

MGT1022- Lean Start-up Management

DIGITAL ASSIGNMENT-2

ALOKAM NIKHITHA (19BCE2555)

TE1 SLOT

Question

Write about any 2 relevant start-up in your state from start-up India website (<https://www.startupindia.gov.in/>). There is an option to explore start up by state. Analyse the start up in brief (Products/services, objective, strategies and plans) and the impact of this start-up on the social, economic and environmental issues in the state. Suggest two ideas to improve the business of each of these start-ups.

Note: Once you identified the start up, you can go to their individual website for more information.

The 2 startups that I have chosen are **Jagannath Engineering(Kakinada, Andhra Pradesh)** and **AEROESPACIAL TECHNOLOGIES (Vijayawada, Andhra Pradesh)**

1. Jagannath Engineering

Jagannath Engineering Industries was established in 2021 in East Godawari District, Andhra Pradesh. It promotes the Lithium vehicles in order to protect Environment

Objective

Jagannath Engineering is pioneering with inside the area of Lithium Ion battery packs that's powering tomorrow's transportation needs. Continuous studies in product improvement and significant know-how in Lithium Ion, LFP battery technology, and in-residence manufacturing centers are simply few of their strengths.

Their objective is to make a pollution free environment by supporting these electric vehicles. They wanted to provide these Electric vehicles with reasonable costs which can be brought by everyone. They wanted to produce vehicles of all different designs and colors.

Advantages of lithium-ion battery vehicles:

- Cost-Effective
- High power density
- Easy maintenance
- Continuous voltage
- Variety of models available
- Higher Battery Life
- Requires higher protection
- Performance declines with time.

Products

- Electric Autos
- Electric Bike
- Electric Bike Battery
- Electric Auto Battery
- Inverter Batteries

Services

The company has provided the Quality services to the customers.

Quality

Their in-residence manufacturing facility includes the maximum current meeting equipment. They also have a strong R&D department, layout studio and a highly-skilled workforce.

Uses

Lithium Ion batteries can be used in Electric Bikes, Electric Auto and also in modern day Inverters. They had a large power-to-weight ratio and high energy efficiency as well as good high-temperature performance, and low self-discharge. Most of components of the lithium-ion batteries can be recycled. Lithium-ion batteries have the higher energy densities compared to lead-acid batteries or nickel-metal hydride batteries, so it is possible to make the battery size smaller than others while retaining the same storage capacity.

Benefits

Lithium Ion and LFP technology batteries have higher shelf life compared to Lead Acid batteries. And they also have deep charge as well deep discharge life cycle. A Lithium-ion (Li-ion) battery is a form of rechargeable battery utilized in electric powered automobiles and some of transportable electronics. They have a better strength density than traditional lead-acid or nickel-cadmium rechargeable batteries. This way that battery producers can shop space, lowering the general length of the battery pack.

Strategies and Plans

Since the main motive of the company is to bring up the Lithium Ion Batteries and Lithium vehicles in order to protect Environment. The company has built various products with Lithium Ion. They have started to build bikes and Autos of different colors. They also displayed the products in social media platforms.

They are promoting their product by explaining how these vehicles are pollution free. They also made different designs of bikes and autos. They are selling their product in reasonable rates. They started a showroom with many different Vehicles.

They also made Autos with affordable prices so that auto drivers can easily buy them and also the passengers are more likely to get attracted to these Electric vehicles because they are less noisy compared to fuel Autos.

Impact of this start-up on the social, economic and environmental issues in the state

Nowadays pollution is a major issue in every city. With increase in population and people mostly stopped using Public Transportation and using their own vehicles which is leading to pollution. Making electric powered automobiles does use a whole lot of electricity. Even after taking battery manufacture into account, electric powered automobiles are nonetheless a greener option. This is due to the reduction in emissions created over the automobile's lifetime .

The emissions created at some stage in the manufacturing of an electric powered vehicle have a tendency to be better than a traditional vehicle. This is because of the manufacture of lithium ion batteries that are an vital a part of an electric powered vehicle. More than a 3rd of the lifetime CO2 emissions from an electric powered vehicle come from the electricity used to make the automobile itself. As generation advances, that is converting for the better.

The vehicles release a lot of smoke which damages the environment. But the Lithium battery vehicles (autos and Bikes) which basically are Electrical vehicles comes with rechargeable batteries .There is no need of fuel and are environmental Friendly and also the cost of these vehicles are relatively low compared to the fuel vehicles and are easy to build. So this would help with the Environmental issues. This also create the social awareness among the people regarding the Air pollution. In this way the startup will have great impacts in the state.

Suggestions for Startup:

- The startup can make some **nice paintings and can also stick some stickers** to the vehicles inorder to attract the customers
- They can provide **free Helmet** with the Vehicles this will attract the customers as people attract to free gifts.
- They can also **tie up with companies like Ola and Uber** and sell their bikes to them. This will profit both of them. And passengers generally prefer to travel in noiseless vehicles
- By bringing awareness about the pollution and effects by this pollution to the people in villages or by **displaying them in big malls** .

2. AEROESPACIAL TECHNOLOGIES

AEROESPACIAL TECHNOLOGIES is a company providing innovative solutions in the field of agriculture. Accessible Technology is main motivation of the Aeroespacial Technologies while building affordable products so that technology is reachable or accessible to every individual to make life even better and convenient. It provides their clients and the community with high quality imagery, data, with industry driven solutions by utilizing the latest UAV technology in worldwide.

Objective

Aeroespacial Technologies objective is to provide innovative solutions in the field of agricultural drones, vegetation mapping, crop health monitoring, mining services. The technology regions catered below the ambit of self reliant and aerial structures encompass layout and improvement of flight manage structures (autopilot), payload manage mechanisms, 3 axis gimbal manage structures, drone primarily based totally geospatial mapping and surveillance, mathematical modelling, simulation and machine identity of numerous complicated structures.

Products

- Agricultural drones
- Vegetation mapping
- Crop health monitoring
- Mining services.

Services

The various services that are provided by the company are:

- Crop spraying
- Crop Inspection
- Crop Consulting
- Gis Mapping solution
- Flight control system
- Glimbal control System

With Agriculture drones they can be able to collect information like:

- The overall crop and plant health
- Land distribution based on crop type
- Current crop life cycle
- Detailed GPS maps of the current crop area

Crop Spraying and Spot Spraying:

Crops require regular fertilization and spraying with a view to hold excessive yields.

Traditionally this turned into finished manually, with vehicles, or maybe through airplane. These strategies aren't best inefficient, and burdensome, however they may be very luxurious as well.

Drones may be prepared with massive reservoirs, which may be full of fertilizers, herbicides, or pesticides.

Using drones for crop spraying is a great deal more secure and cost-effective. Drones may even be operated absolutely autonomously and programmed to run on particular schedules and routes.

Spot spraying of vegetation was highly difficult. With spot spraying afforded through drones, this equal project may be performed in much less time, with fewer financial resources, and a discounted environmental cost.

Crop Inspection

One of the largest blessings of the usage of drone era is the benefit and effectiveness of massive-scale crop and acreage monitoring. In the past, satellite television for pc or aircraft imagery became used to assist get a massive scale view of the farm, even as supporting to identify ability issues.

With close to infrared (NIR) drone sensors you may certainly decide plant fitness primarily based totally upon mild absorption, supplying you with a birds-eye view of the general farm fitness.

Gis Mapping solution

Collecting and studying records to provide precious insights for knowledgeable selection making, danger control and planning, all enhancing your backside line. Surveying and mapping commercial environments is time-consuming, tough and regularly dangerous.

The absolutely computerized Airobotics platform is a expert device that permits surveyors and mappers to gather limitless aerial records and particular measurements, at the same time as saving time, cash and manpower.

Strategies and Plans

Their strategy is to target the farmers who cultivate many acres of land. Generally a Farmer who work in large acres of land have to rent a lot of money for labour. So this company is concentrating on such Farmers and also they are explaining how better it is compared to human work.

They also clearly listed about the various problems during cultivation and how food production is going to be increased in coming days for which the human work won't be sufficient in their website in order to attract customers and move them towards technology. Their drones not only

just water plants . They also have a camera for crop inspection .These additional features attract farmers. Because crop loss is a major issue for the farmers.

Impact of this start-up on the social, economic and environmental issues in the state

This type of Technology can help reduce Human effort and crop loss. Our country is highly populated so this need a high requirement of food production. In Andhrapradesh there are a lot of farmers and sometimes due to some flies or certain other factors, there are chances of crop loss. This can be prevented by finding it in initial stages itself and take necessary preventive measures for it. And proper watering to the crop is necessary and sometimes there is need of watering only certain portion of the field.

All the time Farmer can't keep an eye on the crop, specially if the size of crop is high. They cannot inspect all the crop. These drones can help in such situations. This help the farmers. Due to inspection and proper watering , there will be less crop failure. This will economically boon the government because the production may increase in the state. External factors such as weather, temperature and soil conditions plays a critical role in farming. Agriculture drones can empower the farmer to adapt to the specific environments and also make mindful choices accordingly.

Suggestions for Startup:

- The startup can **visit villages or rural areas** and show the farmers about how these are very much useful by showing the demos.
- They can **visit farms** of near by and explain their technology to them.
- The Startup can **explain idea and uses to government** and try to get aid from them.
- They can **advertise their products** in Televisions.
- Show **demo in Rural areas** and farms.
- They can conduct survey in Rural areas and **provide 1 or 2 samples to the farmers for certain period of time**. So that they can know how much useful it is for them.