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AgriGate - A Free Farm Marketplace

MGT1022 Lean Start-up Management

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1. Executive Summary

Agriculture is one of the most important sectors in India. It is the backbone of our country as statistics show that it has employed more than 50% of the Indian workforce in 2018 and generated 17–18% of our GDP. Agriculture has a long history in India, dating back to the Indus Valley Civilization. India is the world's second-largest producer of agricultural products. Although we are self-sufficient in food basics, our agriculture production is lower than that of Brazil, the United States, France, and other countries.

Agro-food trade is important for civic life and social stability, as well as for farmers' revenue and customer burden. As a result, it is a very sensitive socio-political issue. Farmers, manufacturers, dealers, distributors, retailers, and consumers are all involved in the agri-food industry. They are concerned about the unknown and seek high-quality, safe food products as well as much knowledge as feasible. As a result, there could be an asymmetric information issue. When partners to an economic transaction are not equally aware, asymmetric knowledge arises, preventing the first-best distribution of resources. Asymmetry of information can lead to a variety of issues, including market failure. Many countries are currently working to decrease market failures and establish a more equitable market place in food and agriculture. Having said that, many farmers encounter several issues in agriculture, including a lack of proper value for the items they produce even if the market prices of the goods are significantly higher. This is often caused by the intervention of a series of middlemen, who often take a significant portion of the margin. This situation requires a platform where farmers get a respectable amount and retail traders are satisfied too.

1.1. Product Description

Farmers can sell their goods through a one-of-a-kind time-bound auction on AgriGate, allowing them to sell their goods for a greater price by removing the influence of middlemen in the selling process. This programme is designed to allow users to sell and buy agricultural products through an auction system. The concept allows buyers to bid on agricultural food, cutting out the middlemen and benefiting both farmers and customers.

1.2. Target Audience

- **Farmers:** These are the people producing the food/grains to be sold in the market. They will use our platform to sell their produce online. They will have the ability to create limited time auctions for their products which can allow them to get a fairer price for their work.
- **Food Retailers/Wholesalers:** These are the people who want to buy firm produce from farmers willing to sell the products. They will be using our platform to purchase goods by bidding at ongoing auctions.
- **D2C Consumers:** Additional end users for our Direct to Customer (D2C) system of selling farm produce. These consumers will use our platform to buy goods at retail prices and quantities.

1.3. Competition

The Agro-FinTech industry is one of the hottest, with a slew of new startups and enormous potential. AgriGate will largely compete with Arya.ag, a fast-growing integrated grain commerce platform that uses revolutionary phygital service offerings to eliminate the trust deficit in the grain commerce value chain. Arya.ag unites agriproduct sellers and purchasers, allowing for farmgate storage and easy financing. Government initiatives such as eNAM, a virtual network-based pan-India market platform that allows farmers to sell their farm products anywhere in the country by bypassing state borders, add to the rivalry.

1.4. Risk/Opportunity

Every venture entails some level of risk, and AgriGate is no exception. Our team, on the other hand, has methodically created processes and planned to minimize the predicted risk factors while leveraging the comparatively untapped and ripe market availability. Many farmers are digitally illiterate, and they are unwilling to use our platform to market their products. Given how much potential there is for digitizing the agricultural trade process, if done correctly, it can assist strengthen our and the nation's economies while also ensuring that more farmers are compensated for the hard work they put into producing food.

2. Proposed Business

Farmers that cultivate crops as per the season and soil fertility collect the products, prepare and pack them, and communicate with wholesale suppliers about stock availability. The wholesale dealer first enquires about the price with the farmer, who informs him or her of the price about which he or she can deal. The farmer's price is negotiated by the wholesale seller, who is looking to maximize his profits. The poor framers, who are surrendering their profits, generally accept the wholesale vendor's pricing. As a result, he or she sells their stock at a low price due to a variety of factors such as financial difficulties, a lack of wholesale vendors or a market, and so on. Some farmers who live in close proximity to cities sell their produce directly to merchants and individual customers at wholesale markets. Farmers who live in rural places, on the other hand, are unable to travel to towns on a regular basis and sell their stock at the given price. As a result, they have no choice but to contact a wholesale seller in order to sell their items on the market. Crop cultivation is a lengthy process due to a variety of factors such as weather, soil fertility, and seed problems, among others. They anticipate making a profit from many of the difficulties they face. After purchasing the product from the farmers at the given price, the wholesale vendor sells it to both retailer vendors and customers. It is subsequently sold to the end user by the retailer vendors. The price fluctuates from step to stage, depending on whether the negation is for profit or for saving money. The sellers want to make a profit by setting a high price, but the buyers want to buy the stock at a reasonable price, so they can get the most stock for the least money. As a result, the process of growing stock until it is sold to end customers is a long one in which farmers play an important role. The vendors who propose a high price in order to maximize their profit, while the buyer tries to negotiate a low price based on their resources, and owing to the farmers' bad financial situation, they are forced to accept a cheap price from retail merchants in order to earn some money. As a result, the farmers are just unable to benefit. AgriGate is a web app which is a marketplace allowing users to sell and buy agricultural products using an auction mechanism, which will help remove the need for middleman benefiting both farmers and buyers. This is due to the fact that middlemen take a big cut out of farmers current incomes leading to poor living & economic conditions for most farmers in India. Hence, we aim to bring transparency to that process while ensuring that farmers get best value for their produce, thus incentivizing hard-working farmers.

Some of our key services are:

- Entirely online system, with possibly a pickup & delivery system similar to Amazon & charging a fixed price per km for a farmer to maintain transparency.
- Since all payments are entirely digital & a farmer can demand their share immediately (before selling even at Mandis where our system can operate).
- We will incorporate fixed baseline prices per crop, in our system decided by farmer unions along with government.
- We will have a fixed convenience fee which will be displayed transparently in each transaction. That way farmers know what are the cuts for and whether they are standardized.
- Since there is an auction system, we have a baseline price set and then we can have higher bids to reward those farmers who put in extra work.
- Farmers and buyers connect into the system with a valid user id and password. New users can register via their Google Account directly, making it hassle-free.
- The seller can submit a new auction by uploading a picture and a description of the farm items. The purchaser must select the goods and submit an offer.
- There will be a bidding system in these auctions which will allow farmers who work harder get better prices.
- The web platform is secure to ensure sensitive data of non-tech-savvy people is not leaked.
- It will also be a lightweight & responsive application as it is understood that several users would be accessing the portal through smartphones with poor connectivity and is thus designed accordingly.

Simple user interface with multiple language support.

3. Our Solution

Agriculture is important in terms of employment, production and consumption, and can continue to play a critical role in lifting people out of poverty. This sector is important for two reasons:

i) Poor households tend to spend a large share of their income on food and

ii) Three out of four people live in rural areas in developing countries and most of them depend on agriculture for their livelihoods. Evidence suggests that growth in agriculture delivers more poverty reduction than growth in other sectors in low-income economies.

Hence, we decided to build a platform **AgriGate** for trading farm products that could really prove to be useful. There are several benefits of the e-commerce market that can be extended to farmers and customers. Importance can be given to the fact that online trading between farmers and consumers/big traders could be the future. Out of approximately 120 million farmers of India, 25% of them have a basic sense of digital marketplaces and use of smartphones. (Source- Forbes India). This section of farmers could easily benefit from such platforms. The platform has the capability to increase the average farm income by 50-75% (according to Reuters Survey), whereas traders can also benefit accordingly as the prices would be reduced.

Working of our proposed business model:

For every transaction, we will charge a small transaction fee from the farmer for every completed auction where a farmer has made profit. The transaction fee varies depending on the profit the farmer gains from the auction. It is certain that the farmer will get more income than what they used to see in APMCs where there was direct involvement of middlemen who control the prices instead of the farmer.

In case a farmer is unable to sell their crops after the auction is completed, we plan to set up a D2C (Direct to Consumer) model, wherein we'll buy the crops from the farmers directly and sell them to end users through our platform. We can have an everyday delivery system like Big Basket Daily, Amazon Fresh, etc. In the initial phase, we'll hire a third-party supply chain and inventory management partner to handle and subsequently move to our own supply chain system.

4. Business Model Canvas

This section describes the Business Model Canvas of our startup - AgriGate.

4.1 Key Partners:

Farmers – For B2B and D2Cbusiness – They provide fresh from farm products.

Supply Chain and InventoryPartner –Managing one-daydelivery of farm goods to consumers and to retail buyer

4.2 Key Activities:

Creating a platform/websitefor farmers and buyers to interact.
Onboard farmers and training
D2C model and transactionmanagement.
Create Inventory Management System.
Ensure farmers get desired value.

4.3 Key Resources:

Network of Farmers, retail food vendors, and stores

Website on which farmers and vendors can interact with each other

Auction System

Data on crops and their prices and availability

4.4 Value Propositions

Ensure farmer get the value that they deserve

Using this platform helps the farmers in maximizing profits and minimizing risk

This platform makes it convenient for the buyers to view all the available crops and their prices in a systematic and organized manner

Ensure buyers get timely delivery

4.5 Customer Relationships

Providing good customer service to farmer and buyers to help them familiarize themselves with the platform and answering their queries

Deserving value for farmer and cost-effective value for buyer are key to maintaining relationship

4.6 Channels

Website on which the farmers and vendors will interact on

4.7 Customer Segments

Farmers (people responsible for producing the food)

Retail Food Vendors (Buyers who buy the farmers' produce)

End users for the D2C model

4.8 Core Structure

Development and maintenance of the website: hosting and development of the website is crucial as the auction system is resource intensive and is thus required to be scalable

Farm product development

Supply chain and inventory management: third party vendor of logistic and supply chain with inventory management

Farmer, Retail Buyers and Customers(end-user) acquisition: marketing, inviting and retaining a userbase

4.9 Revenue Streams:

Transaction fees: for every transaction: a small transaction fee is charged from the farmer for every completed auction where a farmer has made profit

D2C Revenue: we sell farm products directly to end users and the profit will be our revenue

Business Model Canvas

Designed for:	*Designed by:*	*Date:*	*Version:*
AgriGate	Aadarsh, Adi, Ateeth, Naman, Nishant, Dhanunjay, Shashank	2022-08-21	1.0

Key Partners

- Farmers – For B2B and D2C business – They provide fresh from farm products.
- Supply Chain and Inventory Partner –Managing one-day delivery of farm goods to consumers and to retail buyers

Key Activities

- Creating a platform/website for farmers and buyers to interact.
- Onboard farmers and training
- D2C model and transaction management.
- Create Inventory Management System.
- Ensure farmers get desired value.

Key Resources

- Network of farmers, retail food vendors and stores
- Website on which the farmers and vendors will interact on.
- Auction System
- Data on crops and their prices and availability.

Value Propositions

- Ensure farmers get the value that they deserve.
- Using this platform helps the farmers in maximising profits and minimizing risk.
- This platform makes it convenient for the buyers to view all the available crops and their prices in a systematic and organized manner.
- Ensure buyers get timely delivery.

Customer Relationships

- Providing good customer service to farmers and buyers to help them familiarize themselves with the platform and answering their queries.
- Deserving value for farmer and cost effective value for buyer are key to maintaining relationship.

Channels

- Website on which the farmers and vendors will interact on

Customer Segments

- Farmers (people who produce the food)
- Retail Food Vendors (buyers who buy the crop)
- End users for D2C model.

eos

Cost Structure

- Development and Maintenance of the Website: Hosting and Development of the website is crucial as auction system is resource heavy and hence needs to be scalable.
- Farm Product development
- Supply Chain and Inventory Management: Third party vendor of logistics and supply chain with inventory management.
- Farmers, Retails Buyers and Customer (End-user) acquisition: Marketing and bringing on-board new users.

Revenue Streams

- Transaction Fees: For every transaction, a small transaction fee is charged from the farmer for every completed auction where a farmer has made profit.
- D2C Revenue: We sell farm products directly to end-users and the profit will be our revenue.

5 Industry Analysis

5.1. Size and Growth Rate of Industry

The Economic Survey of India 2020-21 report stated that in FY20, the total food grain production in the country was recorded at 296.65 million tonnes—up by 11.44 million tonnes compared with 285.21 million tonnes in FY19. The government has set a target to buy 42.74 million tonnes from the central pool in FY21; this is 10% more than the quantity purchased in FY20. For FY22, the government has set a record target for farmers to raise food grain production by 2% with 307.31 million tonnes of food grains. In FY21, production was recorded at 303.34 million tonnes against a target of 301 million tonnes.

India is among the 15 leading exporters of agricultural products in the world. Agricultural export from India reached US$ 38.54 billion in FY19 and US$ 35.09 billion in FY20. Figure 1 shows the Agricultural Exports from India in US$ Billion.

Figure 1: Agricultural Exports from India (US$ Billion)

5.2. Regulations/Certifications

- **FSSAI License in India -** To start a food retail business in India, the most important license is the one from the Food Safety and Standard Authority of India (FSSAI), Ministry of Family Health & Welfare, Government of India. The FSSAI provides licenses for the safety and standardization of food products manufactured and sold in India. Without one, no legitimate wholesaler or retailer would stock your products.
- **Registration under Sales Tax Act** – Commercial Tax officer of the area concerned.
- **Registration under Central Excise Act** – Collector of Central Excise or his nominee for area.
- **Payment of Income Tax** – ITO of the area concerned
- **Registration of Partnership deed** – Inspector General of the area concerned
- **GST Registration -** All types of entities and individuals who have an aggregate annual turnover of more than Rs.20 lakhs in most State and Rs.10 lakhs in Special Category States are required to obtain GST Registration.
- **Power Connection** – Designated Officer of State Electricity Board
- Employee strength exceeding 10 with power connection or 20 without power – Chief Inspector of Factories
- **Calibration of weights, measures** – Weights and Measures Inspector of State
- Agriculture
- Agriculture is one of the most important sectors in India. It is the backbone of our country as statistics show that it has employed more than 50% of the Indian workforce in 2018 and generated 17–18% of our GDP.

5.3. Competitors in this space – Arya.ag

Arya.ag is a fast-growing integrated grain commerce platform that eliminates the trust deficit in the grain commerce value chain through its disruptive phygital service offerings. Arya.ag connects sellers and buyers of Agri-produce, enabling farmgate storage and seamless finance options.

5.4. Government Initiatives

eNAM is a virtual network-based pan-India market platform which allows farmers to sell their farm products anywhere in the country by overcoming the state barriers. eNAM helped to achieve the “ONE NATION ONE MARKET” goal of the government. In the digital era, government of India had started digital agriculture marketing by providing Electronic National Agriculture Market portal which creates a link between the existing APMC mandis/ market to create a unified national market for agricultural commodities based on virtual network.

6. Mission Statement

Our tagline is “A Free Farm Marketplace” where the farmer is free to sell their crops for the best price. While AgriGate is derived from the word aggregate, it means a platform for farmers and buyers to get together/aggregate and achieve greater heights i.e., a new gate to profit and agriculture success. We want farmers to benefit from their produce and not be exploited. At the same time, we don’t want higher prices in the market so we want end-users to benefit too. This can only be achieved through a marketplace platform which involves retailers/whole-sellers and farmers, eliminating middle-men.

This is all done in accordance with the recently implemented farmers bill by giving the producers (farmers) complete control over their produce while also providing them with a solid infrastructure to rely on in order to maximize their profits while also minimizing the risk to both the producer and the seller. We also aim to provide a fair chance to all vendors/D2C consumers with regards to the pricing of the goods by implementing a time limited auction system which can be used to ensure accountability of the buyer. This will ensure that all partners associated with our platform will find all their needs satiated while also being a highly practical choice.

7. Management Plan

The company will work under a well-organized structure of board and executives, starting with our team members that have put into the idea of AgriGate to help the struggling farmers across India.

Key People

Our team are the founders of this start-up. We plan to keep 10% shares each after round 1 funding and later liquidate more if needed.

Investors

Investors are the ones who will fund and in-return have a stake in our start-up. This will approx. be around 30%.

Our company structure may look something as follows:

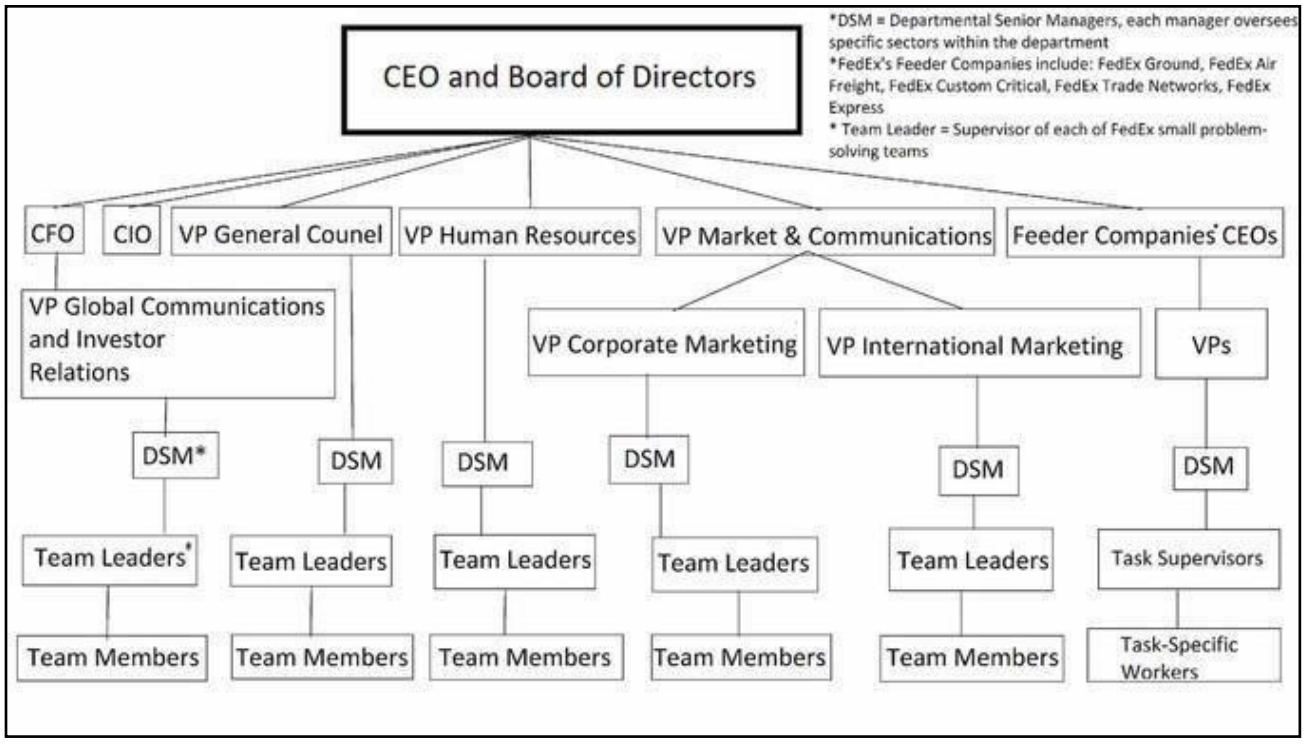

Figure 2: Management Hierarchy

Investor - A person or any corporation who allocates capital to incorporation or startup with the agenda of financial return is an investor. Following is the role of an investor:

- They will provide capital to start the business.
- They assist in business- plan for startup.
- They are profit oriented hence they will ensure that capital is invested in the correct way. In other words, they advise us to manage the funds accurately as their own money is at stake.
- They aim at long term benefits and attempt to create goodwill of the company in the market which would further attract more investor to invest and thereby, increasing the capital inflow. They are an evangelist to the upcoming startup.
- They help in earning maximum profit with least damages and losses (basically risk management) thereby generating surplus and revenue for the socio- economic development of the country.

Chief Executive Officer - Any individual CEO may take on any tasks that they wish, but these arethe things that can't be delegated:

- Setting strategy and direction
- Modeling and setting the company's culture, values, and behavior
- Building and leading the senior executive team
- Allocating capital to the company's priorities

Chief Technical Officer The very name chief technology officer suggests that the person holdingthis position is in charge of technology within the organization. Role of CTO involves-

- A knowledge of existing and emerging technologies.
- Technology selection should come from a deep understanding, a long-term vision and playing to the strengths of the team.
- A great CTO knows their own limitations but can identify experts to fill these gaps.
- The CTO is responsible for hiring the core development team.

- A CTO from a corporate environment will have different experiences than one who has operated in the faster paced, less bureaucratic environment of the startup world.
- Many startup CTOs have embraced blogging and publicspeaking to become evangelists for their industry.

Chief Operational Officer – The role of COO involves:

- Designing and implementing business operations
- Establishing policies that promote company culture and vision
- Overseeing operations of the company and the work of executives **Research and Development Department -** R&D role has to create new and innovative products and add new features to old products. Overall R&D is important for a firm to gain knowledge to develop, design, enhance, and modify company's products, services,technologies, business plans, processes and sometimes vision.

Office of Financial Management – Manages the finances and capitalinvolving the start up
Regulatory and marketing Department – Its role involves themarketing, advertisement of the product and also the legalaspects of the startup.

Product Development – This department handles the manufacturing and production of the products.

8. Goods, Services and Production Process

8.1. Production

The crops produced by farmers will be listed on the company's platform for bidding. The raw materials, fertilizers and other agricultural equipment will be taken care of by the farmers themselves. The company facilitates the exchange of farm products and is not a production company.

8.2. Supply

- **Mode of supply and distribution**: We would supply both online and offline. For online, we are in talk with some of the largest e-retailers in India: Amazon and Flipkart. They have warehouses in all major cities and since our main manufacturing unit would be placed near a metropolitan area, the shipping charges would be light. For offline, there aren't many retailers in this field who sell composters as such. Hence, we would open up our own shops but in limited cities (which would increase as the business grows).
- **Warehouse space**: Warehouse space is costly and hard to find in a developed city; however, it is way easier at the outskirts of a city where inhabitants are less. The cost is lesser by 57%, however we need to keep in mind that transportation charges would be more. We need warehouse space to build up our inventory, as we scale through our first product
- **Licensing**: One major license is necessary to execute this business. The Sales Tax License. Without licensing our company, we cannot operate legally.
- **Advertising**: We would be advertising about our product via roadside posters.
- **Social Media Marketing**: handling out pamphlets and engaging with SEO firms.

8.3. Services

This includes coordinating between farmers and buyers/end-users, transportation of materials, web platform and financial assistance in the form of small loans to the farmers.

8.3.1. Quality Control

Our company has high standards of quality and plans to maintain the same. We will make sure that the goods being sold traded meet our minimum quality requirements and are fresh. The quality protocol will test the produce for factors such as freshness, rot, amount of produce, infestations, and infections, etc. The process will be performed manually.

8.3.2. Inventory Management

Inventory management is the part of supply chain management that aims to always have the right products in the right quantity for sale, at the right time. When done effectively, businesses reduce the costs of carrying excess inventory while maximizing sales. Good inventory management can

help us track our inventory in real time to streamline this process.

Since we are a small business, we would be doing inventory management in these ways:

- Fine-tuning our forecasting
- Using the First-In-First-Out approach for selling our goods
- Identifying the low-turn stock
- Auditing our stock
- Using cloud-based inventory management software
- Tracking our stock at all levels
- Reducing equipment repair times
- Not to forget quality control
- Hiring a stock controller
- Remembering the categories of our products

9. Marketing Plan

9.1. Target Market

- **Farmers:** These are the people producing the food/grains to be sold in the market. They will use our platform to sell their produce online. They will have the ability to create limited time auctions for their products which can allow them to get a fairer price for their work.
- **Food Retailers/Wholesalers:** These are the people who want to buy firm produce from farmers willing to sell the products. They will be using our platform to purchase goods by bidding at ongoing auctions.
- **Normal Consumers:** Additional end users for our Direct to Customer (D2C) system of selling farm produce. These consumers will use our platform to buy goods at retail prices and quantities.

9.2. Promotion

The company is advertising in the rural areas in the form of hoardings and posters. The company is also partnering with the farm unions to bring on the farmers to the platform. Advertisements are put up in the existing APMCs to bring on buyers. The platform is multi-lingual so that all parts of the country is covered. As for the D2C model, a 4-hour delivery system is proposed.

9.3. Pricing

The company guarantees a better price to the farmers for their crops by keeping the base auction price as that of the MSP price issued by GoI. This would help in initial customer acquisition in the form of farmers landing on the platform. As for the buyers, the company is providing discounts based on loyalty for bulk orders and hence the company can bring-in more buyers on the platform. Through the D2C model, the end-users will get a cheaper price for the farm products.

9.4. Distribution

1. Centers are set up in rural areas so that the farmers can drop their crops in these centers from where the supply chain management system will carry on. This will attract more farmers to the platform as currently they need to go to nearby cities to sell their produce.
2. App based advertisements.
3. Advertisements on Websites/ YouTube through a video before the video starts. We will be making an advertisement, for around 15seconds.
4. Free Samples will be given to a few people to test their reactions (basically MVP)
5. Testimonials from existing customers: Testimonials will be recorded through Video after their consent and this will be used for promotion.
6. Demo in Tech Expos, in public places.
7. Will present the idea in Technological expos where the characteristics of the products – such as importance, low cost will be highlighted.
8. A distributor can be assigned for each district and will be given a target to achieve by the end of every quarter. The distributor sells the products to dealers and dealers to customer. This in doing so we form a wide network chain at ground level.
9. Various criteria are set like deposition of certain amount as security, Shop size, Population of the area etc.
10. By publishing product on various platform like newspaper, magazines.

11. Use of social media platforms like Facebook, Instagram.

10. Global Issues

10.1. Unorganized Sector

The agriculture sector is unorganized in the sense that farmers who cultivate a particular crop and get a better pay are followed for the upcoming season in the hope of getting better pay. This leads to huge supply and less demand, thereby decreasing the prices.

10.2. Resistance to change

Due to the recent farm protests, the entering of private players into this sector poses a huge challenge. But still, we are hopeful.

10.3. Small and fragmented land-holdings:

The seemingly abundance of net sown area of 141.2 million hectares and total cropped area of 189.7 million hectares (1999-2000) pales into insignificance when we see that it is divided into economically unviable small and scattered holdings.

The average size of holdings was 2.28 hectares in 1970-71 which was reduced to 1.82 hectares in 1980-81 and 1.50 hectares in 1995-96. The size of the holdings will further decrease with the infinite Sub-division of the land holdings.

The problem of small and fragmented holdings is more serious in densely populated and intensively cultivated states like Kerala, West Bengal, Bihar and eastern part of Uttar Pradesh where the average size of land holdings is less than one hectare and in certain parts it is less than even 0.5 hectare.

Rajasthan with vast sandy stretches and Nagaland with the prevailing ‘Jhoom’ (shifting agriculture) have larger average sized holdings of 4 and 7.15 hectares respectively. States having high percentage of net sown area like Punjab, Haryana, Maharashtra, Gujarat, Karnataka and Madhya Pradesh have holding size above the national average.

10.4. Agricultural Marketing:

Agricultural marketing still continues to be in a bad shape in rural India. In the absence of sound marketing facilities, the farmers have to depend upon local traders and middlemen for the disposal of their farm produce which is sold at throw-away price.

In most cases, these farmers are forced, under socio-economic conditions, to carry on distress sale of their produce. In most of small villages, the farmers sell their produce to the money lender from whom they usually borrow money.

10.5. Inadequate storage facilities:

Storage facilities in the rural areas are either totally absent or grossly inadequate. Under such conditions the farmers are compelled to sell their produce immediately after the harvest at the prevailing market prices which are bound to be low. Such distress sale deprives the farmers of their legitimate income.

10.6. Inadequate transport

One of the main handicaps with Indian agriculture is the lack of cheap and efficient means of transportation. Even at present there are lakhs of villages which are not well connected with main roads or with market centers.

Most roads in the rural areas are Kutcha (bullock- cart roads) and become useless in the rainy season. Under these circumstances the farmers cannot carry their produce to the main market and are forced to sell it in the local market at low price. Linking each village by metaled road is a gigantic task and it needs huge sums of money to complete this task.

11. Financial Plan

11.1. Balance Sheet (Personal Finance Statement):

Table 1: Personal Finance Statement / Balance Sheet

Assets		
Current Assets		
	Cash	₹ 1,00,000
	Accounts receivable	₹ 20,000
	Inventory	₹ 10,000
	Prepaid expenses	₹ 25,000
	Short-term investments	₹ 5,000
Fixed(Long-Term) Assets		
	Long-term investments	₹ 30,000
	Property	₹ 40,000
Total Assets		₹ 2,30,000
Liabilities and Owner's Equity		
Current Liabilities		
	Accounts payable	₹ 50,000
	Short-term loans	₹ 25,000
	Income taxes payable	₹ 10,000
	Salaries and wages	₹ 25,000
	Unearned revenues	₹ 10,000
	Current portion of long-term debt	₹ 5,000
Long-Term Liabilities		
	Long-term debt	₹ 10,000
	Deferred income tax	₹ 5,000
Owner's Equity		
	Owner's investment	₹ 10,000
	Retained earnings	₹ 50,000
Total Liabilities and Owner's Equity		₹ 2,00,000

11.2. Startup Expenses & Capitalizations:

Table 2: Cost Estimation for Warehouses

Components/Equipment	Possible Suppliers	Amount (per product)
Computers/Desktops	Dell, HP, and Lenovo	**Rs. 90,000**
Monitors	BenQ, LG and ASUS	**Rs. 25,000**
Industrial Weighing Machines	INDIA Electronics	**Rs. 30,000**
Security Systems	IGZY Securities	**Rs. 1,22,000**
Total cost per warehouse		**Rs. 2,67,000**

Table 3: Cost Estimation for Establishment

Components/Equipment	Amount (per product)
Building/Real Estate	**Rs. 50,000**
Location Expenses	**Rs. 15,000**
Leasehold Improvements	**Rs. 10,000**
Working Capital	**Rs. 12,000**
Other Expenses	**Rs. 17,000**
Total cost per warehouse	**Rs. 1,04,000**

11.3. Cost Structure

Table 4: Expense Cost Structure

Start-up Costs	Costs	Equipment Costs	Costs
Registrations		Business Purchase Price	-
Business Name	6,500	Franchise Fees	-
Licenses	75,000	Start-up Capital	1,20,00,000
Permits	60,000	Machinery and Equipment	-
Domain Name	6,000	Computer Equipment	2,50,000
Patents/Trademarks	29,000	Phones	7,000
Rental Lease Cost	40,000	Security System	32,000
Utility Connections	2,60,000		
Wages	8,20,000	**Office Equipment**	
Phone Connections	8,700	Furniture	7,00,000
Internet Connection	10,000		
Training	5,00,000		
Inventory Costs	20,00,000		
Rental Release Costs	35,000		
Insurance	65,000		
Building and Contents	12,00,000		
Marketing and Advertising	5,00,000		
Stationery and Supplies	11,000		
Total Cost	**Rs. 56,26,200**	**Total Cost**	**Rs. 1,29,89,000**

11.4. Break Even Point

The breakeven point for a product is the point at which the expenses of production equal the revenues. When the market price of an asset equals its original cost, it is said to have reached the breakeven point. We wouldn't have any income statements, cash flow reports, or other accounting records because start-ups aren’t completely operational. However, projections can still be made based on the overall population of the target market in your area and the percentage of that market we believe we can penetrate. With an expansion strategy in mind, this would also be outlined in your financial projections. These projections should cover our company ' s first three to five years. Our financial plan will cover our breakeven analysis if you have reasonable goals and possible investors.

Figure 3: What is a break-even point?

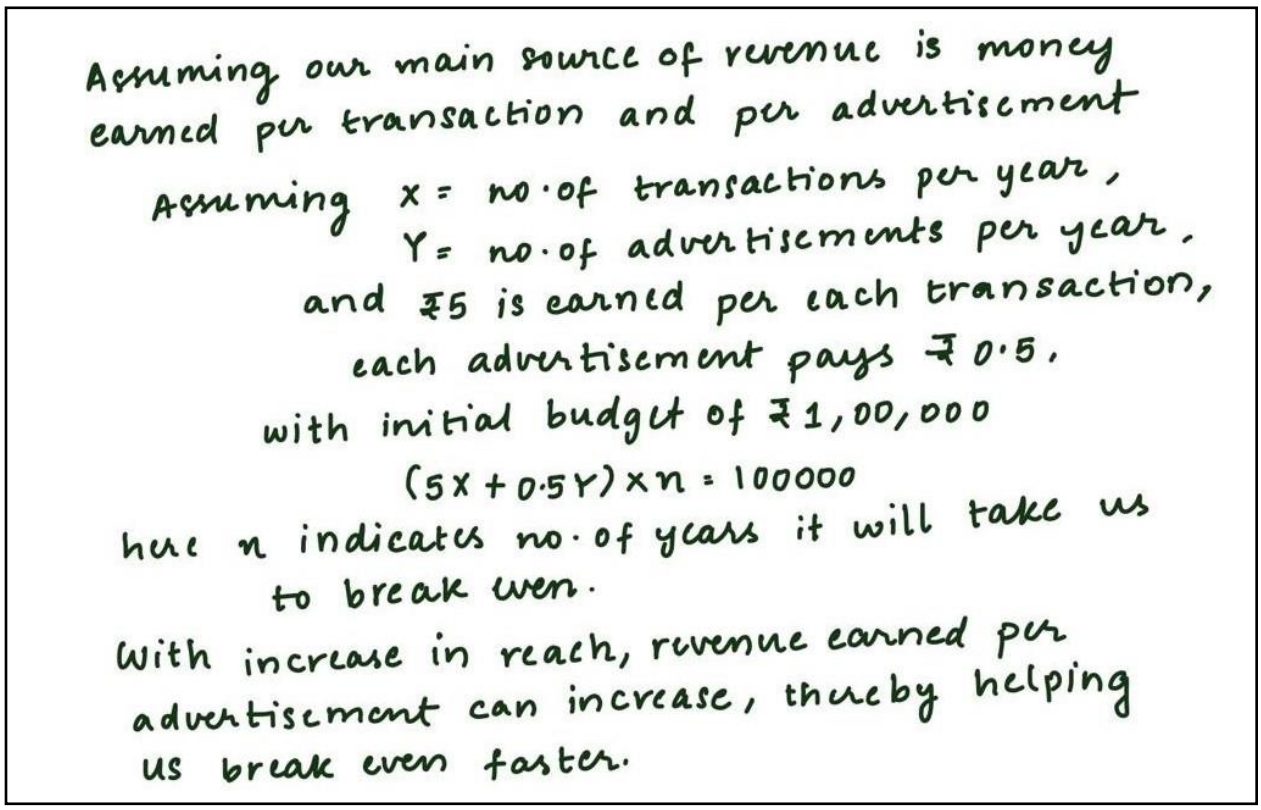

Figure 4: Basic break-even point analysis for AgriGate

11.5. Source of Funds

Funding can be achieved through the following means. Some of the initiatives are:

- VITTBI
- Kickstarter and Indiegogo

Angel investors are also a viable option for agriculture-based products. Some angel investors for our product space: Anirudh Mullick, Karl Meheta and Brad Holden. This will require development of contingency plans and a shift in strategies – VCs are now investing in companies with backups and secure cashflows.

There are several government programs we can take advantage of:

- Venture Capital Scheme for Agri-Business Development
- Raw Material Assistance scheme – Financing purchase of indigenous & exported raw material
- Rashtriya Krishi Vikas Yojana – Financial support and incubation ecosystem
- Support for International Patent Protection in Electronics & Information Technology (SIP-EIT) – Assistance in international patent filing procedures

ASPIRE – Funds by SIDBI and providing a network of technologies for agriculture.

12. Appendices

12.1. Minimum Viable Product

Figure 5: Home Page of MVP

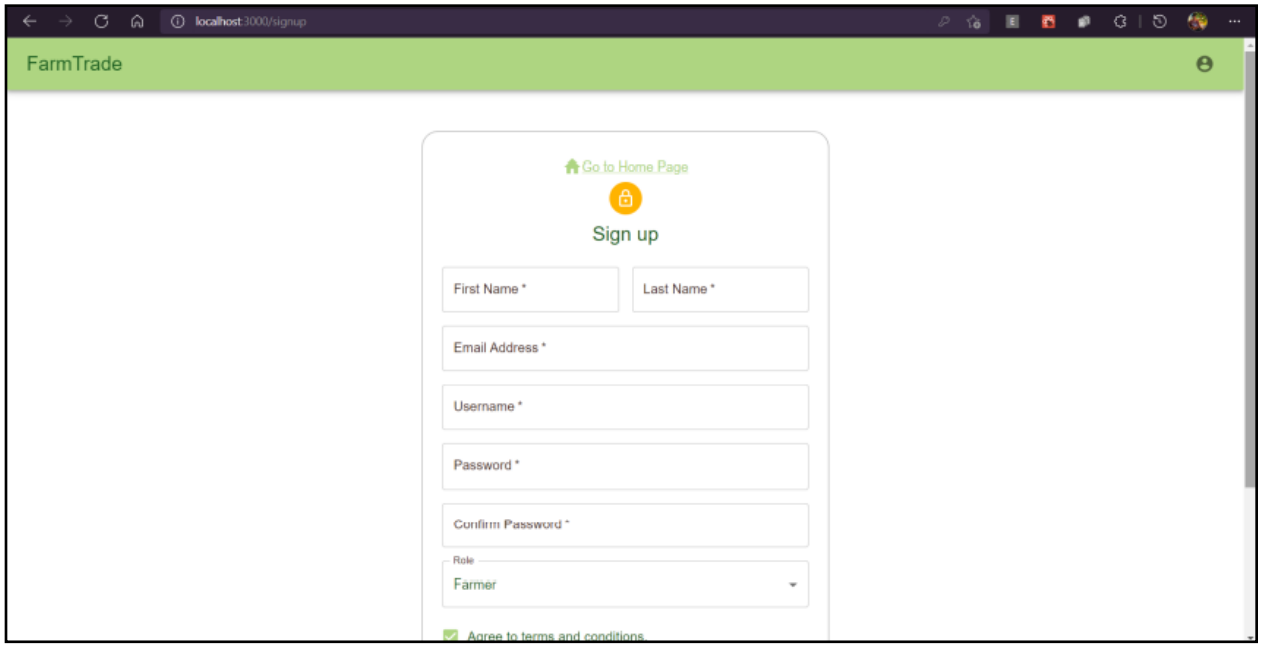

Figure 6: Sign Up Page

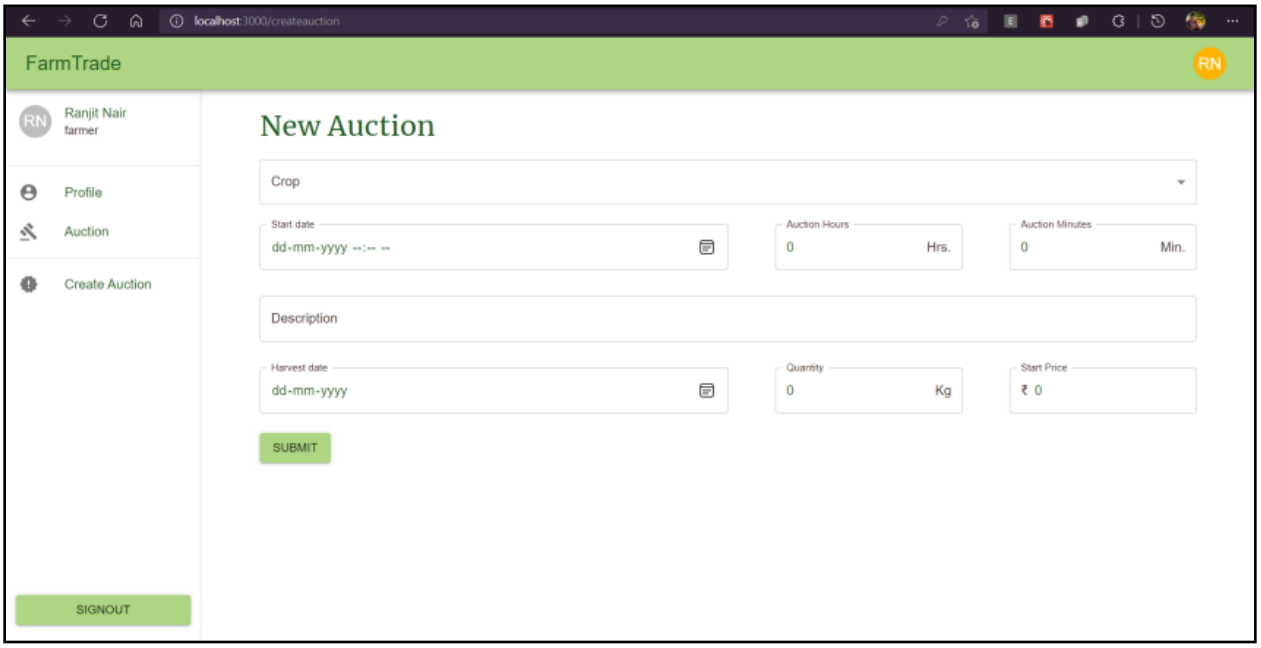

Figure 7: Farmer's Auction Page

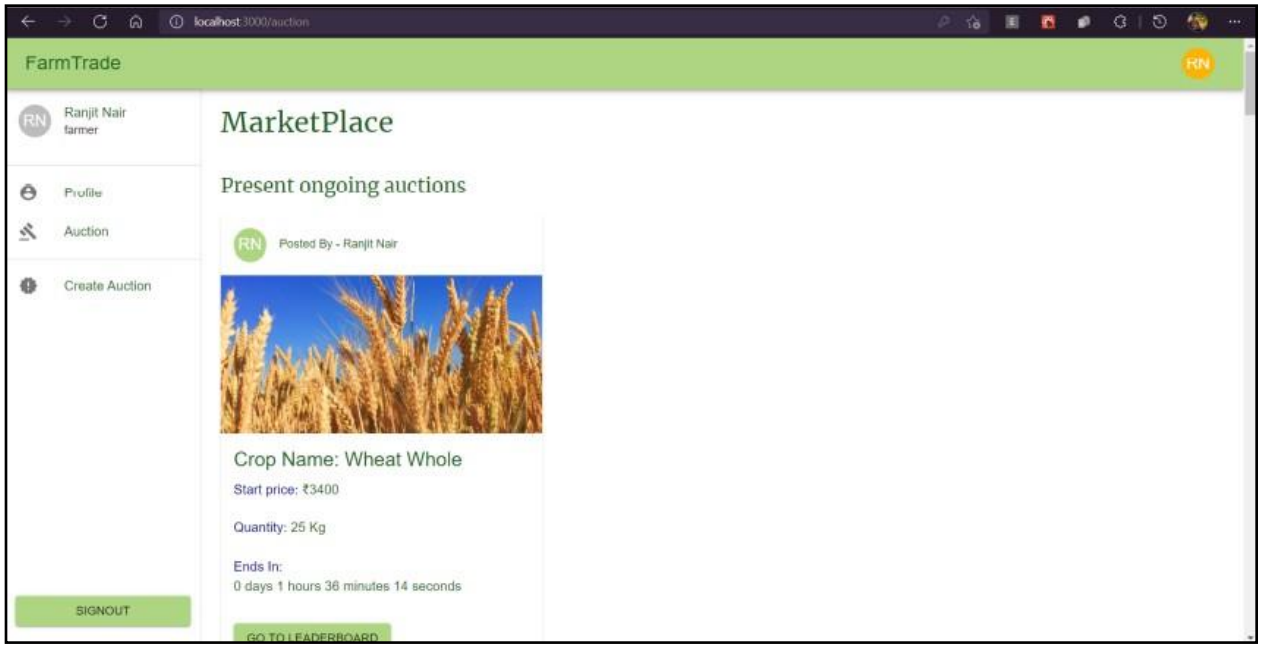

Figure 8: Marketplace

Figure 9: Trending Crops

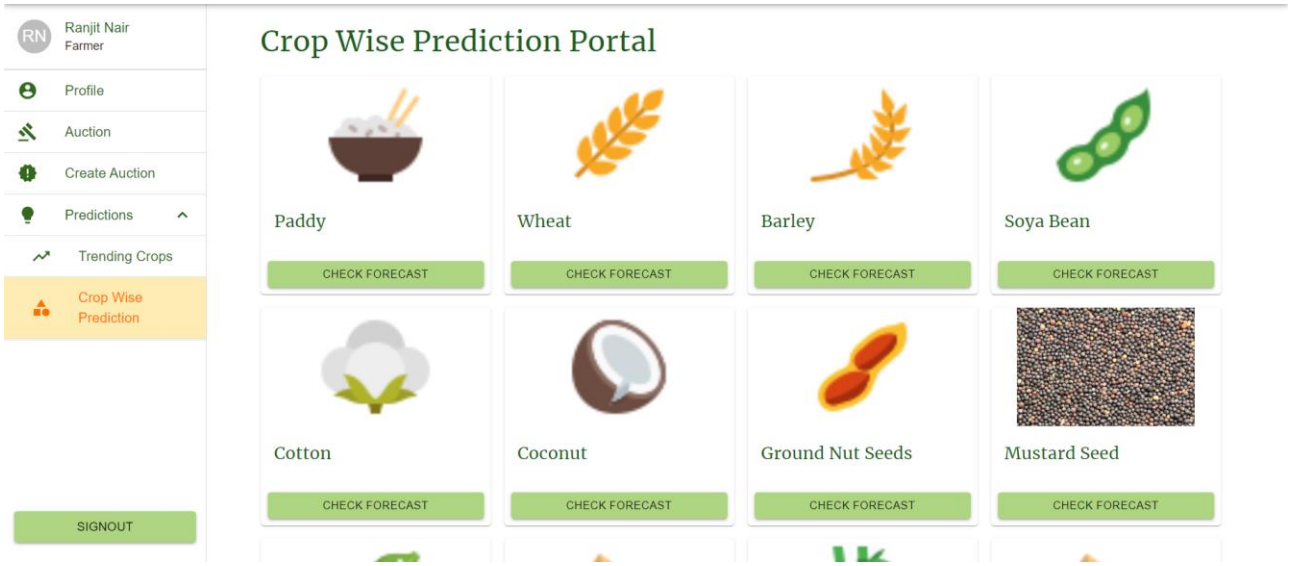

Figure 10: Crop Wise Prediction Portal

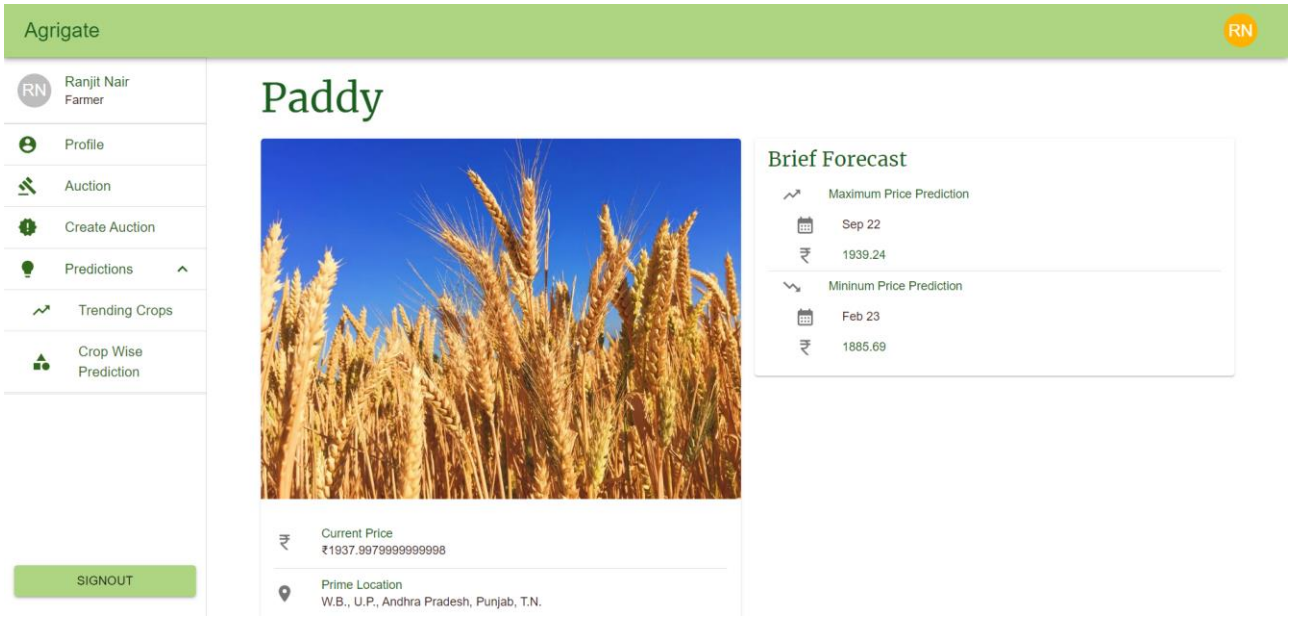

Figure 11: Paddy Prediction Page

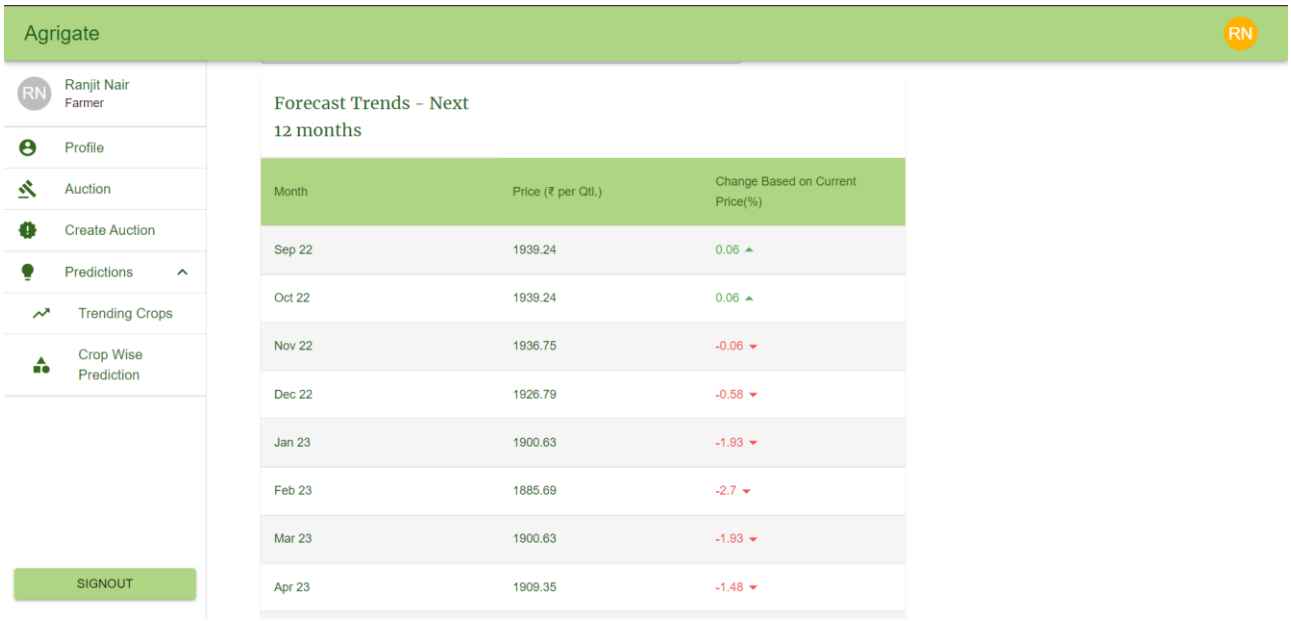

Figure 12: Paddy Forecast Next 12 months

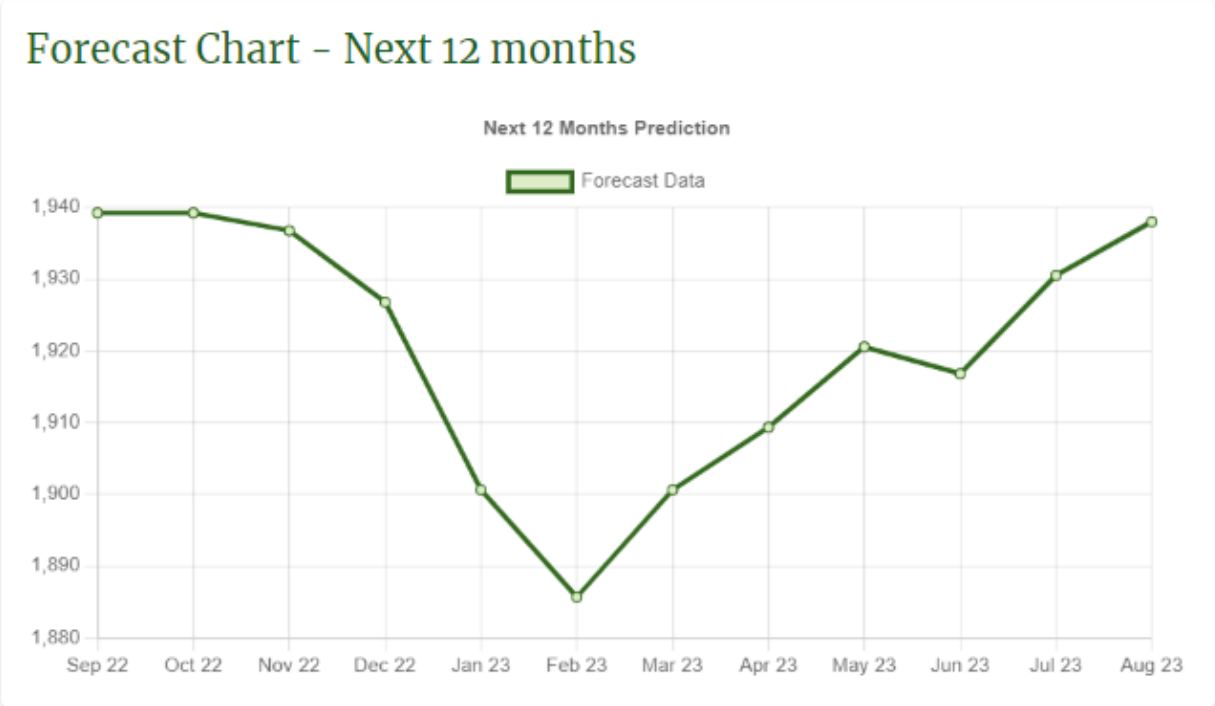

Figure 13: Paddy Forecast Charts

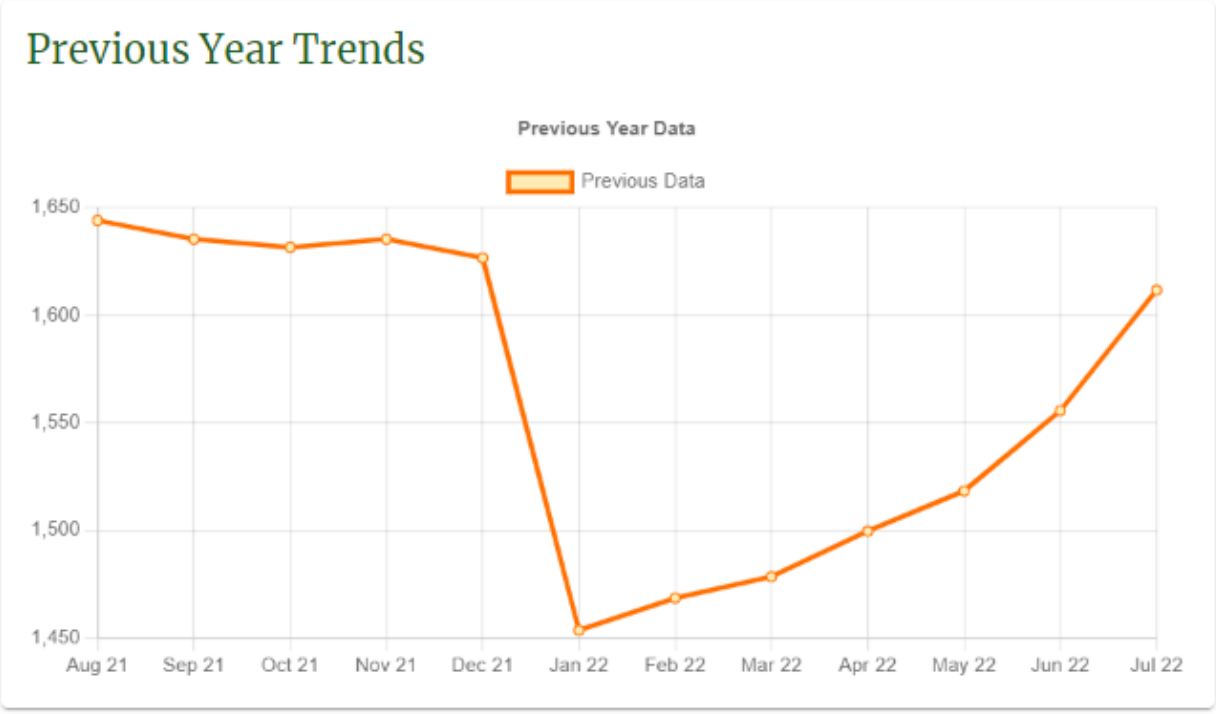

Figure 14: Paddy Previous Year Trends

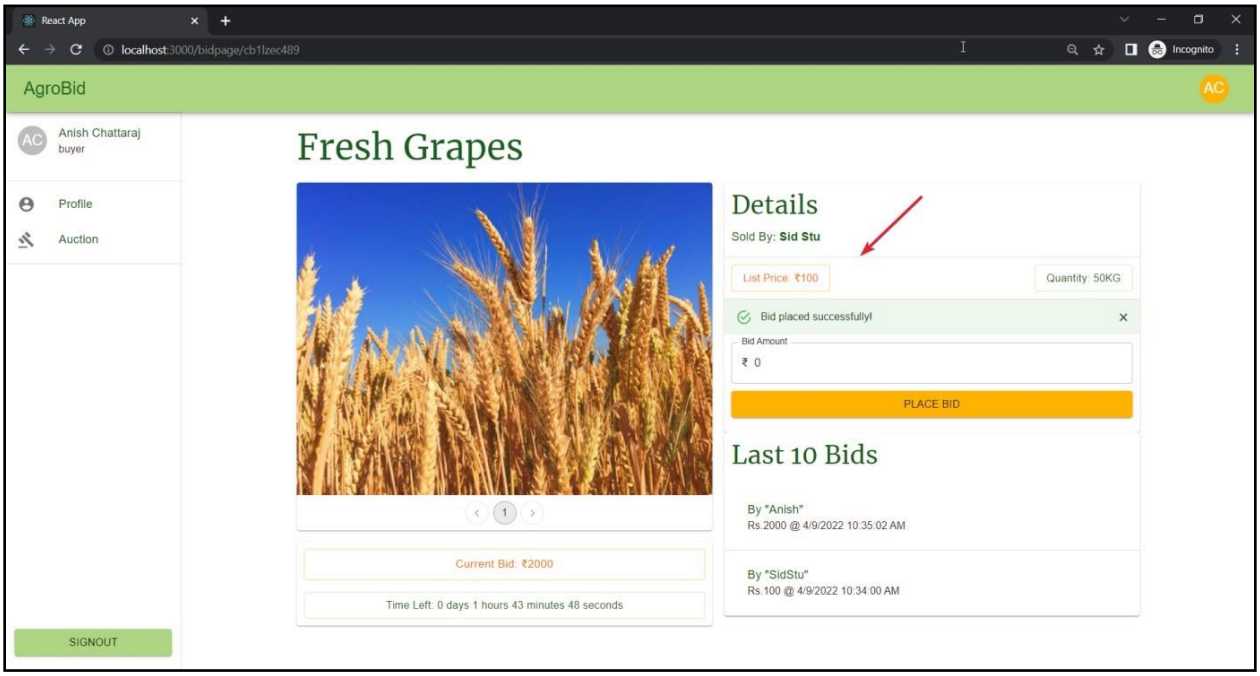

Figure 11: Bid Page

12.2. More Study Material and References

1. Forbes Survey on the Digital Education of Farmers in India
2. Reuters Survey on Farm Income Growth with technology involvement
3. India's Arya raises $60 million to provide farmers with finance and post-harvest services | TechCrunch
4. 10 Major Agricultural Problems of India and their Possible Solutions (yourarticlelibrary.com)
5. Warehouse Services | Agricultural Warehousing In India | Agri Warehousing - Arya

13. Video Presentation

Attached below is our video presentation with details regarding our project

https://youtu.be/0iMKQ3g9M80

13.1 Time Stamps:

- Proposed Business by Ateeth Arun (0:00 – 3:40)
- Business Model by Aadarsh N Prasad (3:40 – 8:51)
- Industry Analysis by Adi Thakkar (8:52 – 18:24)
- Marketing Strategy by Nishant Kumar (18:25 – 21:33)
- Global Issues by Naman Rastogi (21:34 – 24:10)
- Financial Plans by Shashank Sinha (24:11 – 25:40)
- Required Licenses by Dhanunjay Potti (25:41 – 28:50)
- Demonstration of Website by Adi Thakkar(28:50 – 34:30)