

Development of Human Resource Competencies Through Digital Marketing Training for Micro, Small, and Medium Enterprises in Majasari District, Pandeglang Regency

Urika^{a,1,*}, Lona Noviani^{b,2}

^{a,1}Universitas Banten Jaya, Kota Serang, Banten Indonesia; ^{a,2}Universitas Banten Jaya, Kota Serang, Banten Indonesia

¹urika@unbaja.ac.id*; ²lona@unbaja.ac.id

* corresponding author

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ABSTRACT

The aim of this study is to evaluate the level of understanding of digital marketing concepts and practices, identify challenges and obstacles in implementing digital marketing, assess the effectiveness of digital marketing training in enhancing human resource knowledge and skills, and evaluate the impact of digital marketing training on business performance and strategies to optimize its use. This research employs a mixed-method approach. The subjects of the study are micro, small, and medium enterprises (MSMEs) in Majasari District, Pandeglang Regency, with a sample size of 38 individuals. The findings indicate an improvement in the understanding of digital marketing concepts and practices among MSME operators after undergoing training. Challenges encountered include limitations in smartphone ownership, regional accessibility, packaging knowledge, and online selling experience. Digital marketing training has proven effective in enhancing the knowledge and skills of MSME human resources through strategies such as increasing training frequency, providing hands-on practice in creating social media and marketplaces for digital product marketing, and developing product logos for branding to compete in the online sales market.

1. Introduction

The rapid advancement of technology has shifted our focus to the digital economy as a key foundation for achieving inclusive and sustainable economic growth (1). The progress in the digital economy heavily depends on the availability of human resources with competitive skills, as this growth will drive the demand for skilled labor in the field. However, in Indonesia, the number of digital talents remains limited (2). The transition to a digital economy also opens up numerous opportunities for business innovation, and Indonesia has significant potential for success in this era due to its abundant human resources and relatively stable economic growth (3).

The digital economy holds great potential to become a major driver of economic growth, both nationally and locally (4). In today's digital age, leveraging information technology and the internet is crucial for business development (5). Micro, Small, and Medium Enterprises (MSMEs) are a strategic sector for a country's economic growth (6). However, many MSMEs are still not fully aware of the potential and benefits of digital technology, especially in marketing (7).

Digital marketing training can be an effective solution to enhance human resource competencies in the MSME sector (8). Digital marketing involves using various digital platforms such as social media, websites, and online marketing tools to promote products or services, expand business visibility, and reach a wider audience (9). However, many MSME operators are still unfamiliar with the strategies and tools required for digital marketing (10).

Previous research has identified the needs and challenges faced by MSME operators in adopting and implementing digital marketing (11). Some studies have evaluated the effectiveness of digital marketing training in improving knowledge, skills, and performance among MSMEs (12). Research has also analyzed factors influencing the success of digital marketing for MSMEs, focusing on the use of social media and influencer marketing strategies, as well as the role of influencers in shaping consumer behavior and its impact on marketing success (13).

New technologies such as Augmented Reality (AR) and Virtual Reality (VR) (14) in digital marketing for MSMEs are also an intriguing area of research (15). Recent studies aim to explore the potential and effectiveness of these technologies in enhancing consumer interaction and experience (16). Innovations in developing human resource competencies through digital marketing training for MSMEs focus on implementing innovative solutions to help MSMEs tackle digital marketing challenges, leverage the latest technologies, and improve overall business performance.

2. The Proposed Method

Based on the background, the research questions addressed in this study are: 1) What is the level of understanding and mastery of MSME operators regarding digital marketing concepts and practices? 2) What are the challenges and obstacles faced by MSME operators in implementing digital marketing? 3) How effective is digital marketing training in improving the knowledge and skills of MSME human resources? 4) How does digital marketing training impact MSME performance? and 5) What strategies can be applied to optimize the use of digital marketing by MSME operators?

3. Method

The subjects of this study are MSME operators in Majasari District, Pandeglang. The research sample consists of 38 individuals selected using snowball sampling (17). This research employs a mixed-method approach, which combines quantitative and qualitative data collection, integrating both forms of data with different designs, including philosophical assumptions and theoretical frameworks (18). By utilizing both qualitative and quantitative research methods, the study aims to gain a deeper understanding of developing human resource competencies through digital marketing training for MSMEs (17). The indicators set in this study include:

a) Improvement in Digital Marketing Knowledge

This measures the extent to which training participants improve their knowledge of digital marketing concepts, strategies, and tools relevant to MSMEs. This indicator is assessed through knowledge tests administered before and after the training.

b) Enhancement of Practical Skills

This evaluates how well participants develop practical skills in applying digital marketing strategies for MSMEs. Practical skills indicators include the use of social media platforms, search engine optimization (SEO), digital ad campaign management, and digital data analysis.

c) Changes in Behavior and Business Practices

This observes changes in participants' behavior and business practices after undergoing digital marketing training. Indicators may include increased use of social media for marketing, expanded market reach through digital platforms, enhanced customer interaction via online channels, or improved sales conversion through digital marketing.

d) Improvement in Business Performance

This measures the impact of digital marketing training on MSME business performance, including increased revenue, profitability, market share, customer numbers, or brand awareness and business image.

e) Participant Satisfaction with Training

This evaluates the level of satisfaction among participants with the digital marketing training program, measuring aspects such as the quality of training materials, teaching methods, clarity of information provided, and the overall usefulness of the training.

4. Results and Discussion

4.1. Data Description

4.1.1 Digital Marketing Knowledge

The research findings indicate that most MSME operators in Majasari District, Pandeglang Regency, have heard of the term digital marketing (71%) and have experience with online selling (39.5%). However, the number of MSME operators engaging in online sales is lower compared to those who sell offline (44.7%). Most of them prefer to offer products directly to consumers as a sales strategy (50%). Among those who sell online, using social media platforms such as Facebook, Instagram, TikTok, and others is the primary strategy for promoting their products (76.3%).

4.1.2 Practical Skills

Most MSME operators in Majasari District, Pandeglang Regency, possess good skills in using the internet (52.6%). Almost all of them have social media accounts (84.2%), with WhatsApp being the most frequently used platform for selling (76.3%). Shopee is the most commonly used marketplace for online shopping (52.6%). This indicates that many MSME operators in Majasari are familiar with how to sell online on social media (50%), but still lack understanding of strategies to enhance online sales (44.7%). Most use social media as a promotional tool to introduce their products (92.1%). However, most have never collaborated with marketplaces (81.6%) and do not have online stores on social media (73.7%).

4.1.3 Behavioral and Business Practice Changes

After participating in digital marketing training, the majority of MSME operators in Majasari District showed interest in conducting online sales (94.7%) and using digital platforms to boost sales (100%). All respondents believe that interacting with customers is crucial for online sales (100%), thus they are willing to switch to digital platforms as a sales medium (100%).

4.1.4 Business Performance Improvement

After undergoing digital marketing training, most MSME operators in Majasari District reported improvements in their businesses (94.8%) and profits from online sales (100%). They noted an increase in the number of customers since shifting to online sales (94.7%) and rapid market share development (100%). They also acknowledged that customers have started to prefer products sold online (100%).

4.1.5 Participant Satisfaction with Training

After the digital marketing training, all MSME operators in Majasari District felt they benefited from the training (100%). They rated that the trainers used appropriate teaching methods (100%), provided clear information (100%), and delivered quality training materials

4.2. Data Analysis

4.2.1 Normality Test

Table 1. Normality Test

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Pre-Test	.077	38	.200*	.971	38	.427
Post-Test	.148	38	.135	.949	38	.080
*. This is a lower bound of the true significance.						
a. Lilliefors Significance Correction						

Table 1 shows that the data from pre-test and post-test are normally distributed, as evidenced by significance values in the Kolmogorov-Smirnov and Shapiro-Wilk tests being greater than 0.05. The Kolmogorov-Smirnov significance value for the pre-test is 0.200 and for the post-test is 0.135. The Shapiro-Wilk significance value for the pre-test is 0.427 and for the post-test is 0.080. Therefore, the normality assumption for using difference tests has been met.

4.2.2 Difference Test

Table 2. Difference Test Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre-Test	31.50	38	5.436	.882
	Post-Test	55.76	38	4.389	.712

Table 2 shows that the mean value for the pre-test is 31.50, while the mean value for the post-test is 55.76. This descriptively indicates a difference in average competencies between the pre-test and post-test.

Table 3. Correlation Difference Test

		N	Correlation	Sig.
Pair 1	Pre-Test & Post Test	38	.146	.383

Table 3 shows the correlation test results between pre-test and post-test data, with a correlation coefficient of 0.146 and a significance value of 0.383. Since the significance value of 0.383 is greater than 0.05, it can be concluded that there is no significant relationship between the pre-test and post-test.

Table 4. Difference Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre-Test, Post-Test	-24.263	6.471	1.050	-26.390	-22.136	-23.113	37	.000

Table 4 indicates that digital marketing training has a significant impact on improving MSME human resource competencies. This is evidenced by the significance value (2-tailed) of 0.000, which is less than 0.05. The average difference between pre-test and post-test competencies shows that digital marketing training effectively enhances MSME human resource competencies.

4.3. Discussion

4.3.1 Level of Understanding and Mastery of MSME Operators on Digital Marketing Concepts and Practices

Digital marketing has become crucial in today's digital era (19). However, the transition from conventional marketing to digital has not been fully adopted by MSME operators, even though MSMEs have significant potential to boost Indonesia's economy (20). Therefore, it is important to conduct training to improve MSME operators' understanding of how to expand their consumer network through social media for online marketing. The use of digital technology-based marketing is expected to help MSMEs become economic powerhouses (21).

The research findings show that before the training, MSME operators in Majasari District had limited knowledge of digital marketing. Many had never heard of digital marketing and tended to sell

their products offline. However, after participating in digital marketing training, their understanding and mastery of digital marketing concepts and practices improved. This is reflected in the average pre-test score of 31.50 and the post-test mean of 55.76. Thus, digital marketing training has proven effective in enhancing MSME operators' knowledge and skills.

After the training, participants demonstrated increased understanding of fundamental digital marketing concepts such as SEO, SEM, social media marketing, and content marketing (22). Training participants were also seen to be capable of using digital marketing tools, such as Google Analytics, Facebook Ads, and digital content creation tools, and understanding the appropriate techniques to reach online target markets (23).

4.3.2 Challenges and Barriers Faced by MSME Operators in Digital Marketing

MSMEs are an important part of the people's economy and require planned and targeted development (24). This is due to MSMEs' ability to provide job opportunities, which can absorb significant labor. Digital marketing training for MSMEs often faces various challenges and barriers that can affect its effectiveness. The challenges and barriers faced by MSME operators in Majasari District in digital marketing include:

a) Limited Internet Access and Smartphone Ownership

Not all MSME operators have stable internet access, especially in rural or remote areas. This poses a significant challenge for participating in online-based training. Additionally, many MSME operators lack adequate technology such as smartphones or computers necessary to access training materials and apply digital marketing.

b) Low Basic Technology Knowledge

Observations show that the digital literacy level of MSME operators in Majasari District is relatively low. This makes it difficult for some MSME operators to understand training materials, especially if they use technical terms or complex applications. Additionally, some MSME owners, especially older individuals, are reluctant or afraid to try new technologies, making it challenging to follow the training effectively.

c) Limited Budget and Expertise

Implementing digital marketing requires substantial costs, while MSME operators often have limited budgets that must be allocated to other operational needs. Furthermore, many MSME operators do not have a dedicated team to handle digital marketing, leading to difficulties in applying what they have learned in training without expert assistance.

4.3.3 Effectiveness of Digital Marketing Training in Improving Knowledge and Skills of MSME Human Resources

The effectiveness of digital marketing training in enhancing the competencies of MSME human resources can be assessed by how well the acquired knowledge and skills are implemented in daily business activities and their impact on business growth in both the short and long term (25). Research indicates that the digital marketing training provided to MSME actors in Majasari District, Pandeglang Regency, is quite effective in improving the knowledge and skills of MSME human resources. This is evident from the increase in the mean score of the post-test compared to the pre-test by 24.26 points. Interviews also reveal that the training effectively enhances MSME human resources' knowledge and skills in the following areas:

a) Availability of product information and guides

b) Availability of product visualization

c) Availability of channels for customer interaction (faster feedback)

Effective digital marketing training enables participants to immediately apply what they have learned to their businesses (26). This can be measured through increased digital marketing activities

such as more social media posts, email marketing campaigns, or the creation of more functional websites (2). Additionally, the effectiveness of the training can be observed through increased sales via digital channels after the training. Most MSME actors report a rise in the number of customers and sales from online platforms. The implementation of digital marketing is also recognized as enhancing efforts to reach new markets or customer segments that were previously untapped.

4.3.4 Impact of Digital Marketing Training on MSME Business Performance

The research shows that digital marketing training has a significant impact on MSME business performance. This is evidenced by a significance value (2-tailed) of 0.000, which is less than 0.05, and a correlation value of 14.6%. Digital marketing training has been proven to enhance MSME business performance in terms of market reach expansion, increased sales revenue, and growth in the number of customers (27).

4.3.5 Strategies for Optimizing the Use of Digital Marketing by MSME Actors

The research highlights the need for several strategies to optimize the use of digital marketing by MSME actors. Some strategies for optimizing digital marketing training for MSMEs include:

- a) Customizing Training Materials: Tailoring training materials to the specific needs of participants is crucial. Since MSME actors have varying levels of understanding, different approaches are required. For beginners who are unfamiliar with digital marketing concepts, training should focus on introducing basic concepts. For those with a basic understanding, the focus can shift to advanced strategies.
- b) Increasing Frequency and Duration of Training: Digital marketing training cannot be deemed successful if conducted only once. Regular training sessions with adequate duration are necessary to ensure participants understand and can apply what they have learned. Ongoing training also allows participants to ask questions and delve deeper into challenging material.
- c) Conducting Hands-on Practice and Case Studies: An optimal strategy in digital marketing includes hands-on sessions such as creating social media accounts, developing content, and using digital marketing tools like Google Ads or Facebook Ads. MSME actors should also be guided to use relevant case studies to see how theory is applied in real-world situations.
- d) Providing Support and Mentoring: After the training, provide mentoring or support sessions. Experienced mentors can assist participants in overcoming challenges in applying digital marketing to their daily business operations.
- e) Offering Self-Learning Modules and Resources: Provide participants with access to training modules, video tutorials, and other learning resources that can be accessed at any time. This allows participants to study the material independently according to their needs.
- f) Regular Evaluation and Feedback: Conduct routine evaluations of training effectiveness and seek feedback from participants. Use these evaluations to improve and refine future training programs.
- g) Forming Learning Communities: Create online groups or communities where participants can share experiences, exchange ideas, and support each other. These communities can serve as a platform for continuous learning and skill development in digital marketing.

By implementing these strategies, digital marketing training for MSME actors can be optimized to achieve more effective and sustainable results.

5. Conclusion

The research shows that before the training, MSME actors in Majasari District, Pandeglang Regency, had very limited knowledge of digital marketing. However, after participating in the training, there was a significant improvement in their understanding and mastery of digital marketing

concepts and practices. This indicates that digital marketing training successfully enhanced MSME actors' knowledge and skills. Challenges such as limited smartphone ownership, regional access issues, packaging knowledge, and online selling experience still hinder the application of digital marketing. This study proves that digital marketing training is effective in increasing MSME human resources' knowledge and skills, as evidenced by the difference between pre-test and post-test scores. The training also has a significant impact on business performance, as shown by a significance value (2-tailed) of 0.000, which is less than 0.05, and a correlation value of 14.6%. Therefore, MSME actors are encouraged to implement additional strategies such as increasing training frequency, engaging in hands-on practice in social media and marketplace creation for digital marketing, and creating product logos to strengthen branding in online markets and optimize digital marketing use.

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