



(MUDIMA)



Applying the SMART Method to Determine Effective Promotion Strategies for Cocomesh and Ccofiber at PUT Manado State Polytechnic

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ARTICLE INFO

Keywords: SMART, Promotional Strategy, Decision-Making, Cocomesh, Ccofiber, PUT

Received : 4 February

Revised : 23 March

Accepted : 20 April

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ABSTRACT

This study aims to determine the most effective promotional strategy in marketing Cocomesh and Ccofiber products at the Center for Technology Excellence (PUT) of Manado State Polytechnic. The method used is SMART (Simple Multi-Attribute Rating Technique), a multi-criteria decision-making technique that considers several alternatives and important attributes in the evaluation process. The five main criteria analyzed include cost, reach, effectiveness, ease of implementation, and sales impact. The results showed that promotion through social media was the most effective alternative with the highest score (4.80), followed by MSME partnerships (3.80). These findings provide strategic recommendations for PUT in optimizing a digital-based promotional approach that is cost-effective and reaches a wide market. This study also contributes to data-based decision-making in the coconut-based product innovation sector

INTRODUCTION

The Center for Technology Excellence (PUT) of Manado State Polytechnic has a strategic role in encouraging innovation of local resource-based products, especially in the utilization of coconut waste. One of the innovations produced is the Cocomesh and Cocofiber products, which are processed coconut fiber products with high added value. These products have great potential in the fields of land reclamation and erosion control, as well as other applications in the agricultural and construction sectors (Mait et al., 2024).

Despite having significant potential, efforts to promote Cocomesh and Cocofiber products at PUT still face various challenges. The marketing strategies implemented have not been able to reach the market widely and effectively. This is in line with findings showing that product innovation needs to be supported by the right branding and marketing strategies to achieve success in the market (Kemenperin, 2022). Limitations in this promotional strategy result in low levels of consumer awareness and interest in the product, thus inhibiting the increase in sales volume.

In this context, a systematic approach is needed in decision making to determine the most effective promotional strategy. One method that can be applied is the Simple Multi-Attribute Rating Technique (SMART). The SMART method is known for its simplicity in handling multi-criteria problems and has been applied in various decision-making contexts (Mahdy et al., 2023). By considering various criteria such as promotion costs, market reach, communication effectiveness, ease of implementation, and visual appeal, this method can help in evaluating and selecting optimal promotion strategies.

This study aims to analyze and determine the most effective promotion strategy for Cocomesh and Cocofiber products at PUT Manado State Polytechnic by applying the SMART method. Through this approach, it is hoped that recommendations for promotion strategies can be obtained that not only increase product visibility but also encourage increased sales and product

competitiveness in the market. In addition, the results of this study are expected to contribute to the development of strategic decision-making models in the field of marketing innovative products based on local resources.

METHODS

SMART Method in Multi-Criteria Decision Making

Simple Multi-Attribute Rating Technique (SMART) is a decision-making method developed to assist in selecting the best alternative based on several predetermined criteria. This method is based on the theory that each alternative has a number of criteria with certain values and weights that reflect its level of importance compared to other criteria (Edward, 1997). The main advantage of the SMART method lies in its simplicity and flexibility in handling multi-criteria problems, making it easier for decision makers to evaluate various alternatives objectively (Filho, 2005).

The application of the SMART method has been widely used in various fields, including in determining promotional strategies. For example, research by Mahdy et al. (2023) shows that the SMART method is effective in selecting recipients of productive business assistance by considering various relevant criteria. This shows that the SMART method can be widely applied in decision making involving many criteria.

Promotion Strategy for Cocomesh and Cocofiber Products

Cocomesh and Cocofiber are coconut fiber derivative products that have great potential in the construction and agricultural industries. Cocomesh is used as a material for land reclamation and erosion control, while Cocofiber is used in the manufacture of products such as mattresses, vehicle seats, and insulation materials (Rodriguez & Perez, 2019).

However, despite their significant benefits, marketing these products still faces various challenges. An effective promotional strategy is essential to increase product visibility and sales. Santoso (2021) emphasized the importance of implementing an integrated promotional strategy in increasing sales of consumer products in the Indonesian market. These strategies include the use of social media, participation in exhibitions, and the development of a wide distribution network.

On the other hand, research by Mait et al. (2024) at PUT Manado State Polytechnic shows that the production and promotion of Cocomesh and Cocofiber require a structured and data-based approach to achieve optimal results. The application of decision-making methods such as SMART in designing promotional strategies can help in choosing the most effective promotional alternatives based on predetermined criteria.

Integration of SMART Method in Promotion Strategy

The integration of SMART method in determining the promotion strategy of Cocomesh and Cocofiber products allows a systematic evaluation of various promotion alternatives. By considering criteria such as cost, market reach, communication effectiveness, and ease of implementation, the SMART method can help in choosing the promotion strategy that best suits the needs and resources available. This is in line with research showing that the use of multi-criteria decision-making methods can increase the effectiveness of promotion strategies and ultimately increase product sales (Saminathan et al., 2020).

This study uses a descriptive quantitative approach, which aims to describe the phenomenon of decision-making in determining the promotion strategy of Cocomesh and Cocofiber products systematically and objectively, by applying the SMART (Simple Multi-Attribute Rating Technique) method as the main tool in the evaluation and decision-making process.

1. Type and Research Approach

This research is applied research because it is used to solve practical problems, especially in choosing the right promotion strategy. The approach used is descriptive quantitative, because the data collected is in the form of numbers and is analyzed to describe the calculation results systematically.

2. Location and Time of Research

The research was conducted at the Center for Technology Excellence (PUT) of the Manado State Polytechnic, with an implementation period of 3 months, starting from July to September 2025.

3. Sources and Data Collection Techniques

Primary Data: Obtained through direct observation, interviews, and distribution of questionnaires to parties involved in product promotion (PUT team, lecturers, promotion practitioners, and consumers).

Secondary Data: Obtained from internal PUT documents, previous promotional activity reports, and supporting literature such as scientific journals and books.

4. Identification of Criteria and Alternatives

The researcher together with the respondents determine:

- Criteria: Cost, communication effectiveness, promotional reach, ease of implementation, and impact on sales.
- Alternative promotional strategies:
 - Social media promotion
 - Promotion through local/national exhibitions
 - Partnership with MSMEs
 - Direct offers to rehabilitation projects/government agencies

5. SMART Method Stages

The SMART method is carried out through the following stages:

- Determination of Criteria and Weight
- Each criterion is given a weight based on its level of importance (using a scale of 0–1 or percentage).
- Assigning Alternative Values
- Each alternative strategy is assessed against each criterion using a rating scale (for example a scale of 1–5 or 1–10).
- Total Score Calculation

The final score is calculated using the formula:

$$S_i = \sum_{j=1}^n (w_j \times x_{ij})$$

Where:

S_i = total score of the i-th alternative

w_j = weight of the j-th criterion

x_{ij} = value of the i alternative against the j criterion

6. Research Flowchart

The following is the research flow diagram:

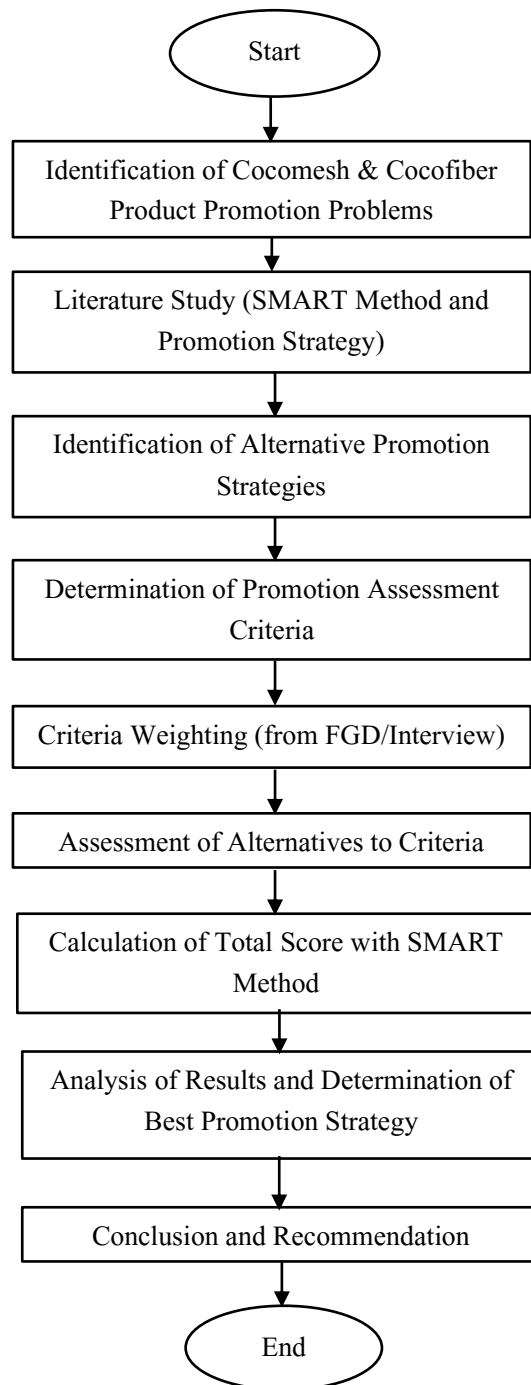


Figure 1. Research Flow Chart

RESULTS AND DISCUSSION

This study produces a ranking of promotional strategies based on the SMART method. The five alternatives assessed are:

1. Promotion through social media,
2. Partnerships with MSMEs,
3. Promotion through exhibitions,
4. Marketing via government projects, and
5. Direct outreach to the community.

Each alternative was evaluated using five main criteria: cost, reach, effectiveness, ease of implementation, and sales impact. The results are presented below:

Table 1. Alternative Strategies and SMART Scores

Promotional Strategy	Alternative Final Score (SMART)
Social Media	4.80
MSME Partnerships	3.80
Exhibitions	3.20
Government Projects	2.70
Direct Outreach	2.30

The findings show that **social media** is the most effective strategy, considering the combination of low cost, wide reach, and ease of implementation. The high level of **engagement** or user interaction (likes, shares, comments) on social media platforms enhances the promotional impact of eco-friendly products such as Cocomesh and Cocofiber (Rahmawati et al., 2022).

MSME partnerships rank second, reflecting potential in establishing local distribution networks, although requiring more time and coordination. Strategies such as government projects and direct outreach tend to have limited impact and are often short-term in nature.

The application of the SMART method in this context proves effective in simplifying data-based decision-making with clear criteria. This aligns with Mustajab (2021), who stated that the SMART method is suitable for evaluating multiple alternatives and criteria efficiently.

CONCLUSION

Based on the results of the study using the SMART (Simple Multi-Attribute Rating Technique) method, it can be concluded that the most effective promotional strategy for Cocomesh and Cocofiber products at PUT Manado State Polytechnic is social media promotion, with the highest score (4.80) compared to other alternatives. This strategy excels in terms of low cost, wide reach, and ease of implementation.

Partnerships with MSMEs ranked second, indicating potential to expand local distribution. Meanwhile, strategies such as exhibitions, government projects, and direct outreach showed

lower effectiveness and limitations in terms of reach and long-term impact.

This study demonstrates that the SMART method is effective in supporting strategic decision-making processes based on clear and measurable criteria. The results are expected to serve as a reference for PUT in designing more structured and data-driven promotional strategies, especially in driving the commercialization of coconut-based innovation products.

Recommendations for future research include integrating the SMART approach with other methods such as AHP or Fuzzy Logic to gain deeper analysis. Moreover, field testing the effectiveness of the selected strategy is suggested as a follow-up step in the continuous evaluation process.

ACKNOWLEDGMENT

The author would like to express sincere gratitude to Manado State Polytechnic, through the Center for Research and Community Service (P3M), for the support and funding provided for the implementation of this research.

Highest appreciation is extended to:

- Director of Manado State Polytechnic, *Dra. Maryke Alelo, MBA*, for her commitment and continuous support toward the advancement of applied research within the institution.
- Head of the Center for Research and Community Service (P3M) for the 2019–2024 period, *Dr. Ir. Jeanely Rangkang, M.Eng.Sc*, for her valuable guidance and facilitation throughout the research process.
- Head of the Center of Excellence for Technology (PUT) for the 2019–2024 period,

Ir. Rudolf E. G. Mait, ST., MT., IPM, for his technical support and contributions in implementing the PUT program as part of the effort to enhance local coconut-based products.

Special thanks are also extended to the research partner, Wale Gonofu, and all individuals and parties who have supported and contributed to this research, either directly or indirectly.

This research, entitled "Applying the SMART Method to Determine Effective Promotion Strategies for Cocomesh and Cocofiber at PUT Manado State Polytechnic," would not have been successfully carried out without the synergy and support from all of the above.

It is hoped that the results of this study will make a meaningful contribution to the development of coconut derivative products and the formulation of effective promotional strategies to enhance local economic value.

REFERENCES

- Edward, W. (1997). *Decision analysis and behavioral research*. Cambridge University Press.
- Filho, R. S. (2005). *Decision making in complex environments: SMART technique and its applications*. *Journal of Operational Research*, 56(2), 89–97.
- Kementerian Perindustrian Republik Indonesia. (2022). *Strategi promosi produk industri berbasis sumber daya lokal*. Jakarta: Kemenperin.
- Mahdy, M., Susanto, D., & Haryanto, T. (2023). Application of SMART method in selecting productive business assistance recipients. *Jurnal Ilmu Sosial dan Humaniora*, 12(1), 55–63.
- Mait, R. E. G., Kabo, D. R. G., Tombeg, B. A., & Lagarens, Y. L. (2024). *Pengembangan strategi promosi produk inovatif berbasis kelapa di PUT Politeknik Negeri Manado*. *Jurnal Teknologi Lokal*, 3(1), 20–30.
- Mustajab, M. (2021). Analisis pengambilan keputusan menggunakan metode SMART pada penentuan lokasi usaha. *Jurnal Sistem Informasi*, 10(2), 44–52.
- Rahmawati, F., Syahputra, I., & Permana, A. (2022). Pengaruh media sosial terhadap efektivitas promosi produk ramah lingkungan. *Jurnal Komunikasi dan Media*, 15(3), 145–158.
- Rodriguez, M., & Perez, L. (2019). Utilization of coconut fiber in sustainable construction and agriculture. *International Journal of Agricultural Innovation*, 7(4), 211–218.
- Santoso, R. (2021). Strategi promosi terpadu dalam meningkatkan penjualan produk konsumen. *Jurnal Pemasaran Indonesia*, 9(1), 32–40.
- Saminathan, S., Noor, H. M., & Hidayat, M. (2020). Multi-criteria decision-making models for effective promotional strategies. *Asia Pacific Marketing Review*, 8(2), 105–118.