



Digital Business Development Strategy in Samalewa Business Recycled Iron Craftin Sumbawa Regency

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Abstract: In Sumbawa Regency, the creative industry is minimal (0.8% of MSMEs) amid abundant iron waste following the 2022 MXGP boosting tourism, prompting Samalewa Recycled Iron Craft—initiated by Sumbawa University of Technology students—to transform iron waste into unique crafts (wall hangings, miniatures) for a circular economy. This qualitative descriptive study aims to describe the business model, analyze digital marketing strategies, and formulate e-commerce-based development strategies; population comprises student teams and campus stakeholders with purposive sampling; instruments include internal-secondary document analysis, techniques employ Business Model Canvas (BMC) and SWOT. Results reveal an innovative BMC (affordable recycled materials, custom designs), marketing via social media-marketplaces-content; SWOT identifies low-cost strengths, limited capacity weaknesses, eco-trend opportunities, import threats. The study concludes with recommendations for e-commerce optimization, digital branding, and payment integration to enable national expansion.

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Introduction

Samalewa Recycled Iron Craft is a handicraft business based on recycled iron waste founded by students from the Sumbawa University of Technology in Sumbawa Regency, West Nusa Tenggara. This business produces unique products such as wall hangings, flower racks, photo booths, and miniatures with minimalist designs that utilize abundant local iron waste. This phenomenon reflects the circular economy trend, where industrial waste is transformed into high-value goods, in line with increasing environmental awareness among consumers. [Iqbal et al., 2025]

The 2022 Motocross World Championship (MXGP) in Sumbawa has significantly increased international and domestic tourist visits, creating momentum for the development of the local creative

industry. Sumbawa's MXGP Best Media Opportunity award strengthens the region's image as an international tourism destination, thus opening up market opportunities for unique souvenirs and crafts. [Sutanty et al., 2022] Furthermore, the abundance of iron waste around the campus provides a source of affordable raw materials, supporting sustainable production. [Wilujeng et al., 2025]

The main problem underlying this business is the lack of creative industries in Sumbawa Regency, only around 98 units or 0.8% of the total 12,648 MSME business units in 2019, with the processing of iron waste into crafts almost non-existent. [Sutanty et al., 2022] This hampers the contribution of the creative sector to tourism and the regional economy, even though MSMEs as a whole dominate the absorption of labor up to 37.82%. [Rokhmania et al., 2023] Dependence on imported products from outside the island for iron craft needs causes high selling prices due to expensive shipping costs, even though local iron raw materials are cheaper than wood. [Yudianto et al., 2024]

The Sumbawa community, which is mostly farmers with seasonal income, needs alternative sources of income, while students face limitations in entrepreneurship. [Prasojo & Lestari, 2025] Iron waste that disrupts the environment has not been optimally utilized for a circular economy, so that businesses like this have the potential to reduce waste and create jobs. [Utami et al., 2025] This problem is increasingly pressing post-MXGP, where tourism market opportunities have not been maximized by the local creative industry. [Vania & Fikriah, 2025]

This study aims to describe the business model of Samalewa Recycled Iron Craft, analyze appropriate digital marketing strategies, and formulate digital business development strategies based on e-commerce and social media. The urgency of the research lies in the potential of this business to improve student welfare, reduce iron waste, and support Sumbawa's creative economy, which has minimal contribution from MSMEs. [Chaffey & Ellis-Chadwick, 2019] The novelty of the research is the integration of SWOT analysis and Business Model Canvas with a focus on digitalization of recycled iron crafts, which has not been widely explored in the local context post-MXGP. [Laudon & Traver, 2020]

Research methods

Types and Methods of Research

This study uses a qualitative descriptive research type that aims to systematically, factually, and accurately describe the condition of the digital business development strategy phenomenon at Samalewa Recycled Iron Craft in Sumbawa Regency (Sugiyono, 2019). The qualitative approach was chosen because it focuses on an in-depth understanding of the business model, digital marketing strategy, and business opportunities and challenges, without relying on statistical measurements (Sugiyono, 2022). This method is suitable for mapping the real conditions of creative MSME-based businesses through document analysis and literature reviews, as applied to a similar study on the digitalization of craft MSMEs (Selvinia, 2025). [Sugiyono, 2022]

Data Analysis Instruments and Techniques

The main research instruments were document analysis and literature studies, including internal business documents such as proposals for the Student Entrepreneurship Development Program (P2MW), activity reports, financial records, and secondary sources such as journals, books, and government reports on the creative economy and digital marketing (Moleong, 2017). Data collection techniques also included online supporting data from social media content, marketplaces, and MSME digitalization trends to enrich the understanding of the creative iron recycling business model (Emzir, 2023). Data analysis was conducted through a SWOT analysis to identify internal and external factors (Rangkuti, 2016) and a Business Model Canvas (BMC) to map nine business elements such as customer segments, value propositions, and revenue streams (Osterwalder & Pigneur, 2010). [Sudaryono, 2021]

Population and Sample

The research was conducted in Sumbawa Regency, West Nusa Tenggara, specifically within the Sumbawa University of Technology, the business base for Samalewa Recycled Iron Craft. The population included the business implementation team, consisting of Sumbawa University of Technology students as planners, producers, and digital marketing managers, as well as supporting



stakeholders such as academic advisors, iron waste raw material suppliers, and potential customers. The sample was selected purposively, focusing on the core team and comprehensive perspectives from relevant stakeholders to capture the effectiveness of digital business strategies in the local MSME context (Creswell & Poth, 2021).

Research Procedures

The research procedure began with data collection through analysis of internal documents and secondary literature to understand the business profile and digital potential (Moleong, 2017). Next, the data was processed using source triangulation for validity, followed by the application of BMC to visualize the business model and SWOT analysis for development strategies (Rangkuti, 2016; Osterwalder & Pigneur, 2010). This process was iterative, involving data reduction, display, and drawing strategic conclusions, in accordance with descriptive qualitative procedures in MSME studies (Sugiyono, 2022). [Sudaryono, 2021]

Results and Discussion

Samalewa Recycled Iron Craft was founded by a group of students from Sumbawa University of Technology as a response to the widespread iron waste found in the surrounding area. The business operates in the creative industry, focusing on making various handicrafts from scrap metal, such as wall hangings, flower racks, photo booths, and miniatures. The idea for this venture arose from the limited number of creative industries in Sumbawa Regency, particularly those processing iron into handicrafts, which are virtually non-existent.

Furthermore, the growing demand for iron craft products and the high price of products shipped from outside the island are the main drivers behind the establishment of this business. The upcoming 2022 Motocross World Championship (MXGP) in Sumbawa also serves as a significant inspiration, as it opens significant opportunities for the development of local creative industries while simultaneously showcasing the region's potential internationally. With a spirit of innovation and environmental awareness, Samalewa Recycled Iron Craft aims to transform iron waste into works of art while simultaneously boosting Sumbawa's economy and tourism.

Business Canvas Model (BMC) Samalewa Recycled Iron Craft.

Business Model Canvas		Designed for:	Designed by:	Date:	Version:
Key Partners	Key Activities	Samalewa Recycled Iron Craft	Yopan Cahyadi Putra	10 Maret 2023	
CV Sumber Mas (Toko Besi)	<ul style="list-style-type: none"> Promosi secara online (Instagram, facebook & WhatsApp story dan group) Pembuatan contoh produk Produksi produk dalam skala menengah Penjualan dilakukan secara online dan offline dan distribusi ke reseller. Memberikan pelayanan yang ramah bagi pelanggan yang order sesuai desain dari konsumen. Serta menerima kritik dan saran dari pengguna. 	<ul style="list-style-type: none"> Menggunakan bahan dengan kualitas yang bagus. Harga relatif murah Banyak pilihan model Produk dapat menyesuaikan dengan selera konsumen Terdapat model knock down Menyajikan motif khas Sumbawa (Souvenir) 	<ul style="list-style-type: none"> Pelayanan yang baik Memberi diskon-diskon dan promo-promo menarik Model yang selalu update Menerima masukan, kritik dan saran dari pelanggan 	<ul style="list-style-type: none"> Cafe Kantor Pemerintah Kantor-kantor Swasta Universitas kampus Market place daerah/kota Car-free Day Toko Perabot Agung Event budaya Barapan Kerbau Event MXGP Pemilik Toko (kebutuhan rumah) 	
Key Resources	<ul style="list-style-type: none"> Bahan baku besi kotek, besi bekas Peralatan pembuatan Quality control Kemasan (souvenir) 		<ul style="list-style-type: none"> Media social (Instagram, facebook dan WhatsApp) Indirect (Marketplace penitipan produk di toko retail dan reseller) Direct (penjualan langsung di kedai dan berbagai event) Shopee 		
Cost Structure	<ul style="list-style-type: none"> Fixed cost (Sewa lapak dan listrik) Variable cost (bahan baku) Biaya lain (Proses pengolahan produk, promosi, foto produk) 	Revenue Streams	Hasil penjualan produk		

Figure 1: Image of the BMC of the Samalewa Recycle Iron Craft business.

Implementing a digital marketing strategy is key to expanding Samalewa Recycled Iron Craft's market reach. This strategy focuses on leveraging social media, marketplaces, and content marketing to build brand awareness and increase sales.

1. Social Media Marketing: Social media platforms such as Instagram, Facebook, and TikTok are used as primary platforms to build interactive relationships with consumers. The uploaded content focuses on product visuals, the recycled metal crafting process, and the environmental values promoted. Through this approach, consumers can experience the uniqueness and authenticity of the products offered (Chaffey & Ellis-Chadwick, 2019). Furthermore, the Instagram Shop and TikTok Shop features can be utilized as direct selling channels, accelerating



the purchasing process. Activities such as live streaming and collaborations with local influencers also increase audience reach.

2. *Marketplace Optimization*National marketplaces like Shopee and Tokopedia are effective platforms for expanding markets beyond Sumbawa. Digital store management focuses on optimizing product descriptions, ensuring high-quality photos, and ensuring customer reviews. Implementing search engine optimization (SEO) strategies in product descriptions helps increase visibility in marketplace search results (Laudon & Traver, 2020).
3. *Content Marketing*Content is a crucial element in attracting consumer interest and strengthening brand image. Samalewa Recycled Iron Craft can create short videos about the production process, recycling philosophy, and local cultural values inherent in its product designs. According to Kotler and Keller (2016), informative and emotional content marketing can increase customer trust and encourage long-term loyalty. By combining these three elements, Samalewa Recycled Iron Craft's digital strategy focuses not only on promotion but also on building a loyal customer community that cares about environmental sustainability.

SWOT analysis is used to map the strengths, weaknesses, opportunities and threats faced by Samalewa Recycled Iron Craft in developing a digital business (Rangkuti, 2016).

1. *Strengths(Strength):*
 - a. Unique products based on recycled iron that are environmentally friendly.
 - b. Product design can be customized.
 - c. Production costs are relatively low because the raw materials come from iron waste.
 - d. The management team has a high entrepreneurial and innovative spirit.
2. *Weaknesses(Weakness):*
 - a. Production capacity is still limited.
 - b. Lack of experience in professional digital marketing.
 - c. Reliance on manual equipment slows down the production process.
3. *Opportunities(Opportunity):*
 - a. Consumer trends towards environmentally friendly products are increasing.
 - b. Government support for the creative economy and digital MSMEs.
 - c. Opportunities for collaboration with tourism events such as MXGP and local art exhibitions.
 - d. National market potential through e-commerce and social media.
4. *Threats(Threat):*
 - a. Competition with mass-produced and imported products at lower prices.
 - b. Fluctuations in the prices of metal raw materials.
 - c. Changes in social media algorithms can reduce the reach of digital promotions.

Based on the results of the SWOT analysis, business development strategies can be directed at utilizing internal strengths to capture external opportunities, while minimizing weaknesses and threats.

Recommended Strategy: E-Commerce Optimization, Digital Branding, Digital Payment System.

1. *E-Commerce Optimization*Samalewa Recycled Iron Craft needs to optimize its marketplace usage by ensuring professional store management, including product catalog updates, rapid customer response, and the use of promotional features (vouchers, flash sales, and ads). It is also recommended to develop a standalone e-commerce website as the primary information and sales hub to avoid relying on third parties (Laudon & Traver, 2020).
2. *Digital Branding:* Digital branding focuses on creating a strong and sustainable brand identity. The key values emphasized are creativity, environmental sustainability, and Sumbawa's local wisdom. According to Kotler and Keller (2016), effective digital branding is built through consistent visual messaging, brand storytelling, and authentic interactions with customers on social media. Branding strategies can be strengthened by using a distinctive logo, a consistent visual style, and publishing inspiring stories behind each product.
3. *Digital Payment System*To support digital transactions, the integration of electronic payment systems such as QRIS, GoPay, OVO, and automatic bank transfers needs to be implemented.



Digital payment systems not only improve customer convenience but also accelerate cash flow and business financial records (Bank Indonesia, 2023). Implementing digital payment systems also enables integration with marketplaces and social media, allowing consumers to transact easily and securely online.

Conclusion

This study found that Samalewa Recycled Iron Craft has an innovative business model based on the Business Model Canvas that utilizes recycled iron waste for unique craft products such as wall hangings and miniatures, supported by digital marketing strategies through social media, marketplaces, and content marketing (Osterwalder & Pigneur, 2010; Chaffey & Ellis-Chadwick, 2019). A SWOT analysis revealed strengths such as low production costs and customized designs, despite being limited by manual production capacity, with opportunities from the post-MXGP eco-friendly trend and the threat of import competition (Rangkuti, 2016). Strategic recommendations include optimizing e-commerce, digital branding, and integrating digital payments to expand the national market and support Sumbawa's creative economy (Laudon & Traver, 2020). Practical implications include improving the welfare of students and farming communities through new jobs and reducing iron waste.

However, the study's limitations lie in its descriptive qualitative approach based on document analysis without in-depth interviews or quantitative sales data, making the results exploratory and lacking empirical evidence for the strategy's effectiveness (Sugiyono, 2019). For further research, it is recommended to adopt mixed methods with customer surveys and digital metrics performance analysis to validate the strategy, as well as to compare it with similar MSMEs in NTB for broader generalization. Practical implications for business actors include direct guidance for scalability, while for local governments, it can serve as a reference for student entrepreneurship incubation policies in the circular economy sector.

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