
Prioritization Analysis of Instagram Digital Marketing Strategy HMBD Telkom Purwokerto with SWOT and AHP Methods

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Abstract — The digital era has changed the paradigm of student organization communication, which needs to optimize digital marketing strategies to increase visibility and engagement. Instagram, with 90.18 million users in Indonesia, is a potential strategic platform but requires a systematic approach in determining strategic priorities. This study aims to determine the optimal digital marketing strategy priorities for the Instagram account @hmbd.telkompurwokerto through an integrated approach combining SWOT Analysis and the Analytical Hierarchy Process (AHP). The research method employs a mixed-method approach with a single-case study design, involving in-depth observation, structured interviews, and focus group discussions for SWOT analysis, as well as pairwise comparisons with 4–5 hmbd committee members for AHP implementation. The research results are expected to identify the main strengths, namely institutional credibility and the quality of educational content; the main weaknesses, namely budget constraints and inconsistent posting schedules; the greatest opportunities in stakeholder collaboration and new Instagram features; and the main threats, namely dynamic algorithms and content saturation. The criteria “Content Quality & Relevance” and “Audience Engagement Strategy” are predicted to have the highest weight of importance in AHP. The research contributes theoretically through a SWOT-AHP integration model for student organization digital marketing and practically through an implementable strategic roadmap that can be adapted by other student organizations.

Keywords – AHP, Digital Marketing, Instagram, Student Organization, SWOT.

I. INTRODUCTION

Digital transformation has fundamentally changed communication and marketing around the world, creating a new paradigm in modern organizational strategy. Indonesia, as a country with a high level of digitalization, occupies a strategic position in the adoption of digital technology, with 90.18 million Instagram users, equivalent to 31.8% of the total population. Instagram ranks second among social media platforms used by Indonesians, with a user base of 85.3%, highlighting the dominance of this visual platform within the national digital ecosystem. This phenomenon presents both opportunities and significant challenges for various organizations, including student organizations, to optimize their digital marketing strategies in an increasingly competitive era.

Student organizations face unique challenges in leveraging digital marketing due to financial and human resource constraints, yet they possess the advantage of

authenticity and closeness to their target audience. The Telkom Purwokerto Student Association, represented through the Instagram account @hmbd.telkompurwokerto, faces complexities in optimizing digital marketing performance amid saturated content competition and dynamic platform algorithms. Initial observations reveal a significant gap between the account’s potential and its actual performance, indicating the need for more systematic and data-driven strategic planning.

The fundamental problem faced by most student organizations is the absence of a systematic framework for determining digital marketing strategy priorities. Most organizations still rely on intuitive approaches and trial-and-error methods, resulting in inefficient resource allocation and suboptimal return on investment. This situation is exacerbated by the rapidly changing digital landscape, which demands adaptability and strategic agility in responding to

evolving platform algorithms, content trends, and audience behavior.

“Classical theoretical reviews still place SWOT as the most popular diagnostic tool in marketing [10].” SWOT analysis has proven to be an effective strategic planning tool, as evidenced by data showing that “Indonesian SMEs experienced a 48% surge in engagement after implementing SWOT-based educational content on Instagram [3].” SWOT analysis has proven to be an effective strategic planning tool for identifying internal and external organizational factors, but it has limitations in terms of quantification and prioritization of strategic options. The Analytical Hierarchy Process (AHP), as a multi-criteria decision-making method, can overcome these limitations by converting subjective judgments into objective and measurable numerical weights. The integration of these two methods has the potential to produce a comprehensive strategic framework that can provide practical guidance for organizations in optimizing their digital marketing strategy.

Previous research has demonstrated the application of SWOT-AHP in various business and commercial organizational contexts, with a predominance of applications in commercial entities and general organizational contexts, while its application in digital marketing for student organizations, particularly on Instagram, remains relatively limited. Suhardono et al. [1] confirm that previous research has predominantly focused on commercial business contexts with limited research on non-commercial organizational settings. Similarly, Chen et al. [2] emphasize that the AHP methodology in social media marketing remains largely unexplored in educational and student organization contexts. A gap analysis indicates an urgent need for research that can produce a practical framework for student organizations to optimize their digital marketing strategies. This study aims to fill this research gap by developing an integrated model applicable to organizational contexts with unique characteristics, such as student organizations.

The novelty statement of this study lies in the integration of the SWOT-AHP methodology, which is specifically applied to digital marketing strategy optimization on the Instagram platform for student organizations. Unlike previous studies that focused on commercial entities or general organizational contexts, this study develops a framework that considers the unique challenges and opportunities faced by student organizations, such as resource constraints, audience characteristics, and organizational objectives that differ from commercial organizations.

The novelty contributions of this research include the development of hierarchical criteria specific to Instagram marketing strategy in the context of student organizations, an integration methodology that can generate actionable strategic priorities, and empirical evidence on the effectiveness of the SWOT-AHP

approach in the digital marketing context. This research also contributes to enriching the literature on digital marketing strategy for non-profit organizations, particularly in the Indonesian context, which has cultural and behavioral uniqueness.

The urgency of this research is driven by the rapid evolution of the digital marketing landscape and the increasing importance of social media presence for organizational sustainability and growth. Student organizations that fail to adapt effective digital marketing strategies risk losing relevance and impact in the communities they serve. With a significant number of student organizations in Indonesia and the potential impact that can be generated through optimized digital marketing strategies, this research has high importance for practical application and theoretical development. Based on an analysis of the current situation and the identification of existing research gaps, this study aims to determine the optimal digital marketing strategy priorities for the Instagram account @hmbd.telkompurwokerto through an integrated approach combining SWOT analysis and the Analytical Hierarchy Process. Specifically, this study will identify internal and external factors influencing the account's performance, determine relevant criteria for prioritizing digital marketing strategies, calculate priority weights for each criterion using the AHP methodology, and formulate actionable strategic recommendations based on the integration of the results from both analysis methods.

II. RESEARCH METHOD

A. Method

This research uses a mixed-method approach in a single case study on the Instagram account @hmbd.telkompurwokerto. Qualitative methods through observation, interviews, and FGDs are used for SWOT analysis, while AHP is used quantitatively to calculate the weight and ranking of strategies. This approach was chosen so that the understanding of the phenomenon becomes more comprehensive and relevant to the context of student organizations.

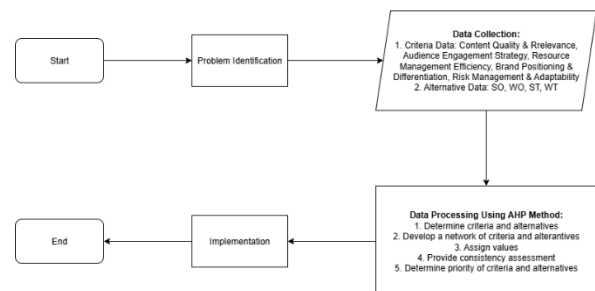


Fig.1. SWOT-AHP Based Data Processing Steps

B. SWOT Analysis

Identified internal and external factors through FGDs and observations. The results were categorized into SO, WO, ST, and WT strategies.

C. AHP Analysis and SWOT-AHP Integration

The AHP hierarchy is structured to include objectives, criteria, and strategy alternatives. Pairwise comparison using a scale of 1-9 is carried out to determine the weight of the criteria, calculated by the eigenvector method and tested for consistency through CR (<0.1). These weights are combined with alternative scores from the SWOT results to produce a final ranking of strategies. Validation was conducted through expert judgment to ensure logical consistency and practical applicability.

D. Object and Research Location

The research object is the Instagram account @hmbd.telkompurwokerto belonging to the Telkom Purwokerto Study Field Student Association. The research location is Purwokerto, Central Java, considering the digital ecosystem and local cultural context in the effectiveness of digital marketing.

E. Population and Sample

This study involved a purposively selected population and sample to ensure representativeness as well as expertise relevant to the research objectives. Details of the population and sample are as follows:

- a) **Research Population**
The population consists of all stakeholders who have involvement or influence on the Instagram account @hmbd.telkompurwokerto, including internal stakeholders:
 - Account managers (admins and content creators)
 - HMBD organization management
 - HMBD active members
- b) **Sampling Technique**
Sampling was carried out using purposive sampling, which is a sample selection technique deliberately based on the relevance and competence criteria needed in the study. This technique was chosen to ensure data quality, both for SWOT analysis and AHP method.
- c) **Sample Characteristics**
The research sample consists of four main groups, namely:

Instagram Account Managers: Individuals who are responsible for content creation, posting schedule, and engagement management.

HMBD Telkom Purwokerto Management: Parties who have strategic responsibilities in organizational communication and policy direction for using social media.

Target Audience Representatives: Active and potential followers who are part of the main target of the organization's Instagram content.

d) Number of Respondents for AHP

For the needs of the Analytical Hierarchy Process (AHP) method, the number of respondents was set at 4-5 people with the following considerations:

- Ensure adequate input in the process of pairwise comparison.
- Ease of management and consistency in the calculation of complex priority weights

F. Types and Sources of Data

This research uses two main types of data, namely primary data and secondary data, which are obtained from various sources to ensure the completeness and depth of analysis. The details of the types and sources of data are as follows:

a) Primary Data

Primary data is obtained directly through interaction with research objects and subjects, including:

- **AHP (Analytical Hierarchy Process) Questionnaire**
Used to measure the relative importance between criteria using the pairwise comparison method. This questionnaire was given to purposively selected expert respondents.
- **In-depth Interview**
Conducted with key stakeholders to identify SWOT (Strengths, Weaknesses, Opportunities, Threats) factors and gain strategic insights that are not visible in quantitative data.
- **Direct Observation**
Observation of Instagram accounts was conducted to qualitatively assess aspects such as: content quality, engagement patterns, audience behavior.

b) Secondary Data

Secondary data is obtained from pre-existing sources and supports primary data analysis, including:

- **Instagram Analytics**
Provides quantitative metrics related to account performance such as: reach, impressions, engagement rate, audience demographic data, content performance trends over time.
- **Academic Literature and Industry Reports**
Drawn from scientific journals, academic articles, and industry reports relevant to the topics of digital marketing, social media strategy, and consumer behavior.
- **Organizational Documents**
Includes internal documents such as: strategic plans, annual reports, historical archives that provide context on the development of the organization and the

marketing initiatives that have been undertaken.

G. Data Collection Techniques

Data collection in this research was conducted through five main methods that complement each other, with the aim of forming a comprehensive and in-depth dataset. The methods are as follows:

- a) **Structured Observation**
Structured observation of account content using a checklist of content aspects, upload frequency, visual quality, captions, hashtags, and audience engagement
- b) **Pairwise Comparison (AHP) Questionnaire**
Assessment between criteria on a scale of 1-9 by experts to determine weights in AHP.
- c) **In-depth Interview**
Exploring SWOT factors and strategic insights through semi-structured interviews with key informants.
- d) **Documentation**
Forms of documentation include: screenshots, analytical data from social media, relevant organizational archives, other supporting documents related to the analysis
- e) **Focus Group Discussion (FGD)**
This group discussion involves several stakeholders to obtain a collective perspective on strategic priorities and considerations in implementing future strategies.

III. RESULT

A. SWOT Analysis Results

a) Strengths

Based on the results of in-depth observations and structured interviews, three main strength factors owned by the Instagram account @hmbd.telkompurwokerto were identified:

- a. **Clear Target Audience:** Focus on Telkom Purwokerto students allows relevant and personalized content.
- b. **Academic and Activity Content:** Provides informative content that builds added value.
- c. **Collaboration Potential:** Synergy opportunities with student organizations, lecturers, and other campus units.

b. Weaknesses

Three main weaknesses identified through the comprehensive analysis:

- a. **Limited human resources:** The management team consists of students with limited time and professionalism.
- b. **Suboptimal Performance Metrics:** There is no systematic content performance evaluation system.
- c. **Low Design Skills:** Visual quality is not competitive due to limited design skills.

c. Opportunities

Five strategic opportunities that can be utilized:

- a. **Increased Brand Awareness:** Huge potential from the number of Instagram users in Indonesia.
- b. **Promotion of HMBD Activities:** Instagram features support event promotion effectively.
- c. **External Cooperation:** Collaboration opportunities with industry and alumni.
- d. **Student Engagement:** Interactive features can increase audience participation and engagement.

d. Threats

Three main threats that must be mitigated:

- a. **Digital Competition:** The number of other student organization accounts on Instagram.
- b. **Algorithm Changes:** Decrease in organic reach due to changes in the algorithm system.
- c. **Reputation Issues:** Risk of negative content or mismanagement that impacts image.

B. SWOT Strategy Formulation

a) SO (Strengths-Opportunities) Strategy

- a. Focus on audience segmentation-based personal branding.
- b. Regular training for content team to be adaptive to trends and algorithms.
- c. Utilize campus resources for content differentiation.

b) WO (Weaknesses-Opportunities) Strategy

- a. Recruit volunteers/interns to strengthen the team.
- b. Build a sustainable work system so that the workload is more evenly distributed.

c) ST (Strengths-Threats) Strategy

- a. Create documentation and educational content that is difficult to replicate.
- b. Create evergreen content that is not dependent on trends.

d) WT (Weaknesses-Threats) Strategy

- a. Form a small and responsive team for content management.
- b. Implement an efficient work system to avoid overload and maintain content quality and reputation.

C. Implementation of Analytical Hierarchy Process (AHP)

a) AHP Hierarchical Structure

Based on the results of the SWOT analysis, an AHP hierarchical structure was developed with the following components:

Goal: Optimization of Instagram Digital Marketing Strategy HMBD Telkom Purwokerto

Main Criteria:

- Content Quality & Relevance (C1)
- Audience Engagement Strategy (C2)
- Resource Management Efficiency (C3)
- Brand Positioning & Differentiation (C4)
- Risk Management & Adaptability (C5)

Strategy Alternatives:

- SO: Focus on segmentation and personal branding
- WO: Volunteer recruitment and capacity building
- ST: Content documentation and industry insight
- WT: Crisis management framework

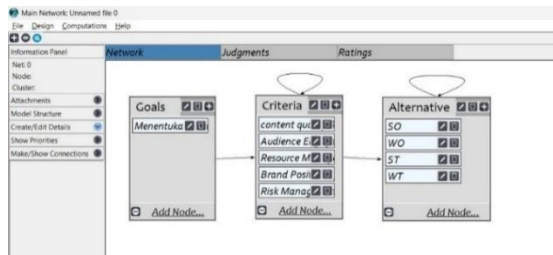


Fig.2. AHP hierarchy

b) Pairwise Comparison Results

Table 1. Multiplication result matrix

Kriteria	C1	C2	C3	C4	C5	Bobot	Ranking
C1	1	2	3	2	3	0.35	1
C2	1/2	1	2	2	3	0.26	2
C3	1/3	1/2	1	1	2	0.15	4
C4	1/2	1/2	1	1	2	0.16	3
C5	1/3	1/3	1/2	1/2	1	0.08	5

Criteria Weighting Results:

- C1 (Content Quality & Relevance) : 0.35 (Rank 1)
- C2 (Audience Engagement Strategy): 0.26 (Rank 2)
- C3 (Resource Management Efficiency): 0.15 (Rank 4)
- C4 (Brand Positioning & Differentiation): 0.16 (Rank 3)
- C5 (Risk Management & Adaptability): 0.08 (Rank 5)

Calculation of λmax (Lambda Maximum)

Weighted Sum Vector = Original Matrix × Criteria Weights

Table 2. Multiplication result matrix

Criteria	Calculation	Weighted Sum
C1	(1x0.35)+(3x0.26)+(3x0.15)+(2x0.16)+(3x0.08)	1.85
C2	(0.5x0.35)+(1x0.26)+(2x0.15)+(2x0.16)+(3x0.08)	1.37
C3	(0.33x0.35)+(0.5x0.26)+(1x0.15)+(1x0.16)+(2x0.08)	0.77

Table 3. Priority Vector matrix

Criteria	Weighted Sum ÷ Bobot	Priority Vector
C1	1.85 ÷ 0.35	5.29
C2	1.37 ÷ 0.26	5.27
C3	0.77 ÷ 0.15	5.13
C4	0.82 ÷ 0.16	5.13
C5	0.44 ÷ 0.08	5.50

$\lambda_{max} = (5.29 + 5.27 + 5.13 + 5.13 + 5.50) \div 5 = 5.264$
 Consistency Index (CI) Calculation
 $CI = (\lambda_{max} - n) \div (n - 1) CI = (5.264 - 5) \div (5 - 1) = 0.264 \div 4 = 0.066$
 Consistency Ratio (CR) Calculation
 $CR = CI \div RI$
 Where RI (Random Index) for n = 5 is 1.12
 $CR = 0.066 \div 1.12 = 0.058 = 5.8\%$
 Consistency Ratio (CR) = 0.058 < 0.1 ✓ (Acceptable)

c) Strategy Priority Ranking

Fig.3. Results

Table 4. Final Ranking of Strategy Alternatives

Alternatif	Composite Score	Ranking	Keterangan
SO	0.69139	1	Prioritas Tertinggi
WO	0.09606	2	Prioritas Rendah
ST	0.07371	3	Prioritas Rendah
WT	0.13884	4	Prioritas Sedang

D. Discussion of SWOT-AHP Integration Results

1. Strategic Implications

The SO strategy (Segmentation and Personal Branding) gets the highest priority (score 0.69139), indicating that utilizing internal strengths for external opportunities is the optimal step for HMBD. The Content Quality & Relevance criterion has the highest weight (0.35), emphasizing the importance of content quality in winning the competition on social media, especially Instagram.

2. Practical Validation

This priority strategy is in line with the real conditions of HMBD, which has limited resources but excels in credibility and closeness to the audience. Engagement strategy (weight 0.26) is the second priority, underlining the importance of two-way communication and engagement for algorithmic visibility.

3. Implementation Recommendations

Based on the results of the analysis, a phased implementation is recommended with the following priorities:

- Phase 1 (Months 1-3): Implementation of SO strategy with a focus on content standardization, brand guideline development, and audience persona refinement.
- Phase 2 (Months 4-6): Implementation of WO strategy through volunteer recruitment program

and systematic training for capacity building of the content team.

c. Phase 3 (Months 7-9): Implementation of ST strategy with the development of signature content series and industry partnership initiatives.

d. Phase 4 (Month 10-12): Implementation of WT strategies through the establishment of crisis management protocols and performance monitoring systems.

E. Research Contribution

a) Theoretical Contribution

Producing a SWOT-AHP framework specifically designed for digital marketing optimization of student organizations, enriching the literature with a systematic approach that considers the characteristics and limitations of non-profit organizations.

b) Practical Contribution

Provides a strategic roadmap that is applicable and can be adapted by other student organizations that have similar characteristics in conditions of limited resources

c) Limitations and Future Research

Limitations on generalization due to single case study. Further research is recommended to test the framework on various organizations and through long-term studies to measure the effectiveness of the strategy.

IV. DISCUSSION

A. Strategic Implications

The SO strategy, focused on segmentation and personal branding, obtained the highest priority score (0.69139), indicating that leveraging internal strengths to capitalize on external opportunities constitutes the most optimal strategic direction for HMBD. Among all criteria, Content Quality & Relevance was assigned the highest weight (0.35), underlining the critical role of high-quality, contextually relevant content in gaining competitive advantage on social media platforms such as Instagram.

B. Practical Validation

The prioritization aligns with HMBD's current internal conditions, which include limited operational resources but strong credibility and emotional proximity to its audience. The Engagement strategy (weight 0.26) ranks second in priority, reflecting the importance of two-way communication and audience interaction in enhancing algorithmic visibility and sustaining digital presence.

C. Implementation Recommendations

Based on the analytical findings, a phased implementation plan is proposed as follows:

- Phase 1 (Months 1–3): Execute the SO strategy by focusing on content standardization, development of brand guidelines, and refinement of audience personas.
- Phase 2 (Months 4–6): Apply the WO strategy through the establishment of a volunteer recruitment program and systematic training to strengthen the content team's capabilities.
- Phase 3 (Months 7–9): Deploy the ST strategy by creating signature content series and initiating collaborations with relevant industry partners.
- Phase 4 (Months 10–12): Implement the WT strategy by formulating crisis management protocols and developing performance monitoring systems.

V. CONCLUSION

The research successfully developed a SWOT-AHP framework for Instagram digital marketing strategy @hmbd.telkompurwokerto. SWOT identified strengths in audience and academic content, and weaknesses in HR and performance metrics. The SO strategy (segmentation & personal branding) is the top priority (score 0.69139, CR: 0.058), with Content Quality & Relevance as the most important criteria (weight 0.35). This framework offers a systematic approach that can be adapted by other student organizations, addressing the need for an effective digital strategy within the limited resources and demands of the digital age.

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