**Feasibility Study**

**1. Economic Feasibility**

A detailed analysis of costs and potential benefits ensures that the Rambutan Warehouse is a financially viable project.

**Key Considerations:**

* **Initial Costs:**

Research and requirement gathering, including stakeholder interviews and domain analysis.

Development of core modules such as farmer management, buyer interfaces, recommendation systems, and admin dashboards.

* **Software and Hardware Expenses:**

Development tools (Django, SQLite) and frameworks (HTML, CSS, JavaScript).

Hosting solutions for platform operations.

* **Revenue Streams:**

Transaction fees for bulk purchases.

Subscription models for premium analytics or marketing features for farmers.

Advertisement space for related products or services.

* **Long-Term Cost Savings:**

Reduced need for intermediaries.

Streamlined logistics, minimizing product waste through better inventory management.

**2. Technical Feasibility**

Assessment of the technical resources and tools required to build and operate the Rambutan Warehouse.

**Key Considerations:**

* **Frontend Technology:**

Use of HTML, CSS, and modern JavaScript frameworks for responsive design and user-friendly interfaces.

* **Backend Technology:**

Django provides a robust framework for data management and API integration.

* **Database:**

SQLite for initial stages; scalable to other relational databases as the platform grows.

* **Machine Learning:**

Image detection to verify rambutan product images and improve quality assurance.

AI-driven recommendation engines to enhance user experience.

* **Security Measures:**

Secure payment gateway integration for encrypted transactions.

Role-based access control to ensure data privacy and system security.

* **Scalability:**

Designed for scalability to support an expanding user base and increased transaction volumes.

**3. Operational Feasibility**

Ensures the platform will function effectively in its intended environment.

**Key Considerations:**

* **User Roles:**

Farmers, wholesale buyers, regular consumers, and administrators with tailored interfaces and features.

* **User Convenience:**

Streamlined workflows for listing products, managing inventory, placing orders, and tracking deliveries.

AI tools for price negotiation and personalized recommendations.

* **Time Efficiency:**

Reduced manual efforts in sales and marketing for farmers.

Faster order placement and delivery for buyers.

* **Support and Maintenance:**

Onboarding and training materials for farmers to use the system effectively.

Regular updates and troubleshooting for all user roles.

* **Sustainability:**

Promotes a direct and transparent supply chain, reducing wastage and fostering fair trade.