Enhancing Product Sales through the Implementation of an E-Commerce-Based Marketing System

Putri Taqwa Prasetyaningrum[1,a], Putry Wahyu Setyaningsih[1], Ozzi Suria[1], Ibnu Rivansyah Subagyo[2]

[1]Information systems study program, faculty of information technology, Universitas Mercu Buana Yogyakarta, Indonesia, 55283
[2]Informatics study program, faculty of information technology, Mercu Buana University Yogyakarta, Indonesia, 55283

[a]Corresponding author: putri@mercubuana-yogya.ac.id

ABSTRACT

This service project aims to address the challenges faced by IBM in enhancing product sales through the implementation of an E-commerce-based marketing system. The identified challenges include the absence of an E-commerce system for marketing products and difficulties for customers in purchasing products. The objectives of the program are twofold: first, to implement an E-commerce system to introduce products and reach a broader market, thereby increasing sales, and second, to assist customers in making transactions more easily. The service program consists of two main components: the design of an E-commerce system to improve customer communication and direct targeting of desired market segments without intermediaries, and the creation of an E-commerce system to boost partner sales and simplify transactions. The implementation of this program is structured into four stages: Coordination and preparation phase, Design phase, Application of science and technology phase, and Evaluation and refinement phase.

ARTICLE INFO

INTRODUCTION

The current landscape in Indonesia shows rapid advancement and intense competition in the business sector. This is evidenced by the growth of numerous companies, particularly small and medium enterprises (SMEs). SMEs are anticipated to make a substantial contribution by addressing various issues, notably in generating new job opportunities for the populace and harnessing fresh labor forces, thereby bolstering the income of local communities. The swift expansion of SMEs plays a critical role in elevating Indonesia's economic growth, which is inextricably linked to the advancements in modern technology (Asri, 2021). This endeavour aims to nurture micro, small, and medium enterprises (MSMEs) to broaden their knowledge and expertise. SMEs hold significant potential to boost Indonesia's economy. One viable opportunity is leveraging online business platforms. The e-commerce application training conducted has endowed participants with the skills to manage online stores effectively, organize consumer orders, and facilitate users in displaying the status of items in online transactions by applying these practices during the training sessions (Noverdiansyah et al., 2022). E-commerce can overcome problems related to marketing processed products online by conveying accurate information Muhazir (Muhazir et al., 2018). E-commerce can also make it easier for shop owners to manage company operations, such as changes and additions to product catalogues, sales transactions, purchases, and stock of goods. Financial reports such as cash receipts and profit and loss reports can be presented more quickly, making decision-making easier (Muhardono, 2018). Apart from that, the e-commerce system provides product marketing that customers and general users can access as internet users so they know the information provided through the website. It provides convenience for admins and leaders in processing the sales data collection process to help monitor sales activities in the field (Murni et al., 2020). E-commerce pertains to leveraging information and communication technology to streamline online transactions. There is potential for e-commerce to be enhanced as technology advances, aiming to boost efficiency (Dharma et al., 2022). E-commerce technology has an indirect yet significant and positive impact on the customer experience when utilizing e-commerce platforms (Thorfiani et al., 2021). The advent of the internet and the prospects for online business expansion have exponentially increased the benefits for those engaged in online transactions (Nazar et al., 2023). Utilizing a website as an information system can yield comprehensive data reports as its output (P. T. Prasetyaningrum et al., 2022). A website profile for small and medium enterprises, personal branding strategies, e-commerce sales, social media promotion enhancement, workshops, and promotional content maintenance field (Andriani et al., 2024). Implementing an information system via a website can deliver a comprehensive and high-quality program (P. Prasetyaningrum & Scholastica Larissa Zafira Lewoema, 2023).

The partner of this service is K-Ban which has several businesses such as buying and selling tires, exchanging new & used tires and spooring & balancing tires. Mitra is located at Jalan Bibis Raya, Tamantirto, Kasihan, Bantul, Kembaran, Tamantirto, Kec. Kasihan, Yogyakarta City, Yogyakarta Special Region 55183. Partner businesses as seen in Figure 1.

FIGURE 1. Business Partner Location

Currently, the partner manages orders and product publicity through WhatsApp. The existing manual system for managing sales-related business does not allow for effective control over product stock due to low marketing of products and services and a lack of knowledge about utilizing information technology to optimize business processes. There is a significant likelihood that the business managers are not well-versed in the use and application of information technology for business needs.

In light of these challenges, this community service activity aims to provide a solution with e-commerce, enabling businesses to automate inventory management through the tools and services available. The processes related to product stock and operations are thus simplified and streamlined. In addition to these initiatives, ongoing activities will be conducted, including production enhancement and marketing training (Shaferi et al., 2024)

METHOD

In this community service project, we employed several methods aimed at gathering comprehensive and precise data about K-BAN's e-Commerce operations. The methods utilized for data collection as shown in figure 2
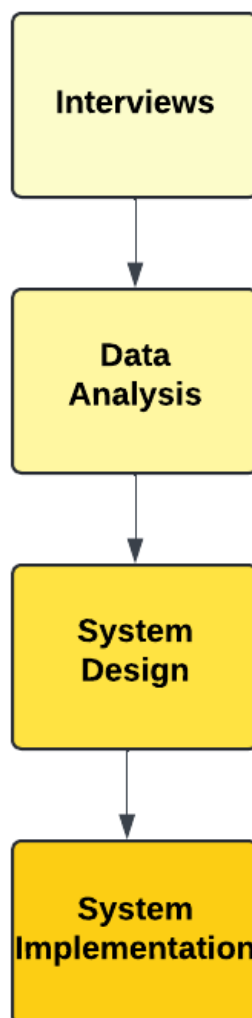

FIGURE 2. Flowchart the methods and stages carried out in

Interviews

The interview technique involves directly engaging business owners or company representatives to gather firsthand information. We secured detailed insights pertinent to our research goals by interviewing K-Ban stakeholders. This approach ensures the authenticity and accuracy of the information, mitigating potential misinterpretations from secondary sources. The insights gleaned from these discussions are crucial in report formulation and strategizing future directions.

Data Analysis

Our analysis, grounded in examining the website's profile, led to the following procedural outline for developing a new website:

- Accumulated and scrutinized the information and data prerequisites for website publication.
- Organize and present up-to-date reports to enhance the website's e-commerce.
- Conceptualize the website design and pinpoint the appropriate system integration for the anticipated website e-commerce.

System Design

The architectural plan for K-Ban's e-commerce system was devised using various tools, including flowcharts, use case diagrams, and activity diagrams. These design phases aim to forge an efficient website tailored to the enterprise's specifications.

System Implementation

Following the design phase, the system's implementation was executed utilizing programming languages such as HTML, CSS, and JavaScript, with Firefox serving as the search engine.
This community service adopts a comprehensive and systematic approach to data acquisition and website system development. Through meticulous methods and robust execution, the aspiration is for the K-Ban e-commerce website to emerge as more efficacious, engaging, and responsive to user necessities.

RESULTS

The initiative to integrate an e-commerce solution for K-Ban, a regional enterprise specializing in tire services, was brought to fruition through a meticulously organized strategy. This approach encompassed a series of structured interviews aimed at gathering in-depth information from stakeholders, comprehensive data analysis to tailor the e-commerce solution to K-Ban's specific needs, and a carefully planned system design and implementation process. The launch of this e-commerce platform is expected to significantly refine operational efficiencies, enrich the customer interaction journey, and amplify sales and the company's reach into new markets.

DISCUSSION

In accordance with research conducted by (P. T. Prasetyaningrum et al., 2022)., the service activity aims to address existing challenges through the implementation of practical solutions. The study highlights the significance of designing and implementing point-of-sales inventory applications as a means to assist partners in managing sales data efficiently. By offering insights and knowledge on sales records within specific time periods and customer interests, these applications facilitate informed decision-making processes for partner enterprises.

Furthermore, the successful execution of the project underscores the transformative potential of e-commerce for businesses like K-Ban. Through the adoption of dynamic online marketplaces, K-Ban transitions from traditional sales methodologies to a more agile and competitive model. This shift not only resolves logistical and operational bottlenecks but also positions K-Ban within a broader competitive landscape, enhancing its overall market presence.

(P. T. Prasetyaningrum et al., 2022) research sheds light on the broader narrative of digital evolution within the SME sector. It emphasizes the critical role of technology adoption in sustaining and growing businesses in today's digital economy. By embracing e-commerce solutions, SMEs can navigate the challenges of traditional business models and leverage technology to achieve sustainable growth and competitiveness.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this service, it can be concluded that accommodating K-Ban's leap into e-commerce marks a significant milestone in the digital empowerment of small- to medium-sized enterprises. This venture has not only streamlined operational processes and expanded K-Ban's market presence but also sets a precedent for digital adoption as a cornerstone for business scalability and sustainability. The initiative reflects a broader trend towards digitalization, positioning K-Ban at the forefront of the digital commerce revolution.

Recommendations

In order to fully harness the potential of e-commerce platforms, it's crucial for K-Ban and similar enterprises to adopt a forward-thinking approach. This involves several key strategies:

Firstly, there should be a concerted effort to enhance digital literacy among SMEs. By investing in education and technical support, businesses can ensure that stakeholders have the necessary skills to navigate the complexities of online commerce effectively.

Additionally, continuous refinement of e-commerce platforms is essential. By actively seeking and incorporating user feedback, K-Ban can ensure that its online platform remains user-friendly and responsive to evolving customer needs.

Furthermore, staying abreast of emerging technologies and trends is imperative. By proactively exploring new technologies and industry trends, K-Ban can innovate and maintain competitiveness in the rapidly evolving digital landscape.

Lastly, developing a cohesive digital marketing strategy is critical for maximizing online visibility and customer engagement. This entails leveraging various digital channels such as social media and content marketing to effectively reach and engage target audiences.

Overall, by adopting these strategies and embracing continuous learning and adaptation, K-Ban and similar SMEs can position themselves for sustainable growth in the digital age.

ACKNOWLEDGMENTS

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APPENDIX

This appendix contains images that document data on the implementation of Community Service at the K-Ban.

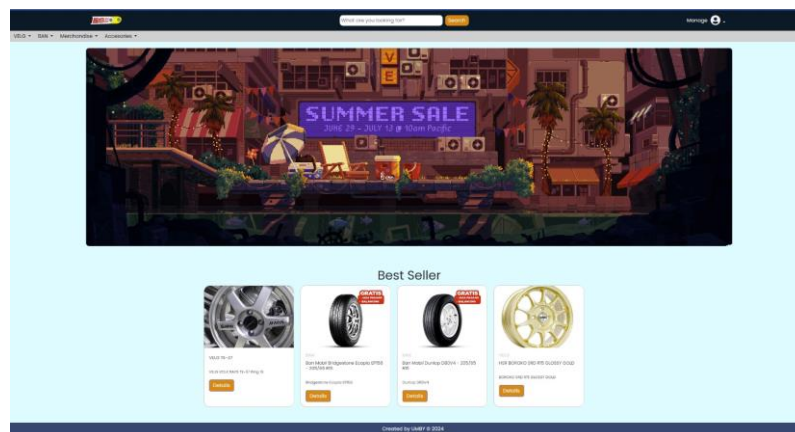**FIGURE 3.** Documentation Presenting e-commerce Website to K-Ban owner
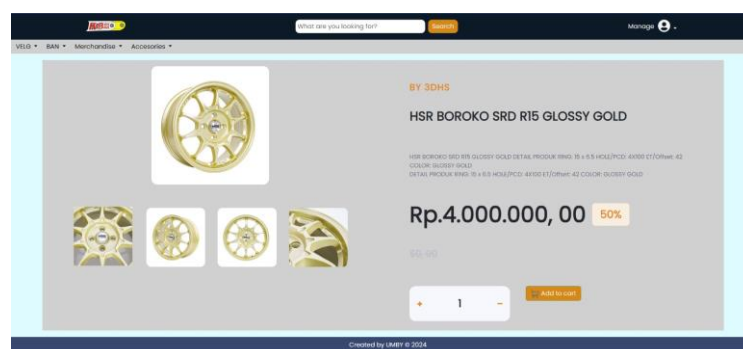

FIGURE 4. Home Page Display

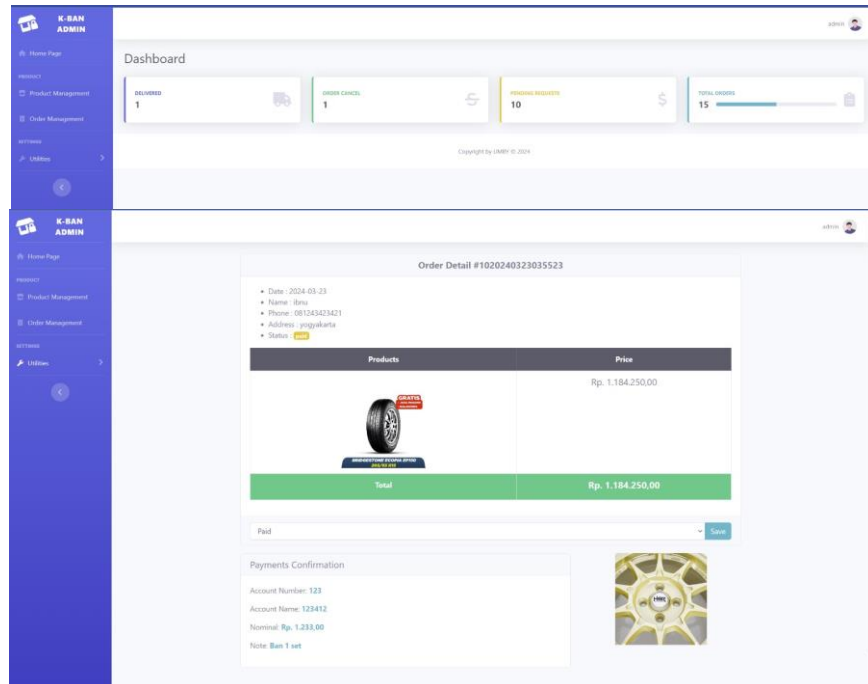

FIGURE 5. Page display to see items and their specifications

FIGURE 6. Admin page display for consumer orders