

Proposed Research Document

Proposed Research Title

E-Commerce Platform for Farmers and Fishers

Research Introduction

This study proposes the development of a comprehensive e-Commerce Platform designed to empower farmers and fishers by providing a digital marketplace to sell their products directly to consumers. The platform aims to reduce intermediaries, promote local trade, and improve income transparency while integrating modern digital tools such as analytics dashboards, online payments, and order management. By leveraging technology, the project seeks to address the challenges faced by agriculture and fisheries sectors, particularly in market access, supply chain efficiency, and sustainable trade.

Objectives

- 1. To design and develop a user-friendly e-commerce system for farmers, fishers, and consumers.
- 2. To implement a secure and role-based authentication system for all types of users.
- 3. To create interactive dashboards for monitoring product sales, analytics, and revenue trends.
- 4. To integrate online payment gateways and order management features for efficient transactions.
- 5. To promote sustainability and traceability through digital tools such as reviews, weather widgets, and analytics reports.

AI Prompt Used

Create a complete e-Commerce Platform for Farmers & Fishers. The system should go beyond a landing page — it must include frontend, backend, and database design, plus interactive and management features. It should support farmers, fishers, and consumers with modern web technologies such as PHP, MySQL, and JavaScript. The platform must allow users to buy, sell, and manage agricultural and fishery products online.

System Features

Core Functionalities

- User Roles & Authentication: Roles for Admin, Farmer, Fisher, and Customer with role-based dashboards and password encryption.
- Product Management: Sellers can add, edit, delete, and manage inventory with photo upload, categories, and pricing.
- Marketplace / Online Store: Users can browse products, use filters, add to cart, checkout, and get order confirmation.

- Order Management: Customers can track orders; sellers and admins manage all transactions.
- Payment Integration: Supports GCash, PayMaya, PayPal, and Cash on Delivery with auto-generated receipts.
- Dashboard & Analytics: Graphs and visual reports on sales trends, top products, and total earnings.
- Reviews & Ratings: Customers can rate and review products; display average ratings.
- Search & Filter System: Real-time search suggestions and category/location-based filtering.

Additional Features

- Chat or Messaging System for customer-seller interaction.
- Delivery Tracking with order status updates.
- Wishlist / Favorites system for saving preferred products.
- Promotions / Discount Codes for sellers to increase sales.
- Email Notifications for order confirmations and updates.
- Admin Reports in downloadable PDF format for analytics.
- Multi-language Support (English and Filipino/Cebuano).
- Mobile-responsive design using Bootstrap or Tailwind CSS.
- Weather Widget showing real-time weather updates for farm or fishing areas.

Design Requirements

- Use a clean, modern UI with Bootstrap or Tailwind CSS.
- Header includes Home, Products, Register, Login, and Logout buttons aligned on the upper right.
- Footer includes contact information, copyright, and social media.
- Each page must be linked and navigable (not a static landing page).