



Capstone Project – Mooofarm

Virtual farming and Gamification in Agriculture

Shree Pushpa GUDAVALLI



Agenda

- Introduction
- Problem statement
- Goal/Objective
- User Persona
- Needs Identified
- Prioritisation
- High level solution
- Success metrics
- Assumptions

Introduction

Virtual farming Game

- Mooofarm is a virtual farming platform that allows users to buy, breed and trade virtual animals.
- Also earning rewards for in-game achievements and participating in in-game events

Physical Farm

- Mooofarm also operates a physical farm that allows visitors to learn about farming.
- Mooofarm has 6 farms in different locations of Rajasthan which has about 10-12 cattle each

Business model

- Mooofarm's business model is based on a freemium model where the virtual farming platform is free to use, but users have the option to purchase in-game items or perks.
- It also generates revenue through paid visits to the physical farm, merchandise and other related activities.

Competition and Differentiation

- Mooofarm's main competition are Farmerama, Farmer's Dynasty. It differentiates itself by combining both virtual and real-life experiences.

Problem statement

- Currently the users come to the platform/app just for playing games, but are not going to the farms to buy the cattle.
- Currently major cattle purchases happen via word of mouth and marketing but less from app
- As a company, Mooofarm wants the app to become a discovery and acquisition lever for offline sales of the cattle on farms as well.
- Buyers come to the farm from different sources like word of mouth, facebook and youtube ads, newspaper and TV ads but not as much through the app.

Problem Statement:

How would we convert the users of the app to buy cattle from offline farms?

Goal / Objective

Goal/ Objective

- Increase cattle purchases in offline farms by app users

Success criteria

- Cattle bought on farm by app users
- No. of visits to farm by app users

Secondary Research and insights

- **High Initial investment** : Buying cattle is a big ticket item for a farmer (~Rs 60,000 - Rs80,000) per asset. Purchasing cattle can require a significant upfront investment, including the cost of the animal, housing, feed, and veterinary care. This financial commitment can be a deterrent for some individuals.
- **Lack of Trust** : Farmers are also very scared of fraud as they have often experienced deceit. (eg. - a cattle was promised to provide up to 12L of milk at the time of selling but after buying the animal produced only 5L of milk)
- **Social Media Penetration**: Penetration of whatsapp, youtube and facebook is high amongst farmers.
- **Lack of knowledge**: Many potential buyers may have limited knowledge about cattle farming, including proper care, feeding, and health management. They may be hesitant to invest in cattle due to fear of making mistakes or not understanding the complexities involved.
- **Space limitations**: Owning cattle typically requires adequate land or facilities for grazing, shelter, and exercise. Customers living in urban or suburban areas may not have the necessary space to accommodate cattle, making it challenging for them to engage in cattle farming.
- **Time commitment**: Caring for cattle involves regular feeding, watering, and monitoring their health. Some potential buyers may not have the time or resources to dedicate to proper animal care, which can deter them from buying cattle.
- **Access to reliable sellers**: Finding trustworthy and reputable livestock sellers or breeders can be a challenge for customers. Concerns about the quality of the animals and the legitimacy of the seller may arise, leading to hesitancy in making a purchase.

User Persona

Persona 1: Rajesh, the Tech-Savvy Urban Professional

- Age: 32
- Occupation: Software Engineer
- Interests: Technology, gaming, sustainable living
- Motivations: Seeking a virtual farming experience as a form of relaxation and stress relief from a hectic urban lifestyle. Interested in sustainable practices and wants to learn more about agriculture.
- Challenges: Limited time due to long working hours, lack of physical space for traditional farming, limited knowledge about farming techniques.

Persona 2: Meena, the Aspiring Farmer

- Age: 45
- Occupation: Homemaker
- Interests: Gardening, cooking, self-sustainability
- Motivations: Meena has always had an interest in farming and dreams of having her small-scale farm one day. She wants to learn about farming techniques, crop rotation, and livestock care. She sees virtual farming apps as an opportunity to gain knowledge and experience before pursuing her farming aspirations.
- Challenges: Limited land availability, lack of prior experience in farming, difficulty in finding reliable sources of agricultural information.

User Persona

Persona 3: Sunil, the Rural Farmer

- Age: 55
- Occupation: Farmer
- Interests: Agriculture, technology, improving farming practices
- Motivations: Sunil has been a farmer for years but wants to stay updated on the latest farming techniques, crop varieties, and market trends. He sees virtual farming apps as a way to connect with other farmers, exchange knowledge and experiences, and explore new ideas to enhance his farming practices.
- Challenges: Limited access to agricultural information and resources, difficulty in networking with other farmers, challenges in adapting to modern farming technologies.

User Research Insights

As part of the user research we have interviewed about 20 people who play virtual farming games. And below are the research insights found

- **Interest in Livestock Management:**

Users actively engage with livestock-related features and content within the virtual farming app. Also show a keen interest in learning about animal husbandry, breeding, and health management. Expressed curiosity or seek information about incorporating cattle farming into their virtual farms.

- **Focus on Sustainability and Self-Sufficiency:**

Users value sustainable living and seek ways to be self-sufficient in food production. Also show interest in organic farming practices and integrating livestock as part of a holistic farming system. Expressed a desire to reduce their ecological footprint and promote local food production.

- **Aspiring Farmers:**

Users aspire to become farmers or have a background or family history in agriculture. Expressed a strong desire to transition from virtual farming to real-life farming and are actively seeking opportunities to start their own farm operations. engaged with features related to farm expansion, land acquisition, or farm management within the app.

User Research Insights

Rural and Semi-Rural Users:

Users residing in rural or semi-rural areas who have access to land suitable for cattle farming. And they come from agricultural backgrounds and are looking to diversify their existing farm operations by incorporating cattle. Also express interest in income diversification and exploring livestock-based livelihood options.

•Farming Enthusiasts and Hobbyists:

Users engage with the virtual farming app as a recreational activity or a hobby. Also enjoy the simulation aspect of farming and have a genuine interest in expanding their virtual farming experience into real-life practices. actively seek information on various livestock options and express an eagerness to care for and raise animals.

Pain points / Needs Identified

- Limited access to reliable resources and knowledge
- Limited networking and knowledge exchange platforms
- Lack of practical experience
- Lack of Time
- Lack of Space
- Financial Constraints

Prioritisation

Problem	Impact	Effort	Priority
Limited networking and knowledge exchange platforms	High	Medium	1
Limited access to reliable resources and knowledge	Medium	Medium	2
Lack of experience	High	Low	3
Lack of Space	High	High	4
Limited Time	Medium	High	5
Financial Constraints	Medium	Medium	6

High Level Solutions

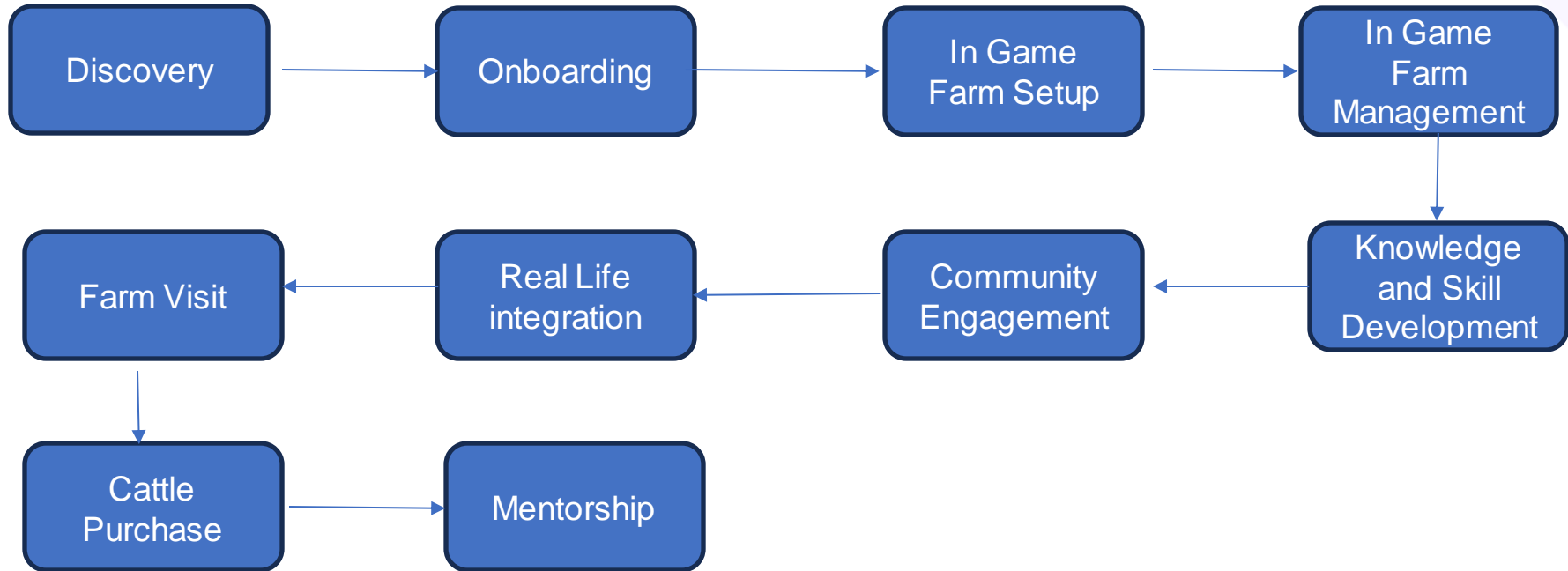
- Farmer community and Forums in the App
- Farming Educational content in the App
- Mentorship Programs
- Community Farming initiatives
- Vertical Farming and Rooftop farming
- Partnership with Financial institutions to offer loans

Detailed Solution

Farmer community and Forums in the App along with Mentorship for cattle buyers

- Foster a community within your app where players can interact with each other, share their experiences, and discuss cattle farming.
- Encourage experienced cattle owners to share their stories and provide advice to newcomers.
- This sense of community can create trust and interest in real-life cattle ownership.
- Mentorship Programs run by experienced farmers in community helps new ownership of cattle
- Offer hands-on workshops, farm visits, or internship programs where aspiring farmers can gain practical experience in livestock management.

Proposed User Journey



Success Metrics

Metrics	Rationale	Goal	Primary/secondary metric
No. of Cattle bought on farm by app users.	This is the primary goal of the product – to increase the number of cattle purchases made by app users. It directly measures the impact of the feature on the company's revenue.	Increase revenue by capturing a larger share of offline cattle market.	Primary – Company goal.
Number of visits to Farm per user.	Provides insights into how frequently users are visiting the farms and how engaged they are with the feature.	Increase user engagement and satisfaction and encourage repeat visits.	Secondary - Engagement
Downloads	Indicates how well the app is being adopted by the target audience.	Increase user acquisition and expand market share.	Secondary - Adoption
Time spent at the farm.	Provides insights into how well the feature is meeting user needs and whether it is encouraging repeat visits	Increase user engagement and satisfaction and encourage repeat visits.	Secondary - Engagement
Number of users who create accounts	Indicates how well the app is being adopted by the target audience.	Increase user acquisition and expand market share	Secondary - Adoption
Customer ratings and feedback about farm visits.	Helps identify areas for improvement and ensure that the app is meeting user expectations.	Increase user satisfaction and loyalty	Secondary - Quality
Availability of different types of cattle.	Impacts how likely users are to make a purchase through the app.	Increase user purchase rate and revenue.	Secondary - Supply

Assumptions

- App has sufficient user base for a competitive market.
- Experienced farmers are open for mentorship
- People are willing to participate in community
- Genuine interest in farming and maintaining Real farms



Thank You!

