



Proceeding Book of International Conference on Association of Indonesian Entrepreneurship Study Programs

The 4th APSKI International Conference 2026

“Empowering Future Ventures: The Nexus of AI & Entrepreneurial Excellences”

Bali Indonesia, 23 July 2026

ISSN 3064 3635, Vol 04, Ed 01 (2026), pages 280 - 287

Analysis of Vigaza Farm's Business Model Development Using the Business Model Canvas (BMC) and SWOT Approach in The Era of Artificial Intelligence

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Abstract: Vigaza Farm is a small and medium enterprise (SME) in the integrated quail farming agribusiness sector in Yogyakarta. Despite its potential through an independent upstream to downstream production system, the company faces strategic challenges, including high dependency on the Business to Business (B2B) segment and operational costs heavily dominated by feed expenses. This study aims to evaluate the existing business model, determine the company's competitive position, and formulate a business model redesign (Remodeling BMC) adaptive to the Artificial Intelligence (AI) era. A descriptive qualitative method with a case study approach was employed. Data were collected through direct observation, in depth interviews with the business owner, and literature reviews. Data analysis utilized the Business Model Canvas (BMC) framework and SWOT analysis. The results indicate that while Vigaza Farm has systematically implemented the BMC elements, feed expenses dominate 70% of operational costs. The SWOT analysis yielded an IFAS score of 2.1 and an EFAS score of 1.75, placing the business in Quadrant 1 (Progressive), which recommends an Aggressive Growth Strategy. As a research benefit, the proposed remodeling strategy provides actionable frameworks focusing on technology integration. This includes strengthening product downstreaming, optimizing digital marketing using AI content creation, implementing AI business forecasting, utilizing IoT in hatcheries, and increasing cost efficiency through solar panels and collaborative feed procurement.

Keywords: Business Model Canvas; SWOT Analysis; Artificial Intelligence; Agribusiness; Vigaza Farm.



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A. Introduction

Indonesia's economic landscape relies heavily on the agribusiness sector, which has gradually shifted from basic farming into a complex network connecting upstream suppliers directly to downstream markets. In areas like Sleman Regency within the Special Region of Yogyakarta, livestock enterprises are growing fast. They increasingly blend daily production with processing, community education, and online marketing to boost the actual value of their goods. Even so, many Small and Medium Enterprises (SMEs) struggle with fundamental issues: planning their business moves, structuring daily operations, and surviving sudden market shifts (Caswito et al., 2024). Surviving today's volatile market requires more than just selling a good product; it demands a systematically designed business model (Fitriani & Susyanti, 2025).

A prime example of this struggle is Vigaza Farm, an integrated quail farming business. While the farm runs an impressive independent production cycle, it currently leans far too heavily on Business-to-Business (B2B) clients. Selling the bulk of their eggs and livestock to large collectors leaves their bargaining power completely exposed to unpredictable demand. At the same time, the farm has barely tapped into the retail Business-to-Consumer (B2C) market. This is a missed opportunity, especially considering that their current organic reach on platforms like TikTok already brings in 10 to 20 potential retail customers every single day. Alongside these market dynamics, the rapid evolution of Artificial Intelligence (AI) offers fresh ways to optimize marketing and predict trends. Yet, the adoption of such data-driven tools across the Indonesian agribusiness scene is still largely unexplored (Heryaninda et al., 2025).

Fixing these operational bottlenecks requires a solid analytical approach. The Business Model Canvas (BMC) serves as a practical blueprint to map out exactly how a company creates and delivers value. When paired with a SWOT analysis, business owners can actually translate their internal strengths and external market realities into actionable strategies (Adinata et al., 2023). Previous researchers have frequently combined BMC and SWOT to evaluate food and beverage startups. However, there is a distinct lack of empirical studies applying this framework to the highly specific, upstream-to-

downstream operations of a quail farming agribusiness—especially one trying to survive and adapt in the emerging AI era.

To fill this gap, this research critically evaluates the strategic direction of Vigaza Farm. The specific objectives are to dissect the farm's current operations using the BMC framework, pinpoint its exact competitive standing through SWOT analysis, and ultimately construct a newly remodeled business design. This redesigned model aims to help the enterprise reduce its B2B dependency, lower costs, and fully leverage Artificial Intelligence to thrive in a modern agribusiness landscape.

B. Literature Review

1. Business and Business Model

Looking at its roots, the term "business" stems from being "busy," which perfectly captures the non-stop nature of human enterprise. In practical terms, it represents any organized economic effort where people or groups create, handle, and deliver goods and services to generate profit while keeping the venture alive over the long run (Hasoloan, 2018). This spans across fields like farming, manufacturing, and retail, always revolving around delivering real value to the buyer (Suprpto & Feriawati, 2021). To make this happen smoothly, organizations rely on a business model—a structural blueprint showing exactly how they create, deliver, and hold onto that value. For agribusinesses, a well-crafted model connects every single dot from sourcing raw materials right down to the final sale, ultimately boosting daily efficiency, adding worth, and giving the enterprise a sharp competitive edge.

2. Agribusiness

Agribusiness goes far beyond traditional farming; it captures the entire economic ecosystem rooted in agriculture, stretching across the whole value chain from upstream suppliers to downstream markets (Djazuli, 2024). It operates as a massive, interconnected network rather than just planting or breeding. This network includes everything from supplying initial farming equipment and managing crop or livestock cultivation, to processing the raw output and handling the final marketing and support services (Rahim & Hastuti, 2005). Today's modern agribusiness relies heavily on peak efficiency, constant technological upgrades, and sustainable practices to survive a fiercely competitive landscape.

Vigaza Farm fits perfectly into this modern mold by weaving together quail breeding, egg processing, and targeted digital marketing into one cohesive operation.

3. Business Model Canvas (BMC)

When it comes to mapping out how an enterprise actually functions, the Business Model Canvas (BMC) stands out as a highly practical strategic management tool. It breaks down the underlying logic of how a company creates, delivers, and secures value in the market (Laurentia Priska Boedianto, 2015). By offering a visual and straightforward snapshot of the business's current state, the BMC helps owners chart their strategic course and pinpoint exactly where their competitive advantage lies (Osterwalder et al., 2010)

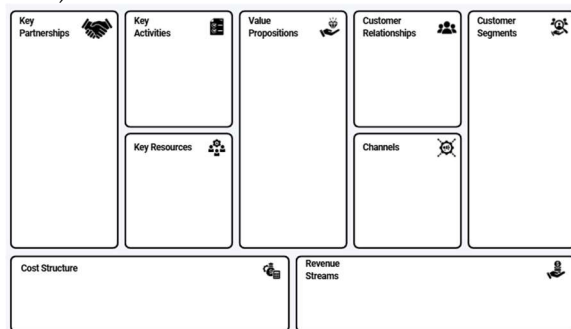


Figure 1. The Nine Elements of Business Model Canvas

- Customer Segments: Dividing the broad market into specific groups sharing common geographical, demographic, or behavioral traits.
- Value Proposition: The unique mix of qualitative perks (like brand prestige or comfort) and quantitative benefits (such as speed or lower pricing) that makes a product stand out to buyers (Osterwalder et al., 2010).
- Channels: The exact communication and distribution pathways a business uses to reach its audience and deliver its core offering.
- Customer Relationships: The tactics deployed to attract new buyers, keep existing ones happy, and encourage repeat sales.
- Revenue Streams: The various ways cash flows into the business, whether through direct sales, subscriptions, or service fees.

- Key Resources: The essential assets required to keep the lights on, spanning physical equipment, human talent, financial capital, and intellectual property.
- Key Activities: The non-negotiable daily operational tasks needed to build and deliver the product.
- Key Partnerships: The strategic alliances and supplier networks built to optimize workflow, cut costs, or reduce business risks.
- Cost Structure: A breakdown of all the financial expenses involved in running the operation, usually balancing between staying lean (cost-driven) or focusing on premium quality (value-driven).

4. SWOT Analysis and Matrix

To evaluate where a company truly stands, a SWOT analysis serves as an indispensable tool for dissecting both internal capabilities and external realities to shape a winning marketing strategy (Kotler & Keller, 2015). Looking inward, a business must identify its Strengths – the internal assets and unique advantages that fuel its competitiveness – as well as its Weaknesses, which are the operational flaws or resource gaps dragging down performance. Looking outward, the focus shifts to Opportunities, such as emerging tech trends or untapped markets, and Threats, which encompass aggressive competitors or shifting market dynamics that could derail the business.

Just listing these factors is rarely enough; companies use the SWOT Matrix to turn these observations into real, actionable game plans (Tambunan & Agushinta R, 2020). This matrix acts as a crucial bridge, systematically aligning what the company does well inside with what is happening outside in the market. The core idea here is to deliberately push strengths to their maximum potential, actively shrink weaknesses, grab available market openings, and build solid defenses against looming industry hazards (Mahmudi et al., 2018). By cross-referencing these internal and external elements, the matrix yields four distinct strategic angles. SO (Strength-Opportunity) strategies push the company to use its best assets to capture new market chances. ST (Strength-Threat) strategies lean on those same strengths to block or soften external risks. On the flip side, WO (Weakness-Opportunity) strategies

to shield the company's vulnerabilities from outside dangers.

5. Previous Studies and Conceptual Framework

A wealth of prior research confirms that blending the BMC framework with a SWOT analysis gives Small and Medium Enterprises (SMEs) a remarkably clear roadmap for growth. For example, previous investigations by (Djufri & Lukman, 2020). and Tambunan and Agushinta R (2020) successfully merged IFAS and EFAS calculations with BMC and SWOT mapping. This combined method accurately placed businesses into specific competitive quadrants, paving the way for targeted expansion or value-creation tactics. Following a similar logic, the conceptual framework of this current study first lays out Vigaza Farm's nine core building blocks using the BMC. Once the anatomy of the business is clear, the study runs a rigorous SWOT evaluation, backed by IFAS and EFAS scoring. Bringing these two analytical lenses together provides the exact foundation needed to completely redesign or "remodel" the farm's Business Model Canvas, ensuring it stays highly competitive and quick to adapt in an ever-changing industry.

C. Method

1. Research Design

To fully grasp how Vigaza Farm builds and executes its business strategy, this study leaned on a qualitative case study approach. Instead of simply crunching statistical numbers, this method allowed for a deep, descriptive look into the farm's natural, everyday operations. A case study was the perfect fit here because it uncovers the complex, real-world dynamics of running an integrated agribusiness, giving us a clear lens to evaluate their current Business Model Canvas (BMC) and conduct a highly realistic SWOT analysis for future remodeling.

2. Location and Time of Research

All fieldwork took place right at the heart of the operation: Vigaza Farm, an integrated quail breeding enterprise located in Sleman Regency, Special Region of Yogyakarta, Indonesia. The entire research timeline stretched from February to May 2026, carefully structured to cover everything from the initial groundwork and hands-on data gathering to the final strategic analysis.

focus on fixing internal flaws by riding the wave of external opportunities, while WT (Weakness-Threat) strategies act as a pure defense mechanism

3. Subjects and Informants

Finding the true strategic direction of a business requires speaking to the person steering the ship. Using a purposive sampling technique, the founder and owner of Vigaza Farm, Hardi Setia Ramdhani, was selected as the primary key informant due to his absolute authority and intimate knowledge of the farm's upstream-to-downstream workflow. To ensure the narrative was not entirely one-sided, several active consumers were also interviewed to cross-verify the market realities and validate the company's value proposition.

4. Data Collection

We gathered raw, firsthand information through three practical avenues. First, semi-structured, in-depth interviews with the owner helped piece together the nine BMC building blocks and pinpoint critical SWOT factors. Second, a full month of direct participant observation at the farm allowed us to watch the actual daily grind—from managing the hatchery room and mixing organic feed to handling the final distribution. Finally, we dug into internal company documents, standard operating procedures, and visual records to back up everything we heard and saw during the site visits.

5. Data Analysis and Validity

Making sense of the gathered data meant filtering out the noise through data reduction, laying out the core facts, and running them directly through the BMC and SWOT frameworks. We scored the internal strengths and weaknesses alongside external opportunities and threats using the IFAS (*Internal Factor Analysis Strategy*) and EFAS (*External Factor Analysis Strategy*) matrices to plot the farm's exact competitive quadrant. To make sure these conclusions were rock-solid, we relied heavily on data and technique triangulation—matching interview claims with our observational field notes and company documents. We also ran our final interpretations past the owner (member checking) to ensure our strategic breakdown was both ethically sound and factually accurate.

D. Result and Discussion

1. Evaluation of Existing Business Model Canvas (BMC)

Vigaza Farm does not simply breed quails; it runs a fully independent, integrated cycle from hatching eggs to processing the final meat. Breaking down their current daily operations using the Business Model Canvas reveals a few critical bottlenecks alongside their strengths. Right now, their *Customer Segments* lean heavily on Business-to-Business (B2B) clients. Selling the bulk of their harvest to large collectors, local culinary spots, and government dietary programs provides steady volume, but it completely exposes them to demand fluctuations. Meanwhile, their *Value Proposition* is actually quite strong. They do not just sell raw eggs; they focus on continuous product innovation, backed by superior genetics from crossbreeding Japanese *Coturnix japonica*.

To get these products out, their marketing *Channels* rely heavily on TikTok, which surprisingly pulls in 10 to 20 potential leads every single day, while WhatsApp serves as the main hub for closing sales. Keeping these buyers around requires solid *Customer Relationships*, which the farm maintains through a strict flat-price policy – shielding loyal buyers from sudden market price spikes – and hands-on technical mentoring for partner breeders. Financially, their *Revenue Streams* depend on moving live quails of various ages and selling fresh daily eggs. Their *Key Activities* cover everything from the delicate hatchery process to strict organic sorting, requiring robust *Key Partnerships* with local corn farmers and regional breeder communities. Driving all this are their *Key Resources*: skilled farm hands, unique genetic formulas, and an official P4S (Self-Help Agriculture and Rural Training Center) certification. However, the real vulnerability lies in their *Cost Structure*, where daily feed expenses absolutely dominate, eating up 70% of total operational costs. Squarely in Quadrant 1 (Progressive). We rigorously validated this highly favorable position by cross-checking the owner's interview claims against a full month of direct hatchery observations and consumer feedback. The verdict is clear: the farm has the internal muscle to aggressively capture outside opportunities, making an Aggressive Growth Strategy the only logical path forward.

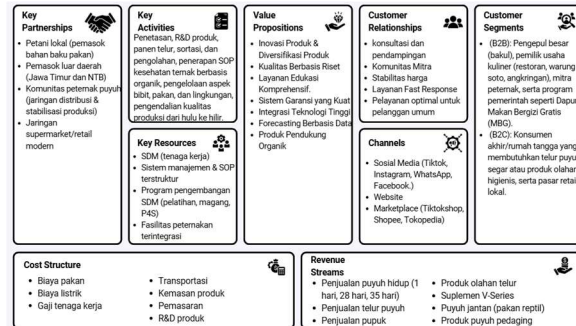


Figure 2. Existing Business Model Canvas of Vigaza Farm

2. SWOT Analysis and Competitive Position

We did not just pull the SWOT factors out of thin air; they are deeply rooted in the BMC evaluation. The internal strengths (S) and weaknesses (W) directly reflect the reality of the farm's *Key Activities*, *Key Resources*, and *Cost Structure*. Externally, the opportunities (O) and threats (T) mirror the live dynamics of their *Customer Segments*, *Channels*, and *Key Partnerships*. This tight synchronization ensures the SWOT analysis is a critical evaluation of the living business model, rather than just a standalone checklist.

To bring qualitative rigor to the Focus Group Discussion (FGD) results, we gave real-world context to the 1-4 rating scale. Giving a factor a maximum rating of 4 meant it had a massive, direct impact on the farm's survival or daily revenue. For instance, the integrated production system (S3) easily earned a 4 because managing everything from the incubator to the final packaging internally is what keeps the business breathing. Product innovation (S1) is another major strength, completely backed by the owner's own words: "We focus on continuous innovation; we do not just sell raw eggs, but offer boiled eggs, peeled eggs, quail satay, and ready-to-eat products through the 'Puyuh Kencana' line."

On the flip side, feed expenses (W3) draining 70% of the budget is a glaring weakness. The owner perfectly captured why this is the heaviest burden, stating, "Feed is definitely a fixed cost because if they are not fed, they will not lay eggs." Looking outward, the effectiveness of TikTok (O2) earned a solid 4 because tangibly pulling in 10 to 20 new prospective buyers daily proves the platform is a massive, untapped goldmine for retail growth.

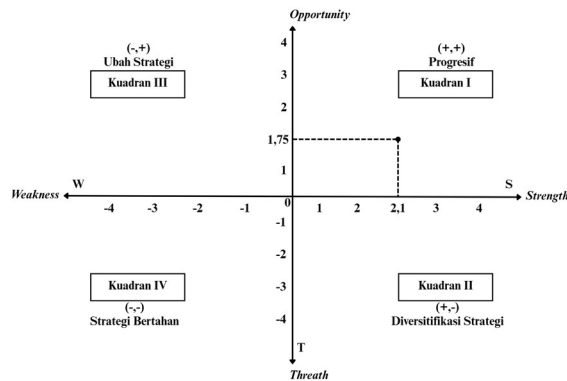


Figure 3. SWOT Quadrant of Vigaza Farm

3. Formulation of Strategy Based on SWOT Matrix

A SWOT matrix is useless if it simply lists vague ideas in a table. To execute this aggressive growth strategy, we built a logical bridge connecting the farm's internal capabilities with brutal market realities. We prioritized these strategies based on the most painful operational headaches the owner faces daily: the crushing financial weight of feed costs and the desperately underutilized B2C retail market.

Take the SO (Strength-Opportunity) strategy, for example. Instead of just vaguely advising the farm to "optimize TikTok," the concrete plan is to leverage those 10 to 20 daily leads to completely shift their digital content. By moving away from basic branding and turning their TikTok into an educational channel about organic farming, they directly answer the modern consumer's craving for hygienic, chemical-free food. Additionally, commercializing their P4S training unit does more than just bring in extra cash. It fundamentally remodels the BMC by turning their *Key Resources* into a profitable education center and expanding their *Customer Segments* to include academics and new breeders.

Fixing their weaknesses through the WO (Weakness-Opportunity) strategy requires heavy operational lifting. Knowing that feed eats up 70% of their cash, the strategy pushes for collaborative, large-scale procurement. Bringing climate, and AI agents (like OpenClaw) to handle the administrative grind. Ultimately, this entire remodeling effort rescues their *Cost Structure*—reducing their dangerous reliance on commercial feed, stabilizing electricity bills through renewable solar energy, and freeing up cash to

solar energy, and freeing up cash to invest heavily in digital infrastructure. Running these qualitative weights through the final calculations gave us an IFAS (internal) score of 2.1 and an EFAS (external) score of 1.75. Plotting these exact coordinates places Vigaza Farm in one or two heavy trucks (*tronton*) of corn directly from producing regions like Sumbawa or NTB is not just about hunting for a discount; it is a critical survival tactic to lock in their Cost of Goods Sold (COGS) when global raw material prices go crazy.

When it comes to playing defense, the ST (Strength-Threat) and WT (Weakness-Threat) strategies act as the farm's operational shield. The threat of unpredictable livestock disease is very real. To fight this, strictly enforcing their organic Standard Operating Procedures (SOP) and heavily relying on their proprietary V-Series supplements serves as a qualitative defense mechanism to prevent mass mortality in the coops. Finally, all these tactical moves tie directly into the owner's long-term vision. Planning to install solar panels and tap into nearby river hydropower isn't just an eco-friendly dream; it is a calculated move to permanently slash overheads and fortify their *Cost Structure* for the decades to come.

4. Business Model Redesign (Remodeling BMC) in the AI Era

Driven by these hard strategic truths, the redesigned business model deliberately pushes Vigaza Farm into the modern AI era. The target *Customer Segments* pivot sharply away from wholesale collectors, targeting health-conscious retail buyers and national trainees instead. Their *Value Proposition* gets a massive upgrade, pushing high-margin downstream products under the "Puyuh Kencana" brand (peeled boiled eggs, frozen meat, sambal) alongside a 24/7 customer service experience. Crucially, this service will use "Humanized AI" chatbots that are programmed to retain a personal, empathetic touch (*Roso*), ensuring older customers do not feel alienated.

To reach these new buyers, their marketing *Channels* will heavily feature AI-assisted content creation to dominate social commerce, while the P4S unit gets its own comprehensive e-learning platform. Operationally, *Key Activities* will shift focus toward R&D for food processing and deploy AI Business Forecasting tools to predict market demand spikes before they happen. Pulling this off

invest heavily in digital infrastructure.

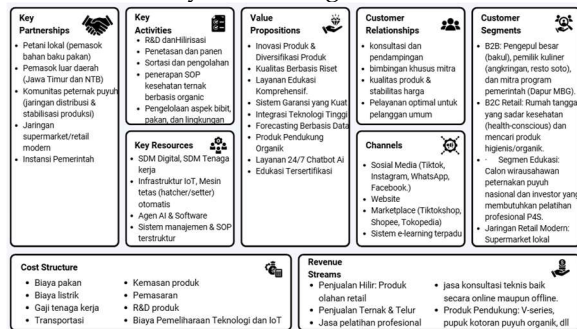


Figure 4. Business Model Canvas Redesign

E. Conclusion and Recommendation

Looking at the big picture, this study proves that Vigaza Farm has successfully built a fully integrated agribusiness, handling everything from initial breeding to final packaging. However, digging deeper into their current Business Model Canvas reveals some heavy operational burdens. They are dangerously reliant on wholesale B2B collectors, which weakens their pricing power, and their daily feed expenses eat up a staggering 70% of their total budget. Despite these hurdles, the triangulated SWOT evaluation—scoring an internal 2.1 and an external 1.75—firmly places the enterprise in Quadrant 1, as visually mapped out in Figure 3. This progressive standing confirms that they have the internal muscle required to pursue an Aggressive Growth Strategy. To capitalize on this potential, the farm needs a comprehensive structural shift, which is fully detailed in the redesigned Business Model Canvas (Figure 4). This new blueprint deliberately pushes the operation toward product downstreaming. By launching the "Puyuh Kencana" processed food line, the farm can break free from B2B dependency and capture the highly profitable B2C retail market. This redesign also maps out a clear technological shift, integrating AI for content creation and business forecasting to ensure the farm thrives in a modern digital economy.

means their *Key Resources* must evolve to include digital marketing specialists, Internet of Things (IoT) sensors to fully automate the hatchery

For the farm's management, the next operational steps are clear and urgent. They need to fast-track the commercial launch of their processed foods to bypass the unpredictable wholesale market. Additionally, while rolling out 24/7 AI chatbots is a smart efficiency move, management must ensure these systems retain a "humanized" touch—preserving the traditional *Roso*—so that older, loyal customers do not feel alienated. On the production side, securing large-scale direct corn shipments from producing regions like NTB or Sumbawa, alongside installing solar panels, will be crucial to permanently stabilizing their daily overhead costs. While these strategic insights are highly practical for Vigaza Farm, this research does have its boundaries. Because the study relied on a single qualitative case study, these specific strategic maneuvers might not perfectly mirror the realities of other agribusinesses. Future researchers should step in with quantitative tools to statistically measure exactly how this remodeled BMC impacts actual financial performance and consumer purchasing decisions. It would also be highly valuable to run longitudinal studies to track the farm's economic resilience over several years, or to conduct a comparative analysis of different digital platforms—like TikTok versus Instagram—to see how distinct social media algorithms drive retail sales in the livestock sector.

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