457250

EBIT	46906350	64959450	83012550
Interest	1000000	1000000	1000000
EBT	45906350	63959450	82012550
Taxes @ 30%	13771905	19187835	24603765
EAT	32134445	44771615	57408785
OL	1.53950158	1.38956688	1.30484607
FL	1.02178348	1.01563491	1.01219326
TL	1.57303728	1.41129262	1.3207564

As seen from above table, we can infer that TL for

- year 1 is 1.57,
- year 2 is 1.41 and
- year 3 is 1.32

which indicates that Operating and Financial risk for the company is low as they must pay for the lowest Fixed Cost and Interest cost.