Developing a User-Centered Digital Platform to Enhance Sustainable Marketing of Fisheries Products

Dimas Bayu Sasongko
Politeknik Kelautan dan Perikanan Sidoarjo; Sidoarjo, Indonesia

Jefri Putri Nugraha
Politeknik Kelautan dan Perikanan Sidoarjo; Sidoarjo, Indonesia
E-Mail: putrinugrahaj@gmail.com

Dewi Alima Nostalia Suseno
Politeknik Kelautan dan Perikanan Sidoarjo; Sidoarjo, Indonesia

R. Sugeng Rahardjo
Politeknik Kelautan dan Perikanan Sidoarjo; Sidoarjo, Indonesia

Djoko Surahmat
Politeknik Kelautan dan Perikanan Sidoarjo; Sidoarjo, Indonesia

Prayoto
Politeknik Kelautan dan Perikanan Sidoarjo; Sidoarjo, Indonesia

Bambang Supriyadi
Politeknik Kelautan dan Perikanan Sidoarjo; Sidoarjo, Indonesia

Sri Wartini
Politeknik Kelautan dan Perikanan Sidoarjo; Sidoarjo, Indonesia

Submitted:
SEPTEMBER 2025

Accepted:
DECEMBER 2025

ABSTRACT

With the increasing importance of digital marketing in the fisheries sector, the study investigates user needs and key features for a platform that supports efficient and sustainable product promotion. This study explores the development of a digital platform designed to enhance the marketing of fisheries products. The research employs a mixed-methods approach, combining qualitative design-based research with quantitative usability testing. Data collection was done through interviews, focus groups, and surveys with stakeholders, including business unit managers and consumers. The results identify essential platform features such as easy navigation, product information transparency, social media integration, and secure payment systems. The findings also highlight the importance of user-centered design principles in developing a digital platform that aligns with users' needs and enhances their experience. The study contributes to understanding how digital solutions can transform fisheries product marketing, offering practical implications for the development of similar platforms in other sectors. Future research should focus on real-world testing and the scalability of such platforms across various markets.

Keywords*: Agribusiness, Digital Platform, Digital Transformation, E-Commerce, Fisheries Marketing, Small Enterprises, User-Centered Design.*

JIMKES

Jurnal Ilmiah Manajemen Kesatuan
Vol. 13 No. 6, 2025
pp. 5191-5204
IBI Kesatuan
ISSN 2337 – 7860
E-ISSN 2721 – 169X
DOI: 10.37641/jimkes.v13i6.4239

ABSTRAK

Mengingat pentingnya pemasaran digital di sektor perikanan, penelitian ini mengeksplorasi kebutuhan pengguna dan fitur utama yang dibutuhkan untuk mendukung promosi produk yang efisien dan berkelanjutan. Penelitian ini mengkaji pengembangan platform digital yang dirancang untuk meningkatkan pemasaran produk perikanan. Penelitian ini menggunakan pendekatan metode campuran, menggabungkan penelitian berbasis desain kualitatif dengan uji kegunaan kuantitatif. Pengumpulan data dilakukan melalui wawancara, diskusi kelompok fokus, dan survei dengan pemangku kepentingan, termasuk manajer unit bisnis dan konsumen. Hasil penelitian mengidentifikasi fitur-fitur utama platform seperti navigasi yang mudah, transparansi informasi produk, integrasi media sosial, dan sistem pembayaran yang aman. Temuan ini juga menyoroti pentingnya prinsip desain berpusat pada pengguna dalam mengembangkan platform digital yang sesuai dengan kebutuhan pengguna dan meningkatkan pengalaman mereka. Penelitian ini berkontribusi pada pemahaman bagaimana solusi digital dapat mengubah pemasaran produk perikanan, dengan implikasi praktis untuk pengembangan platform serupa di sektor lain. Penelitian selanjutnya sebaiknya fokus pada pengujian di dunia nyata dan skalabilitas platform semacam itu di berbagai pasar.

***Kata kunci**: Agribisnis, Platform Digital, Transformasi Digital, E-Commerce, Pemasaran Perikanan, Usaha Kecil, Desain yang Berpusat pada Pengguna.*

INTRODUCTION

The fisheries sector is a strategic area in national economic development, particularly in supporting food security and improving the welfare of coastal communities. According to data from the Ministry of Marine Affairs and Fisheries, the contribution of the fisheries subsector to Indonesia's gross domestic product has continued to increase, with the value of fisheries product exports reaching over USD 6 billion in 2022. However, most fisheries businesses, especially small and medium-sized enterprises, still face various challenges in terms of marketing.

In the era of digital transformation, the use of information technology has become a vital necessity for advancing the fisheries sector. Digital marketing can expand market reach, improve efficiency, and create closer relationships between producers and consumers (Kottler & Keller, 2009). Digital platforms have proven effective in enhancing product visibility, speeding up transactions, and reducing reliance on intermediaries or middlemen.

The Public Service Agency (*Badan Layanan Umum*/BLU) Business Unit at Politeknik Kelautan dan Perikanan (KP) Sidoarjo plays a key role in managing business activities and services related to both processed and fresh fisheries products. These products possess high economic value and competitiveness. However, the current digital marketing system remains limited and not fully optimized. Promotion is still conducted conventionally through social media platforms, often without an integrated system or a strong brand identity. This situation potentially hampers the increase in product value and weakens the Business Unit's position in both local and national markets.

In this context, there is a need for the design of a digital platform that is not only informative but also interactive and tailored to user needs. A platform design based on User Experience (UX) and User Interface (UI) principles will allow consumers to access the services available and provide constructive feedback easily. Moreover, this platform could serve as a digital education tool for the academic community and the general public (Hudha & Haryono, 2025). This research aims to address these needs through a case study at the BLU Business Unit of Politeknik KP Sidoarjo. By applying a user-centered design approach, this study seeks to develop a digital platform prototype that is effective in supporting modern, efficient, and sustainable marketing of fisheries products.

Based on the background described earlier, this study focuses on examining the current condition of the fisheries product marketing system at the BLU Business Unit of Politeknik KP Sidoarjo, particularly in relation to the use of digital technology. The

research also explores user needs and the key features required in a digital platform to support fisheries product marketing effectively. Furthermore, the study aims to design a digital platform that aligns with user characteristics and facilitates the efficient and sustainable marketing of fisheries products.

In line with these problem formulations, the objectives of this research are to analyze the existing condition of the fisheries product marketing system at the BLU Business Unit of Politeknik KP Sidoarjo, with an emphasis on the use of digital technology as well as the challenges and opportunities it presents. The study also aims to identify user needs and the essential features required for the development of a digital platform that can effectively and efficiently support fisheries product marketing. Ultimately, this research seeks to develop a digital platform that aligns with user characteristics, promoting and distributing fisheries products in a sustainable manner.

LITERATURE REVIEW

Digital Marketing and Digital Platform

Digital marketing encompasses all marketing activities that use electronic devices and the internet, including social media, websites, email, and e-commerce platforms. It facilitates two-way interaction with consumers and broadens market reach (Kottler & Keller, 2009). By leveraging digital technology, particularly the internet, businesses can engage customers more efficiently and measurably (Davis et al., 1989). It integrates various channels such as websites, social media, email, and SEO to strengthen customer interaction (Chaffey & Ellis-Chadwick, 2019). In the case of SMEs and agribusiness, digital marketing provides cost-effective promotion with extensive reach (Bosire, 2023).

Digital marketing strategies using digital channels such as social media, email, search engines, and websites are crucial in expanding market reach and enhancing customer engagement (Olfebri et al., 2025). Chaffey and Ellis-Chadwick (2019) emphasize the importance of understanding digital consumer behavior and analyzing data in modern marketing. A study by Venkatrayulu et al. (2023) suggests that digital marketing has a significant impact on increasing sales of processed fisheries products, particularly when visual content and promotional strategies are consistently employed. Therefore, the development of digital platforms that support digital marketing activities is critical for the growth of fisheries businesses.

A digital platform is a technology-based system that enables the exchange of information, products, or services between producers and consumers, integrating UI/UX, backend systems, payment, and logistics (Laudon, 2008). Beyond serving as a transaction medium, it functions as an ecosystem that connects parties directly and efficiently. Its success relies on managing user networks and generating value through interactions while remaining responsive to technological and market changes (Evans & Schmalensee, 2016).

In the fisheries sector, the use of digital platforms has already been adopted, with examples such as e-fishery and Aruna, which offer integrated supply chain solutions based on technology (Sugihono et al., 2022). Such platforms can be utilized by business units like the BLU Politeknik KP Sidoarjo to connect fisheries products directly to the market, while also educating consumers about the products offered.

User-Centered Design, User Interface, and User Experience Design

User-Centered Design (UCD) is a system design approach that prioritizes user participation throughout the process. Defined by ISO 9241-210 as a method focusing on users and their needs, UCD ensures that systems are effective, efficient, and satisfying to use. It involves analyzing user requirements, creating prototypes, and conducting iterative testing to refine functionality and usability (Norman, 2013). In the context of fisheries product marketing platforms, UCD emphasizes direct user involvement to develop intuitive interfaces that meet user needs, improving comfort and experience in accessing information, completing transactions, and giving feedback. Evidence from fisheries-based SMEs applications shows that user-driven features significantly increase satisfaction (Rahman et al., 2024).

UI pertains to the visual appearance and user interactions, while UX refers to the comfort, ease, and efficiency experienced by users when interacting with the system. The quality of UI/UX has a significant impact on the success of digital platforms, especially in marketing contexts (Garrett, 2022). UI/UX design is crucial in developing digital platforms because it determines how users interact with the system. Nielsen (2020) emphasizes the importance of usability in design, which includes effectiveness, efficiency, and user satisfaction. Hariyanto et al. (2022) introduced the user experience honeycomb concept, which includes aspects such as useful, usable, desirable, findable, accessible, and credible. In the agribusiness sector, particularly in fisheries, digital platforms must be designed with consideration for diverse user segmentation, from fish farmers, consumers, business operators, to stakeholders. A well-designed UI/UX will improve user engagement and help reduce barriers to technology adoption by small-scale fisheries operators (Liu et al., 2024).

Value Chain and Marketing in Fisheries Agribusiness

Entrepreneurship in the fisheries sector demands innovation in production, distribution, and marketing processes. According to Magasi and Kimambo (2024), strengthening the capacity of fisheries businesses in technology and digital marketing is key to addressing modern market challenges. Furthermore, the Food and Agriculture Organization (FAO) highlights the importance of adopting digital technologies to improve the efficiency of the global fisheries supply chain.

Fisheries agribusiness encompasses all stages of the economic activity chain, from upstream (production), midstream (processing and distribution), to downstream (marketing and consumption). Dubey et al. (2020) argue that the value chain includes all activities that add value to a product. In the context of fisheries, each stage of the chain requires integration and efficiency to improve competitiveness.

Digital marketing has become an essential element in shortening supply chains and improving the efficiency of fisheries product distribution. A study by Probst (2020) shows that digitalizing the fisheries value chain can reduce transaction costs and enhance price transparency in the market. Digital platforms integrated with stock information, prices, and market demand are critical to ensuring that products reach consumers with appropriate quality and prices.

The Role of Digitalization in Strengthening Fisheries Businesses

Digitalization is one of the main strategies to enhance the competitiveness of the fisheries sector. According to the FAO, utilizing digital technologies in fisheries leads to improved production efficiency, better market access, and enhanced logistics systems. For business units in educational institutions like the BLU Politeknik KP Sidoarjo, digitalization can serve as both a learning tool and a practice for modern entrepreneurship. Fisheries product consumers have varying characteristics depending on preferences, regions, and sources of information.

Digital marketing can help reach more specific market segments through a data-driven approach (data-driven marketing). Digitalization also opens opportunities for cross-regional collaboration and promotion that were previously limited. A well-designed digital platform can function as a knowledge-sharing hub, a transaction monitoring tool, and a link to trade partners. This aligns with the findings of research by Teniwut (2025), which indicates that digitalization strengthens the independence of micro-enterprises in the fisheries sector and opens up potential for exporting local products.

RESEARCH METHODS

This study is designed to develop a prototype digital platform that enhances the marketing of fisheries products at the BLU Business Unit of Politeknik KP Sidoarjo. It applies an applied research strategy with a mixed-methods design, integrating qualitative and quantitative approaches to balance exploratory depth and generalizability (Creswell & Creswell, 2014). The qualitative approach, supported by a Design-Based Research

(DBR) framework, is used to explore user needs, examine current marketing practices, and design a contextual solution for the fisheries agribusiness sector. Through in-depth interviews, participatory observations, and document studies, the researcher gains insights into user experiences, marketing challenges, and digital habits of both producers and consumers. DBR ensures iterative and participatory development, involving users at every stage to align the platform with real-world contexts (Wang & Hannafin, 2005; Anderson & Shattuck, 2012).

The quantitative approach complements this process by testing the effectiveness of the design through questionnaires and usability testing. Instruments are developed around dimensions of user experience, usability, and satisfaction (Brooke, 1996; Sauro & Lewis, 2016). This allows measurable data collection to validate the functionality and efficiency of the proposed platform. Together, these approaches are expected to yield a user-centered, empirically validated digital marketing system for fisheries products. The research will take place at the BLU Business Unit of Politeknik KP Sidoarjo from May to September 2025, covering observation, data collection, system design, and validation phases. Sampling will be purposive (Sugiyono, 2013), targeting individuals directly involved in fisheries product marketing. Respondents will include business unit managers (producers/sellers), potential customers, students as internal users, and IT staff.

Multiple data collection techniques will be employed. A literature review will provide theoretical foundations in digital marketing, UI/UX design, and fisheries agribusiness (Kottler & Keller, 2009). Direct observations will document ongoing marketing practices, while semi-structured interviews will gather insights on feature preferences and user satisfaction. Focus Group Discussions (FGDs) will serve as a key qualitative method, enabling validation of prototype designs and collaborative exploration of new product opportunities (Maryati et al., 2022). Document studies on sales records and marketing systems will supplement these findings.

For data analysis, the study adopts the descriptive-qualitative model of Miles et al. (2014). Analysis proceeds in three stages: data reduction (categorizing user needs, product potential, constraints, and design preferences), data presentation (matrices, thematic tables, and user journey diagrams), and conclusion/verification through triangulation and participatory validation with managers.

The digital platform design process follows the User-Centred Design (UCD) approach combined with design thinking principles (Norman & Draper, 1986; Brown, 2009). Five iterative stages are applied: empathizing with users, defining problems, ideating technology-based solutions, prototyping low-fidelity designs, and testing usability. This process includes identifying user needs, creating initial prototypes, conducting limited usability tests, refining designs, and documenting final outputs. The integration of UCD and design thinking ensures the platform is intuitive, functional, and tailored to the fisheries agribusiness context.

RESULTS

Current Marketing Practices, Platform Design, and User Interface Features

The Business Development and Services Unit (*Unit Pengembangan dan Layanan Bisnis*/UPLB) of Politeknik Kelautan dan Perikanan Sidoarjo functions as a strategic BLU unit, supporting institutional independence through marine and fisheries–based businesses. UPLB integrates academic activities, entrepreneurship, and public services, while managing aquaculture, fish processing, and fisheries-based educational tourism. Survey results from 80 respondents, who are primarily young female consumers, show that 95% already use digital buying and selling platforms. This highlights the strong potential for adopting a digital fisheries platform that is easy to use, provides comprehensive product information, and is accessible across various devices.

Despite this potential, interviews reveal that fisheries product marketing remains largely conventional, with limited reliance on social media such as WhatsApp and TikTok. Products marketed include fish seeds, fish feed, processed products like Brokalinos, and commodities such as *vannamei* shrimp and milkfish. To address these

gaps, data analysis highlights the need for key features, including simple transactions, secure payments, promotional tools, and social media integration. The proposed platform design emphasizes accessibility, information completeness, and direct usability, offering a practical solution to support transactions, product promotion, and communication between sellers and buyers while enhancing the efficiency of the fisheries supply chain.

The main page of the digital platform for fisheries products is designed to serve as an efficient starting point for users, prioritizing ease and speed of access. The main page includes a fast search feature with auto-suggestions, a list of product categories with optimized thumbnails, price filters, promotional offers, and product availability. This aims to make it easier for users to find the products they are looking for with minimal obstacles. Additionally, the main page displays seller ratings to expedite user decision-making.

The design of this main page minimizes the steps that users need to take, supporting the research goal of evaluating the impact of speed and ease of use on satisfaction and purchase intent. The administrator interface is also designed to be used without special training, featuring a compact dashboard for managing products, orders, promotions, and stock. Other features include a WYSIWYG content editor, templates, and configuration wizards, as well as user access rights, ensuring the system is efficient and easy to use. Figure 1 shows the main page layout.

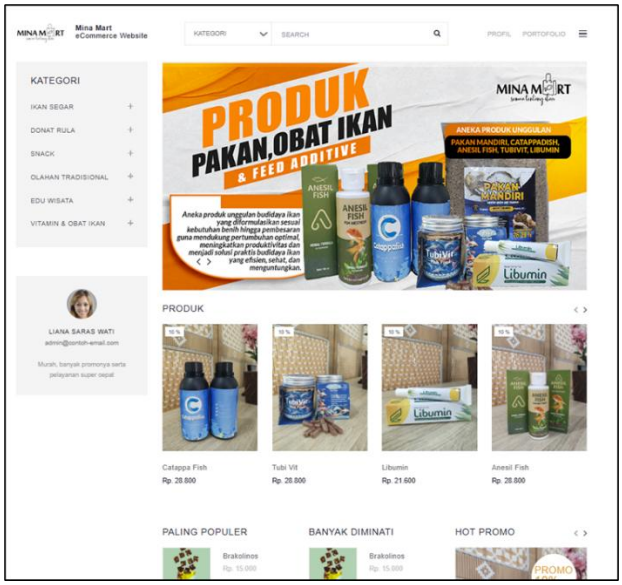
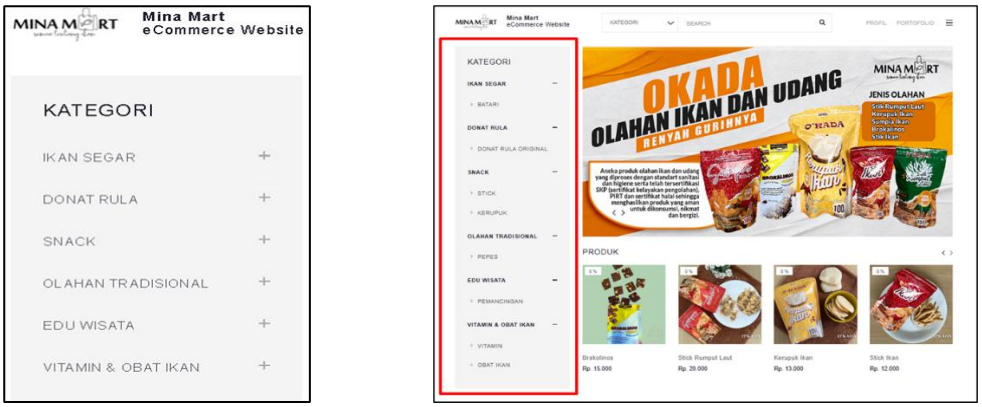


Figure 1. Main Page Layout

The product selection menu on the platform is designed to facilitate easier product discovery for users who need specific items. This menu is structured into clear categories, including fresh fish, processed products, fish feed, fish medicine, and fisheries services. This grouping is intended to reduce search time and increase transaction efficiency. The category design uses short and descriptive labels, along with visual icons to assist with product searches. Figure 2(a) shows the product selection menu.



(a) (b)

Figure 2. Product Selection

The product selection menu is designed with a structured submenu that includes breadcrumbs and filters for price and product availability, ensuring users can find products quickly according to their preferences. The structured submenu is illustrated in Figure 2(b). The slider feature on the main page allows for the display of priority content such as promotions, featured products, categories, or announcements in a rotating manner. This feature includes descriptive labels and Call-to-Action (CTA) buttons that direct users to the relevant product or category pages. The slider is designed with intuitive navigation controls, such as arrow buttons, dot indicators, and swipe support on mobile devices, to enhance user engagement and conversion.

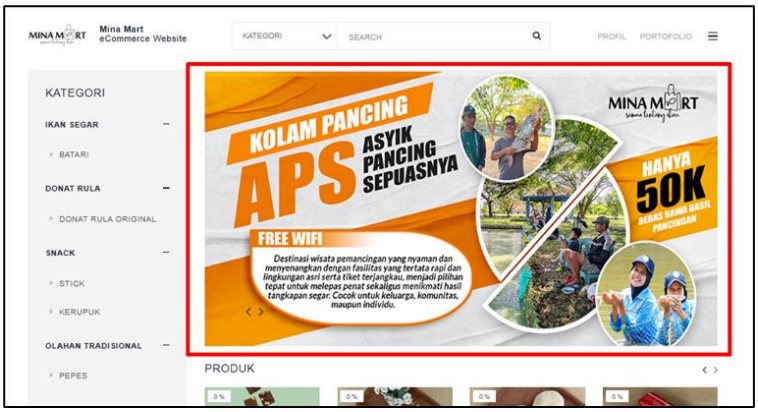


Figure 3. Homepage Slider

Figure 3 shows the homepage slider. The slider serves not only as a promotional tool but also as an educational and branding medium. Its visually appealing design and concise messaging aim to increase click-through rates and strengthen the interaction between users and the platform.

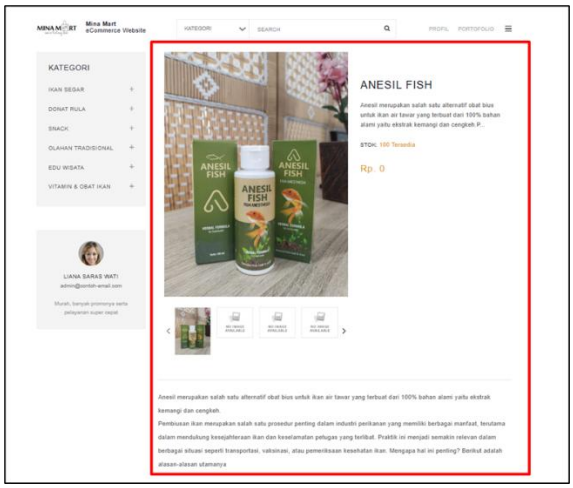
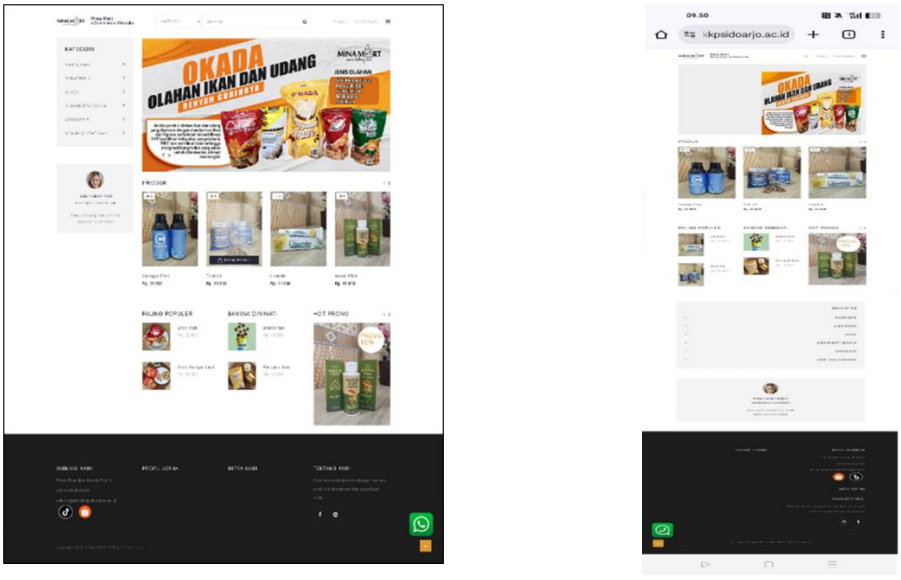


Figure 4. Product Description Feature

Figure 4 shows the product description feature. The product description feature on the platform provides detailed and easily understandable information, including product specifications, benefits, storage instructions, stock availability, shipping estimates, and return policies. Clear product descriptions aim to enhance transparency and trust among users during transactions. Providing comprehensive and honest product descriptions is crucial to reducing consumer dissatisfaction, especially for perishable goods such as fish products. Transparent product descriptions will strengthen the relationship between buyers and sellers, build trust, and increase purchase intent.

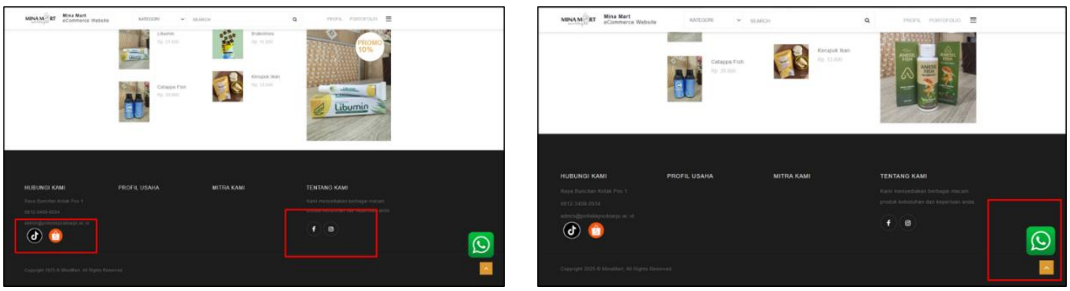
Integration and Analytical Features

This platform is designed to be optimally accessible via desktop, tablet, and smartphone devices using a responsive design approach. The user interface adjusts automatically to ensure ease of navigation when performing transactions on any device. The responsive design is not only important for aesthetics but also helps speed up the transaction process and ensures users do not face technical barriers. Figure 5(a) illustrates the platform display via desktop and tablet, while Figure 5(b) shows the display via smartphone.



(a) (b)

Figure 5. Platform Display on Desktop, Tablet, or Smartphone



(a) (b)

Figure 6. Social Media Integration and Chat via WhatsApp Feature

The social media account integration feature on the platform enables customers to interact directly via the social media accounts they use daily, including follow and share buttons, as well as social media login. This integration unifies the product discovery experience, reviews, and purchasing paths, making them shorter and increasing visibility, thereby simplifying the conversion process. Figure 6(a) shows the social media integration feature, meanwhile Figure 6(b) illustrates the chat via WhatsApp feature. The WhatsApp feature on this platform enables direct communication between buyers and sellers, facilitating quick verification of stock, shipping, and complete transactions. WhatsApp integration allows customers to directly interact with sellers through a widely used messaging app, creating a more personal and trustworthy transaction experience. WhatsApp, as a business-to-customer communication channel, is effective in building consumer trust, increasing engagement, and speeding up decision-making processes in transactions involving real-time product information.

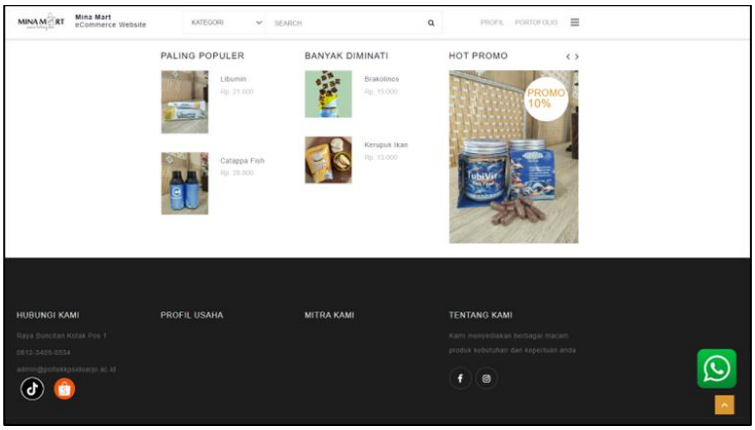
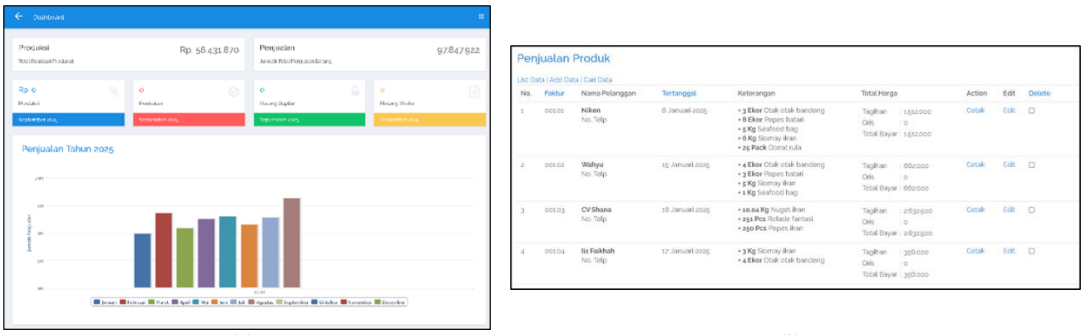


Figure 7. Product Sales Promotion Feature Display

Figure 7 shows the product sales promotion feature. The hot promo feature on the e-commerce website displays time-limited offers and prominent discounts on the homepage and category pages, encouraging quick purchase decisions. This feature typically uses promotional banners, a “Hot” or “Flash Sale” badge, and a countdown timer to show the remaining time for the promo, creating a sense of urgency and scarcity for visitors. The presentation of promotions is adjusted responsively across devices and personalised based on user behaviour to increase relevance.



(a) (b)

Figure 8. Market Analysis and Sales Report Feature Display

Figure 8 (a) shows the market analysis feature display. The Market Analysis feature on the platform site provides monitoring and information on buyer behavior, product performance, demand trends, and competitive position in the market. By combining internal data (sales, visits, stock, promotions) and external sources (competitor prices, category trends, marketplace data), this feature produces easy-to-read dashboards and periodic reports.

Figure 8 (b) shows the sales report feature display. The Sales Report feature on the platform provides a centralised and real-time summary of sales performance, including daily revenue, order quantities, and margin information, presented in an easy-to-read dashboard format and reports. This feature enables administrators to filter data based on periods, product categories, and sales channels.

Table 1. Research Roadmap

Year	Research Focus	Specific Title/Theme	TRL (Technology Readiness Level)
2025	Initial Design	Designing a Digital Platform for Marketing Fisheries Products: A Case Study at the BLU Business Unit of Politeknik KP Sidoarjo	TRL 2–3 (Concept validated & designed)
2026	Validation and Testing	Digital Platform Trial: User Response and Initial Effectiveness	TRL 4 (Validated in laboratory or simulation environment)
2027	Business Model Development	Development of a Digital Marketplace Business Model for Local Fisheries Products	TRL 5 (Validated in a limited real-world environment)
2028	Integration & Feature Expansion	Integration of Payment Systems, Logistics, and Analytics into the Platform	TRL 6–7 (Prototype system demonstrated at full scale)
2029	Downstream & Replication	Downstream Strategies and Replication of the Digital Platform to Other Coastal Areas	TRL 8–9 (Proven system, ready for deployment & replication)

This research is planned to be carried out continuously to expand our understanding of the application of digital platform design concepts in fisheries product marketing. Starting with a case study on the digital platform design, this roadmap will evolve from the initial design phase to validation, development, integration, and eventually downstream replication. The addition of the Technology Readiness Level (TRL) is crucial to systematically demonstrate the progress of technology development from concept to implementation. Table 1 shows the roadmap for this developing research.

DISCUSSION

This discussion highlights the strategic role of digital platform features in enhancing the effectiveness of fisheries e-commerce. By examining aspects such as navigation flow, urgency-based promotions, social media integration, market analysis, and sales reporting,

the analysis demonstrates how technology-driven solutions can address both consumer behavior dynamics and sector-specific challenges. Ease of navigation and a clear interaction flow are central to the success of e-commerce platforms, ensuring that users can easily access products and complete transactions efficiently. Nielsen (2020) highlights that consistent navigation across devices directly improves user satisfaction, which in turn drives higher conversion rates. From a consumer behavior perspective, urgency-based promotions such as scarcity marketing and time-limited offers have been shown to stimulate impulse buying. Cialdini (2009) identifies scarcity as a powerful psychological factor influencing purchase decisions, while Aggarwal et al. (2012) confirm that time-restricted promotions significantly boost purchase intent by triggering a fear of missing out. In this context, the implementation of a hot promo feature not only increases conversion rates and engagement but is especially effective for fisheries products, which are perishable. By accelerating stock turnover and combining urgency, personalization, and consumer psychology, Hot Promo serves as a competitive digital marketing strategy rather than a mere add-on.

Social media also plays a vital role in shaping the customer journey. Kaplan and Haenlein (2010) emphasize that social platforms provide spaces for consumers to gather information, share experiences, and build trust. Integrating social media with e-commerce systems enhances accessibility, streamlines registration, and encourages electronic Word of Mouth (e-WOM), which strongly influences buying intent (Cheung et al., 2020; Librianty et al., 2025). For fisheries products, often requiring proof of quality, visual testimonials on social media can strengthen credibility and accelerate adoption. Furthermore, this integration supports targeted promotions by leveraging user behaviour data, aligning with the fact that most consumers are more likely to purchase from personalised ads. Thus, social media integration not only expands reach but also reinforces trust, engagement, and sales effectiveness for the fisheries platform.

Equally important is the role of market analysis features, which act as decision support systems. Laudon (2008) argue that integrating analytics into management information systems enables businesses to identify opportunities, detect risks, and design targeted strategies. In e-commerce, such analysis informs pricing, stock management, and behavior-driven promotions (Wedel & Kannan, 2016). Incorporating external data, such as competitor prices and industry trends, aligns with the concept of competitive intelligence, which enhances business adaptability (Calof & Wright, 2008). This is particularly relevant for the fisheries sector, where price fluctuations and seasonal demand create constant challenges. Data visualization further strengthens transparency and managerial responsiveness, as Few (2013) demonstrates that concise dashboards and KPIs help decision-makers identify patterns quickly. Consequently, market analysis features improve predictive capacity, strategic planning, and supply chain stability for fisheries businesses.

Integrated reporting functions support both operational and strategic decision-making. Beyond tracking performance, these tools provide real-time insights into demand patterns, campaign effectiveness, and product performance (Chaffey & Ellis-Chadwick, 2019; Wibowo, 2025). For fisheries products, sales reporting is especially critical to optimize inventory turnover, prevent losses from overstocking, and guide efficient distribution strategies. Financial monitoring is also strengthened, with Turban et al. (2018) underscoring the importance of tracking revenue and margins to maintain profitability. Interactive visualizations, such as graphs and dashboards, foster collaboration and transparency across business units, enabling managers to act swiftly and in coordination (Few, 2013). As such, sales reporting not only enhances day-to-day operational efficiency but also reinforces long-term management control and strategic growth of the fisheries e-commerce platform.

CONCLUSION

This study demonstrates that the development of a digital platform can significantly enhance the marketing system for fisheries products, particularly by improving

accessibility, efficiency, and user engagement. The design proposed in this research emphasizes a user-centered approach that accommodates the needs of various stakeholders, including consumers, business operators, and distributors. Key features such as ease of transaction, transparency of product information, secure payment systems, and social media integration were identified as essential components that contribute to improving the overall user experience and marketing effectiveness. Through a practical and responsive interface, the platform supports sustainable marketing and aligns with the ongoing digital transformation in the fisheries sector.

The findings of this research have practical implications for institutions or business units aiming to modernize their marketing systems through digital platforms. The study provides a model that can guide future development of e-commerce systems tailored to local fisheries products. However, the research is limited to a single business unit and has not yet undergone real-world testing, which may restrict its generalizability. Future studies are encouraged to conduct pilot implementations to evaluate user adoption, system performance, and economic impact. Expanding the research to other regions or sectors, integrating advanced technologies such as AI-based analytics, and addressing digital literacy challenges among small enterprises would further strengthen the effectiveness and sustainability of digital marketing in the fisheries industry.

REFERENCES

[1] Aggarwal, R., Gopal, R., Gupta, A., & Singh, H. (2012). Putting money where the mouths are: The relation between venture financing and electronic word-of-mouth. *Information Systems Research, 23*(3), 976-992.

[2] Anderson, T., & Shattuck, J. (2012). Design-based research: A decade of progress in education research? *Educational Researcher, 41*(1), 16–25.

[3] Bosire, E. (2023). *The influence of digital marketing strategies on performance of small and medium-sized agribusinesses in Nairobi County*. Nairobi: University of Nairobi (Doctoral Dissertation).

[4] Brooke, J. (1996). SUS-A quick and dirty usability scale. *Usability Evaluation in Industry, 189*(194), 4–7.

[5] Brown, T. (2009). *Change by design: How design thinking creates new alternatives for business and society.* New York: Harper Business.

[6] Calof, J. L., & Wright, S. (2008). Competitive intelligence: A practitioner, academic and inter-disciplinary perspective. *European Journal of Marketing, 42*(7), 717-730.

[7] Chaffey, D., & Ellis-Chadwick, F. (2019). *Digital marketing*. London: Pearson UK.

[8] Cheung, M. L., Pires, G. D., Rosenberger III, P. J., Leung, W. K., & Ting, H. (2021). Investigating the role of social media marketing on value co-creation and engagement: An empirical study in China and Hong Kong. *Australasian Marketing Journal, 29*(2), 118-131.

[9] Cialdini, R. B. (2009). *Influence: Science and practice*. Boston: Pearson Education.

[10] Creswell, J. W., & Creswell, J. D. (2014). *Research design: Qualitative, quantitative and mixed methods approaches*. New Jersey: Sage Publications.

[11] Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science, 35*(8), 982–1003.

[12] Dubey, S., Singh, R., Singh, S. P., Mishra, A., & Singh, N. V. (2020). A brief study of value chain and supply chain. *Agriculture Development and Economic Transformation in Global Scenario, 3*(4), 177–183.

[13] Evans, D. S., & Schmalensee, R. (2016). *Matchmakers: The new economics of multisided platforms*. Cambridge, MA: Harvard Business Review Press.

[14] Few, S. (2013). Data visualization for human perception. In *The Encyclopedia of Human-Computer Interaction*. Retrieved August 1, 2025, from https://www.interaction-design.org/literature/book/the-encyclopedia-of-human-computer-interaction-2nd-ed/data-visualization-for-human-perception

[15] Garrett, J. J. (2022). *The elements of user experience*. Berkeley: New Riders.

[16] Hariyanto, W., Rifqi, A., & Mahfud, F. K. R. (2022). Exploring the user experience of E-Thesis system: An evaluation using UX Honeycomb method. *MATICS: Jurnal Ilmu Komputer Dan Teknologi Informasi (Journal of Computer Science and Information Technology), 14*(2), 74–77.

[17] Hudha, M., & Haryono, K. (2025). Perancangan desain UI/UX website e-learning berbasis learning management system dengan metode design thinking. *Jurnal Indonesia: Manajemen Informatika dan Komunikasi, 6*(1), 598–609.

[18] Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons, 53*(1), 59-68.

[19] Kottler, P., & Keller, K. L. (2009). *Marketing management*. Jakarta: Erlangga.

[20] Laudon, K. C. (2008). *E-commerce: Business, technology*. Chennai: Pearson India.

[21] Librianty, N., Aryadi, A., Farhas, R. J., Firmananda, F. I., & Rozaini, R. (2025). Digital marketing management: Optimizing social media and online advertising for business. *Jurnal Ilmiah Manajemen Kesatuan, 13*(4), 2511–2520.

[22] Liu, Y., Tan, H., Cao, G., & Xu, Y. (2024). Enhancing user engagement through adaptive UI/UX design: A study on personalized mobile app interfaces. *Computer Science & IT Research Journal, 5*(8), 1942–1962.

[23] Magasi, C., & Kimambo, G. (2024). Enhancing competitive advantage: A blend of marketing strategies for micro and small-scale fishery businesses in Mwanza City. *International Journal of Management, Accounting & Economics, 11*(2), 1-12.

[24] Maryati, I., Purwandari, B., Santoso, H. B., Budi, I., Solichah, I., & Gani, F. (2022). Research support services in Indonesian academic digital libraries: A proposed business model and prototype design. *DESIDOC Journal of Library and Information Technology, 42*(1), 18–29.

[25] Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook*. 3rd. Thousand Oaks, CA: Sage Publishing.

[26] Nielsen, J. (2020). *Nielsen Norman Group: Usability engineering*. Massachusetts: Morgan Kaufmann.

[27] Norman, D. A. (2013). *The design of everyday things*. Cambridge, MA: MIT Press.

[28] Norman, D. A., & Draper, S. W. (1986). *User centered system design; new perspectives on human-computer interaction*. New Jersey: L. Erlbaum Associates Inc.

[29] Olfebri, Yuliantini, & Pahrudin, C. (2025). The impact of social media marketing activity on purchase intention: Brand awareness as a moderator in an intercity bus study. *Jurnal Ilmiah Manajemen Kesatuan, 13*(3), 1963–1974.

[30] Probst, W. N. (2020). How emerging data technologies can increase trust and transparency in fisheries. *ICES Journal of Marine Science, 77*(4), 1286–1294.

[31] Rahman, H., Rahman, S., Hasan, M., & Zahin, N. (2024). Assessing the potential for fisheries-based agribusiness farms in Bangladesh: An empirical study. *International Journal of Advances in Social Sciences, 12*(3), 131–142.

[32] Sauro, J., & Lewis, J. R. (2016). *Quantifying the user experience: Practical statistics for user research*. Massachusetts: Morgan Kaufmann.

[33] Sugihono, C., Juniarti, H. A., & Nugroho, N. C. (2022). Digital transformation in the agriculture sector: Exploring the shifting role of extension workers. *STI Policy and Management Journal, 7*(2), 139–159.

[34] Sugiyono, D. (2013). *Metode penelitian pendidikan pendekatan kuantitatif, kualitatif dan R&D*. Bandung: Alfabeta.

[35] Teniwut, R. M. K. (2025). Improving coastal communities' micro enterprises' knowledge capabilities: boosting finance digitalization in small islands region. *Mahatani: Jurnal Agribisnis (Agribusiness and Agricultural Economics Journal), 8*(1), 90–105.

[36] Turban, E., Pollard, C., & Wood, G. (2018). *Information technology for management: On-demand strategies for performance, growth and sustainability*. New Jersey: John Wiley & Sons.

[37] Venkatrayulu, C., Gurumoorthi, S. K., Basu, S., Jayalakshmi, M., & Basha, A. M. M. (2023). The mediating role of digital marketing practices in relationship between the standard marketing strategies and the market growth of fisheries and aqua products in India. *Journal of Survey in Fisheries Sciences, 10*(2S), 2292–2300.

[38] Wang, F., & Hannafin, M. J. (2005). Design-based research and technology-enhanced learning environments. *Educational Technology Research and Development, 53*(4), 5–23.

[39] Wedel, M., & Kannan, P. K. (2016). Marketing analytics for data-rich environments. *Journal of Marketing, 80*(6), 97-121.

[40] Wibowo, B. Y. (2025). Behavioral economics insights into consumer decision-making in online marketplaces. *Jurnal Ilmiah Manajemen Kesatuan, 13*(4), 2133–2142.

Digital Platform for Marketing Fisheries Product

5204