

EV Industry Perspective



What to expect?

- **Some Realities on the Ground**
- **Comments on the SWOT**
- **A look at eJeep**
- **Summary**

Some Realities

Costly Initiative - Some eTrike and eJeep local manufacturer providing investments beyond the production to enable market adoption of the vehicles.

Difficult Market - A couple of more progressive transport cooperatives have adopted EVs but only after EV supplier provided financing support.

Survival mode - Only one active EV manufacturer from several a couple of years back.

Strengths

- **Strong Government Support (?)**
- **Presence of Local EV Manufacturers (There is only 1-2 firms assembling EVs locally and barely surviving)**
- **Active industry association**
- **Partnership established between the government and private sector**
- **Zero tariff on components, parts and accessories (Eligible only to EO226 MVDP registrants in which most local EV players are not due to investment thresholds. No special incentives for EVs)**
- **Manufacturing capabilities useful in EV sector**
- **High consumer outlook (Not without the necessary incentives)**

Weaknesses

- **Relatively low level of technology utilization in manufacturing and infrastructure**
- **Low number of charging stations**
- **Consumer concern in using EVs**
- **Inadequate PUV subsidies and slow and stringent loan approvals thus local EV manufacturers end up extending financing support**
- **Absence of government EV purchase incentives and subsidies**
- **Absence of government EV infrastructure development incentives and subsidies**
- **Lack of local demand hinders local manufacturing investment on EV Supply Chain**
- **Lack of scale for more cost efficient production processes**
- **MVDP investment threshold too high for most local EV SMEs**
- **Limited financing capacity among local EV manufacturers and suppliers**
- **Poor access to higher technology materials, parts and components from Japan, Europe and US due to high tariff and limited market demand**
- **Difficulty to attract OEM EV manufacturers due to high production cost, lack of competitive investment incentives, poor supply chain and unclear local demand projections**
- **High power rates**

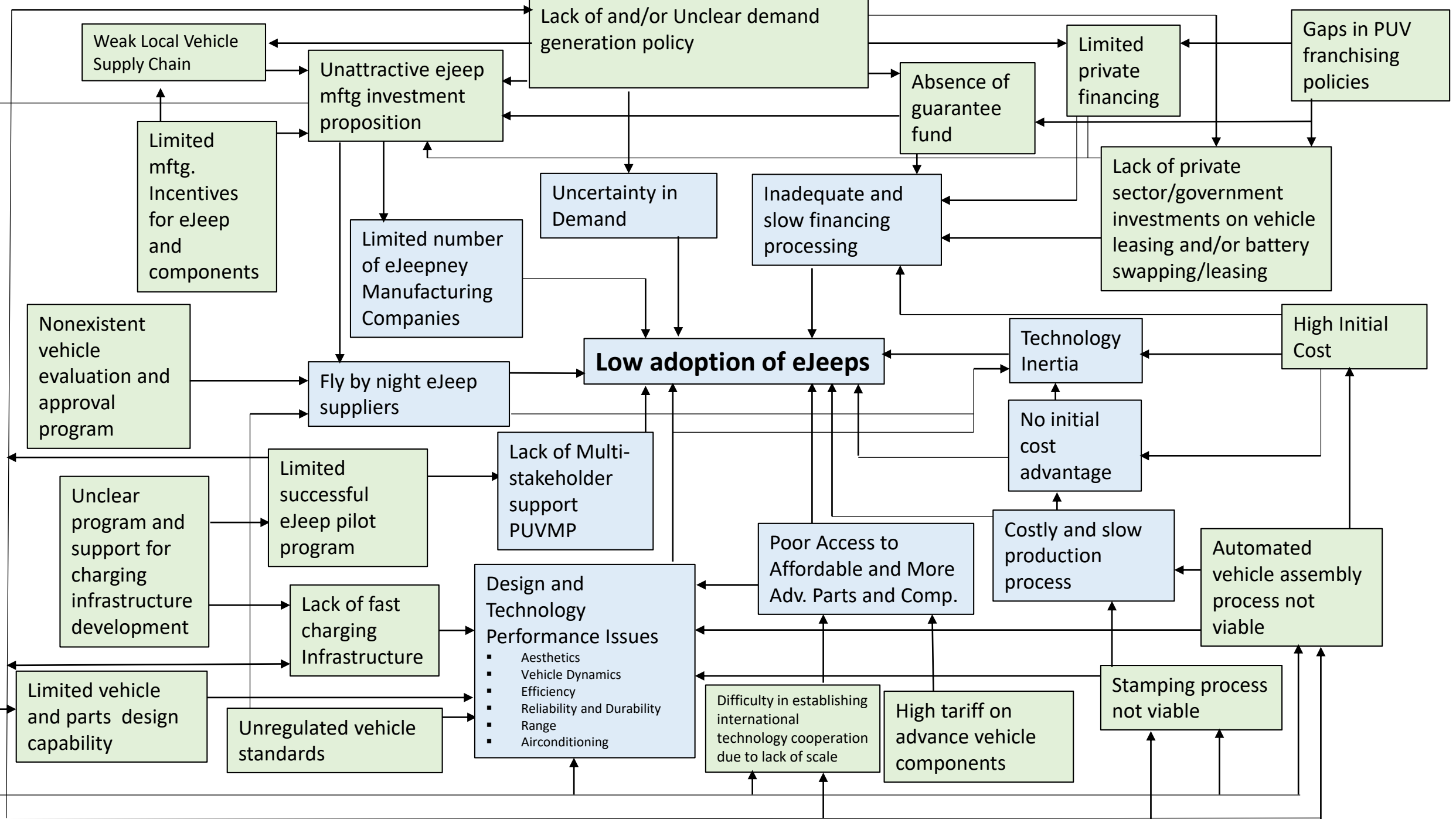
Opportunities

- **Battery Manufacturing (Could remain as a myth as local reserves are not pure enough for EV batteries. Another HPAL plant would be very expensive to build and run and may be justified only with a massive local battery demand)**
- **Participation in value chain in Asia and the world**
- **Support for R and D**
- **Technology cooperation (currently non-existent but possible with the proper policy support)**
- **Senate Bill, House Version, DOE charging regulations, LTO regulations, Green routes, Energy Efficiency Bill, EVIS, etc.**
- **Interest from multinational EV charging network operators**
- **Increasing number of OEM EV models introduced locally**

Threats

- **Industry could not wait any longer with the required policies and support (Currently only 1 or 2 local EV manufacturers left , Other ASEAN countries increasing OEM EV portfolio)**
- **Cheap EVs particularly from China, and if only incentives is only applicable for local manufactured units and not imported to China.**

Vehicle Design and Development	Component / Module Production	Assembly	Financing	Market	Operation
Decent power electronics design and development capability	Strong EMS sector	SME players and sadly only one left	Financing available but approval process too slow and tedious	Presence of some progressive transport cooperatives started to adopt eJeeps	Successful ones were transport cooperative-vehicle supplier cooperation or
Strong software development industry	No local battery cell production and limited access to modern battery cells	Strong and adequate base of skilled workers for vehicle assembly	"Limited" available funds	Green route concept accepted in principle but yet to be operationalized	Charging infrastructure is not an issue right now since battery swapping
Updating needed on industrial design trends	limited battery module local production activity	Non-automated assembly process	Issue on credit worthiness of "some" transport cooperatives	Delays on LTPRP	Fast charging batteries cost are expected to go down thus fast charging infrastructure will eventually be needed.
Updating needed on designing with light weight and newer materials.	High tariff on advance EV traction motors importation from MFN countries	Though mostly non-airconditioned, assembly and production of airconditioned units are underway	Some vehicle suppliers end up extending subsidies, providing financing or guaranteeing the transport	Euro4 units are preferred due to some performance issues, poor servicing support, lack of aircon option and technology	Limited capacity of transport coops to efficiently manage fleet and other requirements
Design limited by viable manufacturing processes	Stamped body panels and parts normally not employed due to limited volume	Currently uses slow charging batteries with limited range			
Updating needed on electrical sealing design and	Mechanical parts normally imported	Performance issues in some models			



Main Points

- Challenges could vary from one market segment to another thus EV development strategy should be segmentized
- Challenges are multi-dimensional thus solution needs to be integrated
- Program, Quota and Time Bound based government incentives are needed at the very least

ACTIVITIES 2021

- **BPS/TC-89- Monthly Meeting**
- **UNDP- Low Carbon Urban Transport System**
- **Global EV Alliance (GEVA)- Monthly Meeting**

Senate Bill No. 1382



- **Good news for the proponents of electric cars here in the Philippines. Senate Bill No. 1382, also known as the “Electric Vehicles and Charging Stations Act”, has finally been passed.**

Administrative Order 2021-039

- **The Land Transportation Office Administrative Order 2021-039 consolidated guidelines in the classification, registration and operation of all types of electric motor vehicles.**

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- The Electric Vehicle Association of the Philippines (EVAP), together with the Manila Electric Company (MERALCO) in partnership with the Philippine Department of Energy (DOE), is set to host the 9th Philippine Electric Vehicle Summit (PEVS) on August 26-27, 2021, as a virtual conference.



[Thank You]