

Exploratory study on developing a business model for potato-based startup “Potato lab”

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Abstract

Potato Lab represents an innovation in the snack food industry, specifically offering baked potato products with various appealing flavors and toppings. Amid the rising consumption of potatoes in Indonesia, particularly in urban areas, Potato Lab seizes this opportunity by providing baked, not fried, products to offer a healthier choice for consumers. This study aims to explore consumer preferences for Potato Lab's products and assess the impact of product innovation on competitive advantage and sales. The research employs a mixed-methods approach, incorporating both qualitative and quantitative methods. The qualitative aspect includes Focus Group Discussions (FGD) with 10 participants who are potential customers and in-depth interviews with 3 experts from various backgrounds. Meanwhile, the quantitative survey involves 642 respondents aged 15-34 years in South Tangerang. The study results indicate that consumers highly appreciate the product innovations offered by Potato Lab, especially regarding taste and texture. The baking method, which results in potatoes that are crispy on the outside and soft on the inside, is well-received, with the original (cheese sauce), mushroom, and tuna flavors being the favorites. Quantitative findings show that 63.4% of respondents perceive baked potatoes as healthier compared to other potato snack variants. This study's contributions reveal that product innovation can significantly enhance competitiveness and sales. Additionally, Potato Lab makes a crucial contribution to creating a new trend in the snack food market, which not only meets consumer demand but also increases customer loyalty. Therefore, Potato Lab can strengthen its position in the business ecosystem by adapting to market dynamics and collaborating with various business partners.

Keywords: Business model; entrepreneurship; Potato Lab; snack Industry; baked potato; product innovation

1. Introduction

According to the Central Statistics Agency (2023), the food and beverage industry is the most popular and continues to grow each year. Despite experiencing a significant decline during the pandemic period, the food and beverage industry only grew by 1.58% against Indonesia's GDP. However, there was a notable recovery with growth reaching 2.54% in 2021 and even more impressively, 4.9% in 2022 against Indonesia's GDP. BPS publications in 2022 revealed that the food and beverage (FnB) sector contributed more than a third, specifically 38.35%, to the total GDP of the non-oil and gas manufacturing industry, with a total value of Rp 3.23 quadrillion. This indicates that the FnB industry has bright prospects in the post-pandemic era. An annual survey by Mondelez International found that snacking habits have become an integral part of daily life for 71% of consumers worldwide, with 60% of Indonesians following a similar trend. In Indonesia, processed potatoes have become a popular choice in snacks, with production steadily increasing. According to the Central Statistics Agency (BPS), potato production in Indonesia reached 1.42 million tons in 2022, marking a 4.21% increase from the previous year.

Based on a survey conducted by the author from June 14 to October 6 involving 102 respondents, it was found that 46.1% consume potato-based foods 2-3 times a week. However, a major challenge identified is the lack of menu variety in potato-based products, particularly in items like baked potatoes. In this context, the baked potato products marketed by Potato Lab hold significant potential. With few competitors in the market, this product has a great opportunity to be embraced by consumers. The nutritional advantages of baked potatoes processed through oven baking techniques provide significant added value. Therefore, this product has a bright outlook for popularity in Indonesia, especially in areas like South Tangerang populated by the high-mobility Gen Z demographic, who tend to follow trends closely.

2. Literature Review

2.1 Entrepreneurship

Entrepreneurship is the process that involves the combination of imaginative and innovative ideas with actions, paired with the necessary management and organizational skills. This complex process requires the ability to coordinate people, funds, and operations effectively, aiming to fulfill various needs, gain recognition, and create wealth in the process. Entrepreneurs are not just risk-takers but also visionaries who identify opportunities and transform them into viable business ventures. Their role encompasses the creation, development, and scaling of new businesses, which often leads to economic growth, job creation, and societal advancements. Entrepreneurship is a dynamic and continuous journey of turning concepts into reality, requiring resilience, adaptability, and a strategic mindset.

2.2 BMC

The Business Model Canvas (BMC) is a strategic management tool that helps companies visually depict, evaluate, and modify their business model. It breaks down the business model into nine interconnected blocks:

- a. Customer Segments: Defines the different groups of people or organizations an enterprise aims to reach and serve.
- b. Value Propositions: Describes the bundle of products and services that create value for specific customer segments.
- c. Customer Relationships: Outlines the types of relationships a company establishes with specific customer segments.
- d. Distribution Channels: Describes how a company communicates with and reaches its customer segments to deliver a value proposition.

- e. Revenue Streams: Represents the cash a company generates from each customer segment.
- f. Key Resources: Describes the most important assets required to make a business model work.
- g. Key Activities: Describes the most important things a company must do to make its business model work.
- h. Key Partnerships: Describes the network of suppliers and partners that make the business model effective.
- i. Cost Structure: Describes all costs incurred to operate a business model.

The BMC provides a comprehensive and concise overview of the business, facilitating strategic discussions and fostering innovation.

2.3 VPC

The Value Proposition Canvas (VPC) is a focused tool derived from the Business Model Canvas. It zooms in on two critical blocks: the value proposition and customer segment. The VPC aims to assist businesses in creating a more detailed, simple, and structured sketch of the value they offer to their customers. It consists of two main parts:

- a. Customer Profile: This part of the canvas focuses on understanding the customer segment by detailing their jobs (tasks they want to accomplish), pains (challenges they face), and gains (benefits they seek).
- b. Value Map: This part outlines the value proposition by detailing the products and services offered, the pain relievers (how the products address customer pains), and gain creators (how the products create customer gains).

By aligning the value map with the customer profile, businesses can ensure their products and services meet the needs and desires of their target customers more effectively.

2.4 Marketing Mix

The marketing mix is a foundational concept in marketing that includes four key elements, often referred to as the 4 Ps:

- a. Product: This encompasses all goods and services offered to consumers, including features, design, quality, branding, and warranties. It focuses on creating a product that meets the needs and desires of the target market.
- b. Price: Price is a crucial factor in the marketing mix that influences consumer perceived value, company profitability, and product positioning in the market. It involves setting a price that reflects the value of the product and is acceptable to the target market while ensuring profitability.
- c. Place: Place refers to the distribution channels used to deliver products from manufacturers to end consumers. It involves selecting the most effective ways to make the product available to customers, whether through physical stores, online platforms, or other distribution methods.
- d. Promotion: Promotion involves various marketing activities aimed at informing, influencing, and reminding consumers about the products and brands offered. This includes advertising, sales promotions, public relations, personal selling, and digital marketing efforts.

Together, these elements form a comprehensive strategy to bring a product to market and achieve business objectives.

2.5 STDP

STDP is a strategic marketing approach that involves four key steps:

- Segmentation:** This step involves selecting market segments based on geographic location, demographics, psychographics, and behavior. Segmentation helps in identifying distinct groups within a market that have similar needs and preferences.
- Targeting:** Once segments are identified, targeting involves determining which segments are most likely to be served by the company. This includes evaluating the attractiveness of each segment and deciding which ones to focus on to maximize business opportunities.
- Differentiation:** Differentiation involves making products more attractive and distinct from competitors' products. This can be achieved through unique features, superior quality, innovative design, or other attributes that provide a competitive edge.
- Positioning:** Positioning is the process of distinguishing a product and determining its position in the minds of consumers. It involves crafting a clear, distinctive, and desirable place in the market for the product, often communicated through branding, messaging, and marketing efforts.

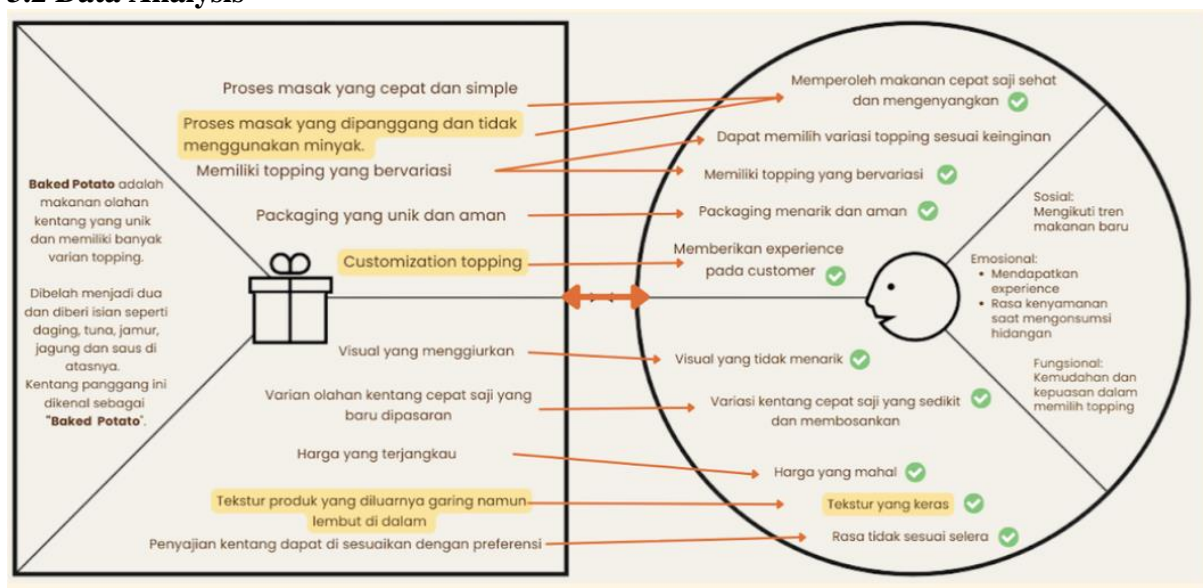
By following the STDP framework, companies can effectively identify and target their ideal customers, differentiate their offerings, and position their products in a way that resonates with the market.

3. Material and Method

3.1 Design Study

Qualitative research for Potato Lab involved engaging non-consumer experts like Nicholas Ben (potato supplier), Regina Aurelia (food blogger), and Lulu Cantika (Stacktation owner) through direct communication (WhatsApp) and Zoom interviews. Consumer insights were gathered using random sampling for foodies and non-foodies, conducting a simultaneous Focus Group Discussion (FGD) via WhatsApp. These methods, aligned with Creswell's qualitative research framework (1998), included in-depth interviews and FGDs to explore preferences and behaviors related to potato-based culinary experiences. Observation methods also contributed to understanding natural interactions and behaviors among consumers in culinary settings.

3.2 Data Analysis



After conducting qualitative research, the researcher decides to modify several components of the previously created Value Proposition Canvas. In the gain creators section,

the author adds "baking process without using oil" and "customization of toppings." Additionally, the author adds "crispy exterior texture yet soft interior" to the pain relievers section to address the pain identified during the focus group discussion, which is "hard texture."

4. Result

4.1 Result FGD segment 1

The results of the Focus Group Discussion (FGD) with female students aged 21 revealed specific preferences regarding culinary experiences. The participants tend to follow food trends through social media, desire personalized meals, and value convenience in ordering and serving food. Price is also an important factor, with assessments of worth based on the size and quality of the product. The participants appreciate the social experience of dining, indicating a need for a comfortable atmosphere and friendly service. The lack of variety in baked potato products suggests an untapped market opportunity. Recommendations from this segment include offering diverse topping variations and visually appealing packaging design to spark interest through aesthetic appeal and the potential for sharing on social media. In conclusion, culinary businesses need to integrate innovative strategies, personalization, and holistic consumer experiences, considering aesthetic, social, and functional values.

4.2 Result FGD segment 2

Segment 2 consumers, such as 15-year-old high school student Javi Orleans, tend to seek practical and filling food that meets their energy needs as active participants in extracurricular activities like volleyball and basketball. They prefer food that is easy to share with school friends. Social media, especially Instagram and TikTok, is their primary reference for food choices, with trends and peer recommendations being decisive factors. Visual appeal and promotions play a crucial role in their purchasing decisions. Therefore, Potato Lab should focus on highlighting attractive product visuals and offering promotions as marketing strategies.

Consumers in this segment gather information through friends' opinions, testimonials, and seeing the product in person. Potato Lab should ensure a variety of positive testimonials and showcase their products directly to customers. Despite low purchase involvement, the visual and aroma of the food and promotions are compelling factors. To meet the needs of Segment 2 consumers, Potato Lab should offer customizable toppings to address issues like lukewarm food and insufficient toppings. By understanding the preferences and habits of Segment 2 consumers, Potato Lab can design more effective marketing strategies to attract and satisfy potential customers like Javi Orleans.

4.3 Result FGD segment 3

Segment 3 consumers, such as 23-year-old entrepreneur Ricky, show a strong interest in food that is delicious, practical, and visually appealing. They are easily influenced by others' opinions, particularly food recommendations from social media platforms like Instagram and TikTok. Ricky prefers to order food online. Interviews reveal that Segment 3 consumers have a positive perception of baked potatoes. They desire customizable topping options, prioritizing taste, convenience, and attractive presentation. Health and nutrition are also important, with a preference for baked potatoes made from high-quality, healthy ingredients.

Ease of ordering and comfort while enjoying baked potatoes are important to Segment 3 consumers. They want a quick and easy ordering process, as well as options for takeout, delivery, and dine-in. Based on these findings, Potato Lab can focus its marketing strategy on social media platforms like Instagram and TikTok, targeting the right segment. Promotions such as discounts or buy-one-get-one offers can help attract potential customers. Offering unique toppings and following food trends are crucial for capturing consumer interest.

Competitive pricing and the use of high-quality ingredients are also important factors. Providing excellent services, such as easy ordering and fast delivery, is essential for enhancing customer satisfaction.

4.4 Result FGD segment 4

In Segment 4, which includes male consumers aged 30 and above, such as 33-year-old marketing professional Thomas Wong who enjoys exploring the culinary world, there are notable preferences and behaviors towards baked potatoes. These consumers are open to trying new foods as comfort food, relying on recommendations from colleagues, family, and social media platforms like Instagram and TikTok.

Segment 4 consumers prefer nutritious and healthy foods and are interested in unique toppings. The ability to customize toppings to personal preferences is highly valued. They also prioritize health and nutrition, viewing potatoes as a nutritious alternative.

In the purchasing process, Segment 4 consumers emphasize the ease of online ordering through platforms like Grab, Gojek, or Shopee Food. Price commensurate with the quality of the food is also an important consideration. They obtain information through social media promotions and recommendations from others, and are attracted to discounts and Buy One Get One (B1G1) promotions.

Potato Lab can target its marketing strategy towards promotions on Instagram and TikTok, providing easy online ordering options, and expanding topping varieties by highlighting the uniqueness and deliciousness of the food. Discounts or B1G1 promotions can effectively attract the attention of Segment 4 consumers.

4.5 Results of In-Depth Interview with Potato Supplier

Based on an interview with Nicholas Ben, a potato supplier, several key insights regarding the potato business have been identified. Potatoes come in various types, such as Granola, which is divided into K and L variants, and Agra, commonly used for French fries due to its low water content. Potato quality is determined by smooth skin, few eyes, and a round shape, with green potatoes best avoided. The storage longevity of potatoes depends on the altitude of the growing area—the higher the altitude, the longer the potatoes last. Potatoes are ready for harvest after approximately four months, and their quality depends on storage conditions, especially in warm environments.

Potato supply crises can occur due to extreme weather affecting production. Enhancing potato quality requires selecting land with low water content, choosing high-quality seeds, managing balanced nutrients, and providing good care. The price of potatoes typically ranges from Rp 12,000 to Rp 13,000 per kilogram, but can drop to Rp 9,000 when supply is abundant.

Potatoes can be stored effectively in refrigerators or other cool environments to maintain their quality. From this interview, the author has identified critical factors in the potato business and can take appropriate actions to meet customer needs.

4.6 Results of In-Depth Interview with Stackation Owner

Based on an interview with the owner of the potato snack business Stackation, several important insights have been identified. One key insight is the importance of having an innovative business concept. By combining French and Japanese fusion food concepts with potatoes as the base ingredient, Stackation has successfully created unique and innovative

dishes that attract customers. Emphasizing balanced nutrition is another advantage that sets Stackation apart from competitors.

The first step taken was conducting in-depth research to identify customer needs and find the target market. Additionally, maintaining good relationships with suppliers is crucial to avoid stock and price fluctuations. Stackation also employs effective marketing and promotional strategies, such as leveraging influencers and word-of-mouth promotion, to build customer awareness. Adapting to trends and changes is also recognized as essential. Stackation must continuously add new product variants according to emerging trends. Consistency and product quality are maintained through strict SOP implementation. Quality service is also a focus, with rewards for high-performing employees and strengthened cooperation among staff.

4.7 Results of In-Depth Interview with Food Blogger

Based on an interview with Regina Aurelia, an active food blogger on TikTok, several important insights regarding the food business, particularly baked potatoes, were revealed. Regina highlighted that while baked potatoes are not yet very popular in some areas of Indonesia, such as Jakarta and Tangerang, there is significant growth potential with the right marketing strategy. She emphasized the importance of understanding local preferences, where people tend to view potatoes as a snack rather than a main dish, and highlighted the accepted price range in certain markets.

Regina also underscored the importance of marketing in the food business, recommending the use of platforms like TikTok, which she finds more effective in attracting customer attention and interaction compared to Instagram. She cited successful TikTok accounts in food marketing that emphasize storytelling and sharing recipes to engage audiences. For effective branding, Regina stressed the importance of aesthetics and the visual appeal of food. She noted that unique menus and attractive visual presentation are crucial for attracting customers. For businesses with affordable pricing, Regina suggested focusing on the quality and appearance of the food rather than the business location.

In menu innovation, Regina advised aligning innovations with the tastes of the target market, drawing from her personal experience with innovations that did not match customer preferences. She highlighted the importance of texture, taste, and consistent seasoning in evaluating food quality. To ensure customer satisfaction, Regina recommended implementing A-B testing, providing good service, and being responsive to customer feedback. Finally, Regina emphasized the importance of interacting with followers on TikTok through consistent responses and engagement. When dealing with food reviews, both positive and negative, Regina stressed the importance of offering constructive criticism and avoiding the publication of negative reviews that could harm other businesses.

5. Discussion

In Potato Lab's quantitative research, respondents' preferences for baked potato products reveal significant insights. A majority (92.8%) enjoy snacking, with 69.4% consuming potato snacks 1-3 times weekly, primarily to satisfy hunger (373 respondents) or accompany activities (358 respondents). When purchasing potato snacks, 78% prefer offline channels, especially malls (340 respondents). Awareness of baked potatoes is high at 85.6%, with 63.4% considering them healthier and 47.6% as potential meal substitutes. Top toppings include beef bacon (73.7%) and cheese (59.8%), with cheese also favored as a sauce (51.7%). The grab-and-go concept slightly edges out dine-in (56.2%). Respondents favor a price range of Rp 30.000-35.000 (48.5%), followed by Rp 36.000-40.000 (33.8%). Competitor preferences

include Fan Fries (54.1%), Shake Shake (49.3%), and Montato (30.1%). Social media (82%) and word of mouth (68.7%) are key information sources, with Instagram (82.6%) dominating online ads and video product reviews (81.1%) as preferred content. Instagram (91.4%) and TikTok (80.8%) are the most used social platforms.

Based on findings from Segment 1 respondents regarding their snacking habits, flavor preferences, and willingness to pay for baked potato products, it can be concluded that they tend to consume potato-based snacks 1-3 times a week. Their primary favorite is baked potatoes with customizable toppings, highlighting the importance of offering options for personalization to meet individual tastes and preferences. Additionally, they favor savory and salty flavors with unique sauce options as their second preference. This indicates a desire for flavor variety and potential for innovation with different taste profiles and distinctive sauces. Financially, Segment 1 respondents are willing to pay between Rp 30,000 to Rp 35,000 for baked potato products, providing guidance for setting pricing strategies that align with consumer expectations and perceived value. Leveraging these insights, the development of the baked potato product's value proposition can focus on enhancing topping customization and flavor innovation, while maintaining an appropriate price range to achieve optimal market attractiveness.

Segment 2 shares a consumption behavior akin to Segment 1, where a significant portion of respondents indulge in baked potatoes 1-3 times weekly. This habit underscores a consistent interest in potato-based snacks among this demographic, aligning closely with Segment 1's snacking frequency. Regarding flavor preferences, Segment 2 respondents, like their Segment 1 counterparts, favor baked potatoes adorned with customizable toppings. They lean towards savory and salty flavors, accompanied by unique sauces. This preference highlights a desire for variety and the ability to personalize their snack experience, mirroring the findings from Segment 1.

Moreover, the willingness to pay among Segment 2 respondents mirrors that of Segment 1, ranging from Rp 30,000 to Rp 35,000 for baked potato products. This price range serves as a reliable benchmark for pricing strategies, indicating that consumers in both segments perceive this range as fair and aligned with the value they attribute to such products. These insights collectively suggest a robust market opportunity for baked potato products that emphasize customization, flavor diversity, and quality toppings. By catering to these preferences, businesses can effectively target and appeal to both Segment 1 and Segment 2 consumers in Indonesia, leveraging their shared interests in convenient, flavorful, and customizable snacking options.

6. Conclusion

Potato Lab specializes in offering baked potatoes with a diverse range of toppings. The decision to enter the food and beverage (F&B) industry was motivated by recognizing significant market potential within the potato-based F&B sector. Potato Lab's strategy centers on maximizing sales by emphasizing flavor innovation, offering abundant topping choices, and promoting healthy menu options. To ensure alignment with customer preferences and expectations, Potato Lab conducts thorough research and gathers feedback from its customer base. This research includes in-depth interviews aimed at understanding specific product preferences and gauging acceptable pricing thresholds among customers. By leveraging these insights, Potato Lab optimizes its product offerings to effectively meet and exceed customer needs.

The findings from these research efforts play a crucial role in shaping Potato Lab's menu and operational strategies. They inform decisions on product development, pricing strategies, and the introduction of new offerings that resonate with the desires of their target

market. By continually refining its approach based on customer feedback, Potato Lab aims to maintain a competitive edge in the dynamic F&B market, ensuring sustained customer satisfaction and business growth.

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