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SURAT PENUGASAN TENAGA PENDIDIK
Nomor : 114-IV/03.1-F/III/2026
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Nama	: M. Febriansyah, ST., MT	Status Pegawai	: Tetap
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Jabatan Akademik	: Asisten Ahli		

Bidang	Perincian Kegiatan	Tempat	Jam	Kredit (SKS)	Hari
I. PENDIDIKAN & PENGAJARAN	1. Pengajaran di kelas termasuk laboratorium				
	1. Sistem Kendali Lanjut (B)	S1 Teknik Elektro	19:00 s.d 21:30	3	Senin
	2. Rekayasa Kendali Cerdas (B)	S1 Teknik Elektro	19:00 s.d 21:30	3	Jumat
	3. Praktikum Rekayasa Kendali Cerdas (B)	S1 Teknik Elektro	09:00 s.d 10:40	2	Sabtu
	4. Praktikum Sistem Cerdas (P)	S1 Teknik Elektro	13:00 s.d 14:40	2	Sabtu
	2. Pembimbing				
	1. Seminar				
	2. Kerja Praktek				
	3. Tugas Akhir/Tesis			1	
	4. Pembimbing Akademik			1	
	3. Penguji				
	1. Tugas Akhir/Tesis			1	
	2. Kerja Praktek				
II. PENELITIAN	4. Tugas Tambahan				
	1. Menjabat Sebagai Ka. Prodi Elektro				
	1. Penelitian Ilmiah				
	2. Penulisan Karya Ilmiah			1	
	3. Penulisan Diklat Kuliah				
III. PENGABDIAN PADA MASYARAKAT	4. Menerjemahkan Buku Kullah				
	5. Pengembangan Program Kuliah Kurikulum				
	6. Pengembangan Bahan Ajar			1	
	1. Menduduki jabatan di Pemerintahan				
	2. Pengembangan Hasil Pendidikan dan Penelitian				
IV. PENUNJANG	3. Memberikan penyuluhan/pelatihan/penataran/ceramah			1	
	4. Memberikan Pelayanan Kepada Masyarakat				
	5. Menulis karya Pengmas yang tidak dipublikasikan				
	6. Pengelolaan Jurnal Ilmiah				
	1. Menjadi anggota/panitia pada badan/lembaga suatu PT				
	2. Menjadi anggota Badan Lembaga Pemerintah				
	3. Menjadi anggota organisasi profesi				
	4. Mewakili PT/lembaga pemerintah, duduk dalam panitia antar lembaga				
	5. Menjadi anggota delegasi nasional ke pertemuan internasional				
	6. Berperan Serta Aktif dalam pertemuan ilmiah/seminar			1	
	7. Anggota dalam tim layanan pendidikan				
Jumlah Total				17	

Kepada yang bersangkutan akan diberikan gaji/honorarium sesuai dengan peraturan penggajian yang berlaku di Institut Sains dan Teknologi Nasional.
Penugasan ini berlaku dari tanggal 09 Maret 2026 sampai dengan 04 Juli 2026

Tembusan :

1. Wakil Rektor 1 - ISTN
2. Wakil Rektor 2 - ISTN
3. Ka. Biro Sumber Daya Manusia - ISTN
4. Arsip





SERTIFIKAT

PENGHARGAAN

Dengan Bangga Diberikan Kepada

M. Febriansyah, ST., M.T.

Sebagai :

INSTRUKTUR

Pengabdian Kepada Masyarakat Pengembangan Website Untuk
Mengembangkan Pemasaran Digital Pada UMKM Keripik Tempe AMJ
Jakarta, 6 Juni 2026



Filda Angellia, S. Kom., MMSI

Dekan Fakultas Ilmu Komputer IBI-K 57

Rohinah

Pemilik UMKM Keripik Tempe AMJ

Development of a Website to Improve Digital Marketing for Micro, Small And Medium Enterprises A.M.J Tempe Chips

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Abstract.

The transformation of global tourism has shifted the paradigm from mass tourism to experience tourism, emphasizing meaningful experiences as the core value of travel activities. In this context, culture is no longer viewed merely as a tourism attraction but as a communication medium that creates memorable experiences for visitors. Tenganan Pegringsingan Village in Karangasem Regency, Bali, as one of the oldest Bali Aga communities that preserves its traditional social system, customary law (awig-awig), religious rituals, Mekare-kare (Pandan War) tradition, and Gringsing weaving heritage, possesses significant potential for the development of experiential cultural tourism. However, the growth of the tourism industry has also generated challenges, including cultural commodification, diminishing symbolic meanings of traditions, and the predominance of attraction-oriented tourism management over participatory cultural experiences. This community engagement program aims to reconstruct a cultural tourism model through the Experiential Cultural Communication approach, integrating cultural preservation, experiential communication, and community empowerment. The program employed participatory methods, including participatory observation, focus group discussions (FGDs), cultural storytelling training, cultural interpretation assistance, and capacity-building activities for local communities in managing community-based tourism communication. The findings reveal that Bali Aga culture can function as a medium of experiential communication that generates sensory, emotional, intellectual, relational, and transformational experiences for visitors. This approach not only strengthens the cultural identity of the Tenganan Pegringsingan community but also promotes sustainable tourism centered on local participation. The Experiential Cultural Communication model offers a strategic alternative for preserving cultural authenticity while enhancing educational, participatory, and sustainable tourism experiences. Consequently, this reconstruction seeks to position tourists as active participants in cultural dialogue rather than mere consumers of tourism attractions.

Keywords: *Experiential Cultural Communication, Bali Aga, Tenganan Pegringsingan, cultural tourism, cultural communication and community-based tourism.*

I. INTRODUCTION

Digital transformation has changed the way micro, small and medium enterprises promote products and interact with customers. Marketing activities that were previously dominated by direct selling and word-of-mouth promotion are increasingly supported by websites, social media, marketplaces, and instant messaging platforms. For small food businesses, this change creates an opportunity to expand market reach, strengthen product branding, and simplify communication with customers [6], [7].

Tempe chips are a traditional food product with strong local identity and broad consumer familiarity. MSME Keripik Tempe A.M.J has product potential, but the partner still faces digital marketing constraints. Initial partner analysis identified several problems, including limited skills in preparing attractive promotional content, insufficient use of digital media, weak digital branding, and the absence of a structured digital system for product presentation, ordering, and transaction documentation.

A website can serve as a practical digital marketing infrastructure for MSMEs because it connects product information, customer navigation, ordering, invoice generation, and communication into a single workflow. In contrast to social media posts that may be difficult to organize, a website provides a more stable product catalog and can record transaction information for future evaluation. The website can also be extended with chatbot assistance and administrative functions to support customer service and business monitoring.

The community service program described in this article focuses on the development of a website to

improve digital marketing for UMKM Keripik Tempe A.M.J. Although the partner's broader program also introduces digital technology and Artificial Intelligence literacy, the article specifically discusses the website output documented in the implementation results. The objective is to explain the development process, describe the resulting website features, and analyze the functional contribution of the website to MSME digital marketing effectiveness.

The article is positioned as an applied community service report rather than a causal impact experiment. Therefore, claims of improvement are limited to functional readiness, workflow integration, and potential marketing contribution. Quantitative claims such as increased revenue or conversion rate require further measurement using website analytics, transaction records, and customer behavior data.

II. METHODS

2.1 Community Service Design

This community service activity used a participatory and applied development approach. The participatory approach was applied by involving the MSME partner in identifying problems, determining feature needs, reviewing the website prototype, and evaluating its usability. The applied approach emphasized practical solutions that could be directly used by the partner in daily business activities.

The program was conducted through several stages: preparation, observation and needs identification, website requirement analysis, system design, prototype development, implementation and mentoring, monitoring, and functional evaluation. These stages were adapted from the partner-oriented community service plan, which emphasizes training, mentoring, practical implementation, and measurable outputs.



Fig. 1. Community service implementation flow.

2.2 Partner Needs and Website Requirements

The target partner was UMKM Keripik Tempe A.M.J. The needs assessment focused on the partner's digital marketing constraints, product information management, order handling, and communication with customers. The required website features were derived from the problems faced by the partner and from the documented website implementation results.

The customer-side requirements included a homepage to introduce the business, a product catalog to display available products, a product detail page to support purchase consideration, a shopping cart, a checkout form, invoice generation, WhatsApp-based confirmation, and chatbot assistance. The admin-side requirements included secure login, dashboard monitoring, product and stock management, order data management, and sales reporting.

Table 1. Partner problems and proposed website-based solutions

Partner Problem	Website-Based Solution	Expected Output
Limited digital product presentation	Homepage, product catalog, and product detail pages	Clearer product visibility and easier customer evaluation
Manual ordering and communication	Shopping cart, checkout, invoice, and WhatsApp confirmation	More structured customer transaction flow
Unorganized product and stock data	Admin product and real-time stock management	Better operational control
Limited sales monitoring	Admin dashboard and sales report with CSV export	Basic data for business evaluation
Repeated customer questions	Chatbot assistant for product and order information	Faster initial customer service

2.3 Functional Validation

Functional validation was conducted by reviewing the implemented website screens and mapping each feature to its intended role in the digital marketing and transaction workflow. The documentation reviewed

consisted of the customer interface, payment confirmation flow, chatbot assistant, admin login, admin dashboard, product data and stock page, order data page, and sales report page.

The validation focused on functional completeness, continuity of customer flow, administrative support, and readiness of the system to support future marketing evaluation. Because live analytics data, customer satisfaction survey data, and pre-post sales comparison data were not included in the documentation, the evaluation did not claim statistically measured marketing improvement.

III. RESULT AND DISCUSSION

3.1 Website Prototype for Customer Digital Journey

The developed website supports a basic digital customer journey from product discovery to order confirmation. The homepage functions as the first digital contact point for customers by presenting the business identity and navigation to the product section. The product catalog and product detail pages help customers review product variants, prices, and product information before deciding to purchase.

The cart and checkout pages transform the website from a promotional medium into a transaction-support platform. Customers can collect selected products in the cart, input order data in the checkout form, and proceed to invoice generation. This flow is important because it reduces ambiguity in ordering and provides written transaction documentation.

Payment confirmation is supported through WhatsApp. This design is suitable for MSMEs because WhatsApp is already widely used as a direct communication channel between small businesses and customers. The chatbot assistant complements the website by providing initial customer support and answering simple questions related to products and ordering.

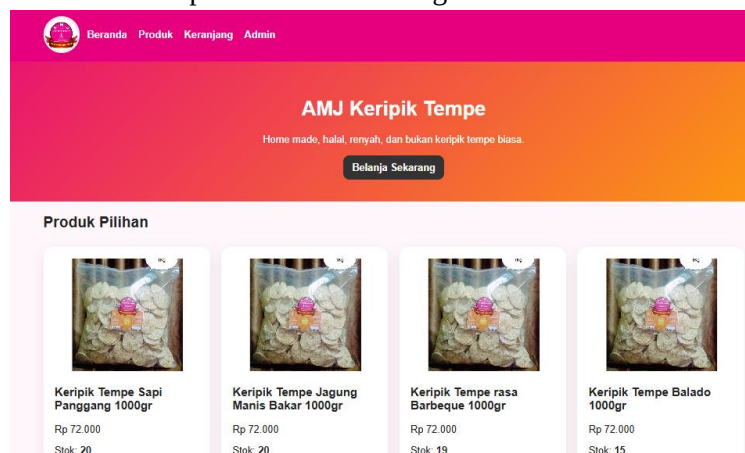


Fig. 2. Homepage of the Keripik Tempe A.M.J website.

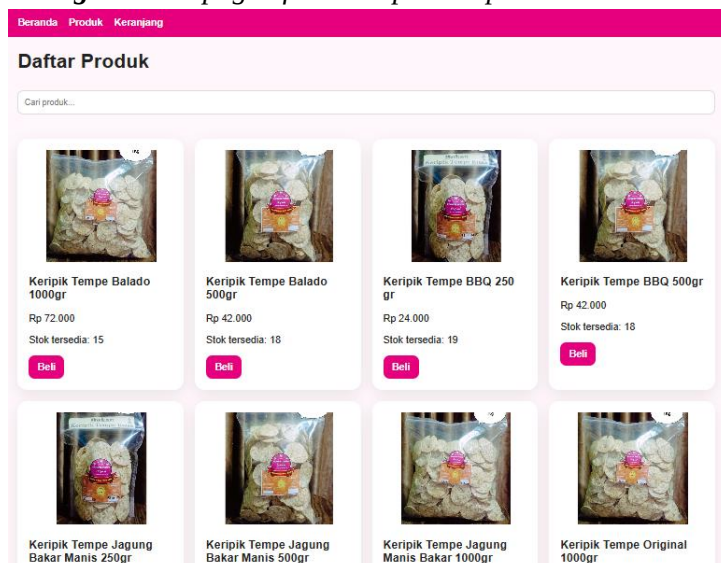


Fig. 3. Product catalog page for customer product discovery.

Produk Keranjang

Checkout Pesanan

Data Pembeli

Nama Pelanggan

No. HP / WhatsApp

Alamat Pengiriman

Catatan Pesanan
Contoh: rasa pedas sedang, dikirim sore hari

Checkout dan Lanjut ke WhatsApp Kembali ke Keranjang

Ringkasan Belanja

Produk	Qty	Subtotal
Keripik Tempe Original 250gr	3	Rp 66.000
Keripik Tempe BBQ 250 gr	2	Rp 48.000
Total		Rp 114.000

Setelah tombol checkout ditekan, stok produk akan otomatis berkurang dan pelanggan diarahkan untuk mengirim detail pesanan melalui WhatsApp admin.

Fig. 4. Checkout page for order submission.

Produk Keranjang

Pesanan Berhasil Dibuat

Nomor invoice Anda:

INV2026053008110834

Stok produk sudah otomatis disinkronkan. Silakan lanjutkan konfirmasi pesanan melalui WhatsApp admin.

Kirim Pesanan via WhatsApp Kembali Belanja

Fig. 5. Successful order and invoice printing page.

3.2 Admin Management Features

The admin interface provides management functions required to maintain the website and monitor business activity. The admin login page controls access to internal features. After authentication, the dashboard displays summary information such as total products, total stock, total revenue, daily revenue, and low-stock products. This dashboard helps the administrator monitor business conditions quickly.

The product and stock page allows the admin to add, edit, and delete product data. The page also shows real-time stock information, which is important because product availability must remain consistent with customer checkout activity. The order data page supports monitoring of customer transactions, while the sales report page provides a date-filtered recap of valid transactions, total revenue, sold products, and CSV export.

Admin AMJ

- Dashboard
- Data Produk & Stok
- Pesanan
- Laporan Penjualan
- Logout

Dashboard Admin

Total Produk
15

Total Stok
276

Omset Keseluruhan
Rp 1.020.000

Omset Hari Ini
Rp 114.000

Produk dengan Stok Menipis

Kode	Nama	Stok
------	------	------

Fig. 6. Admin dashboard for product, stock, and revenue monitoring.

Admin AMJ

- Dashboard
- Data Produk & Stok
- Pesanan
- Laporan Penjualan
- Logout

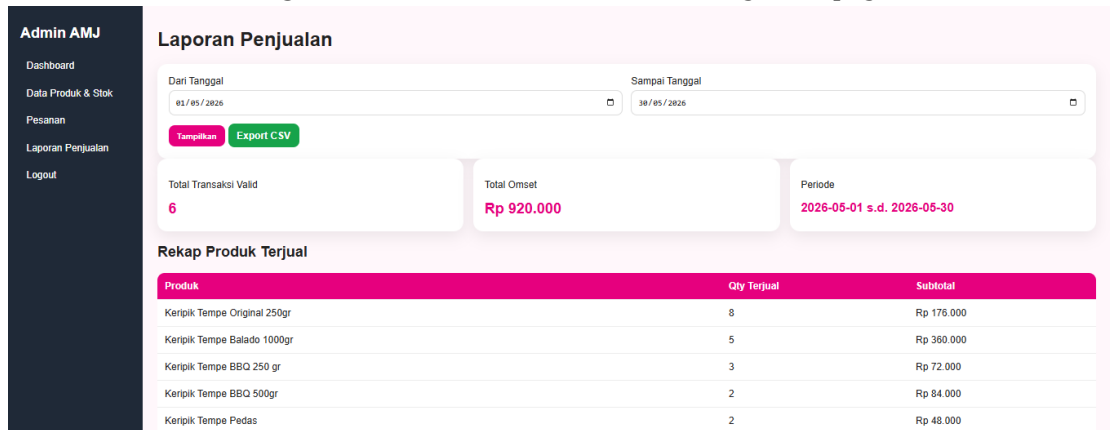
Data Produk dan Sinkronisasi Stok

Produk berhasil masuk keranjang

Stok pada tabel ini memakai sumber data yang sama dengan checkout pelanggan. Setiap checkout berhasil akan otomatis mengurangi stok produk.

Tambah Produk

Gambar	Kode	Nama	Harga	Stok Real-Time	Aksi
	KT-SAPI-1000	Keripik Tempe Sapi Panggang 1000gr	Rp 72.000	20	Edit Hapus
	KT-JAGUNG-1000	Keripik Tempe Jagung Manis Bakar 1000gr	Rp 72.000	20	Edit Hapus
	KT-BBQ-1000	Keripik Tempe rasa Barbeque 1000gr	Rp 72.000	15	Edit Hapus
	KT-BALADO-1000	Keripik Tempe Balado 1000gr	Rp 72.000	15	Edit Hapus

Fig. 7. Product and real-time stock management page.**Fig. 8.** Sales report page with period filter and CSV export.

3.3 Functional Contribution to Digital Marketing

The functional contribution of the website can be viewed from three perspectives: marketing visibility, transaction efficiency, and administrative control. Marketing visibility is supported by the homepage, catalog, product detail, and chatbot. Transaction efficiency is supported by the cart, checkout, invoice, and WhatsApp confirmation. Administrative control is supported by the dashboard, stock synchronization, order management, and sales reporting.

Feature	User	Main Function	Digital Marketing Contribution
Homepage	Customer	Business introduction and navigation	Strengthens brand awareness
Product catalog and detail	Customer	Product discovery and evaluation	Improves product visibility
Cart and checkout	Customer	Order preparation and submission	Reduces friction from interest to order
Invoice	Customer/Admin	Transaction documentation	Improves trust and traceability
WhatsApp confirmation	Customer/Admin	Payment and order communication	Supports human-assisted closing
Chatbot assistant	Customer	Initial information service	Improves response availability
Admin dashboard	Admin	Business summary monitoring	Supports quick managerial decision
Product and stock management	Admin	Product maintenance and real-time stock control	Improves operational reliability
Sales report	Admin	Sales recap and CSV export	Provides basic evidence for evaluation

For UMKM Keripik Tempe A.M.J, this integrated flow is more useful than a standalone promotional page because the website supports customer action after product interest appears. Customers can move from seeing products to placing an order in a structured way. At the same time, the admin obtains basic transaction data that can be used to monitor sales performance and product demand.

Table 2. Functional contribution of website features

3.4 Discussion

The main strength of the website is its alignment with the operational needs of a small food business. The system does not require the partner to operate a complex enterprise platform. Instead, it provides a practical website that can be used for promotion, ordering, communication, and reporting. This makes the solution more realistic for MSMEs with limited human resources and technology experience.

The website also addresses a frequent weakness in MSME digitalization, namely the separation between promotion and transaction. When product promotion is performed only through social media posts or personal chat, sales records and product-interest data are often scattered. By integrating product presentation, cart, checkout, invoice, WhatsApp confirmation, and admin reports, the website creates a more coherent digital business workflow.

Nevertheless, the current results should be interpreted carefully. The documentation proves functional availability, but it does not yet prove that the website has increased sales, conversion rate, or customer retention. A stronger future evaluation should compare website traffic, product page views, cart-to-checkout ratio, completed orders, WhatsApp confirmation rate, repeat purchase, and total sales before and after implementation.

Data governance should also be considered in future development. Customer names, phone numbers, addresses, order records, and chatbot messages may contain personal information. Therefore, the website should include role-based admin access, secure password handling, data backup, consent notices, and data minimization principles. These controls are needed so that digital marketing improvement does not create unnecessary privacy and security risks.

3.5 Documentation Activity

This section describes the results of the community service activity entitled Development of a Website to Improve Digital Marketing for Tempe Chips MSME A.M.J. The activity was reviewed based on goal achievement, benefits, and target accomplishment. The discussion is as follows between other :

1. Results are reviewed in terms of achieving goals

The main objective of this community service activity was to support Tempe Chips MSME A.M.J in improving digital marketing through the development and implementation of a website. The result shows that this objective was achieved through the availability of a web-based platform that presents product information, supports customer transactions, and provides administrative management features.

The website provides several customer-facing features, including the homepage, product catalog, product detail page, shopping cart, checkout page, invoice printing, WhatsApp payment confirmation, and chatbot assistant. These features help transform the marketing process from a simple promotional activity into a more structured digital transaction flow. Customers are able to access product information, select products, submit orders, obtain invoices, and contact the admin through WhatsApp for payment confirmation.

In addition, the website also includes admin-side features such as admin login, dashboard, product and stock management, order management, and sales reporting. These features support MSME owners in managing product data, monitoring stock availability, reviewing customer orders, and evaluating sales performance. Therefore, the website development activity successfully addressed the need for a more organized digital marketing and sales management system for Tempe Chips MSME A.M.J, which is shown in Figure 9.



Fig. 9. Presentation of Material for Implementation of a Website

2. Results reviewed from the benefits

The website provides practical benefits for both customers and MSME managers. For customers, the website makes it easier to obtain product information, view product details, place orders, print invoices,

and confirm payment through WhatsApp. The availability of a chatbot assistant also helps customers obtain basic information and guidance while accessing the website.

For MSME managers, the website supports more efficient product and order management. The admin dashboard provides business information such as total products, stock, revenue, and sales summary. The product management feature allows the admin to add, edit, delete, and monitor product stock in real time. The sales report feature also helps the MSME evaluate transaction results based on a selected period and export sales data in CSV format.

From a digital marketing perspective, the website strengthens the online presence of Tempe Chips MSME A.M.J. The product catalog and product detail pages help improve product visibility, while the checkout and WhatsApp confirmation features simplify the customer journey from product interest to order confirmation. Thus, the website can function not only as a promotional medium but also as a basic digital business platform for supporting MSME marketing activities. is shown in Figure 10.



Figure 10. Presentation of material digital business platform for supporting MSME

3. Results reviewed against targets

The target of this community service activity was to produce a digital solution that could help MSME partners improve their marketing capacity and support more structured business operations. This target was achieved through the development of a website prototype that contains key features for digital marketing, online ordering, transaction documentation, and administrative management.

The website has met several expected targets. First, it provides a digital product catalog that helps promote Tempe Chips A.M.J products more professionally. Second, it supports customer transactions through cart, checkout, invoice, and WhatsApp confirmation features. Third, it provides admin features for managing products, orders, stock, and sales reports. Fourth, it supports future digital marketing evaluation by providing transaction and sales data that can be reviewed by the admin.

Although the website has achieved the functional targets, further evaluation is still needed to measure its quantitative impact on marketing effectiveness. Future assessment should include indicators such as website visitor numbers, customer inquiries, order volume, sales conversion rate, repeat purchases, and customer satisfaction. Overall, the activity has achieved its initial target as a technology implementation and assistance program for strengthening digital marketing at Tempe Chips MSME A.M.J, shown in Figure 11.



Fig. 11. Documentation of Community services of Tempe Chips MSME A.M.J.

IV. CONCLUSION

This community service activity developed a website to improve digital marketing for MSME Keripik Tempe A.M.J. The website integrates customer-side features such as homepage, product catalog, product detail, shopping cart, checkout, invoice printing, WhatsApp payment confirmation, and chatbot assistance with admin-side features such as login, dashboard, product and stock management, order monitoring, and sales reporting. The result shows that the website provides a functional foundation for more structured digital promotion, customer transaction flow, and business administration. The main contribution of this program is a practical website-based digital marketing model that is suitable for MSME operations. However, the evaluation remains limited to functional and descriptive validation. Future activities should measure real impact through website analytics, customer feedback, transaction records, conversion indicators, and pre-post comparison of sales performance.

V. ACKNOWLEDGMENTS

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