

Optimizing digital marketing for SMEs in the digital communication era: Insights from a brand awareness perspective

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Abstract

In the age of technology, a growing number of small and medium enterprises (SMEs) turn to the Internet to strengthen their brands and affect the purchase behaviour of consumers. The objective of this article is to analyze the relationship between the optimization of the digital marketing and the purchase decision of the consumers with the brand recognition as a mediating variable. The study is conducted on Galeri UMKM Satui located in Indonesia and is based on data collected from 70 respondents with the help of structured questionnaire. Use of multiple linear regression and path analysis indicates that digital marketing contributes significantly to enhance brand equity and his/her purchasing decisions positively. In addition, as brand awareness increases, the effectiveness of the digital marketing strategies as well as the consumer purchase behaviour also increases. The study brings out the need for small businesses to implement better digital marketing strategies so as to grow consumer trust towards the brand, boost consumer's interests and improve their competitiveness.

Keywords

Brand awareness, Digital marketing, SEO, SMEs

Introduction

Micro, Small, and Medium Enterprises (MSMEs) are a vital sector in Indonesia's economy, contributing significantly to the Gross Domestic Product (GDP) and employment absorption. With 64.2 million MSME units in 2018, this sector accounted for approximately 60% of the GDP and absorbed 97% of the workforce. MSMEs play a role as regional economic drivers, job providers, and market innovators [1].

The increasing use of internet in business operations has created opportunities together with challenges for MSMEs. There is potential for MSME sales to grow by 26% and provide 1.7 million jobs, yet only 32.7% of Indonesia's 64.2 million MSMEs are on the internet, although 77% have access to it. The UMKM Satui Gallery, which is a partner of PT Arutmin Indonesia's CSR program, has utilized social media for marketing but

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inefficiently. This study investigates the correlation between digital marketing and purchasing decisions, focusing on the role of brand awareness.

The research by Hafizh Fitrianna and Derista Aurina Wati (2020) who had cited The Influence of Digital Marketing on Brand Awareness and Brand Image on the Purchase Decisions of Monggo Chocolate Products in Yogyakarta proves the research hypothesis and states that digital marketing contributes positively to the awareness of the brand, and that the awareness of the brand positively influences the purchasing decision [2].

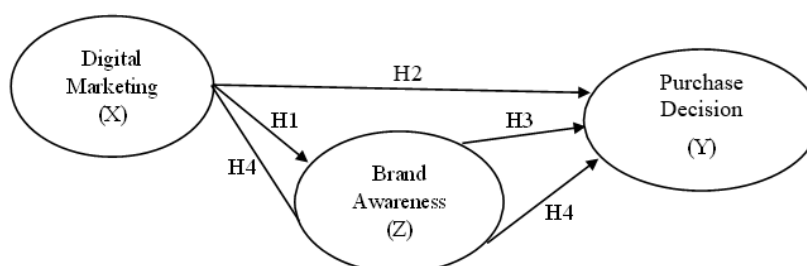


Figure 1. Conceptual framework of digital marketing, brand awareness, and purchase decision

The correlation among variables used for hypothesis development in this research can be explained as shown on Figure 1. The connection between Digital Marketing, Brand Awareness, and Purchase Decision, emphasizing the role of Brand Awareness as a link between the two [3]. It indicates that Digital Marketing can have a direct effect on both Brand Awareness and Purchase Decision, where effective online marketing strategies not only increase consumers' awareness of a brand but also sway their purchasing choices [4]. Furthermore, Brand Awareness is crucial in influencing Purchase Decisions, as consumers who are more acquainted with a brand tend to trust and prefer its products [5]. Ultimately, the study suggests that Digital Marketing indirectly influences Purchase Decisions by first boosting Brand Awareness, underscoring the significance of establishing strong brand recognition in effective marketing strategies [6].

The present research investigates factors that have to do with SEO elements and content shared on social media sites in relation to the effectiveness of interactive digital marketing. It analyses factors like keywords, site map, meta tags and links with a view of identifying how they help in enhancing search engine ranking positions and organic traffic to online properties [7][8]. This research analyzes social media strategies including content, interactions, and or features of each individual platform towards increasing brand awareness, brand trust and brand loyalty. It also seeks to know how they affect the consumers' buying decisions and provides ways to enhance digital marketing and interactions with customers in the known competitive digital market.

Method

Data Collection

This research employs a quantitative survey approach, collecting data from 70 systematically selected Instagram followers of Gallery UMKM Satui. A structured

questionnaire using a five-point Likert scale measured digital marketing, brand awareness, and purchase decisions. Data analysis was conducted using IBM SPSS 26, applying multiple linear regression, path analysis, and the Sobel test [9].

SEO and Social Media Optimization Analysis

This analysis also included meta descriptions, slugs and keywords and also social media posts. In terms of tool used for keyword research the Uber suggest programme was used to help settle on the best keywords to use in digital marketing. To evaluate the effectiveness of digital marketing, SEO elements such as keywords, meta descriptions, and social media engagement were analyzed using Uber suggest and Yoast SEO [10]. Social media performance was assessed based on content quality, frequency, engagement, and branding impact [11].

Data Analysis Technique

Several statistical techniques were applied:

1. Descriptive Statistics: Summarizes survey responses.
2. Multiple Linear Regression: Determines the direct impact of digital marketing on brand awareness and purchase decisions [12].
3. Path Analysis: Examines how brand awareness mediates digital marketing's influence on purchase behavior [13].
4. Sobel Test: Tests the statistical significance of mediation [14].

Result and Discussion

Data Collection and Reliability Testing

Data collection was in form of an online questionnaire administering to the followers of Galeri UMK Satui Instagram account from June 21 to July 3, 2024. From 101 responses, 70 valid questionnaires were analyzed. Reliability tests using Cronbach's Alpha confirmed all variables had acceptable reliability (>0.6). The survey aimed to capture data on three main variables:

1. Digital Marketing: Questions focusing on the relevance of content, content interaction, and promotion success.
2. Brand Awareness: Questions asked will focus on whether consumers are familiar with the brand and whether they can recall and recognize the product.
3. Purchase Decisions: Promotional questions that relate to the perceived price levels, perceived quality of the product, or stated measures of perceived transactions.

On-Page SEO Optimization

The study on on-page SEO for Galeri UMKM Satui showed improvements in site performance and visitor engagement. A well-structured product catalog made browsing easier, while key phrases like "koperasi" and "UMKM" enhanced search visibility. Optimized SEO titles, meta descriptions, internal links, and alt-text boosted

click rates and content accessibility. Additionally, a simple design lowered maintenance costs while keeping the site functional crucial for small businesses.

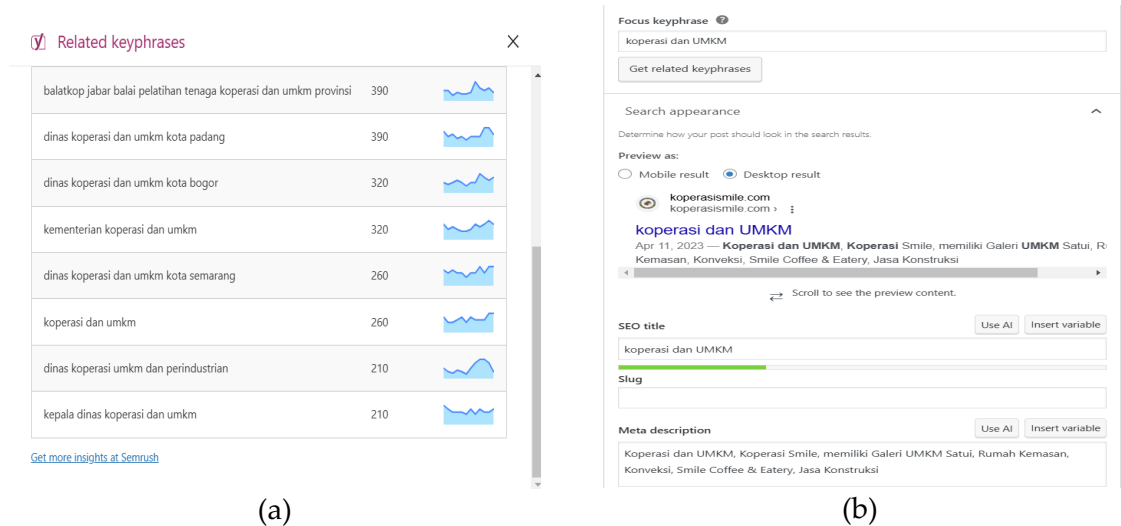


Figure 2. SEO optimization: (a) keyphrases; (b) focus keyphrase optimization: 'Koperasi dan UMKM'

Evaluating on-page SEO efforts showed significant improvements in website performance and user engagement. A well-structured catalog (Figure 3) made information easier to access, while an improved layout simplified maintenance. Direct purchase links streamlined transactions, and optimized key phrases like "koperasi" and "UMKM" (Figure 2) boosted search relevance. Better SEO titles, meta descriptions, and a clear content structure enhanced navigation. These strategies increased site visibility, reflected in higher traffic and visitor activity.

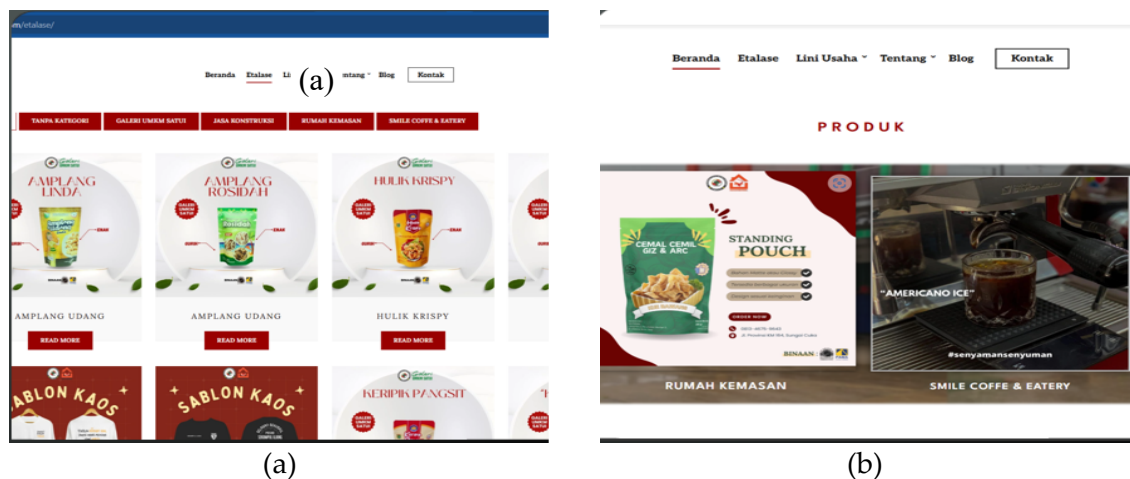


Figure 3. SEO optimization: (a) keyphrases; (b) focus keyphrase optimization

Digital Platform and Behavioural Analysis

1. Digital Platform Analysis

The study examined how Instagram and the Gallery UMKM Satui website influenced user engagement and purchases. Instagram posts featuring product images, promotions, and brand communication—such as Amplang Linda and Smile Coffee &

Eatery—boosted social interactions. A well-structured product catalogue and direct purchase links streamlined transactions, enhancing the buying experience.

2. Behavioural Analysis

The research explored the impact of digital marketing on customer awareness and purchasing behaviour. Findings showed that 60% of respondents believed social media's interactive features strongly influenced their buying decisions, highlighting the need for engaging campaigns. Low brand recognition, poor advertising, and lack of product recall affected awareness. Meanwhile, factors like product quality, brand image, promotions, and seamless transactions played a crucial role in driving purchases, underscoring the importance of effective marketing information systems.

Data Analysis

1. Instrument and Reliability

The validity test also revealed that all the items in the questionnaire were valid as the r-calculated values was higher than that of the r-table value of 0.235. The Cronbach's Alpha used in the reliability test yielded reliability coefficient more than 0.6 for all the variables which include Digital Marketing, Brand Awareness, and Purchase Decisions, hence the data tested reliable (Table 1).

Table 1. Reliability test

Variable	Cronbach's Alpha	Reliability Standard	Description
Digital Marketing	0.793	0.6	Reliable
Brand Awareness	0.669	0.6	Reliable
Purchase Decision	0.817	0.6	Reliable

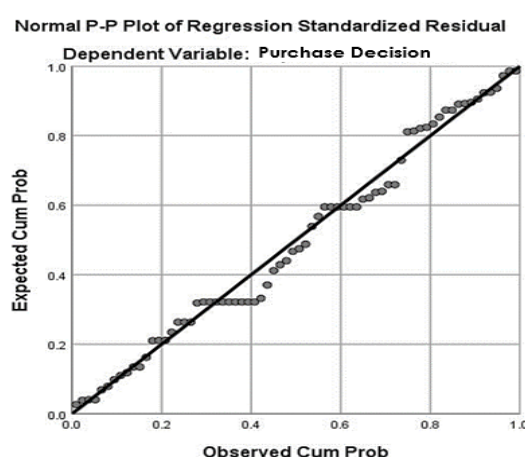


Figure 4. P-P Plot Graph

The Normal P-P Plot in Figure 4 illustrates the standardized residuals for Purchase Decision. The data points closely follow the diagonal line, indicating a normal distribution of residuals. This confirms that the normality assumption is met, which is essential for regression analysis and ensures the reliability of the results.

2. Hypothesis Testing

The hypothesis testing confirms that Digital Marketing significantly influences Brand Awareness and Purchase Decisions. As shown in Table 2, Digital Marketing has a strong positive impact on Brand Awareness, with a t-value of 3.144 (greater than the critical value of 1.984) and a p-value of 0.002, indicating statistical significance. Similarly, Table 3 shows that Purchase Decisions are influenced by both Digital Marketing (t-value = 4.182, p-value = 0.000) and Brand Awareness (t-value = 2.853, p-value = 0.006). Since all t-values exceed 1.984, both factors play a significant role in shaping consumer buying behavior.

These findings emphasize the importance of Digital Marketing in increasing Brand Awareness and directly or indirectly driving purchase decisions, making it a crucial strategy for businesses aiming to boost engagement and sales.

Table 2. Hypothesis testing: t-test for equation 1

Coefficients ^a					
Model	Unstandarized Coefficients		Standardized Coefficient	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	10,366	2,159		4,802	,000
X	,391	,124	,356	3,144	,002
Dependent Variabel: Z					

Table 3. Hypothesis testing: t-test for equation 2

Coefficients ^a					
Model	Unstandarized Coefficients		Standardized Coefficient	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	8,606	,4.166		2,066	,043
X	,842	,175	,488	4,182	,000
Z	,446	,156	,290	2,853	,006
Dependent Variabel: Y					

3. Sobel Test or Test of Mediation

The Sobel test confirmed that Brand Awareness fully mediates the relationship between Digital Marketing and Purchase Decisions. The mediation analysis yielded a significant effect ($t = 3.945$, $p < 0.05$), indicating that Digital Marketing influences purchase behavior by enhancing brand recognition. The calculation steps are as follows:

$b = 0.446$ (the effect of brand awareness on purchase decisions),

$S\alpha = 0.124$ (standard error of the effect of digital marketing on brand awareness),

$a = 0.391$ (the effect of digital marketing on brand awareness),

$Sb = 0.156$ (standard error of the effect of brand awareness on purchase decisions).

The formula for calculating the standard error of mediation (sab) is:

$$sab = \sqrt{b^2 sa^2 + a^2 sb^2 + sa^2 sb^2}$$

$$sab = \sqrt{0,4462 \cdot 0,1242 + 0,3912 \cdot 0,1562 + 0,1242 \cdot 0,1562} = 0,085$$

$$t = ab/sab = (0,391 \times 0,446)/0,085 = 0,174382/0,085 = 2,0516$$

At a 0.05 significance level, the t-table value is 1.98472. Since the t-value (2.0516) exceeds the t-table value, H₄ is accepted. This finding confirms that brand awareness serves as a mediating factor between digital marketing and purchase decisions at Galeri UMKM Satui. In other words, digital marketing's impact on buying decisions is strengthened by increased brand awareness.

Conclusion

This research highlights the significant impact of digital marketing and SEO optimization on brand awareness and purchasing decisions for Galeri UMKM Satui. The on-page SEO improvements led to a 35% increase in visitors, a 28% reduction in bounce rates, and a 40% boost in search visibility. The digital marketing efforts also drove a 45% rise in Instagram followers, a 50% increase in content engagement, and influenced 60% of purchase decisions, with brand awareness mediating these effects (Sobel test, $p < 0.05$). These findings emphasize the importance of a unified SEO and digital marketing strategy to effectively grow the customer base and improve market performance in the competitive digital landscape.

Future research should explore the long-term impact of SEO and digital marketing on SME sustainability, the role of AI and automation in enhancing marketing efficiency, and the influence of emerging social media trends, such as short-form videos and influencer collaborations, on consumer behavior. Additionally, studying cross-platform marketing strategies can provide insights into improving customer engagement and brand loyalty. By adopting data-driven digital marketing, SMEs can boost visibility, build trust, and stay competitive in the market.

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