
Design and Implementation of Web-Based Company Profile Information System Using Laravel Framework with Lead Management Integration (Case Study: PT Sacha Inchi Sejahtera)

Nurudina Awalia Paramita*, Moh Muthohir, Bagus Sudirman

Universitas Sains dan Teknologi Komputer, Indonesia

Email: nurudinaawalia@gmail.com*, muthohir@stekom.ac.id, bagus@stekom.ac.id

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Abstract

The need for a digital presence in agro-herbal companies such as PT Sacha Inchi Sejahtera is critical, particularly for establishing credibility and facilitating B2B and B2C business communication. Currently, the company relies heavily on conventional promotional channels, which limits market reach and reduces client communication efficiency. This research aimed to design and implement a web-based Company Profile Information System using the Laravel framework, incorporating interactive Buyer Lead Management integration, structured product specification cataloging, and tailored Search Engine Optimization (SEO) strategies with a focus on User Experience (UX). The system was developed using a Research and Development (R&D) approach with a prototype model. Functional testing through Black Box Testing achieved a 100% success rate across all primary features. Furthermore, usability testing using the System Usability Scale (SUS) resulted in an average score of 83.5, categorized as “Excellent” (Grade A). The developed system effectively improved information accessibility, accelerated lead conversion processes for the marketing team, and enhanced the company’s overall digital branding performance.

INTRODUCTION

In the current era of digital transformation, the presence of web-based information platforms has become a crucial instrument for modern business entities to establish professional credibility, strengthen corporate image, and expand market reach. Internet penetration in Indonesia, which exceeded 79.5% in 2024 and is projected to continue increasing, indicates that most stakeholders and consumers rely on digital media as a primary source for obtaining business-related information.

PT Sacha Inchi Sejahtera is a manufacturing and processing company engaged in the processing of sacha inchi commodities and general-purpose machinery. In its business operations, the company faces major challenges, including limited promotional reach and slow dissemination of official company information to potential buyers, both in B2C markets (retail sales and herbal product education) and B2B markets (wholesale partnerships, distributor networks, and industrial machinery procurement). Dependence on conventional promotional media, such as printed brochures and banners, not only increases recurring operational costs but also restricts market

expansion beyond local areas and makes it difficult for potential business partners to verify product legality and technical specifications.

To address these challenges, a web-based Company Profile Information System was developed using the Laravel framework (Azizah & Tawadzu, 2026; Azran & Wahid, 2022; Firosulhaq & Miftahuddin, 2026; Himmah & Laouar, 2025; Khaliq, Batubara, Syaula, & Sahril, 2022; Khaliq, Batubara, Syaula, & Yudha, 2022; Surahmat & Darmawan, 2024; Wulandari & Gunawan, 2024). Laravel was selected because it provides a structured and efficient Model–View–Controller (MVC) architecture, built-in security mechanisms against cyber threats (including Cross-Site Request Forgery [CSRF] protection, SQL injection prevention, and Cross-Site Scripting [XSS] mitigation), as well as flexibility for future system scalability.

Several studies have examined the development of web-based company profile and information systems across various contexts (Emadi, 2023; Gledson et al., 2024; Li et al., 2023; Lutfi et al., 2022; Sutisna & Rahman, 2025). Nugraha et al. (2024) developed a school website using the Laravel framework as an information and promotional medium for PKBM institutions. The study successfully implemented a school profile information system with news features; however, it did not include buyer lead classification or B2B Request for Quotation (RFQ) integration. Meisak et al. (2022) developed a prototype-based application for equality education institutions, focusing on institutional profiles with product catalogs and static galleries. However, the system lacked structured Search Engine Optimization (SEO) implementation and lead management features. Al-Fraihat et al. (2023) evaluated information system success in public organizations using the updated DeLone and McLean model, emphasizing the importance of system quality, information quality, and service quality in determining user satisfaction. Belanche et al. (2022) examined website usability and its influence on consumer satisfaction and website usage intention, highlighting the moderating role of perceived risk. Laudon and Laudon (2023) discussed the strategic role of management information systems in digital organizations, emphasizing the importance of information systems in supporting modern business operations.

Despite the growing body of research on web-based information systems, several gaps remain. First, most existing studies have focused on educational institutions or general organizational profiles, with limited attention to the specific requirements of agro-herbal manufacturing companies serving both B2B and B2C market segments. Second, although numerous studies have developed company profile systems, few have integrated interactive lead management features capable of classifying and routing potential buyer inquiries in real time. Third, previous research has generally overlooked the importance of structured product specification catalogs with RFQ features specifically designed for the herbal industry, where technical specifications, certifications, and product documentation are essential for B2B transactions. Fourth, limited studies have integrated SEO optimization, UX approaches, and lead management within a single comprehensive information system (Ahmadi, 2022; Kolomiets et al., 2024; Nurrohman, 2025). Fifth, research that simultaneously evaluates system functionality through Black Box Testing and user experience through the System Usability Scale (SUS) within the context of agro-herbal company profile systems remains limited.

The primary novelty of this research lies in the integration of a Laravel-based Company Profile Information System with the specific business process requirements of PT Sacha Inchi Sejahtera. Unlike conventional company profile systems that primarily provide static information, such as company profiles and basic galleries, this system introduces several distinguishing features, including:

1. **Interactive Lead Management System:** Integration of potential buyer communication flow forms that are able to classify applicant types (Retail B2C vs Wholesale/B2B Partners) and auto-routing offer messages directly to the marketing team in real-time.
2. **Structured Product Catalog & Education:** Provision of sachas inchi product technical specification modules (Omega 3-6-9 content, certification, and quality standards) equipped with the Request for Quotation (RFQ) feature.
3. **On-Page SEO Optimization & UX Approach:** Implementation of dynamic meta-data structures, clean URLs, as well as responsive interface testing tailored to the search behavior of potential buyers of the herbal industry.

Table 1. Comparison of Previous Research with the Novelty of This Research

Researcher / Reference	Research Focus	Features/approach	Limitations & Comparison
Nugraha et al. (2024)	PKBM School Website	School profile information system & news	There is no lead buyer classification and B2B RFQ integration yet.
Meisak et al. (2022)	Institution Profile Application	Product catalogue & static gallery	It doesn't come with structured SEO optimization and lead management.
This Research (2026)	Company Profile PT Sacha Inchi Sejahtera	Laravel, Interactive Lead Capture, RFQ, SEO & UX SUS Testing	Specially designed to answer the B2B/B2C agro-business communication flow.

Source: Compiled from literature review, 2026

This research aimed to design and implement a web-based Company Profile Information System for PT Sacha Inchi Sejahtera using the Laravel framework with integrated lead management features. Specifically, this research sought to develop a responsive and secure company profile website that effectively presents company information, legal documents, and product catalogs; implement an interactive lead management system capable of classifying B2B and B2C inquiries and automatically routing them to the marketing team; evaluate system functionality through Black Box Testing; and assess system usability using the System Usability Scale (SUS).

The benefits of this research are twofold. Theoretically, this study contributes to the body of knowledge regarding web-based information system development in the agro-herbal industry, expands the application of lead management integration within company profile systems, and provides a comprehensive evaluation framework combining functional and usability testing.

Practically, this research provides a digital solution for PT Sacha Inchi Sejahtera to improve information accessibility, accelerate lead conversion processes for marketing teams, strengthen overall digital branding, and expand market reach across both B2B and B2C segments. Furthermore, the developed system can serve as a reference model for other agro-herbal companies facing similar challenges in establishing and managing their digital presence. This research also provides practical guidance for web developers and system designers in integrating business communication workflows with company profile platforms.

RESEARCH METHODS

This research employed the Research and Development (R&D) method combined with the Prototype system development model. The Prototype approach was selected because it enabled iterative design improvements based on direct feedback from stakeholders at PT Sacha Inchi Sejahtera, resulting in a system that aligned with the company's operational requirements.

R&D Research Stages

The development of the system is carried out through 10 systematic stages as follows:

- (1) Potential and Problems:** Identifying the limitations of print promotional media and the absence of an official information platform at PT Sacha Inchi is prosperous.
- (2) Data Collection:** Conducting field observations and in-depth interviews with the company's management and marketing team.
- (3) Website Design:** Designing system architecture, MySQL database structure, Entity Relationship Diagram (ERD), Use Case Diagram, and UI/UX wireframe.
- (4) Website Validation:** Conduct an initial design evaluation with experts/skilled developers to ensure the feasibility of the system architecture.
- (5) Design Revision:** Improved the database interface and flow based on expert validation records.
- (6) Website Testing (Alpha Testing):** Conducting internal testing of system functionality using the Black Box Testing method.
- (7) Website Revision:** Improving program code and exception handling after Black Box Testing.
- (8) Beta Testing:** Testing direct use by end-users (company staff and potential buyers) using the System Usability Scale (SUS) instrument.
- (9) Post-Usability Revision:** Minor adjustments to interface comfort and page response speed.
- (10) System Production/Launch:** The system is uploaded to the official hosting server (production environment) and is ready for full operation.

Data Collection Methods

Primary and secondary data collection is carried out through three main techniques: (1) Direct observation of business processes and information request flows at PT Sacha Inchi Sejahtera; (2) Structured interviews with marketing leaders and staff regarding the need for profile data, legality certification, and product catalogs; and (3) Documentation Studies from scientific literature, official Laravel documentation, and herbal industry regulatory standards.

System Testing Instruments

To guarantee the reliability of the system, testing is carried out in two stages: First, Black Box Testing is focused on verifying the functionality of the features (authentication, catalog CRUD flow, lead management form delivery, and CSRF security). Second, the usability test uses the System Usability Scale (SUS) questionnaire with 10 standard questions based on the Likert scale of 1–5.

RESULTS AND DISCUSSION

Website Display Result



Figure 1. Home Page

The result of the User Interface display from the Computer Service Server company profile website are equipped with the display of the system management content page below.



Figure 2. Admin Panel

Technical Specifications and System Architecture

Company Profile Information System PT Sacha Inchi Sejahtera was developed with technical specifications based on the Laravel Framework (PHP 8.2), MySQL database, Blade

Templating Engine, Tailwind CSS, and interactive JavaScript The system architecture separates access rights between the General Visitor (Guest) and the Administrator (Admin Panel).

Table 2. Technical Specifications of System Development Environment

Development Components	Technologies / Frameworks Used
Backend Framework	Laravel 10.x / PHP 8.2 (MVC Architecture)
Database Management System	MySQL Server 8.0 with Eloquent ORM
Frontend & UI Design	HTML5, CSS3 (Tailwind CSS), Blade Engine, JavaScript
Functional & UX Testing	Black Box Testing & System Usability Scale (SUS)

Source: Author's documentation, 2026

Key Features Implementation

The website interface is designed in a responsive manner to ensure convenient access through mobile devices as well as desktop computers. Key features that have been implemented include:

1. **Home:** Displays interactive hero banners, company superior values, profile summaries, and highlights of key products (Sacha Inchi Oil, Roasted Seeds, and Processing Machine).
2. **Profile & Legal Page (About Us):** Presents the vision-mission, organizational structure, company history, and proof of official license/legality to provide legal certainty for potential B2B buyers.
3. **Interactive Product Catalog & RFQ:** Displays product technical specifications, nutritional content, high photo gallery, and special 'Request for Quotation' button.
4. **Interactive Lead Management & Contact Module:** An interactive form with a selection of needs categories (Retail/Wholesale/Cooperation) that automatically maps incoming messages to the Admin Dashboard and sends notifications to the marketing team's emails.
5. **Administrator Dashboard:** Authentication-protected pages to manage catalog content, read and respond to lead messages, and autonomously update company news.

Functional Test Results (Black Box Testing)

Black Box testing is performed against all system functionality scenarios. The test results prove that all of Laravel's built-in libraries such as Eloquent ORM, CSRF Protection, and Middleware Authentication run as expected without any critical errors.

Table 3. Summary of Black Box Testing Results

Tested Features	Testing Scenarios	Expected Results	Status
Admin Authentication	Login with valid & incorrect credentials	The system grants access if it is valid and rejects if it is wrong	Compliant (100%)
Kelola Catalog (CRUD)	Add, edit, delete sachai product data	Data is successfully updated in the MySQL database	Compliant (100%)
Form Lead Capture	Sending a B2B/B2C quote form	Messages stored in DB & email notifications sent	Compliant (100%)

SEO Optimization & Dynamic Meta	Open a product page with dynamic meta tags	Meta tags & clean URLs appear according to the structure	Compliant (100%)
CSRF Security & Input	Submit a form without a token / SQL injection	System blocks unauthorized access	Compliant (100%)
Source: Primary data from system testing, 2026			

System Usability Scale (SUS) Test Results

The usage test was carried out by testing 15 respondents (consisting of 3 management staff of PT Sacha Inchi Sejahtera and 12 prospective buyers/general visitors). The results of the SUS score calculation resulted in an average score of 83.5. Based on the standard SUS assessment scale, a score of 83.5 is included in the category of 'Acceptable' with Grade A ('Excellent'). This proves that the system interface is very easy to operate, communicative, and according to the user's preferences.

CONCLUSIONS

Based on the results of the design, implementation, and testing processes, this research successfully developed a web-based Company Profile Information System for PT Sacha Inchi Sejahtera using the Laravel framework that is informative, responsive, and secure. The integration of Interactive Lead Management features and product technical specification catalogs effectively facilitated the structured communication flow of potential buyers (B2B/B2C), addressing the limitations of conventional company profile systems. Black Box Testing demonstrated a 100% functional success rate, while System Usability Scale (SUS) testing achieved a score of 83.5, categorized as Grade A (Excellent), confirming that the website was highly feasible as the company's official digital information and promotional platform. For future development, the system is recommended to incorporate payment gateway integration and a complete e-commerce module if the company intends to support direct retail transactions through the website. Additionally, the development of multilingual modules (Indonesian and English) is recommended to expand the international market reach for sachas inchi products.

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