



## Proposed Marketing Strategy Development for Local Cattle Frozen Semen Sales (Case Study: Balai Inseminasi Buatan Lembang)

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**ABSTRACT:** BIB Lembang was constructed in 1975 and became the first Artificial Insemination Center to be developed in Indonesia. BIB Lembang is also a Technical Implementation Unit which is under the Director General of Livestock and Animal Health and is responsible to the Director General of Livestock and Animal Health and is technically fostered by the Director of Livestock Breeding and Production with production duties. Marketing, testing, and monitoring of superior livestock semen quality, as well as preparation of artificial insemination methods. Meanwhile, based on the author's initial research and problem-solving efforts, The research's findings indicate that although BIB Lembang continues to have strong customer loyalty, a large number of its patrons still choose imported cattle frozen semen to local cattle frozen semen. The purpose of this study is to identify the factors that influence customer satisfaction in relation to service quality, as well as the impact of human resources capability and technological infrastructure support on the quality of local cattle frozen semen products. Additionally, a business strategy to enhance competitiveness in the local cattle semen market will be designed. Both quantitative and qualitative methods will be used in this study. STP methodology and customer analysis both employ quantitative methodologies. Internal study of "Current Marketing Capability" and the search for preferences in "secondary data" were used in the data collection process. Seven people were interviewed using the qualitative method, one of whom was the head of BIB Lembang. Based on the research findings, companies can implement business strategies such as service quality to boost sales of local frozen cow semen. These strategies should be complemented by superior human resource competence, adequate technological infrastructure, good online ordering facilities - Sijalu, and customer satisfaction. To develop a SWOT Analysis and TOWS matrix for BIB Lembang in order to obtain a competitive edge and boost sales of local cattle frozen semen, the internal and external aspects will be analyzed using PESTEL analysis, competitor analysis, current marketing capability, and competitor analysis.

**KEYWORDS:** Local Cattle Frozen Semen, Marketing Strategy, Product Quality, SWOT Analysis, TOWS Matrix.

### INTRODUCTION

One of the subsectors that greatly boosts the national economy and can absorb labor is the livestock subsector, making it a dependable partner in initiatives to strengthen the economy of the country. 13.56 million people in Indonesia were living in agricultural families as per the 2013 Agricultural Census. Furthermore, the community's nutritional status will improve with the direct availability of livestock products, particularly for animal proteins and calorie-filling foods. The quality of human resources will increase if animal protein and energy needs are met. Then, it was projected that the number of Indonesian beef cattle had increased once again, to reach 17.44 million in 2020. It was projected that there will be 18.05 million beef cattle in Indonesia in 2021. This shows that the number of beef cattle in the country has increased by 3.49 percent from the previous year. Of all the regions, East Java has the largest population of beef cattle, with 4.93 million head in 2021. South Sulawesi is in third position, with 1.46 million beef cattle, and Central Java is in second place, with 1.86 million. As of 2021, there are just 1,805 beef cattle heads in DKI Jakarta. At that point, Bangka Belitung has 16.46,000 heads. It is possible to increase the genetic quality of beef cattle in order to increase their population and productivity. The best technology to employ in Indonesian efforts to improve the genetic quality of beef cattle is artificial insemination. Artificial insemination (AI) has been demonstrated to offer advantages over natural mating, such as the use of better men, financial savings from keeping males, the avoidance of disease transmission, and increased reproductive efficacy (Tolihere). Based on research conducted by Shehu et al. (2010), using frozen semen in cattle offers the following advantages: (1) employing fewer bulls because one bull costs more than the cost of frozen semen, (2) lowering the risk of disease transmission, (3) raising the possibility of the greatest genetic selection, and (4) enhancing male safety. Hall and Glaze (2013) state that commercial sexing semen has been available for dairy cattle for the past ten years, but only for beef cattle for the last five years. Because of this, artificial



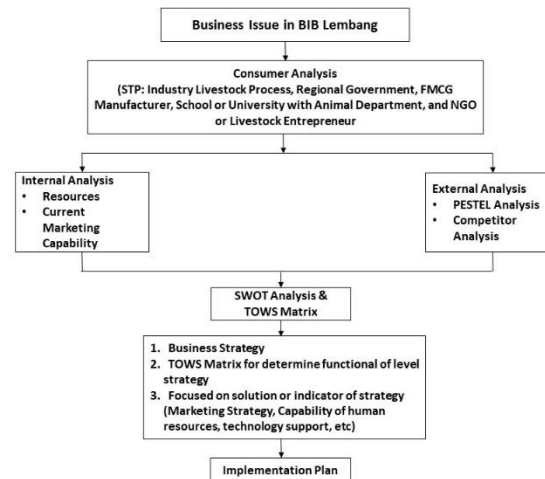
insemination technology is developing rapidly in America. There are 28 distinct kinds of sexing bulls according to dairy cattle sexing companies. The results of the study show that employing female sex semen, as opposed to ordinary semen, lowers conception rates in dairy cows by 0 to 20%. Similar results were found by Cooke et al. (2014), who noted that the use of sexing semen has increased over the previous 50 years and is more common among dairy cows that have a 70–90% birth rate. The main factor influencing the effectiveness of artificial insemination is the caliber of the frozen semen that is produced. Factors influencing the quality of frozen sperm include the caliber of the guys who generate the sperm, the procedure used to manufacture the sperm up to artificial insemination was used in the field, and the handling of males from the 2008 National Statistics Agency (BSN). Artificial insemination (AI) success rate is determined by (i) farmer-level semen quality, (ii) health of the cows to be inseminated, (iii) reporting to officers quickly, (iv) accuracy of lust detection, and (v) aspects of animal health and feed management to foresee potential interactions between environmental factors and genetic impacts according to Dwiyanto and Inounu (2009). The business scope of BIB Lembang includes both upstream and downstream processes. Receiving fresh semen, analyzing its volume, color, viscosity, mass motion, individual motion (under a microscope), concentration, and PH process are the steps in the upstream process. The downstream steps include verifying the prepared frozen semen, adding liquid nitrogen, sealing the package, receiving, verifying the frozen semen, and signing the official letter minutes. Frozen semen production is one of the main tasks of the Lembang Artificial Insemination Center (BIB Lembang) in addition to marketing and artificial insemination (AI) development activities. Since being appointed as the BLU Working Unit in March 2020, the sale of frozen cement is the main source of revenue, more than 95% of revenues are obtained from the sale of frozen cement.

## BUSINESS ISSUE

One of the primary responsibilities of the Lembang Artificial Insemination Center (BIB Lembang) is the manufacture of frozen semen, in addition to marketing and developing artificial insemination (AI). The selling of frozen cement has been the primary source of income since the BLU Working Unit was established in March 2020; over 95% of total revenue comes from this source. Cement production needs to be increased and approached in a few ways to satisfy demand. In 2021, the total output achieved 138.56%, or 3,221,451 doses, of the objective of 2,325,000 doses. Since the founding of BIB Lembang, the production of frozen cement has reached its highest level of realization in 2021. Angus cattle, Belgian Blue cattle, Holstein Frisian cattle, Limousin cattle, Simmental cattle, and Wagyu cattle are examples of exotic cattle, while the frozen semen used in the beef and dairy cattle produced by BIB Lembang comes from local bulls, including Aceh cattle, Brahman cattle, Brangus cattle, Madura cattle, Pasundan cattle, and Ongole crossbreed cattle. When compared to indigenous cattle, alien bulls currently produce a lot more frozen semen. Up until 2022, 97,008 doses of Aceh cattle, 672,091 doses of Brahman cattle, 9,412 doses of Brangus cattle, 165,555 doses of Madura cattle, 107,126 doses of Pasundan cattle, and 986,860 doses of Ongole breed cattle would collectively provide frozen semen for local animals. As opposed to those from domestic cattle, which include Angus cattle (790,135), Belgian Blue cattle (95,462), Holstein Frisian cattle (1,462,780), Limousin cattle (3,758,937), Simmental cattle (4,440,410), and Wagyu cattle (96,137). The problem that BIB Lembang is currently dealing with is that because local cattle are born weighing less than imported cattle, breeders are less interested in the frozen semen of local beef cattle provided by BIB Lembang. Farmers receive free frozen beef cow semen through a number of government-run programs administered by the Directorate General of Livestock and Animal Health. With the exception of some areas where local cattle have been raised for generations, such as Aceh cattle, Brahman cattle, Brangus cattle, Madura cattle, Pasundan cattle, and Ongole cross-breed cattle, it is clear from these circumstances that local beef cattle breeders are less interested in the frozen semen of local beef cattle. Because local cattle are less expensive to sell than imported cattle of the same age, the community is actually less interested in raising local cattle, which lowers the demand for frozen semen for domestic beef cattle compared to exotic livestock. This affected the sale of frozen semen produced for local beef cattle by BIB Lembang.

## CONCEPTUAL FRAMEWORK

The authors have established the subsequent conceptual framework subsequent to examining the issues that emerge within the organization and drawing from prior studies:



The Resource Based View, STP, and current marketing strategy are all part of the internal investigations. PESTEL analysis makes up the external analysis. Strengths, Weakness, Opportunities, and Threats will be analyzed using the TOWS matrix once the results of internal and external analysis have been obtained. Following that, the TOWS matrix would be used to conduct the process of creating the suggested marketing solution. An implementation plan, which provides BIB Lembang with the specifics of the solutions and implementation plan suggested, is the final phase. Segmentation, targeting, and positioning (STP) is a marketing tactic that reconsiders how and to whom we should advertise our products. It enhances the marketing messages' focus, pertinence, and customization for the intended audience. STP, to put it simply, is a marketing strategy that focuses on audience segmentation, identifies the target audience segments that best fit the product, and positions the product to effectively reach the target segment. STP marketing is the process of creating customer-focused, target-oriented, and market-optimized marketing strategies by using the STP (Segmentation, Targeting, and Positioning) model. The STP model has established itself as one of the crucial marketing models that marketers may utilize to enhance their marketing strategies, planning, and outcomes. The STP model aids in the application of marketing concepts, the creation of marketing programs, and the marketing mix.

Numerous enterprises contend with one another both domestically and internationally. Using competing solutions quickly and effectively is increasingly essential due to technological improvements and increased capacity for information processing and collection. For a corporation to have a better understanding of the macroenvironment that affects the operation of the industry, it is imperative that external surroundings and specific external pressures be examined. PESTLE, competitor analysis, and consumer analysis are the forms of external analysis used in this study.

- a) Political policies: such as the degree of economic intervention by the government or broad shifts in the political environment inside the country.
- b) Economic conditions: A number of elements, including the overall state of the economy and more focused ones like interest rates, currency rates, inflation, unemployment, economic growth rate, savings rates, and per-capita domestic product, are crucial to the success of industry.
- c) Sociocultural forces: These comprise the attitudes, values, and lifestyles that shape the demand for specific goods and services, as well as the business's demographics.
- d) Technological elements: Technological factors include the rate of technological advancement and changes that could have a significant impact on society.
- e) Legal: The rules and laws that businesses must abide by, such as labor laws, consumer protection legislation, and regulations pertaining to occupational health and safety, are included in the legal element.
- f) Environmental aspect: Encompasses both ecological and environmental variables, including weather patterns, climate change, and related factors like scarcity of water.



In the very competitive and complex business we operate in today, an analytical system between a corporation and its opponent is important. In order to build strategies that could assist the company flourish in the increasingly competitive business environment and to be more responsive to it, it is imperative that they analyze their competitors. Competitor analysis focuses on aspects such as tactical, operational, and strategic decision-making. Competitor identification has become essential for assessing the competitive landscape, fortifying defenses against possible intrusions, and for developing competitive assault and response strategies. The description of each element of the competitor analysis is as follows:

- Objectives and upcoming goals  
Goals for future competitiveness should include product diversity, profit, income, and capital value. This study reveals how aggressively opponents employ their strategies.
- Accretions  
Included is what rivals learn about the market, which hints at the direction of development rivals anticipate for the market.
- Present Approach  
Competitors' strategies entail greater ability, actions, and capacities that rivals generate to carry out the plan.
- Competencies  
The company's product and service differentiation, as well as the target category being targeted, will be determined by competitors' abilities.

## METHODOLOGY

Both primary and secondary data sources are used in analysis. Secondary data was gathered from observations and interviews with BIB Lembang customers and management. The validity and loyalty of the business frozen semen from BIB Lembang were investigated using a sample of six interviewees in the data analysis procedure. Examples of secondary data include previous research, websites, and internal firm data. At BIB Lembang, the research was carried out from January to July of 2023. A descriptive methodology was utilized. The identification of alternative strategies, an execution plan, and internal and external strategic elements are made possible by this methodology.

## RESULT AND ANALYSIS

The author must examine the environment of the firm in order to identify the issues that arise at BIB Lembang and offer solutions. Both internal and external analyses were carried out by the author. PESTLE and competitor analysis are used in external analysis. Internal analysis, meanwhile, makes advantage of STP analysis and existing marketing capabilities. The TOWS matrix and analysis were then used to examine both internal and external influences.

### A. PESTEL ANALYSIS

Three national issues warrant attention: the waning of state power, the fragility of the economy, and the crisis of the national identity. One of the key roles in lessening this situation is "Revitalizing National Cattle Farm Management to Increase Food Security in the Context of National Resilience." It is ironic that cattle must be imported into an agricultural nation with the fourth-highest population in the world. Indonesia has the ability to be self-sufficient in cattle due to its abundance of natural resources. Diverse strategies are needed for the development of cattle farming, from bolstering factors related to breeding and seed to enhancing management and import control. As a result, this study will identify key areas for improvement that will support BIB Lembang's attempts to increase and diversify the local cattle market share, beginning with bettering the frozen semen procedure for local cattle. PESTEL is a strategic analysis method that evaluates outside business variables. Businesses are unable to directly alter the external environment, but they are able to predict its various elements and consequences. Numerous factors influence and have an impact on businesses and organizations in the macro environment. A general environment analysis aids in anticipating the real scenario and assists companies in creating an appropriate plan to accomplish their objectives and close performance expectation gaps caused by mistakes.



**BALAI INSEMINASI BUATAN LEMBANG**

**Popular Frozen Semen Producer**

- Political Factor**
  - Must follow Regulation of the Minister of Agriculture of the Republic of Indonesia Number 03 of 2020 and Regulation of the Minister of Agriculture of the Republic of Indonesia Number 10/Permentan/PK.210/3/2016.
  - Labor, accounting, business process, and internal marketing laws must be followed.
- Economic Factor**
  - Understands customer's feedback and preferences.
  - Must focus on development of feed supply using raw materials from local resources by making the maximum use of the diversity of local resources and institutions and technology.
  - Most of income is from sell of Frozen Semen.
- Social Factor**
  - Has advantages about regional factor and supporting system.
  - Need to do together with local workers in internal BIB Lembang which can contribute rapidly to sales of frozen semen for local cattle.
- Tech. Factor**
  - Using technology for increasing exposure and brand of Frozen Semen from BIB Lembang.
  - Understand technology implementation for AI from overseas company reference.
- Legal Factor**
  - BIB Lembang has done well in securing all the rights of their business.
- Environ. Factor**
  - Must more concern about ESG Program.
  - Mus operate with minimum of waste frozen semen production.

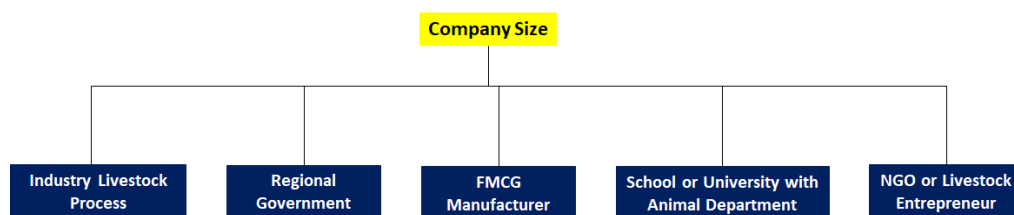
**B. CURRENT MARKETING STRATEGY (STP)**

Segmentation, Targeting, and Positioning, or STP marketing, is a three-step marketing process. We split our market, target our clients, and position our solution for each segment using the STP method. Identifying our target market (targeting), positioning our brand (positioning), and segmenting our market are the three primary steps in the STP process. For segmentation to be successful, groups with comparable requirements, wants, tastes, likes, and preferences should be formed (Ferrell & Hartline, 2011). In order to provide each client with specific, focused benefits, market segmentation involves breaking the market up into groups, or clusters, of consumers based on reasonable and significant criteria (Wright, 2003). In order to obtain a thorough grasp of the market and to ensure that the organization is clear about the needs and wants of its consumers in a highly dynamic environment, segmentation is essential. Realistic and profitable segmentation needs to originate from the top of the company. Table 11 below displays BIB Lembang's segmentation study based on its sales department report:

Segmentation	Type of Segmentation	Description
Macro Segmentation	Industrial Markets	Industry livestock process, Regional Government, FMCG Company, university with animal department, and NGO or Livestock entrepreneur
	Geographics	Indonesia, Big Cities in Java, Urban and Suburbang
	Public, private or non-profit	Public: Agriculture Government, institutional, non-government agency Private: small, medium, and large companies
	Product and services offered	Users
	Types of supplier goods required	Supplies and service
Micro Segmentation	Present, past, or non-user	Present, past, or non-user
	Buying process	Centralised
	Group buyer's characteristic	Cattle breeders group, Institutional government group
	Individual buyer's characteristic	Accurate, task-driven, and interactive



The purchasing and selling of frozen items or semen between businesses is referred to as the "business-to-customer" (B2C) market for local cow frozen semen. Breeders, non-governmental groups, enterprises that create animal products, local governments involved in agriculture and animal husbandry, and other businesses associated to frozen semen are all involved in these exchanges and interactions. Studies show that compared to B2B, the B2C segment has a market share of over 60%. As of 2023, the B2C category is predicted to grow at a compound annual growth rate (CAGR) of 6.21%. This growth is associated with increasing demand for increasing animal efficiency and productivity, consumption of meat, milk & dairy products, need for sustainable food production, support initiatives from industry stakeholders, and adoption of gender-specific semen are some of the key drivers of this market. Five buyers segmentation are present in the local cattle frozen semen business market:



#### A. Industry Livestock Process

The livestock processing industry is the main customer segment in the local cattle frozen semen business market. They rely on frozen semen to support success in breeding, especially in breeding their livestock so that their livestock increase in number in a relatively short time, without buying much from outside, reducing the company's operational expenses. These companies obtain frozen semen, which depends on BIB Lembang according to their preferences and the desired frozen semen product profile.

#### B. Regional Government

Regional governments, such as the Livestock and Animal Health Service, the Food Security and Agriculture Service, the Plantation and Livestock Service, etc. require frozen semen as part of agricultural research or extension programs and animal breeding. BIB Lembang is a trusted supplier that can meet their volume demands and provide consistent quality to guarantee customer satisfaction.

#### C. FMCG Manufacturer

FMCG companies often have accelerated programs to provide "raw material production" and require a supply of high-quality frozen semen. They may request imported frozen semen and local frozen semen, want fast service, or allocate frozen semen within their location. These companies look for frozen semen that fits the finished product requirements and meets product quality preferences for their customers.

#### D. School or University with Animal Department

Universities or schools with animal husbandry concentrations always require educational research and teaching. One of these could include frozen semen from local cows to be introduced earlier. They often select high quality frozen semen from BIB Lembang and work together to offer unique and differentiated teaching and research systems to their customers (universities or schools).

#### E. NGO or Livestock Entrepreneur

NGOs or entrepreneurs who produce cow products, or other processed cow's milk, apart from needing large and productive cows, also need frozen semen so that the quantity of their livestock increases more quickly. This producer uses frozen semen to insert thawed and pre-processed semen (sperm or semen) from male livestock into the female genital tract using a special method and tool called an "insemination gun".

### C. COMPETITOR ANALYSIS

Companies in any part of Indonesia that use or require frozen semen local cattle for a nearly same market are considered competitors. Gaining an understanding of competitor analysis makes it possible to determine the advantages and



disadvantages of companies operating in a given industry. Knowing how to market and distribute frozen semen from Local Cattle can be aided by this. In this study the authors concentrate on the services offered by BIB Lembang, namely subsidies or grants (DIPA) and direct sales. In Indonesia, several Artificial Insemination Centers (BIB) in several regions have the same thing, it will still be clear that there will be differences when the frozen semen sales program is actualized. The direct competitors to be investigated are BBIB Singosari Malang, UPTD Balai Perbibitan dan Pengembangan Inseminasi Buatan Ternak Sapi Perah Bunikasah Cianjur, and BIB Ungaran Semarang. Effective competitor analysis will assist in gathering the data and information needed to understand the goals of the company's competitors and the strategic implications that follow from those ambitions.

Finally, here the summary of competitor analysis:

		Competitors Analysis		
		BBIB Singosari Malang	UPTD Balai Perbibitan dan Pengembangan Inseminasi Buatan Ternak Sapi Perah Bunikasah Cianjur	BIB Ungaran Semarang
<b>Product</b>	BBIB Singosari has a wide variety of frozen semen types, making it easier for customers to choose according to their individual needs.	UPTD Balai Perbibitan dan Pengembangan Inseminasi Buatan Ternak Sapi Perah Bunikasah Cianjur has a wide variety of frozen semen types. The number of cages is 15 units with normal conditions, slightly damaged to severely damaged, with a capacity of 237 dairy cattle equivalent to 145.2 livestock units.	The results of the Ungaran BIB report, in 2012 until now the number has increased again to 95 types of males, which is very low number production for male types in range of 10 years.	
<b>Price</b>	BBIB Singosari applies a premium price for foreign needs with the lowest price per dose of IDR 30,000 and the most expensive IDR 165,000.	UPTD Balai Perbibitan dan Pengembangan Inseminasi Buatan Ternak Sapi Perah Bunikasah Cianjur applies a basic price for foreign needs with the lowest price per dose of IDR 27,000 and the most expensive IDR 140,000.	The mission is to provide seeds with the right quality, on time, and low price to improve the service process, give the best image for livestock farmers, and has the motto "Mani Berkualitas Customer Puas".	
<b>Promotion</b>	BBIB Singosari applies a discount policy to make it attractive to buyers for frozen cement products. Besides that, there are various types of services offered to support the benefits of frozen cement products produced.	UPTD Balai Perbibitan dan Pengembangan Inseminasi Buatan Ternak Sapi Perah Bunikasah Cianjur has not applied discounts for all services for customer needs other than the purchase of frozen semen. So, if there are customers who need more than one service, there is no discount policy.	Aside from the sale of frozen semen, BIB Ungaran Semarang does not offer discounts on any of its services. There is therefore no discount scheme in place for consumers who require many services.	
<b>Place</b>	BBIB Singosari is a large center that is the center of attention in the process of frozen cement production, especially in East Java and its surroundings.	The application of Good Farming Practices supports Good Breeding Practices in order to achieve the vision and mission of the Livestock Service Office of West Java Province. The expected results of this activity are increased production, productivity or appearance of dairy cattle.	BIB Ungaran is a flagship cattle development program in Central Java in terms of providing male cattle, so that Indonesia no longer relies on imported bulls but can already develop the cattle itself through artificial insemination;	

**D. SWOT ANALYSIS**

A company's internal strengths are assessed using SWOT analysis, which is based on its core competencies. Opportunities and weaknesses are related to external factors that are outside the company's control. Strengths-Weaknesses-Opportunities-Threats (SWOT) Matrix is a crucial tool for matching. The organization's SWOT analysis will highlight the challenges it has and the opportunities that could help it accomplish its goals. Strengths, Weaknesses, Opportunities, and Threats, or SWOT analysis, is a technique for evaluating a company's internal and external environments. It also functions as a company strategy plan. Using a strategic planning method known as SWOT analysis, businesses can assess both their internal and external strengths and weaknesses as well as opportunities and threats. Strengths, Weaknesses, Opportunities, and Threats are referred to as SWOT. Strengths and weaknesses are internal corporate components that might affect performance. Good qualities, including a well-known brand, knowledgeable employees, or a unique product line, are what define a strong business. The negative aspects of a company, such as inadequate marketing strategies, outdated technology, or minimal cash flow, are called weaknesses.



Strength	Weakness
<ol style="list-style-type: none"> <li>1. Strong relationship with hundred customer</li> <li>2. Experienced and qualified Frozen Semen as a whole</li> <li>3. Service quality can affect customer satisfaction and customer loyalty</li> <li>4. Organization credibility under Ministry of Agriculture</li> <li>5. Positive reputation</li> </ol>	<ol style="list-style-type: none"> <li>1. Lack of human resources for promotion and marketing</li> <li>2. Limited technology for frozen semen production, especially Local Cattle</li> <li>3. No proper after sales program</li> <li>4. There is no specific R &amp; D Division</li> <li>5. Social media is not interactive</li> <li>6. There is no customer gathering</li> </ol>
Opportunity	Threat
<ol style="list-style-type: none"> <li>1. Customer Award Event (include gathering and awareness business update) for industry, breeders group, private companies and state-owned enterprises, etc.</li> <li>2. Expansion frozen semen local cattle into new Customer (exclude existing customer)</li> <li>3. Based on STP, collaboration with school or university (has an animal science department)</li> <li>4. Increasing demand for frozen semen local cattle</li> <li>5. Customer repeat order mindset</li> </ol>	<ol style="list-style-type: none"> <li>1. Changing customer behavior towards Frozen Semen Local Cattle</li> <li>2. The emergence of demand and need between frozen semen imported cattle with local cattle</li> <li>3. Government regulation about Frozen Semen</li> <li>4. Competitor have more human resources in strategic area (add branch)</li> </ol>

The external influences that have the potential to impact a corporation are referred to as threats and opportunities. Opportunities are advantageous external conditions, including expanding markets, changing consumer preferences, or technological advancements. Threats come from unfavorable external conditions like increased competition, recessions, or new regulations. By evaluating their dangers and opportunities, businesses can develop plans to maximize opportunities and reduce risks.

**E. TOWS MATRIX**

Heinz Wehrich created the Strengths-Weaknesses-Opportunities-Threats (TOWS) matrix, a conceptual framework for methodically analyzing a company by matching threats and opportunities from the external environment analysis with weaknesses and strengths from the internal environment analysis (Wehrich, 1982). The same point is also made in the book Strategic Management (Rothaermel, 2017), which states that by concurrently taking into account internal and external aspects, analysis utilizing the TOWS matrix enables businesses to assess their current state and prospects for the future.

The TOWS matrix provides a framework for creating, assessing, selecting, and gaining access to corporate strategies. This acronym stands for threats, opportunities, weaknesses, and strengths. It examines a business via the lenses of management and marketing. Most people erroneously think that the variations between the SWOT and TOWS matrix are solely due to the letters in the two acronyms being transposed. While not very important, the practical difference between TOWS and SWOT can be summed up as follows: a TOWS matrix analysis focuses on opportunities and threats in the external environment, whereas SWOT emphasizes the internal environment (strengths and weaknesses). Businesses can find and create strategies that are suited for the internal and external challenges they encounter with the help of the TOWS Matrix.





In BIB Lembang, a TOWS matrix will reveal that there are four key methods at play. As follows:

<div style="display: flex; justify-content: space-between;"> <span>Internal</span> <span>External</span> </div>	<b>Strength (S)</b>	<b>Weakness (W)</b>
	<ol style="list-style-type: none"> <li>Possessing a value chain advantaged integrated business line spanning upstream, midstream, and downstream with Sijalu Application.</li> <li>Stakeholders have faith in the institution's reputation, and working with different kinds of clients who require local cattle frozen semen is simple.</li> <li>When the institution is contrasted with comparable local insemination centers, its brand awareness is strong.</li> <li>Have a diversified business that includes certification for livestock knowledge, research, and educational development in addition to frozen semen.</li> <li>The Ministry of Agriculture has certified and recognized the institute management system on a national level.</li> </ol>	<ol style="list-style-type: none"> <li>The institution is thought to lack the necessary personnel resources and manufacturing capabilities to effectively manage the frozen semen business line.</li> <li>The organization has not concentrated on improving employee competency in the field of frozen semen, particularly with regard to local cattle, and its human resource development is still of a generic nature.</li> <li>The local cattle frozen semen industry's lackluster marketing has made the expansion in project contract acquisition negligible.</li> <li>There is still a deficiency in technological innovation and no dedicated research and development department for Local Cattle Frozen Semen.</li> </ol>
<b>Opportunities (O)</b>	<b>S-O Strategies</b>	<b>W-O Strategies</b>
<ol style="list-style-type: none"> <li>Assistance from the Indonesian government, which prioritizes homegrown goods to rule the country's industrial market.</li> <li>Forecasts indicate that the frozen semen market will likely keep expanding in the future.</li> <li>Provide chances for working together with different national and international entities to enhance business competency.</li> <li>The Sijalu infrastructure facilitates transactions for the purchase of frozen semen goods.</li> <li>Business prospects for current clients of BIB Lembang who are happy with the services provided.</li> </ol>	<ol style="list-style-type: none"> <li>Develop cooperation strategies and increase discount promotions with existing customers to increase sales of Local Cattle Frozen Semen products, then introducing Sijalu Application. (S1 ; S2 ; O4 ; O5)</li> <li>Developing priority target markets for industry and local regional government with the background of the Indonesian government, Ministry of Agriculture. Next, "customer gathering" is a must. (O1 ; O2 ; S3 ; S5)</li> <li>Development of the company's business diversification strategy to expand the company's competence in the field of local cattle frozen semen. (S4 ; O5 ; O3)</li> </ol>	<ol style="list-style-type: none"> <li>Develop marketing division capabilities and form a marketing strategy that focuses on the Local Cattle Frozen Semen market. (W1 ; O2 ; W3 ; O3)</li> <li>Employee capability development is focused on production and marketing strategy. (W2 ; O1 ; W3 ; O5 ; O4)</li> <li>Establishing a Research &amp; Development department in the company's organizational system with a focus on developing industrial technology, especially strengthening Local Cow Frozen Semen products. (W1 ; W4 ; O5 ; O1)</li> </ol>
<b>Threats (T)</b>	<b>S-T Strategies</b>	<b>W-T Strategies</b>
<ol style="list-style-type: none"> <li>The number of Frozen Semen buyers in the Indonesian market is limited.</li> <li>Market conditions are very dependent on economic stability which is still affected by the transition after the Covid-19 pandemic.</li> <li>Other similar institutions have better resources, technical capabilities and competitive advantages than BIB Lembang.</li> <li>Business competition to increase purchases of Local Cattle Frozen Semen is very tight and challenging.</li> </ol>	<ol style="list-style-type: none"> <li>Developing long contract strategies and collaborating with existing customers in the aspect of product price discounts. (S1 ; S2 ; T2 ; T1)</li> <li>Developing employee abilities regarding marketing aspects and how to approach customers. (S3 ; S4 ; T3 ; T4)</li> </ol>	<ol style="list-style-type: none"> <li>Focus on penetration in only one area of expertise, such as the frozen cement-based processing industry market. (T1 ; T4 ; W2 ; W3)</li> </ol>

**BUSINESS SOLUTION**

Based on the TOWS Matrix analysis, the author has selected four methods that BIB Lembang can use to address the business challenge and address the research question. When it comes to competing with local livestock in the frozen semen market in Indonesia, BIB Lembang finds it difficult. The strategies in the systems section are arranged to deal with problems that arise with the organization's internal systems. One of the four strategies in the system section is the creation of consumer target market priorities based on the backgrounds of private enterprises, non-governmental organizations (such as farmer organizations), and the regional government of Indonesia. establishing a research and development division within the company's organizational structure, focusing on the advancement of industrial technology and a particular field of expertise, such as the market for industrial frozen semen. Below is a detailed explanation of every strategy in the system grouping:

❖ **Develop cooperation strategies and increase discount promotions with existing customers to increase sales of Local Cattle Frozen Semen products, then introducing Sijalu Application**

Being a state-owned organization by Ministry of Agriculture, BIB Lembang has substantial control over market prospects in the industrial sector, especially in the Indonesian industrial market. Because of BIB Lembang's outstanding reputation, customers in this home market have faith in the company to deliver high-quality frozen semen goods. It is believed that BIB Lembang has an advantage over other local organizations when it comes to handling frozen semen. In the case of BIB Lembang, the product introduction knowledge like "Sijalu" campaign from upstream to downstream must be introduced in detail, informed thoroughly, and widely in order to emphasize added value to customers regarding the significance of



contribution and equal distribution of the fulfillment and needs of Local Cattle Frozen Semen. so that customers would experience a favorable outcome. In the future, it will be necessary to consider the viewpoint presented by the idea of diversifying Local Cattle Frozen Semen items. Last but not least, BIB Lembang needs to aggressively provide discounts to clients who buy Local Cow Frozen Semen the most frequently. Additionally, BIB Lembang educated clients at the industry and farmer group levels about the advantages of frozen local cow semen.

❖ **Developing priority target markets for industry and local regional government with the background of the Indonesian government, Ministry of Agriculture. Next, “customer gathering” is a must**

Despite the company's demonstrated track record of business experience in the agricultural sector, particularly animal product processing, BIB Lembang has yet to explore many business service areas due to institutional knowledge and competence limitations. These include frozen semen services, technical guidance services, educational tourism services, asset rental services, internships, and research services. In this industry, it is important for BIB Lembang to diversify its business strategy. This is especially true for Local Cattle Frozen Semen, which shows that the company can produce goods and offer processing services like semen from particular cattle that is diluted and stored according to production process guidelines. Thus, in order to maintain synergy with customers and build their trust, a "Customer Gathering" agenda is required in order to suitably develop BIB Lembang's business environment. During the "Customer Gathering" event, the advantages of BIB Lembang products can also be presented, including increasing “Product Awareness” for frozen semen from local cattle. During the “Customer Gathering,” the government's most recent regulations and policies were also discussed. It is possible that in addition to product presentations during the “Customer Gathering” agenda, BIB will be able to sell its goods—particularly Local Cow Frozen Semen, which has fiber and provide special discounts to clients who purchase in bulk. This trick to keeping up the growth in frozen semen local cattle sales might be in this attitude and strategy towards the consumer.

❖ **Develop marketing division capabilities and form a marketing strategy that focuses on the Local Cattle Frozen Semen market**

A marketing plan serves as a strategic road map that businesses use to plan, implement, and track their marketing strategy over a given period of time. Different marketing teams inside the company may employ various marketing strategies in their marketing plans in order to accomplish the same business goals. The goal of a marketing plan is to organize and record strategies. This will help to keep the campaigns of the BIB Lembang on track and monitor them. The department decides to launch a blog dedicated for this industry (special about Local Cattle Frozen Semen), a new YouTube video series to establish expertise in the sector of Local Cattle Frozen Semen, and an account on social media like Instagram, X-Twitter, Facebook, etc to join the conversation around this subject. All this serves to attract an audience and convert this audience into software users. To summarize, the business's marketing plan is dedicated to introducing a new product to the marketplace and driving signups for that product. The business will execute that plan with three marketing strategies: a special segmented product in the blog, a YouTube video series, and a Social Media account.

❖ **Employee capability development is focused on production and marketing strategy, then employee abilities regarding marketing aspects and how to approach customers**

Existing human resources are one of the most important and determining factors in every company, thus they are taken into account while assessing the suitability of a job. A disciplined management style, technological prowess, and the effectiveness of every human resource will all be important factors in BIB Lembang's ability to compete in Indonesia's industrial sector. Many experts argue that the quality of an organization's human resources, including the ability of each person, determines whether it succeeds or fails. When it comes to resource, capacity, and consumer analysis, the company has to improve its human resource capabilities from the engineering and procurement viewpoints. Employees who currently possess these capabilities may be later assigned to roles based on their academic standing. In line with the cooperation strategy with several other parties or customers regarding Frozen Cement, cooperation can also be established for the human capital aspect. This collaboration includes the delegation of several BIB Lembang employees to be involved in understanding direct needs in the



field (customer operational locations) so that they can learn directly about certain financial matters, such as engineering, procurement, law, and technology development, and what is no less important is “why frozen cement is used continuously”. Employees will receive direct knowledge that BIB Lembang can apply to improve the company's competency. This competency improvement is part of the intellectual competence that requires company employees to master these competencies if the company wants to win the industrial market competition, especially frozen semen local cattle.

❖ **Establishing a Research & Development department in the company's organizational system with a focus on developing industrial technology, especially strengthening Local Cattle Frozen Semen products**

One of the crucial elements that enables the organization to achieve future growth is the management of its organizational activities with the support of R&D (Research & Development). This is because R&D produces outputs that lead to increased organization knowledge, superior technological capacity, and the best processes for innovation and product development. Technology is regarded as the most important pillar for the functioning of many very complicated product manufacturing projects in the industrial sector. With their current technological prowess, multinational corporations like Apple and Microsoft spring to mind as examples of technology providers capable of producing high-quality, cost-effective service goods while managing risks. It is crucial to recognize that research and development is the initial stage of any process that results in technical innovation. R&D to fulfill a business's long-term goals. For example, BIB Lembang has succeeded in transforming into the most reliable and efficient local provider of frozen cow semen technology in Indonesia. In this case, the company's potential to get many customers in the industrial sector is very large. This overcomes the weakness of BIB Lembang which is currently experiencing problems in marketing related to sales strategy and execution in the field due to less significant sales in the frozen semen local cattle sector. The incorporation of research and development (R&D) into the organizational structure of BIB Lembang is expected to enhance staff awareness of technology advancements and firm innovations within this industry. The marketing division can also benefit from the BIB Lembang's research in the field of technological development in determining the direction of the company's marketing strategy policy. Through market research, businesses can gain a deeper understanding of the industry at large and identify their own advantages and disadvantages in the marketplace.

## CONCLUSION AND IMPLEMENTATION PLAN

This research study highlights the challenges faced by BIB Lembang in increasing local cattle frozen semen sales and retaining existing customers in Indonesia's highly competitive livestock industry. Despite having a strong reputation for reliability and professionalism, BIB Lembang experienced a decline in sales of Frozen Semen Local Cattle due to a decrease in revenue, indicating the need for an effective business strategy. This research has identified two main focus areas to overcome these challenges: understanding product quality and customer satisfaction and proposing new business strategies for BIB Lembang to gain competitive advantage. By understanding the factors that influence customer satisfaction and product quality, BIB Lembang can adjust its business strategy efforts to gain a competitive advantage. To overcome this challenge, a proposed business strategy has been developed to help BIB Lembang increase their competitive advantage to obtain a sustainable Institution. To reach its goals, the Ministry of Agriculture's food security program, which mandates various institutions in the animal product processing cluster, including Frozen Semen Products, including BIB Lembang must be implemented correctly. To address these business issues, particularly how to boost sales of frozen semen intended specifically for local cattle, an analysis of the effects of internal business challenges at BIB Lembang resulting from modifications to this program is required. The possible challenge for BIB Lembang to compete in Indonesia's industrial sector, particularly the selling of frozen semen from local cattle, is the business issue this study outlines. When compared to other company sectors, BIB Lembang has historically benefited from the frozen animal semen product industry. Value chain analysis based on sales and marketing data reveals that new contracts and the frozen semen imported cattle industry earn substantial value. BIB Lembang needs to have a plan in place to control the industrial market and rise to the top of the frozen semen local cattle sector after taking note of these circumstances and the food security program.

During a review of the business atmosphere, it was determined that both internal and external reasons were the primary source of BIB Lembang's challenges in marketing or selling frozen semen local cattle. These problems are analyzed based on internal factors, namely



systems or processes. In the system aspect, BIB Lembang is considered to not have the capabilities in the field of “customer approach” and technology to support competition in the frozen semen industry. BIB Lembang also does not have a special standard employee development system to increase employee competency in the frozen semen industry sector. Furthermore, the limited resources available for frozen semen local cattle products mean that sales are not yet fully able to compete with frozen semen imported cattle on a large scale. The lack of marketing performance makes it difficult for the company to develop market share to obtain a high sales index for frozen semen local cattle products. In conclusion, the research has successfully identified and analyzed the variables that will affect BIB Lembang's business when it enters the industrial market and the increase in product sales. BIB Lembang will consider developing a strategy for each alternative business solution when putting this plan into action. As a result, market development strategies and market segmentation analysis will be covered in the chapter's subsections. The author suggests expanding the study's scope in order to make it more comprehensive and focused on certain product markets. Further research should focus on specific market sectors and expand on competitors' and customers' perspectives about the Institute.

BIB Lembang believes that these four tactics, which are part of the grouping of techniques for boosting sales and market penetration, are doable to implement. Given that the Institution's financial situation is still based on internal factors and external factors—in this example, the Ministry of Agriculture—the implementation of these four initiatives must also be given top attention. Prioritizing the creation of business strategies is necessary to help BIB Lembang avoid incurring several charges that are not in the budget. Table below provides a summary of the implementation plan for each strategy discussed in the previous chapter, outlining the key performance metrics and assigning responsibility for each strategy's implementation.

No	Proposed Strategy	Action Plan	Key Performance Indicator	Person in Charge
1	Develop cooperation strategies and increase discount promotions with existing customers to increase sales of Local Cattle Frozen Semen products, then introducing Sijalu Application	<ol style="list-style-type: none"> <li>1. Divide market segments into certain frozen semen industries</li> <li>2. Determine production targets according to company competency</li> <li>3. Make a long-term discount program for the purchase of Local Cattle Frozen Semen</li> <li>4. Customer feedback mechanism</li> </ol>	<ol style="list-style-type: none"> <li>1. The quantity of initiatives using frozen semen for local cattle inline with sijalu Report</li> <li>2. The contract value of the frozen semen project</li> <li>3. The organization has high Customer Satisfaction Survey (CSI) ratings.</li> <li>4. Results of product and service quality</li> <li>5. Regularity of the schedule for customer gatherings</li> <li>6. The amounts of sales according to the target</li> </ol>	<ol style="list-style-type: none"> <li>1. Head of BIB Lembang</li> <li>2. Marketing Department</li> <li>3. Quality Control Department</li> <li>4. Production Department</li> </ol>
2	Developing priority target markets for industry and local regional government with the background of the Indonesian government, Ministry of Agriculture. Next, “customer gathering” is a must	<ol style="list-style-type: none"> <li>1. Determine the target of the market scope</li> <li>2. Risk assesment about business market</li> <li>3. Questionaire to Customer about additional value feedback for frozen semen Local Cattle</li> </ol>	<ol style="list-style-type: none"> <li>1. Increasing the value of diversification product</li> <li>2. Result of product diversification and service quality</li> <li>3. Increase market share in niche markets</li> <li>4. Provide discounts for customers who frequently or</li> </ol>	<ol style="list-style-type: none"> <li>1. Marketing Department</li> <li>2. Strategic Business Department</li> </ol>



		4. Assessment and evaluation of all processes on the implementation of new diversification product which origin from frozen semen Local Cattle	have the highest purchase frequency for Local Cattle Frozen Semen. 5. Increase education and awareness about benefits of frozen semen local cattle to customers at both the industry level and farmer group level	
3	Develop marketing division capabilities and form a marketing strategy that focuses on the Local Cattle Frozen Semen market	1. Establish a marketing map 2. Determine marketing priorities target for customers	1. Sucecc ratio of the marketing map 2. Customer segmented based on Local Cattle Frozen Semen High User	1. Marketing Department 2. Strategic Business Department
4	Employee capability development is focused on production and marketing strategy, then employee abilities regarding marketing aspects and how to approach customers	1. Establish an expert pool feature 2. Choose the program for career development. 3. Establish protocols for the knowledge management system. 4. A program of academic improvement and employee training to boost sales of frozen semen from local cattle 5. A great internship program for talented individuals to work with reputable companies	1. Raising the importance of employee evaluation 2. A rise in the quantity of company competencies 3. Increasing the quantity of participants in employee training 4. A rise in employee loyalty 5. Customer loyalty increases 6. Local Cattle livestock competition	1. Head of BIB Lembang 2. Organizational Development Department 3. Human Capital Department
5	Establishing a Research & Development department in the company's organizational system with a focus on developing industrial technology, especially strengthening Local Cow Frozen Semen products	1. Evaluation of the R & D planning and execution 2. Divide the specific R & D goal 3. Project implementation, monitoring, and evaluation of market opportunities (impact of R & D) 4. Project customer feedback mechanism about R & D result	1. Succes ratio of R & D 2. R & D Duration 3. Target R & D value achieved	1. Head of BIB Lembang 2. Marketing Department 3. Production Department



Here the table of timeline implementation plan:

NO.	Indicator Activities	Action Plan	Month - Year							
			Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24
1	Develop cooperation strategies and increase discount promotions with existing customers to increase sales of Local Cattle Frozen Semen products, then introducing Sijalu Application	1. Divide market segments into certain frozen semen industries 2. Determine production targets according to company competency 3. Make a long-term discount program for the purchase of Local Cattle Frozen Semen 4. Customer feedback mechanism								
2	Developing priority target markets for industry and local regional government with the background of the Indonesian government, Ministry of Agriculture. Next, "customer gathering" is a must	1. Determine the target of the market scope 2. Risk assesment about business market 3. Questionnaire to Customer about additional value feedback for frozen semen Local Cattle 4. Assessment and evaluation of all processes on the implementation of new diversification product which origin from frozen semen Local Cattle								
3	Develop marketing division capabilities and form a marketing strategy that focuses on the Local Cattle Frozen Semen market	1. Establish a marketing map 2. Determine marketing priorities target for customers								
4	Employee capability development is focused on production and marketing strategy, then employee abilities regarding marketing aspects and how to approach customers	1. Establish an expert pool feature 2. Choose the program for career development. 3. Establish protocols for the knowledge management system. 4. A program of academic improvement and employee training to boost sales of frozen semen from local cattle 5. A great internship program for talented individuals to work with reputable companies								
5	Establishing a Research & Development department in the company's organizational system with a focus on developing industrial technology, especially strengthening Local Cow Frozen Semen products	1. Evaluation of the R & D planning and execution 2. Divide the specific R & D goal 3. Project implementation, monitoring, and evaluation of market opportunities (impact of R & D) 4. Project customer feedback mechanism about R & D result								

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