Key Notes

"Investing in the future of manufacturing"

Opportunities in automobile and hi-tech manufacturing in Bangladesh



Made in Bangladesh

A Global Brand

Samsung Manufacturing

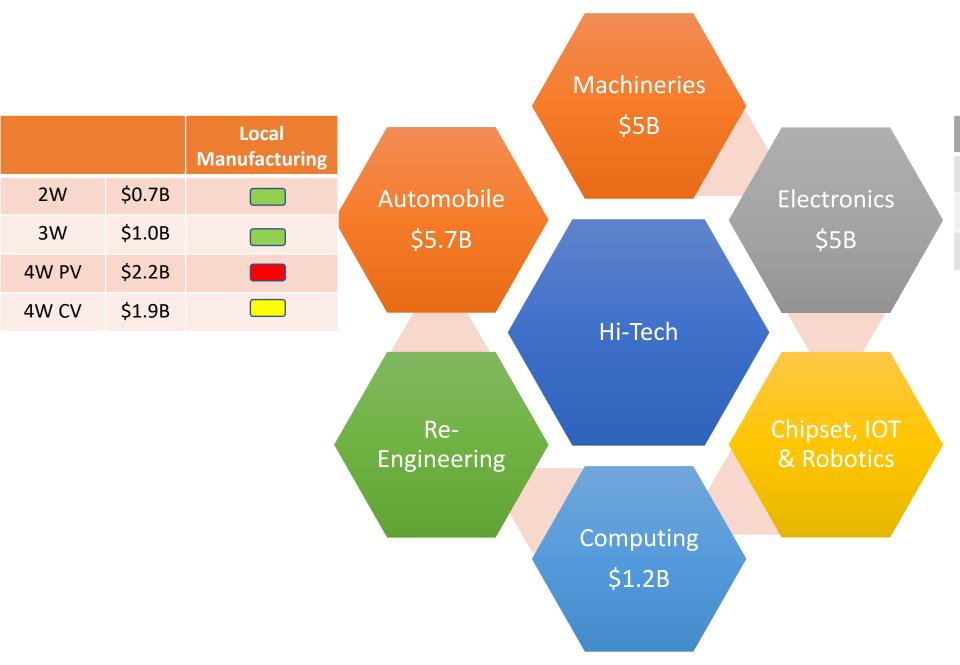
Tai Chartraia;

Hyundai Manufacturing



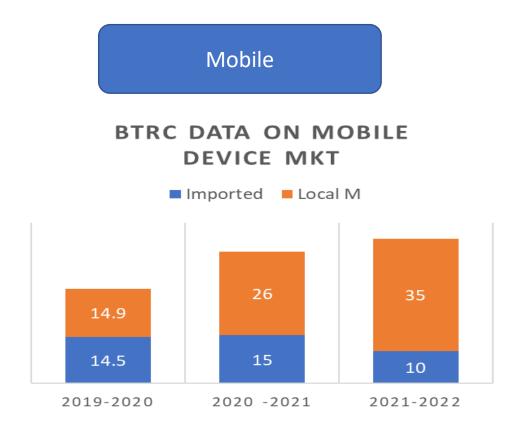
- Y2017 We started Electronics Manufacturing in Narsingdi
- Products Mobile, Refrigerator, Television, Washing Machine, Micro-wave Oven & Air-condition
- 3000+ Skilled Work force working directly
- Producing Mother-board for Mobile

- Y2023 We started Hyundai Manufacturing
- Products SUVs
- 500+ Skilled Work force working directly



| Local Manufacturing 93% | | | | | |
|-------------------------|--------|--|--|--|--|
| Electronics | \$2.5B | | | | |
| Mobile | \$1.9B | | | | |
| Electrical | \$0.7B | | | | |

Electronics Market Snapshot



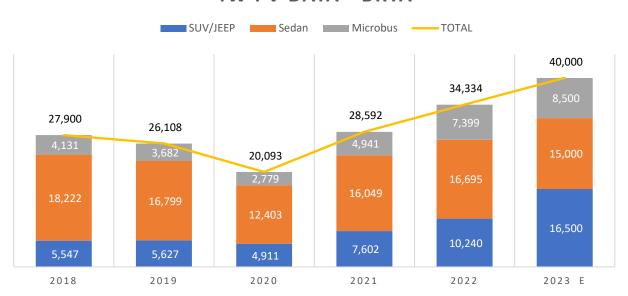
FY2022-23 1H – SMP Local production contribute 100% to Market

Consumer Electronics

- Current Market in Bangladesh
 - Refrigerator 3mln
 - Television 1.8mln
 - Computer & Laptop 0.7mln
 - Other Electronics Equipment 1.5mln
- 97% of Local Market requirements is catered by Local manufacturing
- Walton, Minister, Jamuna, Eco Butterfly etc are major local brands
- Samsung, LG, Singer, Whirlpool etc. have established their local manufacturing.

Passenger Vehicle Market

4W PV DATA - BRTA



| DESCRIPTION | TYPES | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 E |
|-------------|-----------|--------|--------|--------|--------|--------|-------------|
| Total | SUV/JEEP | 5,547 | 5,627 | 4,911 | 7,602 | 10,240 | 16,500 |
| | Sedan | 18,222 | 16,799 | 12,403 | 16,049 | 16,695 | 15,000 |
| | Microbus | 4,131 | 3,682 | 2,779 | 4,941 | 7,399 | 8,500 |
| | TOTAL | 27,900 | 26,108 | 20,093 | 28,592 | 34,334 | 40,000 |
| | YoY Gr. % | | -6% | -23% | 42% | 20% | 17 % |

- Passenger Vehicle CAGR: 8%
- Sedan market stagnant
- SUV market CAGR: 13%, but in YoY: 34%+.
- Surge in Microbus LY Fleet Market
- Y2023 Market Gr. Est. 17%

Penetration of Vehicles – 4Wheeler

| Rank | Country | Vehicles/'000 per | # of Vehicles '000 |
|------|------------|-------------------|--------------------|
| 117 | India | 70 | 57000 |
| 100 | Nepal | 110 | 3080 |
| 154 | Pakistan | 17 | 3557 |
| 86 | Sri Lanka | 157 | 3427 |
| 151 | Myanmar | 20 | 1065 |
| 178 | Bangladesh | 4 | 620 |

Source: Wikipedia

Opportunity

- Huge Investment in Roads, Highways, Bridges & other infrastructure Paved Road increases from 3600km in 1971 → 375,000km recent time
- Global largest Economy BD position 41st Y2022 → 20th Y2037
- Policy sponsoring Local manufacturing
- 8th Largest Population Domestic market potential

Challenges

- Skilled Manpower Focused Curriculum for Hi-tech Industry
- Lack of Raw Materials availability
- Research & Development

4W Roadmap in Bangladesh

Progressive Manufacturing Current Manufacturing 1 Manufacturing 2 Import CBU Smart Mobility More Value Addition & Initial level of Ride-sharing Develop Backward Manufacturing **Market Potential Environment Friendly Drive Affordability** Linkage **Driverless Car Electric Vehicle** Generate employment Drone base logistic Vehicle for every family

Market Indulgent Value Creation Future Opportunity

Future is **Electric Vehicles**

- Bangladesh consume ~5000barrels of Gasoline everyday
- Capacity of Electricity production
- Reduction in Carbon Emission
- Reduce cost of ownership Un-predicable Fuel Price & Maintenance cost
- Smart Mobility Ride Sharing, Environment friendly, IOT connected, Driverless Car & many more

^{*}Globally Transportation accounts for 14% of Global Greenhouse Gas Emissions

Improve CO2 Emission Impact in Bangladesh:

- Environmental Performance Index Bangladesh ranks 162 (out of 177 countries)
- Emission Legislation for Vehicles
 Europe

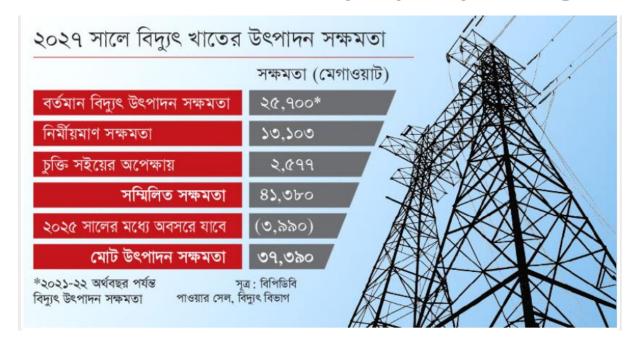
2020: 95 g CO2/km 2025: ≤ 78 CO2/km **Emission Legislation for Vehicles USA**

2020: 125 g CO2/km

2025: 87 g CO2/km

Whereas in Bangladesh IC engine vehicles emit over 170 g CO2/km

Current Status of Electricity Capacity in Bangladesh:



- Installed Capacity 25,782 MW
- Current Usage 12,000MW
- Projected Capacity 37,390 MW
- Projected Usage ~17,000 MW
- Unutilized Capacity 25,000 MW

EV Ecosystem





Main Source of Electricity to charging stations



Billing systems and other automations

Infrastructure

Develop E-waste management system





Commercial Charging Stations

Financing Solutions

locations for users

Charging stations at convenient

Strong financing module to support the expansion of EV infrastructure



Develop standard household 220V charging outlet system

Way Forward

- Collaborate with Global Brands & Tech-Transfer
- EV Eco-System & Incentives
- Focused Curriculum & Develop Skilled Manpower
- Raw Material re-engineering
- Backward linkage development to Increase Local Value Addition

Wire-Harness
 Lamps

Inner Cushion Windshield

• Bumpers Tire for Passenger Car

• Filters/Carpets/ Accessories Others

- Painting
- Seat

Thank You

ধন্যবাদ