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Interactive Digital Catalog Gamification for Donut Bouquet Innovation to Accelerate MSME Revenue

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Abstract

Purpose: This community service program (PKM) aims to implement a gamification-based Interactive Digital Catalog to enhance product attractiveness, strengthen digital marketing, and support the marketing performance of Donat Duo Putri MSME in Padang City.

Method: This program employed a qualitative descriptive approach through several stages, including observation, interviews, partner needs identification, product innovation, Interactive Digital Catalog development, gamification feature integration, training, mentoring, and evaluation to assess the effectiveness of the program implementation.

Practical Applications: The program resulted in the development of an innovative Donut Bouquet product supported by an Interactive Digital Catalog integrated with WhatsApp ordering services, a Spin Discount feature, Reward Points, and Voucher Discounts. These innovations simplified product promotion, increased customer engagement, expanded digital marketing reach, and provided a more engaging shopping experience for consumers.

Conclusion: The gamification-based Interactive Digital Catalog was developed as a digital marketing innovation for Donat Duo Putri MSME. The program has the potential to enhance product attractiveness, strengthen digital marketing efforts, and provide a more interactive and engaging customer experience.

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Introduction

Micro, Small, and Medium Enterprises (MSMEs) play a vital role in driving national economic growth by creating employment opportunities, increasing community income, and promoting equitable economic development. Amid the rapid advancement of digital technology, MSMEs are required to adapt through product innovation and the utilization of information technology to remain competitive. Digitalization functions not only as a promotional medium but also as a strategic approach to expanding market reach, improving service quality, and strengthening relationships between business owners and consumers (Aksoy, 2017; Djakasaputra, 2021; Syukri, 2022) This challenge is also relevant to many MSMEs, including culinary businesses that need to leverage digital technology to support their marketing activities.

Donat Duo Putri MSME is a culinary business located in Pegambiran Ampalu Nan XX Village, Lubuk Begalung District, Padang City. Based on observations and interviews with the business owner, product marketing has primarily been conducted through WhatsApp, Instagram, and direct sales to the surrounding community. The products are still packaged in simple packaging and lack a strong visual identity, making them less competitive than similar products. Although the business already utilizes digital marketing platforms, these platforms are not actively managed to provide complete, attractive, and integrated product information connected to the ordering system.

These conditions have resulted in limited product value addition and restricted marketing reach. Meanwhile, modern consumers tend to prefer products with attractive visual presentations, easy digital accessibility, and practical and interactive shopping experiences. This situation indicates that MSMEs require innovations that focus not only on product development but also on the transformation of technology-based digital marketing strategies.

Previous studies have shown that product diversification can enhance MSME competitiveness by creating added value and product differentiation (Aksoy, 2017; Kasmad, 2024; Arista, 2025; Wulan, 2025). Innovative packaging also improves consumers' perceptions of product quality while providing an emotional purchasing experience (Arista, 2025). Furthermore, digital marketing enables MSMEs to reach broader markets with more cost-effective promotional strategies than conventional marketing methods (Syukri, 2022; Habibie, 2024; Salsabilla, 2024)

The rapid development of digital technology has also encouraged the use of interactive websites as marketing media. Interactive websites enable consumers to access comprehensive product information, customize orders, and communicate directly with business owners through a more practical system (Djakasaputra, 2021; Habibie, 2024; Rofiq, 2024). To enhance customer engagement, gamification has increasingly been implemented through features such as reward points, discount vouchers, prizes, and simple games. (Hofacker, 2016; Koivisto & Hamari, 2019; Xi, 2020; Al-Zyoud, 2021). These gamification elements have been proven to improve customer engagement, strengthen customer loyalty, and encourage repeat purchases.

Most previous community service programs and research have focused separately on product innovation, digital marketing, interactive websites, or gamification. The integration of Donut Bouquet product innovation, a website-based Interactive Digital Catalog, and gamification into a unified digital marketing strategy for culinary MSMEs remains relatively limited. However, integrating these three aspects has significant potential to increase product value, strengthen customer interaction, and support business revenue growth.

Based on these conditions, this community service program implemented a gamification-based Interactive Digital Catalog for Donat Duo Putri MSME as a form of digital marketing transformation. The program began with product innovation through the development of the Donut Bouquet, offering higher aesthetic value than the previous products. Subsequently, an interactive website was developed to function as a digital product catalog, a product customization platform, and an ordering system integrated with WhatsApp. To

enhance customer experience, the system was equipped with Spin Discounts, Reward Points, and Voucher Discounts features as the implementation of gamification concepts.

The gamification-based Interactive Digital Catalog was designed as a digital marketing innovation for Donat Duo Putri MSME. This program has the potential to enhance product attractiveness, strengthen digital marketing performance, and provide customers with a more interactive and engaging shopping experience.

Method

This community service program employed a qualitative descriptive approach to describe the implementation process of a gamification-based Interactive Digital Catalog as a strategy for improving the competitiveness of Donat Duo Putri MSME. This approach was selected because it provides a comprehensive understanding of the partner's initial conditions, the implementation process, and the changes that occurred after the innovation was introduced. The program was conducted from May to June 2026 at Donat Duo Putri MSME, located in Pegambiran Ampalu Nan XX Village, Lubuk Begalung District, Padang City.

The participants consisted of the owner of Donat Duo Putri MSME as the primary partner and several customers as supporting respondents. The business owner served as the main source of information for identifying business problems, while customers provided feedback on the product innovation and the use of the gamification-based Interactive Digital Catalog.

Data were collected through observation, interviews, documentation, and literature review. Observations were conducted to identify the initial business conditions, including production processes, packaging, and marketing strategies. Face-to-face interviews with the business owner were carried out to obtain information regarding challenges in product development and digital marketing. Documentation was used as evidence of program implementation, while the literature review provided the theoretical foundation for digital marketing, gamification, product innovation, and MSME development.

The implementation of the program consisted of several interconnected stages. The first stage involved field observations and partner needs assessment to identify business conditions and determine priority issues. The second stage focused on developing solutions through Donut Bouquet product innovation and the creation of the Interactive Digital Catalog. The digital catalog was designed to provide comprehensive product information, facilitate product customization, and integrate ordering services through WhatsApp.

The third stage involved implementing gamification concepts within the digital catalog by incorporating Spin Discount, Reward Points, and Voucher Discount features. These features were designed to increase customer engagement while creating a more interactive shopping experience. After the system was completed, training and mentoring sessions were provided to the business owner on operating the digital catalog, managing the gamification features, and utilizing digital media for promotional activities.

The final stage involved program evaluation to assess implementation effectiveness. The evaluation compared business conditions before and after the program using several indicators, including the increase in the number of customer orders, customer interaction through the digital catalog, utilization of gamification features, and customer responses to the product innovation and digital services provided.

The collected data were analyzed using qualitative descriptive analysis through three stages: data reduction, data presentation, and conclusion drawing. Data reduction involved selecting information relevant to the objectives of the program, followed by systematic data presentation to facilitate interpretation. Finally, conclusions were drawn regarding the effectiveness of implementing the gamification-based Interactive Digital Catalog in improving digital marketing quality, enhancing customer engagement, and strengthening the competitiveness of Donat Duo Putri MSME.

Table 1. Profile of Donat Duo Putri MSME

No.	Description	Information
1	MSME Name	Donat Duo Putri
2	Business Owner	Asmafarita
3	Business Sector	Culinary (Donut Production)
4	Year Established	2020
5	Business Location	Pegambiran Ampalu Nan XX, Lubuk Begalung District, Padang City, Indonesia
6	Main Products	Donuts and Donut Bouquet
7	Production Capacity	Approximately 100–500 donuts per day (depending on customer orders)
8	Marketing Before Program	Direct selling, WhatsApp, Instagram, school canteens, and local markets
9	Main Problems	Conventional packaging, limited product innovation, and non-integrated digital marketing
10	Implemented Solution	Interactive Digital Catalog integrated with gamification and Donut Bouquet product innovation

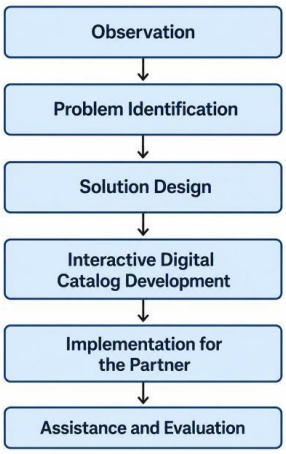
Source: Author's Work, 2026.

Result

Based on the results of observations and interviews, Donat Duo Putri MSME is a culinary business engaged in the production and marketing of various donut products. Prior to the implementation of the program, marketing activities were primarily conducted through conventional methods, including direct sales, WhatsApp, and social media. The products were packaged in simple packaging without a strong visual identity, limiting their ability to create added value and differentiate themselves from competing products. In addition, although the business had already utilized digital promotional media, these platforms had not been actively optimized to provide comprehensive product information or facilitate a practical ordering process. These conditions resulted in suboptimal promotional activities, limited communication of product variations to consumers, and a manual ordering process. Based on the partner needs assessment, an integrated innovation combining product development with digital marketing transformation was identified as necessary to enhance the competitiveness of the business.

The program implementation began with field observations to identify the partner's needs, followed by the design of product innovation and the development of digital marketing media. All implementation stages were carried out systematically, starting from problem identification, solution development, program implementation, and concluding with program evaluation. The overall workflow of the program is presented in Figure 1.

Figure 1. Program Implementation Workflow



Source: Author's Work, 2026.

Based on the initial observations, Donat Duo Putri products were packaged in simple packaging and were not yet supported by a digital catalog as a promotional medium. Product information was only available to customers through direct communication with the business owner. The initial condition of the business prior to program implementation is presented in Figure 2.

Figure 2. Initial Condition of Donat Duo Putri MSME Prior to Program Implementation



Source: Private Documentation, 2026.

As a solution to these challenges, the project team introduced a product innovation through the development of the Donut Bouquet. The product was arranged as a bouquet with enhanced aesthetic appeal, allowing it to be positioned not only as a food product but also as an alternative gift for various occasions, such as birthdays, graduations, and other celebrations. The resulting product innovation is presented in Figure 3.

Figure 3. Donut Bouquet Product After Innovation



Source: Private Documentation, 2026.

In addition to product innovation, an Interactive Digital Catalog was developed as a digital platform for product promotion and ordering. The catalog provides comprehensive product information, pricing, product variants, customization options, and is integrated with WhatsApp to facilitate a more convenient ordering process. The system is also equipped with gamification features, including Spin Discount, Reward Points, and Voucher Discount, to enhance customer engagement. The implemented Interactive Digital Catalog is presented in Figure 4.

Figure 4. Gamification-Based Interactive Digital Catalog



Source: Private Documentation, 2026.

The implementation results indicate that all program components were successfully carried out in accordance with the partner's needs. The implemented innovations included product development, digital marketing transformation, the integration of gamification features, and the enhancement of the partner's capacity to operate the developed system.

Table 1. Program Implementation Results

Program Stage	Implementation Outcome
Observation	Identification of the business conditions and partner needs
Product Innovation	Development of the Donut Bouquet with a more attractive and aesthetically appealing presentation
Interactive Digital Catalog Development	Development of an Interactive Digital Catalog providing comprehensive product information
Gamification Implementation	Integration of mini-games, discount vouchers, and a customer reward points system
Mentoring	The partner gained the ability to operate the Interactive Digital Catalog and utilize digital media as a promotional tool

Source: Author's Work, 2026.

The program evaluation demonstrated positive changes following the implementation. The number of customer orders increased by approximately 20% compared to the period before the program was implemented. In addition, customer interactions through WhatsApp and social media increased, as reflected by a higher number of inquiries, product consultations, and completed orders.

The development of the Donut Bouquet successfully enhanced the product's aesthetic value, making it more appealing to consumers. Furthermore, the Interactive Digital Catalog enabled customers to access product information more easily and complete the ordering process more efficiently. The implemented gamification features were actively utilized by customers as part of their digital shopping experience, contributing to higher customer engagement throughout the purchasing process.

Discussion

The implementation of the gamification-based Interactive Digital Catalog at Donat Duo Putri MSME demonstrates that integrating product innovation with digital marketing transformation can generate positive impacts on business development (Arista, 2024). The program not only improved the product's appearance through the development of the Donut Bouquet but also introduced a more modern, interactive, and accessible marketing system. The combination of these innovations created added value that had not previously existed, positioning the product not only as a snack but also as an aesthetically appealing gift suitable for various occasions.

The increase in customer orders following the program implementation indicates that product innovation and digital marketing can effectively stimulate consumer interest. The Donut Bouquet provides product differentiation compared with conventional donuts, while the Interactive Digital Catalog enables customers to access product information, explore design variations, select customized packages, and place orders directly through WhatsApp. These features simplify the purchasing process, improve transaction efficiency, and enhance customer convenience. (Djakasaputra, 2021; Habibie, 2024).

The implementation of gamification through the Spin Discount, Reward Points, and Voucher Discount features also enriched the customer shopping experience. These features encouraged customers to interact actively with the digital catalog before making a purchase. Providing rewards in the form of points and discounts motivated customers to make repeat purchases while strengthening customer loyalty. Therefore, gamification served not only as a promotional tool but also as a strategic approach to fostering long-term relationships between the MSME and its customers. (Hofacker, 2016).

These findings are consistent with those of (Xi, 2020), who reported that gamification enhances customer engagement through challenges, rewards, and incentive systems. The results also support the findings of (Al-Zyoud, 2021), which suggest that gamification strengthens customer loyalty by creating a more enjoyable shopping experience. Furthermore, the use of digital media as a promotional platform aligns with the findings of (Syukri, 2022) who concluded that digital marketing enables MSMEs to expand their market reach more efficiently than conventional marketing methods.

Moreover, the Donut Bouquet innovation demonstrates that product diversification can increase both economic value and market segmentation. A product that was previously positioned solely as a food item has evolved into an alternative gift for various occasions, including birthdays, graduations, and other celebrations. This finding reinforces the argument of (Arista, 2025) that product innovation is a key strategy for enhancing MSME competitiveness by creating added value that meets market demands.

The primary contribution of this program lies in integrating three innovation components—product diversification, the Interactive Digital Catalog, and gamification—into a single digital marketing system. Most previous studies have examined product innovation, digital marketing, or gamification independently. By combining these three components, this program provides a more comprehensive solution for MSMEs to improve competitiveness, expand market reach, and strengthen customer engagement.

Despite these positive outcomes, the program has several limitations. The implementation was conducted within a single MSME, and the evaluation period was relatively short, limiting the ability to assess the long-term effects on sales growth and customer loyalty. In addition, the gamification features were limited to Spin Discount, Reward Points, and Voucher Discount, leaving opportunities for future development, such as membership programs, level-based loyalty systems, and personalized promotions based on customer preferences.

Therefore, future development should focus on incorporating more interactive features while integrating digital payment systems, customer analytics, and Customer Relationship Management (CRM). These improvements are expected to enhance the effectiveness of digital marketing and strengthen the sustainability of digital transformation among MSMEs, ensuring that the program delivers not only short-term benefits but also supports sustainable business growth over the long term. (Rofiq, 2024; Loist, 2026).

Conclusion

The implementation of the gamification-based Interactive Digital Catalog at Donat Duo Putri MSME successfully enhanced both product quality and digital marketing strategies. Product innovation through the development of the Donut Bouquet added value by creating a more attractive and aesthetically appealing product that can be marketed as an alternative gift for various occasions. At the same time, the Interactive Digital Catalog enabled customers to access product information, customize their orders, and complete the ordering process more efficiently through its integration with WhatsApp.

The implementation of gamification features, including Spin Discount, Reward Points, and Voucher Discount, provided a more interactive shopping experience, thereby increasing customer engagement. The program also generated positive impacts on business development, as evidenced by an increase in customer orders, broader digital marketing reach, and stronger interactions between customers and the business owner.

The primary contribution of this program lies in integrating product innovation, digital marketing, and gamification into a single system that is practical and easily adopted by MSMEs. This approach demonstrates that digital transformation is not solely focused on technology adoption but also on creating a more engaging and value-added customer experience. Nevertheless, the program was implemented within a single MSME and evaluated over a relatively short period, limiting the comprehensive assessment of its long-term

effectiveness. Therefore, future research and community service programs are recommended to involve a larger number of MSMEs, extend the evaluation period, and develop more advanced digital features, such as digital payment systems, customer behavior analytics, membership programs, and Customer Relationship Management (CRM), to maximize the effectiveness and sustainability of the implementation. (Salsabilla, 2024; Wahyu Arista, 2024).

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