e-ISSN: 3025-8189 ; p-ISSN: 3025-

LANCAH JURNAL INOVASI DAN TREN

doi.org/10.35870/ljit.v4i2.9055
Vol. 4, No. 2, 2026
PP. 1806-1828
Homepage http://www.journal.lembagakita.com/ljit

Solving Instagram Marketing Problems with Benchmarking and AHP: A Case Study of PT Biotek Agro Indonesia

Muhammad Faza Vitrio Erwin[1], Agus Achmad Suhendra[1], Fandi Achmad[1,2]
Undergraduate Program in Industrial Engineering, School of Industrial Engineering, Telkom University, Bandung, Indonesia[1]
Center of Excellence for SAKTI, Research Institute for IBSE, Telkom University, Bandung, Indonesia[2]

Corresponding Author's Email: fandiac.achmad@gmail.com

ARTICLE INFO

Article History:

Submitted *10 21, 2026*
Accepted *11 13, 2026*
Published *11 24, 2026*

ABSTRACT

Many companies use Instagram for marketing, but the results are often low because accounts are managed without clear priorities or reference to proven practices. This study shows how this marketing problem can be addressed by integrating benchmarking with the Analytical Hierarchy Process (AHP), using PT Biotek Agro Indonesia, a liquid organic fertilizer producer in Bandung, as the case study. To the authors' knowledge, this is the first application of AHP-weighted benchmarking to the Instagram management of an organic fertilizer producer. AHP weighted five criteria and fifteen sub-criteria from 30 respondents, most of whom were aged 20–25 and students. Feeds ranked first (0.260), followed by Story (0.249), Reels (0.198), Profile (0.169), and Caption (0.124); Feeds and Story differ by only 0.011, and all aggregated consistency ratios were below 0.10, although most individual respondent matrices were above this limit. These weights were used to score three competitor accounts, so EM4 Indonesia became the benchmark partner for four criteria and Bio Cycle Indo for Story. The company account had an engagement rate of only 0.21%, and gaps appeared in 14 of 15 sub-criteria. These gaps became 14 performance targets and improvement designs approved by the company management. The approach helps companies set Instagram priorities in a measurable way, although the findings reflect the preferences of a young digital audience and the effect of the designs on engagement has not yet been measured.

Keywords: *Analytical Hierarchy Process; Benchmarking; Brand Awareness; Instagram; Social Media Marketing*

How to Cite:

Erwin, M. F. V., Suhendra, A. A., & Achmad, F. (2026). Solving Instagram Marketing Problems with Benchmarking and AHP: A Case Study of PT Biotek Agro Indonesia. LANCAH: Jurnal Inovasi Dan Tren, 4(2), 1806-1828. https://journal.lembagakita.com/ljit/article/view/9055

Copyright @ 2026. Published by Lembaga Komunitas Informasi Teknologi Aceh (KITA), Indonesia. This work is licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0). Based on a work at http://journal.lembagakita.com/ljit

Abstract & Indexing CC BY-NC 4.0 OPEN ACCESS

INTRODUCTION

The fertilizer industry in Indonesia has a large market because agriculture still supports the country's food supply and economy, and fertilizer is used by farm businesses in many provinces (Badan Pusat Statistik, 2023). Competition among producers is also tight, so a company has to make sure its brand is known and easy to remember. Social media is a common choice because product information can spread quickly and the audience can respond directly (Erlangga et al., 2024). Instagram is a reasonable platform for this, with around 121.5 million users in Indonesia in January 2026 (NapoleonCat, 2026). Safitri (2022) found that using Posts, Stories, and Reels together explained 69% of the variation in brand awareness. In other words, how a brand manages its Instagram features partly determines how well the brand is known.

The problem is that having an Instagram account does not automatically make a brand known. Many companies, especially small and medium businesses, manage their accounts without a priority order. Content is posted when there is time, features are used according to the admin's habits, and there is no reference for what actually works in the same industry. The result usually shows up in the two metrics commonly used to judge social media marketing engagement and brand awareness, and both stay low. Account owners then face two practical questions: which aspect of account management should be fixed first, and whose practices should be used as a reference.

Social media marketing is understood as the use of digital platforms to communicate, promote, and interact with consumers. Social media opens two-way communication between companies and consumers (Kietzmann et al., 2011), so consumers also shape brand perception through comments, reviews, and content they create themselves (Barger et al., 2016; Sari et al., 2021). Its success is usually measured by engagement and brand awareness (Kotler & Keller, 2016). Studies on Instagram features tend to discuss one feature at a time, for example, the effect of post design on purchase interest (Prajarini & Sayogo, 2021), the effect of the reels feature on purchase interest (Nindya, 2023), or the effect of an Instagram profile on brand awareness (Tukau, 2020). These findings are useful, but they do not tell which feature should come first when resources are limited.

Two methods can answer this question. Benchmarking compares one's own performance with that of others and uses the comparison as a basis for improvement (Winanda & Akbar, 2022). The Analytical Hierarchy Process (AHP) breaks a multi-criteria problem into a hierarchy and produces priority weights from pairwise comparisons (Saaty, 2008). The two have been combined in marketing studies. Devi et al. (2022) used AHP to select the competitors that served as benchmark partners when improving the marketing communication program of a hijab brand, and Ridwan et al. (2025) used both methods to improve content management on a restaurant's TikTok account. Winanda and Akbar (2022) combined benchmarking with SWOT analysis to formulate a product marketing strategy.

Those studies were done on lifestyle and culinary products. For agricultural input products such as organic fertilizer, communication needs are different because consumers do not only judge the visuals but also look for information about benefits, usage, product credibility, and proof of results. This study follows the benchmarking–AHP logic of those earlier works but differs from them in three ways. First, it moves the approach to an agricultural input product, namely liquid organic fertilizer, which to the authors' knowledge has not been examined with benchmarking and AHP on Instagram. Second, the five Instagram features (Feeds, Story, Reels, Profile, and Caption) are broken into fifteen sub-criteria that come from customer feedback (VoC) and the literature, so the weights show which concrete management practice matters, not

only which feature. Third, the importance weights from the target audience are used to weigh the observation scores of competitor accounts, so the benchmark partner and its best practices are chosen per criterion according to how important each criterion is to the audience, not only by account performance. The approach is applied to an organic fertilizer company.

The objectives of this study are (1) to determine the priorities of Instagram management criteria and sub-criteria based on audience assessment, (2) to select benchmark partners and identify their best practices, (3) to measure the gap between the account condition and the benchmark partners, and (4) to formulate performance targets (future performance) and improvement designs. The approach is tested in a case study of PT Biotek Agro Indonesia, a liquid organic fertilizer producer in Bandung whose Instagram account still lags behind its competitors. The case study is used to show how the approach works and how to read its outputs, not to describe every marketing problem of the company. Academically, this study extends the use of integrated AHP and benchmarking to the marketing of organic fertilizer products. Practically, the results give a priority order and targets that similar companies can use to organize their Instagram management.

METHODS OF RESEARCH

This is a design study that uses quantitative data from an AHP questionnaire and observation data from Instagram accounts. The methods are described in the following order: research framework, case study object, method background, criteria development, data collection, and data processing and evaluation.

1) Research Framework

The research flow is shown in Figure 1 and consists of three stages. The data collection stage covers problem identification, criteria development from the voice of customer (VoC) and literature, preparation and pretest of the AHP questionnaire, questionnaire distribution, and observation of the benchmark partner accounts. The data processing stage covers AHP weight calculation, the consistency test, benchmark partner selection, gap identification, and the formulation of the improvement design. The evaluation stage consists of verifying the design against design standards, validation by company management, and an implementation plan analysis.

2) Case Study Object

The case study was conducted at PT Biotek Agro Indonesia, a company in Bandung, West Java, that produces liquid organic fertilizer and has operated since 2007. The business started from the development of a polybag rice idea, with an initial production capacity of about 4,000–6,000 liters per month. Besides the Instagram account @pupukbio7bandung, its products are sold through a Facebook community, Shopee, and a network of distributor agents. The company was chosen because it actively uses Instagram as a marketing channel but its performance is still low, which makes it suitable for testing the proposed approach. Initial condition data came from observation and an interview with management on December 3, 2025.

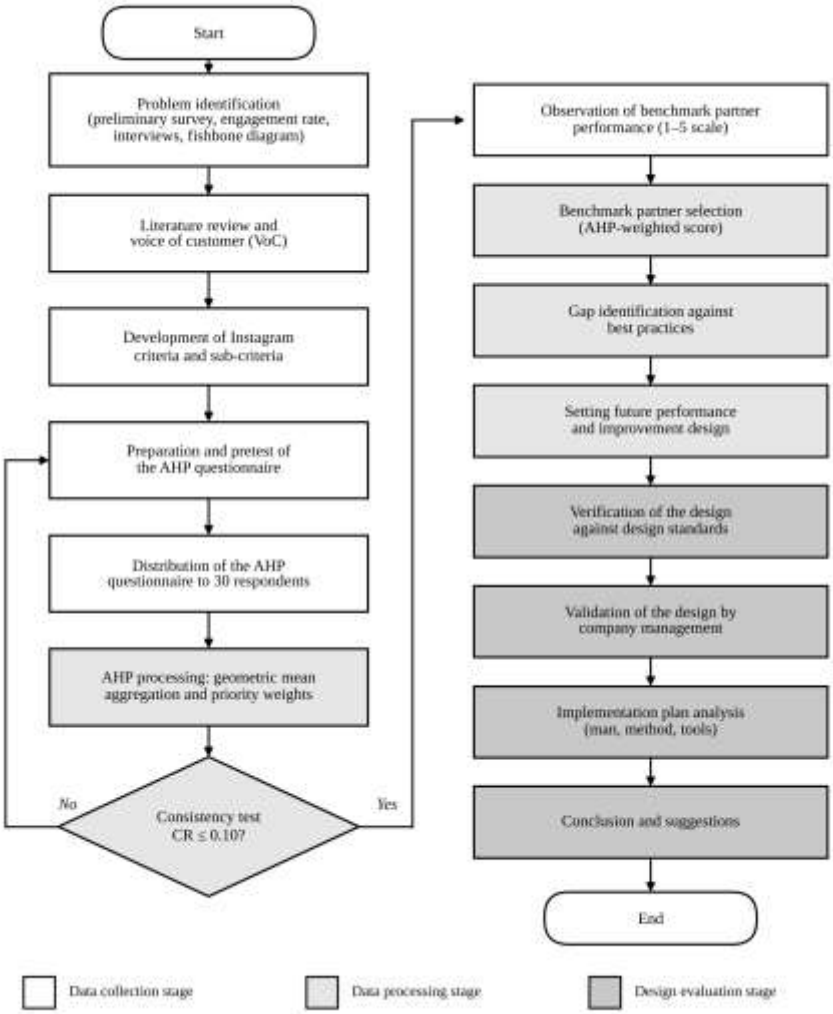


Figure 1. Research framework
(Source: Authors' processed data (2026))

3) Method Background: Benchmarking and AHP

Benchmarking is a structured approach to improving performance by measuring and comparing performance and using the comparison as a basis for improvement (Winanda & Akbar, 2022). Andersen and Pettersen (1995) divide the process into five stages: planning (deciding which performance aspects to compare), searching (choosing candidate benchmark partners), observing (collecting information on the partner's success factors), analysing (comparing internal performance with the partner), and adapting (preparing and evaluating the improvement program). The last stage makes clear that best practices are not copied as they are but adjusted to the condition and ability of the organization. Bhutta and Huq (1999) group benchmarking into several types, including performance, process, strategic, internal, competitive, functional, and generic benchmarking. This study is closest to competitive benchmarking because the comparison is made with direct competitors in the same industry. Compared with competitive intelligence, which has a broader scope, or a marketing audit, which examines the whole marketing strategy and activities (Kotler & Keller, 2016), benchmarking is more focused on improving the management of Instagram

features.

AHP is a measurement theory for multi-criteria decision making that uses pairwise comparisons to produce a priority scale from the judgments of decision makers (Saaty, 2008). The problem is broken down into a hierarchy of goal, criteria, sub-criteria, and alternatives so that each element can be analyzed systematically. Judgments use a 1–9 scale, and because human judgment can be inconsistent, AHP provides a consistency check through the consistency ratio (CR) with a limit of 0.10 (Saaty, 2008). AHP was chosen over the Analytic Network Process (ANP) and the Kano method. ANP can take dependence among elements into account (Saaty, 2004), but it needs far more comparisons and is too complicated for a simple criteria structure. The Kano method is better for grouping attributes by their effect on user satisfaction (Usman et al., 2024), not for building a priority order. The weakness of AHP, a long questionnaire when many elements are compared, is still manageable here because each comparison group has only five criteria or three sub-criteria.

Marketing success on Instagram is measured with two groups of metrics. Engagement describes the level of attention and involvement of customers toward a brand (Kotler & Keller, 2016) and is expressed as the engagement rate (ER), which is the average interaction per post compared with the number of followers, as in Equation (1).

$$\boldsymbol{ER} = \frac{\frac{1}{N}\sum_{i=1}^{N}(L_i + C_i + S_i)}{F} \times 100\% \quad (1)$$

In this equation, L_i, C_i, and S_i are the numbers of likes, comments, and shares on post i, N is the number of observed posts, and F is the number of followers. Brand awareness is the ability of consumers to recognize and recall a brand in various situations (Kotler & Keller, 2016), and it is usually monitored through reach, impressions, and follower growth.

4) Criteria and Sub-criteria Development

The voice of customer (VoC) is a collection of customer feedback on a product or service, covering preferences, opinions, and experiences, which is useful for finding improvement opportunities from the customer's point of view (Shukla et al., 2020). The VoC from interviews was combined with previous studies to develop the criteria and sub-criteria. The five criteria are the most widely used Instagram features, namely caption (Likuallo et al., 2024), reels (Nindya, 2023), profile (Tukau, 2020), story (Pratama et al., 2024), and feeds (Prajarini & Sayogo, 2021). Each criterion was broken down into three sub-criteria as shown in Table 1.

Table 1. Instagram criteria and sub-criteria

Criteria	Code	Sub-criteria	Reference
Feeds	F1	Consistency in content posting frequency	Herwanda & Aji (2023)
	F2	Aesthetic quality of visual content	Nugroho et al. (2024)
	F3	Interactive content presented through images and videos	Maulana & Hafiz (2024)
Story	S1	Use of the Instagram *Story* features	Pratama et al. (2024)
	S2	*Story* content variety that combines educational and entertaining elements	Lim & Childs (2020)
	S3	Consistency in *Story* posting schedule	Cintani et al. (2022)
Reels	R1	Consistency in *Reels* posting frequency	Raj et al. (2021)
	R2	*Reels* videos that follow current trends	Fatmawati & Ali (2021)

Criteria	Code	Sub-criteria	Reference
	R3	Collaboration with influencers	Barger et al. (2016)
Profile	P1	*Profile* displays visual elements	Nugroho et al. (2024)
	P2	*Profile* completeness (bio, contact details, and relevant important links)	Nugroho et al. (2024)
	P3	*Profile* represents the brand identity well	Nugroho et al. (2024)
Caption	C1	Storytelling-based *caption*	Lim & Childs (2020)
	C2	Strategic use of hashtags in the *caption*	Cintani et al. (2022)
	C3	Persuasive *caption*	Wahyuni et al. (2025)

(Source: Authors' processed data (2026))

5) Data Collection

Primary data were collected with two instruments. The first is the AHP pairwise comparison questionnaire, distributed online through QuestionPro. The questionnaire has two parts. The first part compares the five criteria (10 pairs), and the second part compares the sub-criteria within each criterion (3 pairs each). Judgments use the Saaty fundamental scale as shown in Table 2.

Table 2. Pairwise comparison scale

Intensity of importance	Description
1	Both elements are equally important
3	Element *i* is slightly more important than element *j*
5	Element *i* is more important than element *j*
7	Element *i* is much more important than element *j*
9	Element *i* is absolutely more important than element *j*
2, 4, 6, 8	Intermediate values between two adjacent judgments

(Source: Saaty (2008)

Before distribution, the questionnaire was pretested with respondents who met the research criteria to check the clarity of the sentences and the suitability of the question structure. The pretest produced six wording revisions. For example, "aesthetic quality of visual content" was clarified to "aesthetic quality of *Feeds* visual content", and "use of Instagram *Story*" was changed to "use of the Instagram *Story* features" so that respondents would not misread which feature was meant.

Respondents were chosen with purposive sampling. The criteria were active Instagram users aged 20–40 years who are interested in agriculture, plants, or organic fertilizer, and who had seen, known, or interacted with the Instagram account of PT Biotek Agro Indonesia or its competitors. The number of respondents was set at 30. Because AHP relies on the judgments of respondents who understand what is being judged, not on statistical representativeness, this number was considered enough to form the aggregate matrix. The respondents were mostly young people and students, so the weights are read as the preferences of a digital audience (see the Discussion subsection). Participation was voluntary and without coercion, and the data collected were used only for this study and reported in aggregate form.

The second instrument is an observation sheet for benchmark partner performance. The three observed accounts are @em4indonesia, @pupukorganikregen, and @biocyclegroup. Each sub-criterion has a quantitative parameter that is converted into a 1–5 scale. The observation period was 1–30 June 2026, and the company account was scored with the same rules as the three comparison accounts. Nine sub-criteria were scored by directly counting their number or frequency, for example the number of feeds posts per

month, the number of profile elements, or the number of hashtags per post. The other six sub-criteria, which are more qualitative, namely F2, F3, S1, S2, R2, and C1, were scored by three raters from the Instagram audience using the same parameters, and the scores were averaged. Agreement among the three raters was tested with the intraclass correlation coefficient (ICC, two-way random effects, absolute agreement, average of three raters) and Kendall W. The ICC was 0.70, which indicates moderate agreement, and Kendall W was 0.65 ($\chi^2 = 33.13$, df = 17, p = 0.011). In 17 of the 18 rated cases (six sub-criteria for three accounts), the three raters differed by at most one point. As an example, for F1 a score of 1 was given to an account that does not post feeds, 2 for 1–10 posts per month, 3 for 11–20 posts, 4 for 21–30 posts, and 5 for more than 30 posts per month. The scoring rules for all fifteen sub-criteria are given in Appendix A.

6) AHP Data Processing

The questionnaire data were processed with Microsoft Excel and Super Decisions software. Because the judgments came from 30 respondents, individual answers were first combined with the geometric mean as in Equation (2), which gives one pairwise comparison matrix that represents all respondents.

$$a_{ij} = \left(\prod_{k=1}^{m} a_{ij}^{(k)}\right)^{\frac{1}{m}} \quad (2)$$

In this equation, $a_{ij}^{(k)}$ is the judgment of respondent k on element i compared with element j, and m = 30. The aggregate matrix is reciprocal ($a_{ji} = 1/a_{ij}$). The priority vector of each element is calculated from the normalized geometric mean of each row (Equation 3), and the maximum eigenvalue is calculated with Equation (4).

$$\boldsymbol{w_i} = \frac{\left(\prod_{j=1}^{n} \boldsymbol{a_{ij}}\right)^{\frac{1}{n}}}{\sum_{i=1}^{n}\left(\prod_{j=1}^{n} \boldsymbol{a_{ij}}\right)^{\frac{1}{n}}} \quad (3)$$

$$\boldsymbol{\lambda_{max}} = \frac{1}{n}\sum_{i=1}^{n} \frac{\sum_{j=1}^{n} \boldsymbol{a_{ij} w_j}}{\boldsymbol{w_i}} \quad (4)$$

Judgment consistency was tested with the consistency index (CI) and the consistency ratio (CR) in Equations (5) and (6).

$$\boldsymbol{CI} = \frac{\boldsymbol{\lambda_{max} - n}}{\boldsymbol{n-1}} \quad (5)$$

$$\boldsymbol{CR} = \frac{\boldsymbol{CI}}{\boldsymbol{RI}} \quad (6)$$

RI is the random index, whose value depends on the matrix size, which is 0.52 for n = 3 and 1.11 for n = 5. Judgments are consistent when CR ≤ 0.10 (Saaty, 2008). Because the geometric mean can hide inconsistent individual judgments, CR was also calculated for the matrix of each of the 30 respondents. All respondents were kept in the analysis, because their judgments are combined into one group matrix and the weights come from that group matrix. The individual results are reported in subsection 4 of the results, together with a check of how sensitive the ranking is to the way judgments are combined. After the local weights were obtained, the global weight of each sub-criterion was calculated by multiplying the weight of its parent criterion by the local weight of the sub-criterion (Equation 7).

$$\boldsymbol{W_{g,s}} = \boldsymbol{W_c} \times \boldsymbol{W_s} \quad (7)$$

7) Benchmark Partner Selection and Gap Identification

The observation score of each comparison account was multiplied by the global weight of the sub-criterion and then summed for each criterion as in Equation (8). The account with the highest weighted score on a criterion was set as the benchmark partner for that criterion.

(8)

In this equation, $x_{p,s}$ is the observation score of account p on sub-criterion s (1–5 scale). The best practices of the benchmark partner were then compared with the condition of the company account on each sub-criterion. The difference was recorded as the gap and became the basis for setting the future performance, which is the performance target the company wants to reach after the improvement.

8) Design Verification and Validation

The design was verified by comparing each future performance with the design standards derived from previous studies, while also making sure it is linked to the engagement and brand awareness metrics. After that, the design was validated by company management by considering the company's needs, capacity, and resources. Implementation needs were analyzed with an integrated system approach that covers man, method, and tools.

RESULT AND DISCUSSION

The results are presented in the order of the approach, starting from the initial condition of the case study, then the AHP weighting, benchmark partner selection, gap identification, and the improvement design. Subsections 1 to 9 present the results, and subsection 10 discusses their meaning, their relation to earlier studies, and their limitations.

1) Initial Condition of the Case Study

Observation and an interview with management on December 3, 2025 showed that the revenue realization of PT Biotek Agro Indonesia in 2020–2025 was mostly below target. Instagram management was suspected to be one of the contributing factors. At the time of the study, the account @pupukbio7bandung had only 2,453 followers and 80 posts, its posting was not consistent, its visuals were not attractive enough, and audience interaction was still low.

A preliminary survey of 30 respondents who fit the target market (aged 20–40, active Instagram users, and interested in agricultural products or organic fertilizer) showed that only three people (10%) knew the account. The comparison with competitor accounts using SocialBlade in Table 3 shows that the engagement rate of the company account (0.21%) is the lowest. Pupuk Organik Regen, which has fewer followers, actually has an engagement rate about six times higher. Thus, the number of followers does not seem to be the main problem, and how the account is managed is a more likely area to improve.

Table 3. Instagram engagement rate comparison between the case study company and its competitors

Brand	Instagram username	Followers	Engagement rate
EM4 Indonesia	@em4indonesia	6,095	2.85%
Pupuk Organik Regen	@pupukorganikregen	1,184	1.31%
Bio Cycle Indo	@biocyclegroup	3,910	0.37%

Brand	Instagram username	Followers	Engagement rate
PT Biotek Agro Indonesia	@pupukbio7bandung	2,453	0.21%

(Source: SocialBlade (processed))

The causes were traced through interviews with the company's internal parties and in-depth interviews with Instagram audience members who live in Bandung and had seen the account. These produced several VoC items, including content that is unattractive and not varied enough, social media activity that is not optimal, weak brand storytelling, unattractive product visuals, digital promotion that is not maximal, minimal use of Instagram features, and inconsistent posting. A fishbone diagram grouped the root causes into four aspects. The people aspect relates to limited staff competence and low consistency in content creation. The brand aspect relates to storytelling and a brand image that is not yet strong. The promotion aspect covers digital marketing strategy and the use of Instagram features that are not yet optimal, while the product aspect relates to visual presentation and product variety. Low brand awareness is therefore the accumulation of several related factors, not the result of a single cause. This condition is the material used to test the approach in the next sections.

2) Respondent Characteristics

In total, 30 respondents completed the AHP questionnaire. Their characteristics are summarized in Table 4. Respondents were mostly male (60.0%), aged 20–25 years (86.7%), and students (60.0%). Their ages ranged from 20 to 31 years with an average of 23. The employee group (30.0%) consisted of private employees, consultants, state-owned company employees, and civil servants, while the entrepreneur group (10.0%) were respondents who own a business. This composition fits the age group of active Instagram users, but it does not include farmers or distributors, who are the main buyers of fertilizer. This is treated as a limitation and is discussed in the Discussion subsection.

Table 4. Characteristics of AHP questionnaire respondents

Characteristic	Category	Number	Percentage
Gender	Male	18	60.0%
	Female	12	40.0%
Age	20–25 years	26	86.7%
	26–30 years	3	10.0%
	31–35 years	1	3.3%
	36–40 years	0	0.0%
Occupation	Student	18	60.0%
	Employee	9	30.0%
	Entrepreneur	3	10.0%

(Source: Authors' processed data (2026))

3) Hierarchy Structure

The hierarchy was built in four levels as shown in Figure 2. The first level is the goal, which is the improvement of the online Instagram marketing media in the case study. The second level has five criteria, the third level has 15 sub-criteria, and the fourth level has three benchmark partner accounts. The fourth level is not judged with pairwise comparisons but with observation scores that are then weighted using the AHP results.

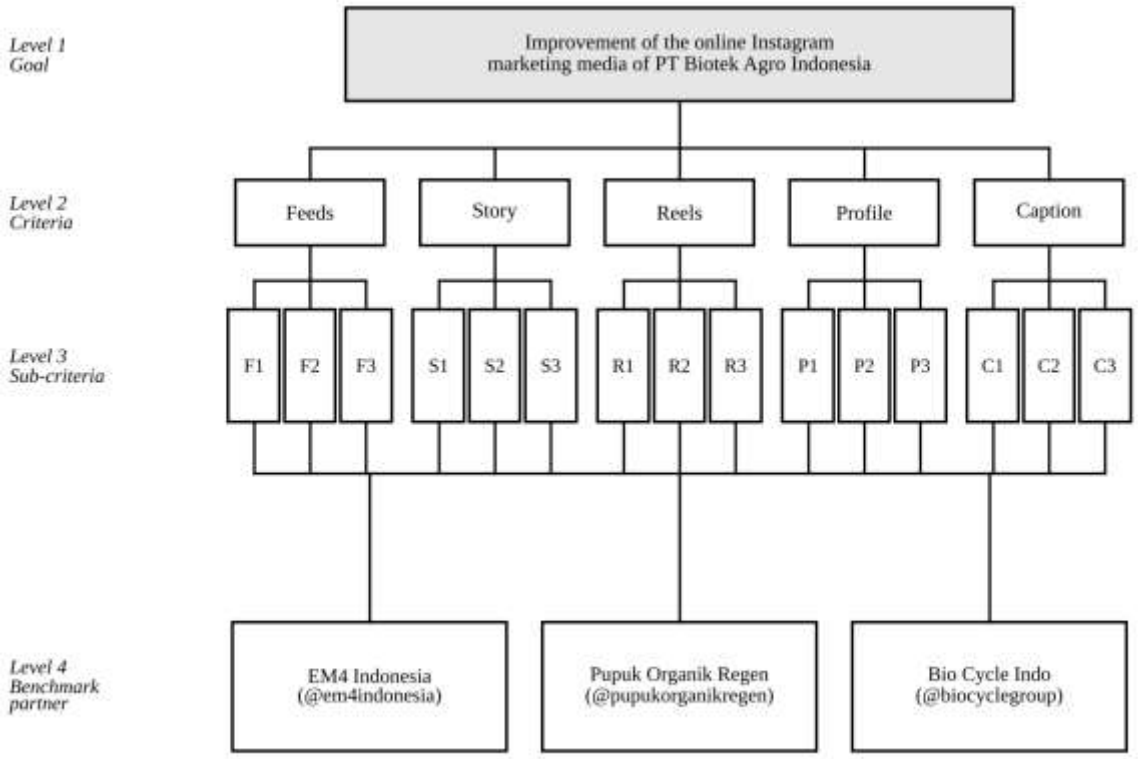


Figure 2. AHP hierarchy structure (sub-criteria codes refer to Table 1)
(Source: Authors' processed data (2026))

4) Instagram Criteria Priorities

The pairwise comparison matrix aggregated from the judgments of 30 respondents is shown in Table 5. The value 1.30 in the *Feeds* row and *Story* column, for example, means that respondents generally judged *Feeds* slightly more important than *Story*, but the difference is small. The value 2.39 in the *Feeds* row and *Caption* column shows a clearer difference in importance.

Table 5. Pairwise comparison matrix of criteria aggregated with the geometric mean

Criteria	*Feeds*	*Story*	*Reels*	*Profile*	*Caption*
Feeds	1.00	1.30	1.02	1.38	2.39
Story	0.77	1.00	1.51	1.48	2.07
Reels	0.98	0.66	1.00	1.11	1.56
Profile	0.72	0.68	0.90	1.00	1.18
Caption	0.42	0.48	0.64	0.85	1.00
Sum	3.90	4.12	5.07	5.82	8.20

(Source: Authors' processed data (2026))

The criteria priority weights are shown in Table 6. The λ_{max} value of 5.041 gives CI = 0.010 and CR = 0.009. This CR is far below the 0.10 limit, so the aggregated judgments between criteria are consistent. Consistency at the individual level is weaker, however. Only 5 of the 30 respondents had a CR $\leq$ 0.10 on the criteria matrix (median CR 0.30), and for the sub-criteria matrices the number was 5 to 8 of 30 for each

criterion. Only 2 respondents were consistent on all six matrices. All respondents were kept (see the methods), so the weights are the result of combining many individually inconsistent judgments and should be read with care (see the Discussion).

Table 6. Priority weights and ranking of Instagram criteria

Criteria	Priority vector	Percentage	Rank
Feeds	0.260	26.0%	1
Story	0.249	24.9%	2
Reels	0.198	19.8%	3
Profile	0.169	16.9%	4
Caption	0.124	12.4%	5

(Source: Authors' processed data (2026); λ_{max} = 5.041; CI = 0.010; RI = 1.11; CR = 0.009 (consistent))

Feeds got the highest weight (0.260), followed closely by *Story* (0.249). The difference between them is only 0.011, so they are better read as one top-priority group than as a strict first and second place. Together they make up more than half of the total weight (50.9%). This result makes sense. *Feeds* is the first thing the audience sees when opening an account, like a shop window that partly decides whether the account is worth following. *Story* works as a daily communication channel that keeps the brand showing up on followers' screens. *Reels* is third (0.198), then *Profile* (0.169), and *Caption* is last (0.124). The low weight of *caption* does not mean it can be ignored. Respondents seem to be attracted to visual elements before reading text, which fits the character of Instagram as a visual-first platform (Sari et al., 2021).

A sensitivity check was done to see whether the ranking depends on how the judgments are combined. When the individual priority vectors were averaged (arithmetic mean) instead of combining the judgments with the geometric mean, the weights were Feeds 0.274, Reels 0.242, Story 0.217, Profile 0.151, and Caption 0.116. When only the five respondents with a consistent criteria matrix were used, the order was Story 0.265, Feeds 0.235, Reels 0.225, Profile 0.166, and Caption 0.109. In a bootstrap of the respondents (2,000 resamples), Feeds was above Story in 61% of the resamples. The positions of Feeds, Story, and Reels are therefore not firm, while Profile and Caption stay in fourth and fifth place in every check.

5) Sub-criteria Priorities and Global Weights

Local weights, global weights, and the sub-criteria consistency results are summarized in Table 7. All sub-criteria matrices have λ_{max} between 3.001 and 3.020 with CR between 0.001 and 0.019, so all are below the 0.10 limit. These are the CR values of the aggregated matrices. At the individual level, 5 to 8 of the 30 respondents were consistent for each sub-criteria matrix, as reported in subsection 4. Global weights were calculated with Equation (7), and their sum over all sub-criteria is 1.000.

Table 7. Local weights, global weights, and consistency of Instagram sub-criteria

Criteria (weight)	Code	Sub-criteria	Local weight	Global weight	Global rank	CR
Feeds (0.260)	F1	Consistency of content posting frequency	0.375	0.0975	2	0.019
	F2	Aesthetic quality of visual content	0.315	0.0819	3	
	F3	Interactive image and video content	0.311	0.0809	4	

Criteria (weight)	Code	Sub-criteria	Local weight	Global weight	Global rank	CR
Story (0.249)	S2	Variety of educational and entertaining content	0.404	0.1006	1	0.001
	S3	Consistency of *Story* posting schedule	0.313	0.0779	6	
	S1	Use of *Story* features	0.283	0.0705	8	
Reels (0.198)	R3	Collaboration with influencers	0.407	0.0806	5	0.018
	R1	Consistency of *Reels* posting frequency	0.337	0.0667	9	
	R2	*Reels* that follow current trends	0.256	0.0507	11	
Profile (0.169)	P2	Completeness of *profile* information	0.451	0.0762	7	0.012
	P3	Representation of brand identity	0.276	0.0466	12	
	P1	Visual elements of the *profile*	0.273	0.0461	13	
Caption (0.124)	C1	Storytelling-based *caption*	0.434	0.0538	10	0.002
	C2	Strategic use of hashtags	0.320	0.0397	14	
	C3	Persuasive *caption*	0.246	0.0305	15	

(Source: Authors' processed data (2026))

In the *Feeds* criterion, consistency of posting frequency is the main priority (0.375), while aesthetic quality (0.315) and interactive content (0.311) are judged almost equally important. The message from respondents is clear: an account that rarely posts is hard to remember, however good its visuals are. This agrees with Herwanda and Aji (2023), who place feeds consistency as the basis for building brand identity. In *Story*, content variety that combines educational and entertaining elements leads by a good margin (0.404). For fertilizer products, educational content such as how to apply the product or plant care tips is needed, but without some entertainment such content is easily skipped. Lim and Childs (2020) also stress that visual storytelling helps build a brand experience that feels closer to consumers.

Collaboration with influencers is the most important sub-criterion in *Reels* (0.407). Respondents seem to see reels as a way to reach new audiences, and influencers who are relevant to agriculture can speed this up while also adding trust in the product. In *Profile*, completeness of information such as bio, contact, and address has the largest weight (0.451). This is reasonable for agricultural input products, where buying often starts by asking directly or looking for the nearest agent. In *Caption*, storytelling (0.434) is prioritized over hashtags (0.320) and persuasive language (0.246).

In terms of global weights, the two sub-criteria with the largest influence are *Story* content variety (0.1006) and feeds posting consistency (0.0975). The top five sub-criteria (S2, F1, F2, F3, and R3) cover about 44% of the total weight. For a company with limited resources, these five aspects can be the focus of the first improvement stage.

6) Benchmark Partner Selection

The observation results for the company account and the three comparison accounts are shown in Table 8. The company account was scored with the same rules as the comparison accounts, and its fifteen scores were assigned by applying the rules in Appendix A to the condition observed on its account (Table 10), so the gaps in Table 10 can be read in numbers. For the six sub-criteria scored by three raters, the values shown are averages without rounding so the weighted scores can be traced back.

Table 8. Observation scores of the company and benchmark partner accounts (1–5 scale)

Code	Sub-criteria	Scoring method	EM4 Indonesia	Pupuk Organik Regen	Bio Cycle Indo	PT Biotek Agro Indonesia
F1	Consistency of content posting frequency	Counted	3	2	1	1
F2	Aesthetic quality of visual content	3 raters	5.00	4.67	4.00	2.00
F3	Interactive image and video content	3 raters	5.00	4.33	4.00	3.00
S1	Use of *Story* features	3 raters	3.33	3.67	4.33	1.00
S2	Variety of educational and entertaining content	3 raters	4.33	5.00	4.67	2.00
S3	Consistency of *Story* posting schedule	Counted	3	2	2	1
R1	Consistency of *Reels* posting frequency	Counted	2	3	1	1
R2	*Reels* that follow current trends	3 raters	4.67	4.00	3.67	2.00
R3	Collaboration with influencers	Counted	2	1	1	1
P1	Visual elements of the *profile*	Counted	4	2	3	2
P2	Completeness of *profile* information	Counted	5	4	4	4
P3	Representation of brand identity	Counted	5	3	2	5
C1	Storytelling-based *caption*	3 raters	5.00	4.33	3.67	2.00
C2	Strategic use of hashtags	Counted	5	3	4	3
C3	Persuasive *caption*	Counted	4	4	3	2

(Source: Authors' processed data (2026))

These scores were multiplied by the global weights of the sub-criteria using Equation (8). The weighted score of each criterion is shown in Table 9, with the highest value in each row in bold.

Table 9. Weighted scores and benchmark partner selection per criterion

Criteria	Criterion weight	EM4 Indonesia	Pupuk Organik Regen	Bio Cycle Indo	Benchmark partner
Feeds	0.260	**1.106**	0.928	0.749	EM4 Indonesia
Story	0.249	0.905	0.917	**0.931**	Bio Cycle Indo
Reels	0.198	**0.531**	0.483	0.333	EM4 Indonesia
Profile	0.169	**0.799**	0.537	0.537	EM4 Indonesia
Caption	0.124	**0.589**	0.474	0.448	EM4 Indonesia

(Source: Authors' processed data (2026))

EM4 Indonesia is the best on four of the five criteria. Its advantage comes mainly from regular feeds posting (11 posts per month), the use of four visual aesthetic aspects, a *profile* with six information elements, and more than ten hashtags on every post. *Story* is the exception. Bio Cycle Indo leads by a small margin (0.931) over Pupuk Organik Regen (0.917) and EM4 Indonesia (0.905) because it uses interactive

features more actively and has more varied *story* content categories. The score differences in *Story* are small, so practices from the other accounts can still be taken as extra input. In *Profile*, Pupuk Organik Regen and Bio Cycle Indo got the same score (0.537), but both are far behind EM4 Indonesia (0.799).

7) Gap Identification

The best practices of the selected benchmark partners were compared with the condition of the @pupukbio7bandung account on each sub-criterion. The results are shown in Table 10, ordered by criteria and sub-criteria priority. The 1–5 score of the benchmark partner is taken from Table 8, the company score was obtained with the same scoring rules, and the score gap is the benchmark score minus the company score. A sub-criterion is counted as having a gap when the company score is lower than the benchmark score.

Table 10. Gap identification between the case study account and the benchmark partners

Code	Condition of PT Biotek Agro Indonesia	Benchmark partner best practice	Partner score	Company score	Score gap	Gap
F1	No feeds posts during the observation period	EM4 Indonesia: 11 feeds posts per month	3	1	2	Yes
F2	Only one visual aesthetic element, which is typography	EM4 Indonesia: four elements (color palette, uniform layout, typography, filter editing)	5.00	2.00	3.00	Yes
F3	Two content variations (testimonials and product images)	EM4 Indonesia: four variations (education, information, holiday greetings, tips and knowledge)	5.00	3.00	2.00	Yes
S2	One *story* content category, which is testimonials	Bio Cycle Indo: four categories (education, testimonials, purchase information/how to shop, events)	4.67	2.00	2.67	Yes
S3	Does not post *story*	Bio Cycle Indo: one *story* per day	2	1	1	Yes
S1	Does not use *story* features yet	Bio Cycle Indo: three features (polling, question box, music)	4.33	1.00	3.33	Yes
R3	Has never collaborated with an influencer	EM4 Indonesia: one collaboration per month	2	1	1	Yes
R1	Does not post *reels*	EM4 Indonesia: 1–2 *reels* per week	2	1	1	Yes
R2	One *reels* content category, which is promotion	EM4 Indonesia: three categories (customer testimonials, product reviews, event recaps)	4.67	2.00	2.67	Yes
P2	Four elements (username, account name, profile photo, bio)	EM4 Indonesia: six elements (plus address and contact information)	5	4	1	Yes
P3	Username, account name, logo, and bio already match the brand identity	EM4 Indonesia: the same four brand identity items	5	5	0	No
P1	One visual element, which is the profile photo	EM4 Indonesia: three elements (profile photo, cover highlight, icons)	4	2	2	Yes

Code	Condition of PT Biotek Agro Indonesia	Benchmark partner best practice	Partner score	Company score	Score gap	Gap
C1	One form of storytelling (product usage experience)	EM4 Indonesia: four forms (usage experience, usage process, company activities, product results/benefits)	5.00	2.00	3.00	Yes
C2	5–6 hashtags per post	EM4 Indonesia: 10–15 hashtags per post	5	3	2	Yes
C3	One type of *caption* (testimonial)	EM4 Indonesia: three types (invitation, testimonial, educational)	4	2	2	Yes

(Source: Authors' processed data (2026))

Of the 15 sub-criteria, 14 have a gap. A gap here means that the company score is lower than the score of the benchmark partner in Table 10. The only one without a gap is P3, because the username, account name, logo, and bio of @pupukbio7bandung already represent the brand well. The most basic gap is in frequency, because the company was not actively posting *feeds*, *story*, or *reels* during the observation period. This is a likely contributing factor to the low engagement rate, since an audience that rarely sees a brand has less chance to recognize and remember it, but this study did not test the causal link. The other gaps relate to quality and variety, for example few aesthetic elements and content categories that only revolve around testimonials and promotion.

8) Future Performance and Improvement Design

Each gap was translated into a future performance that refers to the best practices of the benchmark partner. These targets were not set arbitrarily, but consider the observation results, the involvement of the audience as active Instagram users, and input from people who understand marketing through Instagram. A summary of the targets and improvement designs for each criterion is shown in Table 11.

Table 11. Future performance and improvement design for Instagram in the case study

Criteria	Future performance	Improvement design	Supporting tools
Feeds	• Post 11 *feeds* per month • Apply four visual aesthetic aspects • Create four content variations	• Content planner with schedule, format, caption, and approval status • Visual identity guide (logo, color palette, typography, layout, editing style) • List of content categories with purpose, key message, and call to action	Planable or Google Calendar; Canva, Figma, or Adobe Photoshop; CapCut, InShot, or Adobe Premiere Pro
Story	• Post one *story* per day • Create four *story* content categories • Use polling, question box, and music features	• *Story* posting schedule • *Story* frame templates that follow the brand identity • Optimization of interactive *story* features	Planable or Google Calendar; Canva or Figma; Google Sheets
Reels	• Collaborate with an influencer once a month • Post 1–2 *reels* per week • Create three *reels* content categories	• Influencer database (nano to mega categories) • Collaboration brief • Evaluation of *reels* content performance	Instagram Insights; Google Sheets or Excel; Canva or PowerPoint

Criteria	Future performance	Improvement design	Supporting tools
Profile	• Present six *profile* information elements • Display three *profile* visual elements	• Regular management and evaluation of the *profile* • Cover highlights that are uniform with the brand identity	Canva, Figma, or Adobe Photoshop; Linktree
Caption	• Use four forms of storytelling *caption* • Use 10–15 hashtags per post • Use three types of persuasive *caption*	• Writing *captions* that match the purpose of each post • Grouping hashtags by content category	Hashtagify; Google Sheets or Excel

(Source: Authors' processed data (2026))

For *Feeds*, the target of 11 posts per month follows the practice of EM4 Indonesia. The target is actually not heavy, about three posts per week, but it is hard to reach without planning. The main design is therefore a Planable-based content planner that holds the content type, posting schedule, format, caption, and approval status, so the progress of each piece of content can be tracked from idea to publication. A visual identity guide is prepared so that every post uses the same logo, color palette, typography, and editing style. The list of content categories (education, information, holiday greetings, and tips and knowledge) comes with a purpose, topic, key message, and call to action so that *feeds* are no longer dominated by testimonials and product photos.

For *Story*, the company is directed to post at least one *story* every day with four content categories, namely education, testimonials, purchase information (how to shop), and events. Frame templates are prepared with the brand colors and logo so that production is faster and the look stays consistent. The polling feature is used to collect audience opinions, the question box for question-and-answer sessions about the product, and music so that *stories* are not monotonous.

The *Reels* design focuses on influencer collaboration because this sub-criterion has the highest local weight. The company is advised to build an influencer database that holds the category (nano: 1,000–10,000 followers; micro: 10,000–50,000; mid-tier: 50,000–500,000; macro: 500,000–1,000,000; mega: more than 1,000,000), content focus, engagement rate, estimated rate card, and audience fit. Choosing an influencer should not rely only on follower count, because fit with fields such as agriculture, plantations, urban farming, or plant education matters more. Each collaboration comes with a brief that covers the purpose, product profile, target audience, content concept, deliverables, key message, call to action, visual and language rules, timeline and approval process, compensation, and additional terms. The additional terms are important for agricultural products, for example a ban on exaggerated claims or on promising a certain harvest result. After the content goes live, its performance is evaluated through likes, comments, shares, saves, total interactions, and new followers from the influencer account's insight data.

Improving the *Profile* is relatively the easiest and cheapest. The company only needs to complete the address and contact information so the *profile* has six elements, and then add cover highlights with uniform icons, colors, and design style for categories such as product information, location, and company activities. For *Caption*, four forms of storytelling (product usage experience, product usage process, company activities, and product results or benefits) are combined with three types of persuasive *caption*, which are invitation, testimonial, and educational. Every post uses 10–15 hashtags grouped into brand, product, agriculture, education, and target audience hashtags, and these are evaluated regularly based on post performance.

9) Verification, Validation, and Implementation Plan

All 14 future performance items were verified because they match the design standards from previous studies and relate directly to Instagram success metrics. The *Profile* is mainly aimed at supporting brand awareness, while the other four criteria support engagement and brand awareness together. In the validation stage, the management of PT Biotek Agro Indonesia, as the main stakeholder, agreed and said it was willing to implement the whole design.

Implementation needs two roles. A social media specialist is responsible for content planning, posting schedule, captions, and performance evaluation, while a content creator makes the visual designs, templates, and *feeds*, *story*, and *reels* content. The suggested workflow starts from content ideas, making the content planner, content design, writing captions and hashtags, publishing, and evaluating post results. Supporting equipment includes a laptop, smartphone, camera, internet connection, and applications such as Canva, Google Calendar, Google Sheets, and Instagram Insights.

The design has several limitations. Preparing the content planner and visual identity guide takes time at the start, and a schedule that is too rigid can reduce flexibility when an urgent post is needed. Influencer collaboration costs money, and its results depend on the influencer's performance and on the Instagram algorithm, which can change at any time. The effectiveness of hashtags can also shift with trends. Regular evaluation with Instagram Insights data therefore needs to be part of the design.

10) Discussion

In terms of the approach, this case study shows that the two questions at the beginning can be answered in sequence. AHP answers which aspect to fix first, which is *Feeds* and *Story*, followed by *Reels*, *Profile*, and *Caption*. Benchmarking answers whose practices to follow and how large the gap is. Because the AHP weights are used to weigh competitor scores, the adopted practices reflect what the audience considers important, not just which account is the busiest. The criteria and sub-criteria can also be adapted for other businesses by considering the product characteristics and target audience. For the company in the case study, the order of the AHP weights can be used as the implementation order so that time, effort, and budget go to the most influential aspects first.

Earlier benchmarking–AHP studies were done on a restaurant (Ridwan et al., 2025) and a hijab brand (Devi et al., 2022). In this case study of an agricultural input, the highest local weights fall on practices that carry information and trust: educational and entertaining story content (0.404), influencer collaboration in Reels (0.407), and complete profile information (0.451). This pattern is consistent with the argument in the Introduction that buyers of agricultural inputs look for information on usage and credibility, but it comes from one case and one audience. It therefore needs to be tested on other fertilizer brands before it is treated as a general characteristic of this product category.

The nearly equal weights of Feeds (0.260) and Story (0.249) mean that the order between the two is not firm, so they are treated as one priority group. Reels is also close to them when the judgments are combined in another way (subsection 4), and the individual judgments were often inconsistent, so the weights carry more uncertainty than the aggregated CR suggests. The same caution applies to the posting frequency gap found in the company account. It is a likely contributing factor to the low engagement rate, not a proven cause. The engagement rate comes from a single comparison (Table 3), the follower base is small, and the interviews in subsection 1 point to people, brand, promotion, and product aspects together.

Whether closing the frequency gap raises engagement can only be shown by measuring the account before and after implementation.

There are several notes. First, the benchmark partner was chosen per criterion based on the total score, so on some sub-criteria the practice of the chosen partner is not necessarily the highest. Pupuk Organik Regen, for example, posts 3–4 *reels* per week, more often than EM4 Indonesia, which is the benchmark partner for *Reels*. The target of 1–2 *reels* per week can be treated as a realistic starting target for a company that has never posted *reels*, and raised once content production is stable. The same applies to the Story schedule, where EM4 Indonesia (2 stories per day) is ahead of Bio Cycle Indo (1 per day), the benchmark partner for Story. Second, the respondents were dominated by the 20–25 age group (86.7%) and students (60.0%). This group represents active Instagram users, but not necessarily farmers or distributors, who are the main buyers of fertilizer. These priority results are therefore better read as the preferences of a digital audience, not of the whole market segment of the company. Because the weights decide which partner is chosen and how the improvement design is ordered, a different respondent group could change the order, especially for Feeds and Story, whose weights are close. Two other limits should be noted. The observation covers only one month (1–30 June 2026), and six sub-criteria depend on the judgment of only three raters, so their scores may shift with other raters.

For the company, the practical implication is a sequence of actions that follows the weights. The first stage is Feeds and Story: a regular feeds schedule supported by the content planner and the visual identity guide, and a daily story with varied educational and entertaining content. The second stage is Reels, starting with a small regular schedule and influencer collaboration, followed by the Caption improvements. The Profile can be completed at any time because it is quick and cheap. The benefit of this sequence is an expectation based on the practices of the benchmark partners and the audience weights. This study has not measured whether it raises engagement rate or brand awareness, so a before-and-after comparison using Instagram Insights is needed after implementation.

CONCLUSION

This study shows that low Instagram marketing results can be addressed in a structured way by integrating AHP and benchmarking. AHP determines what matters most to the audience, while benchmarking shows whose practices to follow and how far the gap is. In the case study of PT Biotek Agro Indonesia, the criteria priority order is *Feeds* (0.260), *Story* (0.249), *Reels* (0.198), *Profile* (0.169), and *Caption* (0.124), with the aggregated judgments consistent ($CR \leq 0.019$), although individual respondents were less consistent. EM4 Indonesia became the benchmark partner for four criteria and Bio Cycle Indo for *Story*. Gaps were found in 14 of 15 sub-criteria and were translated into 14 future performance items with their improvement designs, which were verified and approved by company management.

In practical terms, the company is advised to work in the order of the AHP weights, starting with Feeds and Story, which are almost equal in weight and together carry 50.9% of the total. Reels should follow closely, because it moves up when the judgments are combined in another way. For Feeds, the priority is a regular posting schedule of about 11 posts per month, supported by a content planner and a visual identity guide. For Story, it is at least one story every day with four content categories. Reels start with a small regular schedule of 1–2 reels per week and influencer collaboration, the Profile can be completed quickly at low cost, and the Caption is improved with storytelling and a consistent set of

hashtags. These actions are design recommendations, and their effect on engagement rate and brand awareness has not been measured.

This study only reaches the design stage, so its effect on engagement rate and brand awareness has not been measured. The weights also come from a young digital audience (86.7% aged 20–25 and 60.0% students), so the results should not be generalized to farmers and distributors without further testing. Future studies are advised to continue to implementation by comparing account performance before and after the improvement, to widen the respondents to farmers, distributors, and plant communities, and to add other methods such as SWOT analysis or Instagram Insights data so that the resulting strategy is more complete.

AUTHOR CONTRIBUTIONS

The first author contributed to the research conceptualization, data collection and processing, analysis of the results, and preparation of the initial manuscript. The second and third authors contributed to the methodological direction, review of the results, and editing and refinement of the manuscript. All authors approved the final version of the manuscript and are responsible for all aspects of the work related to this study.

CONFLICT OF INTEREST

The authors declare that there are no financial or non-financial conflicts of interest that could have influenced the conduct of the research, data analysis, preparation, or publication of this article.

ACKNOWLEDGEMENTS

The authors thank the management of PT Biotek Agro Indonesia for agreeing to be interviewed, providing data, and validating the improvement design, and the 30 respondents who completed the questionnaire. The authors also used an artificial intelligence (AI) tool in preparing this manuscript, as described in the Artificial Intelligence (AI) Use Statement.

ARTIFICIAL INTELLIGENCE (AI) USE STATEMENT

In preparing this article, the authors used artificial intelligence (AI), namely Claude (Anthropic), as an assisting tool to restructure and rewrite the manuscript text, edit the language, and check that in-text citations match the reference list. The research design, data collection, and data processing come from the authors' undergraduate thesis and were not carried out by AI. The authors have reviewed the entire manuscript and take full responsibility for its accuracy and integrity.

REFERENCES

Andersen, B., & Pettersen, P.-G. (1995). *The benchmarking handbook: Step-by-step instructions*. Chapman & Hall.

Badan Pusat Statistik. (2023). *Jumlah usaha pertanian perorangan menurut wilayah dan penggunaan*

pupuk, Indonesia, 2023 [Number of individual agricultural businesses by region and fertilizer use, Indonesia, 2023].

Barger, V., Peltier, J. W., & Schultz, D. E. (2016). Social media and consumer engagement: A review and research agenda. *Journal of Research in Interactive Marketing, 10*(4), 268–287. https://doi.org/10.1108/JRIM-06-2016-0065

Bhutta, K. S., & Huq, F. (1999). Benchmarking – best practices: An integrated approach. *Benchmarking: An International Journal, 6*(3), 254–268. https://doi.org/10.1108/14635779910289261

Cintani, Maulina, Mazaya, Rafli, Salsabila, & Widianingsih. (2022). Efisiensi hashtag pada caption terhadap engagement Instagram @jajanantradisional.bdg (Studi kasus pada postingan dengan topik Es Dawet) [Hashtag efficiency in captions toward Instagram engagement of @jajanantradisional.bdg (A case study of posts about Es Dawet)]. *Industri Patiseri Digital*. Universitas Pendidikan Indonesia.

Devi, N. M., Amani, H., & Sagita, B. H. (2022). Perancangan perbaikan program komunikasi pemasaran Rihijab menggunakan metode benchmarking dan tool analytical hierarchy process [Designing improvements to Rihijab's marketing communication program using benchmarking and the analytical hierarchy process]. *Jurnal Ilmiah Edunomika, 6*(2). https://doi.org/10.29040/jie.v6i2.6064

Erlangga, H., Riani, D., Hindarsah, I., Setiawati, T., & Riadi, F. (2024). Digital marketing trends and innovations in Indonesia: A qualitative exploration of emerging practices. *Kontigensi: Jurnal Ilmiah Manajemen, 12*(1), 50–53. https://doi.org/10.56457/jimk.v12i1.517

Fatmawati, I., & Ali, H. (2021). Determination attitude toward using and purchase intentions: Analysis of perceived ease of use and perceived usefulness (Case study of Instagram Shop's features on social media Instagram). *Dinasti International Journal of Management Science, 3*(1), 119–133. https://doi.org/10.31933/dijms.v3i1.932

Herwanda, B. A., & Aji, R. I. (2023). Membangun identitas brand melalui konsistensi feeds Instagram @bawapulang.official [Building brand identity through the consistency of the Instagram feeds of @bawapulang.official]. *Journal of Creative Student Research, 1*(6), 331–344. https://doi.org/10.55606/jcsrpolitama.v1i6.2958

Kietzmann, J. H., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business Horizons, 54*(3), 241–251. https://doi.org/10.1016/j.bushor.2011.01.005

Kotler, P., & Keller, K. L. (2016). *Marketing management* (15th ed.). Pearson.

Likuallo, A., Lempan, N., Musu, W., Piu, S., Erna, A., Nurdiansyah, & Khaddafi, M. (2024). Pengaruh caption dan teks terhadap interaksi pengguna di Instagram: Studi eksperimen regresi linear [The effect of captions and text on user interaction on Instagram: A linear regression experimental study]. *Seminar Nasional Penelitian dan Pengabdian kepada Masyarakat CORISINDO*, 49–54. https://corisindo.utb-univ.ac.id/index.php/penelitian/article/view/23

Lim, H., & Childs, M. (2020). Visual storytelling on Instagram: Branded photo narrative and the role of telepresence. *Journal of Research in Interactive Marketing, 14*(1), 33–50. https://doi.org/10.1108/JRIM-09-2018-0115

Maulana, A., & Hafiz, M. (2024). Peran konten interaktif dalam membangun keterlibatan dengan pengguna di Instagram: Tinjauan Adidas Indonesia [The role of interactive content in building user engagement

on Instagram: A review of Adidas Indonesia]. *JISPENDIORA Jurnal Ilmu Sosial Pendidikan dan Humaniora, 3*(1), 175–189. https://doi.org/10.56910/jispendiora.v3i1.1326

NapoleonCat. (2026). *Instagram users in Indonesia* [January 2026 data]. https://napoleoncat.com/stats/instagram-users-in-indonesia/

Nindya, A. F. E. (2023). Pengaruh penggunaan fitur reels pada Instagram terhadap minat beli konsumen kedai kopi TMLST (Survei pada pengikut akun Instagram @tmlstcollectivespace) [The effect of using the Instagram reels feature on the purchase interest of TMLST coffee shop consumers]. *IKON Jurnal Ilmu Komunikasi, 28*(2), 112–128.

Nugroho, A., Florina, I. D., & Edy, S. (2024). Menggali strategi visual dan naratif @tokomerekah dalam membangun brand identitas di Instagram [Exploring the visual and narrative strategy of @tokomerekah in building brand identity on Instagram]. *Journal of Education Research, 5*(3), 3158–3169. https://doi.org/10.37985/jer.v5i3.1489

Prajarini, D., & Sayogo, D. (2021). Pengaruh desain post Instagram terhadap minat pembelian produk UMKM kedai kopi di Kabupaten Sleman [The effect of Instagram post design on the purchase interest of MSME coffee shop products in Sleman Regency]. *ANDHARUPA: Jurnal Desain Komunikasi Visual & Multimedia, 7*(01), 187–199. https://doi.org/10.33633/andharupa.v7i01.4139

Pratama, K. A., Wahyuningtiyas, E., Wulandari, T. A., & Pradana, B. C. S. A. (2024). Analisis komunikasi visual pada feed dan Instastory Instagram @grande_gardencafe dalam meningkatkan brand awareness [Visual communication analysis of the feed and Instastory of @grande_gardencafe in increasing brand awareness]. *RELASI: Jurnal Penelitian Komunikasi*, *4*(3), 19–29. https://doi.org/10.69957/relasi.v4i03.1614

Raj, D., Thiyagarajan, A., & Avinash, P. (2021). Instagram as a marketing tool by young women entrepreneurs: An exploratory study. *Journal of Education: Rabindrabharati University*, *23*(5), 5–15.

Ridwan, S. Y., Rohayati, Y., & Wulandari, S. (2025). Perancangan perbaikan pengelolaan konten untuk social media marketing TikTok Nishi Izakaya Resto & Bar menggunakan metode benchmarking dan analytical hierarchy process [Designing content management improvements for TikTok social media marketing of Nishi Izakaya Resto & Bar using benchmarking and the analytical hierarchy process]. *e-Proceeding of Engineering, 12*(3), 4198–4202. https://openlibrarypublications.telkomuniversity.ac.id/index.php/engineering/article/download/27017/25541/53375

Saaty, T. L. (2004). Fundamentals of the analytic network process — Dependence and feedback in decision-making with a single network. *Journal of Systems Science and Systems Engineering, 13*(2), 129–157. https://doi.org/10.1007/s11518-006-0158-y

Saaty, T. L. (2008). Decision making with the analytic hierarchy process. *International Journal of Services Sciences, 1*(1), 83–98. https://doi.org/10.1504/IJSSCI.2008.017590

Safitri, J. (2022). Impact of Instagram posts, Instagram stories, and Instagram reels on brand awareness of Muslim clothing brand Zombasic. *Journal of Islamic Economics Lariba, 8*(2), 289–302. https://doi.org/10.20885/jielariba.vol8.iss2.art9

Sari, D. K., Pebriangga, A., & Oetarjo, M. (2021). *Digital marketing*. UMSIDA Press.

Shukla, K., Shilewant, S., & Chandra, H. (2020). Assessing voice of customers (VoC) as a tool for improving patient care: A case study of a tertiary care hospital in Mumbai city. *The Journal of International Medical Sciences Academy*, *33*(2), 67–75.

Tukau, N. A. W. (2020). Pengaruh gambar dan profil Instagram Terasrumahmu terhadap kesadaran merek [The effect of Instagram images and profile of Terasrumahmu on brand awareness]. *Jurnal Ilmu Komunikasi*, *18*(1), 1. https://doi.org/10.31315/jik.v18i1.3227

Usman, S. A. B., Isa, D. R., & Nuha, A. R. (2024). Penerapan metode Kano, customer satisfaction index dan quality function deployment dalam menganalisis kepuasan mahasiswa terhadap penerapan MB-KM [Applying the Kano method, customer satisfaction index, and quality function deployment to analyze student satisfaction with the MB-KM program]. *ESTIMASI: Journal of Statistics and Its Application*, *5*(1), 110–112. https://doi.org/10.20956/ejsa.v5i1.26740

Wahyuni, A. N., Sukarni, S., & Ngafif, A. (2025). An analysis of persuasive language found in skincare Instagram captions. *Wiralodra English Journal*, *9*(2), 1–14. https://doi.org/10.31943/wej.v9i2.426

Winanda, T. Y., & Akbar, R. (2022). Analisis strategi pemasaran produk Permata Sari dalam meningkatkan penjualan menggunakan metode benchmarking dan SWOT [Analysis of Permata Sari product marketing strategy to increase sales using benchmarking and SWOT]. *Jurnal Sains dan Ilmu Terapan*, *5*(2), 62–71. https://doi.org/10.59061/jsit.v5i2.81

APPENDIX A. SCORING RULES OF THE SUB-CRITERIA

Each observed sub-criterion was converted into a 1–5 score with the rules in Table A1. F2, F3, S1, S2, R2, and C1 were scored by three raters with these rules and the scores were averaged. The other nine sub-criteria were scored by direct counting.

Table A1. Scoring rules (1–5) of the fifteen sub-criteria

Code	Sub-criterion	Score 1	Score 2	Score 3	Score 4	Score 5
F1	Feeds posting frequency	No Feeds posts	1–10 posts per month	11–20 posts per month	21–30 posts per month	More than 30 posts per month
F2	Aesthetic quality of visual content	No aesthetic aspect	1 aspect	2 aspects	3 aspects	4 or more aspects
F3	Interactive image and video content	No content variation	1 variation	2 variations	3 variations	4 or more variations
S1	Use of Story features	No feature used	1–2 features	3–4 features	5–6 features	More than 6 features
S2	Story content variety	No content category	1 category	2 categories	3 categories	4 or more categories
S3	Story posting schedule	No story	1 story per day	2 stories per day	3 stories per day	4 or more stories per day
R1	Reels posting frequency	No Reels	1–2 Reels per week	3–5 Reels per week	6–8 Reels per week	More than 8 Reels per week
R2	Reels that follow trends	No trending content type	1 trending type	2 trending types	3 trending types	More than 3 trending types
R3	Influencer collaboration	No collaboration	Collaborated only once	Collaborated 1–2 times	Collaborated 3–4 times	Collaborated more than 4 times
P1	Visual elements of the profile	No profile aspect	1 aspect	2 aspects	3 aspects	4 aspects

Code	Sub-criterion	Score 1	Score 2	Score 3	Score 4	Score 5
P2	Completeness of profile information	1 element	2 elements	3 elements	4 elements	5 or more elements
P3	Brand identity in the profile	No identity information	1 item	2 items	3 items	4 or more items
C1	Storytelling-based caption	No caption	1 form	2 forms	3 forms	4 or more forms
C2	Strategic use of hashtags	No hashtag	1–2 hashtags	3–6 hashtags	7–10 hashtags	More than 10 hashtags
C3	Persuasive caption	No caption type	1 type	2 types	3 types	4 or more types