

FORMULATING COMPETITIVE MARKETING STRATEGIES FOR HYDROPONIC LETTUCE: A STUDY FROM AN ISLAMIC BOARDING SCHOOL AGRIBUSINESS UNIT IN JOMBANG

Septi Ambar Indraningtia Sukma*, Imama Tur Rohmah, Miftachul Chusna

Universitas KH. A. Wahab Hasbullah, Jombang, Indonesia

Correspondent Author Email: septi@unwaha.ac.id

Abstract. Hydroponic agribusiness development in Islamic boarding schools presents unique opportunities and challenges due to its dual economic and educational objectives. However, few studies have developed structured marketing strategies in pesantren-based agribusiness contexts. This study aims to analyze internal and external factors influencing the marketing of hydroponic lettuce at Al-Lathifiyyah 4 Islamic Boarding School, Tambakberas, Jombang, and to develop competitive strategic recommendations using an integrated framework. A descriptive qualitative approach was employed, with data collected through in-depth interviews, observation, and documentation. The analysis combined Segmentation, Targeting, and Positioning (STP), the 7P marketing mix, and SWOT analysis to generate comprehensive strategic insights. The findings indicate that product quality and institutional credibility constitute primary strengths, while limited promotion, simple packaging, and restricted distribution remain significant weaknesses. External opportunities are driven by growing health-conscious consumer behavior, whereas competition from similar producers and conventional vegetables poses notable threats. The study demonstrates that integrating STP, 7P, and SWOT provides a systematic and context-sensitive framework for transforming institutional strengths into competitive positioning. This research contributes to agribusiness marketing literature by offering an empirical application of integrated strategic tools within an Islamic boarding school-based enterprise.

Keywords: Marketing Strategy, Hydroponic Lettuce, STP, 7P, SWOT

INTRODUCTION

The development of agribusiness in Indonesia continues to face increasingly complex challenges, particularly in relation to production efficiency, product quality assurance, and market competitiveness amid rapidly changing consumer preferences. The agricultural sector is no longer assessed solely based on production output, but also on its ability to respond to market dynamics, rising consumer awareness, and value-added creation. In this context, innovation in agricultural production systems and marketing strategies has become a critical determinant of agribusiness sustainability.

One agricultural innovation that has gained significant attention in recent years is hydroponic cultivation. Hydroponic systems enable efficient agricultural production with limited land resources, controlled nutrient inputs, and minimal pesticide use. As a result, hydroponic products are widely perceived as cleaner, safer, and of higher quality than conventionally grown vegetables (Febriana et al., 2023). These characteristics align closely with the increasing demand for healthy food, particularly among urban and peri-urban consumers who are more concerned about food safety, hygiene, and nutritional value. Studies on consumer adoption of health-oriented and technologically advanced food products further indicate that perceived safety and innovation significantly influence purchasing decisions (Giacalone & Jaeger, 2021).

Among various hydroponic commodities, lettuce has become one of the most popular vegetables cultivated due to its relatively short production cycle, stable market demand, and high consumption frequency. Lettuce is primarily consumed fresh, making attributes such as visual appearance, freshness, texture, and cleanliness highly influential in shaping consumer purchasing decisions. However, the rapid

growth of hydroponic lettuce producers has intensified competition, particularly at the local market level. Consequently, agribusiness actors can no longer rely solely on superior production techniques; instead, the formulation and implementation of effective marketing strategies have become essential for maintaining competitiveness and ensuring business continuity (Sitorus et al., 2025). Empirical evidence from hydroponic vegetable enterprises also demonstrates that structured marketing communication and effective digital promotion significantly enhance market reach and competitiveness (Zahra et al., 2022).

Hydroponic agribusiness development in Indonesia is not limited to commercial enterprises or private entrepreneurs. Islamic boarding schools (*pesantren*) have increasingly adopted hydroponic cultivation as part of economic empowerment programs and entrepreneurship education for students (*santri*). Pesantren-based agribusiness units typically pursue dual objectives: generating institutional income to support educational activities and providing practical entrepreneurial learning experiences for students. This model offers unique advantages, including strong social capital, community trust, and relatively stable labor availability. However, despite these advantages, many pesantren-based agribusiness units encounter significant limitations in marketing management, particularly in promotion, branding, market expansion, and strategic planning.

Although existing studies provide valuable insights into the development of hydroponic agribusiness, several important research gaps remain. First, most previous studies focus on commercial agribusiness enterprises or household-scale producers. In contrast, pesantren-based agribusiness units remain relatively underexplored despite their growing contribution to agricultural production and community development. Second, prior research often examines marketing variables in a fragmented manner, emphasizing consumer purchasing decisions without systematically integrating strategic marketing frameworks into a comprehensive strategy formulation process. This limitation limits the practical applicability of research findings for agribusiness actors who require clear, actionable strategic guidance.

Recent studies have emphasized the importance of structured strategic tools in enhancing agribusiness competitiveness. Surya et al. (2023) demonstrated that integrating internal and external factor analysis with SWOT analysis enables hydroponic lettuce businesses to identify priority marketing strategies more effectively. Dewi (2024) further argued that agribusiness competitiveness can be strengthened by adopting integrated strategic frameworks that consider both internal capabilities and external market opportunities. Nevertheless, empirical applications that combine Segmentation, Targeting, and Positioning (STP), the marketing mix (7P), and SWOT analysis within pesantren-based agribusiness contexts remain limited.

Despite the growing body of literature on agribusiness marketing, empirical research that specifically formulates competitive marketing strategies for hydroponic lettuce in pesantren-based agribusiness units remains scarce, particularly at the local level. Pesantren agribusiness units operate under unique organizational, cultural, and managerial conditions that distinguish them from conventional commercial enterprises. Without a structured and integrated marketing strategy, these units risk underperforming in increasingly competitive markets, regardless of their production potential and social legitimacy.

Based on these considerations, this study aims to formulate competitive marketing strategies for hydroponic lettuce produced by an Islamic boarding school-based agribusiness unit in Jombang. Specifically, this research seeks to (1) identify internal strengths and weaknesses as well as external opportunities and threats affecting the marketing of hydroponic lettuce, (2) analyze market segmentation, targeting, and positioning patterns along with the implementation of the 7P marketing mix, and (3) formulate strategic marketing recommendations using an integrated SWOT framework.

The contribution of this study is twofold. From an academic perspective, this research enriches the agribusiness marketing literature by providing empirical evidence on the application of integrated strategic marketing frameworks in a pesantren-based agribusiness context, which has been underrepresented in previous studies. From a practical perspective, the findings offer context-specific and actionable recommendations for pesantren and other institutional agribusiness units to design effective, competitive, and sustainable marketing strategies for hydroponic products.

METHODS

2.1 Research Design

This study employed a descriptive qualitative research design. This approach was chosen because it allows researchers to obtain a comprehensive, in-depth understanding of the actual field conditions, particularly regarding the marketing strategies for hydroponic lettuce at Pesantren Al-Lathifiyyah 4, Tambakberas, Jombang. Qualitative research emphasizes meaning, process, and social context, making it well-suited to examining dynamic, context-dependent marketing activities (Moleong, 2019; Creswell & Poth, 2018).

A descriptive qualitative approach was applied to explore how marketing strategies are formulated and implemented by hydroponic unit managers, and how internal actors and consumers perceive these strategies. This research design is appropriate for strategy formulation studies, where the objective is not hypothesis testing but the identification of strategic factors and the development of actionable marketing recommendations (Sugiyono, 2019).

2.2 Research Location and Time

The research was conducted at the hydroponic agribusiness unit of Pesantren Al-Lathifiyyah 4, located in Tambakberas, Jombang Regency, East Java. The research location was selected using purposive sampling, which involves the deliberate selection of research sites based on specific criteria relevant to the research objectives (Sugiyono, 2019).

The selected location met several criteria: (1) the existence of an actively operating hydroponic agribusiness unit, (2) direct relevance to the research focus on marketing strategies, and (3) integration between Islamic boarding school education and modern agricultural entrepreneurship activities (Mulyadi, 2020). Data collection was carried out from January to March 2025, covering production, marketing, promotion, and distribution activities.

2.3 Research Subjects and Informants

The selection of informants was conducted using purposive sampling, which allows researchers to select individuals with in-depth knowledge and direct experience relevant to the research focus (Sugiyono, 2019). Informants were chosen based on their involvement in the production and marketing of hydroponic lettuce.

The informants in this study consisted of:

1. Key Informant: the manager of the hydroponic agribusiness unit, responsible for strategic and operational marketing decisions.
2. Supporting Informant 1: a student (*santri*) or employee directly involved in production and marketing activities.
3. Supporting Informant 2: a consumer or buyer of hydroponic lettuce who provided insights regarding satisfaction, preferences, and market perceptions.

The use of multiple informants enabled data triangulation and ensured a comprehensive understanding from managerial, operational, and consumer perspectives (Creswell & Poth, 2018).

2.4 Types and Sources of Data

This study utilized primary and secondary data. Primary data were collected in the field through in-depth interviews, direct observations, and documentation. Interviews were conducted to explore marketing strategies, internal strengths and weaknesses, external opportunities and threats, and future strategic directions. Observations were conducted to examine production processes, packaging practices, promotional activities, and consumer interactions. Documentation included sales records, promotional materials, product and packaging photographs, and internal reports from the hydroponic unit.

Secondary data were collected from relevant literature, including scientific journals, books, government publications, and previous studies related to agribusiness marketing strategies, hydroponic agriculture, and pesantren-based enterprises. These data were used to support analysis and strengthen theoretical interpretation (Creswell & Poth, 2018).

2.5 Data Collection Techniques

Data collection techniques used in this study included in-depth interviews, observation, and documentation, which are commonly used in qualitative research to capture comprehensive, contextual data (Moleong, 2019).

In-depth Interviews

Semi-structured interviews were conducted using interview guidelines developed based on the Segmentation, Targeting, and Positioning (STP) framework (Kotler & Keller, 2016), the 7P marketing mix (Tjiptono, 2019), and SWOT analysis (Rangkuti, 2016). That ensured alignment between the data collection instruments and the study's analytical framework.

Observation

Direct observations were conducted to examine marketing activities, including product preparation and consumer interaction, as well as promotional strategies implemented through offline and digital media. Researchers acted as non-participant observers to minimize interference with operational activities (Sugiyono, 2019).

Documentation

Documentation was used to complement interview and observation data, including internal reports, sales archives, promotional content, and product visual documentation.

2.6 Analytical Framework

Operational definitions were developed to ensure analytical clarity and consistency between research objectives, data collection instruments, and strategic analysis tools (Sugiyono, 2019). The analytical framework of this study integrates STP analysis, the 7P marketing mix, and SWOT analysis. The focus of each analytical component is summarized in Table 1.

Table 1. Strategic Analysis Framework

Framework	Focus of Analysis	Data Source	Analytical Tool
STP	Market segmentation, targeting, positioning	Consumers, manager	STP analysis
7P	Product, price, place, promotion, people, process, physical evidence	Manager, staff, consumers	Marketing mix analysis
Internal Factors	Strengths & weaknesses	Manager, staff	IFAS
External Factors	Opportunities & threats	Manager, consumers	EFAS & SWOT

Source: Primary Data

2.7 Data Analysis and Trustworthiness

Data analysis was conducted systematically following qualitative analysis procedures proposed by Miles and Huberman (2014), consisting of data reduction, data display, and conclusion drawing. Interview transcripts, observation notes, and documentation data were reviewed, coded, and categorized according to analytical themes, including internal factors, external factors, market segmentation, marketing mix elements, and strategic alternatives.

The reduced data were presented in descriptive narratives and analytical matrices. Strategic analysis was conducted using Segmentation, Targeting, and Positioning (STP) (Kotler & Keller, 2016), the 7P marketing mix framework (Tjiptono, 2019), and SWOT analysis (Rangkuti, 2016). Internal factors were evaluated using the Internal Factor Analysis Summary (IFAS) matrix, while external factors were analyzed through the External Factor Analysis Summary (EFAS) matrix. The results were then integrated into a SWOT matrix to formulate SO, ST, WO, and WT strategies.

Although IFAS and EFAS involve weighting and scoring, these numerical values function solely as structured qualitative judgment tools to prioritize strategic factors and do not represent statistical measurement or hypothesis testing. Therefore, the overall research design remains a descriptive qualitative design.

To ensure the credibility and trustworthiness of the research findings, data triangulation was applied by comparing information obtained from different informants, data collection techniques, and theoretical perspectives (Moleong, 2019; Creswell & Poth, 2018). This process was conducted to minimize bias and enhance the reliability of the findings.

RESULTS AND DISCUSSION

The hydroponic agribusiness unit at Pesantren Al-Lathifiyyah 4, Tambakberas, Jombang, operates as both an economic enterprise and an educational platform for santri. The marketing of hydroponic lettuce is conducted on a relatively small scale and primarily targets local consumers. Marketing activities include direct sales at the pesantren, limited delivery services, and promotion through informal digital channels such as WhatsApp and Instagram.

Field observations and interviews indicate that marketing activities are still managed conventionally and have not yet been guided by a structured marketing plan. Decisions related to pricing, promotion, and distribution are mostly reactive, based on daily production outcomes rather than market demand forecasting. This condition aligns with findings by Budiyanto and Indriyani (2020), who noted that many small-scale and institutional agribusiness units rely on informal marketing practices, thereby limiting their ability to expand market reach.

3.1 Internal Factor Analysis (Strengths and Weaknesses)

The strengths of the pesantren's hydroponic unit include hygienic product quality, competitive pricing, the pesantren's reputation which enhances consumer trust, and the involvement of santri as the workforce. These factors indicate internal advantages that can be optimized. This aligns with Kotler and Keller (2016) who state that consumer trust and brand image are important elements in modern marketing.

Table 2. IFAS Matrix of Hydroponic Lettuce

No	IFAS	Total	Rating	Weight	Weight × Rating
Strengths					
1	The hydroponic lettuce sales location is easily accessible and strategic.	92	3.07	0.083	0.25
2	The hydroponic lettuce collaborates with business partners to benefit customers.	92	3.07	0.083	0.25
3	Support from institutions/organizations increases consumer trust.	95	3.17	0.086	0.27
4	Hydroponic lettuce can be harvested faster, ensuring stable availability.	92	3.07	0.083	0.25
5	An adequate workforce is available, improving customer service.	95	3.17	0.086	0.27
6	There is proper guidance or work management before sales/harvest.	99	3.30	0.090	0.30
7	The hydroponic lettuce offered is of good quality and fresh.	97	3.23	0.088	0.28
Weaknesses					
1	Hydroponic lettuce quality does not fully meet customer expectations.	91	3.03	0.083	0.25
2	The supply and demand for hydroponic lettuce are often unstable.	90	3.00	0.082	0.25
3	Hydroponic lettuce still faces competition from conventional vegetables.	88	2.93	0.080	0.23
4	The price of hydroponic lettuce is perceived as higher than that of regular vegetables.	90	3.00	0.082	0.25
5	Promotion on social media/digital platforms remains suboptimal.	82	2.73	0.074	0.20
Total		1,103		1.00	3.05

Source: Processed Primary Data, 2025

On the other hand, the weaknesses of the business unit lie in limited promotional activities, small production capacity, simple packaging without clear labeling, and financial management that has

not yet been digitized. These internal constraints reduce the effectiveness of market communication and limit competitive differentiation. Similar challenges have been identified in Indonesian MSMEs, where limited digital marketing capability and inadequate product presentation hinder market expansion and competitiveness (Rizkita et al., 2025). SWOT analysis is therefore applied to systematically identify internal and external factors influencing marketing strategies. As a strategic management tool, SWOT enables the formulation of alternative strategies through the integration of strengths, weaknesses, opportunities, and threats into SO, ST, WO, and WT combinations.

Based on the results of internal factor analysis in Table 2 through the preparation of an Internal Factor Analysis Summary (IFAS), a total score of 3.05 was obtained, indicating that the internal conditions of the hydroponic lettuce business in Tambakberas, Jombang, are in the fairly strong category, as the score is higher than the average score of 2.50. The dominant strengths include strong guidance or management before sales and harvesting, high-quality products, and support from institutions or agencies that increase consumer confidence. In addition, sufficient labor availability, a strategic sales location, cooperation with business partners, and stable product availability due to faster harvesting are important assets for business development. On the other hand, weaknesses that remain include suboptimal promotion on social media, competition with conventional vegetables, relatively higher product prices compared to regular vegetables, quality that does not fully meet customer expectations, and uncertain product supply and demand. This study aligns with research (Sari & Widodo, 2021) that shows that product quality, effective management, and institutional support are dominant factors in increasing the competitiveness of hydroponic vegetables.

3.2 External Factor Analysis (*Opportunities and Threats*)

From an opportunity perspective, the growing trend toward healthy lifestyles and the increasing public awareness of safe, pesticide-free food have expanded the market potential for hydroponic lettuce. Consumers are increasingly willing to choose vegetables that offer better hygiene and quality assurance, particularly in urban areas. In addition, the development of urban farming and hydroponic systems has been supported by government programs aimed at strengthening food security and local agribusiness competitiveness. These conditions create favorable opportunities for hydroponic producers to access broader market segments, including restaurants, cafés, and modern retail outlets that require a stable supply of fresh vegetables (Surya et al., 2023; Widiati, 2024).

Furthermore, studies show that institutional buyers in the food service sector represent a promising market for hydroponic lettuce, given their consistent demand and high-quality requirements (Nurmutmainnah et al., 2024). However, this opportunity is accompanied by external threats, particularly price competition with conventional vegetables and increasing competition among hydroponic producers. Without effective differentiation and strengthened distribution capacity, these threats may limit market expansion and sales sustainability.

Based on the results of external factor analysis through the preparation of an External Factor Analysis Summary (EFAS) presented in Table 3, a total score of 3.23 was obtained, indicating that the hydroponic lettuce business in Tambakberas, Jombang, has a fairly good ability to take advantage of opportunities and anticipate threats, as the score is higher than the average score of 2.50. The dominant opportunity factors include support from reliable business partners to increase consumer confidence, government policy support for healthy products, and changes in people's lifestyles that increasingly prioritize healthy vegetable consumption. In addition, increasing consumer taste and loyalty, the existence of the Free Nutritious Meals (MBG) program, and increased purchasing power also strengthen the prospects for business development. On the other hand, the threats that still exist include competition with cheaper conventional vegetable products, the risk of disruption to the supply of seeds or nutrients that can affect product availability, damage to hydroponic lettuce during the delivery process, pest or disease attacks, and competition with other hydroponic products such as pakcoy, kangkung, and hydroponic spinach.

Table 3. EFAS Matrix of Hydroponic Lettuce

No	EFAS	Total	Rating	Weight	Weight × Rating
Opportunities					
1	Current lifestyle changes have increased public interest in purchasing healthy vegetables, including hydroponic lettuce.	102	3.40	0.089	0.30
2	Shifts in consumer preferences have contributed to the growing popularity of hydroponic lettuce.	101	3.37	0.088	0.30
3	Consumers demonstrate loyalty and express willingness to continue purchasing hydroponic lettuce from Tambakberas, Jombang.	92	3.07	0.080	0.25
4	The Free Nutritious Meal (MBG) program enhances the positive image and market attractiveness of hydroponic lettuce.	94	3.13	0.082	0.26
5	Increasing community purchasing power facilitates access to hydroponic lettuce products.	92	3.07	0.080	0.25
6	Government policies supporting healthy food products strengthen consumer confidence in choosing hydroponic lettuce.	104	3.47	0.090	0.31
7	Consumer trust in the quality of hydroponic lettuce is reinforced through collaboration with reliable business partners.	105	3.50	0.091	0.32
Threats					
1	I notice competition from conventional vegetables that are cheaper.	94	3.13	0.082	0.26
2	There is a risk of hydroponic lettuce dying from pests or diseases, which may reduce product quality.	88	2.93	0.076	0.22
3	I am concerned about potential damage to hydroponic lettuce during delivery.	93	3.10	0.081	0.25
4	Sometimes seed or nutrient supply disruptions can affect product availability.	94	3.13	0.082	0.26
5	I notice competitors from other hydroponic products (other than lettuce), such as pakcoy, water spinach, or spinach.	93	3.10	0.081	0.25
Total		1,152		1,00	3,23

Source: Processed Primary Data, 2025

3.3 Marketing Mix Analysis 7P

The marketing strategy applied in the hydroponic lettuce unit in Al-Lathifiyyah 4 Tambakberas Jombang can be analyzed using the 7P marketing mix approach, which includes: Product, Price, Place, Promotion, People, Process, and Physical Evidence.

Product

The main product from this hydroponic unit is hydroponic lettuce, which offers advantages in terms of quality, cleanliness, and health benefits. This product also has differentiation as a pesantren product developed by santri, giving it religious value and greater consumer trust. Thus, the product meets the characteristics of a healthy product within a religious community, which is its main selling point.

Price

The selling price of hydroponic lettuce is set at around IDR 18,000 - IDR 20,000 per bunch. This price is determined by considering the relatively high production costs per cycle, including the need for nutrients, electricity, and installation maintenance. Although this price is higher than that of conventional vegetables, consumers consider it reasonable because it reflects the product's quality: it is clean, healthy, and safe for consumption.

Place (Location/Distribution)

The distribution channels for the hydroponic unit are direct and flexible, allowing consumers to pick up products at the Islamic boarding school or have them delivered by the manager. Previously, distribution was also carried out through the Ency Jombang Kitchen and local networks. However, as it has developed, it has focused more on the Free Nutritious Meals (MBG) social program.

Promotion

The promotional strategies currently implemented by the hydroponics unit remain simple and poorly managed. Promotion is mostly carried out through social media such as Instagram and WhatsApp, but there is inconsistent content presentation and publication schedules. As a result, despite numerous positive consumer responses, these promotional efforts have not generated a viral effect or built a strong brand image.

People

The human resources involved in the production and marketing of hydroponic lettuce are the students and administrators of the Islamic boarding school. Student involvement is a strength because it not only supports the operational aspects of the business but also has educational value by providing direct entrepreneurial experience. However, this situation can also be a weakness, given the limited time available to students, which is divided between studying, worship, and work in the hydroponic unit.

Process

The marketing process for hydroponic products at Al-Lathifiyyah 4 is still carried out. Interviews with managers revealed that after harvesting, the lettuce is immediately sorted, packaged, and then marketed through social media or WhatsApp groups to consumers. This process illustrates that marketing is inherently reactive because it is not yet based on a pre-order or subscription system. As a result, abundant harvests are often not fully absorbed by the market, leading to the risk of product accumulation. This condition confirms that the marketing process is still not well scheduled and needs to be aligned with a more structured system.

Physical Evidence

Physical evidence of Al-Lathifiyyah 4 hydroponic products includes packaging, labels, and visual appearance. Based on consumer interviews, the current packaging is considered neat, but there are suggestions to add labels or logos to make it look more professional. That shows that even though the product is already well packaged, improvements in the visual aspects of the packaging and brand identity (visual branding) are still needed.

The marketing strategy applied in the hydroponic lettuce unit in Al-Lathifiyyah 4 Tambakberas Jombang can be analyzed using the 7P marketing mix approach, which includes: Product, Price, Place, Promotion, People, Process, and Physical Evidence.

3.4 SWOT Matrix and Marketing Strategies

Based on the SWOT analysis, several strategies can be formulated. The SO (Strength-Opportunity) strategy involves leveraging product quality and the pesantren's reputation to enter the restaurant and café markets. The ST (Strength-Threat) strategy focuses on strengthening the pesantren's brand to address competition from conventional products. The WO (Weakness-Opportunity) strategy entails strengthening digital marketing and improving packaging to offset internal weaknesses while leveraging market opportunities. Lastly, the WT (Weakness-Threat) strategy aims to increase production capacity and improve internal management to anticipate price competition and distribution challenges. The results of Strategy Mapping are presented in Table 4.

Tabel 4. Results of Strategy Mapping Using the SWOT Matrix for Hydroponic Lettuce in Tambakberas, Jombang

Factor	Opportunities (O)	Threats (T)
Strengths (S)	SO Strategy 1. Optimize the hygienic product quality by expanding promotion through social media to reach health-conscious consumers. 2. Utilize the pesantren network to expand the distribution of hydroponic lettuce in line with healthy consumption trends.	ST Strategy 1. Maintain consistent product quality to remain competitive against price competition from conventional products. 2. Strengthen pesantren-based branding to enhance consumer trust and face competitors.
	WO Strategy 1. Implement digital marketing training for managers to overcome promotional limitations. 2. Develop more attractive packaging designs to increase product appeal in modern markets.	WT Strategy 1. Control production costs through resource efficiency to compete with non-hydroponic vegetables. 2. Build a loyal consumer community based on the pesantren to reduce reliance on the general market.

Source: Processed Primary Data, 2025

With the implementation of these four strategies, the Al-Lathifiyyah 4 hydroponic unit is expected to optimize its internal potential, respond to external challenges, and gradually build a robust, sustainable marketing system. The combination of a social-educational approach and community-based commercial strategies is key to achieving long-term success.

A marketing mix (7P) analysis shows that Al-Lathifiyyah 4 hydroponic lettuce products are of high quality and have strong religious value differentiation (Product), but are not yet accompanied by professional promotion and packaging strategies (Promotion & Physical Evidence). The price has been adjusted to production costs and remains acceptable to consumers (Price), while distribution remains local and not yet optimal (Place). The business actors (People) are enthusiastic students but still have limited time and marketing literacy. The marketing process is still simple and has not been integrated with a data-based demand system (Process). Product packaging is quite good, but does not yet reflect a strong brand identity (Physical Evidence). These findings are consistent with Zahra et al., (2022), who emphasize that the effectiveness of hydroponic vegetable marketing is strongly influenced by structured marketing communication and the optimization of digital channels. Without professional promotion and coherent branding, product quality alone is insufficient to achieve sustainable competitive advantage.

3.5 Discussion

The findings of this study indicate that the competitiveness of hydroponic lettuce marketing at Pondok Pesantren Al-Lathifiyyah 4 is strongly influenced by the combination of intrinsic product quality and the Islamic boarding school's institutional credibility. The hygienic, fresh, and pesticide-free characteristics of hydroponic lettuce represent tangible product value. At the same time, the religious and educational identity of the Islamic boarding school generates intangible value in the form of social trust and moral legitimacy. This combination enhances consumer confidence and strengthens market positioning despite the relatively small scale of production. As emphasized by Kotler and Keller (2016), marketing is not merely about selling products but about delivering superior value; in this context, the Islamic boarding school identity functions as a symbolic asset that reinforces perceived value beyond functional product attributes.

However, translating this strong value proposition into broader market performance is constrained by weaknesses in marketing execution. While product quality is perceived positively, promotional activities and packaging remain underdeveloped. Marketing efforts are still dominated by word of mouth, and packaging has not yet conveyed a clear, consistent brand identity. Similar conditions have been identified in hydroponic lettuce enterprises, where limited use of digital promotion and inadequate packaging and labeling reduce product visibility and attractiveness in competitive markets (Nurmutmainnah et al., 2024). Furthermore, evidence from hydroponic vegetable businesses indicates that strengthening marketing communication, particularly through structured and interactive digital

channels, plays a crucial role in expanding market reach and increasing demand (Zahra et al., 2022). These findings suggest that product excellence must be supported by effective marketing communication and improved packaging to transform production strengths into sustainable competitive advantage.

In addition to promotional constraints, distribution also emerges as a critical limitation in the marketing performance of hydroponic lettuce. The distribution network remains largely confined to areas surrounding the Islamic boarding school, restricting market reach and sales growth. Similar findings were reported by Surya et al. (2023), who observed that hydroponic lettuce businesses often face restricted distribution channels, limiting market expansion despite strong product quality. Likewise, Nurmutmainnah et al. (2024) found that limited access to institutional buyers and modern retail markets reduces the competitiveness of small-scale hydroponic lettuce enterprises. Within the 7P marketing mix framework, the *place* element has therefore not been fully optimized. Expanding distribution through partnerships with restaurants, cafés, and modern retail outlets could enhance market access, stabilize demand, and reduce dependency on local consumers, particularly for perishable products such as lettuce.

From an external perspective, the increasing trend toward healthy lifestyles represents a significant opportunity for market development. Consumers show a growing willingness to pay more for safer, healthier vegetables, as reflected in studies on the willingness to pay for organic vegetables among health-conscious consumer groups (Hasanah & Yanuar, 2024). In addition, consumer research on hydroponic vegetables in modern markets indicates that buyers tend to accept higher prices when they perceive higher-quality attributes, such as freshness and appropriate packaging (Asha et al., 2025). Moreover, the Islamic boarding school's institutional identity offers a distinctive branding opportunity that can strengthen product credibility and differentiation. Evidence from hydroponic vegetable enterprises shows that structured marketing communication, particularly interactive and digital marketing, plays an important role in expanding market reach and increasing demand (Zahra et al., 2022).

The integration of IFAS and EFAS into the SWOT matrix indicates that the SO (Strength–Opportunity) strategy represents the most viable strategic option. Leveraging product quality and the Islamic boarding school's credibility to access institutional markets, such as restaurants and café, is a logical extension of existing strengths. This finding is consistent with Surya et al. (2023), who emphasized that quality-based differentiation is a key driver of success in hydroponic vegetable marketing. At the same time, the WO strategy focusing on strengthening digital promotion and improving packaging, remains essential to address internal weaknesses while capitalizing on favorable market conditions. Previous research indicates that structured marketing communication and the effective use of digital platforms significantly improve the visibility and sales performance of hydroponic vegetable businesses (Zahra et al., 2022).

Beyond marketing factors, managerial capability also plays a crucial role in supporting competitiveness. The absence of systematic financial recording and demand forecasting highlights the need for stronger internal management practices. Strengthening managerial capacity, including digital management systems and strategic planning, has been shown to enhance the competitiveness and sustainability of MSMEs in Indonesia (Rizkita et al., 2025). By improving managerial structures, the hydroponic unit of the Islamic boarding school can transition from reactive marketing practices to a more structured, market-oriented strategy.

Overall, this discussion highlights that Islamic boarding school–based agribusiness possesses a distinctive hybrid advantage by combining economic objectives with educational and social missions. As noted by Hidayat and Lestari (2020), community-based hydroponic initiatives can simultaneously function as business enterprises, empowerment platforms, and providers of healthy food. Therefore, competitive marketing strategies in this context should integrate commercial efficiency with institutional identity. This study contributes to the agribusiness marketing literature by demonstrating how structured strategic tools, STP, 7P, IFAS, EFAS, and SWOT, can be effectively applied within an Islamic boarding school–based enterprise to transform contextual strengths into sustainable competitive positioning.

3.6

3.6 Practical and Theoretical Implications

The findings of this study provide important practical and theoretical implications for the development of Islamic boarding school–based agribusiness, particularly in the hydroponic vegetable sector. From a practical perspective, the results show that superior product quality alone is insufficient

to ensure competitiveness without a structured marketing strategy. Although hydroponic lettuce produced by the Islamic boarding school demonstrates strong intrinsic attributes such as hygiene, freshness, and pesticide-free cultivation, these strengths must be supported by consistent branding, digital promotion, and improved packaging design. Strengthening visual identity and optimizing social media platforms can significantly enhance product visibility and perceived value in competitive markets.

Furthermore, the study emphasizes the strategic importance of expanding distribution networks. Limited market reach remains a primary constraint to growth; therefore, establishing partnerships with restaurants, cafés, and institutional buyers is essential to stabilize demand and increase market penetration. For perishable products such as hydroponic lettuce, efficient distribution systems directly influence product quality retention and profitability. In addition, strengthening managerial capacity, particularly in financial record-keeping, production scheduling, and demand forecasting, can improve operational efficiency and support long-term sustainability. Integrating these managerial practices into entrepreneurship training for students also reinforces the dual mission of Islamic boarding school agribusiness as both an economic enterprise and an educational platform.

From a theoretical standpoint, this study contributes to agribusiness marketing literature by demonstrating the applicability of qualitative strategic analysis supported by structured tools such as STP, the 7P marketing mix, IFAS, EFAS, and SWOT analysis. The findings confirm that descriptive qualitative research, when systematically analyzed using strategic matrices, can generate comprehensive and actionable marketing recommendations without relying on inferential statistical methods. Moreover, this study extends marketing theory by illustrating how institutional identity, specifically the religious and educational character of an Islamic boarding school, can function as a strategic asset in market positioning. This dimension enriches the STP framework by integrating socio-institutional values into positioning strategy, highlighting that competitive advantage in small-scale agribusiness may derive not only from functional product attributes but also from symbolic and trust-based elements.

Overall, the study underscores that Islamic boarding school-based hydroponic enterprises possess a unique hybrid advantage that combines economic activity with social and educational missions. By integrating commercial strategy with institutional identity, such enterprises can achieve sustainable competitiveness while maintaining their social objectives. These implications provide a conceptual and practical foundation for future research and policy initiatives to strengthen institutional agribusiness models in Indonesia.

CONCLUSION

This study concludes that the marketing performance of hydroponic lettuce at the Islamic boarding school-based agribusiness unit of Al-Lathifiyyah 4 is primarily supported by strong product quality and institutional credibility. Hygienic production, perceived freshness, and the Islamic boarding school's trusted image are key competitive strengths. However, internal limitations, particularly in promotion, packaging, distribution reach, and managerial systems, restrict the optimization of these strengths in broader markets.

The integration of STP analysis, the 7P marketing mix, and SWOT analysis indicates that the most feasible strategic direction is to leverage product quality and institutional identity to capture health-conscious market segments while simultaneously strengthening digital promotion and branding. Expanding partnerships with restaurants, cafés, and other institutional buyers is essential to enhance distribution efficiency and stabilize demand.

Overall, this study highlights that Islamic boarding school-based agribusiness possesses a distinctive hybrid advantage that combines economic activity with educational and social value. By adopting a more structured, market-oriented marketing strategy, such institutions can transform contextual strengths into sustainable competitive advantage. Future development efforts should therefore focus on strategic planning, digital marketing optimization, and managerial strengthening to ensure long-term competitiveness and institutional sustainability.

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