



Proposed Marketing Strategy for Increase Sale of PT. Biops Agrotkekno Indonesia

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ABSTRACT: The objectives of this research are to evaluate the market segmentation of PT. BIOUS Agrotekno Indonesia and looking for opportunities to increase sales by reaching potential markets with new segmentation, targeting and positioning in the form existing business and to propose a new marketing strategy for PT BIOUS Agriculture to continue to grow without spending additional investment capital, but by utilizing existing assets to increase sales of PT BIOUS agriculture Indonesia. The author collects primary data by conducting interviews. As part of the preliminary research, the author interviews 10 individuals who have an interest in agriculture. The author employs a qualitative research methodology, utilizing in-depth interviews with the owner, management, and potential customers of PT. BIOUS Agrotekno Indonesia to explore the proposed solution. Additionally, the author conducts interviews with individuals in the hospitality industry to obtain relevant answers to the research questions at hand. The analysis conducted in this research consist of external analysis (Porter 5 forces, PESTEL analysis, competitor analysis, consumer analysis), internal analysis (STP, marketing mix, VRIO analysis, value chains analysis, BMC), SWOT analysis, TOWS analysis and QSPM. Based on the research results, it can be concluded that the sale of precision agricultural products for PT. BIOUS Agrotekno Indonesia is influenced by factors such as trust, service quality, and product quality. To enhance the marketing strategy and boost the sales of precision agricultural products, the company can implement the following strategies in the Case Study of PT. BIOUS Agrotekno Indonesia: (1) maximize promotional channels to reach untapped potential market segments, (2) leverage Encomotion awards and political support for specialized training targeting millennials interested in agricultural technology, and (3) improve promotion channels to deal with increasing competition in the market.

KEYWORDS: External Analysis, Internal Analysis, Marketing Strategy, Sale, SWOT.

INTRODUCTION

In 2023, the Indonesian government realizes the importance of focusing on sustainable development of the agricultural sector to achieve self-sufficiency in food and reduce economic disparities between regions. Government efforts are focused on empowering farmers, developing agricultural infrastructure, increasing access to markets, improving the distribution and processing systems of agricultural products, and increasing investment in agricultural research and technology. The government is also committed to improving coordination between related institutions, including ministries and local government agencies, as well as encouraging partnerships between the public and private sectors in supporting agriculture-based sustainable economic growth. With continued efforts, it is hoped that in 2023 Indonesia will experience a significant increase in the development of the agricultural sector, achieve self-sufficiency in food, and strengthen the role of the agricultural sector as the backbone of national economic growth. Even in 2020, Indonesia achieved a gross production value of agricultural goods of around 107.2 billion US dollars. This figure shows how important the agricultural sector is in its contribution to the Indonesian economy. As one of the main agricultural countries in the world, Indonesia has great potential in the agricultural sector which includes food crop agriculture, plantations, animal husbandry, fisheries and forestry. The agricultural sector is one of the main sectors providing employment and a source of livelihood for the majority of Indonesia's population, especially in rural areas. Farmers are the backbone of the agricultural sector and are the main driving force in achieving self-sufficiency in food and economic sustainability. In addition, the agricultural sector also has an important role in maintaining a country's food security. By having abundant natural resources, such as fertile land and biodiversity, Indonesia has the potential to independently produce various types of agricultural commodities. In this case, the agricultural sector can become the main supporter of national food security and reduce dependence on food imports. In addition to its contribution to food security, the agricultural sector also has a significant economic impact. Income generated from the agricultural sector can increase the purchasing power of rural communities and spread economic development between regions. It can also help reduce social and economic



disparities between urban and rural areas. In the Indonesian context, the government realizes the importance of developing the agricultural sector in a sustainable manner. These efforts include increasing investment in agricultural research and technology, developing agricultural infrastructure, empowering farmers, and improving distribution and marketing systems for agricultural products. By taking these steps, it is hoped that the agricultural sector can continue to grow and become a major contributor to the Indonesian economy, as well as provide broader benefits for society as a whole [1]. PT. BIOPS Agrotekno Indonesia is a company focused on the development of agricultural technology, specifically in the area of precision farming systems. Precision farming involves using technology to monitor and manage farming practices with greater accuracy and efficiency, leading to higher yields and reduced environmental impact. One of the key products offered by PT. BIOPS Agrotekno Indonesia is a precision farming system that can irrigate and fertilize farms precisely and automatically. This system is designed to help farmers save time and resources while improving crop yields. The system also includes real-time monitoring capabilities that allow farmers to track environmental conditions and irrigation processes using their smartphones. In addition to the precision farming system, PT. BIOPS Agrotekno Indonesia also offers a Smart Indoor Monitoring System. This system allows farmers to monitor environmental conditions in their farm in real-time, using a phone app or web dashboard. This information can help farmers make informed decisions about their farming practices, such as adjusting irrigation levels or applying fertilizers based on the actual conditions. Overall, PT. BIOPS Agrotekno Indonesia is a company dedicated to improving agricultural practices through the use of advanced technology. Their products and services are designed to help farmers increase productivity and efficiency, while also reducing environmental impact.

BUSINESS ISSUES

Identifying the key factors that drive the sale of precision farming products in PT. BIOPS Agrotekno Indonesia is crucial for understanding customer behavior and tailoring marketing strategies accordingly. By studying the driving factors behind product sales, PT. Biops Agrotekno Indonesia can focus on leveraging these factors to attract and retain customers, ultimately increasing sales revenue. Developing an effective marketing strategy to increase sales and purchase intentions for precision farming products in PT. BIOPS Agrotekno Indonesia is essential for achieving business growth and market penetration. By formulating a comprehensive marketing strategy, the company can effectively communicate the value proposition of its products, target the right customer segments, create awareness, build brand loyalty, and ultimately drive sales. Overall, the business issue revolves around maximizing sales and market penetration for precision farming products in PT. BIOPS Agrotekno Indonesia. By understanding the driving factors behind sales and implementing effective marketing strategies, the company can enhance its competitive position, increase customer engagement, and ultimately achieve business growth in the precision agriculture sector. The stakeholders that involved in this issue are: (1) the owner, management and marketing department of PT. BIOPS Agrotekno as an internal party involved in the daily operations of PT. Agrotechnical BIOPS, and (2) Farmers and land owners in West Java, Central Java, East Java, NTT and business owners as potential new market segments.

METHODOLOGY

The research includes an analysis that encompasses various aspects. The external analysis covers Porter's Five Forces, PESTEL analysis, competitor analysis, and consumer analysis. The internal analysis comprises STP (segmentation, targeting, and positioning), marketing mix, VRIO analysis, value chain analysis, and BMC (Business Model Canvas). Additionally, the research incorporates SWOT analysis, TOWS analysis, and QSPM (Quantitative Strategic Planning Matrix). The ultimate goal of data collection is to obtain high-quality evidence [2]. In the current study, the authors obtained data from their company's internal records and personally conducted the data processing, indicating the use of primary data. The four main methods for primary data collection include interviews, observations, questionnaires, and experiments. In primary data, the author gets the data through interview. The author preliminary research by interviewing 10 respondents that consist of people that interested with agriculture. Quantitative research is evaluating a theory that is expressed in numbers and graphs, hence qualitative is expressed in words [3]. The methodology used by author is qualitative research by in-depth interview with the PT. BIOPS Agrotekno Indonesia owner, management and new potential customer of PT. BIOPS Agrotekno for the proposed solution. The purpose of qualitative research is to discover and comprehend the significance that different people or groups of people attribute to social or human problems [4]. Qualitative content analysis is one of the numerous research methods used to analyze text data. Patton [5] defines qualitative content analysis as "any qualitative data



reduction and commonsense-making endeavor that requires volumes of qualitative material and attempts to identify core consistency and mean”.

RESULT AND DISCUSSION

A. External Analysis

1) Porter's 5 Forces Analysis

Porter's five forces analysis is used to determine industrial competitiveness, this research industry is the agricultural industry, especially the precision policy technology industry.

- a) Threat of new entrants (Moderate)
- b) Power of suppliers (Low)
- c) Power of buyer (Moderate)
- d) Threat of substitute (Low)
- e) Rivalry among existing competitors (Moderate)

Based on the analysis above, the threat of new entrants to the bargaining power of buyers and competitive competition has a medium level, while the threat of substitutes and the bargaining power of suppliers has a low level. Overall, PT BIOPS Agriculture Technology is in the low to medium category in Porter's analysis.

2) PESTEL Analysis

a) Politic

In Indonesia, the government exists to encourage special education and training for millennials regarding agricultural technology. These programs may include training in digital skills, use of agricultural-related hardware and software, and an understanding of sustainable sustainability practices. By providing relevant education, governments can help young people understand and adopt agricultural technologies effectively [6]. The Minister of Agriculture Syahrul Yasin Limpo invited young farmers to apply smart farming technology in developing agricultural cultivation. According to him, technology-based agriculture will simplify the cultivation process because it is more efficient and modern. "Young agripreneurs who are literate in technology are potential and strategic partners in solving distribution problems and weak access to farmer's markets so far," said Syahrul, through his statement, Saturday (25/3). Head of BPPSDMP Kementan Dedi Nursyamsi appreciates banking and financial service providers who support agricultural development through easy access to capital [6]. President Jokowi has said that farming must be a promising profession, a profession that brings prosperity, and we must make the younger generation more interested in becoming farmers. Government policies related to agriculture, technology, and management of water resources can influence the adoption and regulation of precision agricultural products (Encomotion). Government initiatives to promote sustainable agriculture and water-use efficiency could create opportunities for these products.

b) Economic

Economically, market conditions play an important role in the agricultural technology sector. Economic factors such as economic growth, inflation and exchange rates affect the overall demand for and affordability of agricultural technologies. Higher farm income and profitability directly contribute to the adoption and market growth of this technology [7]. The availability of investment capital and venture funding is also important for the development and commercialization of the industry. Adequate funding allows companies to innovate, improve their offerings, and bring their products to market.

c) Social

Socio-cultural factors have a significant impact on the agricultural technology industry. Changes in consumer preferences and demand, such as the increasing desire for sustainable and organic farming practices, are directly impacting the agritech market. Technologies that support environmentally friendly practices tend to experience high demand. Demographic shifts, including population growth, urbanization, and aging agricultural populations, create new opportunities and challenges for technology providers. In addition, the level of education and awareness among farmers and agricultural stakeholders regarding the benefits and potential risks of a new technology influences its adoption rate. Education and awareness campaigns play a critical role in overcoming barriers and driving market growth. Public awareness about the importance of sustainable agriculture and resource management can support the adoption of ENCOMOTION products. Demographic factors, consumer preferences and consumption patterns also need to be considered in marketing strategies.



d) Technological

Technological factors drive innovation and progress in the agricultural technology industry. Ongoing research and development efforts in areas such as biotechnology, precision agriculture, automation and data analytics are leading to the development of new and improved agricultural technologies. Intellectual property rights, such as patents, copyrights, and trademarks, protect innovation and shape industry competition. Connectivity and infrastructure are also important for the successful application of agricultural technologies. Access to reliable internet connectivity, as well as the presence of sensors and data networks, enables efficient data collection and analysis, facilitating technology adoption. The development of environmental sensor technology, IoT, and data processing can affect the superiority of ENCOMOTION products and accelerate the adoption of these technologies in the market. Advances in agriculture-related technologies, such as other automated monitoring and control systems, can also be potential competitors.

e) Environmental

Environmental factors play an important role in shaping the agricultural technology industry. Climate change and weather patterns, including increasing climate variability and extreme weather events, require the development and application of technologies that help farmers adapt and mitigate risks. Resource management, such as water scarcity and soil health, is driving demand for technologies that optimize resource use and minimize environmental impact. In addition, the need to conserve biodiversity and ecosystems influences the development and adoption of technologies that support sustainable agricultural practices. Attention to environmental issues, such as water management and agricultural sustainability, can support demand for ENCOMOTION products that help reduce water use. Climate change and its impact on agriculture may also influence the need for and demand for automated irrigation solutions.

f) Legal

Legally, the protection of intellectual property rights is very important in the agricultural technology industry. Patents, copyrights, and trademarks protect innovation and impact technology companies' competition. Compliance with health and safety regulations, including food safety, pesticide use, and worker safety, is critical to the adoption and spread of agricultural technologies. In addition, privacy and data security laws influence the development and application of technologies that rely on data analytics and automation, ensuring the responsible and ethical use of data. Regulations and policies related to agriculture, data security, and the use of IoT technology must be considered in developing and marketing ENCOMOTION products. Patents, intellectual property rights, and licensing requirements also need to be considered in protecting product excellence and business operations.

3) Competitor Analysis

The selection of competitors in the competitor analysis is based on product similarities and market segments of PT. BIOPS Agrotekno. Two competitors were selected based on sting and three common points: selling software products and precision farming. Conclusion competitors analysis summarized in Table 1.

Table 1. Conclusion competitor analysis

Attributes	PT. BIOPS (Encomotion)	MERTANI (Airi)	PT. Habibi Digital Archipelago (Habibigarden)
Price	210,000 IDR – 600,000IDR (price based on land area)	150,000 – 500,000 IDR – IDR (price based onland area)	1 50,000 – 400,000 IDR (price based on land area)
Product	Encomotion : producingproducts such US Smart Monitoring System, System house Glass, andSystem Relatedhydroponics withcultivation in house glass .	Airi: IoT solutions, big dataand automation systems to collect and analyze crop conditionsdata and optimizeddecision making.	Habibi gardens: Offer IoT technology andsensors, US well US cellphones applications to monitors plantconditions in real- time and deliver the right feeds.
Awards	given	- 1st place in the Accelerated Program organized by Lintasarta in 2016 Champion 3 Switzerland Innovation Challengesin 2017.	-



		*Encomotion has produce enhancement productivity of 40%, reduction operating costs by 50%, and water cost reductionand fertilizer by 40%.	
place	LPIK ITB Office, CRCS Building Lt. 7,Jl. Ganesh No. 10 City of Bandung, Westjava 40132	Housing area Griya golden Permai G1 No. 17A RT 35 Argorejo sad Bantul.	Jl. Tawes Raya No. 430,RT. 001/RW. 005, Kayuringin Jaya, Kec.Bekasi Sel., Bekasi city, West java 17144
place selling	Offline office, websiteand whatsapp	offline shops,Tokopedia and Whatsapp	Offline office, website,whatsapp, and android application
Target Market	farmers, People who own Land, and farmersyoung millennials as a new target market	Farmers Coconut palm	Farmers , AgricultureCompanies, Plantations

Source: Author, 2023

From the analysis of competitors, it was concluded that which is more superior is Habibi Garden which is the main focus of product device software and agricultural precision. Habibi garden also has a national level award in agriculture service namely the People's Choice Award Asia Pacific Investment Summit and Best of The Best Future Makers 2018. Habibi Garden is also classified US having marketing the product in a broad manner and following the progress of digital technology by making interesting graphics, having applications that can be downloaded on Android, YouTube videos and has a special website for transacting agrotech. After doing analysis, the author gets the answer why the price offered by PT. BIOPS Agrotekno is expensive in comparison with others, because until now this is PT. Biops Agrotekno own good position to succeed in the agricultural market precision. The company owns a team of strong engineers and scientists, and has been developing a number of innovative solutions as possible to help farmers increase their productivity and sustainability. Until this moment, PT. BIOPS Agrotekno also only sells grade A and specialty products to ensure product quality to be used by customers.

4) Consumer Analysis

In writing this task end, the author conducted in-depth interviews with a number of prospective new market users of PT. BIOPS Agrotekno. Writer do interview with 3 target segments The different potentials are:

- a) Millennials young farmer And owner land who currently use precision agricultural products brand other
- b) Farmer young millennials And owner land Which Once use product agriculture precision.
- c) Farmer young millennials And owner land Which use Technique conventional

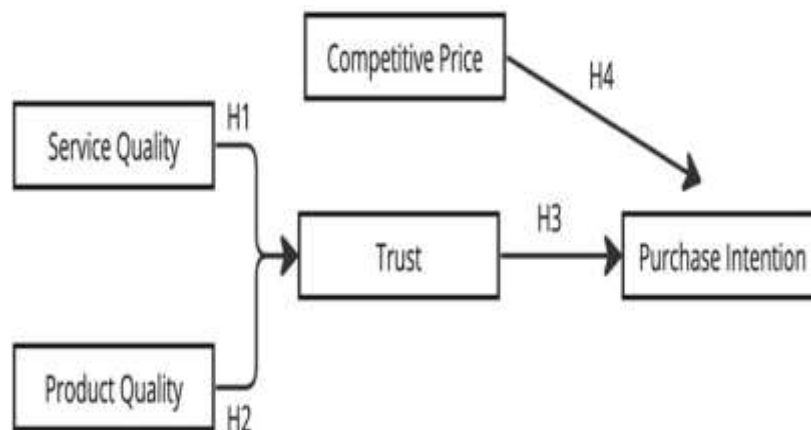


Figure 1. Consumer analysis

Source: Author, 2023



Farmer young Millennials which currently use product agriculture precision brand other.

The importance of service quality and product quality in building trust is emphasized by two sources. One source highlights the significance of trust, personal relationships, and the quality of service and products in gaining customer trust, particularly among farmers and landowners who have limited resources. Millennial farmers are willing to promote precision farming and enter exclusive cooperative contracts based on trust. The second source also emphasizes the importance of trust, both on a personal and corporate level, as it instills confidence in buyers regarding the services and products offered. While price competitiveness is a factor, buyers prioritize trust over low prices, considering the value of quality service and products. This information indicates that young millennial farmers who already use precision agriculture products prioritize practicality and value high-quality products in this market segment.

H1, H2 and H3 are accepted

In interviews with two sources, Angga, a millennial farmer from Ciwidey, and Irman, a landowner from Cisarua, Bandung, it was found that price competitiveness is the most important factor for millennial farmers and landowners who have used precision farming tools. The cost of production is significantly influenced by the price of these tools. However, if PT. BIOPS Agrotekno intends to support and supply to small-scale millennial farmers, it would be highly appreciated. Even novice farmers are proud to be associated with this movement. It is important to note that small to medium-sized agricultural land typically ranges from 1 to 10 hectares and yields a harvest of 10 to 100 tons.

H4 is accepted

Farmer's Millennials and land owners with Conventional Techniques

In interviews with two sources, Hanif Samba and Muhammad Hadi Wijaya, who plan to use precision agricultural products, the importance of competitive pricing in the agricultural business was highlighted. They recognize that competitive prices are key to staying relevant in the increasingly competitive market and attracting more buyers and potential partners. Despite facing challenges such as high production costs and price competition, they employ strategies to enhance efficiency, collaborate with farmer groups, and utilize appropriate agricultural technology. Both conventional and precision farming practitioners emphasize the significance of competitive pricing in their business. The second source emphasizes the practicality and resource-saving benefits of precision farming tools, suggesting that PT. Biops Agrotech consider bundling prices with free installation or warranty services. Regardless of the different approaches used, the focus on competitive pricing remains universal in the agricultural industry. Both sources agreed that competitive pricing is crucial, especially for farmers using conventional techniques and working with larger land areas, making the purchase of precision agricultural tools more significant.

H4 is accepted

B. Internal Analysis

1) STP

When starting a business, the STP model helps marketers prioritize bids, create and deliver personalized and relevant messages, as well as involving different audiences, so help make a marketing plan. STP PT. BIOPS Agrotekno with analysis as follows:

Segmentation

Based on the data obtained from the manager of PT. BIOPS agriculture, at this buying segmentation to PT. BIOPS Agrotekno For helping them in managing agriculture in the Land agriculture they very Diverse : Farmers and Owners land agriculture Segmentation moment This moment this moment is only focused with the owner of the land with relatively old levels no young again range of 40-55 years, US consumer end.

Targeting

As Agriculture techno located on campus site that is At the LPIK ITB Office, CRCS Building Lt. 7, Jl. Ganesh No. 10 Bandung City, West Java 40132., target PT. BIOPS Agrotekno moment This is farmers and those who own land with Power buy class medium to on Because agriculture product prices are precision PT. BIOPS Agrotekno is relatively taller than precision products from other agriculture in the industry.

Positioning

PT. Biops Agrotekno is embedded in PT. BIOPS, farmers can optimize their production by reducing work burden, increasing productivity up to 40%, and saving water use up to 50%. With our commitment to continuity agriculture and technology excellence, BIOPS is a partner who can depends on increasing harvest yields and futures farmer success.



2) Marketing Mix

Products

This moment is PT. Biops Agrotekno has 4 main products and services to offer to farmers and owners of agricultural land. First, the device software & agriculture precision like Siramot, SiJamoor Indoor, Siramot Super, SiJamoor Outdoor Second, sensor data about the environment, Third Drone to collect data about plants, soil and weather conditions. Fourth, training and consulting to help farmers study and use precision agriculture technology.

Price

PT. BIOPS Agrotekno own Prices vary, depending the product. Compared to its current competitors which has agricultural products other precision like Mertani and Habibi Garden indeed own a relatively high price For a number of products, this price is adjusted with the quality of products and services. PT. BIOPS Agrotekno use cost based mark for taking into accounts mark quality of products and services.

Promotions

Promotion of current BIOPS is dominant with traditional marketing such as word of mouth, personal selling, print out brochures and billboards. BIOPS also do online marketing like saying accept love via WhatsApp paid Instagram ads. BIOPS also collaborates with banks, the culinary platforms, Indihome, Ovo, just links to make promotions for the customers.

Place

In the Neighborhoods Dictionary, which campus can influences millennials levels of engagement and success. (Dr. Reynol Junco, 2021). LPIK ITB Office, CRCS Building Lt. 7, Jl. Ganesha No.10 Bandung City, West Java 40132. This place Enough strategies in the middle urban and regional campus (ganesha ITB) which it is very suitable for the target millennials market.

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Process

Product delivery process from BIOPS to customer moment this is very simple and varied. First, customers can order products with a preorder system via whatsapp or website and can be rented too. Secondly, BIOPS also offers online delivery using Grab and Gojek or can use service installation. Lastly, customers can also contact the seller if they have special requests related to the method or installation until delivery. Simple and diverse process this service is applied to fulfill your needs and give you a positive experience. BIOPS also has customer service via WhatsApp and phone.

People

Biops own strong commitment to provide the best service to customers, to give unmatched farming experience forgotten Because high technology methods can feel satisfaction, practical, also easy to use. BIOPS employees have gone through various selection processes of administration and training before being able to interact directly with customers. Specials farmingtech products and installation services, BIOPS only employ experienced employees to give the best to the customers.

Physical evidence

Physical evidence of the presence of BIOPS is customer own direct access to office offline in Bandung at the LPIK ITB Office, CRCS Building Lt. 7, Jl. Ganesh No. 10. Besides that, BIOPS can also provide physical proof such US payment receipts, invoices, etc. BIOPS too own agreement cooperation with third parties such as vendors, banks and service applications.

From the marketing Mix above, you can see that more BIOPS put first strategic location according to the millennials target market, the price is relatively higher tall because BIOPS attached importance to quality customer, trust and guarantee products sold good and done tested.

3) VRIO

VRIO Analysis (Valuable, Rare, Inimitable, and Organized to Capture Value) PT. BIOPS Agrotekno obtained after conducting an interview with one of the first incubating PT. BIOPS Agrotekno because PT. BIOPS ever getting funding by Indigo Telkom Indonesia. Following is analysis following for determine sources which power can create superiority sustainable competitive:



Table 2. VRIO

Source power / Capability	Valuables (V)	Rarity (R)	Inimitable (I)	Organization (O)	impact
Device soft agriculture precision	Yes	Yes	Yes	Yes	Sustainable Advantage Competitive
human power	Yes	Yes	No	No	Parity competitive
Engineer and scientist team	Yes	Yes	Yes	Yes	Sustainable Advantage Competitive
Training & Consulting Services	Yes	Yes	No	No	Parity competitive

Source: Author, 2023

4) Value Chains Analysis

Following is Value Chains Analysis for product agriculture precision (Encomotion)

Inbound Logistics (Logistics enter)

A acquisition of environmental sensors and devices the required hardness for collecting environmental data. Monitoring supply and inventory management to ensure availability of necessary components and equipment.

Operational (Operation)

Development and programming of device software and algorithms for processing sensor data and calculating plant water needs. Production and assembly of hard Encomotion devices, including sensors, controller’s irrigation and infrastructure related.

Outbound Logistics (Logistics Exit)

Distributions of ENCOMOTION products to farmers through tracks proper distribution. Pdelivery and product installation on site farmer.

Sales & marketing (Marketing and sales)

Develop marketing strategy to increase awareness and sales of ENCOMOTION products. Promotion through various marketing channels such as social media, online campaigns, and product demonstrations in the fields.

Services

Giving technical support to farmers in use and maintenance of ENCOMOTION products. Repair and maintain product to ensure optimal performance.

Activity Supporters

Infrastructure: Activities this covers development and management supporting infrastructure technology PT. BIOPS Agrotekno, including system computing, servers, networks, and other hard devices.

Management Source Power Humans: This activity involves recruiting, training, and developing skilled teams in the field of technology agriculture, technology information, and customer services. The quality team will support optimal implementation, support and service to customers.

Research and Development: Activities this involve investment in innovation technology agriculture, product development, and market research. The R&D team is responsible for developing the latest solutions, fixing product functionality, and handling the needs and challenges of continuous farming growing.

Management Customers: This activity involves interaction with customers, from installation to full sell service. The customer management team is responsible for providing technical support, training, solved problems, and building a long periods of connection with customers.

Management Finance and Administration: Activities this covers management finance, accounting, inventory management and general company administration. Good monitoring finance, management efficient inventory, and organized administrative processes will support the company's operational performance and growth.

Provisions Technology and Raw Materials: This activity involve cooperation with partners providing technology, environmental sensors, hard devices and standard materials used in the production and development of Biops Agriculture Technology products. Selection and management reliable and qualified partners will ensure availability and quality necessary materials.

Marketing and Promotions Strategy: Activities this covers the development of marketing strategies, promotions campaigns, and branding activities. The marketing team is responsible for building brands awareness, communicating product marks, and expanding market reach to become more. Lots of farmers know and choose Biops Agriculture Technology products.

Quality Management: this activity involve product quality control, performance monitoring, and compliance to standards and regulations. Application practice strict quality management will ensure the resulting product meets the standards set and delivers satisfaction to customers.

5) BMC (Business Model canvases)

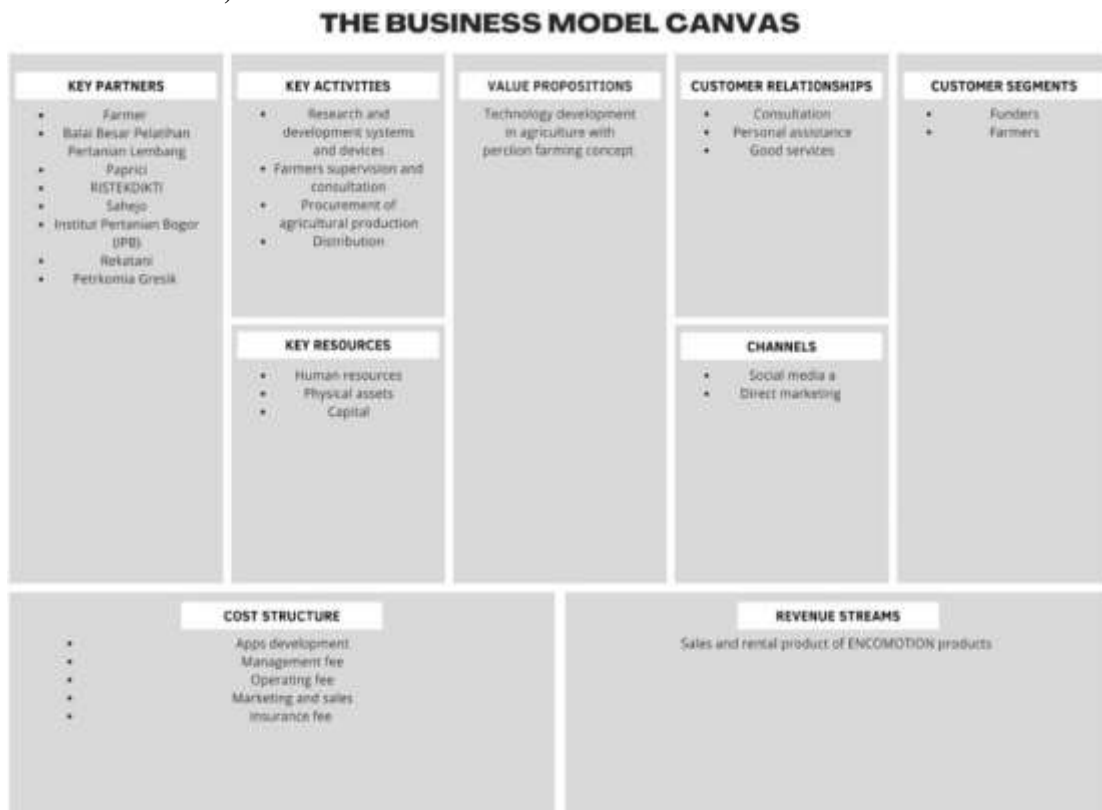


Figure 3. Business model canvas

Source: Author, 2023

PT. BIOPS Agrotekno focuses on farmers and landowners from the older generation (Generation X, aged 40-55 years) but also sees an opportunity to cater to young millennial farmers. They offer precision agricultural tools and software, particularly Encomotion, which has proven to be a high-performance product compared to other brands. Encomotion helps manage agricultural land by tracking harvest results, water usage, fertilizer application, and monitoring land health and potential pest and disease issues. PT. BIOPS Agrotekno has received recognition and awards for their products, such as winning first place in the Accelerated Program by Lintasarta in 2016 and third place in the Swiss Innovation Challenge in 2017 for their water management system, iWet. With their assets and location, PT. BIOPS Agrotekno can market Encomotion products and services not only to older generation farmers but also to young millennial farmers and landowners. This expansion is expected to increase the income flow for PT. BIOPS Agrotekno by targeting a wider range of customers.



6) SWOT

Table 3. SWOT

Strength	Weaknesses
<ul style="list-style-type: none"> S1: place strategic (Marketing mix) S2: Encomotion Awards (VRIO) S3: Product quality is good (VRIO) S4: Quality good service (VRIO) S5: practical for millennials (BMC) 	<ul style="list-style-type: none"> W1: No maximizing channel promotions (Analysis of competitors) W2: relative price is higher (Price in Mix Marketing)
Opportunity	Threats
<ul style="list-style-type: none"> O1: Agriculture becomes a trend in society (Social in PESTEL) O2: Politics support special training to millennials about technology agriculture (Politics in PESTEL) O3: when this Still there is a potential market that has not been targeted by PT. BIOPS Agrotekno (Porter's strength 5) 	<ul style="list-style-type: none"> T1: Quantity of competitors increase (Porter 5 forces) T2 : Players in the agricultural sector precision already exists (analyzes competitors) T3: Moderate buyer's power bid (Porter's strength 5)

Source: Author, 2023

C. Business Solution

1) Matrix TOWS

After doing internal external analysis, shared business solutions become matrix TOWS and New STP.

Table 4. Matrix TOWS

	Strength S1: Place Strategic(Marketing mix) S2: Awards encomotion (VRIO) S3: Quality product Good (VRIO) S4: Quality service Which good (VRIO) S5: Practical for millennials (BMC)	Weakness W1: Not maximizing channel promotion (Analysis competitor) W2: Price relatively more tall (Price in Mix Marketing)
Opportunity O1: Agriculture trending in public (Social on PESTEL)	Strategy SO Take advantage of location strategic PT. BIOPS Agrotekno for enter the agricultural trend who grew up in public (S1, O1)	Strategy st Emphasize product quality good to differentiate from a growing number of competitors (S3,Q1) Take advantage of quality service Which Good For compete with players in the agricultural sector precision.(S4, T4)
<ul style="list-style-type: none"> O2: Politics support training special to millennials about technology agriculture (Politics in PESTEL) O3: Right now still there market potential who haven't shot by PT. BIOPS Agrotechno (STP) 	Utilise Encomotion award and political support for special training targeting ethnic groups interested millennials with technology agriculture (S2,O2)	
Threat Q1: Quantity competitor increase	Strategy WO Maximize channels promotion for	Strategy WT Improve promotion channel to deal



(Porters 5 forces) • T2: Player in field agriculture the precision already exists (analysis competitors) • Q3: Power bid buyer currently (strength Porter 5)	reach market segments potential yet which is utilized identified by analysis STP. (W1,O3) Develop strategy the pricing competitive for target segment market potential in field agriculture	with the increase competition in market. (W1, Q2) Overcome relatively more prices high by negotiating with buyers to maintain bargaining power profitable.(W2,T3)
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Source: Author, 2023

2) QSPM

Table 5. QSPM

No	Strategy Alternatives	Symbols	QSPM score	Rank
1	Maximize promotional channels to reach potential untapped market segments identified	WO1	15.98	1
2	Improve promotions channels to deal with increased competition in the market.	WT1	15.65	2
3	Leverage Encomotion awards and political support for specialized training targeting millennials interested in agricultural technology	SO2	14.03	3
4	Emphasizing good product quality to differentiate from more and more competitors	ST1	12,67	4
5	Take advantage of good service quality to compete with players in the precision agriculture sector.	ST2	12,46	5
6	Utilizing the strategic location of PT. BIOPS Agrotekno Indonesia to tap into growing agricultural trends in the community	SO1	11,93	6

Source: Author, 2023

CONCLUSION

Based on consumer analysis that conducted using interview method by the author, it can be concluded that the factors driving the sale of precision agricultural products for PT. BIOPS Agrotekno Indonesia include trust, quality of service and quality of products. The first and second sources both emphasize the importance of trust in building relationships with farmers or landowners. Trust is established through personal connections and building confidence in the quality of service and products provided by PT. BIOPS Agrotekno Indonesia. The quality of service and products offered by PT. BIOPS Agrotekno Indonesia plays a significant role in building trust and gaining the confidence of potential buyers. Providing high-quality services and products ensures that farmers and landowners receive positive benefits and outcomes.

Based on data analysis that have been conducted by author, to provide an effective marketing strategy in increasing sales of precision agricultural business products in order to increase purchase intention in the Case Study of PT. BIOPS Agrotekno Indonesia, these are the strategies that can be implemented by the company: (1) maximize promotional channels to reach untapped potential market segments, (2) leverage Encomotion awards and political support for specialized training targeting millennials interested in agricultural technology, and (3) improve promotion channels to deal with increasing competition in the market.

RECOMMENDATIONS

The company should enhance trust and personal relationships, improve quality of service and products, maximize promotional channels, leverage awards and political support for training programs and strengthen promotion channels to combat competition. Future research can focus on understanding the barriers to adoption and the factors influencing the acceptance of precision agricultural technologies among farmers and landowners. Conducting longitudinal studies to evaluate the long-term impacts of precision agriculture implementation on farm productivity, sustainability, and environmental outcomes would provide valuable evidence for decision-makers. Researching emerging technologies and innovations in the field of precision agriculture would help



PT. BIOPS Agrotekno Indonesia stay at the forefront of industry advancements. Future research could delve deeper into the environmental sustainability aspects of precision agriculture, including the quantification of carbon footprint reductions, water management strategies, and soil health preservation.

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