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The Information System for Promotion of Products for Micro, Small, and Medium Enterprises in Hinai Village is Website-Based With a Membership Method

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ABSTRACT

The requirements of Hinai Kanan Village's BUMDes are taken into account when creating MSME Product Promotion Applications. The purpose of this study was to boost local product sales and MSMEs' visibility in order to impact village economic development and raise community revenue. The present study used the Rapid Application Development (RAD) methodology, encompassing various stages such as requirements analysis, prototype creation, system development, and deployment. This study employs a member approach to the application so that MSME players can upload product photographs to the MSME product marketing application in Hinai Kanan Village right away. The research's conclusions demonstrate how well this approach works to sell MSME goods in Hinai Kanan Village and how easily it may reach markets outside of the village. The web-based platform enables MSME owners to easily engage with customers, exhibit their products, and take online orders. The application of this strategy leads to improved product visibility and sales, which is beneficial for local economies. Growing sales of MSME goods boost household incomes and contribute to Hinai Kanan Village's economic expansion.

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1. INTRODUCTION

Micro, small, and medium-sized enterprises (MSMEs) are critical to a nation's economic development in the age of globalisation and information technology advancements [1,2]. At the local level, MSMEs are the key drivers of innovation and creativity and contribute to the growth of employment possibilities [3,4,5]. In Indonesia, small and medium-sized enterprises (MSMEs) play a vital role in the country's economic and social structure, particularly in the village and rural areas. MSMEs do, however, encounter difficulties because they do not have widespread access to markets, particularly for those who reside in rural areas [6,7, 8, 9, 10]. The development and expansion potential of MSMEs might be hampered by a lack of marketing and promotion, even when the goods and services produced are of high calibre [1]. The movement in business tendencies towards digitalization is exacerbating this challenge [12]. Hinai Kanan village, one of the Langkat region's villages, has a large number of MSMEs that support job growth and the local economy [13, 14]. On a local and regional level, many MSMEs are still not receiving adequate promotion [15][16][17]. To remove the barriers impeding the growth of MSMEs in Hinai Kanan Village, practical action is required. This is a result of the internet and information technology not being utilised to their full potential in order to promote MSMEs. An online MSME promotional information system is one potential fix for this issue [18]. MSMEs in Hinai Kanan Village can communicate directly with potential customers, visually display goods and services, and increase their promotional reach by utilising the Web platform[19][20][21]. Information technology and a Web-based promotional information system can help MSMEs in Hinai Kanan Village become more visible and competitive. Thus, the purpose of this research is to create an information system for MSME promotion that is web-based and tailored to their specific requirements [22][23][24]. Village of Hinai Kanan.

The significance of this research project is demonstrated by a number of factors that can significantly benefit a number of connected parties, most notably Hinai Kanan Village and the MSME actors that operate there. It is crucial to conduct this research for the reasons listed below:

1. Empowerment of MSMEs:

By offering strategies for increasing their Web platform promotional reach, this research will contribute to the empowerment of MSMEs in Hinai Kanan Village. MSMEs can grow their businesses in a sustainable way by expanding their access to markets.

2. Enhancing the Village Economy:

The potential for village economic revenue can rise by stepping up the promotion of MSMEs. People's wellbeing will improve as a result, and the unemployment rate will go down.

3. Information Technology Usage:

By promoting information technology usage in Hinai Kanan Village, this study will help residents become more technologically literate and acclimatise to using digital platforms.

- 4. Promotion of Local Identity: By promoting Hinai Kanan Village's local identity and culture through the deployment of a Web-based MSME promotional information system, local culture and tourism will be valued more.
- 5. Applicative Research: The findings of this study will offer useful suggestions that MSMEs in Hinai Kanan Village can immediately put into practice, in addition to theoretical understandings.
- 6. Innovation and Development:

Putting in place an online promotional information system will stimulate creative thinking when it comes to local product marketing and promotion. This may lead to the creation of new products and the diversification of businesses.

7. Academic Contribution:

Information technology and local economic empowerment are two other areas in which this research may have an academic impact. The final results and technique can be used as references and teaching tools for future studies.

2. RESEARCH METHOD

The RAD (Rapid Application Development) approach to system architecture is highly applicable to the creation of a web-based MSME Promotion Information System for Hinai Kanan Village. Rapid Application Development (RAD) is a development methodology that emphasises rapid system creation via prototype, iteration, and tight user participation. The following procedures can be utilised in conjunction with RAD in the context of this study.



Figure 1. Research Framework

Following is the description of the image above :

- Determining Requirements: In order to determine the primary requirements for a webbased MSME promotional information system, this step entails active contact with MSME owners and connected stakeholders in Hinai Kanan Village. Pay attention to the functionality you require, the look you want, and the ease of navigation.
- 2. Create a Prototype: Create the information system's first prototype in accordance with the specifications that have been determined. This might be a view of a web page with a user interface and navigation. This prototype makes it easier for other users and MSME owners to see how the system will work.
- 3. Quick Construction: The system must be developed quickly when the prototype is accepted. Creating essential elements like contact forms, databases, web pages, and promotional features is part of this. This procedure ought to be quick, user-visible, and outcome-driven.
- 4. Implementation: Once the building is finished, integrate a web-based MSME promotional information system into the workflow. Verify that the required technology infrastructure is available and able to sustain system functions. The Hinai Kanan Village web-based MSME promotional information system is being developed at a faster pace thanks to the RAD technique. Thorough communication with other users and MSME owners guarantees that the solution is tailored to their requirements. The first prototype made it easier to grasp how the system would work, and system development moved swiftly forward to accomplish the objectives of assisting and promoting MSMEs in the hamlet. The last phase in putting a designed system into place that is prepared for usage by Hinai Kanan Village residents and MSME owners is implementation.

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The application was designed and built according to the needs of MSMEs in Hinai Kanan village. The following are data collection techniques carried out in the research on promotional applications for MSME products in Hinai Kanan Village :



Figure 2. Research Framework

After collecting data so that the application is built according to the needs of the MSMEs in Hinai Kanan Village, users consisting of several levels of access rights are described. The user description in the system consists of three actors consisting of admin, members and customers.

Table 1. Actor Description						
No.	Actor	Actor Description				
1.	Admin	People who have access rights manage this internal system, such as				
		adding a list of MSME products, updating and disseminating product				
		information to customers				
2.	Member	People who are registered as members of the system register their				
		business in the system, and can market the products they produce by				
		the system.				
3.	Customer	People who look for information about MSME products and place				
		orders for the products they want to buy.				

3. RESULTS AND DISCUSSIONS

The development of this prototype is the basis for the next step in developing a web-based MSME promotional information system. Feedback and prototype testing results will help ensure that the system developed will meet user expectations and be effective in promoting MSMEs in Hinai Kanan Village.

1. Initial Interface Display

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The initial prototype of a web-based MSME promotional information system has been successfully created. The main interface includes a home page with an attractive MSME product display. This display design is designed to make user navigation easier and increase engagement.

2. Product Page

In the prototype, a special page has been developed for each MSME product. Each product page displays a product image, description, price, and order button. Users can easily view product details and place orders.

3. Contact Form

The prototype also includes a contact form that allows users to contact MSME owners for questions or orders. This form is designed to be simple and intuitive to minimize barriers to interacting with MSMEs.

4. User Testing

The prototype has been tested by several MSME owners in Hinai Kanan Village. The feedback received helps refine the interface design and ensure required features are accommodated.

5. Interaction and Navigation

The prototype's interface navigation is designed to allow users to easily navigate through various product and feature pages. Interactive buttons and navigation links are well placed to optimize the user experience.

6. Conformity to Needs

The results of the prototype development have been confirmed with MSME owners and other users. The expected main features have been successfully implemented in accordance with the identified needs.

Based on feedback from the prototype, development of a promotional information system began. Web page design, database development, and integration of promotional features are the focus at this stage. Continuous collaboration with users is important to ensure the system meets their expectations. 1. Web Page Design

A web-based MSME promotional information system has been successfully developed with an attractive and responsive web page design. The display of MSME products is neatly arranged and attracts the attention of visitors.

BUMDES HINAI KANAN



Figure 3. Web Page Design

2. Online Ordering Feature

The online ordering feature has been seamlessly integrated into the system. Users can select products, add them to cart, and place orders easily through a user-friendly interface.

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Figure 4. Online Ordering Feature

3. Product Gallery

The MSME product gallery has been successfully created, allowing MSME owners to showcase their products in the form of an attractive photo gallery.



Lapak Promosi UMKM	WDES HINAI KANAN ik Promosi UMKM					
Home Profil Struktur Orga	nisasi Galeri Hubungi Kami		Q			
Hubungi Kami						
Copyright @ 2023 BUMDES HINAI KANAN Powered by PressBook Blog WordPress theme						

Figure 6. Contact Forms and User Interaction

5. Social Media Integration

This promotional information system has also been integrated with social media platforms, allowing MSME owners to easily share products and promotions with a wider audience.

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Figure 7. Social Media Integration

4. CONCLUSION

The creation of a web-based MSME promotion information system by this research is successful, demonstrating its efficacy in boosting the marketing of MSME goods in Hinai Kanan Village. This technology gives MSME owners an easy-to-use platform to engage with customers and display items. Positive Effect on Sales: The system's implementation will increase the number of MSME items sold. The expansion of MSME businesses was attributed to an increase in orders and enhanced online visibility of their products by their owners. The Value of Community Support: This system's success also highlights the significance of the local community's support. The community's encouragement of MSME expansion through product purchases and complimentary remarks is crucial. 1. Determining Requirements: In order to determine the primary requirements for a web-based MSME promotional information system, this step entails active contact with MSME owners and connected stakeholders in Hinai Kanan Village. Pay attention to the functionality you require, the look you want, and the ease of navigation.2. Create a Prototype: Create the information system's first prototype in accordance with the specifications that have been determined. This might be a view of a web page with a user interface and navigation. This prototype makes it easier for other users and MSME owners to see how the system will work.3. Quick Construction: The system must be developed quickly when the prototype is accepted. Creating essential elements like contact forms, databases, web pages, and promotional features is part of this. This procedure ought to be quick, user-visible, and outcome-driven.4. Implementation: Once the building is finished, integrate a web-based MSME promotional information system into the workflow. Verify that the required technology infrastructure is available and able to sustain system functions. The Hinai Kanan Village web-based MSME promotional information system is being developed at a faster pace thanks to the RAD technique. Thorough communication with other users and MSME owners guarantees that the solution is tailored to their requirements. The first

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