

The Implementation of the Ungaran Artificial Insemination Center (IAC) Development Strategy with Business Model Canvas

Andiningtyas Mula Pertiwi¹, Harry Soesanto²

^{1,2}Universitas Diponegoro, Indonesia

andiendvm@gmail.com

Abstract

The success of a business is primarily determined by the development strategy undertaken. This study aims to develop alternative strategies for developing Artificial Insemination Centers to improve performance and income. The method used is descriptive qualitative with a case study approach. Data were collected through observation, documentation, and interview. The collected data were analyzed using SWOT analysis, and the results were elaborated into nine elements of the Business Model Canvas. The study results indicate that the strategy that has been carried out so far has been able to make IAC Ungaran achieve the set performance and income targets. In order to increase revenue streams, several strategies that need to be improvised are proposed, namely developing Key Partnerships, optimizing Key Resources, improving Customer Relationships by inviting cooperatives and private companies, and adding a Cost Structure to conduct development studies.

Keywords

business model canvas S; WOT analysis; business development strategy



I. Introduction

The success of a business is strongly influenced by the strategies taken in running the business. A business can achieve success if it has an effective and efficient system. The system can provide benefits for the company, but strategic management is needed to win the business competition. Strategic management is a series of fundamental decisions and actions made by the highest management and applied by all members of an organization to realize organizational goals. Human Resources (HR) is the most important component in a company or organization to run the business it does. Organization must have a goal to be achieved by the organizational members (Niati et al., 2021). Development is a change towards improvement. Changes towards improvement require the mobilization of all human resources and reason to realize what is aspired (Shah et al, 2020). The development of human resources is a process of changing the human resources who belong to an organization, from one situation to another, which is better to prepare a future responsibility in achieving organizational goals (Werdhiastutie et al, 2020).

The purpose of strategic management is to provide the company's long-term direction to be achieved, to help the company adapt, to make the company's performance more effective, to apply and evaluate the agreed strategy effectively and efficiently, to create a new strategy to adapt to the development of the external environment, to review the strengths and weaknesses. Moreover, observing the company's business opportunities and threats, innovating products and services so that consumers always like them.

A company's business strategy can be optimal if it is adjusted to the business model (Chesbrough, 2006). The business model is a conceptual description of the business, which describes the thoughts in formulating and establishing strategies to achieve company goals

(Cavalcante et al., 2011). The most widely used business model concept is the Business Model Canvas. This business model was created and developed by Osterwalder and Yves Pigneur to make it easier to explain the concept of the strategy carried out by the company (Ramelan, 2012). The Business Model Canvas has nine main elements to benefit from a business being run: Customer Segments, Value Propositions, Channels, Customer Relationships, Revenue Streams, Key Resources, Key Activities, Key Partnerships, and Cost Structure (Osterwalder & Pigneur, 2012). Before developing a strategy using the Business Model Canvas, you must first do a SWOT analysis. The purpose of the analysis is to determine the company's environmental conditions, both internally and externally (Pearce et al., 2013).

The business observed in this study is the Ungaran Artificial Insemination Center (IAC). IAC Ungaran is one of the frozen cement producers in Indonesia and is a technical implementing unit at the Department of Animal Husbandry and Animal Health, Central Java Province. This hall has the function to provide facilitation for the farming community but must also be able to generate local revenue (PAD). It is necessary to formulate the right strategy to optimize the two functions so that the existence of IAC Ungaran can be maintained.

This study aims to map the right business strategy and develop it using the Business Model Canvas at IAC Ungaran. The contribution generated from this research is expected to be a recommendation for a new strategy in improving the achievement of the performance targets that have been set.

II. Review of Literature

2.1 Business Development Strategy

A business development strategy involves setting long-term goals and objectives, setting directions and actions, and allocating the necessary resources (Chandler, 1962; Ahsan, 2021). This is important to assist the company or organization determine a way out of the problems at hand.

The accuracy in determining the strategy is influenced by the following: the targets set, the external conditions of the business or organization, the resources they have, and the effectiveness of their implementation (McIntosh, 2001). Other related factors are short- and medium-term planning (investment) flexibility, cost efficiency, global adaptation to internal conditions, competition, and collaboration. Applying the right strategy will create a practical framework between actors or stakeholders in achieving goals (Kurniadi, 2009).

2.2 Business Model Canvas (BMC)

Osterwalder & Pigneur (2010 in Indriany & Indriyani, 2017) explains that the Business Model Canvas (BMC) is a business model development strategy with a *visual chart* consisting of nine elements that discuss how to understand, assess, and replace a business model that is by current conditions in order to provide optimal business performance results. The business development strategy consists of the input, matching, and decision-making stages (Aaker, 2013).

Several studies on business development strategies using the SWOT matrix combined with the Business Model Canvas (BMC) to develop a business model can adapt to the actual conditions that exist in the field due to differences in the data collection process (Hartatik, 2017).

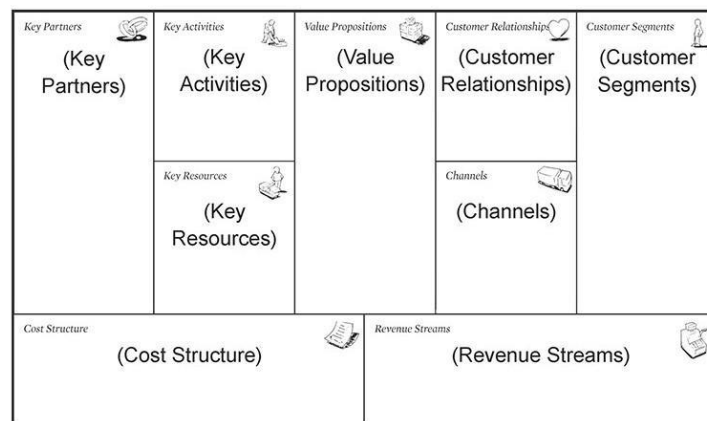


Figure 1. *Elements of Business Model Canvas*

2.3 Analysis SWOT

It is a strategic analysis carried out systematically and is used to formulate a new business strategy for the company (Rangkuti & Freddy, 2006; Ahsan, 2021). This analysis is used to optimize the strengths and opportunities of the environment. However, at the same time, this analysis can eliminate weaknesses and threats outside the company's environment. The analysis carried out includes:

a. Internal Environmental

The internal environmental analysis identifies and analyzes the company environment, such as resources, company management development, and teamwork (Lestari & Prapti, 2011; Ahsan, 2021). Internal environmental analysis is an approach to business functions as an action that aims to analyze the company's internal factors consisting of the company's strengths and weaknesses (David, 2012). Internal environmental analysis is usually carried out on management, marketing, finance, production, and operations.

b. External Environmental Analysis External

Environmental analysis is a strategy to analyze various external opportunities and threats that the company will face to compete with business competitors and win the business competition (Lestari & Prapti, 2011). There are five external factors consisting of economic, socio-cultural, and environmental factors, government, technology, and competitive industry (David, 2012). These five factors must be continuously monitored by the company so that the company can and continues to adapt to changes outside the company's environment.

III. Research Method

This research method is qualitative research with a case study approach. The case study approach makes it possible to carefully and thoroughly focus research on a particular case (Hodgetts & Stolte, 2012).

This research was conducted at the Ungaran Artificial Insemination Center with 9 (nine) respondents consisting of the Head of the Department of Animal Husbandry and Animal Health, Central Java Province; Head of Ungaran Artificial Insemination Center; Head of Livestock Maintenance Section; Head of Production and Distribution Section; as well as the Head of Sub-Division of Administration; 2 (two) consumers; 2 (two) partners.

Analysis of research data was carried out in three stages. The first stage compiles the data obtained from the field and then enters it into the BMC matrix. The second stage is to analyze the BMC using a SWOT analysis to find out the strengths, weaknesses,

opportunities, and threats in IAC Ungaran. The third stage is to formulate a new business model obtained from the SWOT analysis, then enter it into the new BMC matrix so that IAC Ungaran can evaluate and improve the previous strategy to increase the achievement of the predetermined targets.

IV. Result and Discussion

4.1 Business Model Canvas (BMC)

Business Model Canvas which IAC Ungaran runs is as follows:

1. *Value Proposition.* IAC Ungaran is a technical implementation unit at the Department of Animal Husbandry and Animal Health that produces frozen semen for cattle, goats, and sheep. The resulting product is by the Indonesian National Standard (SNI). IAC Ungaran has also been certified to ISO 9001:2018 and ISO 17025:2017, quality management standards in carrying out business processes.
2. *Customer Segments.* The target market for IAC Ungaran is the inseminators who provide services to breeders through the department in charge of animal husbandry and animal health functions in their respective regions.
3. *Customer Relationships.* IAC Ungaran maintains good relations with customers during direct selling, annual customer gatherings, and field visits to monitor the quality of frozen cement. This activity is a form of after-sales service provided by IAC Ungaran to consumers.
4. *Channels.* IAC Ungaran conveys information and distributes its products to buyers directly or using courier services.
5. *Cost Structure.* Operational costs incurred by IAC Ungaran include livestock maintenance costs, frozen cement production costs, frozen semen storage costs, electricity costs, water costs, telephone and internet costs, equipment maintenance costs, and employee salaries.
6. *Revenue Stream.* Revenue is derived from frozen cement sales, sales of rejected cattle, rental of *mess houses*, and laboratory testing as a comparative test of cement quality.
7. *Key Activities.* Routine activities carried out by IAC Ungaran include stud raising, semen storage, frozen semen production, frozen semen sales and distribution, internship and research services, as well as participating in exhibitions both at regional and national levels.
8. *Key Partnership.* IAC Ungaran's business partners are divided into the government, private and other sectors. Starting from animal feed, medicines, and infrastructure providers, the Indonesian Ministry of Agriculture, other IACs in Indonesia, agencies in charge of regional livestock functions, cooperatives, inseminator associations, and courier services. In addition, it also collaborates with academics from both high schools and universities.
9. *Key Resources.* IAC Ungaran has a large area of land used as office buildings, stables, laboratories, warehouses, mess, official residences, and forage areas for animal feed. Other resources owned are equipment and work equipment in livestock raising, frozen semen production, and frozen semen storage. Human resources owned by 52 people consist of 22 State Civil Apparatus (ASN) and 30 non-ASN.

The results of the initial identification, the strategy that has been owned is as shown in Figure 1.

| Key Partnership | Key Activities | Value Proposition | Customer | Customer |
|---|---|--|---|--|
| <p>Government:</p> <ul style="list-style-type: none"> • Ministry of Agriculture RI • Department of Animal Husbandry and Animal Health of Central Java Province • IAC Lembang • IAC Singosari • Office in charge of Livestock and Animal Health in the Regency/City <p>Private:</p> <ul style="list-style-type: none"> • Feed providers • Drug providers • Cattle breeders • Infrastructure providers • Courier service <p>Other:</p> <ul style="list-style-type: none"> • Universities /Academics • Inseminator | <ul style="list-style-type: none"> • Raising of bulls • Production and distribution of quality frozen semen • Promotion • Monitoring of product quality in the field • Training / Internship • Exhibition | <ul style="list-style-type: none"> • Complete facilities • LSPro certified superior stud • Frozen semen quality according to SNI • Has implemented ISO 17025:2017 and 9001:2015 • Central and Regional Government support | <ul style="list-style-type: none"> • Phone, SMS and WA • Email • Visits to Regency/City and Livestock Group • Monitoring & Evaluation • Group Medsos | <ul style="list-style-type: none"> • charge of animal husbandry and animal health in other provinces in and District / City • University / Academic • Inseminator |
| | <p>Key Resources</p> <ul style="list-style-type: none"> • Superior male cattle • Competent HR • Facilities & Infrastructure (Cages, Equipment, Laboratories, Forages,) • ISO Certification • According to SNI | | <p>Channels</p> <p><u>Online</u></p> <ul style="list-style-type: none"> • Website • Social media online <p><u>Offline</u></p> <ul style="list-style-type: none"> • Exhibition • Brochure • Visits to locations in districts /city | |

| <i>Cost Structure</i> | <i>Revenue Stream</i> |
|--|--|
| <ul style="list-style-type: none"> ● livestock rearing ● costs, frozen semen production costs, frozen ● semen storage ● costs, electricity ● costs, water ● costs, telephone and internet ● fees, equipment maintenance costs, ● employee salaries | <ul style="list-style-type: none"> ● frozen semen ● sales, rejected livestock sales, ● rental <i>mess</i>, ● Laboratory testing as a comparative test of cement quality. |

Figure 1. Initial Business Model Canvas

Source: Processed data (2021)

4.2 SWOT analysis

Next, identification of internal and external factors is carried out and then a SWOT analysis is carried out through interviews, observations and documentation as shown in Table 1.

Table 1. Research Data SWOT

| Strengths Analysis) | Weaknesses (Weakness) |
|--|---|
| <ul style="list-style-type: none"> ● Male cattle are qualified and certified ● Product quality according to SNI ● Consumer services in the form of monitoring product quality | <ul style="list-style-type: none"> ● Promotion ● Price regulation ● Income ● Management ● <i>Sarpras</i> |
| Opportunity (Opportunity) | Threat (Threat) |
| <ul style="list-style-type: none"> ● Increased demand for frozen semen ● Government regulations Government ● programs | <ul style="list-style-type: none"> ● Frozen cement business competition ● <i>Handling</i> frozen cement which is less precise during distribution and in the area |

Source: Processed data (2021)

The next stage is to perform an analysis using the SWOT matrix with the *Internal Strategic Factor Analysis Summary (IFAS)*, namely strategy analysis by knowing the company's internal environmental conditions, and *External Strategy Factor Analysis Summary (EFAS)* is a strategy analysis by knowing the condition of the company's external environment. The results of the analysis will be used as four strategy developments, namely a combination of *Strengths-Opportunities (SO)*, *Weaknesses-Opportunities (WO)*, *Strengths-Threats (ST)*, and *Weaknesses-Threats (WT)* (see Table 2.)

Strategy Implications

Several implications of the new strategy, which is the result of a SWOT analysis and can be used as a reference by IAC Ungaran in business development, among others:

1. Income

Is expected to increase promotions in order to expand the marketing network. Another effort is to keep existing customers from switching to products from other IACs by providing services in the form of monitoring product quality regularly. Along with the expanding marketing network, it is expected that there will be an increase in revenue.

2. Management

4.3. Business Model Canvas (BMC)

| Key Partnership | Key Activities | Value Proposition | Customer Relationship | Customer |
|---|--|--|--|--|
| <p>Government:</p> <ul style="list-style-type: none"> Ministry of Agriculture RI Department of Animal Husbandry and Animal Health Central Java Province IAC Lembang IAC Singosari Office in charge of Livestock and Animal Health in Regency/City <p>Private:</p> <ul style="list-style-type: none"> Feed provider Medicine provider Provider of livestock seeds Infrastructure providers Courier services <p>Other:</p> <ul style="list-style-type: none"> University/Academic Inseminator <p>Proposed :</p> <ul style="list-style-type: none"> Private | <ul style="list-style-type: none"> Maintenance of bulls Production and distribution of quality frozen semen Promotion Monitoring of product quality in the field Training / Internship Exhibition <p>Key Resources</p> <ul style="list-style-type: none"> Superior stud livestock Competent HR Facilities & Infrastructure (Cages, Equipment, Laboratories, Forages,) ISO Certification According to SNI <p>Proposal:</p> <ul style="list-style-type: none"> Livestock Replacement Routinely Updating Production Machines | <ul style="list-style-type: none"> Complete facilities Superior stud certified LSPro Quality frozen semen according to SNI Has implemented ISO 17025:2017 and 9001:2015 Support from Central and Regional Governments | <ul style="list-style-type: none"> Direct services Telephone, SMS and WA Email Visits to Regencies/Cities and Livestock Groups Monitoring & Evaluation of Social Media Group Courier services <p>Proposal:</p> <ul style="list-style-type: none"> Cooperative <p>Channels</p> <p><u>Online</u></p> <ul style="list-style-type: none"> Website social media <p><u>Offline</u></p> <ul style="list-style-type: none"> Workshop & Brochure visits in districts/cities | <ul style="list-style-type: none"> Service in charge of pete Feed and animal health in other provinces as well as Regencies/Cities Universities/Academics Inseminator |

| | | | | |
|---|--|--|---|--|
| | | | | |
| Cost Structure | | | Revenue Stream | |
| <ul style="list-style-type: none"> ● cost of livestock rearing, ● frozen semen production costs, frozen ● semen storage ● costs, electricity ● costs, water ● costs, telephone and internet ● costs, equipment maintenance costs, ● employee salaries | | | <ul style="list-style-type: none"> ● frozen semen sales, ● sales of rejected livestock, ● rental <i>messes</i>, ● laboratory testing as a comparative test of cement quality. | |
| Suggestion: | | | Proposal: | |
| <ul style="list-style-type: none"> ● <i>Cost of scientific studies in the context of developing</i> | | | <ul style="list-style-type: none"> ● <i>Research</i> ● <i>fees Internship fees</i> | |

Figure 2. Business Model Canvas New
Source: Processed data (2021)

V. Conclusion

The implementation of business development strategies using the *Business Model Canvas* at IAC Ungaran has so far been able to achieve the set performance and income targets. In order to optimize the role of IAC Ungaran and capture business opportunities in Indonesia to improve performance and local revenue, there are 5 (five) elements that need to be developed in *Business Model Canvas*. Based on the SWOT analysis, the elements developed are *Key partnerships*, *Key Resources*, *Customer Relationships*, *Cost Structure*, and *Revenue Streams*. The improvisation is expected to be able to develop *Key Partnerships*, optimize *Key Resources*, improve *Customer Relationships* by inviting cooperatives and private companies and add a *Cost Structure* to conduct development studies in order to increase *Revenue Stream*.

References

- Ahsan, M. (2021). Implementasi Strategi Pengembangan Bisnis Dengan Business Model Canvas. Jurnal MANOVA Volume IV Nomor 2, P ISSN: 2685-4716, E ISSN: 2746-282X.
- Cavalcante, Kesting, & Ulhoi. (2011). Business model dynamics and innovation: (re)establishing the missing linkages. Journal Management Decision, 49(8). <https://doi.org/10.1108/00251741111163142>
- Chesbrought. (2006). Open Business Models: How to Thrive in The New Innovation Landscape. Harvard Business School Press.
- David, F. R. (2012). Strategic Management Concepts & Cases (14th ed.). Pearson Education Inc.
- Indriany, N., & Indriyani, R. (2017). Analisis Pengembangan Bisnis Dengan Pendekatan Business Model Canvas Pada UD. Mogajaya Surabaya. Agora, 5(2), 165. <https://doi.org/10.29244/jai.2017.5.2.165-176>
- Kurniadi, D. (2009). Strategi Pengembangan Wilayah Perbatasan Antarnegara: Memacu Pertumbuhan Ekonomi Entikong Kabupaten Sanggau Provinsi Kalimantan Barat. Tesis. Magister Teknik Pembangunan Wilayah dan Kota. Universitas Diponegoro.

Semarang.

- McIntosh, M. (2001). Marks and Spencer: Global Companies in the Twentieth Century.
- Niati, D. R., Siregar, Z. M. E., & Prayoga, Y. (2021). The Effect of Training on Work Performance and Career Development: The Role of Motivation as Intervening Variable. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, 4(2), 2385–2393. <https://doi.org/10.33258/birci.v4i2.1940>
- Osterwalder, & Pigneur. (2012). *Business Model Generation* (terjemahan). PT Elex Media Komputindo.
- Pearce, John, Robinson, & Richard. (2013). *Manajemen Strategis*. Salemba Empat.
- Ramelan. (2012). *Business Model Canvas: Penerapan di Indonesia*. Pendidikan dan Pembinaan Manajemen.
- Shah, M. M., et al. (2020). The Development Impact of PT. Medco E & P Malaka on Economic Aspects in East Aceh Regency. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)* Volume 3, No 1, Page: 276-286.
- Werdhiastutie, A. et al. (2020). Achievement Motivation as Antecedents of Quality Improvement of Organizational Human Resources. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)* Volume 3, No 2, Page: 747-752.