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Development Strategy for an Oyster Mushroom Business in Nueva Ecija, Philippines Using SWOT and Use Oyster Mushroom Business Or Oyster Mushroom Cultivation Business

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ABSTRACT
This study aims to formulate and prioritize development strategies for an oyster mushroom cultivation business located in Barangay Singalat, Muñoz, Nueva Ecija, Philippines. The business faces several problems, including declining production based on internal business records, limited production capacity, simple production facilities, short shelf life of fresh oyster mushrooms, weak financial recording, limited use of digital marketing, and failure to achieve sales targets. This study used a descriptive case study approach by combining SWOT analysis and TOPSIS. Data were collected through observation, business record review, and interviews with 10 purposively selected informants consisting of the owner, production workers, marketing personnel, customers, local agricultural officers, and agribusiness experts. The Internal Factor Evaluation matrix and External Factor Evaluation matrix were used to evaluate internal and external conditions. The IFE score was 3.056, indicating a strong internal position, while the EFE score was 2.991, indicating a moderate to high external response. The IE matrix placed the business in the growth and build position. SWOT analysis generated eight alternative strategies, which were then ranked using TOPSIS based on four criteria. After recalculation, the priority strategy was A4, namely creating educational and promotional social media content to attract customers, with a corrected closeness coefficient of 0.7853 under the assumption that implementation burden is treated as a cost criterion. The results indicate that digital promotion can be prioritized, but it must be supported by production planning, delivery readiness, financial recording, and product shelf life management. This study contributes to strategic decision making for small scale oyster mushroom agribusiness by integrating SWOT diagnosis with TOPSIS based priority ranking.

Keywords: Oyster Mushroom Cultivation Business; SWOT; TOPSIS; Nueva Ecija; Agribusiness SME; Development Strategy

INTRODUCTION

Oyster mushroom cultivation is an important small scale agribusiness activity because it can be operated with relatively limited land, uses agricultural by products as growing media, and provides income opportunities for rural households and micro enterprises. In the Philippine context, mushroom cultivation is also relevant to livelihood development, value added food production, and local enterprise support. However, small mushroom producers often face constraints related to unstable production, limited facilities, short shelf life of fresh products, weak postharvest handling, limited market access, and inadequate business records.

The oyster mushroom cultivation business examined in this study is located in the study area in Nueva Ecija, Philippines. The business produces fresh oyster mushrooms and mushroom growing media. Based on internal business records, production reached 4.9 tons per month in 2021, decreased to 4.2 tons per month in 2022, and slightly increased to 4.3 tons per month in 2023. These figures show that production had not returned to the 2021 level. The production problem is related to limited production capacity, simple facilities, limited labor specialization, and the short shelf life of fresh oyster mushrooms. At the same time, the business has not maximized social media marketing and has not maintained detailed financial records. These conditions create a gap between market opportunity and business capability.

The problem faced by the business is not only low production, but also weak alignment between production capacity, marketing strategy, and customer demand. Increasing market interest cannot be converted into sales growth when the business is unable to maintain stable supply, manage product perishability, record financial performance, and communicate product value to customers. Therefore, a development strategy is needed to help the business determine which action should be implemented first under limited financial, human, and operational resources.

Previous studies have used SWOT analysis to identify strengths, weaknesses, opportunities, and threats in agribusiness and SME development. Other studies have used multi criteria decision making methods such as AHP, ANP, QSPM, and TOPSIS to rank strategic alternatives. However, many studies stop at identifying strategic factors and do not provide a transparent ranking process for selecting the most feasible strategy. In the case of small scale oyster mushroom cultivation in Nueva Ecija, studies that integrate SWOT and TOPSIS at the barangay based enterprise level remain limited.

This study lies in the integration of SWOT and TOPSIS to transform qualitative strategic diagnosis into a measurable priority ranking. SWOT is used to identify the strategic condition of the business, while TOPSIS is used to rank alternative strategies based on selected criteria. This combination is appropriate because the business has several possible strategies but limited resources to implement all of them at the same time. This study aims to: first, identify the internal and external strategic factors affecting the oyster mushroom cultivation business; second, determine the strategic position of the business using IFE, EFE, and IE matrix analysis; third, formulate alternative development strategies using SWOT analysis; and fourth, prioritize the most appropriate development strategy using TOPSIS. The research questions are: What are the strengths, weaknesses, opportunities, and threats of the business? What is the strategic position of the business based on the IE matrix? What alternative strategies can be formulated from the SWOT matrix? Which strategy should be prioritized based on TOPSIS ranking?

METHODS

This study used a descriptive case study design with qualitative and quantitative analysis. The study was conducted at an oyster mushroom cultivation business in Barangay San Josef Sur, Cabanatuan City, Nueva Ecija, Philippines, from January 2024 to June 2024. The case was selected because the business experienced declining production based on internal records, limited production capacity, weak digital marketing, simple production facilities, weak financial recording, and failure to achieve sales targets.

Informants were selected using purposive sampling. The inclusion criteria were: first, individuals directly involved in production, marketing, management, purchasing, or institutional support of oyster mushroom products; second, individuals with sufficient knowledge of the internal or external condition of the business; and third, individuals willing to participate in interviews and validation. The informants consisted of 1 owner or manager, production workers, marketing personnel, customers, local agricultural or SME officers, and independent agribusiness experts.

Data were collected through direct observation, semi structured interviews, review of internal business records, and expert assessment. Internal factors were identified using operational and marketing perspectives, including product quality, production capacity, facility condition, price, distribution, promotion, labor skills, transportation access, and financial recording. External factors were identified using market and competitive perspectives, including customer demand, competitor promotion, distribution channels, raw material price fluctuation, customer loyalty, technological development, and government or institutional support.

The Internal Factor Evaluation matrix and External Factor Evaluation matrix were used to quantify strategic factors. Each factor was assigned a weight between 0.00 and 1.00, and the total weight in each matrix was equal to 1.00. Ratings ranged from 1 to 4. For the IFE matrix, rating 1 indicates a major weakness, rating 2 indicates a minor weakness, rating 3 indicates a minor strength, and rating 4 indicates a major strength. For the EFE matrix, rating 1 indicates a poor response, rating 2 indicates an average response, rating 3 indicates an above average response, and rating 4 indicates a superior response. The weighted score was obtained by multiplying weight and rating. Total scores were interpreted as follows: 1.00 to 1.99 indicates a weak position, 2.00 to 2.99 indicates a moderate position, and 3.00 to 4.00 indicates a strong position.

The SWOT matrix was used to formulate alternative strategies by matching strengths with opportunities, weaknesses with opportunities, strengths with threats, and weaknesses with threats. The resulting strategies were then evaluated using TOPSIS. TOPSIS was selected because it ranks alternatives based on their distance from the positive ideal solution and the negative ideal solution. Compared with AHP, ANP, or QSPM, TOPSIS is suitable for this study because the alternatives had already been generated through SWOT, the decision problem was focused on ranking alternatives, and the number of criteria was limited.

The TOPSIS procedure consisted of six stages. First, the decision matrix was constructed using eight alternative strategies and four criteria. Second, the decision matrix was normalized using vector normalization. Third, the normalized matrix was multiplied by the criterion weights to obtain the weighted normalized matrix.

Fourth, the positive ideal solution and negative ideal solution were determined according to the benefit or cost type of each criterion. Fifth, the distance of each alternative from the positive ideal solution and negative ideal solution was calculated. Sixth, the closeness coefficient was calculated, and the alternative with the highest coefficient was selected as the priority strategy.

RESULTS AND DISCUSSION

Internal and External Strategic Position

The IFE matrix produced a total score of 3.056. This score falls within the strong internal position interval because it is higher than 3.00. The result indicates that the oyster mushroom cultivation business has several important strengths, including repeat customers, good product quality, access to business owned delivery transportation, skilled production workers, and a relatively strategic location. However, the business still has weaknesses, particularly limited production capacity, short shelf life of fresh oyster mushrooms, simple facilities, weak financial recording, and limited use of social media marketing.

The EFE matrix produced a total score of 2.991. This score falls within the upper moderate external response interval. The result indicates that the business has market opportunities, including increasing public interest in oyster mushrooms, customer loyalty, potential value added mushroom products, and the use of digital technology for promotion. However, the business also faces threats from competitors with wider distribution channels, more attractive promotions, fluctuating raw material prices, customer switching behavior, and better service quality offered by competitors.

The IE matrix uses the IFE score as the horizontal coordinate and the EFE score as the vertical coordinate. With IFE = 3.056 and EFE = 2.991, the oyster mushroom cultivation business is positioned in the growth and build area. Therefore, the recommended general strategies are market development, market penetration, product development, production capacity improvement, and digital marketing strengthening.

Table 1 SWOT Matrix Analysis Of Mushroom Business

Internal Factors / **External factors**	**Power (Strenght) S**	***Weakness* W**
	S1. The business already has repeat customers. S2. The fresh oyster mushrooms produced are of good quality. S3. The business has access to delivery transportation. S4. The business has production workers with adequate cultivation skills. S5. The business location is relatively strategic for local buyers.	W1. The business has not maximized production capacity. W2. Fresh oyster mushrooms have a short shelf life. W3. Production facilities are still simple. W4. The business does not maintain detailed financial records. W5. The business has not maximized social media marketing.

Opportunities O O1. Local consumers are familiar with oyster mushrooms. O2. Public interest in consuming oyster mushrooms is increasing. O3. Customer loyalty can be strengthened. O4. Oyster mushrooms can be processed into higher value products. O5. Digital technology can be used to improve promotion and customer communication.	**SO Strategy** SO1. Use repeat customers to support word of mouth promotion. SO2. Maintain product quality and improve customer service to strengthen customer loyalty.	**WO Strategy** WO1. Improve financial recording by recruiting or training personnel responsible for bookkeeping. WO2. Create educational and promotional social media content to attract customers.
Threat T T1. Competitors have wider distribution channels. T2. Competitor promotions are more attractive. T3. Raw material prices fluctuate. T4. Customers may switch to competitors offering similar products. T5. Customers may prefer competitors with better service quality.	**ST Strategy** ST1. Expand distribution channels to nearby municipalities and local markets in Nueva Ecija. ST2. Develop an online customer communication channel to receive orders, complaints, and suggestions..	**WT Strategy** WT1. Improve customer service quality by maximizing existing human resources. WT2. Provide sales based incentives for workers who help increase sales beyond the target..

Explanation of SWOT Strategy Formulation

1. SO Strategy

The SO strategy was formulated by using the business strengths to take advantage of available market opportunities. The oyster mushroom cultivation business already has repeat customers, produces good quality fresh oyster mushrooms, has access to delivery transportation, employs workers with adequate cultivation skills, and operates in a relatively strategic location. These strengths can be used to strengthen customer loyalty and expand market awareness.

The first SO strategy is to use repeat customers to support word of mouth promotion. Repeat customers can help introduce the product to relatives, friends, neighbors, and other potential buyers. This strategy is relevant because local consumers are already familiar with oyster mushrooms and public interest in consuming oyster mushrooms is increasing. Customer testimonials can also be used to improve trust in the quality and freshness of the product.

The second SO strategy is to maintain product quality and improve customer service. Since oyster mushrooms can be processed into higher value products, the business should maintain product freshness, hygiene, packaging, and service reliability. Better service can strengthen customer loyalty and increase the possibility of repeat purchases. This strategy also supports market development because satisfied customers are more likely to recommend the product to other consumers.

2. WO Strategy

The WO strategy was formulated to reduce internal weaknesses by taking advantage of external opportunities. The main weaknesses of the business are limited production capacity, short shelf life of fresh

oyster mushrooms, simple production facilities, weak financial recording, and limited use of social media marketing. These weaknesses need to be addressed because the market opportunity for oyster mushrooms is growing.

The first WO strategy is to improve financial recording by recruiting or training personnel responsible for bookkeeping. The business needs simple but consistent financial records to monitor sales, production costs, revenue, profit, raw material expenses, and unsold products. Good financial records will help the owner evaluate business performance and make better decisions regarding production planning and marketing activities.

The second WO strategy is to create educational and promotional social media content to attract customers. Social media can be used to introduce fresh oyster mushrooms, explain product benefits, share harvest schedules, provide storage tips, present simple cooking ideas, display customer testimonials, and communicate order procedures. This strategy is suitable because the business has not maximized digital marketing, while digital technology can help small agribusinesses reach more customers. However, social media promotion must be adjusted to actual production capacity so that increasing demand does not create stock shortages or delayed orders.

3. ST Strategy

The ST strategy was formulated by using internal strengths to reduce external threats. The business faces threats from competitors with wider distribution channels, more attractive promotions, fluctuating raw material prices, customer switching behavior, and better service quality offered by competitors. Therefore, the business must use its product quality, repeat customers, delivery access, and skilled workers to maintain competitiveness.

The first ST strategy is to expand distribution channels to nearby municipalities and local markets in Nueva Ecija. The current distribution channel is still limited, so the business needs to reach more local buyers, retailers, food processors, community markets, and institutional buyers. Expanding distribution should be done gradually and must consider harvest volume, delivery capacity, product freshness, and customer demand.

The second ST strategy is to develop an online customer communication channel to receive orders, complaints, and suggestions. This channel can be managed through Facebook, Instagram, messaging applications, or a simple website. The main purpose is not only promotion, but also customer service. By providing a clear communication channel, the business can respond to customer inquiries, receive feedback, handle complaints, and maintain customer trust. Good communication can reduce the possibility of customers switching to competitors.

4. WT Strategy

The WT strategy was formulated to minimize internal weaknesses and avoid external threats. Since the business still has limited production capacity, simple facilities, weak financial records, and limited digital marketing, it must avoid strategies that are too costly or difficult to implement. The strategy should focus on improving internal management and customer service quality.

The first WT strategy is to improve customer service quality by maximizing existing human resources. Workers should be trained to maintain product quality, handle orders properly, communicate with customers politely, and support basic marketing activities. Good customer service is important because competitors may offer better service and more attractive promotions. If the business can provide consistent service, customers will have stronger reasons to continue buying from the business.

The second WT strategy is to provide sales based incentives for workers who help increase sales beyond the target. Incentives can motivate workers to support marketing, maintain product quality, and assist customer service. However, the incentive system should be linked to measurable indicators such as sales volume, customer satisfaction, repeat purchases, and reduction of unsold products. This strategy can help improve employee motivation while reducing the risk of losing capable workers to competitors.

Table 2 Alternative Development Strategies for the Oyster Mushroom Cultivation Business

Alternative	Mushroom Business Development Strategy
A1	Use repeat customers to support word of mouth promotion.
A2	Maintain product quality and improve customer service.
A3	Improve financial recording by recruiting or training bookkeeping personnel.

A4	Create educational and promotional social media content to attract customers.
A5	Expand e-commerce and delivery based distribution channels.
A6	Develop an online customer communication channel for orders, complaints, and suggestions.
A7	Improve customer service quality by maximizing existing human resources.
A8	Provide sales based incentives for workers who exceed sales targets.

Table 2 presents eight alternative development strategies generated from the SWOT matrix. These alternatives represent the strategic responses of the oyster mushroom cultivation business to its internal and external conditions. The SO strategies focus on using existing strengths, particularly repeat customers and product quality, to capture market opportunities. The WO strategies address internal weaknesses by improving financial recording and strengthening digital promotion. The ST strategies use internal strengths to respond to competitive threats through wider distribution and better customer communication. The WT strategies aim to reduce weaknesses and avoid threats by improving customer service and motivating workers through sales based incentives.

Alternatives show that the business requires an integrated development approach rather than a single isolated action. Marketing improvement is important, but it must be supported by production capacity, product freshness, customer service, and financial recording. For example, social media promotion may increase demand, but the benefit will be limited if the business cannot maintain stable production, respond to orders quickly, or manage unsold fresh mushrooms. Therefore, the eight alternatives were further evaluated using TOPSIS to determine which strategy should be prioritized under limited financial, human, and operational resources.

The use of TOPSIS is appropriate because all alternatives are relevant, but they differ in feasibility, market impact, resource requirements, and expected contribution to business performance. By ranking the alternatives, the business can avoid implementing all strategies at once and can focus first on the most suitable strategy. This is important for a small scale oyster mushroom cultivation business because resources are limited and each strategy requires different levels of cost, time, labor, and managerial capability.

Criteria Used in TOPSIS Analysis

Measures the matrix of positive ideal and harmful ideal solutions. Where the value of A+ is the max value of the weighted criteria value result and A- is the result of the min value of the weighted criteria value result, it will produce A+ and A- values.

Table 3. Weighted Decision Matrix of Alternative Strategies

Alternative	C1	C2	C3	C4
A1	2.195	0.957	1.200	0.552
A2	1.645	0.639	1.600	1.104
A3	1.645	1.278	1.600	0.552
A4	2.195	1.278	1.200	0.736
A5	1.095	0.957	1.600	0.552
A6	2.195	1.278	1.600	0.920
A7	1.095	0.957	1.200	0.736
A8	1.645	0.957	1.200	0.552
Positive ideal A+	2.195	1.278	1.200	1.104
Negative ideal A−	1.095	0.639	1.600	0.552

Table 3 shows the weighted decision matrix used in the TOPSIS analysis. The matrix evaluates eight alternative strategies based on four criteria, namely strategic suitability with the SWOT position, market reach and customer acquisition potential, implementation burden, and expected contribution to sales and business performance. Criteria C1, C2, and C4 are treated as benefit criteria, meaning that higher values indicate better performance. In contrast, C3 is treated as a cost criterion because it reflects implementation burden, including cost, time, and resource requirements. Therefore, a lower value in C3 is more desirable.

The positive ideal solution represents the most desirable value for each criterion, while the negative ideal solution represents the least desirable value. For benefit criteria, the positive ideal solution is the highest value and the negative ideal solution is the lowest value. For the cost criterion, the positive ideal solution is the lowest value and the negative ideal solution is the highest value. Based on Table 4, the positive ideal solution is 2.195 for C1, 1.278 for C2, 1.200 for C3, and 1.104 for C4. The negative ideal solution is 1.095 for C1, 0.639 for C2, 1.600 for C3, and 0.552 for C4.

The corrected maximum value for C2 is 1.278, not 1.275. This correction is important because the positive ideal solution directly affects the calculation of distance values and the final preference ranking. The classification of C3 as a cost criterion is also important because strategies with lower implementation burden are more appropriate for a small scale agribusiness with limited resources. This means that a strategy is not selected only because it has strong market potential, but also because it is realistic to implement with the existing capacity of the business.

The weighted decision matrix shows that A4 and A6 have strong values in strategic suitability and market reach. However, A4 has a lower implementation burden than A6, making it closer to the positive ideal solution when feasibility is considered. This explains why A4 becomes a strong candidate for the priority strategy. Meanwhile, A5 has the lowest strategic suitability score and a relatively high implementation burden, which makes it less competitive compared with the other alternatives.

Calculates the solution matrix's D+ and D- values, where the data is later used to find preference values.

$$D_x^+ = \sqrt{(A_1K_1 - Y_1^+)^2 + (A_2K_2 - Y_2^+)^2 + \cdots + (A_nK_n - Y_n^+)^2} \quad (1)$$

Table 4 Priority Strategy for Mushroom Business Development

Alternative	D+	D−	Closeness Coefficient	Rank
A1	0.7535	14.256	0.6542	3
A2	0.9270	0.6049	0.3949	7
A3	0.9940	0.7271	0.4225	5
A4	0.3680	13.480	0.7853	1
A5	13.759	0.4000	0.2252	8
A6	0.4000	12.016	0.7503	2
A7	11.000	0.7287	0.3985	6
A8	0.9329	0.7328	0.4400	4

Table 4 presents the distance of each alternative from the positive ideal solution, the distance from the negative ideal solution, and the closeness coefficient. The closeness coefficient indicates how close each alternative is to the ideal strategy. A higher closeness coefficient means that the alternative is closer to the positive ideal solution and farther from the negative ideal solution. Therefore, the alternative with the highest closeness coefficient is considered the most preferred development strategy.

The recalculated TOPSIS results show that A4, creating educational and promotional social media content to attract customers, has the highest closeness coefficient of 0.7853. This indicates that A4 is the closest alternative to the ideal solution. A4 performs strongly because it has high strategic suitability, high market reach potential, and relatively low implementation burden. This strategy directly addresses one of the main weaknesses of the business, namely the limited use of social media marketing, while also taking advantage of the opportunity created by digital technology and increasing consumer interest in oyster mushrooms.

A6, developing an online customer communication channel for orders, complaints, and suggestions, is ranked second with a closeness coefficient of 0.7503. This result indicates that A6 is also strategically important because it supports customer interaction and service improvement. However, A6 has a higher implementation burden than A4, which makes it slightly less preferred. A1 is ranked third with a closeness coefficient of 0.6542, showing that repeat customers remain an important promotional resource for the business. These three highest ranked strategies are complementary because they all focus on strengthening customer awareness, customer communication, and customer trust.

The middle ranked alternatives are A8, A3, A7, and A2. A8, providing sales based incentives for workers, has a closeness coefficient of 0.4400. This strategy can support employee motivation, but its impact on market expansion may be indirect. A3, improving financial recording, has a closeness coefficient of 0.4225. Although this strategy is important for internal management, it may not immediately increase market reach or sales. A7, improving customer service quality by maximizing existing human resources, has a closeness coefficient of 0.3985, while A2, maintaining product quality and improving customer service, has a closeness coefficient of 0.3949. These strategies remain relevant but are less urgent compared with digital promotion and customer communication.

A5, expanding e-commerce and delivery based distribution channels, has the lowest closeness coefficient of 0.2252. This does not mean that distribution expansion is unimportant. Rather, it indicates that this strategy may require higher resources, stronger logistics, and more stable production capacity before it can be implemented effectively. For a business that still faces limited production capacity and short product shelf life, immediate expansion of distribution channels may create operational risks if not supported by adequate production planning and postharvest handling.

Based on the TOPSIS ranking, the priority strategy for the oyster mushroom cultivation business is A4. However, this strategy should not be implemented as simple promotional posting only. The business should develop educational and promotional content that is directly connected to product availability, harvest schedules, ordering procedures, customer testimonials, storage tips, and simple mushroom recipes. The social media strategy must also be supported by production scheduling, delivery readiness, financial recording, and customer response monitoring. In this way, digital promotion can contribute not only to customer attraction but also to better business performance.

The corrected final ranking is as follows: A4 is ranked first, A6 second, A1 third, A8 fourth, A3 fifth, A7 sixth, A2 seventh, and A5 eighth. This ranking shows that the most suitable development direction is to strengthen digital promotion and customer communication before expanding wider distribution channels. This result is consistent with the current condition of the business, which still needs to improve production readiness, financial records, and customer service before pursuing more resource demanding expansion strategies.

Implementation Plan for the Priority Strategy

Priority strategy: Creating educational and promotional social media content to attract customers.

Responsible person: Owner or appointed marketing staff.

Supporting actors: Production workers, local agricultural office, barangay SME officer, loyal customers, and agribusiness experts.

Timeline: Three to six months.

Main activities:

1. Prepare a monthly social media content calendar.
2. Create educational content about oyster mushroom benefits, storage, simple recipes, and product hygiene.
3. Post harvest availability and ordering information at least three times per week.
4. Use customer testimonials and repeat buyer stories.
5. Link social media promotion with production capacity and delivery schedule.
6. Monitor customer inquiries, confirmed orders, repeat purchases, and unsold products.

Performance indicators:

1. Number of weekly posts.
2. Number of customer inquiries.
3. Number of confirmed orders.
4. Monthly sales volume.
5. Repeat purchase rate.
6. Unsold or spoiled fresh mushroom volume.
7. Monthly revenue.
8. Customer feedback and complaints.

Possible risks:

1. Promotion may increase demand beyond production capacity.
2. Staff may not have adequate digital marketing skills.

3. Fresh mushrooms may spoil if demand forecasting is inaccurate.
4. Customer dissatisfaction may occur if ordering and delivery are not well managed.

Risk mitigation:

1. Match promotional content with harvest schedule.
2. Train one staff member to manage social media and customer messages.
3. Improve simple bookkeeping and daily sales recording.
4. Prepare basic packaging and delivery procedures.
5. Coordinate with barangay or agricultural agencies for technical support.

CONCLUSION

This study formulated and prioritized development strategies for an oyster mushroom cultivation business in the selected barangay in Nueva Ecija, Philippines using SWOT and TOPSIS. The IFE score of 3.056 indicates that the business has a strong internal position, while the EFE score of 2.991 indicates a moderate to high external response. The IE matrix places the business in the growth and build position. Therefore, the business should prioritize market development, product development, production capacity improvement, and digital marketing strengthening.

The SWOT analysis generated eight alternative strategies. Based on the corrected TOPSIS calculation, the highest priority strategy is A4, namely creating educational and promotional social media content to attract customers, with a closeness coefficient of 0.7853. This strategy should be implemented together with production scheduling, delivery readiness, simple financial recording, product shelf life management, and customer response monitoring. The second priority is developing an online customer communication channel, while the third priority is using repeat customers to support word of mouth promotion.

The practical implication of this study is that oyster mushroom business owners should not rely only on general promotion. Digital marketing must be connected with production capacity, postharvest handling, packaging, financial control, and customer service. Barangay authorities, agricultural agencies, and SME development institutions can support the business through training in digital marketing, bookkeeping, packaging, postharvest handling, and market linkage.

RESEARCH LIMITATIONS

This study has limitations. It uses a single case study design and relies on a limited number of informants, so the findings cannot be generalized to all oyster mushroom businesses in the Philippines. In addition, the TOPSIS result depends on the selected criteria, criterion type, and weighting procedure. Future studies should compare several oyster mushroom producers across municipalities, involve more customers and independent experts, apply alternative weighting methods such as AHP or BWM, and evaluate the performance of the selected strategy after implementation.

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