

## Optimizing Digital Marketing to Increase the Competitiveness of Small and Medium Enterprises

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### Abstract

This study aims to optimize digital marketing strategies to enhance the competitiveness of Small and Medium Enterprises (SMEs) in Balai Kaliki Tourism Village, Payakumbuh City, West Sumatra. The research is grounded in the crucial role of SMEs in driving local economic development while facing challenges related to limited digital literacy and market access. The study employed Participatory Action Research (PAR), engaging 10 SMEs as both research participants and co-researchers through the stages of problem identification, planning, action, and reflection. The findings indicate that the implementation of social media-based digital marketing, branding, and e-commerce integration significantly improved SMEs' online visibility, customer engagement, and sales performance, with average sales growth exceeding 40%. Furthermore, SME owners' confidence and practical skills in managing digital marketing activities increased substantially, from an average of 25–30% before the intervention to over 85% afterwards. The contribution of this study to the field of education lies in strengthening participatory and practice-based learning models, which not only transfer knowledge but also build sustainable digital entrepreneurship capacity. These results highlight the importance of collaborative approaches in entrepreneurship education to reinforce SME competitiveness in the digital transformation era.

**Keyword:** Digital Marketing, Competitiveness, SMEs, Participatory Action Research, Entrepreneurship Education.

### INTRODUCTION

Small and Medium Enterprises (SMEs) have long been acknowledged as the backbone of both national and regional economies [1]. Their role is critical not only in creating employment opportunities but also in driving local innovation and sustaining community-based economic growth. In many developing regions, SMEs account for the majority of business activities and significantly contribute to poverty reduction and inclusive development [2], [3]. Despite this potential, SMEs continue to encounter structural barriers in maintaining competitiveness, particularly when compared to larger enterprises that are more resource-abundant and technologically advanced [4].

The rapid advancement of digital technologies has transformed the business landscape, compelling SMEs to adapt to shifting marketing practices that increasingly emphasize online platforms [5], [6], [7]. Digital marketing has emerged as an indispensable tool for SMEs to enhance visibility, expand market reach, and establish stronger customer relationships [8]. Activities such as social media marketing, content development, search engine optimization (SEO), email campaigns, and e-commerce integration enable SMEs to reach broader audiences at relatively lower costs compared to traditional methods [9]. However, many SMEs—especially those located in rural or tourism-based areas—struggle with limited digital literacy, inadequate resources, and insufficient strategic guidance, resulting in underutilization of digital opportunities.

In addressing these challenges, there is a pressing need for approaches that not only transfer technical knowledge but also engage SMEs actively in the process of designing and implementing solutions. This study adopts Participatory Action Research (PAR) as its methodological foundation, emphasizing collaboration between researchers and SME owners in problem identification, planning, action, and reflection [10]. Unlike conventional top-down interventions, PAR positions SMEs as co-researchers, thereby

fostering ownership, strengthening local capacity, and ensuring that developed strategies are contextually relevant [11], [12].

Accordingly, the purpose of this study is to optimize digital marketing strategies through a participatory and context-sensitive approach. By doing so, the research aims to empower SMEs with practical competencies, improve their competitiveness in the digital economy, and contribute to the broader discourse on sustainable SME development in the era of digital transformation.

## METHOD

### Research Context and Participants

The study involved 10 Small Industries (IKM) located in Desa Wisata Balai Kaliki, Kota Payakumbuh, West Sumatra. These SMEs represent diverse product categories and play an important role in supporting the local creative economy and tourism sector. Participant selection was based on three criteria: (1) active business operations in the local tourism village, (2) willingness to engage in digital marketing interventions, and (3) commitment to participate throughout the PAR cycle.

**Table 1. Characteristics of Small and Medium Enterprises (SMEs)**

Code	Type of Business	Main Product	Workers	Years in Operation
SME 1	Food & Beverage	Traditional snacks (karupuk, rendang chips)	5	3
SME 2	Handicraft	Woven bamboo souvenirs	4	5
SME 3	Culinary	Local coffee and café products	6	8
SME 4	Fashion	Traditional Minangkabau clothing	3	4
SME 5	Handicraft	Songket weaving	4	6
SME 6	Food & Beverage	Rendang and preserved foods	7	10
SME 7	Creative Arts	Handmade accessories	2	3
SME 8	Handicraft	Wood carving and furniture	5	3
SME 9	Food & Beverage	Processed cassava products	4	5
SME 10	Souvenirs	Keychains, t-shirts, local merchandise	3	2

### Research Procedure

The Participatory Action Research (PAR) cycle consisted of four main stages, each of which was systematically carried out to ensure the involvement of SMEs, the implementation of relevant strategies, and the evaluation of their effectiveness [13], [14]:

#### 1. Problem Identification

Through focus group discussions and semi-structured interviews, SMEs expressed several key challenges: limited online visibility, low digital marketing skills, and underutilization of e-commerce platforms. Figure 1 illustrates the Participatory Action Research (PAR) cycle applied in this study. The cycle consists of four stages: problem identification, planning, action (implementation), and reflection. This framework highlights the active collaboration between researchers and SMEs to ensure that digital marketing strategies are contextually relevant and sustainable.

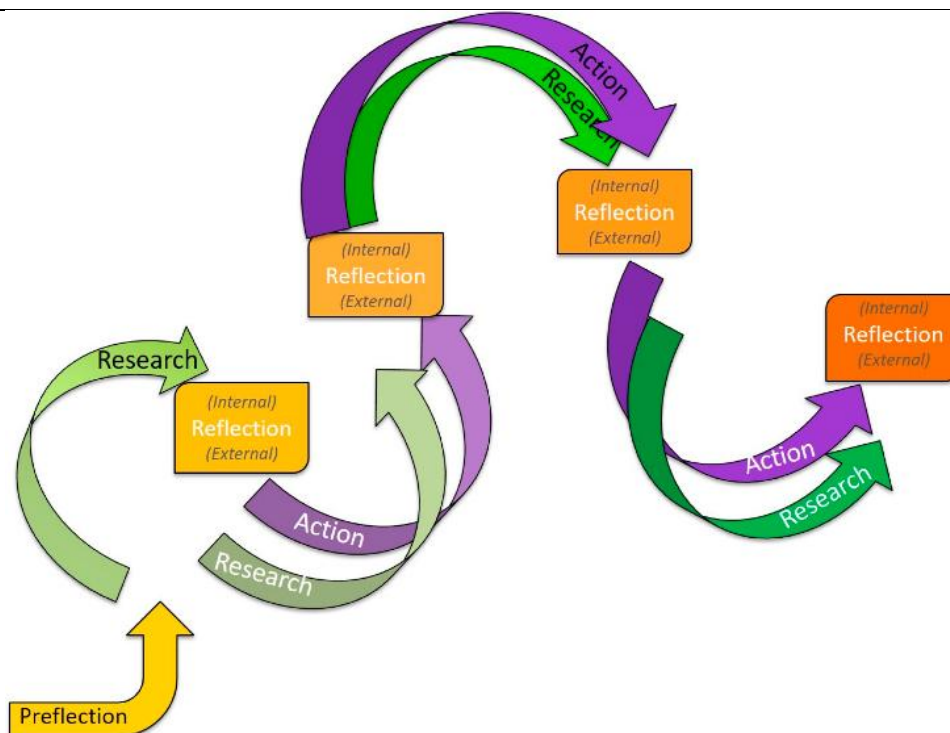


Figure 1. Participatory Action Research (PAR) Cycle

2. Planning

Researchers and SME owners collaboratively designed a digital marketing optimization plan. The plan included strategies such as social media content management, search engine optimization (SEO) training, branding enhancement, and guidance for integrating with e-commerce marketplaces.

3. Action (Implementation)

Interventions were carried out by creating professional social media profiles, producing engaging digital content, applying SEO techniques, and onboarding SMEs to relevant e-commerce platforms. Training sessions and mentoring were conducted to ensure active SME participation.



Figure 2. Training session with SMEs in Desa Wisata Balai Kaliki.

4. Reflection and Evaluation

Progress was evaluated using a combination of quantitative and qualitative measures, including website analytics, social media engagement metrics, sales performance, and participant feedback.

Reflection sessions were held to discuss outcomes, challenges, and necessary adjustments for future activities.

### Rationale for Using PAR

The Participatory Action Research (PAR) method was chosen because it empowers SMEs as active partners rather than passive research subjects. This participatory design fosters ownership, strengthens local capacity, and ensures that the strategies developed are adaptable to the SMEs' specific contexts. Unlike conventional top-down approaches, PAR emphasizes collaboration, joint problem-solving, and continuous reflection. This allows SMEs not only to adopt new digital marketing strategies but also to understand the reasoning behind them, thereby enhancing long-term sustainability.

Furthermore, PAR is particularly relevant in the context of SMEs in rural tourism villages, where local wisdom, cultural identity, and resource limitations must be considered in designing interventions. Through iterative cycles of planning, action, and reflection, SMEs are directly involved in customizing digital marketing tools—such as branding, social media optimization, and e-commerce integration—to align with their unique business characteristics. This process increases the relevance and applicability of interventions while simultaneously building the confidence and skills of SME owners.

In addition, PAR strengthens social capital by encouraging collaboration among SMEs, researchers, and community stakeholders. This collaborative spirit contributes to the development of collective learning, peer-to-peer support, and shared responsibility for success. By embedding learning within practice, PAR helps ensure that digital marketing optimization is not merely an external intervention but becomes an integral part of the SMEs' ongoing business development strategies.

## RESULTS AND DISCUSSION

The implementation of social media marketing strategies through Participatory Action Research (PAR) generated notable outcomes among the 10 SME partners:

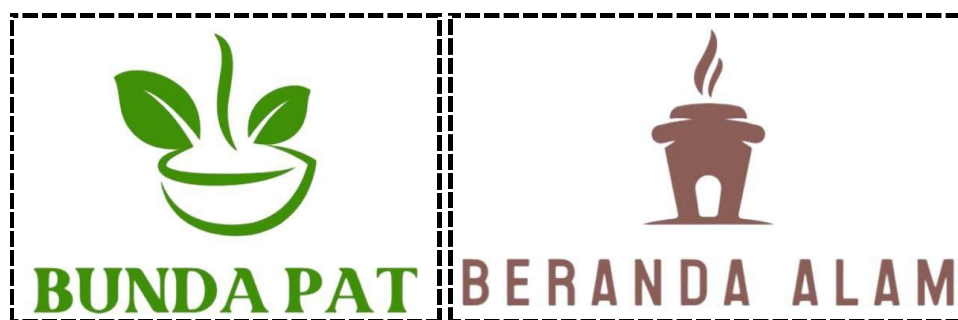
### Increased Online Visibility

The implementation of social media strategies significantly improved the online visibility of participating SMEs. All ten SMEs experienced notable growth in both followers and post reach. On average, follower numbers increased by more than 50%, while post reach rose by approximately 60%. For example, SME 1 gained 666 new followers, representing a 55% increase, while SME 7 achieved the highest follower growth at nearly 60%. In terms of reach, SMEs such as SME 6 and SME 2 recorded improvements close to 70%, reflecting the effectiveness of consistent content creation and optimized profile management. These results demonstrate that structured digital marketing interventions—particularly regular posting schedules, engaging content, and improved branding—can substantially expand the digital footprint of SMEs, thereby strengthening their potential to attract new customers.

**Table 2. Growth of Followers and Post Reach Before and After Digital Marketing Intervention**

SME	Followers Before	Followers After	Follower Growth (%)	Post Reach Before	Post Reach After	Reach Growth (%)
SME 1	1202	1868	55.4	8396	13590	61.9
SME 2	1370	2045	49.3	8123	13775	69.6
SME 3	1206	1789	48.3	7871	12890	63.8
SME 4	1171	1794	53.2	8687	13568	56.2
SME 5	1288	2006	55.7	7130	11619	63.0
SME 6	1120	1695	51.3	8685	14743	69.8
SME 7	1202	1919	59.7	8332	13218	58.6
SME 8	1221	1895	55.2	7769	12314	58.5
SME 9	1314	2000	52.2	7343	12162	65.6
SME 10	1187	1790	50.8	8515	14103	65.6

Figure 3 presents the results of branding logo design developed for participating SMEs. Branding served as a crucial element in strengthening the identity and visibility of SME products, helping businesses to establish a stronger market presence and attract new customers.



**Figure 3. Results of SME Branding Logo Design**

### Improved Customer Engagement

Digital marketing interventions also led to a significant increase in customer engagement. As shown in Table 2, engagement rates across SMEs nearly doubled, rising from an average of around 3–4% before the program to 6–7% afterwards. This reflects the positive impact of more consistent posting, relevant content, and active interaction with audiences. In addition to higher engagement rates, several SMEs reported an increase in repeat customers. For instance, SME 1 gained 29 additional repeat customers, while SME 3 and SME 7 each recorded increases of 20 and 15 customers respectively. However, some SMEs, such as SME 2, SME 5, and SME 6, showed no change in repeat customers despite higher engagement levels. These mixed results suggest that while digital engagement is effective in capturing attention, converting engagement into long-term customer loyalty may require complementary strategies such as personalized offers, loyalty programs, or enhanced customer service.

**Table 3. Changes in Engagement Rate and Repeat Customers Before and After Intervention**

SME	Engagement Rate		Repeat Customers		
	Before (%)	After (%)	Before	After	Change
SME 1	3.1	6	75	104	29
SME 2	3	5.9	75	75	0
SME 3	3.9	7	62	82	20
SME 4	3.9	6.5	75	89	14
SME 5	3.7	6.9	62	62	0
SME 6	3.6	6.6	50	50	0
SME 7	4	7.1	61	76	15
SME 8	3.9	7	57	68	11
SME 9	3.1	6.3	46	60	14
SME 10	3	6.2	71	71	0

Figure 4 displays examples of digital marketing materials designed by SMEs, including promotional posters and product advertisements. These materials reflect the SMEs' ability to create engaging content that supports customer engagement and sales through digital platforms.



Figure 4. Marketing Materials Designed by the SMEs

### Sales Growth through Social Media Channels

The digital marketing interventions had a positive impact on SME sales performance through social media platforms. As presented in Table 3, most SMEs recorded notable increases in both the number of transactions and sales value. On average, sales grew by more than 40%, reflecting the strong influence of enhanced digital presence on purchasing behavior. For example, SME 7 experienced a 50% increase in transactions and a 46% rise in sales value, while SME 4 and SME 10 also recorded sales growth exceeding 40%. These results highlight the effectiveness of social media channels in driving direct revenue.

However, not all SMEs achieved significant improvement. SMEs such as SME 3, SME 5, and SME 9 showed little to no growth in sales, despite higher visibility and engagement. This suggests that sales performance is influenced not only by digital marketing efforts but also by product-market fit, pricing strategy, and customer readiness to purchase online. Overall, the findings confirm that digital marketing strategies, particularly when combined with social media engagement, can serve as a powerful driver of sales growth, although complementary business strategies remain essential for consistent results.

Table 4. Transactions and Sales Value Growth Through Social Media Channels

SME	Transactions			Sales		
	Before	After	Growth (%)	Before (IDR Mio)	After (IDR Mio)	Growth (%)
SME 1	22	31	40.90%	5.5	7.81	42.00%
SME 2	28	39	39.30%	2.8	3.89	39.10%
SME 3	35	35	0.00%	2.9	2.95	1.70%
SME 4	19	29	52.60%	3.5	5.05	44.30%
SME 5	25	25	0.00%	2.1	2.15	2.40%
SME 6	21	28	33.30%	2.7	3.76	39.10%
SME 7	30	45	50.00%	6.3	9.2	46.00%
SME 8	27	36	33.30%	3.1	4.31	39.00%
SME 9	18	18	0.00%	6.8	6.96	2.40%
SME 10	24	35	45.80%	1.8	2.56	42.20%

### Capacity Building

The digital marketing program significantly enhanced the confidence and skills of SME owners in managing online business activities. As shown in Table 4, self-reported confidence levels increased substantially, rising from an average of 25–30% before the intervention to more than 85% afterwards. This improvement illustrates the empowering effect of hands-on training and participatory learning. In addition to greater confidence, SME owners acquired diverse digital marketing skills tailored to their business needs. The most frequently developed competencies included content creation, branding, scheduling and posting strategies, analytics evaluation, and storytelling. For instance, SME 1 and SME 7 reported mastering content creation, while SMEs 3 and 9 focused more on analytics and performance tracking.

These capacity-building outcomes demonstrate that digital marketing initiatives not only provide short-term performance improvements but also strengthen long-term sustainability. By equipping SMEs with practical skills and confidence, the interventions ensure that business owners are capable of independently continuing and expanding their digital marketing practices in the future.

**Table 5. Improvement in Confidence Level and Skills Acquired by SME Owners**

SME	Confidence Before (%)	Confidence After (%)	Skills Acquired (Main Focus)
SME 1	20	90	Content Creation
SME 2	40	100	Scheduling & Posting Strategy
SME 3	30	80	Analytics Evaluation
SME 4	20	90	Content Creation & Branding
SME 5	40	100	Scheduling
SME 6	30	85	Analytics & Performance Tracking
SME 7	20	95	Content Creation
SME 8	40	100	Scheduling & Campaign Planning
SME 9	30	85	Analytics Evaluation
SME 10	20	90	Content Creation & Storytelling

These findings align with previous studies highlighting the vital role of digital marketing in strengthening SME competitiveness. By leveraging social media platforms, branding strategies, and e-commerce integration, SMEs were able to significantly increase their visibility and reach wider audiences. Compared to traditional marketing, digital approaches offered more cost-effective and measurable promotional tools. The results from this study confirm that when SMEs are supported with structured interventions, they can quickly adapt to shifting consumer behaviors and market trends [7], [15], [16], [17]. The application of Participatory Action Research (PAR) was particularly effective in this context. Unlike conventional training models, PAR positioned SMEs not as passive recipients but as active partners in problem identification, planning, implementation, and evaluation. This collaborative approach ensured that the digital marketing strategies developed were tailored to the unique conditions of each SME, thus fostering ownership and long-term sustainability. Reflection sessions also provided space for SMEs to evaluate outcomes and make necessary adjustments, further strengthening the relevance of the interventions [18], [19].

Another key outcome of this study is the improvement in customer engagement and sales performance. The growth in followers, engagement rates, and repeat customers demonstrates that digital marketing can foster stronger connections between SMEs and their audiences. However, the mixed results in sales growth also underline that visibility and engagement alone may not guarantee immediate revenue increases. Product-market fit, pricing strategies, and customer readiness to purchase online remain critical factors that influence the conversion of digital engagement into tangible sales outcomes [20], [21], [22]. The capacity-building element of this program also contributes to the sustainability of SME digitalization. By developing practical skills in areas such as content creation, analytics evaluation, and branding, SME owners gained the confidence to continue managing their digital presence independently. This aligns with earlier findings that digital empowerment is not only about increasing short-term sales but also about equipping entrepreneurs with long-term competencies for growth in an increasingly digital economy [23], [24].

Overall, this study contributes to the growing body of literature emphasizing the role of digital marketing as a transformative tool for SMEs. It demonstrates that with participatory approaches such as PAR, SMEs can go beyond superficial adoption of digital tools and instead integrate them meaningfully into their business models. These insights suggest that future programs should combine digital marketing interventions with broader business development strategies, including product innovation and customer relationship management, to ensure comprehensive and sustainable competitiveness.

## CONCLUSION

This study demonstrates that the application of Participatory Action Research (PAR) in optimizing digital marketing strategies has a significant impact on enhancing the competitiveness of Small and Medium Enterprises (SMEs) in Desa Wisata Balai Kaliki. The findings reveal three main contributions. First, the implementation of structured social media strategies and branding initiatives successfully improved SMEs' online visibility, customer engagement, and market reach. Second, the interventions contributed to measurable business outcomes, including increased transactions and sales value, although the degree of improvement varied depending on product-market fit and customer readiness for online purchasing. Third, the program fostered capacity building by equipping SME owners with practical digital marketing skills, which enhanced their confidence and ability to sustain digital initiatives independently.

The use of PAR was particularly effective in positioning SMEs as active co-researchers, ensuring that strategies were tailored to local contexts and directly aligned with their business needs [25], [26]. Reflection sessions further strengthened this process by allowing SMEs to evaluate outcomes and make necessary adjustments collaboratively. These results highlight that participatory approaches can create both immediate performance improvements and long-term sustainability for SMEs in the digital economy.

In conclusion, digital marketing, when combined with participatory methodologies such as PAR, offers a transformative pathway for SMEs to expand their market presence, build stronger customer relationships, and sustain growth in the competitive digital landscape. Future initiatives should integrate digital marketing interventions with broader business development strategies—such as product innovation, pricing, and customer relationship management—to ensure comprehensive and resilient SME competitiveness.

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