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| **Proposed Title** | **AgriConnect: Mobile Marketplace and Information Hub for Farmers** |
| **Proponents** | Bernard Sondia |
| **Institution** | Carlos Hilado Memorial State University |
| **Project Description** | **Needs/Problem**   1. **Limited Market Access**: Small-scale farmers struggle to connect directly with buyers, often relying on middlemen who reduce their profit margins by 30-40%. This creates a significant barrier to economic growth and perpetuates poverty in rural agricultural communities. 2. **Information Gap:** Farmers lack access to agricultural information including crop prices, pest management strategies, and modern farming techniques. This information asymmetry leads to poor decision-making, reduced crop yields, and increased post-harvest losses. 3. **Digital Divide:** Rural farming communities have limited access to digital platforms and ICT solutions that could improve their agricultural productivity and market reach. The lack of digital literacy and appropriate technology solutions further marginalizes these communities from the benefits of the digital economy.   **Proposed Solution**   1. **Mobile Marketplace Platform:** Develop a comprehensive mobile application that connects farmers directly with buyers, eliminating middlemen and increasing farmer profits. The platform will feature user-friendly interfaces, and efficient logistics coordination. 2. **Information Hub Integration:** Integrate agricultural data including, market prices, crop advisory services, and farming best practices. 3. **Multi-language Support:** Provide the platform in local dialects and languages to ensure accessibility for all farmers regardless of educational background or literacy level. 4. **Offline Functionality:** Implement offline capabilities to ensure the app works effectively even in areas with poor internet connectivity, with automatic synchronization when connection is restored.   **Differentiation or Novelty**   1. **Blockchain-Based Transaction Security:** Implementation of blockchain technology to ensure secure, transparent, and traceable transactions between farmers and buyers, building trust and reducing fraud in agricultural commerce. 2. **Community-Driven Knowledge Platform:** Farmers can share experiences, tips, and local knowledge through an integrated social platform feature, creating a collaborative learning environment that preserves and disseminates indigenous agricultural knowledge.   **Benefits and Significance**   1. **Economic Impact:** Increase farmer income by 20-30% through direct market access and reduced dependency on middlemen. This will contribute to poverty reduction and improved quality of life for farming families, with an estimated ₱50M annual economic benefit to participating communities. 2. **Knowledge Transfer and Capacity Building:** Improve agricultural productivity through access to modern farming techniques, real-time information, and peer-to-peer learning. This will enhance food security and sustainable agricultural practices. 3. **Digital Inclusion:** Bridge the digital divide in rural communities by providing accessible technology solutions and digital literacy training, enabling farmers to participate in the digital economy and access government services online. 4. **Environmental Sustainability:** Promote sustainable farming practices through the advisory system, reduce food waste through better market matching, and minimize carbon footprint through optimized supply chains and reduced transportation needs. |
| **Objectives** | **General Objectives**  To develop and implement a comprehensive mobile platform that empowers Filipino farmers through direct market access and agricultural information, ultimately improving their livelihood, enhancing food security, and contributing to sustainable agricultural development in the Philippines.  **Specific**   * Integrate data feeds for, market prices, agricultural advisory services, and government announcements through partnerships with relevant agencies and organizations. * Recommendation systems for crop management, market timing, and agricultural best practices using machine learning algorithms trained on local agricultural data and conditions. * Conduct comprehensive user training programs for 1,000 farmers across 10 municipalities, including digital literacy training, platform usage, and modern agricultural techniques. * Achieve a measurable 25% increase in farmer income within the first year of implementation through improved market access, reduced transaction costs, and better pricing information. |
|  | **General Methods**  The project will employ a multi-disciplinary approach combining agile software development methodology, participatory design with farmer communities, field testing and validation, strategic partnership development with agricultural stakeholders, and continuous monitoring and evaluation systems. The methodology includes user-centered design principles, iterative development cycles, community-based participatory research, and evidence-based impact assessment. |
| **Expected Outputs** | **Expected Outputs**   1. **AgriConnect Mobile Application:** Fully functional, tested, and deployed mobile application, with comprehensive features for marketplace transactions, information access, and community interaction. 2. **Comprehensive Training Materials:** Developed training modules, user manuals, video tutorials, and educational materials in local languages, designed for farmers with varying levels of digital literacy and educational backgrounds. 3. **Strategic Partnership Network:** Established and formalized network of farmers, buyers, agricultural cooperatives, government agencies, and service providers, creating a sustainable ecosystem for the platform's continued operation. 4. **Research Publications and Documentation:** At least 3 peer-reviewed publications on digital agriculture, farmer empowerment, and technology adoption, contributing to the academic knowledge base and informing policy development. 5. **Policy Recommendations:** Evidence-based policy recommendations for digital agriculture development, rural ICT infrastructure improvement, and farmer support programs, submitted to relevant government agencies and stakeholders. |