



marketable skills and qualifications in E-mobility

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Executive Summary

Don Bosco Training Institute (DBTI) has initiated a project to impart skilling on EV servicing and retrofitting of EV kits in ICE vehicles to the youth from economically weaker sections of society.

This project is designed with a two-fold objective of:

- Using the opportunities provided by the rising E-mobility sector for prepa-
- ring a skilled workforce to cater to the repair and retrofitting of the EVs
- Setting up a strong repair and retrofitting ecosystem for EVs to support the EV adoption and penetration.

For this project, a hub and a spoke model are envisaged – the hub being in Kurla, Mumbai, and spokes in Borivali, Chinchwad, Chakan, and Aurangabad. A stateof the-art lab (basic and advanced) is expected to be set up in Kurla, from where the project will be managed, whereas basic labs are at the spokes. The project is expected to be operational over a horizon of 15 to 20 years, till Electric Vehicles are still relevant. The project targets to employ 70% of the youth that have been trained through placements or exploring self-employment opportunities. Additionally, it also aims at including 10% females in the project. DBTI has undertaken a feasibility study to finalize the project concept, prepare project indicators, and prepare the Theory of Change, along with a logical framework. For this, Taru Leading Edge has been appointed as the Study Partner or the Consultant.

The evaluation follows the OECD DAC criteria of relevance, coherence, effectiveness, efficiency, impact, efficiency and sustainability. The findings and insights from this study will be useful in planning and ideating the various aspects of the course and will highlight the context of the EV skilling, as well as the current scenario of the target group. To undertake this study, primary as well as secondary research comprising quantitative surveys with target groups, key informant interviews with various EV market players, and desk research to further improve the understanding of the status quo, potential, challenges and future expectations of the EV market in India.

Keypoints from the feasibility study

Various discoveries made during the feasibility study are as follows:

EV Market in India is poised to grow massively

About 0.32 million EVs were sold in India in 2021 with a record 168% y-o-y growth from 2020. While the ongoing EV adoption in India is primarily characterized by the sentiment to reduce carbon emissions, improve the air quality and reduce oil imports, the Union Government of India has been at the forefront of framing policies (and offering policy incentives therein) related to promoting faster EV adoption in the country as well. With state governments following suit in offering schemes as well, all the schemes together aim to address the various challenges pertaining to nationwide adoption of EVs such as inadequate batter infrastructure, dearth of charging stations, cost optimization in purchase and sale of EVs, etc. On the supply side there are various production linked incentives, excise duty cuts on import of raw materials, etc.; while on the demand side, there are reimbursements, road tax cuts and other fiscal incentives. It is anticipated that the EV market in India is expected to touch US\$150 billion by year 2030.

The growth of EV market offers enterprising opportunities for skill Training as well

The EV sector is currently in its very early stage. This is seen in the small market share EV currently has in the larger Indian automotive sector. Accordingly, just as there is a massive potential for the EV sector in India, so is the potential for job market catering to the human resources needs of the EV sector. However, considering the R&D relating to the EV sector in itself is also in its very initial phase, the skill training infrastructure requires a massive overall in India. This in itself has massive jobs augmenting opportunities for the Indian economy.

EV market players in India are increasing and expanding by the day

While brands like TATA Motors and Mahindra have been able to dominate the EV space as early entrants to the Indian markets, newcomers such as Okinawa, Ather Energy and Ola have also started seeing presence. Furthermore, with the EV market potential only showing massive growth in times to come, more big brands in India such as Maruti Suzuki, Yamaha and Honda are expected to enter the market soon.

Awareness about the potential of EV sector is prevalent in the target Groups identified

With the objective of assessing the status quo, technicians & mechanics in select service centers, identified youth, and EV users were reached out to in the project location. Basis their responses, it was learnt that:

• Technicians & Mechanics:

When asked about whether they are currently capable of working on EVs especially when they have not taken a prior skilling course/training on working on EVs, over 87% of the respondents said they were able to work on EVs while the remaining 13% said they were unable to. Thus, a relatively high degree of awareness and familiarity of working on EVs, despite prior formal training was observed amongst the respondents. Furthermore, when asked about their willingness to take a formal skill training course, a majority 83% of the workers showed a willingness to attend training while the remaining 17% showed a lack of interest.



• Identified Youth:

96% of the youth responded that they were aware of electric vehicles. When the respondents were asked if they would like to work in the EV sector,

82% of all respondents showed their willingness to work in the sector, and 76% showed a willingness to take up a course in the EV servicing and retrofitting sector.

There is a significant scope of improvement for end users' experience.

While the EV sector in India has a lot of multi-billion potentials to be realized, there are some challenges that the industry players must take stock of including end users' anxieties about the range of EV, apprehensions regarding Quality Servicing, etc. During the field surveys, when asked about the various ways in which the users think their EV using experience could be improved, while 89% said an enhancement to more charging stations could improve their experience, 11% felt there was a scope of improvement as far as access to good repair and maintenance facilities are concerned.

All the centers under DBTI Kurla have the infrastructure to successfully administer the intended EV skill training Courses

Based on the in-person visits done at DBTI Kurla and DBVPK Chinchwad, an assessment was made on the status quo of the individual capacities of the two centers in terms of physical infrastructure, HR and other industry relevant requirements that must be fulfilled for a successful administering of the intended EV skill training course. It was seen that both the centers had adequate Levels of required infrastructure, experience with industry relevant collaborations & experiences, mobilization capacities and a fully willing trainers' pool for EV related ToT opportunities. Additionally, it was seen that the mechanics & technicians and youths surveyed in the nearby locations to these centers were largely aware of the EV sector and in fact willing to take up EV related courses with an intention to improve their economic opportunities. Additionally, considering these centers fall in locations that already are automobile production hubs in the country, the proximity of the ITIs to the automobile industry players' manufacturing units also comes as a positive point for these centers as the students' and ITI can conveniently hunt for relevant employment pportunities post course completion.



Get in touch!

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