

A Systematical Method to Evaluate Beyond Meat's Business Model and Strategy in China

Qiuyi Gui*

Department of Business and Management, Singapore Institute of Management, Singapore

*Corresponding author: qgui001@mymail.sim.edu.sg

Abstract. As heat waves scorch Europe, North Africa, the Middle East, and Asia, extreme heat warnings have been issued in many European countries this summer, leaving thousands dead and roads sticky with melted asphalt. The greenhouse gases from human activity are exacerbating the extreme weather we live in. The biggest source of greenhouse gases is livestock. Planted-based meat can be a great substitute for traditional meat because it has environmental properties which could promote the sustainable development of the earth's ecology. However, the development of plant-based meat in China is rarely studied by existing articles and research. Beyond Meat is a plant-based meat company in the United States. This paper will introduce the company and evaluate its business model and strategy in the Chinese market. This research firstly conducts the SWOT analysis of the internal environment and then the PEST analysis to identify the mega-trends in the general external environment. The result indicates the company has both opportunities and challenges in the Chinese market, there are some recommendations provided to play their strength whilst circumventing weaknesses. The objective of this paper is to provide a creditable analysis of Beyond Meat's operation in China.

Keywords: Chinese market; plant-based meat; strategy analysis.

1. Introduction

There is a small number of artificial meat start-ups began to appear in China in 2018, but the market attention is low and few products have been launched. In 2019, with Beyond Meat list in America and OmniPork has entered the Chinese market, China's artificial meat racetrack became the focus of the market. Many start-ups have been invested, and traditional food companies and snack food companies are starting to launch artificial meat products. Beyond Meat has announced entering the Chinese market and building a factory there in 2020. Meanwhile, domestic artificial meat companies began to sell products on e-commerce platforms, restaurants, and commercial supermarkets. In 2021, consumers have mixed reactions to artificial meat products, there is less attention paid to artificial meat racetracks and less investment and financing to the relative companies. The artificial meat industry has entered a stage of technological development, product iteration, and market development.

The current demand for artificial meat is determined by the supply since plant-based meat occupies the whole artificial meat market. Due to the late start of the domestic artificial meat industry and underdeveloped technology, there are few real plant-based meat production enterprises in China now. With the increase in meat consumption and continuous development of the industry, the artificial meat industry in China shows a high growth rate. Beyond Meat is a producer of plant-based meat substitutes founded in 2009 by Ethan Brown. The company's first product was chicken-free strips, released in the United States in 2012. Beyond Meat's products are available in many retail and food service outlets around the world. Its goal is to provide consumers with delicious and nutritious plant-based meat to reduce the environmental impact of animal agriculture. As a result, they plan to expand their market share in the 1.4 trillion meat industry through their existing and new products. The company invests heavily in research and development and facilities, allowing them to create products that compete with Meat in flavor and texture.

SWOT analysis is a framework used to evaluate an organization's competitive position and to develop strategic planning. It is designed to facilitate a realistic and objective view of the strengths and weaknesses of a company [1]. PEST is another analysis tool which mainly used to understand

the external macro-economic influences on a business or industry. With a depth understanding of the external environment, managers can make wise strategic decisions based on the current context.

This article will first introduce the current situation of artificial meat in China. It will present the current supply, demand, and development prospect of the artificial meat market in China in section 2. It will then conduct the SWOT analysis to identify the strengths, weaknesses, opportunities, and threat in the internal environment in section 3. This article will then conduct the PEST analysis to identify the mega-trends in the general external environment namely the political environment, economic environment, social environment, and technology environment in section 4. Finally, it will be a summary in the end.

2. The current situation of artificial meat in China

2.1 The current supply of artificial meat market in China

Currently, all artificial meat products in the Chinese market are plant-based meat products. Cultured meat (also known as clean meat/test-tube meat) products are not circulated in the market, so the demand for artificial meat is determined by the supply, and plant-based meat occupies the whole artificial meat market [2]. Traditional vegetarian meat product has a long history in China; however, technology content of the traditional vegetarian meat product is low. Most use soybean meal, soybean meal, soybean protein, wheat protein, etc as the raw material. Through the cooking technique such as simple processing of extrusion method so that the product has a similar appearance to animal meat dishes, but there is a big difference between its texture and taste with actual animal meat.

Foreign artificial meat uses molecular biology, macromolecular physics, and other technologies to put the protein structure into meat fiber structure. Thus, they can achieve almost the complete simulation of animal meat's texture and taste [2]. Moreover, due to the late start of the domestic artificial meat industry, the technology lags behind the international level. In the process of development, many issues need to be solved such as product seasoning, vegetarian meat structure, and industrial equipment. So, there are few real plant-based meat production enterprises in China now.

However, China has a good foundation for the development of plant meat. The production capacity of plant wire-drawing protein in China ranks at the top in the world currently, with nearly 50% of the processing capacity of soybean protein and pea protein in the world [2]. Some artificial meat start-ups are relying on the expansion of plant meat production based on domestic vegetarian meat production. Foreign companies such as Beyond Meat are also investing in China to build artificial Meat production bases. Therefore, although the plant meat supply capacity of China is relatively weak at present, the artificial meat production capacity of China is expected to increase rapidly in the future.

2.2 The current demand of artificial meat market in China

According to the 2020 Artificial meat trend insight in China by Ipsos, 95% of consumers have heard of artificial meat before and 77% of them consider that it can replace current dining habits. In addition, people have high expectations for plant meat, and their attitudes toward plant meat are polarized. There are 42% of consumers who consider that plant meat is high-tech and want to try it, while others think that plant meat is just similar to traditional vegetarian meat in China so they have little consumption willingness. According to the 2020 Chinese Consumer Confidence Index Research Report by Boyuan En in August, only about 20% of Chinese consumers will buy plant meat food, and the re-purchase rate is about 30%. Therefore, the demand of Chinese consumers for plant-based meat is relatively small, but there is a large space for improvement.

2.3 The development prospect of artificial meat market in China

The Chinese market is still in the early stages of development, and with increasing meat consumption, artificial meat could fill the gap in the future. Meanwhile, consumers' greener and healthier eating habits make plant-based food popular in China. With the continuous development of the industry and expansion of downstream application fields, the artificial meat industry in China will

show a rapid development trend. Among them, the development of enterprises mainly invests in research and development, cost reduction, and efficiency, to achieve large-scale production [3]. As the food industry giants gradually enter the Chinese artificial meat market, chain restaurants make it easier for consumers to get in touch with plant-based meat and increase their purchase intention. In terms of market size, according to the prediction by Research and Markets, China's artificial meat market will maintain a compound annual growth rate of 13.9% from 2021 to 2026, and it is estimated that China's artificial meat market will reach 17.5 billion yuan in 2026.

3. The SWOT Analysis of Beyond Meat in China

3.1 Strength

Beyond Meat entered the market in 2009, as one of the earliest artificial meat companies in the world [4], it occupies a significant market share with the first-mover advantage. And then the company becomes the market leader since it holds a competitive advantage in the vegetable burgers market compared with other later entrants such as Impossible Meat. Therefore, they received much funding from famous investors such as Tyson food and Bill Gates [4]. With significant funding, beyond meat attracts many top talents in research and development to produce high-quality, nutritious, healthy, and more innovative meat replacement products. According to 2021 China plant-based meat industry insight by Bloomberg Businessweek and Starfield, health is the biggest reason consumers choose plant-based meat. In terms of the motivation for repurchasing plant-based meat, 50% of consumers choose health, 27% consider environmental protection, and 13.55% value the taste. The company pays a lot of attention to brand and product awareness, including issues connected with health, food security, and environmental effects [5]. Thus, the healthy and nutritious product might help Beyond Meat to attract more consumers in China.

Beyond Meat has built strong partnerships with major retailers and e-commerce companies. Cooperating with these retailers and companies is a good way to sell their products and develop their economic growth [4]. Through this relationship, there are premium products at lower costs and develop exclusive deals that Beyond Meat can provide. Beyond Meat entered China in April 2020 through a partnership with Starbucks China. On 2nd July 2020, Beyond Meat announced that it will officially enter the retail market in Mainland China. The Special Burger, its plant-based Meat product, will be available in 50 Hema stores in Shanghai from July 4. Beyond Meat enhances its online offering after launching its first online store on JD.com in July 2021, which will help it expand its reach to 300 cities in China. On 24th March 2022, Beyond Meat announced the launch of an online store on Pinduoduo, its first store on a Chinese e-commerce platform known for group buying and low-price products. Beyond Meat is accelerating its expansion through a partnership with Chinese e-commerce giant Pinduoduo, which aims to boost sales in China.

3.2 Weakness

Beyond Meat's product selection is limited, their products do include some human meat needs such as plant-based burger patties, chicken, and pork alternatives. However, it cannot satisfy the needs of customers to a larger extent since it has not yet developed plant-based dairy products, plant-based eggs, plant-based seafood, and other staples in the food industry [4, 6]. China has a very long food history, there are mainly eight cuisines total of 108 dishes regardless of many local cuisines. With different kinds of cooking methods, like steamed, fried, boiled, fried, stewed, baked and so on which can produce all kinds of tempting meat dishes. There are also many different animal types of meat, meat, and complex (hoof, gristle, ribs, internal organs, etc.), and artificial meat cannot replace the taste so far. At present, the raw materials of artificial Meat are mainly minced Meat, and the beef dishes launched by Beyond Meat and Starbucks adopting the way of western food in China may not be able to satisfy "Chinese stomachs".

Beyond Meat heavily relies on unsustainable raw materials such as soy and pea protein since these crops always have certain high environmental costs to native habitats [5]. Moreover, Beyond Meat

still uses some plastic packaging such as plastic trays and a thin layer of polyethylene (non-degradable material) for a label [7]. Beyond Meat need to pay more attention to how to improve sustainable economics through reduce environmental harm and using renewable and degradable materials for their products.

3.3 Opportunity

Planted-based meat has environmental-friendly properties, it could promote the sustainable development of the earth's ecology. Compared to traditional livestock farming, it not only reduced greenhouse gas emissions but also saved land destruction and waste of land and water. According to an analysis published by the University of Michigan, a Beyond Burger uses 99% less water, 93% less land, 90% less Greenhouse Gas Emissions, and 46% less energy than a 1/4 lb U.S. beef burger. According to a study published by the Food and Agriculture Organization, annual greenhouse gas emissions associated with the livestock supply chain are 7.1 billion tons of carbon dioxide which accounts for 14.5 percent of total greenhouse gas emissions. That's more than all the emissions from transportation combined. The biggest source of greenhouse gases is livestock. Cattle farming accounts for 65% of greenhouse gas emissions from the livestock sector, producing 1kg of beef produces 56.6kg of CO₂.

Ipsos Launched the Global Trends Report 2021, a survey of changing values in 25 countries around the world. From the survey data, Ipsos has identified five new trends that will have the biggest impact on Chinese consumers and businesses in 2021. One of the trends is people are increasing their awareness of environmental protection. In September 2020, China set a new climate change target of "achieving carbon peak by 2030 and carbon neutral by 2060". With increasingly serious problems such as global warming and environmental pollution, environmental protection has become a topic of widespread concern for consumers all over the world. When this topic is associated with enterprises, it becomes an important factor for enterprises to gain public recognition. Consumers will give more recognition to brands that are truly socially responsible, with 78 percent believing that brands can both benefit the public and make money, and 48 percent willing to spend more money to buy products from responsible brands. With the growing trend of sustainability and the environmental-friendly nature of the plant-based, Beyond Meat could keep improving its brand image to attract more customers and gradually build strong brand recognition and brand loyalty in China.

According to the 2020 Chinese nutrition and chronic diseases report, statistics show that the proportion of overweight and obese people in China has risen rapidly from 24 percent in 1992 to 60 percent in 2020. At the same time, the number of deaths caused by chronic diseases such as hypertension and diabetes due to obesity is also on the rise, accounting for 54%. Since obesity and chronic diseases attracting more attention today, Beyond Meat can provide plant-based substitutes that are marketable as healthy options to help reduce obesity and chronic diseases [4].

There is huge potential for the market size of artificial meat in China. Shangbang Nutrition and Biological Sciences Company data shows that 36% of consumers choose low-meat or meat-free diets. Demand for artificial meat in China and Thailand is expected to increase by 200% in the next five years. The Asia-Pacific region now has a population of 4.3 billion, which is 60% of the world's population. Euromonitor forecasts that the size of the Chinese artificial meat market will reach 13 billion dollars by 2023. It means that the market of Chinese artificial meat is almost occupy half the global market in the next few years.

3.4 Threats

It is difficult for Beyond Meat to expand to new markets. Vegetarian food is associated with physical weakness in some cultures. For example, stereotypes like "only meat makes people stronger" are still popular in some areas, especially in China [4]. Eating meat has long been associated with masculinity, strength, and power but it is not the same thing as a plant-based diet, at least not for now [8]. Therefore, people still prefer to eat real animal meat rather than artificial ones. To tackle this stereotype, the company must convince consumers that plant protein is just as healthy and beneficial

as meat protein and make products combining local tastes. Otherwise, it is hard for Beyond Meat to get into such a market.

Beyond Meat's largest threat is the extremely competitive market. Competitors such as Impossible Foods are gaining market share. It has also built an industry in China and sells its products to many restaurants and retailers. Traditional meat industry-leading companies have begun offering plant-based alternatives, for example, the future of Planting and Dietary. In addition, new brands like Starfield already have a great production scale, large supply base, and more importantly comparative low-price advantages, since mass production makes products lower costs. After that, those companies will gradually occupy the Chinese artificial meat market.

4. The PEST Analysis of Beyond Meat in China

4.1 Political Factors

Government policy has a significant influence on determining the business' long-term sustainability. The policy could influence customer and investor confidence, and then play a role in the economy [9]. Since 2020, the COVID-19 pandemic has significant influence on every company and each person's life. The United States government's negative and relaxed policy makes Beyond Meat suffered, it inhibits the company from achieving its growth objectives, and therefore the inventors will be reluctant to look at other new capital.

In 2019, Beyond Meat was the first U.S. artificial Meat stock to hit the market, it soared 163% on its first day of trading. The stock was endorsed by a host of celebrity investors, including Bill Gates and the former McDonald's CEO and Twitter co-founder. However, Beyond Meat failed to keep capital and make losses increasingly, the share price fell 34.96% to its peak.

For the first quarter of 2021, Beyond Meat posted revenue of \$108.2 million, with a growth of 11.42%, three consecutive quarters of sluggish revenue growth. There is always two times the growth rate on the performance before the epidemic. According to the company, the main reason for the weak performance is weak consumer spending due to the epidemic causes. Since last year, the epidemic has impacted travel activities and the economy, the whole meat consumption market continues to be depressed and the demand is low. According to the United Nations, global meat consumption per capita falls by nearly 3 percent in 2020, which is the lowest level since 2011. Meanwhile, analysts predict that both consumption per capita and total consumption in their regions will fall. Meat consumption per capita in the United States will not back to pre-pandemic levels until 2025 or further.

In the domestic epidemic prevention and control, the former Trump administration has repeatedly missed key phrases due to insufficient subjective cognition and misjudgment in the early stage. In addition, because of insufficient resources and deployment adverse, the government also has slow and delayed progress to implement anti-epidemic and control measures. It has led to an exponential outbreak in a short period of time [10]. The domestic market of Beyond Meat could not grow smoothly, and the demand for retail terminals has not been able to recover from the pre-epidemic prosperity and growth.

To cope with near-term growth pressures, Beyond Meat is looking to international markets, particularly China. American stock research thinks it is wise for Beyond Meat to focus on the development of the Chinese market. There is only one in the world China has such a large and powerful market, and China is taking the lead in epidemic prevention and control in the world. This is a benefit of the strict policy about wearing masks, isolation, and lockdown of certain areas. The Chinese government also provides free COVID-19 vaccinations and nucleic acid testing that encourage citizens actively respond to epidemic prevention measures. With the positive and effective government policy and hardworking of all medical workers and the cooperation of citizens, the epidemic has been controlled well so far. Therefore, the impact of COVID-19 on meat consumption is almost instantaneous. In China, it is hardly seen anyone not eating meat because of the epidemic. Beyond Meat could take this opportunity to develop and expand the market in China.

4.2 Economic Factors

When Beyond Meat making international expansion decisions, the company should review the economic growth rate of the countries. A high economic growth rate offers more opportunities for the company to pursue long-term growth objectives. Countries with low economic growth rates, may have more cautious spending by consumers, which can directly affect a company's revenue growth [9]. In the beginning of July in 2022, several data released by various departments showed that as the domestic epidemic prevention and control situation continued to improve and a package of policies and measures to stabilize the economy took effect at a faster pace, the overall recovery of the Chinese economy accelerated. On 15th July 2022, the National Bureau of Statistics released data that in preliminary calculation, the GDP of the first half year is 56264.2 billion yuan. When calculated at constant prices, it is a year-on-year growth of 2.5%. Of this, the GDP of the second quarter was 2.92464 trillion yuan, it growth 0.4% year-on-year. Thus, China is a great choice for Beyond Meat to expand its market.

4.3 Social Factors

Consumer behavior is reflected by the unique cultural context in each country. If a company cannot adapt the product and service offerings based on the local cultural traditions, serious harm to the business might cause. Several business partnerships with local companies could enable Beyond Meat to gain local consumer knowledge and detailed information about cultural norms and values. These would play a role in consumers' perceptions and attitudes towards the brand [9]. In 2020, the first year Beyond Meat enter the market, the company signed a food service partnership with famous brands in the Chinese restaurant industry, including Jin Ding Xuan, Beijing Gangli, Manzhou Brewery, Shanghai W Hotel, etc.

4.4 Technological Factors

4.4.1 Technological infrastructure

Countries with well-developed technological infrastructure could pave a way for Beyond Meat to achieve its objectives of cost reduction and value creation [9]. At the same time, the supportive technological infrastructure also means that Beyond Meat may not able to take competitive advantage from technology since it could be easily imitated by competitors. Based on that, China has a great foundation of production capacity of plant wire-drawing protein and long history of developing traditional Chinese vegetarian meat. This developing technological infrastructure enables Beyond Meat to achieve growth objectives easier and expand the market quickly with a competitive advantage of advanced technology.

4.4.2 Technological innovation

Technological innovation rate and development have a strong impact on the overall market. Through the research on technological innovation trends, Beyond Meat will be able to get more information about the development rate of new products and consumers' preferences for innovative features [9]. The most important part is to create a great product. If Beyond Meat just created the healthiest plant-based products regardless of the taste, then the business cannot be sustainable. Marketing is often easier for a great product because people are willing to try it naturally [8]. On May 31, Beyond Meat announced that it has launched its first home-cooking solution product in the Chinese market with two flavors of Italian tomato and fragrant black pepper. This is Beyond Meat's first plant-based pate product line developed specifically for the Chinese market. Beyond Meat saw significant potential and opportunities in the vegetable protein market in China, as well as a growing trend of local consumers to incorporate plant-based foods into their daily diets. The launch of Beyond Meat's first plant-based paste collection will further enrich Beyond Meat China's product matrix and better meet consumers' demand for delicious, convenient, ready-to-eat meal products at room temperature.

5. Conclusion

To recap, this research paper explores the current situation of artificial meat in China and Beyond Meat's competitive advantage, company partnerships, product features, customers, and development. Beyond Meat is evaluated by SWOT analysis at first. It is found that Beyond Meat holds a leading position among the plant-based meat companies even in the Chinese market with the high technology and healthy products. The company has already built a strong partnership with domestic retailers and e-commerce companies. There is a huge opportunity for Beyond Meat to expand the market and develop in China due to its environmental-friendly properties and it is a healthier choice for people who has obesity and chronic diseases. However, Beyond Meat's product selection is limited, it can hardly satisfy Chinese customers' tastes since there is a long history of all different kinds of dishes in China. The company still uses unsustainable raw materials and packing for some products. With stereotypes and an increasingly competitive market in China, Beyond Meat needs to adjust its current strategy more flexible and reasonable.

Then, the PEST analysis is used in this paper. Politically, Beyond Meat should take the chance of expanding the Chinese market during the epidemic time. Economically, China is a developing country with a high growth rate of economic, it promotes Beyond Meat's sustainable economic development. Socially, beyond meat could better understand the local culture and customer behavior through cooperation with Chinese domestic restaurants and hotels. Technologically, the company's advanced food technology and high technology innovation rate, combine with developing infrastructure in china enable Beyond Meat to achieve growth objectives easier and expand the market quickly. Overall, this paper only conducts two basic analyses which may not enough for the whole view of the company. Thus, all different kinds of analysis methods are expected to conduct to give a better and more comprehensive understanding of this company.

References

- [1] Will Kenton. Strength, Weakness, Opportunity, and Threat (SWOT) Analysis. Investopedia, 2022.
- [2] Forward Industrial Research Institute. Report of Trend Forward and Development Strategic Planning Analysis on Man-made Meat Industry (2022-2027). Forward Business Information Co., Ltd., Shenzhen, 2021.
- [3] Forward Industrial Research Institute. Vision 2022: China's Artificial Meat Industry Panorama map in 2022. Forward Business Information Co., Ltd., Shenzhen, 2021.
- [4] Suye Zhang, Junchao Xia, Ming Yang, Xiaoxiao Shi, and Kejie Zhu. A Systematical Method to Evaluate Omnipork's Market Competitiveness Ability. Atlantis Press International B.V, 2021
- [5] John Hughes. Beyond Meat Competitors Analysis: 5 Key Competitors. Business Chronicler, 2021.
- [6] Brent Davis. Beyond Meat Competitors Analysis: Who Stacks Up against this Vegan Meat Brand? The Stock Dork, 2022.
- [7] Jared Wolf. Better brands: Is Beyond Meat Sustainable? Sustainable Review, 2021.
- [8] Tricia McKinnon. How Beyond Meat's Marketing Strategy Set it Apart. Indigo9digital, 2022.
- [9] Freddie Murphy. PESTEL Analysis of Beyond Meat Taking on the Beef Industry. Essaypandas, 2021.
- [10] Shengsong Yue. Policy Response to COVID-19 in the United States: Evolution and Motivation. South Asia Pacific Review 4th edition, 2021.